

Under both normalization requirements and Commission rules, the ADFIT balance offsets, and thereby reduces, rate base.³⁵³ This relationship reflects the concept that the utility has, by virtue of having its tax payments deferred temporarily through use of accelerated depreciation, effectively received an interest-free “loan” of that capital until those tax payments come due, such that the amount of the “loan” should in fairness be excluded from rate base and not earn a return.³⁵⁴ Likewise, because the lower rate base will result in lower utility rates, the utility is made to share the benefits it receives from accelerated depreciation with its customers ratably over the regulatory useful life of the assets being depreciated.³⁵⁵ Thus, as Staff observes, normalization of the “tax savings derived from liberalized depreciation” ensures that those benefits are “balanced equitably between present and future ratepayers and between ratepayers and the utility,” which is also a PURA requirement.³⁵⁶

The consequences of a utility’s depreciation-related normalization violation include losing the right to accelerate depreciation on property used to provide regulated service in the jurisdiction where the violation occurred, as well as quicker required payment of the taxes that had been deferred by virtue of the accelerated depreciation.³⁵⁷ This would mean both that the utility would lose “loaned” cost-free capital (as ADFIT would be reduced) and that customers would lose the corresponding benefit of lower rates (as the loss of ADFIT would mean higher rate base).³⁵⁸

With this background in mind, the ALJs now turn to the remaining ADFIT-related issues.

³⁵³ SWEPCO Ex. 45 (Hodgson Reb) at 7; 16 TAC § 25.231(c)(2)(C)(i).

³⁵⁴ SWEPCO Ex. 45 (Hodgson Reb) at 7-8.

³⁵⁵ SWEPCO Ex. 17 (Hodgson Dir.) at 8; Rev. Proc. 2020-39 at 1-2.

³⁵⁶ Staff Initial Brief at 26; PURA § 36.059(a).

³⁵⁷ SWEPCO Ex. 17 (Hodgson Dir.) at 15 (citing 26 U.S.C. § 168(f)(2)).

³⁵⁸ SWEPCO Ex. 17 (Hodgson Dir.) at 16.

1. NOLC ADFIT

The first issue concerns a proposed adjustment by SWEPCO to reduce its ADFIT balance by \$455,122,490 to reflect the effects of a net operating loss, attributable to accelerated depreciation that exceeded taxable revenues, as calculated on a stand-alone basis as of the end of the test year.³⁵⁹ Neither SWEPCO's stand-alone loss calculation nor the type of adjustment it proposes, in itself, is controversial. SWEPCO and Staff agree, at least in concept, that SWEPCO is required to calculate its income-tax expense (including ADFIT) on a stand-alone basis—*i.e.*, reflecting only SWEPCO's own benefits and burdens in providing service to its customers, without commingling any tax benefits obtained by its affiliates—and that this is the basic import of PURA § 36.060, which states in pertinent part:

If an expense is allowed to be included in utility rates or an investment is included in utility rate base, the related income tax benefit must be included in the computation of income tax expense to reduce the rates. If an expense is not allowed to be included in utility rates or an investment is not included in the utility rate base, the related income tax benefit may not be included in the computation of income tax expense to reduce the rates.³⁶⁰

In this respect, Section 36.060 in its current form differs from a prior version of that statute, in effect until September 1, 2013, which had provided instead that “[u]nless it is shown . . . that it was reasonable to choose not to consolidate returns, an electric utility’s income taxes shall be computed as though a consolidated return had been filed and the utility had realized its fair share of the savings resulting from that return.”³⁶¹

It is likewise undisputed that federal tax law allows SWEPCO to carry its net operating losses forward to future years (known as a net operating loss carry-forward, or NOLC) to use in offsetting otherwise taxable income produced in those future years.³⁶² More specifically, where

³⁵⁹ SWEPCO Ex. 17 (Hodgson Dir.) at 27.

³⁶⁰ PURA § 36.060(a); *see* SWEPCO Ex. 45 (Hodgson Reb.) at 2-3; Tr. at 389, 395, 423-24.

³⁶¹ *See* Act of May 25, 2013, 83rd Leg., R.S., ch. 787 (S.B. 1364).

³⁶² SWEPCO Ex. 17 (Hodgson Dir.) at 11; Staff Ex. 3 (Stark Dir.) at 30.

the use of accelerated depreciation creates tax-purpose losses that cannot be used to offset taxable income in a given year, the amount of taxes not being offset (*i.e.*, the amount of the NOLC times the tax rate) is recorded as a “NOLC ADFIT” asset, offsetting the ADFIT liability. This treatment reflects that this amount of depreciation-related ADFIT has not provided the “loan” of interest-free deferred tax payments to the utility and that, correspondingly, the NOLC (rather than the deferral of tax payment) will benefit customers in future years, by offsetting the taxes as they come due.³⁶³ In fact, as both SWEPCO and Staff recognize, a series of IRS private letter rulings (not precedential as a formal matter, but often relied upon) have determined that to the extent an NOLC ADFIT asset is attributable to accelerated depreciation, it must be included in rate base in order to comply with normalization requirements.³⁶⁴ The basic reasoning, as Staff’s Ms. Stark acknowledged, is that the customer benefit associated with ADFIT (lower utility rates) should occur no faster than when the deferred taxes actually come due (as opposed to being offset by a NOLC) over the life of the associated assets.³⁶⁵

It is in this legal context that SWEPCO proposes its adjustment, which more specifically entails the deduction of a \$455,122,490 NOLC ADFIT asset from its ADFIT balance, thereby increasing rate base by the same amount.³⁶⁶ While having no quarrel with the proposed adjustment otherwise, Staff contends it is improper, and should be disallowed, in light of some additional circumstances relating to the NOLC ADFIT asset.³⁶⁷ Namely, it is undisputed that SWEPCO was paid for the NOLC ADFIT asset—apparently the same total amount of \$455,122,490³⁶⁸—and that its financial books at test-year end accordingly reflected a zero balance for NOLC ADFIT assets.³⁶⁹

³⁶³ SWEPCO Ex. 17 (Hodgson Dir.) at 12-14; Staff Ex. 3 (Stark Dir.) at 30-31; Tr. at 391-92.

³⁶⁴ SWEPCO Ex. 17 (Hodgson Dir.) at 12-14; SWEPCO Ex. 45 (Hodgson Reb) at 12; Staff Ex. 3 (Stark Dir.) at 30-31.

³⁶⁵ Tr. at 401-02.

³⁶⁶ SWEPCO Ex. 17 (Hodgson Dir.) at 27.

³⁶⁷ SWEPCO Initial Brief at 19-22; Tr. at 392-95; Staff Ex. 3 (Stark Dir.) at 31.

³⁶⁸ Tr. at 268-73; Staff Ex. 42 (SWEPCO Response to Staff RFI 9-20); Staff Ex. 3 (Stark Dir.) at 37-38, Attachment RS-38.

³⁶⁹ Tr. at 272-73; Staff Ex. 40 (SWEPCO Response to Staff RFI 9-15).

The payments were made to SWEPCO pursuant to a tax-allocation agreement among SWEPCO and other members of a consolidated group for which AEP files federal income tax returns.³⁷⁰ The agreement states that “[a] member with net positive tax allocation shall pay the holding company the net amount allocated, while a tax loss member with a net negative tax allocation shall receive current payment from the holding company in the amount of its negative allocation.”³⁷¹ It further provides that “[t]he payment made to a member with a tax loss should equal the amount by which the consolidated tax is reduced by including the member’s net corporate tax loss in the consolidated tax return.”³⁷² Thus, pursuant to this agreement, SWEPCO was paid for the use of its NOLC ADFIT asset in offsetting otherwise-taxable income earned by other AEP affiliates, thereby reducing the taxable income of the consolidated group as a whole.

