# UNITED STATES OF AMERICA BEFORE THE FEDERAL ENERGY REGULATORY COMMISSION

Inquiry Regarding the Commission's Electric	)	Docket No. PL19-3-000
Transmission Incentives Policy	)	

## INITIAL COMMENTS OF WIRES

WIRES<sup>1</sup> respectfully submits the following comments on the Notice of Inquiry ("NOI") issued by the Federal Energy Regulatory Commission ("Commission" or "FERC") in the above-captioned docket.

WIRES applauds the Commission for initiating this re-examination of its transmission incentives policy. The hallmarks of sound regulation are consistency in application of the law, coupled with adaptability as the need for investment in electric infrastructure becomes more acute. Extraordinary changes in public policy and the cost of fuels have occurred since the Energy Policy Act of 2005<sup>2</sup> ("EPAct 2005"). At the same time, policymakers and industry have shifted to respond to customer demands for a cleaner and more resilient electric system. Taken together, these trends argue persuasively for updating and modernizing the Commission's application of section 219<sup>3</sup> of the Federal Power Act ("FPA").

# **Communications**

In accordance with Rule 203(b)(3) of the Commission's Rules of Practice and Procedure,<sup>4</sup> all Communications regarding these Comments should be directed to:

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<sup>&</sup>lt;sup>1</sup> WIRES is an international non-profit trade association that promotes investment in the North American electric transmission network. Its principles, reports, and member information are available at <a href="www.wiresgroup.com">www.wiresgroup.com</a> References to the "grid" in these comments pertain not only to the high voltage systems of wires and substations but also to the aspects of infrastructure that support or facilitate bulk power transactions, including energy storage and smart-grid technologies.

<sup>&</sup>lt;sup>2</sup> Energy Policy Act of 2005, Pub. L. No. 109-58, sec. 1261 et seq., 119 Stat. 594 (2005).

<sup>&</sup>lt;sup>3</sup> 16 U.S.C. § 824s.

<sup>&</sup>lt;sup>4</sup> 18 C.F.R. § 385.203(b)(3).

<sup>&</sup>lt;sup>5</sup> Contact information: (202) 207-1106, ecollier@kellencompany.com, 529 14th St. N.W., Suite 750, Washington D.C. 20045.

# I. Introduction

In this period of widely-acknowledged transition to a more dynamic and electrified North American economy, the demonstrable economic and environmental benefits of investment in the transmission grid will prove critical to the health and welfare of consumers and the vitality of the American economy. A robust, integrated transmission network is needed to enable electrification of many more aspects of the economy, provide customers with access to more efficient and cleaner electric generation resources, facilitate deployment of new technologies, and offer critical resilience benefits. These goals necessitate a more proactive approach to regional and inter-regional transmission planning that is underpinned by an incentives policy that recognizes the full range of transmission benefits and maximizes value to consumers.

In several studies, WIRES has documented the diverse benefits of transmission investment and the continuing need to enhance the grid's flexibility, resilience, and economic efficiency. In light of this, WIRES urges the Commission to strengthen its incentives policy with the goal of capturing these benefits for consumers. WIRES recommends that the Commission take action to implement concrete measures that will make transmission planning, development and operations more efficient and responsive to the needs of a swiftly evolving North American economy. We therefore submit the following comments in three parts:

- Examining the objectives of incentives;
- Incentives in the context of other Commission policies;
- Proposals for new and existing incentives under a value framework.

# II. Examining the Objectives of Incentives

As the Commission notes in its NOI,<sup>7</sup> the electric power landscape has evolved significantly since 2005. The abundance of low cost natural gas supplies and large scale adoption of renewable resources has driven the need for a more flexible, integrated transmission system, while demands for greater reliability and system resilience have further highlighted the need for investment. These developments are harbingers of even greater changes to come, including the large scale electrification of the U.S. economy. It is therefore time for the Commission to adopt a broad policy program to support proactive transmission

