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APPLICATION OF SOUTHWESTERN ELECTRIC POWER COMPANY FOR CERTIFICATE OF CONVENIENCE AND NECESSITY AUTHORIZATION AND RELATED RELIEF FOR THE ACQUISITION OF WIND GENERATION FACILITIES	§ § § § § § §	BEFORE THE STATE OFFICE OF ADMINISTRATIVE HEARINGS

SOUTHWESTERN ELECTRIC POWER COMPANY REPLY BRIEF

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SOUTHWESTERN ELECTRIC POWER COMPANY REPLY BRIEF

I. Introduction

In the initial briefs of Public Utility Commission of Texas (Commission) Staff (Staff) and intervenors, much is written about the risk that customers could experience net costs associated with acquisition of the Selected Wind Facilities. For example:

- Staff writes, "customers are at real risk of experiencing net costs,"[1]
- The Office of Public Utility Counsel (OPUC) writes that customers "will disproportionately bear the burden of the risk on whether the Project will actually result in cost savings,"[2] and
- Cities Advocating Reasonable Deregulation (CARD) writes that the Commission should "safeguard" customers from the "downside risk of the economics" of the Selected Wind Facilities.[3]

Because of this perceived risk, these parties each urge the Commission to certify Southwestern Electric Power Company's (SWEPCO or the Company) acquisition of the Selected Wind Facilities only if conditioned on the expansion of the guarantees being offered by SWEPCO. While these parties point to a plethora of analysis variables as the source of this perceived risk, the actual risk that these parties are focused on is more straightforward: Staff and some intervenors suggest that it is conceivable that energy prices will remain so low for the next 30 years that there may be times

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[1] Staff's Initial Brief at 1.

[2] OPUC's Initial Brief at 1.

[3] CARD's Initial Brief at 1.

that customers could have enjoyed energy prices lower than the mostly fixed-price, low-cost energy (and Production Tax Credit (PTC) benefits) produced by the Selected Wind Facilities. Those that have constructed such an unlikely scenario[4] have done so by ignoring every, or virtually every forecast of natural gas and energy prices contained in the evidentiary record. This fact is discussed later in this reply brief.

What is completely missing from any Staff or intervenor discussion of SWEPCO's acquisition of the Selected Wind Facilities is an analysis of the risk to Texas customers if they are not allowed to participate in SWEPCO's acquisition of the Selected Wind Facilities. While it is true that in a sustained low energy and natural gas price environment the customer savings associated with the facilities are lower, it is also true that in a high energy and natural gas price environment the Selected Wind Facilities will provide the largest savings to customers when they need them most. If Texas customers are denied the opportunity to participate in SWEPCO's acquisition of the Selected Wind Facilities, the risk borne by Texas customers is substantial. If natural gas and energy prices are anything but consistently very low for the next 30 years, Texas customers stand to pay hundreds of millions or even billions of dollars more for energy than if they are allowed to participate in SWEPCO's acquisition of the Selected Wind Facilities. For example, as demonstrated in the direct testimony of SWEPCO witness Torpey, assuming no carbon emission burden at all for the next 30 years, customers are expected to pay $971 million more over that same period for energy under the Low Gas No Carbon case if customers do not have the benefit of the Selected Wind Facilities.[5] By offering higher customers savings in futures with higher costs of gas and wholesale power, SWEPCO's acquisition of the Selected Wind Facilities will mitigate, not increase, the risks that customers face over the next 30 years.

Among the representatives of SWEPCO's customers, Texas Industrial Energy Consumers (TIEC) stands alone in opposing SWEPCO's acquisition of the Selected Wind Facilities under any circumstances. That TIEC's perspective on the Selected Wind Facilities is different from other parties is not surprising given the business interest of those TIEC members participating in this case. SWEPCO serves more than 536,300 customers in its three states, including 185,500 in

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[4] TIEC witnesses Pollock and Griffey and OPUC witness Nalepa.

[5] Direct Testimony of John F. Torpey, SWEPCO Ex. 8, Errata Exhibit JFT-3 at 5.

Texas. TIEC represents only 8 customers,[6] including:

- one of the largest natural gas and oil exploration and production companies in the United States,
- an owner of a natural-gas fired cogeneration facility that sells excess energy into the Southwest Power Pool (SPP) energy market, and
- the owner of the largest natural gas transportation pipeline network in the United States.[7]

In its introduction, TIEC makes disingenuous and largely irrelevant comparisons between the Selected Wind Facilities and the Wind Catcher project. TIEC states that Wind Catcher would have produced 16% more energy per MW of installed capacity and did not have significant congestion costs.[8] What TIEC fails to tell the Administrative Law Judges (ALJs) is that the Wind Catcher project was located in the panhandle of Oklahoma, where wind speeds are higher (i.e., higher capacity factor) but needed a 350 mile long generation-tie line to avoid congestion in that remote location at a cost of $1.6 billion.[9] In truth, even with the significantly lower market prices yielded by the 2019 Fundamentals Forecast used in this proceeding compared to those used to evaluate the Wind Catcher project, the net benefits of the two proposals are fairly comparable per dollar of capital investment.[10] Therefore, the benefits associated with the Selected Wind Facilities are more resilient to low energy prices than those associated with the Wind Catcher project.

In its introduction, TIEC also makes the false and largely irrelevant allegation that SWEPCO stands to "earn a return on invested capital of over $1.8 billion."[11] The issue in this case is the probable lowering of costs to customers, not SWEPCO's return on investment. Further, TIEC's allegation suffers from more than one error. First, the amount identified by TIEC is for both SWEPCO and Public Service Company of Oklahoma (PSO). Next, this amount includes

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6 *See* TIEC's List of Participating Members (Jan. 31, 2020).

7 Tr. at 599:18-601:13 (Pollock Cross) (Feb. 26, 2020).

8 TIEC's Initial Brief at 6.

9 *See* SWEPCO's response to CARD RFI No. 1-22, Staff Ex. 7.

10 Staff Ex. 7.

11 TIEC's Initial Brief at 7.

both a debt and equity return. Return on debt is a cost of business and does not represent a return to shareholders. And finally, the equity return contained in the amount identified by TIEC is grossed up for taxes. Only return after taxes represents a return to shareholders, which is regulated and thus reflects the fair cost of providing equity capital. The real point here is that SWEPCO proposes to risk more than $1 billion of its capital for the benefit of customers. In return, SWEPCO asks for only what is afforded by law on any investment made to provide service to customers: "a reasonable opportunity to earn a reasonable return on the utility's invested capital used and useful in providing service to the public in excess of the utility's reasonable and necessary operating expenses."[12]

TIEC calls the Selected Wind Facilities "money losers."[13] The implication of this statement is important. The Company issued a Request for Proposals (RFP) for the acquisition of wind generation and received a robust response from the market. The Company received 35 bids totaling 5,896 MW and representing 19 unique wind projects.[14] After a rigorous bid evaluation process, the Company selected the three best bids – the Traverse, Maverick, and Sundance facilities. CARD witness Norwood testifies that the Company's competitive bidding and bid evaluation process were reasonable.[15] Not even TIEC denies that the Company selected the best three of the 35 bids received. Therefore, if SWEPCO conducted an RFP that received robust response from the market and selected the best of the bids received, yet TIEC still claims the Selected Wind Facilities are "money losers," what TIEC is really arguing is that wind generation is no longer competitive in the market. Such a claim is simply not credible.

SWEPCO's 2018 and 2019 Integrated Resource Plans (IRPs) identified wind resources as economic and part of the optimal plan to serve SWEPCO's customers.[16] Further, TIEC itself claims that SWEPCO is underestimating the amount of wind resources that will be constructed in the coming years:

> SWEPCO's modeling undercounts the amount of renewable generating resources – particularly wind generation – that should be forecasted to be developed during

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[12] Public Utility Regulatory Act, (PURA) § 36.051.

[13] TIEC's Initial Brief at 8.

[14] Direct Testimony of Thomas Brice, SWEPCO Ex. 2 at 19:20-22.

[15] Direct Testimony of Scott Norwood, CARD Ex. 1 at 4:4-5 and Section V.

[16] SWEPCO Ex. 8 at 11:12-18.

> the study period. This was an issue with SWEPCO's modeling in the Wind Catcher case as well, in which the Commission revised the PFD's finding to simply state that "SWEPCO's modeling understated the amount of new wind generation in SPP." The same problem exists with SWEPCO's modeling in this case.[17]

TIEC's claim that wind generation is not economic, while also claiming that much more wind generation will be developed in the coming years, is not credible. If wind projects were in fact "money losers" we would not see the continued large amounts of wind generation investments.

On Monday, March 16, 2020, SWEPCO announced that, in Louisiana, it has reached a settlement agreement with all parties, including the Louisiana Public Service Commission (LPSC) Staff, the Alliance for Affordable Energy, and Walmart, Inc., regarding SWEPCO's proposal to acquire the Selected Wind Facilities.[18] With the Louisiana settlement agreement, as well as the settlements filed in Arkansas and Oklahoma, representatives of more than 900,000 customers across three states have recognized the customer value of acquiring the Selected Wind Facilities. The record in this proceeding establishes that Texas customers, too, should be allowed to take advantage of this opportunity.

II. Certificate of Convenience and Necessity Standard of Review (P.O. Issue No. 2)

There is no dispute that PURA § 37.056 governs the Commission's review of SWEPCO's Certificate of Convenience and Necessity (CCN) application. SWEPCO agrees that following consideration of the statutory factors enumerated in § 37.056 the Commission can grant its application upon showing the CCN amendment is "necessary for the service, accommodation, convenience, or safety of the public." Here, the Commission should grant SWEPCO's application because acquisition of the Selected Wind Facilities will result in a probable lowering of costs. SWEPCO has established "net benefits under a broad range of market and wind conditions, including at low future energy prices and wind facility production levels" through its evidence and witness testimonies.[19] Further establishing it has met its burden, SWEPCO offers a suite of specific guarantees that mitigate risk associated with unexpected circumstances, including a capital

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[17] TIEC's Initial Brief at 36. TIEC devoted an entire subsection (III.C.2.b.ii) of its initial brief to this proposition.

[18] The SWEPCO press release is attached to this Reply Brief as Attachment A. SWEPCO will provide the settlement agreement when filed with the LPSC.

[19] Direct Testimony of Johannes P. Pfeifenberger, SWEPCO Ex. 9 at 51:13-52:2.

cost guarantee, a production tax credit eligibility guarantee, and a minimum production guarantee.[20]

Staff points out "[t]he Commission is not required to give equal weight to any of the statutory factors."[21] OPUC contends the Commission has broad authority in determining on a case-by-case basis whether to grant a CCN application.[22] Indeed, SWEPCO agrees the Commission utilizes its expertise in each case to analyze and weigh the statutory factors, none having absolute weight in a given circumstance.[23] In fact, the Commission has previously granted a CCN application for economic reasons.[24] In the Southwestern Public Service Company (SPS) wind case, the Commission identified the projected customer savings as the basis of the Company's application.[25] Similarly, in the Wind Catcher case, the Commission acknowledged "the main focus of this proceeding and the PFD was a single factor: whether the project would result in the probable lowering of cost[s] to consumers."[26] No one contests that the Commission can grant a CCN on this basis. But SWEPCO does not agree with OPUC's assertion that the statutory factors must necessarily be weighed against each other. Where a factor is generally inapplicable and where there is no negative impact or adverse effect to evaluate, no counterweight is created. Thus, SWEPCO disagrees that the probable lowering of costs "must be *weighed against*" the other factors.[27]

Because SWEPCO's application is chiefly premised on the economic benefits of the

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[20] SWEPCO Ex. 2 at 16:17-17:13 (describing guarantees offered by SWEPCO).

[21] Staff's Initial Brief at 5.

[22] OPUC's Initial Brief at 4.

[23] "To implement in particular circumstances such broadly stated legislative objectives and standards, the Commission must necessarily decide what they mean in those circumstances." *Pub. Util. Com'n of Texas v. Texland Elec. Co.*, 701 S.W.2d 261, 266 (Tex. App.—Austin 1985, writ ref'd n.r.e.) (recognizing no factor is absolute or would prevail in every circumstance).

[24] *See, e.g., Application of Southwestern Public Service Company for Approval of Transactions with ESI Energy, LLC and Invenergy Wind Development North America LLC, to Amend a Certificate of Convenience and Necessity for Wind Generation Projects and Associated Facilities in Hale County, Texas and Roosevelt County, New Mexico, and for Related Approvals*, Docket No. 46936, Final Order at 4 (May 25, 2018); Docket No. 47461 Order, TIEC Ex. 5 at 2.

[25] Docket No. 46936, Final Order at 4.

[26] TIEC Ex. 5 at 2.

[27] OPUC's Initial Brief at 4 (emphasis added).

proposed acquisition, OPUC suggests the acquisition of the Selected Wind Facilities is not necessary.[28] That presumes an unduly restrictive definition of what is necessary for the service, accommodation, convenience, and safety of the public.[29] Customers certainly have a need for low-cost energy. Similarly, TIEC opines that "SWEPCO does not have a need for any capacity that the Wind Facilities would deliver."[30] It is still the case that the acquisition of the Selected Wind Facilities will provide additional capacity to serve SWEPCO load and meet SPP capacity margin requirements.[31]

Like all generation facilities, the Selected Wind Facilities will provide some degree of energy value and some degree of capacity value. Utility resource planning has always been based on the least-cost planning concept. As described by SWEPCO witness Torpey, SWEPCO's least-cost IRP analysis accounts for both variable energy costs and the fixed costs of generation resources.[32] Both of those types of costs are a significant portion of customer bills. Capacity needs are not the only consideration. Utilities forecast resource plans out decades into the future, and select options for the portfolio as a whole that result in the lowest net cost to customers. Some types of resources such as natural gas fueled peaking plants provide little energy value in relation to their capacity value. Other resources such as baseload coal fueled and combined cycle natural gas fueled resources provide large amounts of both energy value and capacity value, but have higher fixed and variable costs that must be incurred to obtain that value. Wind resources including the Selected Wind Facilities have no fuel cost and very little variable production costs and provide PTC value, and thus provide large amounts of energy value and some capacity value in exchange for the fixed cost to build and operate them.

The Company's analysis, under a wide range of assumptions, demonstrates that, despite the lack of a capacity need in the short term, the addition of wind generation now while PTCs are available, is a key portion of the least cost portfolio of future resources. The large amount of

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[28] OPUC's Initial Brief at 4, 29.

[29] *See Hammack v. Pub. Util. Comm'n*, 131 S.W.3d 713, 723 (Tex. App.—Austin 2004, pet. denied) (recognizing the Commission's authority to determine what serves the public need).

[30] TIEC's Initial Brief at 8.

[31] SWEPCO's Initial Brief at 4-5; SWEPCO Ex. 2 at 4:10-16.

[32] *See* SWEPCO Ex. 8 at Section III.

energy value and PTC value produced by the Selected Wind Facilities will fulfill a large portion of that demonstrated need to provide reliable service to customers at the lowest reasonable cost.

SWEPCO explained that the proposed acquisition will diversify SWEPCO's energy resource mix.[33] Acquisition of the Selected Wind Facilities will also provide renewable energy credits that customers may acquire to meet their sustainability and renewable energy goals.[34] The wealth of evidence presented by SWEPCO establishes that the proposed acquisition results in the probable lowering of costs to customers.[35]

ETEC/NTEC agrees that the statutory standard turns in this case on whether SWEPCO demonstrates a probable lowering of costs to customers. However, ETEC/NTEC suggests a requirement of certainty that does not comport with the statutory standard – a *probable* lowering of costs to customers.[36] The Commission has recognized the determination of whether a project results in a probable lowering of costs is "based on certain assumptions of future events, costs, and prices."[37] To that end, SWEPCO has met the controlling standard by demonstrating a probable lowering of customer costs under a broad range of market and wind conditions and reasonable assumptions. Perfect foresight and elimination of all uncertainty and possible risk is not the statutory standard.

Golden Spread's assertions about the effect SPP's FERC-approved cost allocations could have on it are unsupported and irrelevant. Consistent with Commission precedent, several factors identified in PURA § 37.056 are not applicable here and bear no weight, i.e., they are not relevant to the CCN evaluation in this case.[38] Recognizing that certain statutory criteria are specific to facilities located in Texas is not equivalent to "wholly ignor[ing] material portions of the statute" as Golden Spread suggests.[39] It is also nonsensical to say these factors, addressed in the testimony

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33 SWEPCO's Initial Brief at 4-5; SWEPCO Ex. 2 at 4:10-16.

34 SWEPCO's Initial Brief at 4-5; SWEPCO Ex. 2 at 4:10-16.

35 *See generally* Section III of SWEPCO's Initial and Reply Briefs.

36 *See* ETEC/NTEC's Initial Brief at 5 ("There is no guarantee the Selected Wind Facilities will benefit customers.").

37 Docket No. 46936, Final Order at 2.

38 SWEPCO Ex. 2 at 4:10-16.

39 Golden Spread's Initial Brief at 7.

of Mr. Brice, were ignored at all.[40] Moreover, the issue is currently being considered through parties' briefing thus assuring that all factors have been properly considered.[41] Golden Spread did not dispute the underlying proposition that several statutory factors are inapplicable to the Commission's evaluation here due to the location of the facilities in Oklahoma.

Golden Spread focuses on PURA § 37.056(c)(3) regarding "the effect of granting the certificate on the recipient of the certificate and any electric utility serving the proximate area" and on the § 14.101 public interest standard to argue that the Commission should consider and override the cost allocation processes in SPP's FERC-approved Open Access Transmission Tariff (OATT). Notwithstanding the fact that § 37.056(c)(3) pertains to the effect on utilities *in the proximate area of SWEPCO*, SWEPCO witness Brice responded to this issue during cross-examination and addressed it in his direct testimony. He explained that the Selected Wind Facilities will not negatively affect other utilities.[42] Because of their location, there is no reason to anticipate any interference or adverse effect with any other utility. In essence, Golden Spread claims that SWEPCO's application should be denied for failure to produce evidence of an absence of harm, i.e., proof of a negative.[43] As discussed below in Section IV.C. of this brief, Golden Spread offers no meaningful evidence of adverse effect on any utility serving the proximate area within the meaning of PURA § 37.056(c)(3). Instead, Golden Spread has presented a thinly-veiled challenge to the SPP's cost allocation processes and, without any evidence to substantiate its claims, has asked the Commission to override the results of that FERC-approved process. Under cost allocation procedures found just and reasonable by FERC, costs that should be directly assigned to SWEPCO will in fact be directly assigned to SWEPCO, while system upgrades that also benefit others will be allocated regionally.[44] Golden Spread's request is not appropriate or valid under

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[40] Golden Spread's Initial Brief at 7.

[41] SWEPCO's Initial Brief at 5. Accordingly, it is not the case that the decision in this case risks being arbitrary and capricious based on SWEPCO's application, (*see* Golden Spread's Initial Brief at 7 and 14), nor is it necessary to adopt a hold harmless condition to "indicate that the Commission considered" PURA § 37.056(c)(3). Golden Spread's Initial Brief at 15.

[42] SWEPCO Ex. 2 at 25:4-10; Tr.at 100:3-22 (Brice Cross) (Feb. 24, 2020).

[43] "[A]s a practical matter, 'proving a negative is always difficult and frequently impossible.'" *Philadelphia Indem. Ins. Co. v. White*, 490 S.W.3d 468, 495 (Tex. 2016) (internal quotation and citations omitted).

[44] Rebuttal Testimony of C. Richard Ross, SWEPCO Ex. 21 at 4:16-22.

either PURA § 37.056(c)(3) or § 14.101.

As SWEPCO explained in its initial brief, the Commission has previously found in CCN cases involving out-of-state facilities that "[b]ecause the location of the generation unit" is outside of Texas "there will be no adverse effects on any other electric utility serving in Texas."[45] Golden Spread also makes spurious claims regarding the applicable statutory requirement in this case.[46] For example, Golden Spread argues that SWEPCO's application is fatally flawed because it has not properly considered *all Texans* or accounted for effects on non-SWEPCO SPP ratepayers in its analyses.[47] But Golden Spread has offered no evidence to support its claim that "[t]hose SPP transmission ratepayers in Texas who are not served by SWEPCO should be considered in this Docket as well."[48] Golden Spread's repeated contentions are unfounded.

Many of Golden Spread's unsubstantiated arguments in this section of its brief relate to congestion issues and transmission options. Those arguments are addressed in Section III.C.2.e., Congestion and Losses (including Gen-Tie), below.

The Commission should grant SWEPCO's request for a CCN amendment to acquire the Selected Wind Facilities because SWEPCO has satisfied the criteria established by PURA § 37.056. Enabling the Company to provide low cost energy to its customers serves the public convenience and necessity.

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[45] *See Application of Southwestern Electric Power Company for Certificate of Convenience and Necessity Authorization for a Combined Cycle Power Plant in Louisiana*, Docket No. 33048, Order at Finding of Fact (FoF) No. 57 (Mar. 8, 2007); *see also Application of Southwestern Electric Power Company for Certificate of Convenience and Necessity Authorization for Power Plant in Arkansas*, Docket No. 32918, Order at FoF No. 60 (Jan. 19, 2007); *Application of Southwestern Electric Power Company for Certificate of Convenience and Necessity Authorization for a Coal-Fired Power Plant in Arkansas*, Docket No. 33891, Order at FoF No. 43 (Aug. 12, 2008).

[46] *See, e.g.*, Golden Spread's Initial Brief at 3 ("A public interest review of this Application must look beyond the portion of northeast Texas where SWEPCO's retail customers reside to instead consider *all SPP transmission ratepayers in Texas*."). There is no support for this proposition, nor explanation how the *proximate area of the utility applicant* (SWEPCO) reaches so far, and no other party argues as much.

[47] Golden Spread's Initial Brief at 8, 14.

[48] Golden Spread's Initial Brief at 8. The preliminary order for this docket includes nothing resembling the issues Golden Spread raises regarding non-SWEPCO SPP ratepayers in Texas. *See generally* Preliminary Order (Sept. 12, 2019); *see also* Tex. Gov't Code § 2003.049 (e) ("[T]he commission shall provide to the administrative law judge a list of issues or areas that must be addressed. In addition, the commission may identify and provide to the administrative law judge at any time additional issues or areas that must be addressed."). Notably, Golden Spread seeks inclusion of various FERC-jurisdictional issues in the CCN public interest analysis without explaining how those concerns can be addressed in this docket. *See* Golden Spread's Initial Brief at 12 (identifying issues such as SPP ITP transmission planning and cost allocation under the SPP OATT).