Staff argues that SWEPCO cannot use the NOLC ADFIT asset to offset ADFIT (and increase rate base) because SWEPCO has already sold the asset and taken it off its books, which Ms. Stark thought akin to the effects of selling accounts receivable to obtain cash more quickly than if it waited for customers to pay.³⁷³ Ms. Stark also pointed out that SWEPCO’s proposed accounting treatment of its NOLC ADFIT differed from the Company’s approach, later approved by the Commission, in Docket No. 46449.³⁷⁴ In that earlier rate case, she observed, SWEPCO’s financial books at test-year end reflected, as in this case, an NOLC ADFIT balance of zero as a result of SWEPCO’s participation in the AEP consolidated tax-allocation agreement. Yet in that case, SWEPCO did not propose or make any adjustments to recognize NOLC ADFIT again and thereby include it in rate base, as it seeks to do now.³⁷⁵ Staff further touts this aspect of Docket No. 46449 as reflecting the Commission’s “established” and “accepted” method of interpreting PURA § 36.060 and making a stand-alone tax calculation.³⁷⁶ However, Staff does not identify any

³⁷⁰ SWEPCO Ex. 45 (Hodgson Reb.) at 2; Staff Ex. 41 (SWEPCO Response to Staff RFI 9-17), Attachment 1 at 2. To be precise, SWEPCO apparently received the total amount through a series of payments. Tr. at 272.

³⁷¹ Staff Ex. 41 (SWEPCO Response to Staff RFI 9-17), Attachment 1 at 2.

³⁷² Staff Ex. 41 (SWEPCO Response to Staff RFI 9-17), Attachment 1 at 2.

³⁷³ Staff Ex. 3 (Stark Dir.) at 31, 39-40.

³⁷⁴ Staff Ex. 3 (Stark Dir.) at 33-34.

³⁷⁵ Staff Ex. 3 (Stark Dir.) at 34-35; Staff Ex. 43 (SWEPCO response to Staff RFI 9-21).

³⁷⁶ Staff Initial Brief at 29; Staff Reply Brief at 16.

other case in which the Commission applied the statute's current version, let alone had occasion to address the specific contentions SWEPCO makes now.

SWEPCO counters that the Commission cannot validly recognize the payments SWEPCO received for the NOLC ADFIT asset or the corresponding zero book balance in determining SWEPCO's tax expense. This is so, SWEPCO reasons, because PURA § 36.060 requires a "stand-alone" calculation reflecting SWEPCO's own benefits and burdens in serving its customers, whereas the payment was a product of the activities and attendant tax consequences of other affiliates within the AEP consolidated group.³⁷⁷ In fact, in the view of SWEPCO witness David Hodgson—AEPSC's Tax Accounting and Regulatory Support Manager, who presented SWEPCO's tax schedules and federal income tax-expense calculations³⁷⁸—the Commission would, by recognizing the payments and disallowing SWEPCO's adjustment, make the "exact type of consolidated tax adjustment" made under the former version of PURA § 36.060 and that the Texas Legislature prohibited through its 2013 amendments to that statute.³⁷⁹

Staff disputes that current PURA § 36.060 would bar the Commission from following the same approach as in Docket No. 46449 and recognizing the tax-allocation payments, the resultant zero balance for NOLC ADFIT, and thus no offset.³⁸⁰ Staff observes that Section 36.060 (aside from a heading, "Consolidated Income Tax Returns," which cannot singularly expand or limit the statute's meaning³⁸¹) does not mention consolidated income tax returns or any special status conferred on payments made incident thereto. Instead, Section 36.060 merely prohibits the lowering of a utility's income-tax expense based on an income-tax benefit related to "an expense not allowed to be included in utility rates or an investment . . . not included in the utility rate base."³⁸² This language, in Staff's view, reflects an underlying concern with a mathematically

³⁷⁷ SWEPCO Initial Brief at 23-24; SWEPCO Reply Brief at 23-28.

³⁷⁸ SWEPCO Ex. 17 (Hodgson Dir.) at 2-7.

³⁷⁹ SWEPCO Ex. 45 (Hodgson Reb.) at 3.

³⁸⁰ Staff Initial Brief at 14-15.

³⁸¹ See Tex. Gov't Code § 311.024.

³⁸² Staff Initial Brief at 16.

imputed form of “consolidated tax savings adjustment” that the Commission would impose under the prior version.³⁸³ The situation here is different, Staff urges, involving “actual financial transactions with true economic substance,” “actual operating results of SWEPCO as recognized by GAAP and FERC accounting,” and “true economic costs of the utility.”³⁸⁴ Staff disputes that Section 36.060 requires the Commission to “ignore” these attributes merely because “those transactions are the result of a consolidated tax return.”³⁸⁵

Nor does SWEPCO’s “stand-alone” calculation take account of all of the effects of the tax-allocation payments, Staff insists. As Ms. Stark articulated this concern, she urged that SWEPCO is “cherry-picking” one item of a stand-alone tax calculation—seeking to add the NOLC ADFIT asset of \$455,122,490 (rather than zero) into rate base—yet not correspondingly removing from rate base assets that were funded by the \$455,122,490 tax-allocation payments.³⁸⁶ The result, she maintained, would be that SWEPCO includes in rate base both (1) the \$455,122,490 NOLC ADFIT asset and (2) \$455,122,490 in other assets that are now in its rate base, financed by the tax-allocation payments, thereby enabling SWEPCO to earn a return on the same \$455,122,490 twice.³⁸⁷ And this net addition of \$455,122,490 to rate base, Ms. Stark added, would occur “just because of the filing of the consolidated tax return and for no other reason,” by virtue of the tax attributes of SWEPCO’s affiliates. She further contends that the correspondingly higher rates charged to SWEPCO customers would effectively be subsidizing the operations of those affiliates by lowering their taxes.³⁸⁸

To support Staff’s premise that SWEPCO would effectively be earning a return on the amount of the tax-allocation payments, in addition to the NOLC ADFIT, Ms. Stark referenced

³⁸³ Staff Initial Brief at 16.

³⁸⁴ Staff Initial Brief at 17.

³⁸⁵ Staff Initial Brief at 17.

³⁸⁶ Tr. at 392-94, 396, 419-20.

³⁸⁷ Tr. at 393-94, 419-20.

³⁸⁸ Tr. at 394, 420; Staff Ex. 3 (Stark Dir.) at 40-41.

rebuttal testimony from Mr. Hodgson acknowledging that SWEPCO would have used the payment to invest in plant assets.³⁸⁹ Mr. Hodgson's specific testimony on this point is the following:

Staff has pointed out in its testimony, and [SWEPCO] has acknowledged, that [SWEPCO] has received cash as a result of its tax allocation agreement. Being a rate regulated utility, [SWEPCO] must prudently invest its capital into plant that is to the benefit of providing service to its customers. The Commission reviews the prudence of those investments when approving [SWEPCO's] rates. To the extent that [SWEPCO] received cash through its tax allocation agreement, [SWEPCO] would not use that additional capital to build plant beyond what would be prudent in serving its customers. Instead, the cash received by [SWEPCO] through the tax allocation agreement would reduce the otherwise needed capital to fund those prudent investments. As a result, [SWEPCO] would need less capital through debt and equity than it would absent the cash received through the tax allocation agreement.³⁹⁰

Or as the argument is restated in SWEPCO's briefing:

The consolidated tax sharing agreement payments did not result in any incremental spend[ing] on capital investments that would not have otherwise occurred. The only thing that changes was that SWEPCO did not have to increase its debt and equity to fund the projects. As a result, customers received the benefit of the reduced cost of capital (i.e., an equity investment with no assigned cost). . . . The consolidated tax sharing agreement payments are not added to the debt/equity included in rates.³⁹¹

In short, SWEPCO maintains that the tax-allocation payments should not be considered to increase rate base, as Staff assumes. This view, in turn, was a key premise in a larger analysis in which Mr. Hodgson sought to establish that Staff, in its expressed concerns about the rate impact of the NOLC ADFIT, has overlooked a "rate impact" from the tax-allocation payments (or, more

³⁸⁹ Tr. at 394, 419-20.

