

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

In the Matter of the Application of The )  
Empire District Electric Company for ) Case No. EA-2019-0010  
Certificates of Convenience and Necessity )  
Related to Wind Generation Facilities )

**EMPIRE'S REPLY BRIEF**

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**ATTORNEYS FOR THE EMPIRE DISTRICT ELECTRIC COMPANY**

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**COMES NOW** The Empire District Electric Company (“Empire” or “Company”) and, as its Reply Brief, respectfully states as follows to the Missouri Public Service Commission (“Commission”):

**I. INTRODUCTION**

Initial Briefs were filed by the Staff of the Commission (“Staff”), the Office of the Public Counsel (“OPC”), the Missouri Department of Economic Development – Division of Energy (“DE”), Midwest Energy Consumers Group (“MECG”), Renew Missouri Advocates (“Renew Missouri”), Natural Resources Defense Council (“NRDC”), Sierra Club, and Missouri Department of Conservation (“Conservation”).<sup>1</sup> The briefs filed by MECG, DE, Staff, Renew Missouri, NRDC,<sup>2</sup> Sierra Club, and Conservation are supportive of the issuance of Empire’s requested Certificates of Convenience and Necessity (“CCNs”) for the Wind Projects,<sup>3</sup> along with the conditions contained in the *Non-Unanimous Stipulation and Agreement* (“*Non-Unanimous Stipulation*”) and *Stipulation and Agreement Concerning Wildlife Issues* (“*Wildlife Stipulation*”).

The outlier among the initial briefs is that of the OPC, which continues to oppose the addition of wind generation proposed by the Company. The arguments raised by OPC are effectively a repeat of those raised previously in both this case and Case No. EO-2018-0092 (the Customer Savings Plan case) and rejected by the Commission, with one exception: OPC’s creative application of Missouri’s “anti-CWIP” statute to this CCN case. Empire responds to OPC’s arguments below, and as with its Initial Brief, submits

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<sup>1</sup> The fact that Empire does not respond to each and every statement contained in those briefs should not be taken as acquiescence as to the matters not addressed. Rather, Empire’s decision simply reflects the fact that those matters were adequately addressed in its Initial Post-Hearing Brief.

<sup>2</sup> NRDC and Sierra Club affirmatively stated that while they were not signatories to the *Non-Unanimous Stipulation*, “they support the Stipulation reached between the company and the Department of Conservation and the [*Non-Unanimous Stipulation*].” NRDC/Sierra Ini. Brf., p. 1.

<sup>3</sup> Approximately 600 MW of wind generation facilities in conjunction with tax equity partners, two of which

that there is substantial record evidence upon which the Commission should rely to find that the proposed Certificates of Convenience and Necessity are “necessary and convenient for the public interest.”

Both the “anti-CWIP” issue (Section 393.135, RSMo -the Proposition One statute related to the Callaway nuclear facility) and OPC’s “excess capacity” arguments are fundamentally misplaced in a CCN case as they concern issues of rate case recovery, and even in the context of a rate case, would not be applicable to the situation at hand.

In addition to OPC’s novel legal arguments, OPC’s Initial Brief is premised on a false and unsubstantiated narrative that Empire (or its ultimate parent, which it incorrectly names as Algonquin Power Company<sup>4</sup>) is pursuing these projects to achieve profits, rather than to serve customers. OPC then takes its argument one step further, suggesting that Empire should undertake the projects as an independent power producer. If the Commission were to adopt OPC’s view, and direct Empire to abandon its efforts to acquire the Wind Projects on behalf of its customers and instead develop the projects to earn unregulated profits, this would lead to a dangerous, and likely impossible, situation for a public utility. It would encourage public utilities to focus their efforts on profits to the absolute exclusion of what might be of benefit to their customers. That is not what the Commission should expect or encourage.

Empire witness Mertens explained as follows:

The Commission should know that Empire understands it is a public utility. Empire has a duty to its customers to provide safe and adequate electric service at just and reasonable rates. In doing so, Empire seeks to invest in ways that will provide its customers with opportunities for savings and that will reduce price risks in the future. The Wind Projects fit this description.

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will be located in southwestern Missouri and one in southeastern Kansas. Empire Ini. Brf., p. 9-12.

<sup>4</sup> The correct name is Algonquin Power & Utilities Corp.

The weighing of unregulated vs. regulated profit potential . . . is not anything in which Empire should or does engage.<sup>5</sup>

Renew Missouri takes a step further and states this principle as a duty – “If Empire can provide savings to customers with renewable energy – it arguably has the *obligation* to do so.”<sup>6</sup> This case certainly represents just such an opportunity. Empire has the opportunity to provide savings to customers with renewable energy. A grant of the requested CCNs will help make that opportunity a reality.

## **II. RESPONSE TO OPC INITIAL BRIEF**

Empire will address the OPC arguments in the order they are found in its Initial Brief.

### **A. Section 393.135 is Not Applicable to this Case**

In an act of creative lawyering, OPC argues that the provisions of Section 393.135, RSMo, the Missouri “anti-CWIP” statute, prohibit the Commission from granting Empire Certificates of Convenience and Necessity for the Wind Projects because, in OPC’s view, Empire does not “need” the Wind Projects and thus they cannot ever be “used for service”<sup>7</sup> as that term is contemplated by the statute, and thus could never be the subject of a request for rate recovery. OPC’s application of Section 393.135 to the requested Certificates of Convenience and Necessity is not supported in fact or law, and should be rejected by the Commission.

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<sup>5</sup> Exh. 3P, Mertens Sur., p. 18-19.