III. Analysis of Economics of Selected Wind Facilities (P.O. Issue Nos. 2, 3, 5, 6, 19, 23)

A. Request for Proposals Selection Process

Reply to ETEC/NTEC

Citing testimony by its witness Mr. Chiles, ETEC/NTEC asserts that the Company's use of three different models ignores operational realities.[49] Mr. Chiles' primary concern is that the Company did not assess voltage, reactive, or stability issues,[50] but he seemed to be unaware that the SPP had assessed those issues in its Definitive Interconnection System Impact Study (DISIS) of each of the Selected Wind Facilities.[51] Mr. Chiles also asserts that the Company's PROMOD base case did not include SPP-proposed transmission facilities,[52] but he did not provide any explanation and was apparently referring to facilities proposed by SPP months after the Company filed its case.[53] However, the Company's PROMOD case achieved the same result as adding the SPP-proposed facilities by eliminating in the model the constraints associated with the transmission needs identified by the SPP.[54]

Mr. Chiles' other concerns are also not valid, nor is his proposal that the Company run ten PROMOD models.[55] While Mr. Chiles asserts that Aurora Energy Market Simulation Model (AURORA) gas prices and carbon assumptions are not consistent with PROMOD,[56] Mr. Pfeifenberger's rebuttal testimony explains the reason for scaling PROMOD results based on AURORA market prices and why Mr. Chiles' concerns are unfounded.[57] He also explains that Mr. Chiles' suggestion to run ten PROMOD cases is not feasible because the SPP stakeholders have developed only a few models and the process is resource- and staff-intensive.[58]

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49 ETEC/NTEC's Initial Brief at 8-9.

50 Direct Testimony of John W. Chiles, ETEC/NTEC Ex. 2 at 18:18-19:1.

51 Rebuttal Testimony of Kamran Ali, SWEPCO Ex. 18 at 2:2-3:10.

52 ETEC/NTEC Ex. 2 at 19:1-3.

53 Rebuttal Testimony of Johannes P. Pfeifenberger, SWEPCO Ex. 20 at 21:16-22.

54 SWEPCO Ex. 20 at 21:22-22:9.

55 SWEPCO Ex. 20 at 22:10-25:6.

56 ETEC/NTEC's Initial Brief at 9.

57 SWEPCO Ex. 20 at 22:10-24:12.

58 SWEPCO Ex. 20 at 24:13-25:6.

Reply to TIEC

As described in the testimonies of SWEPCO witnesses Godfrey, Brice, and Torpey, in its Integrated Resource Plan (IRP) SWEPCO identified wind generation resources as potential economic resources for its generation portfolio, not other resources such as solar or natural gas, based on careful modeling of alternative resources. When the Company identifies a need for other resources through its IRP process, it will likely issue an RFP to procure appropriate resources.[59] That is what happened for wind resources in this case.

In its brief, TIEC alleges that Power Purchase Agreements (PPAs) "might have provided a better risk profile" than ownership of the Selected Wind Facilities.[60] This supposition is inaccurate and entirely unsupported. The acquisition and ownership of the Selected Wind Facilities through Purchase and Sale Agreements (PSAs) provides unique benefits that present a higher value option for customers and at a lower risk compared to a PPA. While SWEPCO currently has 469 MWs of wind resources under PPAs already, SWEPCO owns no wind resources. Acquisition of the Selected Wind Facilities will further diversify SWEPCO's generation resources and offers several benefits to SWEPCO and its customers, including:

- the ability for the Company to offer guarantees;
- Company control and ability to react to changes in the market that are not available under a PPA;
- ability to manage congestion risk and preserve customer benefits if congestion becomes a problem;
- allowing SWEPCO, on behalf of customers, to determine the feasibility of running the facilities beyond their design life or of repowering facilities to maximize value to customers;
- providing the Company the opportunity to take advantage of 1) existing or new generation technologies including the installation of battery storage systems or 2) turbine performance improving technologies that include potential improved or

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[59] Rebuttal Testimony of Jay Godfrey, SWEPCO Ex. 15 at 2:13-20.

[60] TIEC's Initial Brief at 9.

advanced parts, system conversions, modifications or upgrades that result in improved performance of the existing wind turbine generators; and

- management of credit risk and metrics associated with PPAs.[61]

To expand on only a couple of these points, ownership provides the Company the opportunity to control the facilities over their 30-year design life and the ability to react to changes that may not be available under a PPA structure, including repowering or life extensions. At the conclusion of the term of a PPA, which in many cases is not the end of life of the asset, the wind farm owner (not the Company) retains all rights to the assets. In contrast, at the end of the design life of the Selected Wind Facilities, the Company will own the wind turbines, associated infrastructure, interconnection facility, interconnection rights, and have control of the land rights and permits. Owning these assets provides the Company significant flexibility to provide additional benefits to its customers. Such options include: 1) extracting the remaining value from the asset by continuing to operate wind turbines that have remaining life, 2) repowering the existing wind turbines, or 3) building new facilities. These options can all make productive use of the existing transmission and interconnection facilities.[62]

Ownership of the Selected Wind Facilities will also enable the Company to implement potential congestion mitigation measures, including the construction of a generation tie-line or a transmission system upgrade, if economically beneficial. With a PPA, the Company as the buyer has limited, if any, options to mitigate congestion for the term of the PPA. As the buyer, the Company could negotiate with the wind farm owner to implement solutions (such as a generation tie-line to an alternate point of interconnection or delivery), but the wind farm owner will not be incentivized to implement any such solutions if it increases their expenses and there is no PPA price adjustment.[63] Even if the Company could build transmission to the PPA facilities, coordinating that investment and its subsequent operations would be significantly more complex.

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[61] SWEPCO Ex. 2 at 13:23-14:17.

[62] SWEPCO Ex. 15 at 4:14-23.

[63] SWEPCO Ex. 15 at 4:3-10.

B. Project Description and Cost

TIEC criticizes SWEPCO on several grounds concerning interim capital costs and ongoing O&M expenses: that they are not included in the capital cost cap; that customers are not protected against actual costs being significantly higher than projected; and that the ongoing capital and O&M cost forecast assumes costs will remain flat in real terms after the first 10 years, contrary to what the turbine manufacturer stated.[64] TIEC's contentions lack merit.

First, Mr. DeRuntz explains why including ongoing capital and O&M costs in a cost cap or guarantee would be inappropriate. SWEPCO has put forward a reasonable forecast. It would not be reasonable to set an ongoing capital cost cap for the duration of the life of the Selected Wind Facilities from an operational perspective. Many factors affecting these costs are beyond SWEPCO's control.[65] Second, customers will be protected against unreasonable costs through the reasonableness and prudence reviews the Commission undertakes in any rate case, which is what SWEPCO assumed when it developed its forecast.[66] TIEC presents similar arguments in Section III.C.6. (Revenue Requirements) of its initial brief. Please see Section III.C.6. below for SWEPCO's additional response. In Section III.C.2.d. (Useful Life) below, SWEPCO explains the fallacies in TIEC's argument concerning the forecast costs versus the turbine manufacturer's advice.

C. Economic Modeling

1. Modeling Methodology

There is relatively little discussion in the parties' initial briefs concerning the Company's modeling methodology, as opposed to the assumptions used in that modeling. CARD's brief notes that Mr. Norwood's analysis found SWEPCO's gas price projections and production capacity forecasts to be in the range of reasonableness, as were the mechanics of SWEPCO's modeling of the Selected Wind Facilities' benefits.[67] In fact, Mr. Norwood testified that SWEPCO's estimates of the net benefits of the facilities appeared reasonable and that the cost/benefit analyses of the

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[64] TIEC's Initial Brief at 10.

[65] Rebuttal Testimony of Joseph G. DeRuntz, SWEPCO Ex. 16 at 4.

[66] SWEPCO Ex. 16 at 4. As an initial matter, because the forecast assumes costs will remain flat "in real terms," the forecast already accounts for inflation.

[67] CARD's Initial Brief at 5.

facilities covered a range of scenarios that generally appeared reasonable and considered the impact of uncertainty in key variables on predicted benefits.[68]

To be clear, the assumptions used in the modeling of the benefits associated with acquisition of the Selected Wind Facilities are different from those used in the Wind Catcher case. OPUC writes that "the same Fundamentals Forecast used by SWEPCO in the Wind Catcher case, is at issue in this proceeding."[69] This statement is false. The current Fundamentals Forecast contains significantly lower energy and natural gas prices. In fact, the energy prices in the current forecast are 34% lower than those used in the Wind Catcher case.[70]

TIEC repeats testimony by ETEC/NTEC witness Chiles alleging that the Company's use of several models compounded the deficiencies and inconsistencies in each model and resulted in a low level of confidence in the results. This issue is addressed in Section III.A. of this brief, Request for Proposals Selection Process, in response to ETEC/NTEC.

In this section of their briefs, TIEC and OPUC also refer to certain assumptions in the modeling, which they discuss in subsequent sections of their briefs.[71] However, given that all planning analyses depend on assumptions about the future, the Company evaluated the costs and benefits of the Selected Wind Facilities under a reasonable range of future assumptions and variety of future conditions, including facility energy production far below the level reasonably expected, energy and gas prices higher and lower than expected, with and without a carbon emission burden, and a high-congestion-cost sensitivity. Assessing customer benefits under such a wide range of future conditions employing widely-accepted industry standard models, the Company's analysis shows that there is a high (not low) confidence in the results, which are that the facilities are expected to provide net customer benefits. Moreover, using each model for its strength (specialized to meet a specific purpose) gets a better overall result than using a single model, which does not allow one to avoid its weaknesses.

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68 CARD Ex. 1 at 20:4-12.

69 OPUC's Initial Brief at 12.

70 Staff Ex. 7.

71 TIEC's Initial Brief at 13; OPUC's Initial Brief at 8-9.

2. Projected Production Cost Savings

a. Natural Gas Prices

In his pre-filed direct testimony, CARD witness Norwood testifies that the commodity price and market energy price assumptions underlying SWEPCO's customer benefit analyses are reasonable.[72] He also testifies that SWEPCO's base case forecast of market energy prices used for the Selected Wind Facilities customer benefit analyses is reasonable and consistent with the Company's base case natural gas price forecast.[73] CARD concedes that Mr. Norwood testifies that SWEPCO's benefits analyses showed net benefits of the acquisition of the Selected Wind Facilities to be in the range of $94 million to $718 million on a net-present-value (NPV) basis, for an average net benefits of $369 million on an NPV basis across the wide range of cases.[74] Mr. Norwood's Table 6 is replicated below.

Table 6
SWEPCO's Estimates of Net Benefits of SWFs[36]
(NPV over 30-year life, Total Company, $Millions)

Scenarios	NPV	Nominal
1 Base Gas, Base Wind, With CO2	$567	$2,030
2 Base Gas, Base Wind, No CO2	$396	$1,453
3 Low Gas, Base Wind, With CO2	$396	$1,532
4 Low Gas, Base Wind, No CO2	$236	$971
5 High Gas, Base Wind, With CO2	$718	$2,501
6 Base Gas, Low Wind, With CO2	$330	$1,386
7 Base Gas, Low Wind, No CO2	$187	$883
8 Low Gas, Low Wind, With CO2	$183	$960
9 High Gas, Low Wind, With CO2	$461	$1,792
10 Base Gas, Base Wind, High Congestion, With CO2	$541	$2,025
11 Base Gas, Base Wind, High Congestion, No CO2	$330	$1,285
12 Base Gas, Low Wind, High Congestion, No CO2	$94	$640
Average	$369	$1,455

Mr. Norwood's Table 6 is instructive because it is the only attempt made in any brief other than SWEPCO's to show estimated customer benefits under a range of possible future circumstances, including low, base, and high gas price forecasts. Other intervenors, particularly TIEC, would have the Commission believe that the "trended NYMEX futures" and the lowest of

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[72] CARD Ex. 1 at 17:22-25.

[73] CARD Ex. 1 at 18:5-7.

[74] CARD's Initial Brief at 6. CARD's initial brief mistakenly refers to the average NPV benefits of the facilities over their 30-year life as "$369 per year on a total-company basis."

the 2020 Energy Information Administration (EIA) forecasts combined with very low wind outputs represent the universe of possible future circumstances. Moreover, TIEC's position that ***all*** the other 44 natural gas price forecasts identified in the record are "irrelevant" is simply not credible.

TIEC alleges that its witness Mr. Pollock presented "several" of AEP's forecasts, EIA's forecasts, and NYMEX prices trended on levelized terms.[75] That allegation is false. For this falsehood, TIEC cites page 21 of Mr. Pollock's testimony where he compares SWEPCO's base and low cases with only two of EIA's cases and Mr. Pollock's own "trended" NYMEX futures. TIEC ignores more than 40 other natural gas forecasts contained in the record. In fact, at hearing, Mr. Pollock admitted as much:

> Q Okay. And so you would agree with me that the EIA High Oil and Gas Supply and Technology case is the lowest. Of all of those forecasts, whether they be 30 or 60, that is the lowest that was provided to you. Correct?
>
> A I haven't done an analysis to compare all the forecasts, so I don't know if it was the lowest or not.
>
> * * *
>
> Q So in your opinion, when EIA came out with their 2020 forecasts, all those other forecasts you had became irrelevant?
>
> A As I said, I didn't rely on the third-party forecasts. I relied on the EIA reference and the high technology forecast -- the High Oil and Gas Supply.
>
> Q Okay. Do you consider all those other forecasts that you were given to be relevant at all to the evaluation of these wind facilities?
>
> A I have not looked at the other forecasts. I've not relied on those other forecasts. You know, I was looking at the information that was publicly available, not the third-party forecasts.[76]

TIEC writes, "AEP's forecast is high compared to EIA forecasts, which themselves have

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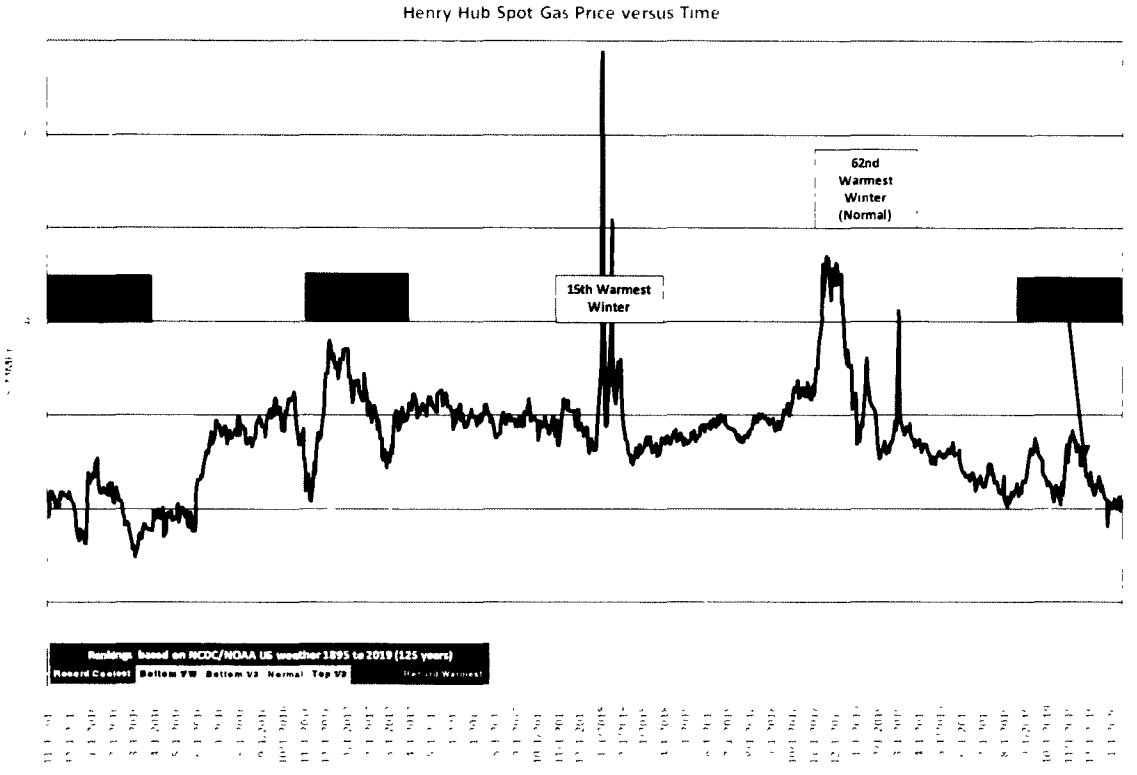
[75] TIEC's Initial Brief at 14.

[76] Tr. at 611:20-612:1 and 613:12-614:1 (Pollock Cross) (Feb. 26, 2020).

been too high in recent years."[77] This statement leaves the reader to wonder whether counsel for TIEC knows something that the EIA and the AEP Fundamentals group don't know. The facts demonstrate otherwise. Of the 125 years on record, the winters of 2015-16, 2016-17, and December of 2019 were among the top 10 warmest, the winter of 2017-18 was 15th warmest, and the winter of 2018-19 was "normal." This fact is graphically demonstrated in Figure 6 of the rebuttal testimony of SWEPCO witness Bletzacker shown below.

Figure 6



Not represented in Figure 6 are the prior five years, three of which experienced top 25% warmer-than-normal weather, with the winter of 2011-12 experiencing the second warmest winter in 125 years.[78] TIEC witness Pollock does not dispute or even address this fact. In its brief, TIEC's only response is that the Commission has, in a previous SWEPCO rate case determined that billing determinants should be calculated using a 10-year normalization period.[79] As an initial

[77] TIEC's Initial Brief at 16.

[78] Rebuttal Testimony of Karl R. Bletzacker, SWEPCO Ex. 17 at 12:12-13:5.

[79] TIEC's Initial Brief at 28.

matter, there is no evidence that any reputable organization that forecasts natural gas prices is abandoning the industry standard 30-year weather normalization. Further, it is unclear whether TIEC is trying to take a position on global climate change or just trying to deny the obvious effect of weather on spot natural gas prices. The weather's effect on spot natural gas prices is unaddressed and undisputed by any intervenor witness, including Mr. Pollock. If a simple extrapolation of current prices and NYMEX futures was as reliably a predictor as Mr. Pollock and TIEC suggests, there would be little value to EIA or to any of the third-party forecasts bought by companies in the industry at considerable expense (as Mr. Pollock recognized during cross examination).

Mr. Pollock's resume reveals no particular expertise in or experience with the natural gas industry.[80] This lack of expertise and experience stands in contrast to the expertise and experience of both the EIA and SWEPCO witness Bletzacker. The EIA (a part of the U.S. Department of Energy) collects, analyzes, and disseminates independent and impartial energy information to promote sound policymaking, efficient markets, and public understanding of energy and its interaction with the economy and the environment.[81] Mr. Bletzacker's experience in the natural gas industry is substantial:

- managed the purchasing, interstate transmission, and distribution of natural gas and power to both regulated and unregulated consumers,
- implemented risk management strategies using NYMEX and over-the-counter natural gas futures, swaps, and options since the NYMEX natural gas contract was first offered in June of 1990,
- purchased short- and long-term natural gas supply from major and independent producers and marketing companies and monetized arbitrage opportunities using NYMEX futures contracts, local and contract natural gas storage, pipeline imbalances, and local distribution company banks,
- implemented hedging strategies utilizing NYMEX natural gas futures contracts and operated a natural gas supply pool for the benefit of Honda of America Mfg., Inc. and its suppliers in North America, and
- as Vice-President and Chief Operating Officer of a publicly-traded Ohio natural gas utility, responsible for the natural gas pricing and risk management policies that ensured reliable delivery and managed customers' exposure to volatile commodity prices.

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[80] *See* Redacted Direct Testimony of Jeffrey Pollock, TIEC Ex. 1 at Appendix A.

[81] Direct Testimony of Karl R. Bletzacker, SWEPCO Ex. 5 at 11:5-8.

Mr. Bletzacker joined AEP in 2005 to focus on the creation of long-term North American energy market forecasts primarily to support the integrated resource and strategic planning of its operating companies.[82]

One of the TIEC participating members is among the largest oil and natural gas exploration and production companies in the United States. One would think that, if TIEC wanted an informed view on the expected future price of natural gas, TIEC would have turned to its participating member. At least TIEC's witness Pollock did not:

> Q And let me break those down. Do your views expressed in your testimony represent the views – let's say, on long-term natural gas prices, does that represent Occidental's view of long-term natural gas prices?
>
> A No. I haven't consulted with any client with respect to what their view happens to be.[83]

TIEC had at its disposal one of the largest oil and natural gas producers in the United States and did not seek out its expertise regarding projected natural gas prices. This fact implies TIEC's willful disregard of credible forecasts of future natural gas prices. TIEC certainly does not claim that Mr. Pollock is more knowledgeable than Occidental regarding the future price of natural gas.

