UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

Inquiry Regarding the Commission's Policy for Determining Return on Equity	))	Docket No. PL19-4-000

INITIAL COMMENTS OF WIRES

WIRES respectfully submits these comments in response to the Commission's March 21, 2019 Order in Docket No. EL19-4-000, *Inquiry Regarding the Commission's Policy for Determining Return on Equity*, 166 FERC ¶61,207 (2019) ("NOI"). WIRES is an international non-profit trade association of investor-, publicly-, and cooperatively-owned transmission providers, transmission customers, regional grid managers, and equipment and service companies. WIRES promotes investment in electric transmission and progressive state and federal policies that advance energy markets, economic efficiency, and consumer and environmental benefits through development of electric power infrastructure.[1]

I. Executive Summary

WIRES was formed to promote electric transmission investment in the United States. The need for such investment remains critical for ensuring efficient and reliable electric service and to enable the ongoing transition to new generating sources. Numerous studies show that transmission investment provides enormous value and that the need for new transmission has never been greater. FERC should adopt policies that promote this

[1] For more information about WIRES, please visit www.wiresgroup.com.

investment, and no such policy is more important than the methods used to set Returns on Equity ("ROE"). Adequate ROEs are critical to attract capital to this risky business.

WIRES believes that the ROE methodology the Commission preliminarily adopted in 2018 in the New England ROE proceedings[2] and subsequently applied to the MISO transmission owners and others, reasonably accomplishes the above objectives and should be adopted on a national basis. This methodology relies on several financial models used by investors to set the ROE, mitigating the effect of distortions that may occur if the Commission relies on only one model such as the FERC version of the Discounted Cash Flow ("DCF") model. The New England decision also provides a statutorily appropriate framework for determining whether an existing ROE has become unjust and unreasonable.

II. The Need for Transmission Investment Has Never Been Greater

WIRES strongly supports ROE policies that will promote investment in new transmission facilities in the United States. Adequate ROEs are critical to attracting capital to the transmission business. In turn, transmission investments lower costs to consumers, enhance the reliability of the electric power system, enable the integration of new generation facilities, and promote robust competition for power supplies. The evidence is incontrovertible that transmission investments made in the wake of the Commission's pro-investment policies beginning early in this century have significantly reduced congestion costs, allowed the generation fleet to be modernized, and reduced the

[2] *Coakley, Mass. Att'y Gen. v. Bangor Hydro-Elec. Co.*, 165 FERC ¶ 61,030 (2018) ("*2018 Coakley Order*").

need for Reliability Must Run contracts in RTO markets. In New England, for example, congestion costs have been reduced by over $500 million annually since New England's transmission owners began their modernization of the transmission grid in the region. At the same time, the enhanced transmission capability has enabled the region to integrate thousands of megawatts of new generation that has increased the efficiency of power production and addressed public policy goals.

PJM recently released a transmission study that demonstrates the value and importance of transmission investment in its footprint. The PJM Study finds that the PJM transmission system allows sub-regions to share capacity and leverage diversity to reduce the need for additional generation by up to $3.78 billion annually and has reduced capacity payments by approximately $1 billion per year in recent years. PJM found that recent transmission enhancements reduced annual congestion payments by $280 million and that recently approved projects under construction would lower annual congestion payments by an additional $100 billion. The study further demonstrates that investment in transmission facilities improves reliability, enhances opportunities in competitive markets, and enables the shift to more efficient and environmentally beneficial sources of generation.[3]

Several studies sponsored by WIRES support the continuing need for transmission investment and demonstrate the societal benefits from such investment. A few years ago,

[3] Similarly, a Southwest Power Pool study performed in 2016 found more than $240 million in annual fuel cost savings realized due to transmission investments made during 2012-2014, and projected overall benefits from these investments to exceed $16.6 billion over 40 years.

the Brattle Group performed a comprehensive study of the benefits of constructing new transmission facilities in order to enable the kinds of broad changes to the generation mix that is currently occurring in the United States. Brattle's conclusions remain valid today. Brattle's modelling showed that estimated net savings associated with proactive transmission planning and development processes would range from $30–70 billion in total generation and transmission investment costs through 2030. Brattle explained that its estimates are consistent with a range of U.S. and European studies showing that a robust interregional transmission system is critical to reducing the cost of achieving changes in the generation mix resulting from the need to address environmental goals. Brattle's showed that creating a more flexible transmission grid is critical for cost-effectively serving electricity customers in a rapidly changing industry.