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<sup>&</sup>lt;sup>6</sup> London Economics International, Inc., How Does Electric Transmission Benefit You?: Identifying and Measuring the Life-Cycle Benefits of Infrastructure Investment (Jan. 2018) available at <a href="https://wiresgroup.com/docs/reports/WIRES">https://wiresgroup.com/docs/reports/WIRES</a> LEI TransmissionBenefits Jan2018.pdf; London Economics International LLC, Market Resource Alternatives: An Examination of New Technologies in the Electric Transmission Planning Process (Oct. 2014) available at <a href="https://wiresgroup.com/docs/reports/WIRES%20Final%20MRA%20Report\_September%202014.pdf">https://wiresgroup.com/docs/reports/WIRES%20Final%20MRA%20Report\_September%202014.pdf</a>; The Brattle Group, Recognizing the Role of Transmission in Electric System Resilience (May 2018) available at <a href="https://wiresgroup.com/docs/reports/Transmission\_Resilience\_WIRES\_FINAL\_05092018.pdf">https://wiresgroup.com/docs/reports/Transmission\_Resilience\_WIRES\_FINAL\_05092018.pdf</a>; The Brattle Group, The Benefits of Electric Transmission: Identifying and Analyzing the Value of Investments (July 2013) available at <a href="https://wiresgroup.com/docs/reports/WIRES%20Brattle%20Rpt%20Benefits%20Transmission%20July%202013.pdf">https://wiresgroup.com/docs/reports/WIRES%20Brattle%20Rpt%20Benefits%20Transmission%20July%202013.pdf</a>.

7 Inquiry regarding the Commission's Electric Transmission Incentives Policy, 166 FERC ¶ 61,208 (2019) ("NOI").

investment, of which appropriate incentives are one crucial aspect. Appropriately tailored incentives must be a core element of this policy.

The Commission's incentives policies have contributed to a resurgence in transmission investment during the last two decades, and thus offer a strong baseline for the Commission's policy going forward. Specifically, WIRES believes it is crucial that the Commission signal its continued commitment to the RTO participation adder, which has underpinned the growth and stability of RTOs and associated benefits to consumers. WIRES also believes that the Commission should retain and continue case-specific incentives designed to induce investment or improve practices that strengthen the transmission grid.

Beyond the retention of existing incentives that have resulted in value to consumers, WIRES believes there is an opportunity for the Commission to adopt new incentives to spur beneficial investment to meet emerging needs. As the NOI acknowledges, Section 219(a) of the FPA "directed FERC to promulgate a rule providing incentive-based rates for electric transmission for the purpose of benefitting consumers through increased reliability and lower costs of power." The NOI identifies the specific directives of Section 219(b) and recognizes the enormous breadth of the goals that should drive future Commission action, which bear repeating. They are to –

- promote reliable and economically efficient transmission and generation of electricity by promoting capital investment in the enlargement, improvement, maintenance and operation of all facilities for the transmission of electric energy in interstate commerce, regardless of the ownership of the facilities;<sup>9</sup>
- provide a return on equity that attracts new investment in transmission facilities (including related transmission technologies);<sup>10</sup>
- 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;<sup>11</sup> and
- allow the recovery of all prudently incurred costs necessary to comply with mandatory reliability standards issued pursuant to Section 215 of the FPA, <sup>12</sup> and all prudently incurred costs related to transmission infrastructure development pursuant to Section 216 of the FPA. <sup>13</sup>

While EPAct's incentive goals are diverse and ambitious, the Commission's implementation of economic incentives under Order No. 679 represents a modest implementation of FERC's authority. WIRES believes the Commission can build on that program by embracing incentives that are purposefully focused on achieving greater system integration and grid resilience, amongst other

<sup>&</sup>lt;sup>8</sup> NOI, 166 FERC ¶ 61,208 at P 3.

<sup>&</sup>lt;sup>9</sup> 16 U.S.C. 824s(b)(1).

 $<sup>^{10}</sup>$  *Id.* at (b)(2).

<sup>&</sup>lt;sup>11</sup> *Id.* at (b)(3).

<sup>&</sup>lt;sup>12</sup> FPA section 215 addresses the Commission's role in ensuring electric reliability of the bulk power system. *Id.* at 8240.

<sup>&</sup>lt;sup>13</sup> *Id.* at 824s(b)(4) (internal numbering omitted).

objectives. In WIRES' view, the touchstone of good transmission policy includes not only addressing the need for additional facilities, technologies and projects, but also recognizing the value and benefits that transmission facilities, networks and RTOs bring to ratepayers and the electric systems as a whole.

As the Commission reviews the proposals put forward in this proceeding, we encourage it to take special notice of FPA Section 216 – Congress' most ambitious (if ultimately unsuccessful) plan in the EPAct 2005 to encourage development of interstate transmission facilities. The Congressional objectives in Section 216(a)(4)<sup>14</sup> are directly applicable here. Congress directed policy makers (in the case of designating areas of endemic congestion, the Secretary of Energy) to consider whether:

- The economic vitality and development of end markets [that] may be constrained by lack of adequate or reasonably priced electricity;
- Economic growth [that] may be jeopardized by reliance on limited sources of energy;
- A diversification of supply is warranted; and
- The energy independence of the United States, its national energy policy, or National Defense and Homeland Security would be served.

