

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

Electric Transmission Incentives Policy) Docket No. RM20-10-000
Under Section 219 of the Federal Power)
Act)

**COMMENTS OF THE INSTITUTE FOR POLICY
INTEGRITY AT NEW YORK UNIVERSITY SCHOOL OF LAW**

Pursuant to the Federal Energy Regulatory Commission (FERC or the Commission)’s March 20, 2020 Notice of Proposed Rulemaking (NOPR),¹ the Institute for Policy Integrity at New York University School of Law (Policy Integrity)² respectfully submits these comments encouraging the Commission to revise important aspects of its proposed rule for electric transmission incentives policy. Policy Integrity is a non-partisan think tank dedicated to improving the quality of government decisionmaking through advocacy and scholarship in the fields of administrative law, economics, and public policy. Policy Integrity’s staff has deep expertise in benefit-cost analysis and regulatory economics, and has participated in numerous proceedings before the Commission, regional transmission organizations, and state public utility commissions regarding the socially efficient pricing of energy resources at the wholesale and retail levels.

The Commission says that its proposed rule is intended to “more closely align” existing transmission incentives policy with the provisions of Federal Power Act (FPA) section 219 to benefit consumers. Policy Integrity recognizes the importance and timeliness of this aim, as well as the usefulness of the Commission’s proposed reorientation of transmission incentives to project benefits and away from particular “risks and challenges” that project development must overcome.

However, Policy Integrity identifies significant problems with the proposed rule, including its reliance on a benefit-cost ratio (BCR) for project selection, and encourages FERC to make greater use of performance-based regulation and competitive procurement to incentivize transmission development.

¹ *Electric Transmission Incentives Policy Under Section 219 of the Federal Power Act*, 170 FERC ¶ 61,204 (2020). References to the proposed rule herein cite to the version published in the Federal Register. 85 Fed. Reg. 18,784 (Apr. 2, 2020) [hereinafter “NOPR”].

² These comments do not necessarily reflect the views of NYU School of Law.

Specifically, our comments establish the following points:

- The proposed “ex-ante” ROE incentive is not “just and reasonable” because it would increase consumer costs without reliably increasing the quantity or quality of transmission project proposals. This result follows from the incentive being awarded after the time when it might affect investor and developer behavior, and not requiring an applicant or FERC to identify, much less demonstrate, a nexus between the award of the incentive and the fact or nature of the proposed project;
- The proposed rule’s reliance on BCRs and project-size thresholds is inconsistent with the best practices of benefit-cost analysis and will not support a meaningful comparison of projects based on their relative ability to improve economic efficiency;
- Because the proposed “ex-post” incentive is not likely to mitigate market failures and *is* likely to create an arbitrary bias in favor of projects with smaller costs, it is “unduly discriminatory and preferential;”
- Employing performance-based regulation techniques and competitive procurements could, in contrast to the proposed ROE incentive designs, increase the quantity and quality of transmission project proposals, as well as the cost-effectiveness of those projects’ development; and
- FERC should therefore significantly revise the proposed rule in several ways, including by ensuring that ROE incentives can and do reflect a nexus with more and better transmission project proposals, and by replacing one or more of the proposed ROE incentives with a “competition ROE incentive” that rewards use of competitive procurement in project selection and design decisions.

These comments proceed as follows. Part I introduces the legal background. Part II summarizes how principles of economic regulation apply in the context of transmission development. Part III explains that FERC’s changed criteria for awarding ROE incentives will likely not improve outcomes, and fail to meet FERC’s statutory requirements. Part IV encourages FERC to consider using performance-based regulation and competitive procurements to achieve the aims and carry out the directives of Section 219.

Table of Contents

I.	Background	3
A.	The Applicable Legal Standard	3
B.	Proposed Changes to Order 679	6
II.	Principled Regulation Can and Should Apply to Transmission Development	6
A.	Economically Efficient Transmission Infrastructure Development Requires Regulation	6
B.	Principled Regulation Can Foster Economically Efficient Outcomes	9
III.	The Basic Design Flaws in FERC’s Proposed Rule Make It Impermissible Under Section 219	10
A.	Several of the Proposed Incentives Will Not Change Behavior or Improve Project Selection, and so Will Not Lead to Better Economic Outcomes	10
B.	The Proposed Rule Does Not Prescribe the Sort of Cost-Benefit Analysis That Is Needed to Meaningfully Compare Transmission Investment Options	15
C.	The Proposed Ex-Post Incentive Fails to Address the Problem of Moral Hazard	19
IV.	With Changes, the Proposed Rule Can Achieve Section 219’s Objectives Better than Order 679 Has Done	20
A.	Performance-Based Regulation Can Reduce Cost Overruns	20
B.	Incentives Encouraging Competition Can Generate Real Cost Savings and Better Identify Beneficial Projects	22
V.	Conclusion	25

I. Background

On March 20, 2020, FERC issued a Notice of Proposed Rulemaking on Electric Transmission Incentives Policy to alter both the incentives available for transmission development under Section 219 and how those incentives are awarded. This proposed rule would change FERC’s implementation of Federal Power Act section 219 by amending both Order 679 and the 2012 Policy Statement that elaborated on that order.

A. The Applicable Legal Standard

In 2005, after identifying a pressing need for additional transmission resources, Congress added several transmission-related provisions to the FPA, including Section 219.³ That Section

³ Energy Policy Act of 2005 § 1241, *codified at* 16 U.S.C. § 824s (2018). FERC’s jurisdiction does not encompass the siting and construction of transmission facilities, 16 U.S.C. §§ 824(a)-(b), but it does encompass the recovery of transmission costs through wholesale rates. 16 U.S.C. § 824p.

directs FERC to “establish, by rule, incentive-based (including performance-based) rate treatments for the transmission of electric energy in interstate commerce by public utilities for the purpose of *benefitting consumers* by ensuring reliability and *reducing the cost of delivered power* by reducing transmission congestion.”⁴

Section 219(b) further specifies that the rule shall “promote reliable and *economically efficient* transmission and generation of electricity,” “provide a return on equity that attracts new investment in transmission facilities,” and “encourage deployment of transmission technologies and other measures to increase the capacity and efficiency of existing transmission facilities and improve the operation of the facilities.”⁵ Section 219(c) also directs FERC to provide incentives to transmitting utilities or electric utilities that join a Transmission Organization.⁶ Section 219(d) makes clear that any rates approved under rules adopted pursuant to Section 219 must—consistent with the FPA’s general standard for rates—be “just and reasonable and not unduly discriminatory or preferential.”⁷

Congress adopted Section 219 to direct FERC to offer incentives that would encourage the cost-effective development of transmission facilities, but Congress made clear that the ultimate purpose of Section 219 is to ensure reliability and reduce power delivery costs to consumers. Any transmission projects receiving incentives pursuant to a rule resulting from Section 219 should thus be cost-effective in their development as well as “economically efficient” in their effects on electricity services.⁸

In 2006, FERC issued Order 679 to carry out Section 219.⁹ Order 679-A, issued on rehearing, contained some minor amendments to the original order.¹⁰ FERC’s stated purpose for the Order 679 (elaborated in Order 679-A) matches the legislative language: “benefitting consumers by ensuring reliability and reducing the cost of delivered power by reducing transmission congestion.”¹¹ According to those orders, applicants may receive incentives only if they demonstrate that their transmission project will satisfy the following three requirements.

The first requirement relates to Section 219’s purpose. An applicant must demonstrate that “the facilities for which it seeks incentives either ensure reliability or reduce the cost of delivered power by reducing transmission congestion.”¹² However, rather than placing the

⁴ 16 U.S.C. § 824s (emphasis added).

⁵ *Id.* (emphasis added).

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ 18 C.F.R. § 35.35 (2019); *Promoting Transmission Investment through Pricing Reform*, Order 679, 116 FERC ¶ 61,057 (2006), *order on reh’g*, Order 679-A, 117 FERC ¶ 61,345 (2006), *order on reh’g*, Order 679-B, 119 FERC ¶ 61,062 (2007).

¹⁰ Order 679-A, *supra* note 9, at P 9.