<sup>6</sup> Renew Missouri Ini. Brf., p. 6.

<sup>7</sup> OPC Brf., p. 5-13.

Fundamentally, Section 393.135 is a cost recovery statute, and as such, does not create a CCN case issue.<sup>8</sup> Section 393.135 states that:

Any charge made or demanded by an electrical corporation for service, or in connection therewith, which is based on the costs of construction in progress upon any existing or new facility of the electrical corporation, or any other cost associated with owning, operating, maintaining, or financing any property before it is fully operational and used for service, is unjust and unreasonable, and is prohibited.

No charge is being made or demanded as a result of this CCN application and, as a result, the statute does not apply. Staff witness Oligschlaeger confirmed that no rate recovery was being granted in this proceeding.<sup>9</sup> At best, the Section 393.135 issue is not ripe for determination until if, or when, Empire would make or demand a charge “based on the costs of construction in progress. . . .”

Second, even if a charge were being made or demanded by Empire, which it is not, OPC’s interpretation of the statute is contrary to that of the Missouri Supreme Court. In *State ex rel. Union Electric Co. v. Public Service Comm.*, 687 S.W.2d 162 (Mo.banc 1985), the Missouri Supreme Court considered whether the Commission was barred from granting cost recovery (within the context of a rate case) for a Union Electric plant that had been abandoned prior to completion of construction (Callaway II). It is worth noting that this Missouri Supreme Court case was decided five years after the Commission’s decision in the *Kansas City Power & Light Company* Commission general rate case from which OPC cites extensively.<sup>10</sup>

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<sup>8</sup> As the Commission is well aware, CCN cases are brought for the purpose of determining whether certain utility plant can be constructed, and the Commission is careful to indicate that such CCNs do not guarantee cost recovery of the plant to be constructed. See *In the Matter of the Application of Environmental Utilities, LLC*, 2002 Mo. PSC LEXIS 890, 11 Mo. P.S.C. 3d 360 (MoPSC 2002) (“ . . . this is not a rate case and those costs are not relevant to the determination that the Commission must make regarding Environmental Utilities’ application for a certificate of convenience and necessity.”).

<sup>9</sup> Tr. 332, 335, 336, 340, Oligschlaeger.

<sup>10</sup> OPC Ini. Brf., p. 7-10.

The Missouri Supreme Court held that Section 393.135 "...did not have the purpose, and does not have the effect, of divesting the Commission of the authority to make any allowance at all on account of construction which is definitely abandoned."<sup>11</sup> In so doing, the Court, recognized that while Section 393.135 does not prohibit the Commission from allowing recovery of the costs associated with an abandoned plant, the Commission still is entitled to consider the prudence of the utility's expenditures under the circumstances, the prudence of the abandonment and other factors appropriate for a rate case.<sup>12</sup> In other words, when faced with a request for rate recovery of a generation plant that had never even gone into service, the Court ruled that the Commission was not prohibited by Section 393.135 from allowing rate recovery of any prudently incurred costs.

The Court's decision was largely based on its review of the history of the statute, and its distinction between a request for rate recovery related to a plant that was in the midst of construction, and a request for rate recovery related to a plant where construction had begun, but was subsequently abandoned. The Court explained that during the construction of the abandoned Callaway I and II plants, "and before either had come on line for the generation of electric power, the voters of the state adopted at the 1976 general election, through the initiative process, 'Proposition One,' now codified as §§ 393.135 and 393.136, RSMo 1978."<sup>13</sup> The Court observed that:

The manifest purpose of Proposition One was to make the utility wait until completion of new construction before including the cost in its rate base, or otherwise recovering its expenditures. Charges for construction work in progress had been expressly authorized by the Commission just a few months earlier. The language contains no express reference to

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<sup>11</sup> *State ex rel. Union Electric Co. v. Public Service Comm.*, 687 S.W.2d 162, 167-168 (Mo.banc 1985)

<sup>12</sup> *Id.*

<sup>13</sup> *Id.* at 163-164.

cancellation. There are substantial indications that Proposition One was primarily concerned with timing, and that the possibility of abandonment was not present in the thoughts of the sponsors or of the voters. There was then much discussion in reports of regulatory commission decisions about the treatment of construction work in progress but little case law, judicial or administrative, about allowances for abandoned projects.<sup>14</sup>

No plant could be less “used for service” than one that has been abandoned before the completion of construction. If the Commission was not divested of authority to act by Section 393.135 in that circumstance – where a plant was partially constructed and then abandoned – it is hard to imagine that the Commission could be divested of authority to act in this circumstance where the plant has not even been constructed, or even in a later rate case after the plant has been placed in-service. Accordingly, any attempt to use Section 393.135 as the basis to argue that a plant that has not even been constructed could never be “used for service” and thus could never be subject to rate recovery, and thus cannot be subject of the grant of a CCN by the Commission in the first instance, is non-sensical. To reach this conclusion, the Commission would have to make many intellectual leaps, none of which would be supported by Missouri law.

### **B. OPC’s Concept of Excess Capacity is Not Applicable to This Case**

OPC further relies on a general rate case concept arguing that because OPC believes the Wind Projects will not be “used and useful” to Empire’s customers,<sup>15</sup> and thus could never be subject to rate recovery, “the Commission should not issue Empire certificates for them now.”<sup>16</sup>

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<sup>14</sup> *Id.* at 166.

<sup>15</sup> OPC Ini. Brf., p. 12.

<sup>16</sup> *Id.* at p. 13.