³⁹⁰ SWEPCO Ex. 45 (Hodgson Reb.) at 14-15.

³⁹¹ SWEPCO Reply Brief at 27-28.

precisely, the absence of a rate impact, assuming the payments does not increase rate base), such that recognizing the NOLC ADFIT would have a neutral impact on SWEPCO's rates.³⁹²

³⁹² SWEPCO Ex. 45 (Hodgson Reb.) at 14-19. To illustrate his claims of a rate-neutral impact, Mr. Hopkins offered examples involving two hypothetical utilities, one with a tax-allocation agreement, the other with no such agreement. The starting points for both were pre-tax book income of \$10,000 and an \$11,000 deduction for accelerated depreciation, which would yield a \$1,000 NOL and—all other things being equal—\$2,310 in ADFIT (21% corporate tax rate times \$11,000), and NOLC ADFIT of \$210 (21% tax rate times the \$1,000 NOL). He assumed a basic capital structure of \$100,000 each in debt and equity, and a ratio of 4% for the debt component and 10% for the equity component, for respective WACC of 2% and 5%, for a total WACC of 7%.

For Mr. Hodgson's first hypothetical, involving a utility with no tax-allocation agreement, he posited that the ADFIT would reduce the debt and equity capital necessary to finance the plant as follows:

	Initial Capital	ADFIT	Adjusted Capital
Debt	100,000	<1,050>	98,950
Equity	100,000	<1,050>	98,950
Total	200,000	<2,100>	197,900

and that net rate base, factoring in the NOLC ADFIT offset of ADFIT, would be:

Plant	\$200,000
ADFIT	<2,310>
NOLC ADFIT	210
Net Rate Base	\$197,900

Multiplying the net rate base by the 7% WACC yielded a revenue requirement of \$13,853.

For Mr. Hodgson's second hypothetical, involving a utility with a tax-allocation agreement, he added to the first hypothetical the element of a \$210 cash payment to the utility for its \$210 NOLC. Assuming the utility would use this additional cash, as with ADFIT, to reduce debt or equity capital otherwise needed to finance the plant, and in a manner maintaining the same capital ratios, Mr. Hodgson calculated the following new adjusted capital amount:

	Initial Capital	ADFIT	Tax-Alloc. Cash Pymt.	Adjusted Capital
Debt	100,000	<1,050>	<105>	98,845
Equity	100,000	<1,050>	<105>	98,845
Total	200,000	<2,100>	<210>	197,690

He then assumed—with intent to illustrate the effects of Staff's recommendations—that the NOLC ADFIT was reduced to zero by virtue of the tax-allocation payment:

Plant	\$200,000
ADFIT	<2,310>
NOLC ADFIT	0
Net Rate Base	\$197,690

Multiplying this net rate base by the 7% WACC yielded a revenue requirement of \$13,838, less than the \$13,853 revenue requirement in the first hypothetical.

Mr. Hodgson then modified the second hypothetical by adding a further adjustment, intended to represent SWEPCO's proposal, that removed the effect of the \$210 tax-allocation payment on debt and equity requirements:

It followed from this conclusion that excluding the NOLC ADFIT from rate base, as Mr. Hodgson testified, would “break the connection between the tax expenses in the cost of service and the ADFIT in rate base,” violating “the consistency requirements of the normalization rules.”³⁹³ The two are “inextricably linked,” he elaborated, noting that:

rate base is reduced by ADFIT because it represents the cumulative amount of deferred tax expense that customers have paid [SWEPCO] in excess of income [SWEPCO] is currently obligated to pay the federal government. . . . [I]n order to achieve a balance between the rate base reduction and the amount of cash provided through rates for deferred tax expense, it is necessary to include the [NOLC ADFIT] asset in the overall ADFIT balance. To exclude the [NOLC ADFIT] asset would result in rate base being reduced by an amount greater than the deferred taxes [SWEPCO] received through rates.³⁹⁴

Mr. Hodgson further opined that Staff’s rationale for excluding the NOLC ADFIT from rate base based on the tax-allocation payments “results in the cross-subsidization of costs/benefits from [SWEPCO’s] affiliate companies,” as the customers of affiliate companies are effectively funding a portion of rate-base reduction otherwise based on the deferred taxes funded by SWEPCO customers.³⁹⁵

	Initial Capital	ADFIT	Tax-Alloc. Cash Pymt.	Proforma Adjustment	Adjusted Capital
Debt	100,000	<1,050>	<105>	105	98,950
Equity	100,000	<1,050>	<105>	105	98,950
Total	200,000	<2,100>	<210>	210	197,900

Plant	\$200,000
ADFIT	<2,310>
NOLC ADFIT	210
Net Rate Base	\$197,900

Multiplying the \$197,900 net rate base by the 7% WACC yielded a revenue requirement of \$13,853—the same revenue requirement as in the original hypothetical.

³⁹³ SWEPCO Ex. 45 (Hodgson Reb.) at 5.

³⁹⁴ SWEPCO Ex. 45 (Hodgson Reb.) at 12.

³⁹⁵ SWEPCO Ex. 45 (Hodgson Reb.) at 12.

SWEPCO presented additional testimony on the normalization issue from tax attorney Bradley Seltzer. He opined that the consistency requirement “implicitly and effectively require[s] use of the stand-alone approach to focus exclusively on the utility when computing the four related cost of service ratemaking items implicated by the normalization rules, namely regulatory depreciation expense, regulatory tax expense, [ADFIT], and rate base.”³⁹⁶ He echoed Mr. Hodgson’s basic assessment that Staff, not SWEPCO, was seeking to “cherry pick[] one element of the inextricably tied four prongs of normalization,” creating a “substantial risk of a violation of the normalization consistency rules” and a likelihood that the IRS would so conclude.³⁹⁷

Mr. Seltzer added that intercompany payments under tax-sharing agreements, such as with SWEPCO and other AEP affiliates, “may affect basis and/or earnings or profits, but the payments themselves are a nonevent for tax purposes,” as the common parent of the group is the relevant “taxpayer” and group members are jointly and severally liable for the consolidated tax liability.³⁹⁸ “Thus,” he concluded, “since normalization is based on the extension of a loan from the Federal Government for the deferred taxes, the IRS is entirely indifferent to whether and how the group allocates liabilities amongst its members,” and “[a]ny payments made or received by SWEPCO pursuant to the tax sharing agreement are simply irrelevant to the normalization issue.”³⁹⁹

Nor, SWEPCO adds, should Docket No. 46449 be viewed as any sort of precedent barring its proposed adjustment.⁴⁰⁰ Mr. Hodgson observed that the Commission never had occasion in Docket No. 46449 to rule on the proper treatment of SWEPCO’s NOLC ADFIT, as the issue was never raised.⁴⁰¹ He further testified that SWEPCO first came to the opinion that the adjustment was warranted in light of normalization rules and PURA § 36.060 while preparing its rate filing in

³⁹⁶ SWEPCO Ex. 44 (Seltzer Reb.) at 6.

³⁹⁷ SWEPCO Ex. 44 (Seltzer Reb.) at 9.

³⁹⁸ SWEPCO Ex. 44 (Seltzer Reb.) at 7.

³⁹⁹ SWEPCO Ex. 44 (Seltzer Reb.) at 7 (emphasis in original).

⁴⁰⁰ SWEPCO Initial Brief at 24-25; SWEPCO Reply Brief at 23-24.