¹¹ *Id.*

¹² *Id.* at P 76.

burden of persuasion fully on the applicant, FERC’s order establishes two rebuttable presumptions, either one of which can suffice to show that an application meets this requirement. One is that FERC will presume that Section 219 requirements are met if the transmission project was selected through a fair and open regional planning process that considers and evaluates projects for reliability and/or congestion. (Formally, FERC interprets such selection as establishing a “rebuttable presumption” of eligibility.) The other is that FERC will presume the same if the project has received construction approval from an appropriate state commission or state siting authority.¹³

The second requirement seeks to ensure that the incentives sought would actually cause the project to be undertaken or improved. It requires an applicant to demonstrate a nexus between the incentive(s) sought and the applicant’s investment.¹⁴ In Order 679-A, FERC clarified that it would apply this “nexus test” by examining “the total package of incentives being sought, the inter-relationship between any incentives, and how any requested incentives address the risks and challenges faced by the project.”¹⁵ This change was intended to detect instances where receipt of one incentive would reduce the risk cited as justification for seeking yet another incentive.¹⁶

The third requirement is that the rates resulting from pursuit of the project must be “just and reasonable and not unduly discriminatory or preferential.”¹⁷ Section 219 establishes this requirement by referencing the generally applicable just and reasonable requirement established for rates under Sections 205 and 206. FERC must, therefore, show that the rule it adopts to implement Section 219’s purpose and directives will yield just and reasonable rates.

In 2012, FERC issued a policy statement (Policy Statement) to clarify, among other things, that FERC “expect[s] incentive applicants to first examine the use of risk-reducing incentives before seeking an incentive ROE based on a project’s risks and challenges.”¹⁸ Ultimately, by offering incentives focused on the risks and challenges of a project and by prioritizing those incentives that actually reduce risks, Order 679 is focused on overcoming barriers to transmission line development, rather than on encouraging the selection or development of particular projects.

¹³ 18 C.F.R. § 35.35(i)(1) (2019).

¹⁴ *Id.*

¹⁵ Order 679-A, *supra* note 9, at P 21.

¹⁶ *Id.* at P 27.

¹⁷ 16 U.S.C. § 824s(d).

¹⁸ *Promoting Transmission Investment Through Pricing Reform*, 141 FERC ¶ 61,129, P 11 (2012) [hereinafter Policy Statement].

B. Proposed Changes to Order 679

In the NOPR, FERC proposes revisions to Order 679 as a response to considerable changes in the transmission planning landscape over the 14 years since Order 679 issued,¹⁹ and to its related assessment that Order 679 “may not fully accomplish the purposes of FPA section 219.”²⁰ FERC proposes multiple changes to Order 679 in order to “more closely align with the statutory language and purpose of FPA section 219.”²¹

Policy Integrity’s comments focus on the three proposed changes listed below:

- Shift from focusing incentives on “risks and challenges” to focusing them on project benefits;²²
- Eliminate the “nexus test” as part of this refocusing away from award criteria based on “risks and challenges” to project development;²³ and
- Revise the criteria for awarding Return on Equity (ROE) incentives.²⁴

II. Principled Regulation Can and Should Apply to Transmission Development

This section describes some of the market failures that hinder the development of electricity transmission network infrastructure in the United States, and, drawing on principles of economic regulation, identifies approaches that can foster economically efficient outcomes despite those market failures.

A. Economically Efficient Transmission Infrastructure Development Requires Regulation

Achieving economically efficient transmission development would mean that the marginal social benefit of a project—consisting of reduced transmission congestion, improved reliability, and fewer harmful air pollutants—equals or exceeds the project’s marginal social costs—consisting of capital investment, land, and labor. The corresponding allocation of transmission infrastructure would be optimal in the sense that it would maximize society’s welfare. Transmission services would be provided at the lowest possible cost. While in many sectors, market forces can help achieve this outcome, certain characteristics of transmission infrastructure hinders that efficient development.

The economics of electric transmission infrastructure is governed by economies of scale—building a single high-capacity transmission line is more cost effective than building

¹⁹ NOPR, 85 Fed. Reg. at 18,787.

²⁰ *Id.* at 18,788.

²¹ *Id.*

²² *Id.* at 18,785.

²³ *Id.* at 18,788.

²⁴ *Id.* at 18,789–94.

many low-capacity lines of an equivalent size.²⁵ This cost structure implies that society is best served by a single high-capacity transmission line, built by a single transmission developer, rather than a redundant and unnecessarily expensive transmission network caused by unfettered entry.²⁶ A single firm in a market, however, prompts the classic problems of a monopolist: the prices, quantities, and quality of transmission infrastructure diverge from economically efficient levels.²⁷ Therefore, regulation of transmission development can ensure that society appropriately benefits from economies of scale while also being protected from detrimental monopolistic behavior.

Cost-of-service (COS) regulation is the most common approach taken in the United States.²⁸ To ensure sufficient capital is directed towards transmission infrastructure, developers are guaranteed a positive return on prudently incurred capital investments. The rate of return, approved by the regulatory commission, is referred to as the return on equity (ROE). This rate, multiplied by the value of capital assets approved to earn a return, determines the transmission developer's profits.

For all the benefits regulation provides, it can still fall short of ensuring economically efficient transmission infrastructure due to the information problems that regulators face. The two key impediments to the economically efficient regulation of transmission infrastructure are *adverse selection* and *moral hazard*.²⁹ If well designed, regulatory mechanisms have the potential to solve the problems presented by adverse selection and moral hazard.³⁰

Adverse selection occurs when the regulator cannot observe the definitive features of project developers, such as the developer's true managerial and technical capabilities, or underlying cost opportunities.³¹ As a result of adverse selection, regulators face difficulty in choosing economically efficient projects, or the cost-effective developer. This problem of project or developer selection can direct capital away from economically efficient projects, leading to

²⁵ See Michel Rivier, Ignacio J. Pérez-Arriaga & Luis Olmos, *Electricity Transmission*, in REGULATION OF THE POWER SECTOR 260 (Ignacio J. Pérez-Arriaga ed., 2013) (“Transmission costs are highly subject to economies of scale, a characteristic feature of natural monopolies.”).

²⁶ Under only a restrictive number of assumptions can the free entry of “merchant” transmission developers, trading transmission rights, result in an economically efficient outcome. See Paul Joskow & Jean Tirole, *Merchant Transmission Investment*, 53 J. INDUS. ECON. 233, 233 (2005) (“Incorporating these more realistic attributes of transmission networks...leads to the conclusion that several potentially significant inefficiencies may result from reliance on the merchant transmission investment framework.”).

²⁷ See generally GREGORY MANKIW, PRINCIPLES OF MICROECONOMICS 305 (4th ed. 2006); see also A. Michael Spence, *Monopoly, Quality, and Regulation*, 6 BELL J. ECON. 417 (1975).

²⁸ Cost-of-service regulation is interchangeably referred to as rate-of-return regulation. Price-cap regulation is an alternative to COS regulation commonly employed internationally. See Paul Joskow, *Incentive Regulation in Theory and Practice: Electricity Distribution and Transmission Networks*, in ECONOMIC REGULATION AND ITS REFORM: WHAT HAVE WE LEARNED? 291, 310 (Nancy Rose ed., 2014).

²⁹ *Id.* at 291.

³⁰ See generally JEAN-JACQUES LAFFONT & JEAN TIROLE, A THEORY OF INCENTIVES IN PROCUREMENT AND REGULATION (1993).

³¹ Joskow (2014), *supra* note 28, at 295.

inefficient use of society’s resources. Consumers bear the brunt of this inefficiency in the form of higher prices for electricity and transmission services. At the same time, without information about the project developer’s costs, the regulator has no basis for determining appropriate compensation.

One solution—and the cornerstone of COS regulation—is for the regulator to audit the project developers’ costs and compensate them accordingly. Although this feature of COS regulation solves the compensation problem associated with adverse selection, it does not solve the selection problem and introduces a new challenge—that of moral hazard, as the developer has no incentive to manage their costs if they are compensated perfectly.

Moral hazard occurs when a project developer is not fully liable for the project’s costs and the regulator cannot observe the project developer’s actions.³² If a developer’s costs are fully recovered, as in the case of COS regulation, they do not benefit from exerting managerial effort to minimize costs. Without observing the project developer’s actions, the regulator can only direct the project developer to be mindful of the project’s cost but cannot verify if the developer is actually taking cost-minimizing actions that would be most beneficial to society. As a result of moral hazard, the true costs of transmission projects are higher than what is cost-effective as time, personnel, and other resources are used inefficiently.

Other problems, in addition to adverse selection and moral hazard, impede the development of an economically efficient transmission network. For example, COS regulation, on its own, creates an additional and well-established problem—the “Averch-Johnson effect.”³³ Because a project developer’s profit is directly proportional to prudently incurred capital investment, the project developer has a direct incentive to incur excessive capital costs. When deciding among alternative investments, the developer has a bias towards capital-based solutions, and a bias against labor- or technical-based solutions.³⁴ This distorting bias directs investment away from cost-effective and economically efficient transmission infrastructure, especially cost-effective solutions that require labor, managerial, or technical expertise.