OPC cites two rate cases in support of its argument: 1) a 2014 Summit Natural Gas rate case; and, 2) a 1986 Arkansas Power & Light Company rate case.<sup>17</sup> Neither of these cases are analogous to the CCN matter at hand or even to a future rate case involving cost recovery of the Wind Projects.

While *In the Matter of Summit Natural Gas of Missouri, Inc.’s Filing of Revised Tariffs*, 2014 Mo. PSC LEXIS 928, Case No. GR-2014-0086 (MoPSC 2014) did refer to “excess capacity,” the identified issue in that case concerned distribution plant capacity, something not at issue in this case. The context of the distribution capacity issues in the *Summit* case was described by the Commission as follows:

The remaining disputes are almost entirely about balancing the social utility of expanding gas service while protecting current customers. SNGMo has a business plan that includes bringing gas service to areas never before served.<sup>18</sup>

Further, Staff and the utility (“SNGMO”) were in agreement with the amount of plant that should be treated as plant held for future use in order to achieve “economic viability.”<sup>19</sup> The amounts found to be excess were directed to be recorded in USoA Account 105, Gas Plant Held for Future Use, along with a plan for repatriation, rather than found to be imprudent and written off.<sup>20</sup> This clearly bears no relation to the CCN’s proposed here.

Similarly, the 1986 *Arkansas Power & Light Company* rate case is also of no relevance to Empire’s proposed CCNs. First, it is important to note that the 1986 *Arkansas Power & Light Company* case, which considered cost recovery of an electric generation plant that was alleged to constitute “excess capacity,” predates the

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<sup>17</sup> OPC Ini. Brf., p. 13-15.

<sup>18</sup> 2014 Mo. PSC LEXIS 928, \*18.

<sup>19</sup> 2014 Mo. PSC LEXIS 928, \*36 and \*46.

Commission's Electric Utility Resource Planning (Chapter 22) rules which were originally effective in 1993. Thus, the OPC has not factored into its analysis the policy objectives of the now applicable resource planning rules, which, in part) state that:

The fundamental objective of the resource planning process at electric utilities shall be to provide the public with energy services that are safe, reliable, and efficient, at just and reasonable rates, in compliance with all legal mandates, **and in a manner that serves the public interest and is consistent with state energy and environmental policies.**<sup>21</sup>

The Wind Projects serve this fundamental objective in all respects.

Further, the facts of the *Arkansas Power & Light Company* case as they relate to the alleged "excess capacity" are not analogous. Empire witness McMahon addressed OPC's excess capacity allegation measured against planning reserve margins. He noted that in 2018 there are planning reserve margins for Southwest Power Pool load serving entities ("LSE") ranging from 10.6% to as high as 220%.<sup>22</sup> Empire's current planning reserve margin of 33.2% is on the lower end of that range and not out of line with the median.<sup>23</sup> This is appropriate because how an LSE decides to best meet its load should reflect the LSE's unique situation, opportunities, and risks.<sup>24</sup>

Additionally, OPC's argument is very much premature as it ignores events that may transpire between now and such time as the Wind Projects are in-service and considered for recovery in a rate case. For reference, while the Wind Projects will have 600 MWs of name-plate capacity, their accredited capacity for purposes of the reserve margins is expected to be approximately 90 MWs (15% of name plate capacity).<sup>25</sup>

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<sup>20</sup> 2014 Mo. PSC LEXIS 928, \*46.

<sup>21</sup> Commission Rule 4 CSR 240-22.010(2)(emphasis added).

<sup>22</sup> Exh. 8, McMahon Sur., p. 5.

<sup>23</sup> Exh. 8, McMahon Sur., p. 5-6.

<sup>24</sup> Exh. 8, McMahon Sur., p. 6.

<sup>25</sup> Exh. 1P, Mertens Dir. (0010), p. 11; Exh. 2P, Mertens Dir. (0118), p. 11.

Empire Witness McMahon testified that Empire is currently developing its 2019 IRP, which will address the timing of retirements and additions beyond the planned 600 MW of wind. As shared with stakeholders at the February 6, 2019 stakeholder meeting, Empire is evaluating three retirement concepts in its modeling: (1) age based; (2) retiring Asbury early (200 MWs coal-fired steam unit); and (3) retiring Asbury (200 MW coal-fired steam unit), Riverton 10+11 (28 MWs total steam), and Energy Center 1+2 (82 and 80 MWs steam units, respectively) early. The latter two concepts would, on their own, reduce Empire's planning reserve margin, even with the addition of the Wind Projects.<sup>26</sup>

Also, Empire's only current wind purchased power agreements (255 MWs in total) will expire after Empire purchases the 600 MW from the Wind Projects in January 2021 - expiration of Elk River wind farm in 2025 (150 MW) and Meridian Way wind farm in 2028 (105 MW). These expiring contracts represent all of Empire's current wind capacity and more than 40% of the new capacity that was described in Case No. EO-2018-0092.<sup>27</sup> Thus, the Wind Projects are also important to satisfying the public interest in regard to the use of renewables.

Finally, *Office of Pub. Counsel v. Mo. PSC (In re KCP&L Greater Mo. Operations Co.)*, 515 S.W.3d 754 (Mo.App. 2016) shows that arguments as to excess capacity are not determinative as to whether a project is necessary and convenient to the public interest. Therein, the Court affirmed the Commission's grant of a certificate of convenience and necessity for a solar facility over similar OPC objections (the plant is

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<sup>26</sup> Exh. 8, McMahon Sur., p. 8-9 and FN 11.