The memory of TIEC regarding natural gas prices is short. The expected useful life of the Selected Wind Facilities is 30 years. Figure 8 from Mr. Bletzacker's rebuttal testimony, reproduced below, compares inflation-adjusted actual daily Henry Hub spot prices from 1997-2020 to the inflation-adjusted Henry Hub average spot price ($5.06/MMBtu) from the Company's High Gas forecast. The actual daily Henry Hub spot price average for this period was $5.24/MMBtu, which is $0.18 <u>higher</u> than the Company's High Gas forecast average. TIEC's allegation that the AEP Fundamentals Forecast and EIA forecasts have been higher than the spot price of natural gas is detached from past evidence, lacks consideration of inherent volatility due to weather or force majeure events, and does not give credence to the possibility of any sea-change—regulatory, geopolitical, or other—influence.[84]

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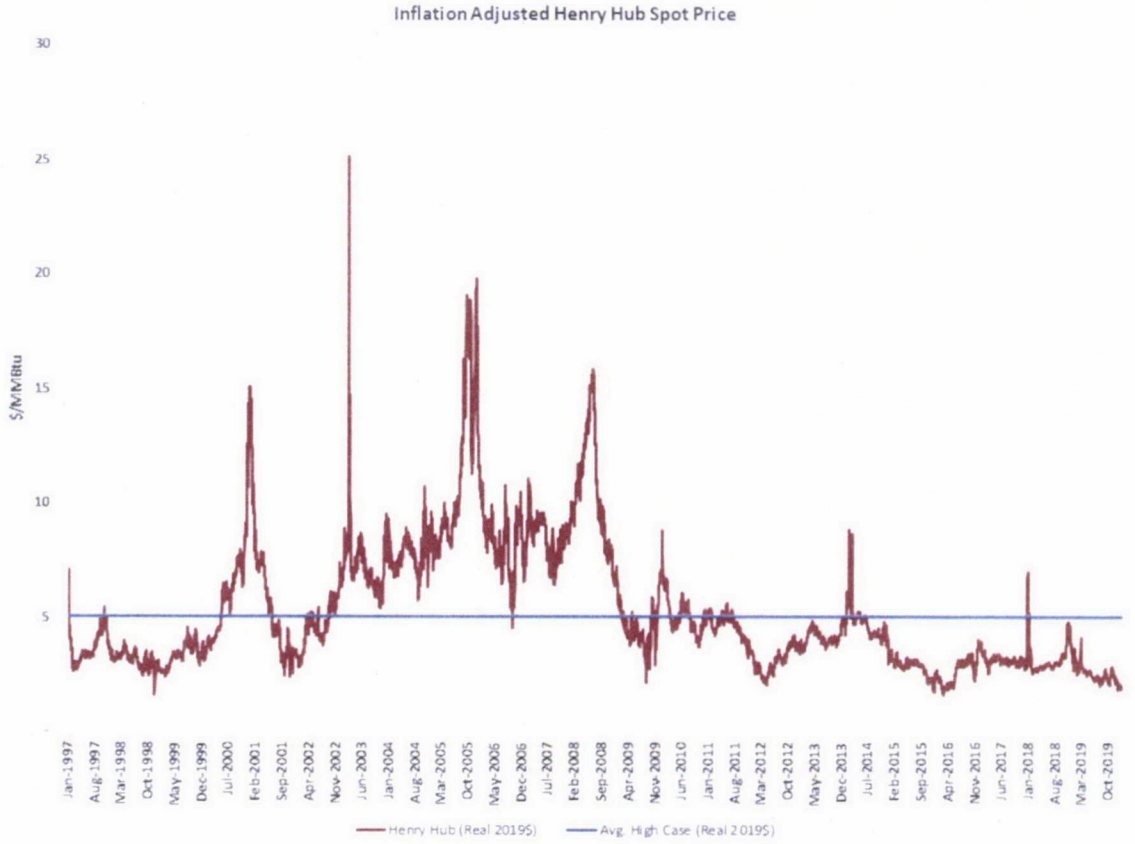
[82] SWEPCO Ex. 5 at 1:9-2:11.

[83] Tr. at 602:9-15 (Pollock Cross) (Feb. 26, 2020).

[84] SWEPCO Ex. 17 at 17:10-20.



Both TIEC and OPUC attempt to cast the "trended" NYMEX futures prices created largely by their own witnesses, Messrs. Pollock and Nalepa, as a "forecast" of natural gas prices. In this attempt, TIEC relies on one debunked allegation after another. TIEC writes that "there are actual transactions between buyers and sellers occurring on the NYMEX well beyond the two-year period Mr. Bletzacker references."[85] The facts revealed by TIEC's own witness tell a very different story. Mr. Pollock admits and other evidence establishes that this statement is true only for about the first 36 months of the NYMEX futures prices. In discovery, Mr. Pollock conceded that NYMEX futures contracts are liquid only in the near term of "up to 36 months,"[86] which is hardly "well beyond the two-year period Mr. Bletzacker references," as TEIC claims.[87] In its attempt to cast

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85 TIEC's Initial Brief at 24.

86 TIEC's response to SWEPCO RFI No. 1-5, SWEPCO Ex. 34.

87 TIEC's Initial Brief at 24.

NYMEX prices as a forecast, OPUC quotes the testimony of its own witness which disproves OPUC's claim: "[NYMEX] provides a daily report of future prices that are not strictly a forecast, but rather a set of future prices at which market participants are willing to enter into natural gas transactions."[88] In discovery, both Mr. Pollock and OPUC witness Nalepa were asked to provide the "actual transactions between buyers and sellers," by year, reflected in the NYMEX futures prices they relied on. Both discovery responses show no or virtually no actual transactions between buyers and sellers beyond 36 months.[89]

Having to admit that the vast majority of NYMEX futures prices have no actual transactions behind them, TIEC then writes that the organization that owns NYMEX creates prices by using "bid/ask spreads, and also looks to information outside the NYMEX exchange."[90] At hearing, TIEC witness Pollock had to admit that the bids and asks being referred to are bids no one accepted and offers no one was willing to buy:

> Q Okay. We've figured out that there are no actual trades after about the first 36 months. Correct?
>
> A In the 30-day period, that's right.
>
> * * *
>
> Q Okay. All right. So let's talk about everything after that 36 months. So then it says that they base -- they base prices on bids and offers. Let me ask you this: A bid is a bid that somebody put in to the NYMEX and nobody bought it. Correct?
>
> A At that price, yeah. At that time, yes.
>
> Q That's right. And "ask" means somebody said we'll –
>
> A Willing to sell.
>
> Q -- buy it at this price, and nobody was willing to sell it to them. Correct?

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[88] OPUC's Initial Brief at 10 (quoting the Direct Testimony of Mr. Nalepa).

[89] OPUC's response to SWEPCO RFI No. 1-3, SWEPCO Ex. 26; TIEC Response to SWEPCO RFI No. 1-6, SWEPCO Ex. 35.

[90] TIEC's Initial Brief at 24.

A Buyers and sellers, yes.[91]

When asked about "information outside the NYMEX exchange" that is allegedly used to create NYMEX prices, Mr. Pollock made a vague reference to "other over-the-counter markets" and offered no other actual knowledge regarding what this outside information is.[92] Mr. Pollock had to admit that he was testifying about TIEC witness Griffey's understanding, not his own.[93]

In its brief, OPUC identifies the indirect, yet important, part natural gas prices play in the evaluation of the Selected Wind Facilities. OPUC explains that natural gas "often sets the marginal price for electricity in the wholesale market. Therefore, as natural gas prices increase, the economic benefits of other power generation resources, such as wind generation, correspondingly increase."[94] This statement provides important context to the evaluation of the customer benefits associated with the acquisition of the Selected Wind Facilities. As natural gas and energy prices rise, so do the customer benefits associated with the acquisition of the Selected Wind Facilities. In other words, the Selected Wind Facilities provide the most customer benefit when customers need those benefits most – in a high natural gas and energy price environment. Once the hyperbole is swept to the side, what OPUC and TIEC are arguing is that the price of natural gas and energy might be so low for the next 30 years that the market might produce energy prices lower than the net cost of power and PTC benefits from the Selected Wind Facilities. It cannot be disputed that acquisition of the Selected Wind Facilities will reduce the risk that customers will suffer from high natural gas and energy costs. OPUC and TIEC would have the Commission consider only the "risk" that, in a persistent low natural gas and energy price environment, the market might produce energy prices slightly lower than the mostly fixed-price, low cost energy that will be produced by the Selected Wind Facilities.

b. Other Assumptions Affecting Locational Marginal Prices

Possibility of a Future Enforced Carbon Burden

SWEPCO studied the expected customer benefits of the acquisition of the Selected Wind Facilities under a wide range of future circumstances. The potential of a future enforced carbon

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91 Tr. at 643:23-25 and 644:23-645:10 (Pollock Cross) (Feb. 26, 2020).

92 Tr. at 625:24-626:3 (Pollock Cross) (Feb. 26, 2020).

93 *See* Tr. at 643:12-17 (Pollock Cross) (Feb. 26, 2020).

94 OPUC's Initial Brief at 9.

emission burden (beginning in 2028) was only one of the potential future circumstances studied. The potential that no such emission burden will exist over the 30-year life of the Selected Wind Facilities was also studied. These two potential future circumstances are clearly identified in the testimonies of SWEPCO witnesses Torpey and Bletzacker, with those cases that assume no carbon emission burden being labeled as "No CO_2." SWEPCO does not ask the Commission to choose one future circumstance over the other any more than SWEPCO asks the Commission to choose one forecast of natural gas prices to the exclusion of all others. Instead, the study of a future carbon emission burden is just one of the plausible circumstances that should be considered by the Commission in the evaluation of the Selected Wind Facilities. Staff's allegation that such an enforced burden is "unlikely" only proves this point.[95] The probability of a future carbon emission burden is a positive number greater than zero.

Just how unlikely is a future carbon emission burden? CARD witness Norwood testified that it is a risk that should be considered.[96] In fact, he testified that, in light of NYMEX futures, it might be appropriate to look at SWEPCO's low gas price scenarios and he prepared an average of the customer benefits under those scenarios, two of which are with carbon.[97] At the hearing, OPUC witness Nalepa agreed that the risk of a carbon emissions burden should be considered in this case,[98] although he did not do so in his prefiled testimony. He also agreed that such a carbon burden was almost implemented several years ago with the EPA's Clean Power Plan.[99] Although that situation changed with the 2016 election, Mr. Nalepa also agreed that it could change back in the election later this year or in any presidential election during the life of the Selected Wind Facilities.[100] Clearly, the carbon burden risk is not so unlikely as to be dismissed out of hand, and Staff and several intervenors do. Instead, the approach of SWEPCO and CARD witness Norwood

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[95] Commission Staff writes, "Although it is possible that a carbon tax could be imposed in the future, it is unlikely." Staff's Initial Brief at 10. OPUC adds little to this question, stating that it "believes that the imposition of a carbon tax is an unreasonable assumption in SWEPCO's Base Case, since a carbon tax has never been implemented in the U.S. . . ." OPUC's Initial Brief at 16.

[96] Tr. at 662:19-663:15 (Norwood Cross) (Feb. 26, 2020).

[97] Tr. at 667:17-669:19 (Norwood Cross) (Feb. 26, 2020), CARD Ex. 1 at 20:13-25, 82 (Attachment SN-7).

[98] Tr. at 682:15-684:15 (Nalepa Cross) (Feb. 26, 2020).

[99] Tr. at 684:16-24 (Nalepa Cross) (Feb. 26, 2020).

[100] Tr. at 684:25-686:8 (Nalepa Cross) (Feb. 26, 2020).

to consider carbon risk in evaluating the Selected Wind Facilities in this case is more reasonable.

In 2008, TIEC witness Pollock filed testimony that assumed the imposition of a carbon emission burden was a given and even testified that the $15/ton figure being used by SWEPCO then, as it is now, "is on the very low end of the range of possibilities."[101] In explanation, TIEC writes that, in 2008 "there was a strong bipartisan push to adopt carbon burdens" and now "bipartisanship around the issue has all but disappeared."[102] TIEC makes this statement as though the present political circumstances will not and cannot change. The Selected Wind Facilities will have an expected life of 30 years. When asked at hearing about whether such bipartisanship will again exist at any time in the next 30 years, TIEC's witness Pollock responded, "I'm not a political pundit. I have no idea, but it seems sort of unlikely for the near term."[103]

SWEPCO does not ask the Commission to determine whether or not political circumstances will or will not change over the next 30-years. Instead, SWEPCO asks the Commission to acknowledge the possibility of a future carbon emission burden, as it did in Docket No. 47461,[104] and find that it is a possibility that should reasonably be considered in the evaluation of the Selected Wind Facilities. If the Commission also wants to evaluate the Selected Wind Facilities assuming no such burden is enforced for the next 30 years, there is plenty of record evidence which does just that. For example, as demonstrated in the direct testimony of SWEPCO witness Torpey, assuming no carbon burden at all for the next 30 years, the Selected Wind Facilities are expected to result in benefits of $1.453 billion (nominal)/$396 million (NPV) and $971 million (nominal)/$236 million (NPV) in the Base Gas No Carbon and Low Gas No Carbon cases, respectively.[105]

Despite Mr. Pollock's testimony that he had "no idea" what future legislation may bring, TIEC quotes Mr. Pollock for the proposition that, if Congress takes action on carbon emissions, "it is just as likely (if not more likely)" that future legislation will take the form of an extension of

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[101] Docket No. 33891 Supplemental Direct Testimony of Jeffrey Pollock, SWEPCO Ex. 36 at 20:9-21:11.

[102] TIEC's Initial Brief at 34.

[103] Tr. at 649:6-11 (Pollock Cross) (Feb. 26, 2020).

[104] TIEC Ex. 5 at FoF No. 96.

[105] SWEPCO Ex. 8, Errata Exhibit JFT-3 at 2 and 5.

the Production Tax Credits (PTCs).[106] TIEC goes on to allege that incentives for renewable generation such as PTCs "have the opposite effect on LMPs as a carbon-tax."[107] This allegation does not withstand scrutiny. OPUC explains in its brief that natural gas "often sets the marginal price for electricity in the wholesale market."[108] PTCs would decrease the cost of wind generation, but would decrease the cost of energy only if wind is the marginal unit being dispatched. As long as fossil units are retained in the dispatch stack and are on the margin, PTCs for wind generation would have little impact on Locational Marginal Prices (LMPs).

TIEC alleges that SWEPCO has the "burden of proving that it is likely that a carbon-tax will be implemented during the relevant timeframe."[109] This contention is false. The controlling statute allows the Commission to grant certification of the acquisition of the Selected Wind Facilities if that acquisition will lead to the probable lowering of costs to customers. The word "probable," as used by the Legislature, acknowledges that whether costs will be lowered or not depends on evaluation of future circumstances. SWEPCO does not have to pick one set of circumstances as those that will definitely prevail in the future. Neither does the Commission. Instead, SWEPCO has studied the customer benefits of acquiring the Selected Wind Facilities under a range of reasonable possibilities and has demonstrated that the acquisition of those facilities is reasonably expected to lower costs to customers.

In a 2017 report issued by CDP Global (CDP), an international non-profit organization that gathers environmental disclosures from companies and organizations around the world, it was reported that 84% of the Utilities Sector was assigning a price on carbon for internal business planning purposes. In the 2019 disclosures gathered by CDP, many of the TIEC members participating in this proceeding indicated that they also assign a price on carbon for internal business planning purposes, including Air Liquide, Eastman Chemical, Komatsu, and Occidental Petroleum.[110] In a footnote in its brief TIEC explains "companies engaged in private enterprise may have their own internal goals for their own reasons, . . ."[111] It seems unlikely that "private

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[106] TIEC's Initial Brief at 35.

[107] TIEC's Initial Brief at 35.

[108] OPUC's Initial Brief at 9.

[109] TIEC's Initial Brief at 35.

[110] SWEPCO Ex. 17 at 26:21-27:4.

[111] TIEC's Initial Brief at 35, n. 156.

enterprise" is incorporating a cost on carbon for business planning purposes if those companies think such a cost is only a matter of speculation. TIEC is simply not credible on this issue.

Amount of Renewables Modeled

TIEC provides pages of argument concerning future renewables penetration, while no other party addresses the issue. As noted previously, CARD witness Norwood found that SWEPCO's estimates of the net benefits of the Selected Wind Facilities appeared reasonable and that the cost/benefit analyses of the facilities covered a range of scenarios that generally appeared reasonable and considered the impact of uncertainty in key variables on predicted benefits.[112] SWEPCO will respond to each of TIEC's arguments in turn.

As an initial matter, TIEC's premise that additional wind in the SPP would significantly impact the customer benefits of the Selected Wind Facilities is mistaken. The facilities' benefits depend on LMPs at the AEP West load zone where SWEPCO's load purchases are made and at SWEPCO's conventional generation locations where SWEPCO's off-system sales revenues are generated. Neither of these locations are significantly affected by pricing in SPP's congested, low-deliverability wind locations.[113] As Mr. Pfeifenberger's rebuttal testimony demonstrated, the impact of 3,400 MW of additional wind in Oklahoma on AEP load zone prices was less than 2% in both 2024 and 2029, while the impact on the LMPs at the Company's generating facilities was 0.5% in 2024 and 0.01% in 2029.[114] This result is consistent with a recent study by the Lawrence Berkeley National Laboratory (LBNL) showing that for SPP, the price impact of wind generation was approximately $0.05/MWh for each one percent of penetration, which is even less impact than Mr. Pfeifenberger's determination.[115]

TIEC's purported quantification of the impact of additional wind in the SPP overlooks the market impacts that would result from its gas price and renewable assumptions if they were correct. To begin with, a future with gas prices as low as TIEC suggests would likely have more coal

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[112] CARD Ex. 1 at 20:4-12.

[113] *See* SWEPCO Ex. 20 at 10:1-11 and Figure 2 (showing the small impact of 3.400 MW of additional wind generation on LMPs at the SWEPCO Gen Zone and AEP Load Zone).

[114] SWEPCO Ex. 20 at 10:1-11 and Figure 2.

[115] SWEPCO Ex. 20 at 11:8-10 and 12:1-7.

retirements, which would tend to increase power prices relative to TIEC's proposed levels.[116] Even with more realistic gas price assumptions, TIEC's asserted higher renewable penetration would likely result in more coal plant retirements and power prices higher than TIEC suggests. As discussed further below, the 2024 and 2029 SPP Integrated Transmission Planning (ITP) PROMOD models that SWEPCO used reflect a considered and balanced set of assumptions on these and other factors that affect the model results,[117] rather than selective adjustments as TIEC proposes. In short, TIEC ignores the fact that its assumptions about gas prices and renewable penetration would have market impacts that tend to increase the price of power relative to TIEC's asserted levels.

TIEC's quantification of renewable penetration impact on the benefits of the Selected Wind Facilities is not credible. For example, TIEC's brief cites Mr. Griffey's asserted adjustment based on implied heat rates[118] rather than Mr. Pollock's (lower) asserted adjustment[119] to LMPs even though it was Mr. Pollock, not Mr. Griffey, who addressed wind penetration assumptions and their alleged impact. Moreover, Mr. Griffey's asserted adjustment incorporates TIEC's trended NYMEX futures gas prices, not just implied heat rates,[120] in spite of the fact that TIEC's brief presents Mr. Griffey's adjustment under the heading "Impact of Undercounting Renewable Additions."[121] Mr. Griffey also cites a SWEPCO discovery response to support basing his adjustment on the InterContinental Exchange (ICE) SPP South Hub forward prices,[122] even though that discovery response noted that the total number of ICE SPP South futures contracts (i.e., open interest) is extremely low in the near term and *de minimis* or zero thereafter, indicating illiquidity.[123] In short, TIEC has not presented a credible assessment of the impact of wind penetration on the benefits of the Selected Wind Facilities.

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[116] SWEPCO Ex. 20 at 16:1-17:9.

[117] Tr. at 356:16-358:18 (Sheilendranath Cross) (Feb. 25, 2020).

[118] TIEC's Initial Brief at 47-48.

[119] TIEC Ex. 1 at 32:7-13.

[120] Redacted Direct Testimony of Charles S. Griffey, TIEC Ex. 2 at 37:11-17.

[121] TIEC's Initial Brief at 46-47.

[122] TIEC Ex. 2 at 36:1-37:17 and n. 49.

[123] TIEC Ex. 2 at 114.

Moreover, TIEC presents a distorted view of the level of renewable additions included in SWEPCO's benefits analysis. As noted in its initial brief, the Company relied on the 2024 and 2029 PROMOD models developed by stakeholders in the SPP ITP process, which include 24,200 MW of installed wind generation for 2024 and 24,600 MW by 2029, compared to approximately 21,400 MW installed today, and 3,000 MW of installed solar generation in 2024 and 5,000 MW in 2029, compared to 250 MW installed today.[124] The Company added 1,000 MW of additional wind to reflect the Traverse facility, which was not in the SPP ITP model.[125] As Mr. Pollock acknowledges, the wind and solar generation amounts used in the Company's AURORA model were similar to the SPP ITP assessment.[126]

Despite this evidence, TIEC's brief asserts that SWEPCO's models did not assume any new wind in SPP after 2020.[127] There are several problems with this claim. First, TIEC cites page 35 of Mr. Griffey's testimony to support it. That page states: "*As mentioned earlier*, SWEPCO's modeling did not add any additional wind resources after 2020."[128] However, there is no "mentioned earlier" in Mr. Griffey's testimony. Mr. Griffey does state, *later* in his testimony, that SWEPCO's AURORA runs used to produce its fundamentals forecast do not add wind after the resources *already in the queue in 2019 and 2020.*[129] If this is the support for TIEC's claim, it is hard to understand considering the level of wind resources that Mr. Pollock acknowledges are in the queue.[130] Moreover, as Mr. Bletzacker explained at the hearing and in his rebuttal testimony, the AURORA model retires existing wind generators and repowers them in place as opposed to adding new generators.[131] Mr. Bletzacker did not agree with the statement that the model adds no

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[124] SWEPCO Ex. 9 at 8:17-20, 19:2.

[125] SWEPCO Ex. 20 at 4:11-14 and 10:Figure 2 Notes.

[126] TIEC Ex. 1 at 31:9-10, *see also* SWEPCO Ex. 20 at 6:20-23.

[127] TIEC's Initial Brief at 37.

[128] TIEC Ex. 2 at 35:3-4.

[129] TIEC Ex. 2 at 49:1-2.

[130] TIEC Ex. 1 at 29:16-30:Table 7.

[131] Tr. at 269:13-270:9 (Bletzacker Cross) (Feb. 24, 2020); SWEPCO Ex. 17 at 28:18-23 ("Both Mr. Griffey's observation that the Company's modeling did not add any additional wind resources and Mr. Pollock's assertion 'that the amount of additional renewable energy resources is understated' after 2020 are incorrect. Existing wind resources can be retired after their life expectancy, however, re-powering of the wind resources in situ (at a lower cost than a new facility) is the outcome indicated by the Company's modeling." (internal citations omitted).

new wind after 2020,[132] yet TIEC repeats that statement in its brief anyway.