⁴⁰¹ SWEPCO Ex. 45 (Hodgson Reb.) at 19-20.

this case.⁴⁰² Mr. Seltzer added that “it is not uncommon for utilities to utilize procedures and adjustments that create potential normalization concerns that are only discovered and evaluated after one or more dockets have concluded,” sometimes after decades and multiple cases in which they have been incorrectly computing deferred taxes.⁴⁰³ In fact, he observed, the IRS had provided a safe harbor for taxpayers to correct their respective violations, provided they did so in their first available next rate case.⁴⁰⁴ Accordingly, he explained, SWEPCO is raising its concerns in the context of its first next available rate case—this docket.⁴⁰⁵

The key weakness in SWEPCO’s argument, as Staff argues, is the premise that the tax-allocation payments should be deemed to have no impact on its rate base despite Mr. Hodgson’s acknowledgment that SWEPCO’s rate base now includes assets that were funded by the payments.⁴⁰⁶ While SWEPCO insists that there is no *net* change to rate base because the payments essentially substituted for debt and equity capital that otherwise would have financed the assets, the payments have still impacted rate base by financing assets that either would have been financed through other means or would not have been in rate base.

SWEPCO suggests a parallel between the tax-allocation payments and the cost-free capital represented by ADFIT.⁴⁰⁷ Even if both are used similarly in financing rate base assets, SWEPCO’s ADFIT differs from its tax-allocation payments in that the amount of depreciation-related ADFIT is specifically excluded from rate base under special rules founded on the notion that the ADFIT is effectively a loan from the federal government whose benefits should be shared with customers over the life of the associated assets. The tax-allocation payments, in contrast, represent cash from SWEPCO’s affiliates (and, in turn, the affiliates’ customers) exchanged for the use of SWEPCO’s NOLC ADFIT in reducing the affiliates’ taxes and their customers’ cost of service. The rationales

⁴⁰² SWEPCO Ex. 45 (Hodgson Reb.) at 19; Tr. at 275-76.

⁴⁰³ SWEPCO Ex. 44 (Seltzer Reb.) at 7-8.

⁴⁰⁴ SWEPCO Ex. 44 (Seltzer Reb.) at 8.

⁴⁰⁵ SWEPCO Ex. 44 (Seltzer Reb.) at 8.

⁴⁰⁶ Staff Reply Brief at 13-16.

⁴⁰⁷ SWEPCO Reply Brief at 27.

that require exclusion of ADFIT from rate base do not extend to the rate-base assets SWEPCO has financed with its tax-allocation payments.

Thus, because the amount of the tax-allocation payments is now part of SWEPCO's rate base, it follows that SWEPCO's NOLC ADFIT adjustment would duplicate rather than preserve the rate impact of the NOLC ADFIT. In addition to the \$455,122,490 now in rate base that SWEPCO received in exchange for the NOLC ADFIT, SWEPCO's rate base would be increased by \$455,122,490 again, through the adjustment's offsetting of ADFIT by that amount. Nothing in PURA § 36.060 requires this double-counting, and allowing it would also violate normalization principles by doubling the rate impact of the NOLC ADFIT. Staff's proposal preserves the correct rate impact of the NOLC ADFIT now that the tax-allocation payments are in rate base.

In the very least, disallowing SWEPCO's proposed adjustment does not "clearly violate" normalization requirements. Although insisting that disallowance risks a violation finding, Mr. Seltzer ultimately acknowledged that the IRS has not directly addressed the fact pattern presented in this case.⁴⁰⁸ Moreover, as Staff points out,⁴⁰⁹ the IRS has recently issued guidance stating, with regard to determining the portion of NOLC attributable to depreciation, "[r]egulating commissions have expertise in this area, and any reasonable method . . . should generally be respected provided such method does not clearly violate normalization requirements."⁴¹⁰ Disallowing the adjustment to prevent a doubling of the NOLC ADFIT's rate-base impact is well within these bounds of reasonableness.

Accordingly, the ALJs recommend that the Commission disallow SWEPCO's proposed adjustment to deduct the \$455,122,490 NOLC ADFIT asset from its ADFIT balance.⁴¹¹

⁴⁰⁸ SWEPCO Ex. 44 (Seltzer Reb.) at 9.

⁴⁰⁹ Staff Reply Brief at 23.

⁴¹⁰ Rev. Proc. 2020-39 at 8.

⁴¹¹ In light of this recommendation, the ALJs would not adopt Staff's alternative proposals to limit the adjustment solely to NOLC ADFIT accruing since Docket No. 46449, to reduce the amount of the adjustment in light of the TCJA rate cut, or to make the adjustment contingent on SWEPCO obtaining an IRS private-letter ruling. *See* Staff Initial Brief at 29-30; Staff Reply Brief at 18, 23; Staff Ex. 3 (Stark Dir.) at 35, 41-42.

2. Excess ADFIT

In contrast to ADFIT generally, which is a product of normalization and timing differences in the recognition of income and expenses for tax versus book purposes, the excess ADFIT is also a product of the TCJA's reduction of the corporate federal tax rate from 35% to 21%, effective January 1, 2018, and SWEPCO's current rates, which were predicated on the former 35% tax rate and thus collected more ADFIT from customers than the utility would ultimately pay the IRS at the 21% tax rate.⁴¹² As SWEPCO acknowledges, it is obligated to return excess ADFIT to its customers and, per Docket No. 46449, it has been tracking the amount as a regulatory liability.⁴¹³ More specifically, SWEPCO has been tracking and must return two types of TCJA excess ADFIT to its customers: (1) "protected" or "normalized" excess ADFIT, which relates to temporary differences from depreciation and must be amortized over the remaining useful lives of the associated assets; and (2) "unprotected" excess ADFIT, which is not subject to the normalization limitations.⁴¹⁴ SWEPCO and Staff agree that the refund amount should thus include both (1) the accrued protected excess ADFIT amortization amounts for years 2018-2021, and (2) the unprotected excess ADFIT balance for all years.⁴¹⁵ The protected excess ADFIT amortization amounts for years 2022 going forward will be amortized through the income tax expense calculation over the associated assets' useful lives.⁴¹⁶

Two disputes arose between SWEPCO and Staff concerning the utility's calculation of the excess ADFIT to be refunded to customers. The first concerns SWEPCO's proposed adjustment for NOLC ADFIT, discussed in the preceding section, which impacted both ADFIT generally and

⁴¹² SWEPCO Ex. 17 (Hodgson Dir.) at 21-22; Staff Ex. 3 (Stark Dir.) at 42.

⁴¹³ SWEPCO Initial Brief at 29; SWEPCO Ex. 17 (Hodgson Dir.) at 21-22; Staff Ex. 3 (Stark Dir.) at 42.

⁴¹⁴ SWEPCO Ex. 17 (Hodgson Dir.) at 22; Staff Ex. 3 (Stark Dir.) at 43, 45.

⁴¹⁵ SWEPCO Initial Brief at 29-30; SWEPCO Ex. 17 (Hodgson Dir.) at 22-23; Tr. at 403-05.

⁴¹⁶ SWEPCO Initial Brief at 29-30; SWEPCO Ex. 17 (Hodgson Dir.) at 22-23; Tr. at 403-05; Staff Ex. 3 (Stark Dir.) at 45.

excess ADFIT.⁴¹⁷ SWEPCO acknowledges that both of these facets of the NOLC ADFIT issue are controlled by the same analysis.⁴¹⁸

The second dispute concerns what both SWEPCO and Staff now describe as confusion regarding the Texas Retail allocation factor and corresponding calculation of excess ADFIT provided by SWEPCO in its Application.⁴¹⁹ Staff recommended several adjustments based on its understanding of the allocation factor and resulting calculation.⁴²⁰ In rebuttal, SWEPCO adjusted its excess ADFIT calculation to reflect the 35.01% Texas Retail allocation factor established in Docket No. 46449, which was in effect when the TCJA's tax-rate change took effect.⁴²¹ SWEPCO also revised some sub-ledger information that updated the excess ADFIT amount to be returned to customers.⁴²² Staff acknowledges that SWEPCO's rebuttal testimony "cleared up this specific issue" and "does not oppose the use of the 35.01% Texas Retail allocation factor that was in effect when the tax laws were changed."⁴²³

In briefing, however, OPUC advocates the "updated" Texas jurisdictional factor of 36.94%, reasoning that the 35.01% factor "only captures the jurisdictional allocation as a snapshot in time when the TCJA was passed."⁴²⁴ The ALJs agree with the assessment of SWEPCO's Mr. Hodgson that the 35.01% factor is appropriate, as it represented the Texas Retail allocation that was in effect when the TCJA's tax-rate cut took effect, thereby represents the proportion of the total company deferred taxes that were included in the rates of Texas consumers, and therefore is the proportion of excess ADFIT that should be returned to Texas customers.⁴²⁵

⁴¹⁷ SWEPCO Ex. 45 (Hodgson Dir.) at 21-26; Staff Ex. 3 (Stark Dir.) at 44.