<sup>27</sup> Exh. 1P, Mertens Dir. (0010), p. 12; Exh. 2P, Mertens Dir. (0118), p. 11.

not needed to serve load and the plant is not needed to comply with environmental regulations.<sup>28</sup>

**C. The Wind Projects Will Be Both “Used and Useful” and “Used for Service”**

Ultimately, the Wind Projects will be both “used and useful”<sup>29</sup> and “used for service” to Empire’s customers. To some extent, this analysis goes hand in hand with the “need” issue discussed in Empire’s Initial Brief (p. 13-16). If there is a need for the project and the project is determined to be necessary and convenient for the public interest, it certainly will be “used and useful” and “used for service.” This is especially true here, as Empire supplies electric service to its customers using a portfolio of generation assets. In fact, none of Empire’s generation units are used solely to meet native load.<sup>30</sup> All generation in SPP is offered into SPP and all of Empire’s load purchases to serve its customers come from SPP.<sup>31</sup>

There would be nothing unique about how the Wind Projects would be utilized as opposed to Empire’s other generating units.<sup>32</sup> Factors such as fuel costs, prices in the market, and availability have an impact on this process. At any given time, as a practical matter, a customer may be receiving energy produced by Asbury, Meridian Way, Riverton, the Wind Projects, some other generation asset, or not. For example, Asbury only operates approximately 55% of the time<sup>33</sup> (and it is unclear where its electrons are going when it does operate, as is the case with all electricity flowing into

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<sup>28</sup> *In re KCP&L Greater Mo. Operations Co.* at 760.

<sup>29</sup> To be “used and useful,” utility property must only “be utilized to provide service to its customers.” *State ex rel. Mo. Office of the Pub. Counsel v. PSC of Mo.*, 293 S.W.3d 63, 75, (MoApp 2009).

<sup>30</sup> Tr. 181, Mertens.

<sup>31</sup> *Id.* at 180-181.

<sup>32</sup> *Id.*

<sup>33</sup> Tr. 148, Mertens.

the grid). If a unit is not providing electrons to Empire's customers at a given point in time, it has nothing to do with whether the generation unit is "used for service" or "used and useful." As mentioned previously, all units, to include the Wind Projects, are, and will be, bid into the SPP market<sup>34</sup> for the benefit of Empire's customers. Empire witness McMahon explained that benefits of the Wind Projects include "substantially lowering the net present value revenue requirement of the Empire generation portfolio and significantly reducing portfolio cost risk."<sup>35</sup> The Wind Projects will be "used for service" and "used and useful" in regard to both the practical flow of electrons to customers and the economic provision of service to customers.

#### **D. The Wind Projects Satisfy the Tartan Factors, to Include Economic Feasibility**

Empire amply demonstrated through the testimony of James McMahon that the Wind Projects are economically feasible. Mr. McMahon's expertise in resource planning, market price forecasting, and electric rate analysis was uncontroverted.<sup>36</sup>

#### ***CUSTOMER'S RISK***

OPC suggests that the Wind Projects are "a risky investment that may harm Empire's retail customers"<sup>37</sup> yet are short on the analysis to support this claim. Expertly evaluating the need for a new power plant in a utility's portfolio is complex. It involves simulating how a new plant would perform in a utility's portfolio under

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<sup>34</sup> *Id.*

<sup>35</sup> Exh. 8, McMahon Sur., p. 7.

<sup>36</sup> *Id.* at Sch. JM-1.

<sup>37</sup> OPC Ini. Brf., p. 15.

conditions that range from the expected to the unexpected.<sup>38</sup> Empire amply demonstrated through the testimony of James McMahon<sup>39</sup> that the Wind Projects are economically feasible. In Empire witness McMahon's opinion, "OPC has not presented any information that, when modeled and evaluated appropriately, would lead to an outcome that is antithetical to Empire's application and Preferred Plan."<sup>40</sup>

Empire explained in its Initial Brief that it had selected wind projects on the basis of a detailed portfolio analysis using industry standard modeling software and detailed and wide-ranging scenarios to test risk.<sup>41</sup> The modeling indicated that adding wind generation to Empire's portfolio in or near Empire's service territory was not only possible, but brought significant benefits to Empire's customers.<sup>42</sup>

As to the interest of Empire's customers, the Commission stated in Case No. EO-2018-0092:

Adding wind generation to Empire's portfolio significantly reduces financial risk for Empire customers. Wind in the portfolio mitigates the impact that rising fuel and market prices have on Empire's retail rates. In a rising market price environment, Empire would be able to sell wind output at higher prices without any incremental fuel costs. Empire's credible analysis shows that adding up to 600 MW of wind to its portfolio would result in lower risk to that portfolio under three different market scenarios, relative to Empire's current resource plan.<sup>43</sup>

The bottom line is that the modeling has demonstrated that the proposed wind additions lower expected customer costs and customer cost risk.<sup>44</sup> Adding wind to the portfolio reduces risk (in addition to decreasing cost) because wind performs much

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<sup>38</sup> Exh. 8, McMahon Sur., p. 3.

<sup>39</sup> Mr. McMahon's expertise in resource planning, market price forecasting, and electric rate analysis was uncontroverted. Exh. 8, McMahon Sur., Sch. JM-1.

<sup>40</sup> *Id.*

<sup>41</sup> Empire Ini. Brf., p. 7-8.

<sup>42</sup> Exh. 1P, Mertens Dir. (0010), p. 4; Exh. 2P, Mertens Dir. (0118), p. 4.

<sup>43</sup> *Id.*, p. 14-15 (emphasis added).