TIEC's focus on the AURORA model's 2020 wind level assumption is misdirected. The model cited by TIEC contains approximately 24,600 MW of wind in 2020,[133] which is *already* at the level of wind capacity forecast by SPP and its stakeholders for *2029* in SPP's ITP model.[134] SPP's board recently approved $337 million of new ITP-based transmission projects employing the ITP assumptions for future wind capacity in 2024 and 2029. In fact, SPP's recent board-approved 2019 ITP Assessment Report (November 2019) notes that SPP conducted a more in-depth analysis in the 2019 ITP study with the goal "*to better forecast renewables development, which will allow the region to proactively build the infrastructure needed to alleviate congestion and provide access to less expensive energy.*" This suggests that the 2024 and 2029 renewable generation assumptions in the SPP Reference Case were recently vetted and found to be appropriate for use in assessing the costs and benefits of SPP's transmission portfolio.[135] AEP's modeling assumptions are consistent with the forecasts of SPP and its stakeholders. TIEC's reference to 2020 wind levels is misleading.

Mr. Pfeifenberger's rebuttal testimony responds to TIEC's arguments about the SPP generation interconnection queue.[136] Notably, SPP stakeholders were aware of the interconnection queue when they approved the ITP PROMOD models that SWEPCO used. Those models contain all planned and/or needed future generation resources at levels and locations that SPP and its stakeholders deemed feasible for development by 2024 and 2029.[137] As noted above, SPP's recently-approved 2019 ITP Assessment Report (November 2019) indicates that SPP conducted a more in-depth analysis in which the 2024 and 2029 renewable generation assumptions were vetted extensively and found to be appropriate.[138] The fact that TIEC disagrees with those assumptions does not change their validity.

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[132] Tr. at 269:13-21 (Bletzacker Cross) (Feb. 24, 2020).

[133] SWEPCO's response to TIEC RFI No. 11-6, TIEC Ex. 45.

[134] SWEPCO Ex. 9 at 8:17-20.

[135] SWEPCO Ex. 20 at 4:2-7.

[136] TIEC's Initial Brief at 38-41.

[137] SWEPCO Ex. 20 at 3:7-12.

[138] SWEPCO Ex. 20 at 4:2-7.

SPP and its stakeholders specifically developed renewable generation forecasts reflecting a shift from wind to solar generation that is not yet reflected in SPP's generation interconnection queue. As noted in Mr. Pfeifenberger's rebuttal testimony,[139] SPP's ITP projections contain less growth in wind generation but significantly more solar generation than what is in the SPP queue. While the SPP interconnection queue only contains 260 MW of expected solar resources with fully executed generation interconnection agreements, SPP and its stakeholders have projected (and reflected in the SPP PROMOD models) that installed solar generation will grow from approximately 250 MW today to 3,000 MW in 2024 and to 5,000 MW in 2029. This shift from wind to solar generation was a conscious decision of SPP stakeholders to reflect the fact that tax incentives for wind generation phase out more quickly than the tax incentives available to solar generation. While TIEC points to Company statements about wind development up to 30 GW,[140] the Company's models reflect close to that level of renewable development[141] and the SPP ITP stakeholders chose to assume more solar development and less wind. Moreover, despite the uncertainty concerning development of resources in the SPP interconnection queue discussed by Mr. Pfeifenberger,[142] the 30 GW level includes approximately the amount of on schedule renewables development in the queue cited by TIEC.[143]

TIEC refers to EIA projections for "renewables" in SPP in 2024 and 2029,[144] but those projections are inconsistent with SPP and its stakeholders' forecasts for future renewables in the SPP.[145] Given that SPP and its stakeholders have more intimate knowledge of project development in the SPP, including key transmission limitations and hurdles for project development, it is more reasonable to rely on SPP's assumptions for renewables in the SPP than EIA's assumptions. The Commission should not rely on the EIA data that was not presented by any witness or subject to review and cross examination.

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[139] SWEPCO Ex. 20 at 6:3-15.

[140] TIEC's Initial Brief at 40.

[141] SWEPCO Ex. 20 at 7, Figure 1.

[142] SWEPCO Ex. 20 at 5:1-6:2.

[143] SWEPCO Ex. 20 at 7:6-10 and Figure 1.

[144] TIEC's Initial Brief at 41-43.

[145] Footnote 2 of the TIEC exhibit also makes clear that EIA's definition of renewables includes numerous technologies other than wind and solar, including hydro power.

TIEC also incorrectly asserts that increasing LMPs and flat heat rates indicate there should be increased levels of renewable generation in SWEPCO's analysis.[146] However, TIEC has noted the correlation between gas prices and power prices[147] and every Company, EIA, and third-party long-term forecast presented in Mr. Bletzacker's testimony and rebuttal testimony shows increasing gas prices.[148] As a result, it is hardly surprising that LMPs would also increase. Although TIEC asserts that flat implied heat rates indicate SWEPCO has understated renewable penetration, implied heat rates *increased* in the SPP from 2012 to 2018, instead of decreasing as TIEC asserts they should, despite the fact that SPP wind capacity almost tripled during that period.[149] Moreover, three of the four heat rates shown in Mr. Griffey's Figure 8 *do* decrease, although Figure 8 portrays it poorly due to its distorted presentation.[150] This is particularly true for the Company's low no carbon sensitivity, which TIEC uses in its benefits analysis.[151] Figure 8 shows that the peak low no carbon heat rate declines from almost 12,000 in 2019 to less than 10,000 in 2049, which is more than a "slight" decline as Mr. Griffey characterizes it.[152] However, as TIEC notes, many factors can impact a market implied heat rate,[153] which is why TIEC's argument that allegedly flat heat rates demonstrate insufficient wind penetration in the Company's analysis is not valid.

c. Capacity Factor

In its initial brief, TIEC now argues that SWEPCO's capacity factor analyses overstate the amount of energy that the Selected Wind Facilities will produce.[154] TIEC states that SWEPCO assumed in its base case scenario a net capacity factor (NCF) of 44.01%, which was the P50 level from SWEPCO's meteorological consultant, Simon Wind Inc. (Simon Wind). The flaw, contends

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[146] TIEC's Initial Brief at 43-46.

[147] TIEC Ex. 1 at 10:18-19.

[148] Highly Sensitive Rebuttal Testimony of Karl R. Bletzacker, SWEPCO Ex. 17A at Bates No. 000002 (Highly Sensitive Figure 10).

[149] SWEPCO Ex. 20 at 14:6-16 (Figure 5).

[150] TIEC Ex. 2 at 35 (Figure 8). Note Figure 8's extremely short x-axis and unnecessarily expanded y-axis, which make the lines look flatter than they actually are.

[151] TIEC Ex. 2 at 45 (Figure 10).

[152] TIEC Ex. 2 at 35:12-13 and Figure 8.

[153] TIEC's Initial Brief at 45.

[154] TIEC's Initial Brief at 48-50.

TIEC, is that the Simon Wind report assumes there will be no force majeure events and curtailments over the projected life of the Selected Wind Facilities. However, TIEC's citations to the Simon Wind report do not support their allegation. As discussed below, TIEC does not establish that either force majeure or curtailment will reduce the PSO NCF determined by Simon Wind.

It would have been far preferable if TIEC had presented its arguments through its own witness and probed through discovery the technical and arcane matters it discusses, instead of waiting for cross-examination and briefs. Then the record would no doubt be cleaner and clearer. But that was TIEC's choice.

Force Majeure

TIEC uses the term "force majeure" no fewer than five times in this part of its brief and falsely alleges that the P50 level of production excludes force majeure. The Simon Wind report identifies a discount for what it describes as "site access, force majeure," described as "non-meteorological events that affect site access."[155] Further, that report identifies further discounts for icing, high and low temperature shutdowns, and other metrological events including lightening and severe weather.[156] TIEC did not attempt to develop the record on this issue.

At bottom, TIEC faults SWEPCO for relying on the analyses and recommendations of Simon Wind. That is a dubious proposition.

First, Mr. Godfrey explained that each bidder in the RFP was required to submit an independent assessment of the wind resource and expected energy output. SWEPCO hired Simon Wind to independently review those resource assessments and expected energy output, and develop a wind resource assessment.[157] Simon Wind summarized that its projections ranged from 2.3 - 4.9% less than the projections of those independent assessments.[158] This was prudent vetting and due diligence. It certainly was not Simon Wind inflating numbers.

Second, there can be no doubt about Simon Wind's expertise and experience to advise

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[155] Direct Testimony of Jay F. Godfrey, SWEPCO Ex. 3, Exhibit JFG-6 at 54, 105, and 200, under "Environmental" category. This citation to the Simon Wind report (Exhibit JFG-6) and those that follow use the pagination in the upper right-hand corner.

[156] SWEPCO Ex. 3 at 54, 105, and 200.

[157] SWEPCO Ex. 3 at 23:16-19.

[158] SWEPCO Ex. 3, Exhibit JFG-6 at 5.

SWEPCO on these subjects. Richard Simon is the President of Simon Wind. He is a consulting meteorologist with 42 years of professional experience. He has personally sited 25,000 megawatts of operating wind turbines around the world and approximately 15% of all installed wind capacity in the United States. Mr. Simon also has a long track record working with AEP (and the predecessor Central and Southwest Corporation) on wind energy projects, going back to 1993.[159] Thus, the Commission, the ALJs, and customers can rest assured that SWEPCO took the right steps and hired the most qualified people to obtain the best information.

TIEC's objective seems to be to sew doubt, not to enlighten, in its force majeure points. For example, TIEC complains that the NCFs do not account for major mechanical defects, which it calls a "real" possibility.[160] However, mechanical defects *were* included in the Simon Wind report in the discounts for Turbine Availability. As shown on pages 11 (for Traverse) and 64, 105 (for Maverick) of the Simon Wind report in Exhibit JFG-6, Simon Wind conservatively assumes Turbine Availability at 96% versus the 96.6% assumptions by the underlying independent wind reports that the bidders supplied (Vaisala for Traverse and DNV-GL for Maverick). Similarly, as noted above, the Simon Wind report discounts its projections of plant output for other force majeure-related factors such as extreme temperature, total icing, and weather-related site access.[161] Simon Wind did not assume the projects would be available to operate 100% of the time. There is no credible reason to suppose that Simon Wind left out important information or was inclined to give a rosy analysis.

Curtailment/Congestion

SWEPCO's deliverability analysis during the RFP bid selection process addressed curtailment concerns like those expressed by TIEC. That analysis showed that the Selected Wind Facilities are located on a portion of the transmission grid that has substantial "headroom," i.e., good deliverability.[162] Wind facilities in locations with little deliverability would be most at risk of curtailment, not the Selected Wind Facilities. In addition, areas with good deliverability

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[159] SWEPCO Ex. 3 at Exhibit JFG-4.

[160] TIEC's Initial Brief at 49.

[161] SWEPCO Ex. 3, Exhibit JFG-6 at 11.

[162] Direct Testimony of Kamran Ali, SWEPCO Ex. 7 at 4:8-5:4, SWEPCO Ex. 9 at 15:14-16:22, Tr. at 511:8-512:2 (Pfeifenberger Cross) (Feb. 25, 2020).

will have greater ability to hedge congestion risk. As a result, there is no reason to believe the Selected Wind Facilities will experience significant curtailment costs.

On congestion, TIEC mentions but does not discuss an important assumption in the Simon Wind report. In providing the probability values and NCF information, Simon Wind assumed that "all curtailment is reimbursed."[163] In other words, SWEPCO would be made whole, thus reducing the economic impact of congestion for purposes of that report. TIEC seems to suggest, but does not establish, that the Selected Wind Facilities would receive no compensation in the event of a curtailment, even if curtailment occurred in the real time market and the facilities were selected in the day-ahead market. SPP will pay SWEPCO just as it does with all generation owners selected in the day ahead market.[164]

Even more important, TIEC implies that congestion is simply a given which SWEPCO must endure, not mitigate. But the evidence is to the contrary, as TIEC overlooks the role of the SPP in reducing congestion.

In the Highly Sensitive material on page 49 of its initial brief, TIEC asserts that the 2017 curtailments on SWEPCO's three Canadian Hills wind farms can be used to quantify the impact of curtailments at the Selected Wind Facilities. However, TIEC chose an anomalous year – 2017 – which was the year with the highest curtailments. Curtailments in 2018 were approximately 90% less than the 2017 level and 2016 curtailments were zero.[165] This information confirms the testimony of SWEPCO witness Pfeifenberger. He illustrated the recent trajectory of congestion in the SPP, increasing to an average of approximately $8/MWh in 2017 then declining in 2018 due to transmission additions.[166] Accordingly, TIEC's congestion-related arguments do not establish any basis to reduce the P50 NCF established by Simon Wind.

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[163] SWEPCO Ex. 3, Exhibit JFG-6 at 58, 109, 110, 204, and 205.

[164] *See* SPP Protocol § 4.5.9.1 (Real-Time Asset Energy Amount is difference between actual metered supply and cleared offers in the day-ahead market).

[165] In TIEC Ex. 18 (SWEPCO's Highly Sensitive response to CARD RFI No. 1-15), compare the "Wind Energy Curtailments" rows for the Canadian Hills columns. TIEC's calculations use 2017 data. Curtailments in 2018 were significantly lower and curtailments in 2016 were zero.

[166] SWEPCO Ex. 9 at 10:12-11 (Table 1); *see also* SWEPCO Ex. 20 at 31:16-33 (Figure 1); Tr. at 326:23-327:19 (Sheilendranath Cross) (Feb. 25, 2020).

d. Useful Life of Wind Facilities

TIEC and Staff contend that the assumed useful life of the Selected Wind Facilities should be 25 years, not the 30 years that SWEPCO proposes. They seem to be more concerned about the use of 30 years in calculating benefits, instead of addressing head on what is a reasonable assumption based on the facts and expert analysis specific to this case. Their arguments should be rejected.

Both TIEC and Staff completely omit the most significant evidence on this issue—the General Electric site-specific analysis in its mechanical loads analyses. These analyses are contained in SWEPCO Exhibit 16A.[167] General Electric, the turbine manufacturer, performed an analysis for each Project: Traverse (pp. 1-16 of SWEPCO Ex. 16A), Maverick (pp. 17-32), and Sundance (pp. 33-48). The following quotations from those analyses clearly affirm the feasibility of a 30-year service life:

- "The project was assessed for a Life of 30 years. Additional maintenance activities are identified in Appendix 1."[168]
- "A fatigue loads analysis has been performed for the project assuming a 30 year life as follows. Table 1 and Table 2 show the Extended Life Maintenance Activities of the critical components."[169]
- In conclusion, "the fatigue and extreme loads of the . . . wind turbines . . . are within the design loads envelope. The installation and operation of the . . . wind turbines are approved based on current calculation methods."[170]
- "[T]he equivalent fatigue loads of the . . . wind turbines were analyzed at 30 years to confirm suitability and to identify any additional maintenance activities necessary to safely operate the turbines to the target life. Tables 1 and 2 show the Extended Life maintenance activities of the critical components."[171]

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[167] Highly Sensitive Exhibit JGD-1R.

[168] Highly Sensitive SWEPCO Ex. 16A at 4, 20, and 36 (use pagination in upper right-hand corner).

[169] Highly Sensitive SWEPCO Ex. 16A at 9, 25, and 41.

[170] Highly Sensitive SWEPCO Ex. 16A at 12, 28, and 44.

[171] Highly Sensitive SWEPCO Ex. 16A at 14, 30, and 46.

The three analyses also included a list of 30-year life maintenance activities.[172]

It is difficult to imagine a clearer confirmation from the turbine manufacturer—who is far and away in the best position to know—that a 30-year design, accompanied by life maintenance practices, is achievable. No credible evidence offsets or undermines this conclusion.

TIEC states that SWEPCO's support for extending the useful life is an LBNL study. This study shows that, on average, wind project participants are assuming useful lives of 29.6 years.[173] TIEC dismisses the study as "merely" a survey of wind project participants with every reason "to be optimistic" about the potential service lives. TIEC's participant bias argument is unfounded. There is no reason to suppose—and TIEC offers none—that the survey participants would deliberately inflate their numbers. If LBNL thought the same way as TIEC, then presumably LBNL would have surveyed others or admonished readers to discount its findings. But LBNL did not do so.

SWEPCO's 30-year useful life is neither an outlier nor path-breaking.[174] It is, in contrast, the logical product of a natural progression in the industry.

Staff[175] and TIEC[176] urged that Mr. DeRuntz is not aware of any wind farms that have achieved a useful life of 30 years; that is, have been operating since 1990 or earlier. This is true but pointless. Wind turbines today are far different than they were 30 years ago. Mr. DeRuntz put this into perspective. As he affirmed, "[a]n increase in the life of the facilities over time is a natural progression and would be commensurate with advances in technology and experience with operation of wind farms."[177] His statement is in perfect accord with the LBNL study, which noted that expectations for the useful life of wind projects "have consistently increased over time—from a typical value of ~20 years in the early 2000s and prior, to ~25 years by the mid-2010s, and then

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[172] Highly Sensitive SWEPCO Ex. 16A at 15-16, 31-32, 47-48.

[173] TIEC's Initial Brief at 50. The study is Exhibit JGD-2R to the rebuttal testimony of SWEPCO witness Joseph DeRuntz (SWEPCO Ex. 16).

[174] To support its position, Staff urges that SWEPCO proposed 25 years in the Wind Catcher case. (Staff's Initial Brief at 11) Yet Staff overlooks the fact that, in the Wind Catcher case, Staff's own witness recommended a 30-year useful life. Docket No. 47461 Direct Testimony of Reginald J. Tuvilla, SWEPCO Ex. 38 at 7:1-17.

[175] Staff's Initial Brief at 12.

[176] TIEC's Initial Brief at 51.

[177] SWEPCO Ex. 16 at 2:16-18.

to ~30 years most recently."[178]

Both Staff[179] and TIEC[180] tether their arguments to the fact that SWEPCO proposed a 25-year useful life in the Wind Catcher case. But the Wind Catcher facilities would have operated in different and more demanding conditions, explaining why a 25-year useful life was a reasonable expectation for Wind Catcher.

The Wind Catcher facilities were to be located in the counties of Texas and Cimarron in the Oklahoma Panhandle.[181] In contrast, the Selected Wind Facilities will be much farther to the east, in north central Oklahoma, as the map on page 4 of Mr. Smoak's direct testimony shows.[182] The annual average wind speed is higher in the Panhandle than in north central Oklahoma, as confirmed in the wind speed map that is Exhibit JGD-2 to the direct testimony of Mr. DeRuntz.[183] With a higher wind speed comes more energy but also more wear and tear on the facilities. And this added wear and tear explains the shorter useful life of the Wind Catcher facilities.

SWEPCO's proposed 30-year useful life is modest compared to a more recent MidAmerican Energy Company wind farm. In 2016 the Iowa Utilities Board approved rate principles to govern up to 2,000 MW of new wind generation by MidAmerican Energy Company. One of those principles was depreciation over a 40-year useful life,[184] a full 10 years beyond SWEPCO's proposal in this case.

Staff and TIEC argue that there is a mismatch between SWEPCO's projected capital and O&M costs on the one hand and a 30-year design life on the other. Specifically, they contend that the cost projections fail to take adequate account of the costs that will be necessary given 30 years

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[178] SWEPCO Ex. 16, Exhibit JGD-2R at 3.

[179] Staff's Initial Brief at 11.

[180] TIEC's Initial Brief at 50.

[181] *Application of Southwestern Electric Power Company for Certificate of Convenience and Necessity Authorization and Related Relief for the Wind Catcher Energy Connection Project in Oklahoma*, Docket No. 47461, Proposal for Decision (PFD) at 1 (May 18, 2018).

[182] Direct Testimony of A. Malcolm Smoak, SWEPCO Ex. 1.

[183] Direct Testimony of Joseph G. DeRuntz, SWEPCO Ex. 4.

[184] State of Iowa Department of Commerce Utilities Board, *In Re: MidAmerican Energy Company*, Docket No. RPU-2016-0001 (WRU-2016-0020-0156), Aug. 26, 2016; *see* p. 1 and Attachment Article III, "Depreciation": "The depreciation life of [the wind farm] for ratemaking purposes shall be 40 years."

of operation.[185]

This particular argument should be rejected on two grounds. First, it lacks substance because it fails to point to any item of cost that is presumably too low or omitted. In other words, Staff and TIEC do not really analyze the underlying facts.

Second, this argument does not consider the ground-up approach that Mr. DeRuntz took in preparing the projected ongoing capital and O&M costs. As he explained,

> the ongoing O&M and capital forecast is based on maintaining the availability and performance of the turbines over 30 years of operation. This will be achieved through condition monitoring systems, routine preventative maintenance, planned corrective maintenance, and major maintenance and overhauls.[186]

In addition, Mr. DeRuntz's ongoing capital cost projections for Major Maintenance/Other parts "includes all parts replaced under the Invenergy O&M Services Agreement and major maintenance parts and labor for activities such as blade replacements, gearbox repairs, and switchgear repairs."[187] Thus, Mr. DeRuntz included the major capital items that, over time, would need to be replaced.

For these reasons and those in SWEPCO's initial brief, SWEPCO's proposed 30-year useful life should be accepted.

e. Congestion and Losses (Including Gen-Tie)

Several parties make arguments concerning congestion and losses, including the gen-tie. TIEC and ETEC/NTEC argue that SWEPCO understates congestion and losses by holding them constant in its models after 2029. TIEC also argues that congestion is understated by the use of PROMOD and because the Company has undercounted the amount of renewable resources that will be developed. Staff expresses concern about the uncertainty surrounding future congestion levels and the absence of a specific plan for a gen-tie or other transmission solutions. Both Staff and OPUC propose that SWEPCO be required to seek Commission approval for the construction of any future gen-tie. Finally, Golden Spread claims that the Company did not adequately consider congestion and transmission service options. SWEPCO will address each of these issues in turn.

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[185] TIEC's Initial Brief at 51; Staff's Initial Brief at 11.

[186] SWEPCO Ex. 4 at 19:1-4.

[187] *See* SWEPCO Ex. 4, Exhibit JGD-5 at n. 3.