Finally, fundamental to the development of an economically efficient transmission network is the balancing of marginal social benefits and marginal social costs, which is best done by measuring the merits of transmission projects and comparing them against alternatives. The balance to be struck should involve not only private benefits and costs, such as reducing transmission congestion and deploying physical capital, but also public benefits, such as increased competition and reduced air pollution.³⁵ Often, in the transmission project selection

³² *Id.*

³³ The Averch-Johnson effect is commonly referred to as “gold-plating.” See Harvey Averch & Leland L. Johnson, *Behavior of the Firm Under Regulatory Constraint*, 52 AM. ECON. REV. 1052 (1962).

³⁴ See, e.g., Meredith Fowlie, *Emissions Trading, Electricity Restructuring, and Investment in Pollution Abatement*, 100 AM. ECON. REV. 837 (2010).

³⁵ See, e.g., JUDY W. CHANG ET AL., BRATTLE GRP., *THE BENEFITS OF ELECTRIC TRANSMISSION: IDENTIFYING AND ANALYZING THE VALUE OF INVESTMENTS* (2013) (quantifying the benefits of transmission); SOUTHWEST POWER

process, many of the relevant the public benefits of transmission infrastructure are ignored.³⁶ Ignoring these public benefits directs capital investment away from projects that are economically efficient, possibly towards projects that are net harmful to society.

B. Principled Regulation Can Foster Economically Efficient Outcomes

There is a well-established literature on the best practices of regulation to overcome the challenges of achieving economic efficiency using economic principles.³⁷ Regulation based on sound principles can improve the allocation of resources by addressing the challenges outlined above. To achieve efficiency improvements, regulation should induce additional beneficial actions that yield more benefits to society than costs.³⁸

Regulation can address adverse selection by assisting regulators in determining the true costs and benefits of each transmission project and project developer.³⁹ It thus helps the regulator to better direct capital towards projects that provide the highest net benefits to society. More directly, good regulation that addresses adverse selection incentivizes transmission projects that are the most beneficial but might not have been chosen through existing transmission planning processes.

Regulation can address the problem of moral hazard by helping regulators to either directly observe a project developer's effort or incentivize efficient cost reductions by transmission developers. Generally, this type of regulation entails the application of performance-based regulation to transmission project developers with the goal of rewarding them for using less expensive inputs, finding creative solutions, and decreasing their capital costs.

Regulation based on sound principles can help FERC to recognize failings in its proposed rule and also to devise changes that would improve it. Policy Integrity's criticisms and

POOL (SPP), *THE VALUE OF TRANSMISSION* (2016); Public Interest Organizations Comments at 10; American Wind Energy Association Comments at 10.

³⁶ CHANG ET AL., *supra* note 35, at 24 (showing benefits considered in transmission planning processes as of 2013); *see also* JOSEPH H. ETO, *PLANNING ELECTRIC TRANSMISSION LINES: A REVIEW OF RECENT REGIONAL TRANSMISSION PLANS* 39 (2016) ("The range of transmission benefits considered varies widely in regional transmission planning processes, as does the means by which benefits are evaluated. Moreover, the consideration of transmission benefits is an evolving practice among regional transmission planning entities.").

³⁷ *See generally* LAFFONT & TIROLE, *supra* note 30; *see also* ALFRED E. KAHN, *THE ECONOMICS OF REGULATION: PRINCIPLES AND INSTITUTIONS* (1970); KENNETH E. TRAIN, *OPTIMAL REGULATION: THE ECONOMIC THEORY OF NATURAL MONOPOLY* (1991).

³⁸ KAHN, *supra* note 37, at 54 ("... there is no easy solution to the incentive problem. ... there has to be some means of seeing to it that those supernormal returns are *earned*, some means, for example, of identifying the companies that have been unusually enterprising or efficient and offering the higher profits to them while denying them to others.") (emphasis added).

³⁹ Note that because COS is commonly employed by regulators of transmission projects there is no need for regulation to address the problem of adequate compensation that arises because of adverse selection.

recommendations, below, rest on what sound regulation counsels regarding the address of adverse selection and moral hazard, as well as the proper application of cost-benefit analysis.

III. The Basic Design Flaws in FERC’s Proposed Rule Make It Impermissible Under Section 219

The Commission proposes to shift the focus of transmission development incentives under Section 219 from addressing “risks and challenges” to maximizing “economic benefits.” Because projects that face similar risks-and-challenges can have vastly different benefits, incentives based on risks-and-challenges alone might reward projects that needlessly take on excessive costs and do not promise commensurate benefits. By contrast, projects with the highest net-benefits—measured as the sum of all relevant economic benefits less the sum of all relevant economic costs—are, by definition, economically efficient and so will maximize society’s welfare. Therefore, changing the focus toward benefits can, in theory, help increase economic efficiency by increasing social welfare.

However, merely reorienting the criteria for awarding incentives to project benefits will not, without more, achieve Section 219’s purpose “of benefitting consumers by ensuring reliability and reducing the cost of delivered power by reducing transmission congestion.”⁴⁰ As explained below, to serve that purpose effectively, a rule to implement Section 219 must have at least three other features that are missing from FERC’s proposed rule. First, the incentives it offers must be timed and targeted in a way that influences decisions about transmission investments. Second, it must assess project benefits in a way that supports meaningful comparisons. Finally, it must target meaningful cost-savings in a way that is “just and reasonable and not unduly discriminatory or preferential.”

A. Several of the Proposed Incentives Will Not Change Behavior or Improve Project Selection, and so Will Not Lead to Better Economic Outcomes

FERC states that these ROE incentives are meant to promote projects that “provide sufficient economic benefits, as measured by the degree to which such benefits exceed related transmission project costs.”⁴¹ Many of the incentives proposed in this rule reward project developers with a higher ROE but provide little-to-no change in transmission infrastructure relative to the counterfactual of existing Section 219 incentives. Therefore, this approach is unlikely to achieve its stated aim because it will not have any clear and consistent effect on transmission project selection or economic costs and benefits. Instead, these incentives will merely transfer economic rent from consumers to the producers of transmission services, increasing the cost to consumers without delivering a clear benefit—an unjust and unreasonable outcome that is at odds with Section 219(d).

⁴⁰ 16 U.S.C. § 824s(a).

⁴¹ NOPR, 85 Fed. Reg. at 18,789.

1. Incentives Can Increase Efficiency Only If They Change Developers' Behavior or Transmission Project Selection

Section II above explains how efficiency-improving incentives can address (a) the problem of adverse selection by encouraging the selection of economically efficient projects that would not be chosen in the existing transmission planning process; (b) the problem of moral hazard by incentivizing project developers to reduce their construction and operating costs; or (c) other problems such as the capital-bias inherent in COS regulation, or disregard of public benefits resulting from transmission infrastructure investments. If FERC's proposed incentives do not do one or more of these things, they will not increase economic efficiency.

Furthermore, economic efficiency depends only on the real use of resources, not who gains or losses in a given transaction.⁴² In the context of transmission projects, efficiency is determined by the set of transmission projects built, the inputs used to build those projects, and the resulting quality of transmission services. For an incentive to improve economic efficiency it must change at least one of these measurable outcomes, and that change must provide additional benefits that outweigh the additional costs. An incentive that does not change the selection of transmission projects or transmission project developers' behavior cannot increase economic efficiency or cost-effectiveness.

2. The Proposed Ex-Ante ROE Incentive Is Unlikely to Change Developers' Behavior or Transmission Project Selection

FERC proposes to select more economically beneficial transmission projects by awarding an ROE incentive of 50 basis points to projects whose "ex-ante" BCR (i.e., the BCR it is assigned upon approval and before construction) is in the top quartile of all projects considered.⁴³ However, this incentive is unlikely to improve economic efficiency.

Because this ex-ante incentive is to be awarded to transmission developers *after* they have been approved by a regional or local transmission planning process, it is unlikely to increase significantly the quantity or quality of projects proposed by developers or to change the project selected in the transmission planning process. Crucially, the incentive *follows* the action it is intended to induce, and so can only be awarded to projects that survive the regional or local transmission planning process—effectively excluding high-BCR projects that the planning process rejects for other reasons. Figure 1 (below) shows this timing. By the time a transmission developer seeks an incentive through a section 205 filing, nothing can be changed in the

⁴² See OFFICE OF MGMT. & BUDGET, EXEC. OFFICE OF THE PRESIDENT, CIRCULAR A-4: REGULATORY ANALYSIS 38 ("Benefit and cost estimates should reflect real resource use.").