In 2018, London Economics Inc. ("LEI") performed a study of the broader economic changes produced by two hypothetical, but typical, transmission projects, one in each of the two FERC-jurisdictional interconnections. LEI evaluated the short-term, medium-term, and long-term benefits of these upgrades. In the short-term, transmission upgrades create construction-related jobs and ripple economic effects from these jobs. LEI's study showed that, in the short-term, transmission projects with a combined investment of approximately $3 billion created over 5,000 jobs and produced over $700 million in GDP increases per year.

In the medium term, the transmission investments in these projects lowered the cost of electricity for consumers producing broader economic gains through enhanced purchasing power for other goods and services. Such investment increased earnings

available to generators by increasing their sales opportunities while still lowering market prices through more optimized, efficient dispatch, and increased opportunities for the dispatch of renewable resources thereby lowering CO2 emissions. The projects produced several billion dollars in economic benefits in the medium term that were shown to be realized over a broad geographic area.

In the long-term, LEI showed that well-planned transmission brings significant reliability value. For example, transmission investment can serve to dampen or neutralize the cost impacts of unexpected events in the market, operating much like an "insurance" policy. The value of these investments was estimated by modeling the energy system with and without the new investments, showing that the transmission investments enabled reductions in energy cost spikes and the avoidance of supply interruptions. LEI identified close to $2 billion of additional economic benefits from the two projects over the long-term.

The need for new transmission investment is enhanced by the expected electrification of the U. S. economy in the coming decades. Most experts expect that several sectors that are currently powered by fossil fuels will become electrified. For example, well over one million electric vehicles are on the roads in the United States today and this number will likely increase exponentially over the coming decades as battery technology evolves. Some experts are predicting the demise of the internal combustion engine. Electric heat pumps, which are already common in moderate climates, are becoming cheaper and more efficient in colder climates. And, advances in

technology could make electrifying industrial processes increasingly economic. This broad electrification will substantially increase electrical demand.

In a 2019 report prepared for WIRES, The Brattle Group estimated that $30–90 billion dollars of incremental transmission investments will be necessary in the U.S. by 2030 to meet the changing needs of the system due to electrification, with an additional $200–600 billion needed from 2030 to 2050. These investments will be in addition to the investments needed to maintain the existing transmission system and to integrate renewable generation built to meet existing load. Brattle explains that this level of investment is equivalent to $3–$7 billion per year on average through 2030, a 20–50% increase over annual average spending on transmission during the past 10 years; and $7–$25 billion per year on average between 2030 and 2050, a 50–170% annual increase in transmission investment.[4] These changes will be driven by economics, and not merely environmental goals. Even if only a portion of this investment turns out to be required, the expected changes in how energy is produced will require strong public policy support for new transmission investments.

The Commission has recently focused considerable effort on ensuring the resilience of the bulk power system as the generation mix changes. Achieving adequate resilience will require additional transmission investment. Renewed consideration of resilience does not only involve calibrating the mix of generating resources on the system, it also requires a robust transmission system that can reliably move power from

[4] Weiss et al, *The Coming Electrification of the North American Economy, Why We Need A Robust Transmission Grid* (March 2019).

different combinations of generation resources. Transmission investment improves resiliency by increasing the options available to system operators to dispatch generation in adverse conditions. Transmission investment is necessary to achieve adequate resiliency at a reasonable cost. The task of modernizing and strengthening the transmission grid has begun, but it is by no means finished.[5]

III. Adequate ROEs are a Lynchpin for Achieving Transmission Investment

The historical record demonstrates the importance that ROEs play in determining the level of investment that will occur. During the last few decades of the 20th century, transmission ROEs were primarily set by state regulatory commissions, who almost universally applied the same ROE to transmission and distribution investments. The result was a widely acknowledged under-investment in interstate transmission facilities. The lesson should be clear: robust investment flows from ROEs that adequately compensate utilities for the unique and substantial risks associated with attempts to construct new transmission facilities. ROEs that merely equal those established for less risky distribution assets will result in under-investment, which is contrary to the public interest.