⁴¹⁸ SWEPCO Initial Brief at 30-31.

⁴¹⁹ SWEPCO Initial Brief at 30; Staff Reply Brief at 24.

⁴²⁰ Staff Ex. 3 (Stark Dir.) at 42-47.

⁴²¹ SWEPCO Ex. 45 (Hodgson Reb.) at 25-26.

⁴²² Tr. at 564-65; SWEPCO Ex. 17B (Errata to Hodgson Dir.) at 24.

⁴²³ Staff Reply Brief at 24.

⁴²⁴ OPUC Initial Brief at 10.

⁴²⁵ SWEPCO Ex. 45 (Hodgson Reb.) at 25.

Finally, there remains the question of how the excess ADFIT refund amount should be paid to customers. As discussed previously, SWEPCO proposes to use the entire excess ADFIT refund amount to offset the net book value of Dolet Hills, effecting an immediate recovery of most of the plant's remaining value. The ALJs have recommended instead that SWEPCO recover that value under its current amortization schedule, first as depreciation on the plant (alongside return and other costs of service) through the plant's retirement on December 31, 2021, and thereafter through amortized recovery from a regulatory asset. Thus, the ALJs must now address alternative methods or means by which SWEPCO should return the excess ADFIT refund amount. The parties addressing that issue have proposed four alternative options:

- Staff would have SWEPCO credit the balance against any amount owed by customers because of the March 18, 2021 relate-back date in this proceeding, and then return the remainder over a six-month period, with carrying charges at the same WACC that is determined in this proceeding.⁴²⁶
- ETEC/NTEC would require SWEPCO to refund the balance over the four-year period in which the rates are expected to remain in effect, with the balance offsetting rate base (and thereby lowering rates) in the meantime.⁴²⁷
- TIEC would require SWEPCO to refund the balance over one year, with carrying costs calculated using SWEPCO's regulated rate of return, on the balance from the relate-back date.⁴²⁸
- OPUC would require: (1) the eligible protected excess ADFIT to be returned through a one-time refund on SWEPCO customers' electricity bills within sixty days of the final order in this case; and (2) the unprotected excess ADFIT to be returned to customers through a separate tax-return rider, effective for two years from the effective dates of the rates approved in this proceeding.⁴²⁹ OPUC further recommends that this tax-return rider include an additional monthly carrying charge equal to the monthly WACC approved by the Commission in this proceeding.⁴³⁰

⁴²⁶ Staff Ex. 3 (Stark Dir.) at 46-47.

⁴²⁷ ETEC/NTEC Initial Brief at 10-11; ETEC/NTEC Ex. 1 (Hunt Dir.) at 7-8.

⁴²⁸ TIEC Ex. 4 (LaConte Dir.) at 14-17; Tr. at 356-57.

⁴²⁹ OPUC Initial Brief at 9-10; OPUC Ex. 1 (Cannady Dir.) at 53-54.

⁴³⁰ OPUC Initial Brief at 10.

The ALJs find it most reasonable to return the currently refundable excess ADFIT to customers promptly, as opposed to extending those refunds over a period of years. As TIEC witness LaConte observed, SWEPCO had been accruing and owing excess ADFIT for three years.⁴³¹ Moreover, prompt refund is more likely to return the excess ADFIT to the same customers who overpaid the taxes. As to specific method, the ALJs recommend Staff's approach, as it would accomplish the refunds in no more than six months while having the added benefit of eliminating or offsetting any surcharges that customers would owe due to the relate-back date, in effect an immediate refund of the offsetting amount. Until the excess ADFIT is fully refunded, the balance should accrue carrying costs equal to SWEPCO's WACC, as Staff and other parties also advocated.

In the event the Commission rejects SWEPCO's proposal to offset the refundable excess ADFIT against Dolet Hills' net book value, SWEPCO's Mr. Baird proposed that the Commission adopt Staff's recommendation and that any refunds after offsetting the relate-back surcharge be handled through a rate rider.⁴³² He observed that "a separate rider makes more sense," as "[t]he two components of the [excess] ADFIT are fixed, and not ongoing, so they should not be included in base rates," and would also "allow for an exact refund, including applicable carrying costs."⁴³³ The ALJs agree and recommend that a rider be used.

D. Accumulated Depreciation [PO Issue 12]

SWEPCO's witness Cash and also Mr. Baird testified concerning SWEPCO's calculations of depreciation rates and accumulated depreciation amounts.⁴³⁴ They explained that because SWEPCO operates in multiple jurisdictions—FERC, Arkansas, and Louisiana, in addition to Texas—the Company records depreciation expense based on a composite rate that results in a

⁴³¹ TIEC Ex. 4 (LaConte Dir.) at 17.

⁴³² SWEPCO Ex. 36 (Baird Reb.) at 24.

⁴³³ SWEPCO Ex. 36 (Baird Reb.) at 24.

⁴³⁴ SWEPCO Ex. 6 (Baird Dir.) at 43-44, SWEPCO Ex. 16 (Cash Dir.) at 8.

blended accumulated depreciation balance, necessitating adjustments to reflect the amount of accumulated depreciation as if SWEPCO had applied the Commission-approved rates to all of its depreciable plant.⁴³⁵ No party has contested SWEPCO's accumulated-depreciation calculation or adjustments, which the ALJs recommend be approved.

E. Regulatory Assets and Liabilities [PO Issues 19, 21, 22, 41, 50]

1. Self-Insurance Reserve [PO Issues 19, 40]

In its Application, SWEPCO requests to establish a self-insurance reserve under PURA § 36.064.⁴³⁶ Through that provision, the Texas Legislature has authorized an electric utility to self-insure all or part of a utility's potential liability or catastrophic property loss that could not have been reasonably anticipated and included under operating and maintenance expenses.⁴³⁷ The Commission "shall approve a self-insurance plan under [PURA § 36.064] if [it] finds that: (1) the coverage is in the public interest; (2) the plan, considering all costs, is a lower cost alternative to purchasing commercial insurance; and (3) ratepayers will receive the benefits of the savings."⁴³⁸ The Commission's Cost of Service Rule describes a "self-insurance plan" as "a plan providing for accruals to be credited to reserve accounts," which "are to be charged with property and liability losses which occur, and which could not have been reasonably anticipated and included in operating and maintenance expenses, and are not paid or reimbursed by commercial insurance."⁴³⁹ The rule specifies that the Commission shall consider approving a self-insurance plan in a rate case in which expenses or rate-base treatment is requested for such a plan. The Commission will

⁴³⁵ SWEPCO Ex. 6 (Baird Dir.) at 43-44, SWEPCO Ex. 16 (Cash Dir.) at 8.

⁴³⁶ SWEPCO Ex. 4 (Brice Dir.) at 10-12.

⁴³⁷ PURA § 36.064(a).

⁴³⁸ PURA § 36.064(b).