While the Commission cannot fill the vacuum left by the absence of a national electric transmission infrastructure policy of the kind Congress envisioned in 2005, the time is right for FERC to craft solutions that will provide access to a greater diversity of generation resources and sustain a more electrified economy. The approximate size and timing of investment in a modernized grid going forward has recently been described in a study conducted for WIRES by economists at The Brattle Group entitled "The Coming Electrification of the North American Economy: Why We Need a Robust Transmission Grid." The Commission clearly recognizes in its NOI that planning (or at least fostering) the grid of the future to support a fundamentally changed energy economy, poses important new regulatory questions for which Order No. 679 and its progeny provide only limited answers.

As the NOI suggest, the Commission can craft ratemaking policies that help the industry produce a grid that will meet public policy, resilience, energy security, and environmental objectives.

### III. Incentives in the Context of Other Commission Policies

As discussed below, WIRES advocates retaining the current incentives under Order No. 679. The scope and timing of those incentives can continue to be assessed in light of the risks of, and

<sup>&</sup>lt;sup>14</sup> 824p(a)(4). FPA section 216 addresses designation of and siting of transmission facilities within National Interest Electric Transmission Corridors. *Id.* 

<sup>&</sup>lt;sup>15</sup> The Brattle Group economists project that transmission investment "must continue to grow from an average of \$15 Billion Annually today to as much as \$22 Billion per year in 2030." Further, as electrification expands "the U.S. will require up to \$40 Billion in new investment annually between 2031 and 2050" to ensure reliability, resiliency, and flexibility. The Brattle Group, The Coming Electrification of the North American Economy: Why We Need a Robust Transmission Grid (2019) *available at* https://wiresgroup.com/new/wp-content/uploads/2019/03/Electrification\_BrattleReport\_WIRES\_FINAL\_03062019.pdf.

challenges to, individual transmission improvements. Others – such as the RTO and transco adders – can be fully justified under a value-based framework. However, the challenge to the existing incentives program is not simply that, as the NOI states, "there have been a number of significant developments in how transmission is planned, developed, operated, and maintained." Beyond those factors, public policies, climate concerns, natural and human-made threats and the economics of electric generation resources present new external factors that policy makers and planners will be forced to address. As the industry moves forward in enhancing and redesigning the grid to serve regional and inter-regional needs, the Commission must adopt a range of policies that will support future investment.

In WIRES' view, the barriers to regional and inter-regional projects and efficient grid integration, with all the attendant cost and reliability benefits for consumers, must also be considered and addressed in conjunction with the reforms contemplated under FPA Section 219. The Commission's incentive policies under Order No. 679 have helped guide industry investment decisions and conduct. However, they beg much larger questions: What are the goals and objectives of FERC transmission policy? How must the grid of the future – whether in 2025 or 2045 – perform in order to sustain a more diverse and electrified economy? What kind of transmission grid do we want to incentivize? Without formulating objectives, any decision to provide an incentive becomes a one-off decision with incremental, and perhaps ephemeral, benefits and consequences. On the other hand, incentivizing improvements in transmission investments should respond to and even anticipate public policy changes, makes a range of other investments possible, and affords policy makers and industry planners various ways to adapt to current and future economic, demographic, antagonistic and climatic circumstances, foreseen and unforeseen.

In sum, WIRES believes the goals of this proceeding – and, if Order Nos. 888, 2000, and 1000 are any indication, FERC's ultimate objective – should be the development of a highly integrated transmission network of regional, inter-regional and inter-market, indeed national, transmission projects and related facilities that help enable access to the lowest-cost supplies of electricity, fulfillment of state and federal public policies, the most reliable and resilient service, and liquid bulk power markets. Providing incentives for limited project features subject to unusual risks or challenges, while necessary and beneficial, are potentially not sufficient to support the level of infrastructure investment and development the nation is likely to need. A coordinated program of financial and other incentives, that improve transmission development, can be orchestrated to advance broader objectives while also reducing risk, accelerating investment decisions, and overcoming regulatory barriers to development.

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<sup>&</sup>lt;sup>16</sup> NOI, 166 FERC ¶ 61,208 at P 2. The NOI states eloquently that "it has now been nearly 13 years since the Commission issued Order No. 679. During that time, the landscape for planning, developing, operating, and maintaining transmission infrastructure has changed considerably. Those changes include the Commission's issuance of Order No. 1000, an evolution in the generation mix and the number of new resources seeking transmission service, shifts in load patterns, and an increased emphasis on the reliability of transmission infrastructure." *Id.* at P 13.