<sup>44</sup> Exh. 8, McMahon Sur., p. 3, 7.

better than the status quo resource acquisition plan under nearly all market conditions evaluated. On the other hand, maintaining the status quo is not only more costly in the base case, it is more costly in most of the scenarios that were evaluated.<sup>45</sup>

*INFORMATION USED IS REASONABLE AND APPROPRIATE*

OPC argues that the information used by Empire in its modeling was inappropriate because of the vintage of price information, historical nature of forecasts used, wind quality (or capacity), turbine costs, updated cost of tax equity, hedge costs, or loss of municipal customers.<sup>46</sup> OPC managed to squeeze a lot of misinformation into these three pages of its brief.

First, there is not a loss of municipal customers. Empire witness Mertens explained that while two cities have decided to sign a contract with a third party and as a result will no longer be served through Empire's wholesale tariff agreement, Empire will continue to provide capacity and energy to the two cities via a contract with that third party. In other words, Empire will continue to serve the cities via a third-party contract.<sup>47</sup>

Second, the modeling done in conjunction with the Market Protection Provision was updated in regard to capacity value of the wind projects (wind quality), operations and maintenance costs, tax equity expense, capital costs (turbine costs), and the P50 production values.<sup>48</sup> These workbooks were provided to the parties with toggles so that they could look at any combination of scenarios they thought appropriate.<sup>49</sup>

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<sup>45</sup> Exh. 8, McMahon Sur., p. 16.

<sup>46</sup> OPC Ini. Brf., p. 17-19.

<sup>47</sup> Exh. 3P, Mertens Sur., p. 9; Tr. 124, Mertens.

<sup>48</sup> Exh. 4P, Holmes Sur., p. 9.

<sup>49</sup> Tr. 203-204, Holmes.

Additionally, while OPC alleges that the modelling only looked at ABB forecasts for early 2016,<sup>50</sup> its own Initial Brief cites to the ABB fall of 2017 forecasts used by Empire.<sup>51</sup> Empire witness Holmes confirmed the use of the ABB fall 2017 price curves.<sup>52</sup> These prices were reviewed by Empire and deemed to remain reasonable in light of the areas where the Wind Projects will be built.<sup>53</sup> This is even the case on a short term basis (12 months ending January 2018), as a review the forecast against price in the marketplace today leaves Empire confident with the revenue forecast as presented.<sup>54</sup>

Empire witness McMahon further explained why Empire did not update its overall modelling:

Updating a wind project cost forecast with actual values is quite different than updating a complete market price forecast with another market price forecast, particularly where no significant event has triggered this need.

Empire produced an extensive economic analysis in support of the CSP that included forecasts of customer costs under dozens of wide-ranging scenarios. These scenarios included ABB's standard high and low market scenarios as well as scenarios proposed by stakeholders, including OPC. That analysis, completed over more than six months, demonstrated clearly that the CSP reduced costs and cost risk to Empire customers even under the "high wind" case proposed by OPC.<sup>55</sup>

A significant part of that decision was the fact that the executed contracts showed that the portfolio of Wind Projects were at or below the levelized cost of electricity that had been modeled.<sup>56</sup> Empire had firmed up certain wind project costs and performance measures that could be compared to the preliminary estimates used in

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<sup>50</sup> OPC Ini. Brf., p. 17.

<sup>51</sup> OPC Ini. Brf., p. 18.

<sup>52</sup> Tr. 188, Holmes.

<sup>53</sup> Tr. 189, Holmes.

<sup>54</sup> Tr. 237, Holmes.

<sup>55</sup> Exh. 8, McMahon Sur., p. 19.

<sup>56</sup> Exh. 8, McMahon Sur., p. 18.



the CSP modeling. Had Empire assessed that the actual project cost was significantly different than its estimate, this may have been a reason to update the analysis.<sup>57</sup> However, it was not. As a result, the information used in Empire's modeling is reasonable and appropriate.

### *FORECASTS*

OPC criticizes Empire's use of "30-year revenue forecasts" to analyze the Wind Projects alleging that they are inaccurate. However, OPC's criticism shows a misunderstanding of the process utilized by Empire and further ignores the fact that the analysis was performed on both 20- and 30-year basis and showed substantial benefits for Empire's customers in all scenarios.

First, it bears mentioning that OPC witness Mantle confirmed that her concerns about the forecasts have nothing to do with the source of the forecasts used by Empire.<sup>58</sup> Essentially, she just does not believe that there could be any justification that would make her invest money in any significant project.<sup>59</sup> Given that viewpoint, there is no project that would get built.

However, more specifically, there are aspects of Ms. Mantle's view point that are not consistent with the forecasting that was utilized by Empire. Ms. Mantle expresses that historical SPP pricing is not reliable for developing price forecasts.<sup>60</sup> Empire did not develop its price forecast using a historical time series analysis.

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<sup>57</sup> Exh. 8, McMahon Sur., p. 19.

<sup>58</sup> Tr. 411, Mantle.

<sup>59</sup> *Id.*; OPC Ini. Brf., p. 23.

<sup>60</sup> Exh. 8, McMahon Sur., p. 20.