⁴³ NOPR, 85 Fed. Reg. at 18,792. In applications, the proposed rule delineates projects above \$25 million as "large projects," and below \$25 million as "small projects." The top quartile of each size class receives the ex-ante ROE incentive.

selection process.⁴⁴ Therefore, the incentive is not likely to change the composition, or the number, of transmission projects built.

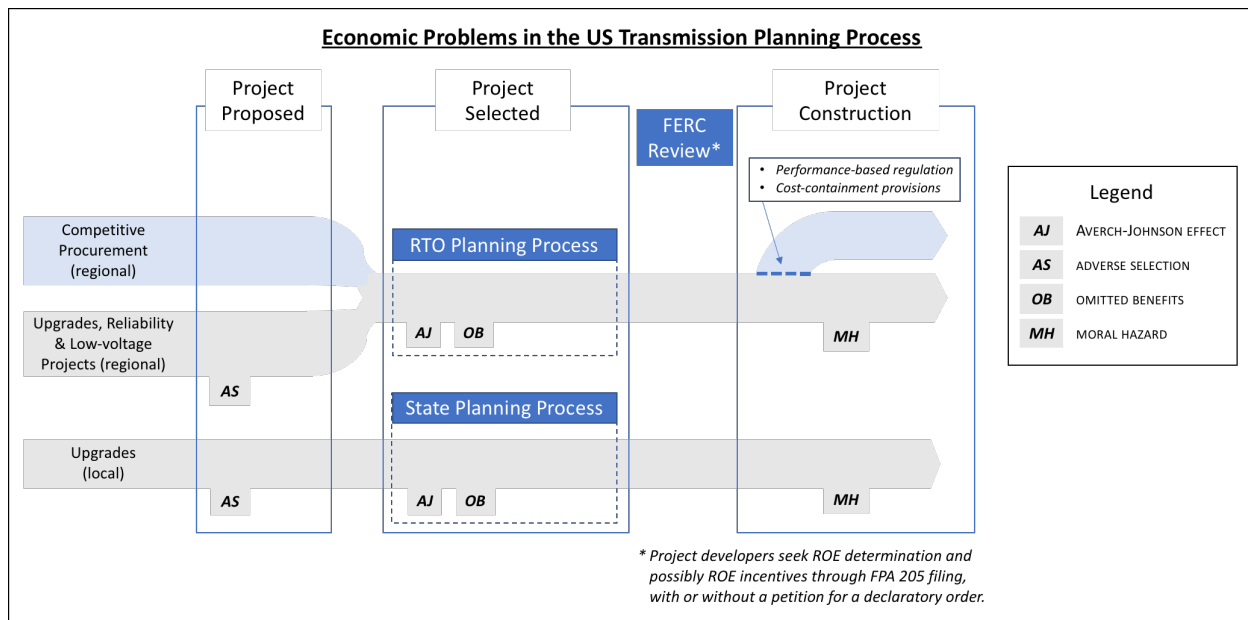


Figure 1 - Stylized Transmission Planning Process and the Corresponding Challenges. Only 3% of all transmission investments from 2011 to 2018 were approved through competitive procurement, and 47% of transmission investment across all ISO/RTO regions were subject to full regional stakeholder review in the regional planning process.⁴⁵ Image Source: The Institute for Policy Integrity.

To change the composition of transmission projects being developed, the ex-ante incentive must be a relevant factor during the regional planning process, and the existence of the incentive (or the potential to receive the incentive) must influence which proposed project is chosen. Even if the proposed incentive changes the expectations of potential developers, and, hence, could garner improvements to the quantity and quality of project proposals, it would still reward only the projects that are already selected and meet a specific BCR threshold instead of promoting the selection of projects that are more economically efficient. It is thus redundant with features of existing regional planning processes, which often rely on an evaluation of costs and benefit for selection.

To change the quantity of transmission projects being built, the ex-ante incentive must direct additional capital towards transmission projects. Given the low-risk and sizeable return on investing in transmission projects, it is unlikely a higher ROE alone is going to incentivize many additional transmission projects. Access to capital is not a significant challenge that impedes

⁴⁴ See Order 679, *supra* note 9, at P 58 (creating a rebuttable presumption that a project meets the Section 219 requirement if it has already been selected in a regional planning process). See, e.g., *PJM Interconnection, L.L.C.*, 158 FERC ¶ 61,089 (2017); *LS Power Grid New York, LLC*, 167 FERC ¶ 61,139 (2019).

⁴⁵ JOHANNES P. PFEIFENBERGER ET AL, BRATTLE GRP., COST SAVINGS OFFERED BY COMPETITION IN ELECTRIC TRANSMISSION: EXPERIENCE TO DATE AND THE POTENTIAL FOR ADDITIONAL CUSTOMER VALUE (2019).

economically efficient transmission.⁴⁶ As a result, simply increasing the compensation will not induce additional investment, or overcome any specific challenge, but instead increase the cost to consumers.

3. Incentives That Increase Consumer Costs but Provide No Benefits Are a Transfer of Economic Rents from Producers to Consumers

For any allocation of resources and realized transmission infrastructure, there are many different ways the economic benefits can be distributed between producers and consumers. When a policy changes the distribution of economic benefits, but not the underlying allocation or economic efficiency, the corresponding change in payments is referred to as a transfer.⁴⁷ In regulatory cost-benefit analysis, transfers are not “costs” or “benefits” in and of themselves, and so are not typically considered when characterizing the merits of a rule.⁴⁸ As described in FERC’s proposed rule, the ex-ante incentive will not change the transmission projects being developed or their underlying cost, and so would not increase economic efficiency. That incentive will, however, change the distribution of gains and losses resulting from the transmission project.

Awarding a higher ROE to a project that would have been developed anyway would increase the compensation of transmission developers without changing any real economic outcomes. Ultimately, the consumers of transmission services would pay for this increase in compensation through the cost-allocation process and corresponding changes in retail rates. If the ex-ante incentive would not change the provision of transmission services, then the increase in ROE would result in an increase in consumer costs with no additional benefits. The result would be a transfer of economic surplus from consumers to producers of transmission services.

⁴⁶ See, e.g., *Hearing on Examining the State of Electric Transmission: Investment, Planning, Development and Alternatives Before the Subcomm. on Energy of the H. Comm. on Energy and Commerce*, 115th Cong. 12 (2018) (statement of John Twitty, Executive Director, Transmission Access Policy Study Group (TAPS)) (“There is no shortage of entities seeking to invest in transmission, and thus no need for incentive rates of return.”). Evidence of this is as follows. Transmission investment is robust, growing 20% from 2012 to 2017. Electric Edison Institute, *Historical and Projected Transmission Investment* (Oct. 2018), <https://perma.cc/V4VE-4JBK>. See also U.S. Energy Info. Admin., *Utilities Continue to Increase Spending on Transmission Infrastructure* (Feb. 9, 2018), <https://www.eia.gov/todayinenergy/detail.php?id=34892>. What’s more, an electric utility can issue investor grade bonds. A sample of 45 investor-owned utilities shows over 70% of credit ratings are rated BBB+ or above. ELECTRIC EDISON INSTITUTE, CREDIT RATINGS (2019), <https://perma.cc/75AD-KYT7>. Finally, the average return-on-equity for electric utilities is relatively high, above 10%. See David C. Rode & Paul S. Fischbeck, *Regulated Equity Returns: A Puzzle*, 133 ENERGY POL’Y 110891, at 5 fig.4 (2019).

⁴⁷ See CIRCULAR A-4, *supra* note 42, at 38 (“Transfer payments are monetary payments from one group to another that do not affect total resources available to society.”).

⁴⁸ *Id.* (“You should *not* include transfers in the estimates of the benefits and costs of a regulation. Instead, address them in a separate discussion of the regulation’s distributional effects.”) (emphasis added).