# IV. Proposals for Existing and New Incentives under a Value Framework

# A. Incentives for RTO/ISO Participation

WIRES contends that the 50 basis point adder to transmission base rates return on equity for participation in a regional transmission organization is both modest and an important policy signal about the direction in which wholesale market management and transmission planning should be headed.<sup>17</sup> Any state law mandate that utilities participate in an RTO/ISO, should not be allowed to override FERC policy or create uncertainty about the merit of the incentive or the direction or sustainability of Commission policy.<sup>18</sup> Most importantly, the benefits that RTO/ISOs have provided since Order No. 2000 in 1999 are undeniable.<sup>19</sup> Those benefits have been, and will continue to be, available to RTO/ISO participants and

**Southwest Power Pool**'s study on *The Value of Transmission* documents the impact of its "visionary, evolutionary plan" to move from a patchwork of systems to a robust regional approach. From 2012-2014, the cost of transmission projects were reduced to one-third the industry average and were built in far less time. Beyond the quantifiable benefits, SPP's system became more reliable, saved generation costs, gained access to lower cost generation, became for storm hardened and fuel diverse. SPP will also expand its Reliability Coordinator services to several western utilities in late 2019. "SPP to Provide RC Service for Numerous Western Utilities Beginning in Late 2019" (Sept. 17, 2018) available at <a href="https://www.spp.org/newsroom/press-releases/spp-to-provide-rc-service-for-numerous-western-utilities-beginning-in-late-2019/">https://www.spp.org/newsroom/press-releases/spp-to-provide-rc-service-for-numerous-western-utilities-beginning-in-late-2019/</a>

**Midcontinent ISO** estimates that from 2007 through 2018 MISO provided the region an estimated \$24.3 billion in cumulative net benefits, and approximately \$3.5 billion in annual benefits to members. In 2018, the top "value drivers" included: (i) footprint diversity (\$2.17 billion to \$2.67 billion estimated value), (ii) wind integration (\$354 million to \$414 million estimated value), and (iii) energy dispatch (\$282 million to \$312 million estimated value). MISO Value Proposition (2018) *available at* <a href="https://www.misoenergy.org/about/miso-strategy-and-value-proposition/miso-value-proposition/">https://www.misoenergy.org/about/miso-strategy-and-value-proposition/miso-value-proposition/</a>

**PJM Interconnection** estimates that its regional grid and market operations provide annual savings of \$2.8 billion to \$3.1 billion, consisting of savings caused by the following services or operations: (i) reliability (\$475 million), (ii) integrating more efficient resources (\$600 million), (iii) energy production costs (\$525 million), (iv) generation investment (\$1.1 to \$1.4 billion), (v) regulation and synchronized reserve grid services (\$100 million). PJM Value Proposition (2015) *available at* <a href="https://www.pjm.com/about-pjm/value-proposition.aspx">https://www.pjm.com/about-pjm/value-proposition.aspx</a>

NYISO is integrating the State of New York's robust public policy objectives while maintaining reliability and working to ensure that proper long-term price signals are sent to market participants. NYISO Power Trends 2019 at pp. 32-36, available at <a href="https://www.nyiso.com/documents/20142/2223020/2019-Power-Trends-Report.pdf/0e8d65ee-820c-a718-452c-6c59b2d4818b">https://www.nyiso.com/documents/20142/2223020/2019-Power-Trends-Report.pdf/0e8d65ee-820c-a718-452c-6c59b2d4818b</a>; Potomac Economics, 2018 State of the Market Report at 65-76, available at <a href="https://www.potomaceconomics.com/wp-content/uploads/2019/05/NYISO-2018-SOM-Report">https://www.potomaceconomics.com/wp-content/uploads/2019/05/NYISO-2018-SOM-Report</a> Full-Report 5-8-2019 Final.pdf

In **ISO-New England**, transmission investments have reduced the risk of blackouts, lowered overall wholesale energy costs, and reduced air pollution. ISO-NE, 2018 Regional Electricity Outlook at p. 14 (2018) *available at https://www.iso-ne.com/static-assets/documents/2018/02/2018* reo.pdf

In **California ISO** from 2014 - 2018, the Energy Imbalance Market (EIM) produced for its members over \$500 million in gross benefits in the form of reduced costs from lower reserve requirements and fewer renewables curtailments. FERC Office of Enforcement, State of the Markets Report 2018 (Apr. 18, 2019) *available at* <a href="https://www.ferc.gov/market-oversight/reports-analyses/st-mkt-ovr/2018-A-3-report.pdf">https://www.ferc.gov/market-oversight/reports-analyses/st-mkt-ovr/2018-A-3-report.pdf</a>

Recently, Western states are taking steps to join or participate in RTOs:

NERC recently certified CAISO's RC West unit to become a Reliability Coordinator for the western region of the United States beginning on July 1, 2019. RC West anticipates that it will become the Reliability Coordinator for 24 entities in the Western Interconnect, in addition 16 entities in California and northern Mexico.<sup>19</sup> California ISO's Reliability Coordinator Gains Regulatory Approval (June 3, 2019) *available at* 

 $\underline{http://www.caiso.com/Documents/CaliforniaISOsReliabilityCoordinatorGainsRegulatoryApproval.pdf.}$ 

In Nevada, the state legislature and Governor's Committee on Energy Choice has held hearings and taken testimony on options for the state to join or create an RTO. The Committee's Technical Working Group on Energy Market Design recommended that Nevada join an existing Independent Systems Operator (ISO) with an existing wholesale market located in close proximity to the state. The Governor's Committee on Energy Choice, Report of Findings and Recommendations to the Governor at p. 2, 17-18

 $<sup>^{17}</sup>$  Refer to the discussion and questions presented in paragraph 38 of the NOI. NOI, 166 FERC ¶ 61,208 at P 38 (identifying the current status of the RTO/ISO Participation incentive and inquiring about potential modifications to the incentive).

<sup>&</sup>lt;sup>18</sup> Contra Cal. Pub. Util. Comm'n v. FERC, 879 F.3d 966, 966 (9th Cir. 2018).

<sup>19</sup> Examples of RTO Benefits:

their customers on an ongoing basis. Regional power markets and regional grid management have been singularly influential in fostering the electric industry of the 21<sup>st</sup> Century but the Commission should hesitate before declaring victory.

WIRES acknowledges that an economic inducement to accept the challenge to join and continue to participate in an RTO/ISO is necessary. For the most part, a transmission owner does not join and participate in an RTO/ISO on a project-specific basis. Its surrender of operational control to the RTO/ISO is the source of benefits to customers. Thus, this incentive should apply to all of the transmission assets, the operational control of which the transmission owner has turned over to the RTO/ISO. More than the vicissitudes of state law, consistency in federal policy is an important marker of what structural changes the Commission values and is willing to reward.<sup>20</sup> Any objection to such an adder cannot be logically predicated on the costs, which are small compared to the magnitude of the benefits over time of participating in an RTO/ISO. In fact, what better endorsement of the reliability, rates, and public policy benefits of RTO/ISO participation and its benefits to consumers than to have participation enshrined in state legislation? Whether it is a transmission provider or a state that has agreed to the risks and rewards of RTO/ISO participation, it strikes WIRES as counter-intuitive that consideration would be given to eroding one of the very policy foundations that has made regional markets so successful in most of the country.

#### **Incentivizing Resilience** В.

WIRES strongly supports Chairman Chatterjee's recent statement that FERC "can create the right ecosystem for investments in resilience." As WIRES pointed out in its comments in Docket No. AD18-7-000, a robust transmission grid is central to achieving that resilience. We stated that "the Commission's determination to help achieve greater resilience in bulk electricity markets must focus on the key role of critical transmission infrastructure . . . "21 Challenges to the resilience of domestic energy infrastructure have become a major concern since the adoption of Order Nos. 679. The intensity and frequency of natural and manmade threats to the normal operations of the grid justify action. For example, Chairman Chatterjee also noted recently, in his testimony to the Subcommittee on Energy and Commerce (U.S. House of Representatives), that the nation's "critical infrastructure is increasingly under attack" and relevant government agencies such as the Department of Homeland Security have "issued multiple public

(July 1, 2018) available at

http://energy.nv.gov/uploadedFiles/energynvgov/content/Programs/TaskForces/2017/CEC\_FINAL%20to%20GOV.pdf

The Ninth Circuit Court of Appeal's decision and remand regarding the nature of California's domestic utilities participation in the state's independent system operator, whether voluntary or authorized by regulators or the legislature, remains pending in Docket No. ER14-2529 et al (remand proceeding of Cal. Pub. Util. Comm'n v. FERC, 879 F.3d 966).

<sup>&</sup>lt;sup>21</sup> Comments of WIRES, Docket AD18-7-000 (May 9, 2018) (Accession No. 20180509-5087). See also Chupka and Donohoo-Vallett (The Brattle Group), Recognizing the Role of Transmission In Electric System Resilience, appended to WIRES comments.

reports describing cyber-intrusion campaigns against our critical infrastructure, including the electric grid."<sup>22</sup> To ensure the safety and security of our supplies of electricity certainly requires that policy makers address all these challenges as an interconnected "ecosystem." Deploying capital now to make the grid more resilient, will benefit today's consumers and consumers over the long-term by mitigating the adverse impacts and duration of disruptive events. It would be wise to incentivize such activity, particularly given the length of time to plan, finance, and construct a transmission project under current circumstances.