SWEPCO Did Not Understate Congestion and Loss Costs After 2029

SWEPCO reasonably held congestion and loss costs constant after 2029 in its economic analysis, contrary to the arguments of TIEC and ETEC/NTEC.[188] As Mr. Sheilendranath explained in his direct testimony, this decision was based on the assumption that, in the long run, new transmission upgrades would become cost effective in the future and SPP's planning process would identify transmission solutions to address congestion and prevent congestion costs from rising further.[189] At hearing, he further explained that the projected 2029 congestion level was already close to high enough that SPP, through its ITP process, could cost-effectively advance transmission to address it.[190] The SPP ITP process looks holistically at all the benefit drivers associated with new transmission and advances transmission solutions that meet an established benefit-to-cost ratio.[191] SWEPCO's congestion forecasts are conservative because SPP is required to find transmission solutions based on economics, reliability, and public policy drivers, not just congestion.[192] As a result, the cost of congestion is not expected to go up but rather to go down.[193] Mr. Pfeifenberger's testimony illustrates the recent trajectory of congestion in the SPP, increasing to an average of approximately $8/MWh in 2017 then declining in 2018 due to transmission additions.[194] In the event that SPP does not advance transmission solutions necessary to address congestion, SWEPCO's high congestion/gen-tie sensitivity cases show that the Company could build a gen-tie to avoid congestion and the Selected Wind Facilities would still provide benefits to customers.[195]

Notwithstanding this clear explanation of why congestion costs were held constant after 2029, ETEC/NTEC's brief presents a convoluted discussion of the alleged effects of inflation and

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[188] TIEC's Initial Brief at 54-58; ETEC/NTEC's Initial Brief at 11-15.

[189] Direct Testimony of Akarsh Sheilendranath, SWEPCO Ex. 6 at 5:3-7.

[190] Tr. at 311:20-312:13 (Sheilendranath Cross) (Feb. 25, 2020).

[191] Tr. at 324:3-325:2 and 350:11-21 (Sheilendranath Cross) (Feb. 25, 2020).

[192] Tr. at 314:6-316:6 and 326:9-22 (Sheilendranath Cross) (Feb. 25, 2020).

[193] Tr. at 341:5-14 (Sheilendranath Cross) (Feb. 25, 2020).

[194] SWEPCO Ex. 9 at 10:12-11 (Table 1); *see also* SWEPCO Ex. 20 at 31:16-33 (Figure 1); Tr. at 326:23-327:19 (Sheilendranath Cross) (Feb. 25, 2020).

[195] SWEPCO Ex. 7 at 10:13-16, 13:18-14:2; SWEPCO Ex. 8 at 23:8-18; Tr. at 380:21-381:21 (Ali Cross) (Feb. 25, 2020).

discount rates on congestion that is reminiscent of certain ETEC/NTEC exhibits excluded from the record at the hearing due to the lack of an evidentiary foundation.[196] ETEC/NTEC's brief argues that congestion and loss costs should grow at the rate of inflation, which it also appears to mistakenly refer to as the time value of money, and then attempts to discount future congestion and loss costs at the Company's discount rate, which is different from both the inflation rate and the time value of money.[197] All of this is apparently based on citations to the cross-examination of Mr. Torpey that preceded the excluded exhibits. Nowhere is there any explanation for, or record evidence supporting, the notion that there is any relationship between congestion costs and inflation, the time value of money, or the Company's discount rate. There is no such relationship because, as Mr. Sheilendranath explained,[198] congestion costs are limited primarily by the cost-effectiveness of building transmission to reduce those costs and to address other SPP planning criteria. Transmission costs are not expected to grow due to technological advances and other factors.[199]

ETEC/NTEC recognizes that Mr. Sheilendranath testified transmission improvements would also reduce losses but calls the testimony "insubstantial" and "unsupported."[200] In fact, Mr. Sheilendranath said that "when you build transmission, losses generally go down because you're tightening the network."[201] Although ETEC/NTEC's brief also challenges the losses in Mr. Torpey's high congestion gen-tie cases falling to zero after the gen-tie is added in 2027,[202] it overlooks his testimony that losses were moved into the production cost line of the benefits model after 2027.[203]

TIEC similarly challenges the Company's assumption that congestion costs will hold constant after 2029[204] and its arguments also fail because it is reasonable to expect that

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[196] ETEC/NTEC's Initial Brief at 11-13; *see also* Tr. at 405:6-419:7 (Torpey Cross) (Feb. 25, 2020).

[197] ETEC/NTEC's Initial Brief at 11-13.

[198] Tr. at 311:15-313:6, 314:6-315:16, 324:3-325:2, and 326:9-22 (Sheilendranath Cross) (Feb. 25, 2020).

[199] SWEPCO Ex. 20 at 19:3-17.

[200] ETEC/NTEC's Initial Brief at 13 and n. 57.

[201] Tr. at 363:12-13 (Sheilendranath Cross) (Feb. 25, 2020).

[202] ETEC/NTEC's Initial Brief at 13-14 and n. 58.

[203] Tr. at 451:19-452:17 (Torpey Cross) (Feb. 25, 2020).

[204] TIEC's Initial Brief at 54-58.

transmission solutions will be cost effective to cap congestion costs, as discussed above. Even TIEC's Mr. Pollock recognizes that SPP could implement transmission upgrades after 2029 that alleviate congestion[205] and TIEC never explains why congestion costs would continue to grow above the cost of available transmission solutions. Although TIEC asserts that PROMOD understates congestion,[206] SWEPCO ran both base and high-congestion cases in PROMOD, which reasonably addresses the probable levels of future congestion.[207] Even if congestion increases to the level contained in the Company's high congestion/gen-tie sensitivities, the Company can cost-effectively cap that increase (assuming SPP doesn't do so) by building a gen-tie, and the Selected Wind Facilities will still provide customer benefits. TIEC also asserts that the Company increased PROMOD congestion levels in the Wind Catcher Generic Wind Case, but the Generic Wind Case included wind facilities throughout the SPP footprint, including areas with weak transmission and high curtailment risk far from the AEP West load zone. No deliverability analysis was done for those facilities, as it was for the Selected Wind Facilities, to ensure they had transmission headroom.[208] Unlike in Wind Catcher, the high congestion/gen-tie sensitivities in this case appropriately bound the risk of higher congestion.

TIEC also alleges that SWEPCO has undercounted congestion by understating the amount of renewable resources that will be developed in the SPP.[209] This argument duplicates TIEC's arguments in Section III.C.2.b. of its brief and SWEPCO has responded to them in that section.

SWEPCO witness Pfeifenberger addressed TIEC's claim that congestion costs should at least increase with the rate of inflation or with power prices.[210] As he noted, "[e]ven growing congestion costs with inflation, let alone at the rate of projected increase in power prices as suggested by Mr. Griffey, would inflate congestion to the point that it would be economical for the Company to mitigate these cost increases."[211] If it would be economical for the Company to

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[205] TIEC Ex. 1 at 31:15-18.

[206] TIEC's Initial Brief at 52-54.

[207] SWEPCO Ex. 20 at 20:6-10.

[208] Tr. at 511:8-512:6 (Pfeifenberger Cross) and 514:12-515:20 (Pfeifenberger Redirect) (Feb. 25, 2020).

[209] TIEC's Initial Brief at 54.

[210] TIEC's Initial Brief at 54-55.

[211] SWEPCO Ex. 20 at 17:17-20.

mitigate congestion costs through a transmission solution, then it would also be economical for SPP to do so.[212] In addition, the expiration of PTCs after ten years would change wind facility bidding practices and contribute to reducing future wind-related congestion costs.[213]

Although TIEC challenges SWEPCO's testimony that technological change will make it more cost-effective to address congestion through transmission improvements but will not similarly reduce generation costs,[214] such new transmission technologies are already emerging, such as smart-wire technology, dynamic line ratings, and topology control, as well as non-wires solutions that can defer transmission upgrades.[215] As Mr. Pfeifenberger explains, it is not reasonable to assume that similar change will occur with generation technology as TIEC asserts.[216]

TIEC is mistaken that SWEPCO's assumption to hold congestion costs flat after 2029 is "implicitly based on the availability of a gen-tie solution."[217] In fact, the Company's testimony is clear that it held congestion costs constant after 2029 based on the assumption that, if congestion costs increase, new transmission upgrades will become cost effective and SPP's ITP planning process will identify transmission solutions to prevent congestion costs from rising further.[218] Although TIEC quotes Mr. Pfeifenberger's discussion of the gen-tie option,[219] the very next sentence of his testimony (not quoted by TIEC) says that "[a]ssuming *the gen-tie serves as a proxy for cost-effective transmission*, absorbing the cost of inflated congestion would be unreasonable when either AEP *or SPP* can cost effectively mitigate these costs."[220] The Company has been clear that it does not expect to build a gen-tie because it is reasonable to expect that SPP will advance transmission solutions if congestion increases to a level where they become cost-effective to address it.

TIEC's purported quantification of the impact of understated congestion is also without

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212 SWEPCO Ex. 20 at 17:23-18:2.

213 SWEPCO Ex. 20 at 18:3-9.

214 TIEC's Initial Brief at 55.

215 SWEPCO Ex. 20 at 20:7-17.

216 SWEPCO Ex. 20 at 18:10-19:2.

217 TIEC's Initial Brief at 56.

218 SWEPCO Ex. 6 at 5:3-7.

219 TIEC's Initial Brief at 55-56.

220 SWEPCO Ex. 20 at 17:23-18:2.

merit.[221] The Company reasonably bounded the risk of increased congestion in its high-congestion/gen-tie sensitivity cases, although it does not expect congestion to rise to those levels or that a gen-tie will be constructed. As a result, TIEC's proposed 5% "curtailment adjustment" should be rejected. Moreover, Mr. Griffey's use of the SPP ICE South Hub forward prices is not valid because the total number of ICE SPP South futures contracts (i.e., open interest) is extremely low in the near term and *de minimis* or zero thereafter, indicating illiquidity.[222]

Staff's Concern About the Uncertainty of Congestion Costs is Unjustified

Staff's concern about the uncertainty concerning future congestion costs is unjustified because, while future congestion is admittedly uncertain, the Company reasonably evaluated and "book-ended" the uncertainty to show that the Selected Wind Facilities will benefit customers even if congestion increases. Those book-ends show that if congestion costs become a concern, they could be contained (or even reduced) by transmission projects advanced through the SPP ITP planning process or, if that did not occur, the Company could build a gen-tie and the Selected Wind Facilities would still benefit customers.[223] In either event, future congestion costs would not prevent the facilities from providing benefits to customers.

Staff's brief appears to misunderstand certain portions of SWEPCO's testimony about congestion. For example, Staff characterizes Mr. Sheilendranath's estimate that $9-10 per MWh of congestion is the threshold for transmission solutions as a "soft cap,"[224] when that estimate was actually his assessment of the level at which transmission would become cost-effective to prevent congestion costs from increasing further.[225] Staff also suggests that the SPP ITP process does not actually provide transmission solutions, but instead addresses future needs of the system.[226] Although it is perhaps not clear in the record, the ITP stakeholder process both develops PROMOD simulations for analyzing system changes, such as the 2024 and 2029 models used by the Company, and separately reviews and approves transmission upgrades that provide solutions to

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[221] TIEC's Initial Brief at 58.

[222] TIEC Ex. 2 at 114.

[223] Tr. at 350:7-352:7 and 358:19-359:18 (Sheilendranath Cross); Tr. at 380:21-381:5 (Ali Cross); Tr. at 487:16-488:1 (Pfeifenberger Cross) (Feb. 25, 2020).

[224] Staff's Initial Brief at 13-14. Staff's brief erroneously says $9-10/kWh, but it should be MWh.

[225] Tr. at 321:8-22 and 352:13-14 (Sheilendranath Cross) (Feb. 25, 2020).

[226] Staff's Initial Brief at 14.

identified system needs,[227] as it did recently in approving transmission additions that have reduced congestion.[228]

Staff's desire for extremely detailed analysis of the gen-tie option is also unfounded. Staff's concern revolves around assertions of uncertainty surrounding a possible gen-tie,[229] but it is not reasonable to expect the level of certainty described in Staff's brief for a facility that SWEPCO does not expect to build. The Company has emphasized repeatedly that it does not expect a gen-tie to be needed and that it presented the high congestion/gen-tie sensitivity cases only to demonstrate that if congestion is higher than expected and the SPP does not advance transmission solutions to address it, the Company can build a gen-tie to cap the cost of congestion and the Selected Wind Facilities will still deliver customer benefits.[230] The gen-tie option would only be pursued following a cost/benefit analysis and if other solutions, including less-expensive options such as transmission rebuilds, reactive power devices, dynamic line ratings, and system reconfiguration, were not available to the Company or implemented by SPP.[231]

Under these circumstances, Staff's criticisms of SWEPCO's high congestion/gen-tie sensitivity cases is unwarranted. For example, it is not reasonable for Staff to say that "[i]f a dedicated gen-tie was a serious option, that [sic] SWEPCO would have offered a concrete plan for how to build and implement it . . . ."[232] Similarly, Staff's statement that SWEPCO admitted there are other potential transmission solutions that it did not disclose in its application is off base.[233] As the hearing transcript cited by Staff shows, SWEPCO witness Ali was discussing potential transmission solutions that would be less costly than a gen-tie in response to Staff's questions about that issue.[234] When he was asked if SWEPCO has provided cost estimates for such solutions,

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[227] Tr. at 351:6-22 and 357:16-358:18 (Sheilendranath Cross) (Feb. 25, 2020).

[228] SWEPCO Ex. 20 at 10:12-20, 11 (Table 1), 32:6-33 (Figure 1).

[229] Staff's Initial Brief at 15-17.

[230] SWEPCO Ex. 7 at 10:13-16, 13:18-14:2; SWEPCO Ex. 8 at 23:8-18; Tr. at 380:21-381:21 (Ali Cross) (Feb. 25, 2020).

[231] Tr. at 381:6-9, 388:5-389:3, and 391:19-392:15 (Ali Cross); Tr. at 486:15-487:15 (Pfeifenberger Cross) (Feb. 25, 2020).

[232] Staff's Initial Brief at 16.

[233] Staff's Initial Brief at 17.

[234] Tr. at 771:22-773:12 (Ali Cross) (Feb. 26, 2020).

he responded that the Company "[doesn't] know what problems there will be five years down the road and what solutions would be most cost effective."[235] There is no way SWEPCO could have anticipated all future transmission issues and addressed all possible solutions in its application in this case, as Staff suggests. Instead, the Company reasonably bounded the range of congestion risk through the cases and sensitivities presented in its analysis of the Selected Wind Facilities.

Commitment to Seek Commission Approval Before Building a Gen-Tie

Finally, both Staff and OPUC seek assurance that SWEPCO will seek Commission approval before building a gen-tie.[236] Messrs. Smoak and Brice addressed this issue at the hearing on the merits, acknowledging that SWEPCO would not build a gen-tie without seeking approval from the Commission and that it was a reasonable commitment.[237]

Golden Spread's Arguments are Unsupported and Wrong

Golden Spread's assertion that SWEPCO did not adequately consider congestion and transmission service options is unsupported and wrong.[238] As explained above and in the Company's initial brief, the Company evaluated congestion risk related to the Selected Wind Facilities under both an expected case and a high congestion case in which a gen-tie would cap the cost of congestion and the facilities would still provide customer benefits. This analysis did not assume either Network Resource Integration Service (NRIS) or firm transmission service, as touted by Golden Spread, because it is not clear that either service will provide benefits in excess of their costs. In fact, Mr. Ali testified that NRIS service would likely be more expensive but would not provide delivery benefits such as protecting against curtailments or guaranteeing firm delivery of generator output.[239] As Golden Spread recognizes,[240] the only benefit of firm transmission service would be to provide additional Auction Revenue Rights (ARRs or hedging rights),[241] but SWEPCO already has sufficient ARR's to hedge 25% of the congestion from the

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[235] Tr. at 773:3-7 (Ali Cross) (Feb. 26, 2020).

[236] Staff's Initial Brief at 17-18; OPUC's Initial Brief at 19.

[237] Tr. at 28:13-21 (Smoak Cross); Tr. at 97:3-10 (Brice Cross) (Feb. 24, 2020). *See also* Rebuttal Testimony of Thomas P. Brice, SWEPCO Ex. 14 at Section X.

[238] Golden Spread's Initial Brief at 10-11.

[239] SWEPCO Ex. 7 at 3:21-4:10.

[240] Golden Spread's Initial Brief at 11, Tr. at 799:6-10 (Pfeifenberger Cross) (Feb. 26, 2020).

[241] Golden Spread's Initial Brief at 11.

Selected Wind Facilities and analyzed the facilities' customer benefits on that basis.[242] Golden Spread, of course, presented no testimony on any of these issues and instead relies on unsupported claims and confusing cross-examination at hearing.

Golden Spread's assertion that SWEPCO could have applied for firm transmission service before filing this case is also wrong. The Company did not execute the PSAs with Invenergy until July 12, 2019[243] and filed this case shortly thereafter. Due to the timeline associated with securing PTCs, it would not have been possible to delay the application to request firm transmission service, much less to wait for SPP to conduct a study and respond to that request. As shown on Golden Spread Exhibit 4, the SPP Transmission Service Study Process is complex. The Company's analysis of the benefits of the Selected Wind Facilities does not include firm transmission service,[244] which would increase those benefits if it is obtained.

Golden Spread's brief strives to portray a "lack of cohesive conclusions regarding transmission"[245] that does not exist. For example, there is no inconsistency between Mr. Ali's testimony that congestion is uncertain and Mr. Sheilendranath's assumption that congestion will remain constant after 2029, as Golden Spread suggests. Future congestion is uncertain because it depends on a variety of factors, including the extent and location of new generation and the transmission added by SPP through its Integrated Transmission Planning process. However, Mr. Sheilendranath made a conservative assumption that congestion will remain constant after 2029, based on the fact that new transmission, whether added by SPP or by the Company through a gen-tie, effectively caps congestion costs at the level where adding the transmission is cost effective to reduce congestion. Golden Spread has also not presented any meaningful challenge to Mr. Pfeifenberger's conclusion that SWEPCO will be able to hedge congestion from the Selected Wind Facilities.[246] Similarly, Mr. Ross fully explained the reason he indicated that SWEPCO would not accept costs on the firm transmission request.[247] Golden Spread's criticism of the Company's congestion and transmission service analysis is without merit and should be

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[242] SWEPCO Ex. 20 at 28:16-29:7.

[243] Highly Sensitive and Voluminous Exhibit JFG-3, SWEPCO Ex. 3B.

[244] Tr. at 822:17-22 (Ross Cross) (Feb. 26, 2020).

[245] Golden Spread's Initial Brief at 10.

[246] Golden Spread's Initial Brief at 11.

[247] Tr. at 831:9-832:9 (Ross Cross) (Feb. 26, 2020).

rejected.

3. Capacity Value

TIEC, OPUC, and Staff argue that the Selected Wind Facilities should not be considered to have capacity value, but their arguments consist largely of labelling the facilities' capacity value as "mere projections," "entirely speculative," or "unrealistic," rather than conducting any actual analysis of the facilities' capacity value. The facilities' capacity value is based on their expected deferral or reduction of future capacity requirements, determined by comparing the costs of resource additions in a Project Case that included the facilities' capacity contribution to a Baseline Case that excluded that contribution.[248] The parties' labels do not detract from the actual basis for the facilities' capacity value presented by SWEPCO.

Nor does the fact that the facilities will not start to generate capacity savings for several years detract from their capacity value, particularly since Staff and OPUC acknowledge that the Company's modeling shows the Selected Wind Facilities will provide capacity benefits in the future.[249] Although Staff and OPUC cite 2037 as the year capacity benefits begin, the benefits begin in 2034 or earlier in some of the Company's modeling cases.[250] Utility system planning unavoidably involves projections of future system operations, which provides no basis for off-handedly rejecting the results of widely-used modeling processes. The Company's projections are conservative and based on SPP criteria,[251] in contrast to the other parties' unsupported dismissal of the Selected Wind Facilities' capacity value.

TIEC and OPUC also point to the Company's 2018 IRP, but that IRP only extends to 2038,[252] was based on an earlier fundamentals forecast than the economic analysis in this case,[253] and assumed additional wind and other facilities that have not been procured at this time.[254] These parties are essentially arguing that the Company doesn't need capacity because speculative future

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[248] SWEPCO Ex. 8 at 19:18-20:14.

[249] *See* OPUC's Initial Brief at 20; Staff's Initial Brief at 18.

[250] SWEPCO Ex. 8 at Errata Exhibit JFT-3.

[251] SWEPCO Ex. 8 at 7:18-19.

[252] SWEPCO Ex. 8 at 9 (Table 2).

[253] Rebuttal Testimony of John F. Torpey, SWEPCO Ex. 19 at 18:13-21.

[254] Tr. at 475:10-476:7 (Torpey Redirect) (Feb. 25, 2020).

projects might provide that capacity. The argument should be rejected.

Finally, TIEC repeats Mr. Pollock's testimony that assuming capacity value for the Selected Wind Facilities is premature because the SPP has not accredited the facilities yet and there are no approved generation interconnection agreements.[255] However, it is unreasonable to assume that the facilities would not be accredited before the capacity benefits arise or that their capacity value in the future is somehow affected by the current status of their interconnection agreements.[256] Like the other specious arguments against the facilities' capacity value, Mr. Pollock provides no valid reason to dismiss the results of the Company's modeling.

4. Production Tax Credits

TIEC observes in its initial brief that the primary risk associated with realizing the value of the PTCs is the Selected Wind Facilities' energy production level. It claims that the net capacity factors (NCFs) of the facilities are not a true reflection of the expected energy production because they exclude the consideration of force majeure events and curtailment.[257] This issue is addressed in Section III.C.2.c. (Capacity Factor), above.

Staff observes that, because the expected level of PTCs earned is based on the P50 level of production, "the amount of PTCs earned by the SWFs could be lower if the output of the facilities is lower."[258] While this is true, because the estimate is based on the P50 level of production, it is equally likely that the amount of PTCs earned by the Selected Wind Facilities will be higher because the output of the facilities is higher.

5. Deferred Tax Asset

The Traverse and Maverick facilities will qualify for the 80% level of PTCs and the Sundance facility will qualify for the 100% level of PTCs. That level of PTCs will not be available to new facilities in the future. And, while the 60% level of PTCs has been extended for an additional year for projects starting construction in 2020, all PTCs will be phased out after that year.[259]

The Company is providing customers a benefit by reducing the revenue requirement of the

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[255] TIEC's Initial Brief at 59.