4. The Proposed Incentives Would Not Serve 219’s Stated Purpose and Would Be Unjust and Unreasonable

Even as FERC refocuses its implementation of Section 219 away from “risks and challenges” that impede transmission development and toward new transmission’s benefits, it must continue requiring applicants to demonstrate “that there is a nexus between the incentive being sought and the investment being made.”⁴⁹ Put simply, FERC should not dispense incentive payments to developers pursuant to Section 219 unless it expects to get things that benefit consumers in return—such payments would impose a cost on consumers with no matching benefit and so would not be just and reasonable.⁵⁰ This is why, when adopting Order 679, FERC took care to clarify that the incentives it would confer pursuant to Section 219 were meant to induce transmission investment decisions, not just provide “a ‘bonus’ for good behavior” after the fact.⁵¹ This premise is consistent with standard dictionary definitions of “incentive”: “something that incites or has a tendency to incite to determination or action.”⁵² It is also consistent with what the United States Court of Appeals for the Ninth Circuit recently described as FERC’s “longstanding policy that rate incentives must be prospective and that there must be a connection between the incentive and the conduct meant to be induced.”⁵³ The court rejected FERC’s argument that Order 679 superseded this policy.⁵⁴

FERC’s proposed ex-ante ROE incentive provides an especially clear example of this problem. That incentive, as currently conceived, would not reduce the costs of transmission services to consumers, because it would not likely induce changes in the decisions of transmission project developers or those responsible for approving their project proposals. Indeed, as explained above, it would likely *increase* costs to consumers without providing commensurate benefits. This runs contrary to the purpose and directives of Section 219, including the requirement that rates be just and reasonable. For the ROE incentive—and others as well—to align with Section 219, FERC must require applicants to demonstrate that those incentives have increased the quantity and/or quality of project proposals. As explained above, it will only be possible for applicants to provide evidence of this if ROE incentives were relevant at the same time when the project is approved by a Regional Transmission Organization (RTO) or state agency.

⁴⁹ *Pacific Gas & Elec. Co.*, 160 FERC ¶ 61,018, P 6 (2017).

⁵⁰ 16 U.S.C. § 824s(d).

⁵¹ Order 679 at P 26; *accord* Glick Dissent (“Handing out customers’ money to transmission owners without a strong belief that that money will induce beneficial conduct is unjust and unreasonable and inconsistent with Congress’ intent behind section 219.”).

⁵² Merriam-Webster.com Dictionary, “Incentive,” <https://www.merriam-webster.com/dictionary/incentive> (accessed June 17, 2020).

⁵³ *California Pub. Utilities Comm’n v. FERC*, 879 F.3d 966, 977–78 (9th Cir. 2018) (collecting examples of prior statements and decisions).

⁵⁴ *Id.* at 978.

B. The Proposed Rule Does Not Prescribe the Sort of Cost-Benefit Analysis That Is Needed to Meaningfully Compare Transmission Investment Options

Comparing the merits of alternative transmission projects is essential to efficient electric transmission infrastructure. The proposed rule would measure the merit of transmission projects selected by regional transmission planning processes using each project's BCR. We agree that economically efficient projects can be identified only by comparing the merits of alternatives, but, for such comparisons to yield useful results, the method of comparing and ranking projects must be based on sound reasoning and economic principles.

Just focusing on projects' economic benefits instead of the risks and challenges they face is not sufficient to ensure that transmission infrastructure improves economic efficiency, however. The Commission should, first, compare projects' net benefits instead of their BCRs, and second, ensure that the comparison considers all relevant economic benefits and costs.

1. A Net-Benefit Test Is More Appropriate Than a Benefit-Cost Ratio for Comparing Transmission Investments

The Commission's benefits-based incentives approach prioritizes projects that have the highest BCR defined as the project's benefits divided by the project's costs. It is true, a project with a BCR greater than one provides benefits in excess of its costs—and a project with a higher BCR provides more benefits than projects with a smaller BCR, *if the two projects have similar costs*. But this does not imply that projects with a higher BCR are always more economically efficient.

Although a BCR can be used to determine if a project is "economic" in the sense that the benefits outweigh costs, it is well established that BCRs should not be used to compare competing projects unless they have identical costs.⁵⁵ Projects with high costs systematically have a lower BCR. This bias is significant in the electric transmission sector. Because of economies of scale, larger projects (with larger costs) are often more cost-effective than smaller projects—but are penalized when a BCR is the measure used to compare potential projects. A simple example involving two projects illustrates this point. Consider two projects, Project A would provide a benefit of \$20 at a cost of \$1, and Project B would provide a benefit of \$2 billion at a cost of \$1 billion. Society would benefit far more from the development of Project B than Project A, yet Project A's BCR is twenty times as high as that of Project B.

The more appropriate measure to target projects that are economically efficient is net-benefits: total economic benefits less total economic costs that accrue due to the project. Any

⁵⁵ See RICHARD O. ZERBE, JR. & DWIGHT D. DIVELY, *BENEFIT-COST ANALYSIS IN THEORY AND PRACTICE* 100 (1994).

project with positive net-benefits is economic, and projects with the largest net-benefits provide the most benefit to society at the smallest possible costs.⁵⁶

Data from 41 projects presented in the appendix of the proposed rule demonstrate the important difference between these two measures, shown in Figure 2 below. Each point in the figure represents a single transmission project. The position of the point on the horizontal axis shows the BCR of the project, and position of the point on the vertical axis shows the net-benefits of the same project. Each point’s diameter is proportional to the project’s total costs. Like in the proposed rule, projects are classified by whether they are above or below \$25 million—denoted by the point’s color.

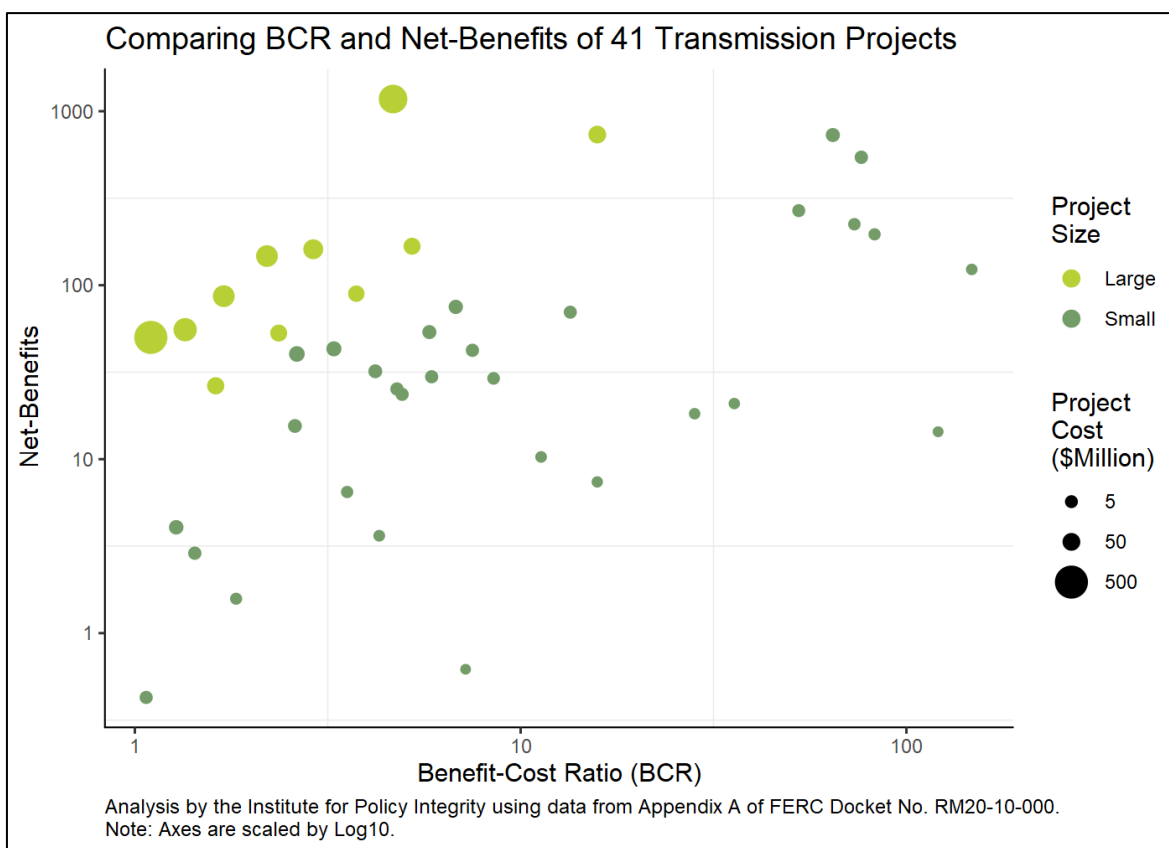


Figure 2 - Distribution of Net-Benefits and BCRs of 41 transmission projects. The diameter of each point is proportional to the projects overall cost. The color denotes whether the project is below, or above, \$25 million in total cost.