Ensuring resilience is an enormously complex undertaking with no single solution. However, WIRES contends the Commission can act within its jurisdiction to help the transmission sector and other parts of the industry tackle these problems one by one.<sup>23</sup> Utilities should be incentivized to be proactive in addressing cyber and physical threats, programmatically if possible. Naturally, the resources necessary to be effective in this area can be substantial; they could vastly exceed performance under reliability standards. Utilities and other transmission will still submit program proposals and FPA Section 205 requests if they are seeking an incentive. Such incentives could take the form of an adder to base ROEs with the level of the incentive based upon the merits of the plan. Those merits can also be evaluated against any metrics, considerations, and/or goals which the Commission prescribes in advance. Among the features of a resilience program would be private communications networks, investments in transmission infrastructure that would reduce or eliminate North American Electric Reliability Corporation ("NERC") critical substations, enhanced cyber security measures, increased Supervisory Control and Data Acquisition ("SCADA") utilization, investment in long-lead critical equipment to be shared with other utilities, enhanced black start capabilities, and the physical hardening of assets.

#### C. **Incentivizing Energy Storage**

Energy storage can be an instrumental part of many transmission solutions. Some storage applications qualify or are functionalized as transmission and therefore fall within the Commission's jurisdiction.<sup>24</sup> Given the declining costs and increasing technological maturity of storage technologies such as lithium ion batteries, utilizing storage as a transmission asset has the potential to be a more economic and operationally attractive option in meeting system needs and giving the bulk power system additional flexibility at potentially a lower cost than are more conventional transmission

<sup>&</sup>lt;sup>22</sup> Written Testimony of Neil Chatterjee before the U.S. House of Representatives Committee on Energy and Commerce Subcommittee on Energy at 2-3 (June 12, 2019) available at

 $<sup>\</sup>underline{https://energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Chatterjee\%20-linearity.energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Chatterjee\%20-linearity.energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/democrats.energycommerce.house.gov/files/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/documents/Chatterjee%20-linearity.energycommerce.house.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/Chatterjee%20-linearity.gov/sites/documents/chatterjee%20-linearity.gov/sites/documents/chatterjee%20-linearity.gov/sites/documents/chatterjee%20-linearity.gov/sites/documents/gov/sites/documents/gov/sites/documents/gov/sites/documents/gov/sites/documents/gov/sites/gov/sites/gov/sites/gov/sites/gov/s$ %20Testimony%20of%20Neil%20Chatterjee%20for%20House%20Hearing%206.12.19.pdf.

23 Refer to the discussion and questions presented in paragraph 28 of the NOI. NOI, 166 FERC ¶ 61,208 at P 28.

Refer to the discussion and questions presented in paragraphs 26 and 29 of the NOI. *Id.* at PP 26, 29 (recognizing storage as a flexibility characteristic of the transmission system and an investment that can improve existing transmission facilities).

solutions. However, deployment of energy storage facilities as part of transmission solutions may create regulatory and implementation risks and challenges, such as development of new operational protocols for incorporating storage into the system. Investment in storage as transmission, though it has more risk at this point in time, holds enormous potential economic and operational benefits as the transmission grid becomes more integrated. There are obvious uncertainties about the prospects for greater grid integration. Moreover, some transmission owners might not consider storage technologies to address transmission needs because they view the risks as unacceptably high.

WIRES contends that deployment of batteries and other storage technologies as transmission assets represents a major opportunity to strengthen the reliability and resilience of the grid. The Commission should therefore encourage the use of storage as part of its transmission initiatives by allowing for companies to request transmission incentives such as an ROE adder for storage projects approved in regional planning processes. In line with FERC policy (e.g., the 2017 policy statement), there will likely be times when a storage as transmission asset is not needed to provide transmission service and, thus is available to provide market service. Any excess revenues from providing market services can thereby be used to offset transmission costs to customers. Additional transmission incentives for development of these environmentally benign but economically efficient units will promote greater utilization of existing transmission assets and rights-of-way. Energy storage technologies need to be encouraged as multi-value assets that performs many functions that enhance the resilience and efficiency of the grid overall. Reasonable incentives can help move these projects from the research, development, and deployment stage to full commercialization and overcome the shaky economics sometimes surrounding new energy storage deployment.