[5] The generation mix in the United States is rapidly changing and substantial new transmission investment will be required to integrate new generation resources and accommodate changed power flow patterns from planned changes to the existing fleet of generators. Existing and anticipated state-mandated renewable power requirements indicate that significant additional generation resource changes will occur as thousands of megawatts of new renewable generation are added to the grid in the coming decades to meet state public policy goals. Moreover, many of the existing transmission assets in the United States are approaching or beyond their expected useful life, with some approaching 70, 80 or 90 years of service. Many of these aging facilities will have to be replaced.

Congress implicitly recognized this conclusion in enacting Section 219 of the Federal Power Act, which directs FERC to adopt ratemaking practices that will promote transmission investment. The Commission explicitly recognized the unique risks of transmission investment in its Opinion No. 531:

> The financial and business risks faced by investors in companies whose focus is electric transmission infrastructure differ in some key respects when compared to other electric infrastructure investment, particularly state-regulated electric distribution. For example, investors providing capital for electric transmission infrastructure face risks including the following: long delays in transmission siting, greater project complexity, environmental impact proceedings, requiring regulatory approval from multiple jurisdictions overseeing permits and rights of way, liquidity risk from financing projects that are large relative to the size of a balance sheet, and shorter investment history.[6]

The simple fact is that building new transmission facilities is very difficult. And while the need for additional transmission has been increasing, building it has become even harder. Some members of WIRES have been involved in the development of transmission projects that did not obtain necessary approvals even though the project benefits clearly outweighed their costs. In most cases, the project development costs incurred prior to cancellation were not recovered in rates.[7] Thus, the returns permitted by the Commission should be seen as a cap on most transmission ROEs. Actual overall returns, taking into account investments in projects that fail to come to fruition for

[6] *Martha Coakley et al v. Bangor-Hydroelectric Co. et al*, Opinion No. 531, 147 FERC ¶ 61,234, ¶149 (2014) ("Opinion No. 531").

[7] WIRES recognizes that the Commission has attempted to address this problem by allowing the recovery of abandoned plant costs for projects that are eligible for transmission rate incentives. However, this opportunity only exists for a limited number of projects.

reasons outside the developer's control, but are not eligible for abandoned plant cost recovery, are lower.

Public opposition to electric transmission is often widespread because transmission lines are constructed above ground, are not confined to a single geographic location, and because the benefits of transmission are not readily apparent to much of the public. Electric transmission investment often requires obtaining multiple regulatory approvals from federal, state and local authorities, requiring developers to expend considerable political capital to overcome inevitable state and local opposition. Such opposition is especially a problem for transmission facilities that provide interstate benefits that may not be apparent to those living in the vicinity of new lines. The risk always exists that even after spending considerable time and money, risks and challenges that are outside a developer's control will cause a project to be discontinued. The same level of risk rarely exists for the construction of distribution facilities. The ROEs approved by the Commission for transmission should take these risks into account in order to ensure that adequate capital will be attracted to the transmission business. The Commission's Order No. 531 correctly acknowledges the additional risk associated with transmission investment and refers to the need to set ROEs at a level likely to attract capital.

The Commission should also adopt ROE policies that are robust enough to withstand the test of time, and that provide meaningful information to participants in Commission proceedings and investors as to whether existing ROEs are likely to be

changed. The Commission's ROE policies have been in flux for almost a decade.[8] WIRES is hopeful that the Commission will adopt an ROE policy that is sufficiently robust to stand the test of time and thereby provide greater certainty to the industry, investors and participants in Commission proceedings. The Commission should also make clear that its methodology for evaluating and setting ROEs is not subject to challenge in individual rate proceedings absent a showing of extraordinary circumstances warranting the change.