[256] SWEPCO Ex. 19 at 7:22-8:8.

[257] TIEC's Initial Brief at 59-60.

[258] Staff's Initial Brief at 19.

[259] SWEPCO Ex. 14 at 12:4-8.

Selected Wind Facilities as PTCs are generated, not as they are utilized. This can result in a timing difference where the Company has provided this benefit to customers before the Company has been able to apply this benefit on its tax return. When a PTC is not used by the Company on its tax return in the year in which it is earned, a deferred tax asset (DTA) is created for the PTCs the Company will ultimately include on its tax return in a future year. When this occurs, the Company should be compensated for its investment in this asset just as it is compensated for its investment in any other asset, including other deferred tax assets, included on the Company's balance sheet, requiring financing.[260]

TIEC observes that the economic value of the PTCs is affected by SWEPCO's ability to use the PTCs in the years in which they are generated. The impact of the DTA is dependent on SWEPCO's future taxable income which, TIEC claims, is difficult to forecast with certainty. In Wind Catcher, SWEPCO recognized this risk and agreed to cap the DTA balance and forego a return after a 13-year period. TIEC criticizes SWEPCO for not offering the same or similar guarantees in this case.[261] TIEC also claims that SWEPCO's taxable income in future years may not be as high as it is projecting, especially if SWEPCO pursues all of the renewable projects that it has told investors it is pursuing after 2022.[262]

Additionally, Staff observes in its initial brief that the balance of the DTAs is hard to predict and the carrying charge, i.e., the Company's weighted average cost of capital, is subject to change over time.[263]

These objections to the inclusion of a DTA in rate base are unreasonable and should be rejected by the Commission. PTCs are earned when the Selected Wind Facilities produce energy. That production is driven by the wind. The value of a PTC is not in dispute since it is determined by law. The expected value of the PTCs to be generated by the Selected Wind Facilities over the first ten years of operation is approximately $750 million net of DTA carrying costs. SWEPCO has guaranteed that the Selected Wind Facilities will qualify for PTCs at the expected levels. And,

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[260] SWEPCO Ex. 14 at 18:14-23.

[261] TIEC's Initial Brief at 59.

[262] TIEC's Initial Brief at 60-61.

[263] Staff's Initial Brief at 19.

the value of the PTCs earned does not fluctuate with natural gas or energy prices.[264]

Arguments regarding the uncertainty surrounding the amounts of the DTA are addressed in Section VII.C., below. TIEC's arguments regarding the effect of possible additional renewable facilities in the post-2022 period should be rejected. Although it is impossible to predict the future with precision, Mr. Multer explained that the projections of tax credit utilization are based on the most recent enterprise wide forecast.[265] Taxable income projections as of a point in time are subject to deviation from actual results (both favorably and unfavorably). SWEPCO has no reason to believe its projections of tax credit utilization will substantially differ from that presented in this filing and, therefore, believes its forecast represents a proper representation. Additionally, taxable losses recognized during the initial years of renewable energy projects are primarily the result of accelerated depreciation, which is temporary in nature leading to increased taxable income in subsequent years. The accelerated tax depreciation produced by future renewable energy projects will also contribute to increased deferred tax liabilities, which will provide incremental rate base reductions and customer benefits.

Both TIEC and ETEC/NTEC criticize SWEPCO for failing to take advantage of a tax equity investor and an associated PPA arrangement. They assert that, under this option, a partner could be allocated the PTCs as they are produced and reduce any necessary DTAs and associated carrying costs.[266] However, this suggestion is unreasonable for a number of reasons, including the fact that it would hurt customers. This is a complicated ownership structure that is unwieldy in a regulatory context and expensive for customers. Company witness Hollis explained the mechanics of involving a tax equity partner in this transaction. Instead of owning the Selected Wind Facilities and treating them as regulatory assets, the facilities would have to be owned by a separate entity – a special purpose entity – that would have at least two partners: the Company and another party (i.e., the tax equity partner), such as a bank or other party with a significant amount of tax liability to offset.[267] In exchange for a significant amount of cash investment, the tax equity partner would be expected to be paid between a 6%-8% return on an after-tax basis for its investment, be allocated

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[264] SWEPCO Ex. 14 at 10:19-11-4.

[265] Direct Testimony of Joel J. Multer, SWEPCO Ex. 10 at 10:3-6.

[266] ETEC/NTEC's Initial Brief at 15; TIEC's Initial Brief at 9.

[267] Rebuttal Testimony of Noah K. Hollis, SWEPCO Ex. 22 at 3:16-18.

production tax credits (and other tax benefits such as accelerated depreciation) to offset its tax liability, and be the beneficiary of a contractual right to be bought out at fair market value after it has earned a specified rate of return.[268]

As Mr. Hollis explained, this is not an attractive alternative for ratepayers. In the first place, TIEC and ETEC/NTEC failed to explain that, although allocation of any tax credits to a tax equity partner might reduce credit carryforwards and associated deferred tax assets, *it would also keep customers from benefiting from the PTCs in the first place*.[269] This is significant. As several Company witnesses have observed, a material portion of the benefits associated with the Selected Wind Facilities results from the fact that customers are allocated *all* of the benefits from the PTCs as they are generated.[270] As explained by Company witness Aaron, the Texas jurisdictional share of this is expected to amount to $357 million over the life of the facilities and will dwarf the expected $81 million carrying cost on the associated deferred tax asset.[271] Although TIEC inexplicably fails to mention it, allocation of the PTCs to a hypothetical tax equity partner would take significant benefits away from customers.

Secondly, this type of financing is expensive - much more expensive than customers will pay under the Company's proposal. Mr. Hollis explained that the 6%-8% (after-tax) cost of funds is much higher than the Company's expected 4.395% cost of debt that it expects it will pay as an alternative to the tax equity financing.[272] In addition, the Company would presumably have to purchase the tax equity partner's ownership share at some point in the future (after the partner has met its financial targets) at the then-current fair market value.[273] This could be a significant cost to customers, especially if the value of the Selected Wind Facilities increases over time.

Thirdly, Mr. Hollis explained that the arrangement is complicated and unwieldly. IRS rules prohibit the special purpose entity that owns the facility from selling the facilities' output directly to SWEPCO. Instead, SWEPCO would have to execute a "virtual PPA" or swap with the entity[274]

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[268] SWEPCO Ex. 22 at 3:16-4:8.

[269] SWEPCO Ex. 22 at 3:16-4:8 (PTCs and other tax benefits will be allocated to the tax equity partner).

[270] *See, e.g.*, SWEPCO Ex. 19 at 4:16-17.

[271] Rebuttal Testimony of John O. Aaron, SWEPCO Ex. 23 at 4 (Table after line 18).

[272] SWEPCO Ex. 22 at 4:3-8. Tax equity replaces the Company issued debt in the new structure.

[273] SWEPCO Ex. 22 at 4:1-3.

[274] SWEPCO Ex. 22 at 4:13-18.

– an arrangement that would require SWEPCO to obtain power from some other source and then be compensated by (or pay to) the partnership the difference between the cost of power obtained by SWEPCO and some fixed price negotiated between SWEPCO and the special purpose entity.

6. Wind Facility Revenue Requirement

CARD and TIEC address the projected revenue requirement for the Selected Wind Facilities. CARD advances the unremarkable proposition that SWEPCO will earn a return of and on its investment under longstanding ratemaking principles, but presents inflated and mislabeled numbers. TIEC argues that certain costs, such as on-going capital and O&M for the facilities and the possible cost of a gen-tie, are uncertain and not covered by the Company's capital cost guarantee, which tacitly acknowledges that the vast majority of project costs *are* covered by the guarantee.

Reply to CARD

It is true that SWEPCO would earn a return of and on its investment in the Selected Wind Facilities under longstanding ratemaking principles, as it would on any investment. However, the numbers presented in CARD's brief are overstated and do not show the Texas revenue requirement associated with the facilities. In fact, the $3.233 billion revenue requirement cited by CARD is the total revenue requirement for all three SWEPCO jurisdictions. The chart on page 11-12 of CARD's initial brief highlights this discrepancy since it is labelled (incorrectly) as "$3.233 billion investment"[275] but shows (correctly) that SWEPCO's (total company) investment in the facilities is actually $1.090 billion.[276] Exhibit JOA-1 to Mr. Aaron's direct testimony shows that the total Texas revenue requirement for the Selected Wind Facilities over their 30-year lives, including DTA carrying charges, is $1.313 billion,[277] not the much higher numbers shown in CARD's initial brief. This is a nominal number over 30 years, the present value of which would be much lower. Similarly, CARD's chart shows nominal 30-year numbers (and mislabels total Company revenue requirement), not the present value of the Texas revenue requirement. CARD is correct that

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[275] Total project investment is $1.996 billion. SWEPCO Ex. 4 at Exhibit JGD-3. SWEPCO's 54.5% share of that investment is $1.088 billion. The $3.233 billion number presented by CARD is total Company revenue requirement, not investment as CARD has labelled it. SWEPCO Ex. 8 at Errata Exhibit JFT-3.

[276] *See* the "Plant In Service" and "Annual Depreciation" columns in CARD's chart, both of which correctly show total SWEPCO Selected Wind Facilities costs of $1.090 billion. Estimated total installed capital cost of the Selected Wind Facilities is $1.996 billion, of which SWEPCO's 54.5% share is $1.088 billion. SWEPCO Ex. 4 at Exhibit JGD-3.

[277] Direct Testimony of John O. Aaron, SWEPCO Ex. 12 at Ex. JOA-1.

SWEPCO would earn a return on its investment, but its numbers are erroneous and wildly overstated.

Reply to TIEC

Because the Company has guaranteed the initial costs of the Selected Wind Facilities, TIEC discusses only other potential costs such as ongoing capital and O&M costs and the cost of a gen-tie that would only be built if congestion increases and SPP's planning process does not promote cost-effective transmission to relieve it. SWEPCO presented a detailed capital and O&M forecast for the facilities through 2031, based in part on a fixed-price O&M agreement with Invenergy for that period, and escalated those costs at the rate of inflation for the life of the facilities.[278] Although TIEC alleges that this forecast is understated in later years, TIEC has not quantified any cost risk for project O&M or capital costs in later years, much less shown that such risk many years from now would be significant when discounted to current dollars. This issue is further discussed in response to TIEC's arguments in Section III.B. of this brief.

TIEC's arguments about gen-tie cost risk are even more strained. As an initial matter, TIEC's assertion that "SWEPCO uses the gen-tie as a justification for assuming that congestion costs stay flat in nominal terms in every scenario that is presented"[279] is neither correct nor supported by their citation to Mr. Pfeifenberger's rebuttal testimony. Although Mr. Pfeifenberger's rebuttal testimony discusses the gen-tie, he goes on to state: *"[a]ssuming the gen-tie serves as a proxy for cost-effective transmission*, absorbing the cost of inflated congestion would be unreasonable when either AEP *or SPP* can effectively mitigate these costs."[280] As the Company has made clear throughout its testimony, the decision to hold congestion constant after 2029 was based on the assumption that SPP's planning process would identify transmission solutions if cost-effective to prevent congestion costs from rising further.[281] A gen-tie would only be built if this did not occur.

TIEC also argues that gen-tie costs are "highly uncertain" and the route length could change as it did with the Wind Catcher gen-tie. While it is true that the Company has not routed

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[278] SWEPCO Ex. 4 at 16:7-18:2 and Exhibit JGD-5.

[279] TIEC's Initial Brief at 62.

[280] SWEPCO Ex. 20 at 17:23-18:2.

[281] SWEPCO Ex. 6 at 5:3-7, Tr. at 311:20-312:24, 324:3-325:2, and 326:9-327:19 (Sheilendranath Cross) (Feb. 26, 2020).

a transmission line that it does not expect to build, it does have considerable experience in estimating the cost of transmission facilities. TIEC's comparison to Wind Catcher is not valid, since the Selected Wind Facilities are much closer to the AEP West load zone and any gen-tie would be much shorter and less expensive. TIEC has presented no evidence that actually relates to the accuracy of the Company's gen-tie cost forecast or even shows that actual costs are more likely to be higher than the forecast rather than lower.

Finally, TIEC incorrectly asserts the Company's gen-tie cost analysis should be based on the life of the wind facilities rather than the longer useful life of a transmission line. However, it is highly unlikely that a gen-tie would be taken out of service when TIEC suggests, since all of the infrastructure necessary to repower the wind facilities (including the gen-tie itself) would already be in place and they would remain a good source of low-cost renewable energy without fuel costs.

D. Economic Evaluation and Summary

SWEPCO studied the expected customer benefit of acquiring the Selected Wind Facilities under a range of future conditions because of the statutory standard by which the Commission will evaluate this application. CARD witness Norwood agrees, testifying that SWEPCO's customer benefit analysis reasonably considered the uncertainty in key variables that could impact those benefits.[282] Only SWEPCO has presented evidence of customer benefits under a range of plausible future circumstances. Other parties have not, instead electing to evaluate the acquisition of the Selected Wind Facilities under only a small set of "worst case scenarios." Doing so will deny customers the benefits that SWEPCO's acquisition of the Selected Wind Facilities will bring under a wide range of future conditions and circumstances.

TIEC alleges that the costs of the Selected Wind Facilities are "substantially more certain than the benefits."[283] That allegation is unfounded. TIEC observes that the initial investment in the Selected Wind Facilities represents 90% of the total cost of power produced by the Selected Wind Facilities. This is, in fact, a benefit to customers. The Company has negotiated fixed-price, turnkey PSAs for the Selected Wind Facilities. Further, SWEPCO has offered a capital cost guarantee. The Selected Wind Facilities will incur no fuel costs. Therefore, the Selected Wind Facilities will provide mostly fixed-priced, low cost energy to customers for the life of the

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[282] CARD Ex. 1 at 17:14-21.

[283] TIEC's Initial Brief at 63.

facilities. This is a substantial benefit for customers who bear the substantial risk of future energy prices under TIEC's "do nothing" approach.

TIEC suggests that, if energy prices do rise in the future, "SWEPCO would still have the ability to take action to mitigate the impact on ratepayers, including by procuring renewable power in the future."[284] This suggestion is simply not a credible plan to protect customers. TIEC's recommended path is fraught with risk for customers. If SWEPCO were to acquire wind facilities in the future, under current law, those facilities would qualify for less PTCs than those that will be earned by the Selected Wind Facilities or no PTCs at all. Sellers of existing wind facilities built early enough to qualify for substantial PTCs would undoubtedly reflect that value in their sale price. If TIEC is suggesting that SWEPCO could enter into PPAs with wind facilities after natural gas and energy prices significantly increase, the pricing of those PPAs would undoubtedly reflect the increase in energy market prices driven by the higher natural gas prices. There is simply no reason to expect that SWEPCO will be able to replicate the value of the Selected Wind Facilities after PTC eligibility expires or market prices increase. Given that the Selected Wind Facilities are expected to provide customers benefit under a wide range of assumptions, TIEC's "do nothing" path is the more risky path for customers.[285]

Although ETEC/NTEC argues that residential customers would pay more for the Selected Wind Facilities for the first few years under a production demand allocator,[286] its argument proves little. ETEC/NTEC's argument is based on the testimony of its witness Mr. Daniels, who states that he "expects" the Commission would approve a production demand allocation method.[287] As Company witness Aaron testified, he used an energy allocator to evaluate customer bill impacts because it matches the costs of the Selected Wind Facilities with the benefits they generate.[288] However, even if Mr. Daniels' questionable demand allocation expectation did come to pass, he presents customer impacts only for 2021-2024 and shows less than a 2% cost impact for residential

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[284] TIEC's Initial Brief at 64.

[285] SWEPCO Ex. 14 at 11:13-22.

[286] ETEC/NTEC's Initial Brief at 16-17.

[287] Direct Testimony of James W. Daniel, ETEC/NTEC Ex. 1A at 13:11-12. Mr. Daniels also points to allocation to customer classes in Oklahoma, although allocation methods can vary from state-to-state.

[288] SWEPCO Ex. 23 at 2:20-22.

customers.[289] Mr. Daniels' assertion does not address the overall customer benefits presented in Mr. Torpey's testimony, but simply attempts to shift the allocation of those benefits between customer classes.

ETEC/NTEC also argue that SWEPCO could achieve immediate savings by retiring Dolet Hills,[290] which seem rather tenuously related to the issues in this case. As Mr. Torpey discussed in this rebuttal testimony,[291] if the recently-announced retirement of Dolet Hills had been included in the Company's benefits analysis for the Selected Wind Facilities, it would have been shown in both the "with wind" and "without wind" cases. Dolet Hills operates seasonally at a relatively low capacity factor. Removing Dolet Hills from the analysis would have produced benefits comparable to the Company's analysis in this case although the capacity benefit of the Selected Wind Facilities may have occurred sooner, resulting in increased benefit.

IV. Proposed Conditions (P.O. Issue No. 10, 19, 20, 24)

The briefs of Staff and intervenors take a variety of positions associated with the conditions that should be included in the Commission's certification of SWEPCO's acquisition of the Selected Wind Facilities. Most parties that address the issue appear to accept the guarantees offered by SWEPCO in its direct case but request additional conditions that are variations on those being offered by SWEPCO or those that have been agreed to in settlements filed in other states. Staff, who submitted no testimony on this issue, now requests what it terms a "net benefit guarantee." TIEC alleges the guarantees offered by SWEPCO cannot "solve the problems" with the proposed acquisition and takes the position that all conditions agreed to in settlements filed in other states are irrelevant. This latter position is curious given the lengthy cross examination of SWEPCO Vice President Brice by counsel for TIEC about what conditions the Company would or would not accept in an order approving the acquisition of the Selected Wind Facilities.

The value of the Selected Wind Facilities lies in the mostly fixed, low cost energy that the Selected Wind Facilities will produced over the next 30 years and the PTCs that will be earned by SWEPCO on behalf of customers with that energy production. The statutory standard by which this application is to be evaluated is whether the acquisition of the Selected Wind Facilities will

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[289] ETEC/NTEC Ex. 1A at Exhibit JWD-2.

[290] ETEC/NTEC's Initial Brief at 17.

[291] SWEPCO Ex. 19 at 19:2-17.

result in the probable lowering of costs to customers. With the use of the word "probable," the statute recognizes that the future cannot be predicted with certainty. The question is not whether the utility has guaranteed or will guarantee lower costs to customers. The question is whether the acquisition of the Selected Wind Facilities will result in the probable lowering of costs to customers. When all the evidence and a range of realistic potential future circumstances are considered, it is clear that acquisition of the Selected Wind Facilities will result in the probable lowering of costs to customers ***with or without*** the guarantees offered by SWEPCO.

The Company offers guarantees to customers in this proceeding to help ensure that, even under unexpected circumstances, the acquisition of the Selected Wind Facilities will benefit customers. The guarantees are not meant to penalize the Company if circumstances vary from those expected or to guarantee a certain level of benefits to customers. Instead, SWEPCO offers guarantees that are a backstop for customers in the event of unexpected circumstances.

A. SWEPCO Proposed Conditions

While the value of the Selected Wind Facilities lies in their production of mostly fixed, low cost energy and the PTCs that will be earned by that production, the guarantees offered by SWEPCO clearly add value for customers. SWEPCO is offering guarantees related to the Selected Wind Facilities' energy production levels, qualification for PTCs, and the capital cost of the facilities. Not even TIEC alleges that these guarantees have no value or will harm customers. If the Commission grants certification of the acquisition of the Selected Wind Facilities, it appears to be uncontested that the Commission should condition that certification on the guarantees being offered by the Company.

B. Conditions Contained in Settlements Filed in Other Jurisdictions

The conditions that SWEPCO and its AEP affiliate PSO have agreed to in the context of settlements filed in Arkansas and Oklahoma, respectively, are identified in SWEPCO's initial brief and will not be replicated here. As an initial matter, SWEPCO notes that the brief of CARD contains a table that inaccurately describes the conditions agreed to in other states, including an alleged description of the conditions in a settlement that has yet to be filed in Louisiana. Nonetheless, certain parties request that the Commission condition its certification on some or all of the conditions agreed to in other states. Walmart, in particular, requests that the certification of the acquisition of the Selected Wind Facilities be conditioned on meeting the requirements of the settlement approved by the Oklahoma Corporation Commission.

At hearing, both SWEPCO President Malcolm Smoak and Vice President Thomas Brice agreed that the settlements filed in Arkansas and Oklahoma and their guarantees, when viewed in the context of a comprehensive settlement, are reasonable.[292] Further, both in his pre-filed rebuttal testimony and at hearing, Mr. Brice indicated that SWEPCO would entertain an expansion of the guarantees being offered in this proceeding consistent with those contained in the settlements as part of a reasonable suite of conditions contained in a final order approving the acquisition of the Selected Wind Facilities.[293] The Company's position has not changed in this respect.

C. Staff/Intervenor Proposed Conditions

Reply to OPUC

OPUC continues to urge that the Commission condition the acquisition of the Selected Wind Facilities on the guarantees urged by its witness Mr. Nalepa. As explained in SWEPCO's initial brief, those guarantees urged by Mr. Nalepa are inappropriate because they represent penalties for SWEPCO if circumstances vary from those expected. With his proposed "energy savings" guarantee, Mr. Nalepa is asking the Commission to condition the acquisition of the Selected Wind Facilities on SWEPCO guaranteeing more than $1.5 billion of customer savings over the life of the Selected Wind Facilities. SWEPCO will not reproduce the discussion of Mr. Nalepa's recommendations here.

Reply to Staff

Despite having filed no testimony on the issue, in its brief, Staff requests a "net benefits guarantee."[294] It is not clear what Staff means by this term. Staff cites both the testimony of OPUC and CARD for this proposition. The recommendations of OPUC witness Nalepa are addressed in SWEPCO's initial brief. As was explained there, Mr. Nalepa's recommendation amounts to a penalty for SWEPCO if natural gas and energy prices are lower than those expected, while reserving to customers all of the benefit if natural gas and energy prices are higher than expected.[295] Mr. Nalepa's recommendations are inappropriate.

Staff also cites the testimony of CARD witness Norwood for the proposition that a "net

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[292] Tr. at 87:1-25 (Smoak Redirect) and Tr. at 169:18-24 (Brice Redirect) (Feb. 24, 2020).