# D. Capitalizing Essential Expenses

The Commission, and its state counterparts, allow regulated companies to earn a return on investment and to recover expenses. There have emerged in recent decades new and complex challenges to system reliability that should incline the Commission to go a step further to provide incentives to reward extra effort and to compensate for companies inability to earn a return on these investments. Two such recurring but significant challenges are vegetation management and making investments that proactively address cyber and physical security. In a highly interconnected grid, failure to employ the latest technology or to remain vigilant about the physical vulnerabilities of a wired network can have severe cascading impacts. The consequences of failure in this area can be catastrophic, economically and in terms of human safety and health. More programmatic responses by transmission providers to prepare for increasingly violent storms, to systematically broaden rights of way, and to take more dramatic steps that ensure the resilience of facilities, should be directly promoted by treating them as capital

expenditures. Similarly, programs that address the wide-ranging future needs for enhanced cyber and physical security should be treated as capital expenditures. The Commission should reclassify these costs and allow them to be capitalized instead of requiring these investments only to be recovered as expenses. Wherever customer benefits and safety enhancements can be obtained through programmatic expansions beyond the ordinary course of business, the Commission should consider providing additional incentives.

# E. Advanced Technologies for Existing Facilities

The Commission's Order No. 679 incentives program has provided some assistance for transmission technologies. Technological innovation involves certain, often extraordinary risks which Congress acknowledged in Section 219. However, Order No. 679 declined to adopt a specific list of technologies eligible for incentives and stated that FERC would entertain case-specific proposals. It nevertheless indicated that "advanced technologies" could include technologies that relieve congestion and enhance grid reliability if shown to increase the capacity, efficiency, or reliability of existing or new transmission facilities. Incentives for advanced technologies have only rarely been granted.

The industry's ability to keep pace with operational and other challenges to the system will increasingly depend on innovative technical solutions to the problems cited above. The Commission should open the door to specific, well-defined incentives focused on projects that provide quantifiable congestion reduction or other benefits. It can thereby help foster test beds for improvements, big or small, in resilience or transfer capability or other measures that could grow exponentially to benefit grid operations over the coming decades. Beyond improved conductors, new designs, dynamic line ratings, digital control, and monitoring applications lies the need to invest in other hardware, software, and associated protocols that can have significant reliability and resilience benefits. One focus should be hardware, software and associated protocols that promise to increase the operational transfer capacity of existing facilities and/or infrastructure. While representing little in terms of cost to ratepayers, incentives for incremental innovations regarding the delivery of wholesale power could pay significant dividends.

# F. Multi-Value Projects and Planning

Among the strongest trends and greatest benefits in transmission planning over the past two decades is the purposeful design and development of transmission projects that provide a menu of benefits to consumers and the system as a whole. Where possible, the Commission should incentivize transmission projects or systems that are designed to capture economic and environmental benefits for multiple groups of customers and, in addition directly assist in the fulfillment of state public policy goals such as renewable energy standards. The value of such projects are exponentially higher than others and has the potential to provide benefits longer. Because many such projects are multi-state in location and

potentially entail complex approaches to cost allocation, the stakeholder processes and the investment of time and resources can be significant. Consequently, the Commission should adopt a flexible, project-specific approach to incentivizing transmission infrastructure that provides multiple value streams.<sup>25</sup> This would encourage utilities to plan, propose, and develop infrastructure that maximizes consumer value by providing multiple benefits, and ultimately would steer regional and local planning processes to achieve the highest net benefits.

Specifically, the Commission should establish a principle-based approach targeting the benefits and project characteristics that proposals would have to meet or beat. Projects eligible for incentives would include, among others, transmission facilities that are expected to alleviate significant congestion, projects that increase reliability or resilience significantly beyond NERC requirements, inter-regional projects, transmission projects designed and located to provide greater market access and for low-cost location-constrained resources. As indicated in our comments above, incentives that encourage or accelerate development of projects designed to produce these results need not be exclusively financial in nature.

#### G. **Incentives That Do Not Sunset**

As WIRES has argued in the context of ROE policies, ratemaking principles should be stable and predictable. Investors, planners, and transmission providers need regulatory certainty to inform decisions regarding long-term planning and the deployment of capital. Order No. 679 incentives have been important to the development of a more robust transmission grid. That regime has stayed essentially the same since 2006 and, as we observe above, the world has changed around it. It will now take a fresh examination of the concept of incentives to sustain reliability, competitive markets, and grid operations.<sup>26</sup> Although the Commission's incentives policy has been successful in this regard because its rules have been clear and predicable for the most part, resulting in a substantial inclusion of capital into the aging and often outmoded grid, the forces of economic and technological change are upon us. If and when the Commission establishes more ambitious and forward-looking incentive policies as WIRES suggests, it must ensure a level of continuity and stability going forward. WIRES does not recommend sunsetting incentives, reducing incentives over time due to changed circumstances, or injecting uncertainty into the utility planning process. If transmission investment were to be reduced because of uncertainty, the impact of incentives would be diluted and Congressional intent would be frustrated.