Empire used what is often termed a “fundamental” modeling approach, whereby the market price of electricity determined in a given hour of the forecast period reflects the marginal cost of the marginal unit producing electricity in that hour.<sup>61</sup> The purpose of this approach is to emulate actual market operations and forecast a price of electricity in a given hour consistent with how the price will ultimately be determined.<sup>62</sup>

This fundamental forecast was developed through the use of a lot of information and a model that can handle the complex calculations in an efficient manner. For instance, every generator in the pricing area was specified with heat rates, ramp times, planned and forced outages, fuel sources, and other information.<sup>63</sup> The SPP price is produced for Empire’s modeling similar to how the SPP day-ahead market settles, Empire, through its consultant ABB, effectively creates its own simulation of the SPP market to forecast hourly electricity prices.<sup>64</sup> Thus, Empire used a fundamental pricing model that evaluates how load is being served by supply in each hour, and not a historical analysis.<sup>65</sup>

It is true that on a short-term basis, forecasts will have differences from actual results because of weather and other factors.<sup>66</sup> However, a power price forecast that is intended to support a long-range investment decision is not focused on predicting price volatility due to weather. Weather can drive prices up or down significantly in any hour, day, month, or year, but overall should not bias the results long term in one way or

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<sup>61</sup> Exh. 8, McMahon Sur., p. 20.

<sup>62</sup> Exh. 8, McMahon Sur., p. 21.

<sup>63</sup> Exh. 8, McMahon Sur., p. 21.

<sup>64</sup> Exh. 8, McMahon Sur., p. 24.

<sup>65</sup> Exh. 8, McMahon Sur., p. 22.

<sup>66</sup> Exh. 8, McMahon Sur., p. 26.

another as over the long-term weather effects are expected to balance out. It has no real value in resource planning and evaluating generation projects.<sup>67</sup>

OPC also utilizes current experience at Meridian Way and Elk River to argue that forecasts are unreliable. However, this argument is flawed. First, OPC does not attempt to analyze the projects' performance over the life of the contracts. OPC assumes that if one or two years exhibit poor performance, that the entire project was ill advised. That is not the case. Long terms effects should, and must, be considered.

Second, Empire witness Mertens explained the advantages that ownership and control over the generation of electricity has generally, and, specifically, how that ownership and control could have changed the experience with Meridian Way and Elk River. If Empire were the owner of those facilities, it could retrofit those facilities to make them more efficient for customers, get more energy out of them, and have lower operation and maintenance costs.<sup>68</sup> This includes the ability to "repower" assets, by updating them to more advanced technology to get more output and capacity to the benefit of Empire's customers.<sup>69</sup> However, the current owners of those facilities have no economic incentive to do that and would only pass on those costs to Empire, thereby driving the already out of market rates higher.<sup>70</sup> Further, in this case, Empire's customers will receive the benefits of the wind generation assets over their entire lifetime, which Empire anticipates will extend well beyond 20 years.<sup>71</sup> Based on this evidence, the Commission would be justified in finding that the forecasts used by

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<sup>67</sup> Exh. 8, McMahon Sur., p. 26.

<sup>68</sup> Exh. 1P, Mertens Dir., (0010), p. 12; Exh. 2P, Mertens Dir. (0118), p. 12.

<sup>69</sup> Tr. 162, Mertens.

<sup>70</sup> Exh. 1P, Mertens Dir., (0010), p. 12; Exh. 2P, Mertens Dir. (0118), p. 12.

<sup>71</sup> Exh. 1P, Mertens Dir., (0010), p. 13; Exh. 2P, Mertens Dir. (0118), p. 13.

Empire are appropriate and the best available resources to analyze the proposed Wind Projects.

### *SPP RESOURCE ADDITIONS*

OPC suggests that Empire's modeling does not sufficiently account for near-term additions of wind generation resources in the SPP market, pointing to projections of wind generation additions by 2025 and projects pending with SPP.<sup>72</sup> Empire witness McMahon addressed these concerns from a couple of angles.

First, Mr. McMahon analyzed the wind that is likely to be built in SPP and noted that even the forecast cited by OPC identifies a wide range, which "illustrates that even where a generator has a signed interconnection agreement, other reasons may prevent that plant from being built."<sup>73</sup> Mr. McMahon then reviewed SPP's historical interconnection queue from 2002, through February 19, 2019. According to the data published by SPP, the great majority of these requests were withdrawn (6,052 MWs out of 6582 MWs listed as withdrawn or terminated).<sup>74</sup>

Beyond that, Empire modeled significant wind additions in SPP. Empire first assumed 6.4 GW of wind would be built in SPP between 2017 and 2025 in the base case scenario of its CSP.<sup>75</sup> Empire then ran two types of scenarios to address this uncertainty. First, it ran a scenario specifically at the request of OPC that increased the amount of wind additions through 2020 to 8.2 GW (from 2018-2020).<sup>76</sup> Beyond this period, there was already an assumption in the modeling that "generic" wind would be

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<sup>72</sup> OPC Ini. Brf., p. 23-24.

<sup>73</sup> Exh. 8, McMahon Sur., p. 11.

<sup>74</sup> *Id.* at p. 11-12.

<sup>75</sup> *Id.* at p. 12.

built every year.<sup>77</sup> These scenarios analyzed the possibility of a significant amount of wind coming into SPP. The modeling resulted in market prices falling on average 5% to 7% from the base case.<sup>78</sup>

Empire also ran a low market price scenario, where market prices were reduced by 20% to 30% from the base case.<sup>79</sup> Empire's analysis showed that even under the low market price scenario (20% to 30% price reduction), Empire's customers would save \$67 million on a 20 year net present value basis.<sup>80</sup>

Given the results of this modeling, Mr. McMahon would expect the net present value revenue requirement savings to be significantly higher than in the "low case" for the high wind scenario because market prices were reduced by only a fraction of the amount in the low market scenario.<sup>81</sup>

### *UNKNOWNNS*

The OPC Initial Brief further has a section in which it discusses what it terms "unknowns" in regard to the projects. There is nothing new here. From the start of the Customer Savings Plan case, Empire has been forthright about the timing of tax equity, SPP interconnection and other variables associated with acquisition of the Wind Project. However, in spite of that, decisions must still be made based upon the information available.