⁴³⁹ 16 TAC § 25.231(b)(1)(G); *see also* PURA § 36.064(g) (Commission "shall adopt rules governing self-insurance under this section").

approve such a plan “to the extent it finds it to be in the public interest.”⁴⁴⁰ The rule further prescribes the following requirements regarding the finding of “public interest”:

In order to establish that the plan is in the public interest, the electric utility must present a cost benefit analysis performed by a qualified independent insurance consultant who demonstrates that, with consideration of all costs, self-insurance is a lower-cost alternative than commercial insurance and the ratepayers will receive the benefits of the self insurance plan. The cost benefit analysis shall present a detailed analysis of the appropriate limits of self insurance, an analysis of the appropriate annual accruals to build a reserve account for self insurance, and the level at which further accruals should be decreased or terminated.⁴⁴¹

SWEPCO’s Mr. Brice testified that the idea of a self-insurance reserve was that “customers pay a representative amount each year toward the reserve and that the variability of losses will be averaged out over time through use of the reserve,” which in his view was “the fairest means of ensuring over time that customers pay for only actual costs incurred and that [SWEPCO] recovers only its actual costs,” and therefore in the best interests of both.⁴⁴² As for the particulars of SWEPCO’s proposed self-insurance reserve, Mr. Baird testified that SWEPCO’s proposal is patterned after a catastrophe reserve approved by the Commission for AEP Texas in various rate cases.⁴⁴³ He explained that SWEPCO will utilize the reserve for a major storm for which incremental expenses exceed \$500,000 for a single event (as opposed to “small storms”) and relate to SWEPCO’s Texas operations (*i.e.*, a \$1 million storm in East Texas but not one occurring in Arkansas).⁴⁴⁴ Mr. Baird opined that this self-insurance reserve was warranted because major storm costs are beyond SWEPCO’s control or ability to predict.⁴⁴⁵

⁴⁴⁰ 16 TAC § 25.231(b)(1)(G); *see also* PURA § 36.064(g) (Commission “shall adopt rules governing self-insurance under this section”).

⁴⁴¹ 16 TAC § 25.231(b)(1)(G).

⁴⁴² SWEPCO Ex. 4 (Brice Dir.) at 11.

⁴⁴³ SWEPCO Ex. 6 (Baird Dir.) at 12-13.

⁴⁴⁴ SWEPCO Ex. 6 (Baird Dir.) at 13.

⁴⁴⁵ SWEPCO Ex. 6 (Baird Dir.) at 13.

Mr. Baird also described the accounting SWEPCO would implement for the reserve. He explained that SWEPCO would fund the reserve through monthly charges against its O&M expense and charge against the reserve when an eligible major storm event caused more than \$500,000 in incremental O&M losses, which would include costs and charges incurred in restoration work in response to the storm but excluding capitalized costs and regular labor.⁴⁴⁶ Mr. Baird added that in future rate filings, SWEPCO would treat the reserve amount as a reduction to its Texas jurisdictional rate base if the amounts credited to the reserve exceed the charges against it (*i.e.*, there is an excess or regulatory liability) and add the reserve amount to rate base if charges exceed credits (*i.e.*, there is a shortage or regulatory asset).⁴⁴⁷

In further support of its proposal, SWEPCO presented the testimony of Gregory Wilson, a consulting actuary specializing in property-casualty actuarial matters.⁴⁴⁸ Mr. Wilson proposed an annual accrual of \$1,689,700 to fund the reserve and a target reserve level of \$3,560,000.⁴⁴⁹ He explained that the annual accrual figure included two components, the first of which was \$799,700 to provide for average annual expected losses from storms with transmission and distribution losses of at least \$500,000.⁴⁵⁰ Mr. Wilson stated that \$799,700 represented the expected value of the annual losses incurred from all storm damage, calculated by running the loss history from 2000 through March 2021 through a “Monte Carlo simulation” (a statistical technique incorporating a computer program to simulate loss experience over a longer period of time), then adjusted to reflect current conditions and current cost levels.⁴⁵¹

But because this figure represented only the average annual expected loss from storm damage, Mr. Wilson added, additional reserves needed to be built up to account for extreme or catastrophic storm events that could occur in a given year and vary significantly from the average

⁴⁴⁶ SWEPCO Ex. 6 (Baird Dir.) at 13-14.

⁴⁴⁷ SWEPCO Ex. 6 (Baird Dir.) at 14.

⁴⁴⁸ SWEPCO Ex. 28 (Wilson Dir.) at 1-2.

⁴⁴⁹ SWEPCO Ex. 28 (Wilson Dir.) at 4.

⁴⁵⁰ SWEPCO Ex. 28 (Wilson Dir.) at 4.

⁴⁵¹ SWEPCO Ex. 28 (Wilson Dir.) at 5-6.

losses.⁴⁵² According to Mr. Wilson, his recommended target reserve level of \$3,560,000 represented the amount of O&M expense expected to result from a 25-year storm with total losses of at least \$500,000, calculated through a Monte Carlo simulation.⁴⁵³ He opined that this reserve level should be carried by SWEPCO to make an actuarially sound provision for coverage of self-insured losses.⁴⁵⁴ Mr. Wilson further proposed that this reserve level be built up over four years (corresponding to SWEPCO's anticipated rate-filing schedule), with one-fourth of the total paid in each year (\$890,000).⁴⁵⁵ This figure represented the second component of Mr. Wilson's recommended annual accrual, and with the \$799,700 for average annual expected losses comprised the \$1,689,700 total annual accrual.⁴⁵⁶

Three intervenors oppose some aspect of SWEPCO's self-insurance reserve proposal. TIEC and OPUC contend that SWEPCO's target reserve and annual accrual should be smaller than SWEPCO proposes.⁴⁵⁷ CARD, later joined by TIEC, argue that SWEPCO's proposal should be disallowed altogether because SWEPCO failed to present a valid or sufficient cost-benefit analysis as required by Commission rule.⁴⁵⁸ The ALJs agree with CARD and TIEC that SWEPCO's proof falls short of this requirement.

Under the Commission's rule, SWEPCO was required to "present a cost benefit analysis performed by a qualified independent insurance consultant" who, among other things, "demonstrates that, with consideration of all costs, self-insurance is a lower-cost alternative than commercial insurance and the ratepayers will receive the benefits of the self insurance plan."⁴⁵⁹ To meet this requirement and others under the rule, SWEPCO relied on the testimony of

⁴⁵² SWEPCO Ex. 28 (Wilson Dir.) at 5, 7-8.

⁴⁵³ SWEPCO Ex. 28 (Wilson Dir.) at 8.

⁴⁵⁴ SWEPCO Ex. 28 (Wilson Dir.) at 8.

⁴⁵⁵ SWEPCO Ex. 28 (Wilson Dir.) at 9.

⁴⁵⁶ SWEPCO Ex. 28 (Wilson Dir.) at 9.

⁴⁵⁷ OPUC Initial Brief at 5-6; OPUC Ex. 1 (Cannady Dir.) at 45-47; TIEC Initial Brief at 15-16; TIEC Ex. 4 (LaConte Dir.) at 18-22.

⁴⁵⁸ CARD Initial Brief at 11-12; CARD Ex. 2 (M. Garrett Dir.) at 37-39; TIEC Initial Brief at 13-15.

⁴⁵⁹ 16 TAC § 25.231(b)(1)(G).