IV. WIRES Endorses the Methodology Proposed in the *2018 Coakley Order*

WIRES supports adoption of the methodology set out in the *2018 Coakley Order* ("2018 Coakley Methodology") as a national methodology. Adoption of the 2018 Coakley Methodology on a national basis will conform the Commission's review of ROEs with the models that the investment community uses to forecast forward ROEs and eliminate concerns over the use of a single model, historically the FERC DCF, which the Commission itself acknowledged in Opinion No. 531 may not produce just and reasonable results. The 2018 Coakley Methodology applies the concept of diversification to ensure a more robust result that more closely represents the true cost of equity capital.

[8] After several years of litigation, the Commission modified its electric transmission ROE policy in 2014 in Opinion No. 531. However, the methodology in Opinion No. 531 relied upon a temporary fix based on the assumption that capital markets were anomalous in the wake of the 2008-2009 recession. It left open the question of when that economic situation would change, which produced additional litigation and uncertainty. In addition, the Court in *Emera Maine* identified a number of flaws in Opinion No. 531, which forced the Commission to reconsider that approach.

WIRES believes that the investment community has reacted positively to the 2018 Coakley Methodology and that abandoning or modifying that methodology only a few months after the Commission provided a strong, reasoned explanation in support of using it will create further uncertainty in the investment community and may cause some in that community to lose confidence in the Commission's decisional processes. The 2018 Coakley Methodology is grounded in longstanding principles of finance, and comports with the methodologies used by many states and with the opinions of many experts who endorse the use of multiple methodologies to derive an allowed ROE. This proceeding may supplement the existing record to address issues not raised in the New England proceedings, but the Commission has no further need to make additional findings in this proceeding in order to apply the 2018 Coakley Methodology on a national basis.

The 2018 Coakley Method does not suffer from the infirmity of relying on short-term conditions in the capital market, which was a shortcoming of the methodology adopted in Opinion No. 531. It is detailed and replicable by the industry and other interested parties that may wish to determine in advance whether the existing ROE would be subject to change in a new Section 205 or 206 proceeding. It also provides the predictability that the investment community needs in order to evaluate investments in new transmission assets. The 2018 Coakley Methodology also permits the Commission to act quickly to resolve proceedings by providing a basis for ROE complaints and protests in Section 205 cases to be dismissed based on a finding that the existing ROE is within

the quartile zone adopted by the Commission to comply with the Court's holding in *Emera Maine* that there is a range of just and reasonable ROEs.

One of the benefits of this methodology is that it uses four ROE models that the Commission has already considered carefully in prior proceedings. The Commission's DCF methodology has of course been explored in numerous proceedings. But, the Commission also carefully evaluated a large number of arguments relating to the specific assumptions and methods applied to the Risk Premium, Capital Asset Pricing and Expected Earnings models that are used in the 2018 Coakley Methodology. These models and their inputs were carefully explored in several cases beginning with Opinion Nos. 531 and 551 and their progeny.

Commenters in this proceeding may request that the Commission reconsider these methodologies in this proceeding, but such a request would be misguided for several reasons. The Commission should have no reason to reconsider its prior approval of these alternative models in light of the careful consideration it gave to the many issues raised in the various cases in which the merits of these alternative models were subject to Commission scrutiny. Moreover, where the Commission has already reached a reasoned decision, it should not change positions unless relevant circumstances have changed, which they have not in this situation. Nor should the Commission change its position unless important new information or argument is brought forward that was not available previously and where that information is sufficiently important to the outcome that the Commission concludes its prior analysis has become legally insufficient. WIRES has not

witnessed any such new information or argument to date. Given the extensive argument on these alternative methodologies in prior proceedings, WIRES believes it is highly unlikely that any such undisclosed information exists. Respect for the Commission's decisions requires that the Commission be consistent in its analysis of issues. The need for consistency and certainty is especially important in the context of setting ROEs, where the investment community is relying on the Commission's decisions to decide whether to support investment of billions of dollars in new transmission facilities.