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<sup>76</sup> *Id.* at p. 12-13.

<sup>77</sup> *Id.* at p. 13.

<sup>78</sup> *Id.*

<sup>79</sup> *Id.*

<sup>80</sup> *Id.*

<sup>81</sup> *Id.*

An example of this situation is OPC's concerns about interconnection costs. Empire witness Mertens explained that the current status of the interconnections is not unique to the Wind Projects:

Q. Has Empire done interconnections and interconnection agreements before?

A. Yes, we have. For basically every generating unit that we've added as long as I've been there.

Q. So you have experience in -- in how that process works and potential costs and that sort of thing?

A. Correct. You know, if you go back to our participation in Iatan 2, Meridian Way, Elk River, you know, we went through the same DISIS process. And very similar to now, that -- for whatever reason, that's been a very log-jammed study process. And, you know, we usually have to start making construction and project decisions before we have those agreements in hand.

Q. So it's not unusual for -- for that to come together late in the -- in the process?

A. No. It would be the norm, unfortunately.<sup>82</sup>

Thus, while interconnection is an unknown, this is not unusual, is something Empire has dealt with in the past, and is something with which it is qualified to address.

All of the items on the OPC list of unknowns have been addressed in one way or another. Some of the unknowns on the list have been modelled to establish ranges (wind saturation, variability of wind, demand/usage, market prices, constraints); some have been studied (wind profiles at the specific sites); some primarily have great potential for benefiting the projects (market rule changes and cost-effective storage); and, some have prescribed parameters by the *Non-Unanimous Stipulation* that prohibit the projects moving forward if items are not within the specified ranges (Empire's

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<sup>82</sup> Tr. 159-160.

investment percentage, how much tax equity will invest, and under what parameters). Lastly, the Wind Projects themselves have been specifically planned in a way to minimize exposure transmission congestion constraints (in or near Empire's service area).

Despite OPC's exhortations, the Market Protection Provision in the *Non-Unanimous Stipulation* factors in key variables to ensure that customers are adequately protected:

- Interconnection costs will be captured through the final capital costs inputted into the Market Protection Provision on the Wind Data tab in the Transmission line under Capital Costs;
- Tax equity cash distributions and PAYGO contributions will be captured in the "Tax Equity expense (credit) line;
- Ongoing operation and maintenance costs will be captured in the "Fixed O&M" line; and,
- Curtailment will be captured through the SPP market revenue line item.<sup>83</sup>

Also, Staff witness Oligschlaeger explained that excused events would be subject to both prudence review and would flow through the Market Protection Provision.<sup>84</sup>

If there is a harm caused, there is a sharing mechanism with a Missouri jurisdictional cap of \$52.5 million for the Company to reduce costs to customers, while if the Wind Projects perform as projected, customers retain 100% of the upside. The cap of \$52.5 million is appropriate because it is designed such that it should cover those

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<sup>83</sup> Exh. 4P, Holmes Sur., p. 10.

<sup>84</sup> Tr. 341, Oligschlaeger.

situations up to those having a probability of exceeding the cap only 0.5% over the 10 year period.<sup>85</sup>

While there will always be unknowns, the unknowns identified by OPC are not unique to the Wind Projects, have been addressed in a variety of ways, and, further, mitigation has been provided for customers.

**E. There is a Need for the Project Separate and Apart from the Missouri Renewable Energy Standards**

OPC argues that “Empire does not require additional wind renewable energy credits to satisfy Missouri’s current renewable energy standard.”<sup>86</sup> No party has alleged that the Wind Projects were necessary for this purpose. Instead, in addition to the economic advantages, the focus has been on the advantages of renewable energy generally, and wind generation specifically, from a policy perspective.

The Commission previously concluded that:

It is the public policy of this state to diversify the energy supply through the support of renewable and alternative energy sources. In past decisions, the Commission has stated its support in general for renewable energy generation, which provides benefits to the public. Empire’s proposed acquisition of 600 MW of additional wind generation assets is clearly aligned with the public policy of the Commission and this state.<sup>87</sup>

The Commission more recently described the State’s energy policy as follows:

In Missouri, state energy policy can be found in laws such as the Renewable Energy Standard, established by vote of the Missouri public in 2008, and the Energy Efficiency Investment Act, promulgated by the Missouri legislature in 2013, as well as the Comprehensive State Energy Plan, an initiative implemented by the Missouri Division of Energy in 2015. Consistent with these state policies, this Commission has in the past

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<sup>85</sup> Tr. 172-173, 218, Holmes.

<sup>86</sup> OPC Ini. Brf., p. 26.

<sup>87</sup> *In the Matter of the Application of The Empire District Electric Company for Approval of Its Customer Savings Plan*, Case No. EO-2018-0092, Rep. Ord., p. 20 (MoPSC July 11, 2018) (emphasis added).



expressed strong support for the “development of economical renewable energy sources to provide safe, reliable, and affordable service while improving the environment and reducing the amount of carbon dioxide released into the atmosphere.”<sup>88</sup>

The Commission went on to state:

There can be no debate that our energy future will require more diversity in energy resources, particularly renewable resources. We are witnessing a worldwide, long-term and comprehensive movement towards renewable energy in general and wind energy specifically. Wind energy provides great promise as a source for affordable, reliable, safe, and environmentally-friendly energy.<sup>89</sup>

This is not to say that the renewable energy credits produced by the Wind Projects will be irrelevant. Counsel for MCEG explained in his opening statement the importance to his client of the non-residential renewable energy credit program that Empire would propose as a part of the *Non-Unanimous Stipulation*:

You have large customers like Wal-Mart and Facebook and Amazon and Google, General Mills and Cargill that have implemented sustainability programs.