The figure makes clear that some projects with large net-benefits have a small BCR, and some projects with a large BCR can have relatively small net-benefits. Further, conditional on

⁵⁶ CIRCULAR A-4, *supra* note 42, at 10 (“The size of net benefits, the absolute difference between the projected benefits and costs, indicates whether one policy is more efficient than another. The ratio of benefits to costs is not a meaningful indicator of net benefits and should not be used for that purpose. It is well known that considering such ratios alone can yield misleading results.”); *see also* TEVFIK F. NAS, COST-BENEFIT ANALYSIS: THEORY AND APPLICATION 127 (2016) (“In practice, compared to [Benefit-Cost Ratio and Internal Rate of Return], NPV is the preferred decision criterion.”).

the same net-benefits, projects with larger costs have a smaller BCR. Almost all of the highest BCR projects simply have smaller costs. This suggests that high BCR projects are not necessarily the projects that will result in an economically efficient transmission network.

The Commission’s proposed use of a \$25 million threshold to divide “small” from “large” projects does not rescue its BCR approach from failing to make rates just and reasonable. Indeed, use of this threshold highlights that BCRs are a flawed yardstick in this context. That is, if not for this delineation, no large transmission projects would receive the ex-ante incentive because large projects (with large costs) have systematically smaller BCRs. Yet FERC provides no explanation of why \$25 million is the appropriate threshold to prevent large projects from being penalized. And, importantly, the existence of a threshold of \$25 million has the potential to distort transmission developers’ incentives by encouraging projects with costs near, but slightly below, \$25 million to inflate those costs to just over \$25 million, which would make them the smallest-cost large projects, and so give them a higher BCR relative to other large projects that have the same (possibly even larger) benefits but slightly larger costs. Consequently, the inclusion of a threshold only serves to highlight that using BCRs will fail to consistently direct incentives toward projects with the greatest net benefits.

2. Transmission Investment Requires a Consistent Accounting of All Relevant Categories of Benefits and Costs

In determining the ex-ante incentive, the Commission proposes a comparison of BCRs using inconsistent and incomplete measures of costs and benefits. Understandably, the administrative burden of consistent accounting of all costs and benefits of transmission projects is not trivial. However, if the accounting is not consistent or complete, the incentive has the potential to promote transmission investments that in no way decrease consumers costs or increase economic efficiency.

The Commission proposes “to limit [] analysis of economic benefits to adjusted production cost, similar measures of congestion reduction, and certain other quantifiable benefits that are verifiable and not duplicative.”⁵⁷ These benefits, it explains, “might include (but are not limited to): Types of load cost savings, capacity benefits, and avoided local transmission project costs.”⁵⁸ These benefits are standard in the regional planning process, but do not encompass all relevant benefits.⁵⁹ For example, reduced costs of renewable integration, resource adequacy, reduced transmission losses, avoided reliability projects, reduced air pollution, and enhanced competition among electricity generators are all important benefits that must be accounted for.⁶⁰

Ignoring these other benefits will under-incentivize socially beneficial transmission that enhances system resilience, increases reliability, reduces air pollution, and lowers the consumer

⁵⁷ NOPR, 85 Fed. Reg. at 18,791.

⁵⁸ *Id.* at 18,791 n.60.

⁵⁹ See CHANG ET AL., *supra* note 35 at v tbl.ES-1.

⁶⁰ *Id.*

cost of achieving state public policy objectives.⁶¹ Further, it risks encouraging investment in transmission that supports generation with low production costs, but high outage rates or high emissions. Ultimately, such assets may be stranded in order to meet public policy goals by state governments. These standard costs will burden consumers by increasing the costs of electric power and transmission services.

When comparing BCRs or net-benefits of different projects, it is essential that scope of costs and benefits are consistent. If not, projects that under-report costs, or over-report benefits will be rewarded. For example, the use of a higher discount rate or different time horizon can have significant impact on a projects costs and benefits.

Often, the practices for calculating costs and benefits are standardized at the level of a transmission planning region, administered by an RTO. All projects within the same RTO use similar methods for calculating costs and benefits, but projects in different RTOs might use a different practice. This possibility of this being true is illustrated in the Figure 3. Projects in PJM have systematically higher BCRs than projects in CAISO and MISO.

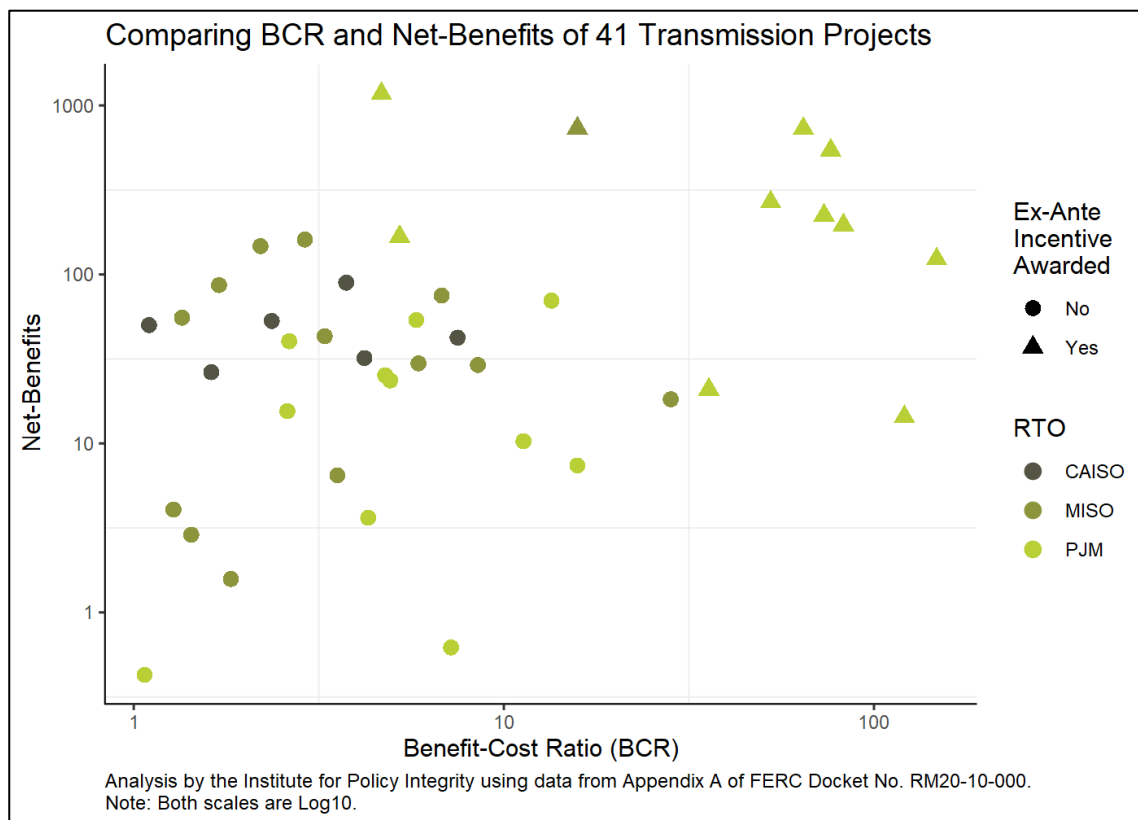


Figure 3 – Distribution of Net-Benefits and BCRs of 41 transmission projects. The color of point characterizes the RTO region of the project. Projects that would be awarded an ex-ante ROE incentive for having a high BCR are shown as a triangle.

⁶¹ See Avi Zevin, *Regulating the Energy Transition: FERC and Cost-Benefit Analysis*, 45 COLUM. J. ENVTL. L. 419 (2020) (discussing opportunities and authority of FERC to apply cost-benefit analysis).

This discrepancy suggests that FERC should not rely on the BCRs specified by RTO planning processes when awarding incentives as doing so will not identify the projects with the highest true BCRs. Instead, reliance on RTO's BCRs to rank order projects will simply direct ex-ante incentives towards the projects that standardize practices to garner higher BCRs, by accounting for additional benefits or fewer costs, relative to projects in other RTOs.

C. The Proposed Ex-Post Incentive Fails to Address the Problem of Moral Hazard

The Commission proposes to award 50 basis-points to projects whose ex-post BCR (measured as the ex-ante benefits divided by the realized, ex-post, project costs) is in the top decile of all projects. This incentive reflects the Commission's desire to encourage cost-savings during the construction process and to thereby address the problem of moral hazard.⁶² Although this incentive has the potential to provide economic benefits through cost savings, it systematically targets cost-savings that are small and accrue from too few projects and does so using the wrong metric—ultimately providing small benefits to consumers.