Mr. Wilson, and there is no dispute that he is a “qualified independent insurance consultant.” To demonstrate that, with consideration of all costs, self-insurance is a lower-cost alternative than commercial insurance and the ratepayers will receive the benefits of the self-insurance plan, Mr. Wilson evaluated (1) “the manner in which insurance companies set premiums” and (2) “an actual comparison to estimated insurance premiums for the self-insurance coverage.”⁴⁶⁰ Regarding the first consideration, Mr. Wilson testified that a self-insurance reserve would avoid incurring costs incurred by insurance companies beyond those merely for losses and loss-related expenses, such as premium taxes and other state-imposed fees, a profit, commission payments to insurance agents or brokers who placed the business, underwriting costs, marketing, and overhead.⁴⁶¹ As for “an actual comparison to estimated insurance premiums for the self-insurance coverage,” Mr. Wilson’s testimony consisted of the following:

Comparing the cost of self-insurance versus the cost of buying insurance is another way to establish that it is more cost effective for SWEPCO to self-insure. My understanding is that private coverage continues to be prohibitively expensive. As a result, the only conclusion is that commercial insurance is not economically available and the only way to protect SWEPCO’s assets is through self-insurance.⁴⁶²

During the hearing, Mr. Wilson acknowledged that he had not “present[ed] a number” to quantify the cost of commercial insurance.⁴⁶³ However, he stated his belief that commercial insurance would *always* be more expensive than self-insurance for a Texas utility with respect to the type of coverage for transmission and distribution lines that SWEPCO’s proposal would address.⁴⁶⁴ As for the basis for this belief, he testified that “I think the last time I remember getting a quote is probably three or four years ago,” but he could not remember which insurance company had provided it, and believed it would have been for a utility other than SWEPCO.⁴⁶⁵ On this

⁴⁶⁰ SWEPCO Ex. 28 (Wilson Dir.) at 10.

⁴⁶¹ SWEPCO Ex. 28 (Wilson Dir.) at 11.

⁴⁶² SWEPCO Ex. 28 (Wilson Dir.) at 12.

⁴⁶³ Tr. at 284, 290, 292.

⁴⁶⁴ Tr. at 286-87.

⁴⁶⁵ Tr. at 289-90.

occasion, according to Mr. Wilson, he “was told that the deductible alone was worth more than the self-insurance cost, and the premium was even higher.”⁴⁶⁶ He added that “[s]ince then I’ve had a lot of problems getting companies to [give] quotes because the brokers don’t want to give the quotes knowing that it’s going to be very expensive and knowing that people aren’t going to buy it.”⁴⁶⁷ Within a month of his testimony, Mr. Wilson added, he had communicated with someone with SWEPCO (he couldn’t recall whom) to form his “understanding that private coverage continues to be prohibitively expensive.”⁴⁶⁸ However, he did not know whether SWEPCO had conducted a study, survey, or any analysis about the cost of commercial insurance and acknowledged that he had not identified any specific insurance companies or how much more expensive their insurance would have been.⁴⁶⁹

SWEPCO maintains that it is enough for Mr. Wilson to state that commercial insurance would always be more expensive than self-insuring, further insisting that “[t]here is simply no contested fact issue whether self-insurance is lower cost than commercial insurance.”⁴⁷⁰ Yet even if this testimony, founded as it is on anecdotal accounts and consisting only of broad generality, would suffice as competent evidence that commercial insurance is more expensive than self-insurance, the ALJs cannot conclude that it “present[s] *a cost benefit analysis* performed by a qualified independent insurance consultant who *demonstrates that, with consideration of all costs, self-insurance is a lower-cost alternative than commercial insurance*,” as the Commission has required. In the very least, the analysis would need to demonstrate why or how the cost of commercial insurance would exceed the specific costs of SWEPCO’s proposal, which are not inconsiderable and include establishing a reserve that more than doubles the annual cost levels.⁴⁷¹ There is simply nothing in the analysis to show why or how SWEPCO’s specific costs, or any

⁴⁶⁶ Tr. at 289-90.

⁴⁶⁷ Tr. at 291.

⁴⁶⁸ Tr. at 289-90.

⁴⁶⁹ Tr. at 289-90.

⁴⁷⁰ SWEPCO Reply Brief at 34.

⁴⁷¹ CARD Ex. 2 (M. Garrett Dir.) at 38.

other specific cost amount, would compare to commercial insurance alternatives.⁴⁷² Nor is there any demonstration that “the ratepayers will receive the benefits of the self insurance plan,” also a requirement of the Commission’s rule.

Because the cost-benefit analysis is made a prerequisite to the Commission’s finding that a self-insurance plan is in the public interest,⁴⁷³ and PURA requires that public-interest finding as a condition of plan approval,⁴⁷⁴ the ALJs recommend that the Commission deny approval to SWEPCO’s self-insurance plan.

2. Hurricane Laura Costs [PO Issues 36, 37, 38, 39]

SWEPCO requests authorization to charge its Texas jurisdictional Hurricane Laura restoration costs against the self-insurance reserve for which it is seeking approval.⁴⁷⁵ No party has opposed this proposal, aside from the challenges brought by CARD and TIEC to the self-insurance reserve’s approval. Because the ALJs have recommended that the Commission deny such approval due to the absence of the required cost-benefit analysis, the ALJs also recommend denial of SWEPCO’s requested authorization to charge Hurricane Laura costs against that reserve.

VI. RATE OF RETURN [PO ISSUES 4, 5, 7, 8, 9]

A. Return on Equity [PO Issue 8]

The ROE is the return that investors require to make an equity investment in a firm. For regulated public utilities, regulation acts as a substitute for market competition in setting the

⁴⁷² The ALJs are required to rely only on the evidence and matters officially noticed, *see* Tex. Gov’t Code § 2001.141(c), and both are lacking here with regard to the relative pricing.

⁴⁷³ 16 TAC § 25.231(b)(1)(G).

⁴⁷⁴ PURA § 36.064(b).

⁴⁷⁵ SWEPCO Ex. 4 (Brice Dir.) at 11-12.

utility's ROE. The U.S. Supreme Court has set forth a minimum constitutional standard governing equity returns for utility investors:

From the investor or company point of view it is important that there be enough revenue not only for operating expenses but also for the capital costs of the business. These include service on the debt and dividends on the stock. By that standard the return to the equity owner should be commensurate with returns on investments in other enterprises having corresponding risks. That return, moreover, should be sufficient to assure confidence in the financial integrity of the enterprise, so as to maintain its credit and to attract capital.⁴⁷⁶

Thus, a utility must have a reasonable opportunity to earn a return that is: (1) commensurate with returns on equity investments in enterprises having comparable risks; (2) sufficient to assure confidence in the financial soundness of the utility's operations; and (3) adequate to attract capital at reasonable rates, thereby enabling it to provide safe, reliable service. The allowed ROE should enable the utility to finance capital expenditures at reasonable rates and maintain its financial flexibility during the period in which the rates are expected to remain in effect.

SWEPCO, Staff, CARD, and TIEC presented experts who testified as to the appropriate ROE for SWEPCO given the current market conditions and SWEPCO's current financial situation. They used similar mathematical methodologies to estimate the appropriate ROE for SWEPCO, including the constant growth discounted cash flow (DCF) methodology, the multi-stage DCF methodology, versions of the risk premium approach, and the capital asset pricing model (CAPM). Each of these experts also addressed recent economic conditions and how they affect the mathematically derived recommendations.

⁴⁷⁶ *Federal Power Comm'n v. Hope Natural Gas Co.*, 320 U.S. 591, 603 (1944); see also *Bluefield Waterworks & Improvement Co. v. Pub. Serv. Comm'n of W. Va.*, 262 U.S. 679, 692-93 (1923) ("A public utility is entitled to such rates as will permit it to earn a return on the value of the property which it employs for the convenience of the public equal to that generally being made at the same time and in the same general part of the country on investments in other business undertakings which are attended by corresponding risks and uncertainties; but it has no constitutional right to profits such as are realized or anticipated in highly profitable enterprises or speculative ventures. The return should be reasonably sufficient to assure confidence in the financial soundness of the utility and should be adequate, under efficient and economical management, to maintain and support its credit and enable it to raise the money necessary for the proper discharge of its public duties.").

Applying these analytical techniques resulted in varying ROE recommendations from the experts, as shown in the table below.