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So what this does . . . is it provides a mechanism for these large customers to access some of the . . . [renewable energy credits] created by the wind generation. So once the utility -- or once the customer gets the recs in their hand, then they can -- they're that much closer to meeting their sustainability goals.

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. . . I believe it's in the public interest because it meets a customer demand.<sup>90</sup>

Moreover, Empire witness Mertens testified similarly that there are many larger customers, commercial customers or industrial customers that have sustainability programs. The renewable energy credit program will formalize the process for selling

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<sup>88</sup> *In the Matter of the Application of Grain Belt Express Clean Line LLC*, Report and Order on Remand, EA-2016-0358, p. 45 (March 20, 2019) (citations omitted).

<sup>89</sup> *Id.* at p. 46.

renewable energy credits to those customers, allowing them to achieve those sustainability goals.<sup>91</sup>

The Wind Projects are important to addressing this customer demand as Empire's only current wind purchased power agreements (255 MWs in total) will expire after Empire purchases the 600 MW from the Wind Projects in January 2021 - expiration of Elk River wind farm in 2025 (150 MW) and Meridian Way wind farm in 2028 (105 MW). These expiring contracts represent all of Empire's current wind capacity and more than 40% of the new capacity that was described in Case No. EO-2018-0092.<sup>92</sup> Thus, the proposed Wind Projects not only have the benefit of rebalancing the portfolio with more wind, they represent a low-cost opportunity to replace the existing wind.<sup>93</sup>

**F. OPC's "Missouri Empire Retail Customer Protection Plan" is Unworkable**

OPC renews its proposed "Missouri Empire Retail Customer Protection Plan," or what OPC witness Marke calls its "Go-Fund-Me" proposal,<sup>94</sup> in the Initial Brief.<sup>95</sup> Nothing about the proposal found in OPC's Initial Brief seems to have changed from the version from its Positions on Listed Issues that Empire addressed in its Initial Brief and it continues to have the fatal defect related to rate base.

Item 6 states as follows:

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<sup>90</sup> Tr. 55, Woodsmall.

<sup>91</sup> Tr. 102, Mertens.

<sup>92</sup> Exh. 1P, Mertens Dir. (0010), p. 12; Exh. 2P, Mertens Dir. (0118), p. 11.

<sup>93</sup> Exh. 8, McMahon Sur., p. 8.

<sup>94</sup> Tr. 384, Marke.

<sup>95</sup> OPC Ini. Brf., p. 27-28.

While Empire's investment in the King's Point, North Fork Ridge, and Neosho Ridge wind projects are included in Empire's rate base, Empire's Missouri retail customers shall pay in their rates neither a return of nor a return on Empire's investment in those projects during the Hedging Period of this plan, nor any amount in excess of the \$25 million limitation.

Significantly, this part of the proposal would call for Empire to receive neither a return on, nor of, investment that is "in Empire's rate base" (which necessarily assumes the investment was prudent and has been determined to be in-service) during the period the hedging agreements are in effect (approximately 10 years).

Missouri law requires, among other things, that the rates utilities charge for regulated utility services, including electric companies, be "just and reasonable". §393.130.1, cl. 2 RSMo.<sup>96</sup> The constitutional standards for determining whether an authorized return is fair and reasonable was established by the United States Supreme Court as follows: (1) Returns must be consistent with other businesses having similar or comparable risks; (2) Returns must be adequate to support credit quality and access to capital; and (3) The end result, regardless of the analytical methods used, must result in just and reasonable rates. *Bluefield Water Works & Improv. Co.*, 262 U.S. 679, 692-93 (1923); *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944).<sup>97</sup>

Thus, an arbitrary assignment of a return without the agreement of the company and without consideration of the matters described in *Hope* and *Bluefield* is not only beyond the Commission's powers, it is also a violation of constitutional provisions. The *Missouri Empire Retail Customer Protection Plan* is not something the Commission may impose over Empire's objection.

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<sup>96</sup> "All charges made or demanded by any . . . electric corporation . . . for . . . electric . . . service rendered or to be rendered shall be just and reasonable and not more than allowed by law or by order or decision of the commission."

### **III. CONCLUSION**

The Wind Projects will meet the policy goals identified by the Commission and are poised to deliver significant savings to Empire's customers for many years to come, at a lower risk as to energy production costs. Any potential for negative impacts related to the projects are mitigated by the conditions contained in the *Non-Unanimous Stipulation* and the *Wildlife Stipulation*.

The Wind Projects for which Empire seeks certificates of convenience and necessity are in the public interest and the Commission should grant the requested certificates, subject to the Stipulations that have been filed in this case.

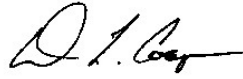
**WHEREFORE**, Empire respectfully requests the Commission consider its Initial Brief and this Reply Brief, grant Empire the requested Certificates of Convenience and Necessity as described in those briefs and issue such orders as it should find to be

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<sup>97</sup> U.S. Const. Amend. V; U.S. Const. Amend. XIV, §1. See also, Mo. Const. Art. I, §10.

reasonable and just.

Respectfully submitted,



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**ATTORNEYS FOR THE EMPIRE DISTRICT  
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**CERTIFICATE OF SERVICE**

The undersigned certifies that a true and correct copy of the foregoing document was sent by electronic mail, on May 7, 2019, to the following:

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