<sup>&</sup>lt;sup>25</sup> For example, MISO maintains a portfolio of Multi-Value Projects, known as MVPs, and its tariff requires it to annually review that portfolio. MVPs meet one or more of the following goals: (i) "reliably and economically enable regional public policy needs", (ii) "provide multiple types of regional economic value", or (iii) "provide a combination of regional reliability and economic value." MISO Website, Multi-Value Projects (MVPs) available at https://www.misoenergy.org/planning/planningtest/multi-value-projects-

mvps/#nt=%2Fmultivalueprojecttype%3AMVP%20Limited%20Reviews&t=10&p=0&s=FileName&sd=desc.

<sup>26</sup> Refer to the discussion and questions presented in paragraph 44 of the NOI. NOI, 166 FERC ¶ 61,208 at P 44.

WIRES points out that keeping incentives in place over the long term best reflects investors' expectations. The benefits of transmission changes over time and, even if all the benefits are realized, exogenous factors such as changes in load, generation retirements, pricing, or new policies can have significant impacts on whether benefits are achieved. If future benefits diverge from those anticipated by models, it would nevertheless be highly problematic to second guess investment decisions by reducing or eliminating incentive treatments on the basis of third party estimates of project value.

# H. Automatic Recovery for Certain Abandoned Plants

The NOI requests comment on the 100% abandoned plant cost recovery incentive, which would allow a transmission developer to recover 100% of project costs if the project were cancelled for reasons beyond the developer's control. An FPA Section 205 filing would be required, in order to verify that a project's abandonment was unavoidable and that the costs were prudent in the first place.

For projects begun pursuant to an RTO's planning process, recovery of all abandoned plant costs should be virtually automatic because the regional planner would be the primary judge of the need for and viability of a project that ultimately failed, instead of the judgment of an individual transmission owner's management. When the Commission restricts recovery to only 50% of abandoned project costs, it is typically to discipline project development decisions that initiate project investments incorrectly or prematurely. However, where the project was planned within the RTO process as the Commission's policies appear to encourage, there is no such disciplinary purpose to be served by requiring utility shareholders to bear half of the cost of abandoned projects. WIRES nevertheless believes that the Commission should still require a demonstration in an abbreviated filing that the project was abandoned for reasons beyond the developer's control and that the costs incurred were prudent.

As with other incentives, by permitting recovery of 100% of the prudently incurred costs of RTO-approved transmission projects that are cancelled for reasons beyond the developer's or sponsor's control, the Commission will reinforce a principal benefit of the incentive program – assurance to investors that the costs of transmission projects are recoverable when projects involve risk and would have helped advance the Commission's infrastructure and market goals. To the extent that inter-regional or intermarket projects are planned for inclusion in the plans of more than one RTO, the potential for external factors to affect the development of such projects and increase risk, the argument for 100% abandoned plant cost recovery is even stronger. Because the prudence of the costs and lack of control of the outcome must still be shown in such cases, automatic approval of cost recovery would be appropriate. The project-by-project "nexus" showing that is supposed to establish the need for the abandonment incentive becomes unnecessary in the regional planning context once a project is in the approved regional plan.

# V. Conclusion: Refocusing Incentives on Project Value and Benefits

WIRES urges the Commission to retool its incentives with specific developmental objectives in mind and to establish a system of incentives that is "value-based." The incentives program under Order No. 679 and its progeny has helped transmission investors, and ultimately transmission customers, attain the value and benefits that the system is capable of delivering. But, beyond replacing aging facilities and ensuring reliability, the need for transmission investment has been accelerated by the new demands upon the grid from emerging power markets, the increased decentralization, diversity, and wider distribution of electric generation resources, the probable electrification of additional sectors of the U.S. and Canadian economies, the extreme weather implications of climate change and the need for greater resilience, and the dramatic changes to electric generation fuels and technologies. These factors were not top of mind in 2006 when the Commission issued Order No. 679. Today, the Commission appropriately recognizes that the time is right for a reassessment of its transmission incentives and how they can be employed to meet the challenges we have outlined above.

The recent increases in transmission investment demonstrates the value of incentives, just as studies have demonstrated the value in benefits of transmission itself. WIRES now asks that the Commission modernize its incentives, in order to achieve the robust, integrated transmission grid that this century already requires and will continue to demand. A more proactive program aimed at delivering an array of benefits to consumers and the economy is timely and entirely consistent with the Commission's leadership in enabling energy delivery development over the past quarter century.

WIRES looks forward to the Commission's response and the next stage of helping the Commission craft the mechanisms that will fulfill the ideas and aspirations we have presented here.

Respectfully submitted,

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