The 2018 Coakley Methodology improves predictability and enhances confidence in the outcome by no longer relying solely on one methodology, the FERC DCF, to derive allowed returns. The FERC DCF is a valuable tool, but it suffers from model risk both due to unusual circumstances in the capital markets (as the Commission recognized in Opinion Nos. 531 and 551) and because of the risks associated with the inputs used to derive the results. Model risk is well recognized by experts,[9] and diversification across several models mitigates the impact of model risk.

It has been argued that the DCF is sacrosanct and should be the only methodology used. However, the Commission's version of the DCF has changed over the years and uses subjective judgments throughout to establish the various inputs and assumptions that are used in the model calculation. These include FERC-specific, subjective rules governing the choice of a proxy group, the assumptions and rules used to calculate dividend yields (which are not forward looking under Commission practice), the

[9] 2018 Coakley Order at P 38 and nn.77-78.

particularized assumptions and data sets the Commission uses to calculate growth rates, the method used to determine the middle of the DCF range, and the various rules applied to potentially eliminate DCF results from the ROE calculation (such as low and high end outlier tests, merger and acquisition rules, and dividend consistency rules).

From its prior ROE proceedings, the Commission understands that virtually every version of its unique form of the DCF analysis is subject to disagreement over the data used and the methods of calculation, and that these differences can produce huge disparities in the results produced by the model. These differences reflect subjective choices the Commission makes for regulatory purposes. No single "true" representation of the DCF model exists. Indeed, the Commission has changed its mind many times regarding the appropriate methods, assumptions and data to be used in the DCF calculation. WIRES does not mean to imply that the Commission should not make these assumptions (they obviously are necessary) or that these concerns exist only for the DCF model. All models are imperfect, and they rely on simplifying assumptions as well as subjectivity as to inputs. The point is that the use of diverse methodologies to calculate allowed ROEs is the best method available to overcome the inherent shortcomings of individual models and the related assumptions for applying them in regulatory proceedings.

The benefits of diversification are recognized by experts. For example, the 2018 Coakley Methodology takes into account Dr. Morin's concerns about the use of only one methodology, which concerns the Commission has acknowledged in a prior order:

> In the absence of any hard evidence as to which method outdoes the other, all relevant evidence should be used and weighted equally, in order to minimize judgmental error, measurement error, and conceptual infirmities. A regulator should rely on the results of a variety of methods applied to a variety of comparable groups, and not on one particular method. There is no guarantee that a single DCF result is necessarily the ideal predictor of the stock price and of the cost of equity reflected in that price, just as there is no guarantee that a single CAPM or Risk Premium result constitutes the perfect explanation of that stock price.[10]

In short, the use of multiple models reduces the danger of model risk; encompasses the different methodologies that investors and investment analysts use to forecast ROEs; and reduces the likelihood that any single decision made about the use of the models will drastically affect the final result. Finally, including at least one methodology that utilizes book-value concepts provides a stabilizing influence in the event that inputs in the other models are anomalous at any time.

If the Commission adopts the 2018 Coakley Methodology, it should be able to readily resolve a large number of extant rate proceedings in which the allowed ROE is at issue. In the wake of Opinion No. 531 (which was decided in 2014), the existing records in most or all extant ROE cases should include the data necessary to calculate allowed ROEs using all four methodologies comprising the 2018 Coakley Methodology, because Opinion No. 531 called for the use of these four models in the overall analysis. On the other hand, if the Commission were to make substantial changes to the 2018 Coakley Methodology, it would create the risk that most or all of the extant ROE proceedings will have to go back into hearing in order to complete the records to meet the Commission's

[10] Morin at 429, cited in *2018 Coakley* Order at P 36.

new ROE requirements. This would be very unfortunate because it would delay resolution of those proceedings, extend the uncertainty felt in the investment community, and impose enormous burdens on parties that have already partially or fully litigated the issues.

Respectfully submitted,

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