[293] *See* SWEPCO Ex. 14 at 14:16-15:8 and Tr. at 169:18-170:5 (Brice Redirect) (Feb. 24, 2020).

[294] Staff's Initial Brief at 21.

[295] SWEPCO Ex. 14 at 17:1-13.

benefits guarantee" should be adopted by the Commission. Mr. Norwood's testimony refers to a specific provision of the Wind Catcher settlement filed in Oklahoma by PSO and other parties to that case.[296] Specifically, the net benefits guarantee included in that settlement is identified in Attachment 2 to the Oklahoma Wind Catcher settlement, which is Mr. Norwood's Exhibit SN-8 in this case. While the detailed calculation of that net benefits guarantee is spelled out on the three-page Attachment 2 of the Oklahoma Wind Catcher settlement, the basic formula is:

Net Benefit for Customers = Fuel Savings + Project Capacity Value + PTCs + Minimum Net Capacity Factor Guarantee Payments + RECs Value + Carbon Savings - Project Revenue Requirement

As stated above, SWEPCO sees value in the provisions, taken as a whole, of the settlements filed in Arkansas and Oklahoma that provide for the acquisition of the Selected Wind Facilities. SWEPCO would entertain an expansion of the guarantees being offered in this proceeding consistent with those contained in those two settlements or a future settlement, as part of a reasonable suite of conditions contained in a final order approving the acquisition of the Selected Wind Facilities. However, SWEPCO views the lifting of a single provision from a settlement entered in a different case involving the acquisition of different assets to be inappropriate.

To the extent that a net benefits guarantee is ordered, Staff requests that the cost of a future generation-tie line, if any, be included in the calculation of costs under the net benefits guarantee. This request is premature because SWEPCO is not asking for approval of an extended generation-tie line in this proceeding nor does SWEPCO anticipate the need for such a line at this time. More importantly, SWEPCO has been clear that it would seek to build such a generation tie-line only if the customer benefit of such a line exceeded its costs.[297] Whether those benefits exceed the cost will be a matter to be decided at that time.

Reply to Golden Spread

Although the crux of Golden Spread's complaint is simple, it rests on a wide array of faulty

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[296] *See* CARD Ex. 1 at 22:25-23:1 and n. 45.

[297] Staff requests that certification be conditioned on SWEPCO filing "a CCN application" if a generation tie-line is necessary to mitigate congestion costs associated with energy supplied by the Selected Wind Facilities. While it does not appear that Texas law contemplates a CCN filing for a generation tie-line, SWEPCO has already agreed to the suggestion that SWEPCO seek pre-approval before building an extended and dedicated generation tie-line to connect the Selected Wind Facilities directly to the AEP load zone in SPP. SWEPCO Ex. 14 at 22:19-23:3.

charges and arguments. Golden Spread complains that SWEPCO does not plan to build a gen-tie and has not committed to accept firm transmission service, which it believes would result in allocation of transmission upgrade costs to SWEPCO. It charges that SWEPCO is instead relying on SPP's regional transmission planning process to identify any needed transmission upgrades for the Selected Wind Facilities, in which case, it argues, costs will be "socialized among SPP transmission ratepayers," including Golden Spread. It claims that SWEPCO's reliance on this regional transmission process instead of on firm transmission service creates a "fundamentally unjust" impact on Golden Spread and others. As a result, it argues that SWEPCO should be required to "immediately" acquire firm transmission service and to hold Golden Spread harmless for any "unjust cost shifts" to Golden Spread and others.[298]

These arguments should be rejected by the Commission. In the first place, Golden Spread offered no witnesses and submitted no testimony at hearing. All of its charges are contained in a Statement of Position it filed in the case and in its Initial Brief, neither of which constitute evidence in this proceeding. As a result, Golden Spread's brief consists of unsupported claims and limited citations to confusing cross-examination and cross-examination exhibits that generally do not support its claims. There is no evidence in the record that SPP will, in fact, allocate any specific transmission costs to any specific party, much less that any such allocation will turn out to be "fundamentally unjust," as Golden Spread claims.

Second, as explained in greater detail below and by SWEPCO witnesses, including Mr. Richard Ross, the Managing Director Regional Transmission Organization (RTO) Policy and FERC Recovery for American Electric Power Service Corporation (AEPSC), SPP's OATT is a FERC-approved tariff. Any transmission upgrade costs allocated pursuant to its terms are based on expected benefits and are not "fundamentally unjust" as Golden Spread claims.[299] Golden Spread is asking the Commission for a blank check from SWEPCO's customers in order to reimburse it for any conceivable future transmission upgrade costs that SPP might allocate to Golden Spread based on benefits that it receives. This would be an unprecedented windfall and it should be rejected by the Commission.

Golden Spread supports its arguments with a series of unsubstantiated charges and

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[298] Golden Spread's Initial Brief at 18.

[299] Golden Spread's Initial Brief at 18; Tr. at 356:16-358:18 (Sheilendranath Cross) (Feb. 25, 2020).

misstatements of SWEPCO testimony regarding SPP's allocation process. For example, it claims that, after offering contradictory testimony, Mr. Ross acknowledged that the cost of firm transmission can be directly assigned as opposed to being funded through the regional transmission planning process.[300] It then claims SWEPCO's analysis of transmission costs in this proceeding "largely glosses over these considerations" and their related effects.[301] It also criticizes Mr. Ross' testimony regarding SWEPCO's firm transmission request, claiming that SWEPCO was "unwilling" to accept "any direct assignment" charge as part of its firm transmission request.[302] Similarly, Golden Spread argues Mr. Pfeifenberger claimed that additions of wind generation can increase congestion costs that, in turn, can prompt new transmission upgrades that would be charged to Golden Spread and other transmission ratepayers. It also claims Mr. Sheilendranath testified that if transmission upgrades are funded through the SPP regional transmission planning process, AEP would only pay a "sliver" of the cost, and other SPP members, including Golden Spread, would pay the rest.[303]

All of these are unreasonable charges, unsubstantiated and wildly off base, and should be rejected by the Commission. As explained by Mr. Ross, Golden Spread's suggestion that certain facility-related transmission costs that would be directly assigned to SWEPCO if SWEPCO were to build a gen-tie or arrange for firm transportation service from the SPP will somehow be inappropriately assigned to Golden Spread is wrong.[304] The evidence shows that SPP ITP projects are based on a variety of factors, not just congestion affecting the Selected Wind Facilities, and would serve multiple needs and benefit multiple users of the grid.[305] As Mr. Ross testified, the cost for any such transmission facilities will be assigned or allocated under the terms of the FERC-approved SPP OATT. Costs that should be directly assigned to SWEPCO will in fact be directly assigned to SWEPCO, while the cost for system upgrades that benefit others would be allocated regionally. These cost allocation procedures have been found to be just and reasonable by the

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[300] Golden Spread's Initial Brief at 17.

[301] Golden Spread's Initial Brief at 17.

[302] Golden Spread's Initial Brief at 17.

[303] Golden Spread's Initial Brief at 16.

[304] Rebuttal Testimony of C. Richard Ross, SWEPCO Ex. 21 at 4:6-5:8.

[305] SWEPCO Ex. 21 at 6:15-19; Tr. at 356:16-358:18 (Sheilendranath Cross) (Feb. 25, 2020).

FERC and, as a result, Golden Spread's request that this Commission require SWEPCO to hold it "harmless" for these purported "reallocated" costs is inappropriate.[306]

Golden Spread acknowledges that SWEPCO is not requesting approval of a gen-tie in this proceeding. However, despite this acknowledgement, Golden Spread inexplicably goes on to argue that, while SWEPCO "presumably would pay" for the gen-tie initially, it is worried about the "potential" that SWEPCO would later attempt to shift the cost of the gen-tie onto other transmission ratepayers.[307]

As Mr. Ross testified, all of the project-related benefits identified in SWEPCO's Application (including the 15% capacity credit Golden Spread claims is dependent on firm transmission service) can be realized without the construction of a gen-tie or obtaining firm transmission service. In its economic analysis of the Selected Wind Facilities, the Company presented a high congestion sensitivity case that included the cost of a gen-tie only to show that the proposed projects would still provide substantial customer benefits in that circumstance.[308]

As Mr. Ross explained, SWEPCO does not plan on building a gen-tie at this time. Not only is it not necessary to obtain all of the benefits identified in SWEPCO's Application, its cost is not justified based on the Company's current projections. However, the gen-tie remains a congestion-risk-mitigation option that could be exercised if congestion costs were to increase unexpectedly in the future.[309] Similarly, although SWEPCO has applied for firm transmission service from the SPP, that is also not required for SWEPCO to receive the project-related benefits identified in SWEPCO's Application in this proceeding. In any case, the SPP's OATT is an SPP stakeholder- and FERC-approved tariff and it does not inappropriately assign costs to SPP members as Golden Spread argues.[310]

Mr. Ross explained that, although not part of its application in this proceeding, SWEPCO has submitted requests for long-term firm transmission service for the Selected Wind Facilities to the SPP. He explained that it was not possible to submit the long-term firm transmission service

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306 SWEPCO Ex. 21 at 4:12-5:2.

307 Golden Spread's Initial Brief at 18.

308 SWEPCO Ex. 21 at 3:17-23.

309 SWEPCO Ex. 21 at 4:1-5.

310 SWEPCO Ex. 21 at 5:3-8.

request prior to the initiation of this proceeding due to the timing of when the PSAs were signed. The request for long-term firm transmission service was only made so that SWEPCO can consider whether such service would be beneficial for customers. SWEPCO's requests, along with numerous other long-term firm transmission service requests for other customers, are being evaluated in SPP's 2019-AG2 aggregate facility study.[311] Once SWEPCO receives a response from the SPP, it will decide whether obtaining firm transmission service for the Selected Wind Facilities is justified. That decision will turn on whether the additional benefits of the service exceed the cost of any transmission upgrades required to obtain the service.[312] Despite Golden Spread's criticism, Mr. Ross also explained that AEP indicated on its firm service application that it would accept zero costs because it was not necessary to commit to payment at that time and the issue could be evaluated after receiving the study results from SPP.[313]

Mr. Ross further explained that it would be unreasonable for SWEPCO to commit to obtaining firm transmission service for the Selected Wind Facilities in advance of determining the cost of the service. This is because it would be unreasonable to commit to the service if its costs exceed its benefits. Doing so would be unfair to SWEPCO's customers.[314] As a result, Golden Spread's demand that SWEPCO obtain firm transmission service is unreasonable and should be denied.

Although Golden Spread criticizes SWEPCO to for failing to supplement an RFI request that asked about the application for firm transmission service earlier than it did,[315] there is nothing nefarious in this. As Mr. Ross explained at hearing, there was a question as to whether the submission would be accepted and considered by the SPP and SWEPCO updated the response after it had met with SPP representatives and was confident that the request would be accepted and considered by SPP.[316] This activity occurred around the end-of-year holiday season.[317] As

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[311] SWEPCO Ex. 21 at 7:3-11.

[312] SWEPCO Ex. 21 at 7:18-21.

[313] Tr. at 831:9-832:9 (Ross Cross) (Feb. 26, 2020).

[314] SWEPCO Ex. 21 at 8:13-17.

[315] Golden Spread's Initial Brief at 3 and 11.

[316] Tr. at 827:21-25 (Ross Cross) (Feb. 26, 2020).

[317] Tr. at 827:2-830:15 (Ross Cross) (Feb. 26, 2020).

Mr. Ross explained:

> I can tell you, though, that, you know as I mentioned, we put the request in and I was waiting, wanting to make sure that I truly had requests that were valid in the study and accepted by SPP before we supplemented a request with erroneous information.[318]

Similarly, Mr. Ross's testimony that Golden Spread's requested hold harmless provision would effectively shift costs from Golden Spread and other SPP members to SWEPCO's customers is not proof of "subsidization" as Golden Spread contends. Mr. Ross clearly testified that it is inappropriate for Golden Spread to make such a request. First, Golden Spread could be among the entities whose service is facilitated by the network upgrades funded by the interconnection of the Selected Wind Facilities to the SPP transmission system. Second, Golden Spread may be among the entities that will also benefit from any upgrades required to provide SWEPCO firm transmission service, if it is accepted. SPP has FERC-approved tariffs that prescribe appropriate cost allocation methods. Mr. Ross is correct that denying SWEPCO, through some hold harmless provision, any compensation provided under the SPP OATT would effectively shift the cost burden from Golden Spread and other SPP members to SWEPCO's customers.[319]

As additional support for its requested hold harmless provision, Golden Spread argues that the Commission has approved hold harmless requirements related to transmission cost increases previously in Docket No. 47576.[320] However, that was a settled case. In addition, it is clearly distinguishable because it had nothing to do with costs allocated pursuant to a FERC-approved tariff. In Docket No. 47576, Lubbock Power and Light sought to integrate a portion of its system and load into the Electric Reliability Council of Texas (ERCOT). Various parties argued that the integration would create certain stranded costs for assets that would no longer be needed once the integration into ERCOT was complete. The Commission approved an unopposed settlement in which LPL agreed to make specified payments to (i) ERCOT transmission customers and (ii) SPS's Texas retail customers and wholesale transmission load for the net impacts of the

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[318] Tr. at 827:21-25 (Ross Cross) (Feb. 26, 2020).

[319] SWEPCO Ex. 21 at 10:14-21.

[320] *Application of the City of Lubbock Through Lubbock Power and Light for Authority to Connect a Portion of its System with the Electric Reliability Council of Texas*, Docket No. 47576, Final Order (Mar. 15, 2018). Golden Spread's Initial Brief at 21-22.

integration of the facilities and load into ERCOT.[321] The LPL case involved Commission approval of a settlement among the parties. In addition, the Commission had jurisdiction over ERCOT and the payments to SPS were agreed compensation for stranded costs. None of the payments had anything to do with the reallocation of *new* transmission costs allocated pursuant to a FERC-approved tariff. Golden Spread's arguments in this regard are wrong and should be rejected by the Commission.

Golden Spread's assertion that SWEPCO's analysis of congestion cost "bookends" did not consider the impact on other SPP transmission customers[322] highlights the fact that Golden Spread's real complaint is with the cost allocation process contained in SPP's FERC-approved OATT. Although Golden Spread has presented no evidence showing how that allocation process works or that its allocations are somehow inappropriate, that is somewhat beside the point. At its core, Golden Spread is objecting to being allocated any costs under the SPP OATT for projects that it believes are related to the Selected Wind Facilities, even though it has not established that any such allocation may occur, that SPP projects would benefit only the Selected Wind Facilities, or that SPP's cost allocation for those projects is inappropriate. Although it has insinuated all of these things in its brief, it has proved none of them. In the end, Golden Spread is simply asking to be excused from costs allocated to it under SPP's FERC-approved tariff. That request would be inappropriate even if Golden Spread had established any factual predicate for it.

Golden Spread makes several arguments about transmission hedges that are difficult to understand and largely unsupported by record evidence.[323] For example, in a paragraph with only one record cite relating to hedging at the Canadian Hills and Minco facilities,[324] Golden Spread leaps to conclusions about how much SWEPCO should be willing to pay for firm transmission and the value of NRIS service. Although the relevance of these conclusions is unclear, what is clear is that they are Golden Spread's counsel's speculation about NRIS and firm transmission service, not a discussion of facts or evidence in this case.

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[321] *Application of the City of Lubbock Through Lubbock Power and Light for Authority to Connect a Portion of its System with the Electric Reliability Council of Texas*, Docket No. 47576, Final Order, FoF Nos. 70 and 71 (Mar. 15, 2018).

[322] Golden Spread's Initial Brief at 17.

[323] Golden Spread's Initial Brief at 19-21.

[324] Golden Spread's Initial Brief at 19.

Golden Spread also argues that hedging congestion at the Selected Wind Facilities using existing ARRs would result in no benefit to SWEPCO when the opportunity cost of switching those ARRs from another path is considered.[325] In support of this argument, Golden Spread cites SPP Protocols § 5.3.2(1)-(2), which are not in the record and do not clearly state what Golden Spread asserts they state, then jumps to the unsupported conclusion that AEP should already be optimizing its TCR portfolio so there would be no benefit from using existing hedge rights for the Selected Wind Facilities. In contrast to this convoluted and unsupported argument of counsel, Messrs. Ali and Pfeifenberger clearly described the reasonableness of the 25% hedge assumption for the Selected Wind Facilities and the trade-off between existing lower-congested paths from the Company's conventional resources and potential higher-congested paths from the Selected Wind Facilities.[326]

Finally, Golden Spread claims that AEP's "failure" to acquire firm transmission may have impacts on SWEPCO's retail customers,[327] ignoring the fact that, as explained above, the Company has requested firm transmission, has not decided yet whether to acquire it (since an SPP study is underway), and has made it plain that it will evaluate the potential benefits of that service (i.e., receiving additional ARRs) in comparison to any costs of the service.[328] In other words, the decision whether to obtain firm transmission service will turn on whether it provides *additional* benefits to customers *beyond* the benefits of the Selected Wind Facilities presented in this case, which do not depend on acquisition of firm service. Golden Spread's argument about a failure to acquire firm transmission service makes no sense in light of the fact that the Company has not yet decided whether to acquire such service.

In summary, Golden Spread has not established any evidentiary basis for the claims in its brief. The SPP's OATT assigns transmission upgrade costs on a fair and appropriate basis. It is not appropriate for Golden Spread to ask the Commission to override the results of this FERC-

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[325] Golden Spread's Initial Brief at 19-20.

[326] SWEPCO Ex. 7 at 14:3-22; SWEPCO Ex. 20 at 28:9-29:11; Tr. at 492:3-493:10 (Pfeifenberger Cross) (Feb. 25, 2020); Tr. at 797:7-24 (Pfeifenberger Cross) (Feb. 26, 2020).

[327] Golden Spread's Initial Brief at 20-21.

[328] SWEPCO Ex. 21 at 7:1-21.

approved tariff.[329]

V. Regulatory Approvals in Other Jurisdictions (P.O. Issue Nos. 7, 8, 9, 10)

On Monday, March 16, 2020, SWEPCO announced that, in Louisiana, it has reached a settlement agreement with all parties, including the LPSC Staff, the Alliance for Affordable Energy, and Walmart, Inc., regarding SWEPCO's proposal to acquire the Selected Wind Facilities.[330]

Reply to Staff

Along with this request before the Commission, SWEPCO simultaneously filed requests for approval of the requested acquisitions with the Arkansas Public Service Commission (APSC) and the LPSC. PSO also filed a request for approval of cost recovery for the acquisition with the Oklahoma Corporation Commission (OCC). SWEPCO and PSO anticipate jointly acquiring the Selected Wind Facilities if each obtains their respective state regulatory approvals.[331]

As identified in SWEPCO's initial brief, the OCC has already approved a unanimous settlement that allows PSO to move forward with the acquisition of its share of the Selected Wind Facilities (675 MW). Assuming that SWEPCO's Arkansas settlement is approved by the APSC and that the LPSC also approves SWEPCO acquisition of the Selected Wind Facilities, with approval from this Commission, SWEPCO will acquire its originally-proposed jurisdictional share of the Selected Wind Facilities for the benefit of Texas customers.

In the event that one of SWEPCO's other jurisdictions does not approve the acquisition of the Selected Wind Facilities, SWEPCO asks the Commission to (1) approve SWEPCO's acquisition of its originally-proposed jurisdictional share of the Selected Wind Facilities for the benefit of Texas customers or (2) approve SWEPCO's acquisition of the entire 810 MW (SWEPCO's share) of the Selected Wind Facilities with the costs and benefits of that acquisition allocated to the two approving states proportionately.[332] In its initial brief, Staff alleges that SWEPCO "has not shown that this aspect of the application preserves the purported economic

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[329] SWEPCO Ex. 21 at 11:10-13.

[330] The SWEPCO press release is attached to this Reply Brief as Attachment A. SWEPCO will provide the settlement agreement when filed with the LPSC.

[331] SWEPCO Ex. 2 at 22:5-10.

[332] SWEPCO Ex. 2 at 23:14-21.

benefits of the [Selected Wind Facilities]."[333] This allegation is inaccurate.

In the second situation described above (the "flex-up" situation), SWEPCO will acquire the entire 810 MW (SWEPCO's share) of the Selected Wind Facilities. All of the customer benefit calculations presented by SWEPCO witness Torpey's are total SWEPCO calculations. Therefore, in the flex-up situation, the customer benefits of SWEPCO's acquisition of 810 MW of the Selected Wind Facilities are the same as shown in Mr. Torpey's calculations, the only difference being that Texas customers' share of those benefits would be increased because Texas customers will have flexed-up to take a portion of the non-approving state's share of that 810 MW.

In the first situation described above, if one SWEPCO jurisdiction does not approve the acquisition of the Selected Wind Facilities, SWEPCO will simply acquire the originally-proposed jurisdictional share of the Selected Wind Facilities for the benefit of Texas customers and, in total, SWEPCO will acquire an amount less than the originally proposed 810 MW. Because, in such a situation, SWEPCO will acquire only the most economical combination of the Selected Wind Facilities to match its regulatory approvals, customer benefits will be the same as studied or higher.

Reply to Golden Spread

Finally, Golden Spread argues in this "Regulatory Approvals" portion of its initial brief that it is not challenging "any component of the SPP OATT in this proceeding." Instead, it claims that the issue before the Commission is *how* AEP/SWEPCO has acted relative to the choices that the OATT offers it."[334] It also claims that SWEPCO's arguments, if adopted, would "risk divesting the Commission of material portions of its regulatory authority."[335]

It is difficult to square Golden Spread's claim that it is not challenging any component of the SPP OATT in this proceeding with its claims that SPP's regional transmission process (that allocates costs pursuant to that same SPP OATT) will result in a "fundamentally unjust" impact on Golden Spread.[336] Golden Spread cannot have it both ways. If it is true that Golden Spread is not challenging any component of the SPP OATT in this proceeding, then there is no need for the Commission to grant the hold harmless provision it requests. Instead, Golden Spread clearly is

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[333] Staff's Initial Brief at 28.

[334] Golden Spread's Initial Brief at 23.

[335] Golden Spread's Initial Brief at 23.