1. FERC's Reliance on BCRs Makes the Ex-Post Incentive an Ineffective Check on Moral Hazard

FERC errs by relying on BCRs to award ex-post incentives because doing so gives undue importance to project benefits, is arbitrarily restrictive, and discriminates against projects with larger costs.

If FERC's goal is to address moral hazard and reduce costs, it should ignore project benefits when awarding ex-post incentives. Under COS regulation, it is the project's costs that are fully compensated, not its benefits. Consequently, two projects with identical costs and identical ROEs, but entirely different benefits, have the same incentive to escalate their costs or ignore actions that can save costs due to moral hazard under COS regulation. For this simple reason, the ex-post incentive should be determined by a comparison of ex-ante cost and ex-post cost, with no consideration of a project's benefits.

Furthermore, using a BCR threshold will exclude projects for arbitrary reasons. With COS regulation, moral hazard occurs regardless of the BCRs of projects. Therefore, limiting the availability of the ex-post incentive to projects with a high BCR will leave moral hazard unmitigated for all other projects. If project developers believed that they *could* be eligible for the incentive, then awarding it to only a fraction of developers would not undermine the incentive's mitigation of moral hazard. But restricting it to projects with the highest ex-post BCR would effectively ensure that most developers will rightly assume their projects are ineligible. Because the threshold that creates this circumstance has no clearly articulated basis, its effect would not only be limited but also arbitrary. Furthermore, this approach to awarding the ex-post

⁶² NOPR, 85 Fed. Reg. at 18,792.

incentive will disproportionately allocate incentive payments to lower-cost projects, which consistently have higher BCRs (see Figure 2 above). Given that small-cost projects are likely to have smaller potential cost-savings, the proposed ex-post incentive is likely to yield benefits that are small in magnitude—again, not to serve a clear and articulated purpose but due to the presence of an arbitrarily determined threshold.

2. FERC’s Approach Discriminates Unduly Against Projects with Larger Costs

FERC’s proposed ex-post incentive would reward the avoidance of moral hazard in only a fraction of projects, and, furthermore, would do so in a way that signals to the clear majority of project developers that they are ineligible and so do not stand to benefit from avoiding cost-overruns. Therefore, the proposed design of an ex-post incentive is impermissibly at odds with the purpose and directives of Section 219, including the requirement that rate-incentives under that section be just and reasonable and not “unduly discriminatory or preferential.”

The incentive would do little to reduce the costs of transmission to consumers and would cause consumers to ultimately pay more for that service. In addition, the incentive’s design would cause projects with smaller costs to be more likely to receive rewards for no reason relatable to Section 219’s purpose or directives. Thus it would result in an undue preference for smaller-cost projects and undue discrimination against larger-cost ones.

IV. With Changes, the Proposed Rule Can Achieve Section 219’s Objectives Better than Order 679 Has Done

Achieving the stated purpose of Section 219—supporting transmission projects that are “cost-effective” in their development but also “economically efficient” in their effects on electricity services⁶³—is best accomplished by adopting a regulation that addresses adverse selection and moral hazard. Doing so would also be consistent with the Commission’s stated intent to transition away from an approach focused on “risks-and-challenges” and towards one that is “benefits-based.” It would also help to ensure that the rate-incentives FERC adopts to implement Section 219 are just and reasonable.

A. Performance-Based Regulation Can Reduce Cost Overruns

Mitigating cost-overruns due to moral hazard provides unambiguous benefits to consumers by supporting cost-effective and economically efficient transmission infrastructure development. It is well understood this goal is best accomplished with incentive- or performance-based regulations (PBR).⁶⁴ Despite this fact, the Commission has remained

⁶³ 16 U.S.C. § 824s.

⁶⁴ See Joskow (2014), *supra* note 28.

“uninterested in applying more traditional incentive regulation mechanisms” prior to this proposed rule.⁶⁵

1. Competition for an Ex-post Incentive Based on a Project’s Realized Cost Reductions Can Introduce Real Cost Savings

The Commission should award incentives to projects that are selected through a competitive process and demonstrate the largest reduction in total costs as a proportion of their ex-ante cost estimate.⁶⁶ This incentive structure would encourage cost reductions by nearly all project developers, so long as the expected benefits of the incentive were greater than the benefits of cost-escalation. In effect, an incentive structure of this type would introduce competition among project developers. As each developer tries to reduce their costs more than their competitors, there should be larger cost reductions for any single project and a greater number of projects pursuing cost reductions overall.

In application, the process of awarding this ROE incentive structure would operate similarly to the ex-ante ROE incentive proposed in this rulemaking. Projects in the top decile of ex-post cost reductions as a fraction of ex-ante costs, within a specified time frame, would be awarded the ROE incentive.

2. Incentives Should Support Cost-containment Provisions in the Regional Planning Process

As the Commission noted in Order 679, realities of the electric transmission system suggest that it is difficult to implement pure PBR.⁶⁷ For example, the most extreme solution to moral hazard would be a transition towards price-cap regulation instead of COS regulation. Under price-cap regulation, project developers are paid a fixed value (the price cap) and then retain any cost savings below the cap.

Several PBR mechanisms stop short of price-cap regulation’s severity but still encourage developers to be mindful of their costs. For example, cost-containment provisions have cropped

⁶⁵ See Paul Joskow, *Competition for Electric Transmission Projects in the U.S.: FERC Order 1000*, at 14 (CEEPR WP 2019-004, 2019), <http://ceep.mit.edu/files/papers/2019-004.pdf> (“[The incentives in Order 679] are not the kind of cost control and operating performance incentives that would normally be an important part of a performance-based incentive regulation tool kit. . . . FERC has been uninterested in applying more traditional incentive regulation mechanisms.”); *id.* at 18 (“Order 679 expressed FERC’s continued general interest in performance-based incentives and competitive bidding but required neither as part of its transmission incentive portfolio. Indeed, Order 679 reflects considerable skepticism about the importance of performance-based incentives . . .”).

⁶⁶ This assumes ex-ante costs are an important factor in transmission project selection, through a competitive procurement process or otherwise. If not, the regulator might need to benchmark ex-ante cost estimates to guard against strategic ex-ante cost inflation.

⁶⁷ See Joskow (2019), *supra* note 65, at 18 (“Indeed, Order 679 reflects considerable skepticism about . . . the ability to apply classic performance-based regulatory mechanisms to transmission in the U.S. given the structure of the transmission industry (e.g. balkanized transmission ownership, ISOs with no assets, continued vertical integration and state regulation of bundled transmission costs in a large fraction of the country, private, public and municipal ownership with different regulatory regimes).”).

up as a feature of some transmission projects in the regional planning process.⁶⁸ The provisions, largely offered voluntarily by transmission project developers, “reduce the extent to which customers are exposed to the risk of cost escalations”⁶⁹ and so encourage cost-effective transmission investment. We encourage the Commission to evaluate the extent to which Section 219 incentives can encourage cost-containment contracts for transmission projects. As an example, the Commission could offer an ROE incentive to any project developer that includes a cost-containment provision in its project proposal.

B. Incentives Encouraging Competition Can Generate Real Cost Savings and Better Identify Beneficial Projects

Efficient transmission infrastructure can result from a well-structured transmission planning process, similar to what the Commission envisioned in promulgating Order 1000 in 2011. Anticipating substantial investment in transmission facilities in the ensuing years, the Commission issued Order 1000 to ensure that regional transmission planning would be done more efficiently and cost-effectively.⁷⁰ To this end, Order 1000 adopted transmission planning and cost allocation requirements that were “designed to work together to ensure an opportunity for more transmission projects to be considered in the transmission planning process,” and thus to lead to the construction of more efficient or cost-effective transmission projects.⁷¹ While Order 1000 implementation might be failing to achieve its promise,⁷² incentives adopted pursuant to FPA section 219 should be designed in harmony with the best features of Order 1000.

One particular success of Order 1000 is the increased role of competition in the selection of project developers, in either a sponsorship model or a competitive bidding process.⁷³ Although free entry of transmission projects will result in a redundant and costly transmission network,

⁶⁸ See, e.g., PFEIFENBERGER ET AL., *supra* note 45, at 2 tbl.6.

⁶⁹ *Id.* at 2.

⁷⁰ Transmission Planning and Cost Allocation by Transmission Owning and Operating Public Utilities, 136 FERC ¶ 61,051, P 2 (2011).

⁷¹ *Id.* at P 42.