[336] Golden Spread's Initial Brief at 18.

asking the Commission to override the cost allocation contained in SPP's FERC-approved OATT. This has nothing to do with divesting the Commission of its regulatory authority.

In summary, the SPP's OATT is a FERC-approved tariff that assigns transmission costs to SPP customers on a fair and appropriate basis. It is improper for Golden Spread to ask the Commission to override the results of this FERC tariff.[337]

VI. Other CCN Issues (P.O. Issue Nos. 1, 2, 3, 4, 11, 12)

SWEPCO relies on its initial brief regarding these issues. Only OPUC provided briefing under this section. OPUC's arguments are generally addressed in Sections II and III.d., above. No other party briefed these issues, except to the extent addressed in Section II.

VII. Rate Issues (P.O. Issue Nos. 21, 22, 25, 26, 27, 28, 29, 30, 31)

A. Proposal to Recover Revenue Requirement through Generation Rider

SWEPCO agrees with Staff that the Company's proposal to recover its investment in the Selected Wind Facilities through the rider authorized in PURA § 36.213 need not be addressed in this case. The Company did not request any relief in this proceeding related to the PURA § 36.213 generation cost recovery rider. Although Walmart expresses its preference that recovery of generation costs be determined in a general rate case,[338] the legislature recently enacted PURA § 36.213 specifically to authorize recovery of investment in new generation facilities outside of ERCOT through a rider until that investment could be included in base rates.[339]

B. Production Tax Credits

Not briefed by other parties.

C. Deferred Tax Asset Carrying Costs

In its initial brief, Staff argues the Commission should deny SWEPCO's request for "pre-approval" of the ratemaking treatment to be afforded the DTA related to the unutilized PTCs generated by the Selected Wind Facilities. It supports its argument with five separate reasons but, in general, claims that SWEPCO has not provided a "compelling" reason why it is necessary to "force" a Commission decision on the issue rather than wait for a future rate proceeding.[340] Each

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[337] SWEPCO Ex. 21 at 11:10-13.

[338] Walmart's Initial Brief at 4.

[339] Acts 2019, 86th Leg., R.S., Ch. 1067 (H.B. 1397), § 4, eff. June 14, 2019.

[340] Staff's Initial Brief at 29.

of Staff's reasons will be addressed below, but the compelling reason for the request is simple. Despite the fact that SWEPCO is not expected to be able to use all of the PTCs in the tax years in which they are generated, SWEPCO is providing customers the benefits of all of the credits as they are generated regardless of when they are used.

This guarantee of tax credits is unusual. However, in this case, SWEPCO is providing a cash benefit to customers equal to all of the credits generated. In other words, SWEPCO is offering a cash benefit before it has access to the underlying cash itself. Normally, when a cash benefit like this is granted (or obtained), a deferred asset (or liability) is recognized and rate base is either increased (or decreased) in the ratemaking process. For example, when utilities make cash contributions to pension funds in excess of amounts of expense reflected in rates, a deferred asset is included in rate base.[341] Similarly, when income tax expense included in rates is higher that income tax expense paid because of accelerated tax depreciation, a deferred tax liability (accumulated deferred federal income taxes or "ADIT") is deducted from rate base.[342] Because the cash tax benefit of providing unused PTC's to customers in this case is unusual, and because deferred tax assets are usually recognized in similar cases, it is reasonable for the Commission to grant SWEPCO's request regarding the associated carrying charges.

Staff's first reason underlying its position is that the Commission's general practice "does not include approving future ratemaking treatment in CCN proceedings."[343] Staff references the Commission's order in the CCN proceeding for SWEPCO's Turk plant as support.[344] Staff is correct that the Commission's general practice is not to approve future ratemaking treatment in CCN proceedings. However, Staff seems not to appreciate the fact that that "general practice" is not being followed in this case. SWEPCO's proposal that *all* tax credits generated (not just the ones used) will be allocated to customers in the ratemaking process is a departure from established practice in CCN cases. The Turk CCN case that Staff cites did not involve guarantees of future ratemaking treatment for tax credits. If the Commission confirms that unused tax credits be allocated to customers in future ratemaking proceedings, it is appropriate that it also order

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[341] PURA § 36.065(d). *Also see* SWEPCO Ex. 14 at 18:7-11.

[342] SWEPCO Ex. 14 at 20:10-11.

[343] Staff's Initial Brief at 29.

[344] Docket No. 33891, Order at 9 (Aug. 12, 2008).

associated carry charges to be recognized in the ratemaking process. Staff seems to believe that it is perfectly appropriate to determine the future ratemaking treatment of unused tax credits in this case (i.e., that they be allocated to customers) but that it is somehow not appropriate to decide the future ratemaking treatment of associated carrying costs. This is inconsistent. Staff cannot have it both ways. If the unused tax credits are allocated to customers as they are earned, the Commission should also determine that associated carrying charges be included in rate base.

Staff's second reason is that the prudence of costs incurred to construct the Selected Wind Facilities will not be determined by the Commission until these facilities are completed and actually in service.[345] Just as with Staff's first argument discussed above, this point is generally true, but, again, beside the point. Staff's argument that determining the treatment of carrying costs in this case will somehow "compromise" the Commission in future ratemaking proceedings is simply incorrect. SWEPCO is not requesting the Commission decide, in this case, on a specific dollar amount of unused tax credits or a specific dollar amount of associated carrying charges that should be considered in future ratemaking proceedings.[346] No one knows what these amounts will be in the future. But this does not keep the Commission from determining their future treatment. This will not "compromise" the Commission's rate-making powers.

Staff's argument in this regard is akin to reasoning that the Commission should not have issued deferred accounting orders in the past to address the regulatory lag occurring when plants were placed in service but before they were reflected in rates (which, just as in this case, allowed utilities to recognize deferred assets on its balance sheet) because the Commission had not yet determined the level of prudent costs that should be included in rate base.[347] The whole point of a deferred accounting order is to specify an item's rate treatment *before* the Commission determines exactly how much of that item should be reflected in rates. This is exactly the case in this instance.

Staff's third reason for its argument is that "AEP's consolidated tax group could prevent SWEPCO from utilizing the PTCs as predicted, which would result in higher rates for customers."[348] Again, this argument misses the point. While it is true that, as observed above in

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[345] Staff's Initial Brief at 30.

[346] SWEPCO Ex. 14 at 21:4-9.

[347] *See, e.g.*, *State v. Public Utility Comm'n of Texas*, 833 S.W. 2d 190 (Tex. 1994) (upholding the Commission's issuance of a deferred accounting order).

[348] Staff's Initial Brief at 30.

Section III.C.5., it is not possible to predict the future and determine exactly how much of the tax credits generated by the Selected Wind Facilities will be utilized in the year in which they are generated, that is no reason to deny customers the benefit of whatever unused credits are produced or to refuse to determine the treatment of the associated carrying costs.

Staff's fourth reason is that waiting until a future proceeding will allow the Commission to consider any changes to the federal income tax code, PURA, or any relevant laws.[349] Staff cites to the example of the Wind Catcher case and the enactment of the Tax Cut and Jobs Act of 2017, which caused SWEPCO to alter its assessment of that project's tax impacts. Again, Staff's argument is inapposite. While no one can predict the future and know with certainty the amount of tax credits that will go unused in the year they are produced, all parties do know – with certainty – that there is a fundamental and critical relationship between whatever amount the unused credits turn out to be and their associated carrying charge. Whatever the level of unused credits turn out to be, *the associated carry charges will be a much smaller amount.* This is a mathematical certainty; one that Staff ignores. It is reasonable to provide for a carrying charge on the unused credits that will be passed through to customers as they are received.

Staff is confusing the issue with arguments that tax credits generated, tax credits utilized, future tax laws, PURA, and other factors are all currently unknown. As a result, it argues, the Commission cannot possibly determine that carrying charges on unused tax credits that have been allocated to customers should be included in the ratemaking process. This is wrong. We know with certainty that any carrying charges on any unused credits that are allocated to customers will be dwarfed by the amount of the associated credits customers received. This is all the Commission needs to know in order to be fair – to determine that, to the extent customers receive the benefits of unused tax credits, associated carrying charges should also be reflected in the ratemaking process.

Finally, Staff argues that the Commission should not approve recovery of the DTA in rate base until SWEPCO has determined how the benefit of the associated PTCs will be flowed through to customers. It observes that there are different methods to allocate customers the benefit of any unused credits and seems to worry that, if the benefits are flowed through to customers via fuel

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[349] Staff's Initial Brief at 31.

charges, for example, the rate at which the benefits accrue carrying charges might be lower than the Company's weighted average cost of capital (i.e., the rate at which the deferred tax asset in rate base will earn a return).[350] Staff misses the point, which is that the Company has committed to provide the PTC benefit to customers when earned, regardless of whether the Company can offset its tax liability in the year that the PTC is earned. The Company acknowledges that the Commission has more than one rate mechanism at its disposal to deliver this benefit to customers. However, regardless of the mechanism chosen, the Company will be providing this benefit to customers when the PTCs are earned and not when the Company is able to offset its tax liability.

Staff's arguments on this issue should be rejected by the Commission. To the extent that customers benefit from PTCs that SWEPCO has not yet used, it is only fair that SWEPCO be allowed to receive the associated, and much lower, carry charges.

D. Jurisdictional Allocation

SWEPCO agrees with Staff that jurisdictional allocation of the Selected Wind Facilities does not need to be addressed as a rate issue in this case. Mr. Aaron used an energy allocator to allocate the costs and benefits of the facilities to jurisdictions and customer classes for his customer impact analysis because energy allocation matches the costs of the facilities with their benefits,[351] but did not request any Commission ruling on allocation.[352]

E. Treatment of Renewable Energy Credits (RECs)

SWEPCO agrees with Staff that the treatment of renewable energy credits (RECs) generated by the Selected Wind Facilities does not need to be addressed as a rate issue in this case. Mr. Brice addressed RECs in his direct testimony to describe how they provide an additional benefit of the facilities by providing customers a way to meet their renewable energy goals while also producing revenues that would reduce costs for all customers.[353] For example, Walmart's brief describes its aggressive and significant renewable energy goals that could be furthered by the Company's effort to increase the level of renewable generation on its system.[354] Mr. Smoak's

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[350] Staff's Initial Brief at 32.

[351] SWEPCO Ex. 23 at 2:20-22.

[352] SWEPCO Ex. 12 at 6:21-7:3.

[353] SWEPCO Ex. 2 at 13:13-19.

[354] Walmart's Initial Brief at 2.

testimony discusses other customers in the Company's service territory that have expressed a desire for increased renewable content, including Tyson Foods, McDonalds, Target, and United Parcel Service.[355]

F. Other Rate Issues

Not briefed by other parties.

VIII. Sale, Transfer, Merger Issues (P.O. Issue Nos. 13, 14, 15, 16, 17, 18)

A. Applicability of PURA § 14.101(a)

The threshold question is whether PURA § 14.101 applies to this proceeding.[356] Commission Staff, Golden Spread, and ETEC/NTEC have asserted that it does.[357] SWEPCO maintains that the language used in the statute clearly decides this issue in the negative. Section 14.101 plainly delimits the transactions to which it applies. Commission review is required when a utility intends "sell, acquire, or lease a plant as an operating unit or system in this state for a total consideration of more than $10 million."[358] Therefore, by its express terms, PURA § 14.101 is inapplicable to this proceeding because the Selected Wind Facilities are indisputably wholly located in Oklahoma.[359] The Commission's implementing rule confirms this interpretation.[360] No one argues that the phrase "in this state" references anywhere other than Texas.

Admitting "the wind facilities are not physically in Texas," Staff argues § 14.101 should apply because the facilities intend "*to operate as part of a system that produces electricity for ratepayers in Texas* and *substantially effects ratepayers in Texas*."[361] But that is not consistent

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[355] SWEPCO Ex. 1 at 8:11-15.

[356] Golden Spread briefed the applicability of PURA § 14.101 in its initial brief under Section II, which addresses the CCN standard of review. Consistent with the agreed briefing outline adopted by the ALJs in SOAH Order No. 5, SWEPCO addresses Golden Spread's arguments on STM issues under this section.

[357] TIEC, CARD, and Walmart did not brief this section and do not appear to challenge SWEPCO's position on any particular sub-issue.

[358] PURA § 14.101(a).

[359] "Where the text is clear, it is determinative of [the Legislature's] intent." *Entergy Gulf States, Inc. v. Summers*, 282 S.W.3d 433, 437 (Tex. 2009). Courts have repeatedly explained that the text of a statute should be enforced as written. *Id.* It is not necessary nor is it permissible to strain the statutory text to divine another plausible interpretation where doing so undermines the plain meaning of the text. *Id.* at 445 (Hecht, J., concurring).

[360] 16 Tex. Admin. Code § 25.74.

[361] Staff's Initial Brief at 34 (emphasis added).

with the scope delineated by the statute. Staff's interpretation would render the statutory language meaningless and inject uncertainty into the statute that is not there. As written, PURA § 14.101 pertains to objectively identifiable transactions, by describing the amount that must be at issue, the type of facilities, and where the relevant facilities are located. Staff would write the geographic limitation out of the provision entirely. And Staff would add another layer of preliminary inquiry in its place — whether or how a transaction involving out-of-state facilities connects to a Texas system and substantially effects ratepayers in Texas. This approach is unsupported by the statutory text. Staff would thus upend the plain meaning of the provision by reading § 14.101 to cover "***more** than just physical presence in the state* through the use of the language 'system in this state.'"[362] Offering no support for this reading, Staff would simply rewrite and undermine the scope set forth by the Legislature in § 14.101.[363]

ETEC/NTEC's arguments that § 14.101 should apply to this proceeding are also unavailing. ETEC/NTEC first argues the Commission has previously determined a proposed out-of-state facility must meet the public interest standard.[364] But ETEC/NTEC references two preliminary orders for dockets that were ultimately dismissed.[365] More recently and directly on point, the Commission's final order in Docket No. 46936 involving SPS's wind facilities did not rely on § 14.101 as a basis for jurisdiction nor did it include a public interest determination under

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[362] Staff's Initial Brief at 35 (emphasis added).

[363] *Summers*, 282 S.W.3d at 437n.1 (Hecht, J., concurring) (noting unambiguous statutes should not be construed to mean something other than what the plain words absent obvious error or absurd result). If the Legislature intended § 14.101 to have a broader reach, it would have said so.

[364] ETEC/NTEC's Initial Brief at 21.

[365] *See Application of Entergy Texas, Inc. to Amend its Certificate of Convenience and Necessity and for Public Interest Determination for Purchase of Unit 1, Union Power Station in Union County, Arkansas*, Docket No. 43958, Preliminary Order (Mar. 10, 2015) (Docket dismissed per Order No. 11 on July 30, 2015) and *Application of Southwestern Public Service Company for Approval of Transaction with Xcel Energy Southwest Transmission Company, LLC and Related Approvals*, Docket No. 45291, Preliminary Order (Mar. 25, 2016) (Application withdrawn Jun. 3, 2016 and Docket dismissed per Order No. 4 on Jun. 8, 2016). There is no Final Order or corresponding public interest determination under §14.101 in either case. Nonetheless, an agency's interpretation of a statute it is charged by the Legislature with enforcing will be upheld only where reasonable and provided it does not contradict the plain language of the statute. *See, e.g., R.R. Com'n of Texas v. Texas Citizens for a Safe Future & Clean Water*, 336 S.W.3d 619 (Tex. 2011). Here, the statutory language is plain and controlling.

that provision.[366] Similarly, in its order addressing the Wind Catcher CCN application, the Commission explicitly did not reach the contested issue of whether § 14.101 applied in that proceeding.[367] ETEC/NTEC also urges that it is practical to expect § 14.101 to be applied based on the size of the project.[368] However, regardless of perceived practicality or expediency, an agency may only act as authorized by statute.[369] Here the statue is plain.

Golden Spread asserts that § 14.101 *must apply* to this proceeding because the Commission has a practice of reviewing CCN dockets like this one. Golden Spread cites two dockets as exemplifying this practice. As addressed above, Docket No. 46936 is a poor example because the final order contains no analysis and makes no public interest determination under § 14.101.[370] The Order does not even identify PURA § 14.101 as a basis for jurisdiction.[371] And while a utility requested a public interest finding in Docket No. 43958 (which was ultimately dismissed), whether a utility provided information in a case where it was not strictly required is not determinative of the applicability and scope of § 14.101.

B. Public Interest Standard

No party has disputed SWEPCO's briefing or SWEPCO witness Brice's testimony addressing the standards set forth under PURA § 14.101(b)(1)-(4).[372] Staff and OPUC appear to agree that the public interest standard of § 14.101 overlaps with the controlling CCN factor in this case—the probable lowering of costs to customers.[373] Golden Spread presented arguments related to the public interest standard in Section II of its brief and SWEPCO has responded to those

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[366] Docket No. 46936, Final Order (May 25, 2018). As a matter of statutory interpretation, ETEC's contention that SPS did not argue about or challenge the applicability of § 14.101 is irrelevant. That fact does not change the statutory language or that it should be interpreted and enforced as written.

[367] TIEC Ex. 5 at 9. The Proposal for Decision (PFD) in the Wind Catcher case determined it did not. Docket No. 47461, PFD at 77 (May 21, 2018) ("The ALJs agree with SWEPCO and OPUC that PURA § 14.101 does not apply.").

[368] ETEC/NTEC's Initial Brief at 21.

[369] Agencies are creatures of the Legislature and "may exercise only those powers that the Legislature confers upon it in clear and express language, and cannot erect and exercise what really amounts to a new or additional power for the purpose of administrative expediency." *Texas Nat. Res. Conservation Com'n v. Lakeshore Util. Co., Inc.*, 164 S.W.3d 368, 377 (Tex. 2005) (citations omitted).

[370] Docket No. 46936, Final Order (May 25, 2018).

[371] Docket No. 46936, Final Order at 22.

[372] SWEPCO's Initial Brief at 53.

[373] Staff's Initial Brief at 35; OPUC's Initial Brief at 30.

arguments in Section II, above.

C. Reporting Requirements

SWEPCO has satisfied the statutory reporting requirements with the information submitted in its application and direct testimony. This has not been challenged by any other party.

Respectfully submitted,

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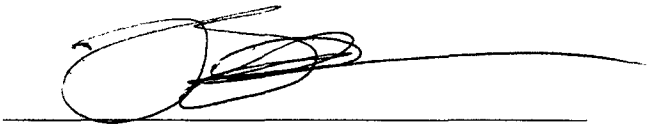
CERTIFICATE OF SERVICE

I certify that a true and correct copy of this document was served on all parties of record this 17th day of March, 2020.



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FOR IMMEDIATE RELEASE

SWEPCO, Other Louisiana Parties Reach Agreement in Wind Power Proposal

SHREVEPORT, La., March 16, 2020 – Southwestern Electric Power Co. (SWEPCO), an American Electric Power (NYSE: AEP) company, has reached a settlement agreement with all parties, including the Louisiana Public Service Commission (LPSC) Staff, the Alliance for Affordable Energy and Walmart, Inc., regarding SWEPCO's proposal to add 810 megawatts (MW) of wind energy.

The settlement agreement is subject to final approval by the LPSC following the submission of testimony and a settlement hearing.

"This project is a key part of our long-term goal of serving customers with a resource mix of more than one-third renewable energy. In addition to the environmental benefits of wind energy, SWEPCO customers will save an estimated $2 billion over the 30-year expected life of the new facilities," said Malcolm Smoak, SWEPCO president and chief operating officer. "We appreciate the hard work of all the participants in this regulatory review as we seek to bring more low-cost renewable energy to Louisiana customers."

SWEPCO is proposing to acquire three wind facilities in north central Oklahoma – known as the North Central Energy Facilities – in conjunction with its sister company, Public Service of Oklahoma (PSO).

PSO received final Oklahoma Corporation Commission approval Feb. 20, 2020, of a settlement agreement in its plan to add 675 megawatts of wind energy.

SWEPCO and all Arkansas parties reached a unanimous settlement agreement in January 2020. It is subject to final approval by the Arkansas Public Service Commission.

"The parties are continuing to work through the regulatory process in Texas in the hope that our customers in East Texas and the Panhandle can benefit from this low-cost energy while helping businesses and other customers meet their renewable energy goals," Smoak said.

SWEPCO's proposal is scalable to align with regulatory approvals by state, subject to commercial limitations. Two states that approve the project would have the ability to increase the number of megawatts allocated to them if one state does not approve the proposal.

The Federal Energy Regulatory Commission (FERC) has approved the acquisition of the wind facilities by SWEPCO and PSO.

SWEPCO serves more than 536,300 customers in three states, including 231,000 in northwest and central Louisiana, 185,500 in Texas and 119,800 in Arkansas.

About Southwestern Electric Power Co. (SWEPCO)

SWEPCO, an American Electric Power (AEP: NYSE) company, serves more than 536,300 customers in western Arkansas, northwest and central Louisiana, northeast Texas and the Texas Panhandle. SWEPCO's headquarters are in Shreveport, La. News releases and other information about SWEPCO can be found at SWEPCO.com. Connect with us at Facebook.com/SWEPCO, Twitter.com/SWEPCOnews, Youtube.com/SWEPCOtv and SWEPCOConnections.com.

About American Electric Power (AEP)

American Electric Power, based in Columbus, Ohio, is focused on building a smarter energy infrastructure and delivering new technologies and custom energy solutions to our customers. AEP's approximately 18,000 employees operate and maintain the nation's largest electricity transmission system and more than 219,000 miles of distribution lines to efficiently deliver safe, reliable power to nearly 5.4 million regulated customers in 11 states. AEP also is one of the nation's largest electricity producers with approximately 32,000 megawatts of diverse generating capacity, including about 5,200 megawatts of renewable energy. AEP's family of companies includes utilities AEP Ohio, AEP Texas, Appalachian Power (in Virginia and West Virginia), AEP Appalachian Power (in Tennessee), Indiana Michigan Power, Kentucky Power, Public Service Company of Oklahoma, and Southwestern Electric Power Company (in Arkansas, Louisiana, East Texas and the Texas Panhandle). AEP also owns AEP Energy, AEP Energy Partners, AEP OnSite Partners, and AEP Renewables, which provide innovative competitive energy solutions nationwide. For more information, visit aep.com.

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