⁷² See LAWRENCE BERKELEY NATIONAL LAB, PLANNING ELECTRIC TRANSMISSION LINES: A REVIEW OF RECENT REGIONAL TRANSMISSION PLANS, at vii (2016) (“It will be some time before the outcomes of FERC Order Nos. 890 and 1000 can be fully assessed.”); see also FERC STAFF REPORT, 2017 TRANSMISSION METRICS 3 (2017) (“it is difficult to assess whether the electric industry is investing in sufficient transmission infrastructure ... and whether the investments made are more efficient or cost-effective.”) See also *Examining the State of Electric Transmission Infrastructure: Investment, Planning, Construction, and Alternatives: Hearing Before the H. Energy & Commerce Comm.*, 115th Cong. (2018) (compiling testimony regarding benefits and costs of Order 1000).

⁷³ Memorandum from H.R. Energy & Commerce Comm. Majority and Minority Staff, to Members of Subcomm. on Energy, regarding Hearing entitled “Examining the State of Electric Transmission Infrastructure: Investment, Planning, Construction, and Alternatives,” at 3 (May 8, 2018) (“One of the most promising reforms of Order No. 1000 is the ability for non-incumbent and merchant transmission developers to compete against incumbent utilities to build new projects at potentially lower costs.”).

benefits would still flow from multiple developers competing for the monopoly rights to build transmission projects.⁷⁴

Ultimately, competition among developers has the potential to solve the problems of moral hazard and adverse selection.⁷⁵ Competition encourages cost-savings and innovative solutions that mitigate the risk of cost escalations.⁷⁶ Simultaneously, competitive procurement can force each project developer to reveal their true cost opportunities. If properly designed, competitive procurement can select the projects that would provide the most benefits for the lowest cost—by definition promoting economically efficient transmission investment.

1. ROE Incentives Should Be Awarded to Project Developers Selected Through a Competitive Process

Competition among project developers has the potential to encourage cost effective and efficient transmission development in the United States.⁷⁷ Despite this, transmission developers and regional transmission planning regions have been hesitant to fully embrace competition. Seven years after Order 1000, only 3% of all transmission investments cleared through a competitive process.⁷⁸ Of the remaining investments, fewer than half cleared through a regional planning process that required consideration of whether “non-transmission alternatives” can more efficiently or cost-effectively meet the transmission needs of a region.⁷⁹

This reluctance to embrace competition owes mainly to two factors. The first is the administrative burden that falls to regional transmission planning organizations in designing and conducting competitive procurements.⁸⁰ The second factor is utilities’ aversion to competition

⁷⁴ See Joskow (2019), *supra* note 65, at 20 (“More generally, “competition for the market” has long been viewed as a potential substitute for traditional commission regulation of legal monopolies”); see also Harold Demsetz, *Why Regulate Utilities*, 11 J. L. & ECON. 1, 55–65 (1968).

⁷⁵ Joskow (2019), *supra* note 65, at 55 (“It is evident from the limited evidence that we have that competitive procurement can help to resolve the adverse selection and moral hazard problems faced by regulators, in this case FERC.”).

⁷⁶ See PFEIFENBERGER ET AL., *supra* note 45, at 2. (examples include “technological and engineering solutions to more cost-effectively address identified transmission needs; and [] cost containment mechanisms that reduce the extent to which customers are exposed to the risk of cost escalations.”).

⁷⁷ *Id.* at 1 (“Based on the experience with competitive projects in the U.S. to date, we estimate that the potential cost savings from expanding competitive processes could range from approximately 20% to 30%”).

⁷⁸ See Joskow (2019), *supra* note 65, at 55 (...only a tiny fraction of transmission projects authorized in the U.S. are being selected through formal competitive procurement solicitations with transparent evaluation criteria); PFEIFENBERGER ET AL., *supra* note 45, at 17 (“seven years after the Commission’s Order No. 1000 was issued, much of the transmission development is focused on reliability and local needs, with only a modest increase in regional projects, and no progress in developing interregional projects, to address market efficiency and public policy needs”); *id.* at 5 (“Seven Years after Order No. 1000 Mandated Competition in Transmission Planning, 97% of U.S. Transmission Investments Occur Outside the Competitive Processes”).

⁷⁹ Memorandum, *supra* note 73, at 6.

⁸⁰ See, e.g., Tony Clark, ORDER NO. 1000 AT THE CROSSROADS: REFLECTIONS ON THE RULE AND ITS FUTURE (2018) (discussing administrative burden of Order 1000.)

(which is rational if competition would yield little or no benefit to the utility).⁸¹ The first factor is not trivial and should be addressed by the Commission separately in a different proceeding. The second, reflects a lack of incentive, and should be addressed here.

The most direct way to encourage the solicitation of competitive procurements by regional transmission planning organizations and to incentivize participation by incumbent utilities would be to award an ROE incentive to “projects that are selected through an open competitive procurement process.”⁸² Under this incentive structure, rational utilities will choose to face competition so long as the benefits of a higher ROE incentive outweigh the costs of competition. And regional transmission planning organizations will, in turn, feel pressure from transmission project developers seeking higher ROEs to offer more competitive solicitations. This “competition ROE incentive” will simultaneously address moral hazard and adverse selection and would be consistent with both the best features of Order 1000 and a benefits-based approach to the implementation of Section 219.

2. ROE Incentives Should Be Awarded to Projects Assessed by an Established and Consistent Framework

Although competition among project developers can provide significant benefits to consumers, not all competitive processes are perfectly designed. As detailed in section III.B, there are several ways to compare alternative transmission projects—some of which select the most economically efficient transmission projects more reliably than others. Rewarding projects selected through a competitive process consistent with best practices would encourage a more uniform assessment of transmission projects at a lower cost to the regional transmission planning organization.

With a standard comparative approach established, the “competition ROE incentive” could, for instance award a fixed number of ROE basis points to any project cleared in a competitive process. The ROE basis points awarded would increase if the competitive process was more a like the established standard. For example, the basis points awarded to the project would increase by a nominal amount if the corresponding competitive process quantified the same costs and benefits use to compare transmission projects established in the standard; if the corresponding competitive process considered the merits of established non-transmission alternative listed in the standard (such as Dynamic Line Ratings); or if the corresponding competitive process prioritized projects with the highest net-benefits (instead of highest BCR).

⁸¹ See, e.g., Letter from Gridliance to Hon. Fred Upton and Hon. Bobby Rush (May 9, 2018) (“Although the Commission appropriately sought to optimize transmission additions through the planning requirements of Order No. 1000, the misguided desire to avoid a competitive mandate has led to an explosion of local transmission additions being constructed outside the regional planning processes in an effort by incumbents to avoid those very competitive forces that will produce more efficient infrastructure.”).

⁸² See Joskow (2019), *supra* note 65, at 56. (“[FERC] could add an incentive to the existing list of incentives to reward projects selected through an open competitive procurement process, providing both incumbents and non-incumbents with incentives to support expansions of competitive procurement by the ISOs.”).

The standard need not be mandatory to be beneficial, but adherence to the standard would likely benefit transmission project developers (with a higher ROE) as well as regional transmission organizations (with a smaller administrative burden). This would encourage stakeholders to put pressure on the regional planning process to design competitive processes that will effectively identify the most efficient transmission projects and mitigate a major difficulty in inter-regional planning.

V. Conclusion

An efficient electric transmission network is essential for low-cost and reliable electricity provision. The design and development of such a network plays an outsized role in the ongoing transition away from primary reliance on thermal resources and towards geographically constrained renewable resources or distributed ones. FERC plays a crucial role in steering transmission development amidst this transition, which includes carrying out Section 219's directives to properly incentivize transmission infrastructure that meets consumer demands at the lowest possible cost. FERC's proposed reorienting of transmission investment incentives towards project benefits, instead of risks-and-challenges, is an important step in the right direction. However, the proposed rule, as presented, falls short of what Section 219 requires. Instead of promoting cost-effective transmission investment, the proposed rule is likely to increase consumer costs without providing additional benefits. Adhering to economic principles and designing incentives to address moral hazard and adverse selection can better ensure FERC meets its obligation under FPA 219.

Respectfully submitted,

/s/ Matt Butner

Matt Butner, Ph.D.

Economic Fellow

Institute for Policy Integrity

139 MacDougal Street, 3rd Fl.

New York, NY 10012

matt.butner@nyu.edu

/s/ Justin Gundlach

Justin Gundlach

Senior Attorney

Institute for Policy Integrity

139 MacDougal Street, 3rd Fl.

New York, NY 10012

justin.gundlach@nyu.edu

/s/ Burcin Unel

Burcin Unel, Ph.D.

Energy Policy Director

Institute for Policy Integrity

139 MacDougal Street, 3rd Fl.

New York, NY 10012

burcin.unel@nyu.edu

Dated: July 1, 2020