Summary of Witnesses' ROE Recommendations⁴⁷⁷

WITNESS	ROE RANGE		ROE RECOMMENDATION
	LOW	HIGH	
J. Randall Woolridge (CARD)	7.60%	9.15%	9.00%
Michael Gorman (TIEC)	8.90%	9.35%	9.15%
Mark Filarowicz (Staff) ⁴⁷⁸	9.05%	9.35%	9.225%
Dylan D'Ascendis (SWEPCO) ⁴⁷⁹	10.32%	11.43%	10.35%

In addition, Walmart presented testimony regarding recent ROEs approved in Texas and nationally, and recommended an ROE “no higher than 9.60%.”⁴⁸⁰ It is with this backdrop that the ALJs discuss the appropriate ROE for SWEPCO on a going forward basis, which the ALJs find is 9.45%.

1. Proxy Group

Because SWEPCO is not a publicly traded company, it is necessary to establish a group of companies that are publicly traded and comparable to SWEPCO in certain fundamental business and financial respects to serve as its “proxy” in the ROE estimation process. Both financial theory and legal precedent support the use of comparable companies within a proxy group to determine a

⁴⁷⁷ Staff Ex. 1 (Filarowicz Dir.) at 28; TIEC Ex. 3 (Gorman Dir.) at 54; CARD Ex. 4 (Woolridge Dir.) at 54; SWEPCO Ex. 8 (D'Ascendis Dir.) at Schedule DWD-1 at 2. OPUC and Nucor support the recommendations of intervenors and Staff. OPUC Initial Brief at 12-14; Nucor Initial Brief at 3-4.

⁴⁷⁸ As discussed below, Mr. Filarowicz's recommended ROE includes a 12.5 basis point downward adjustment under PURA § 36.052 due to SWEPCO's alleged poor quality of service and management. Mr. Filarowicz's unadjusted ROE recommendation is 9.35%.

⁴⁷⁹ In rebuttal, Mr. D'Ascendis updated his analysis, which resulted in a revised ROE range of 10.43% to 11.26%, but his overall ROE recommendation of 10.35% remained unchanged. SWEPCO Ex. 38 (D'Ascendis Reb.) at 9-10, Schedule DWD-1R at 2.

⁴⁸⁰ Walmart Ex. 1 (Perry) at 4.

utility's ROE, and all of the ROE witnesses in this case who conducted mathematical analyses relied on proxy groups to estimate a required ROE for SWEPCO.

SWEPCO witness D'Ascendis performed his analyses using two proxy groups. First, the "Utility Proxy Group," which consisted of certain vertically integrated electric utilities in the Value Line Investment Survey (Value Line) that met a number of screening criteria.⁴⁸¹ His Utility Proxy Group included 14 companies, the makeup of which changed slightly on rebuttal because Mr. D'Ascendis removed one company, PNM Resources, Inc., that had agreed to a strategic merger, and added one company, Evergy, Inc., that at the time of his direct testimony was subject to rumors of a possible merger that did not materialize.⁴⁸²

Mr. D'Ascendis's second proxy group is the "Non-Price Regulated Proxy Group," which consisted of 45 domestic, non-price regulated firms that he concluded were comparable in total risk to the Utility Proxy Group.⁴⁸³ To determine the comparable risk of the companies, he used two screening criteria: (1) their Beta coefficients (a measure of risk) must lie within plus or minus two standard deviations of the average unadjusted Beta coefficients of the Utility Proxy Group; and (2) the residual standard errors of the Value Line regressions which gave rise to the unadjusted Beta coefficients must lie within plus or minus two standard deviations of the average residual standard error of the Utility Proxy Group.

In contrast, CARD, TIEC, and Staff used proxy groups composed only of electric utility companies. CARD witness Woolridge used two proxy groups. The first was based on different screening criteria than those used by Mr. D'Ascendis for his Utility Proxy Group and produced a proxy group of 27 publicly held electric utility companies. Dr. Woolridge's second proxy group is the same as Mr. D'Ascendis's initial Utility Proxy Group.⁴⁸⁴ TIEC witness Gorman also used the

⁴⁸¹ SWEPCO Ex. 8 (D'Ascendis Dir.) at 19-20.

⁴⁸² SWEPCO Ex. 38 (D'Ascendis Reb.) at 8.

⁴⁸³ SWEPCO Ex. 8 (D'Ascendis Dir.) at 48-49.

⁴⁸⁴ CARD Ex. 4 (Woolridge Dir.) at 18. Mr. Woolridge's testimony states that he used Mr. D'Ascendis's Utility Proxy Group, but he appears to have excluded PNM Resources, Inc. *See id.*, Exh. JRW-3.

same companies as in Mr. D'Ascendis's initial Utility Proxy Group, but with one exception—he removed PNM Resources, Inc. due to its reported merger.⁴⁸⁵ Finally, Staff witness Filarowicz developed his proxy group by starting with all the electric utility companies covered by Value Line's Ratings and Reports and then applying slightly different screening criteria than those employed by Mr. D'Ascendis.⁴⁸⁶ He arrived at a proxy group of 20 companies, which had some overlap with Mr. D'Ascendis's Utility Proxy Group.

There was little dispute among the parties about the composition of the proxy groups comprised of electric utility companies. However, CARD and TIEC urge rejection of Mr. D'Ascendis's Non-Price Regulated Proxy Group.⁴⁸⁷ According to CARD, the companies in the group are not truly comparable to SWEPCO, and Mr. D'Ascendis used this separate group solely to inflate his recommendation regarding SWEPCO's ROE. CARD witness Woolridge identified two fundamental flaws with the group: (1) while many of the companies are large and successful, their lines of business are vastly different from the regulated electric utility business and they do not operate in a highly regulated environment; and (2) the DCF equity cost rate estimates are overstated due to an alleged upward bias in the earnings-per-share growth-rate forecasts of Wall Street analysts, which is particularly severe for non-utility companies.⁴⁸⁸

TIEC points out that Mr. D'Ascendis conducted the same analyses for both of his proxy groups, but the Non-Price Regulated Proxy Group produced higher ROE results.⁴⁸⁹ In addition, Mr. D'Ascendis selected the companies in his Non-Price Regulated Proxy Group based solely on two quantitative measures—the Betas and the residual standard error of the regression—but when viewed from a qualitative perspective, the group includes many companies that simply are not comparable. For example, TIEC witness Gorman testified that the Non-Price Regulated Proxy

⁴⁸⁵ TIEC Ex. 3 (Gorman Dir.) at 25.

⁴⁸⁶ Staff Ex. 1 (Filarowicz Dir.) at 13-15.

⁴⁸⁷ TIEC Initial Brief at 39-40; CARD Initial Brief at 20, 37-38. Staff also concurs with CARD's analysis of why Mr. D'Ascendis's Non-Price Regulated Proxy Group is inappropriate for estimating cost of equity. Staff Reply Brief at 29-30.

⁴⁸⁸ CARD Ex. 4 (Woolridge Dir.) at 79.

⁴⁸⁹ TIEC Initial Brief at 39.

Group contained large technology firms such as Apple and Alphabet, and that it is not credible to believe these firms have a similar operating and business risk as SWEPCO.⁴⁹⁰ At the hearing, Mr. D'Ascendis acknowledged that the companies in his Non-Price Regulated Proxy Group operate in a competitive marketplace and do not provide essential services,⁴⁹¹ which, according to TIEC, makes them significantly more risky than regulated utilities.

Further, TIEC witness Gorman testified that to draw a valid comparison between SWEPCO and the Non-Price Regulated Proxy Group requires more than similar Betas; rather, it is necessary to show that the companies have comparable risk factors that are commonly used by investment professionals to compare risk between different investment alternatives.⁴⁹² TIEC asserts that Mr. D'Ascendis's use of a non-price-regulated proxy group has been rejected by other regulatory commissions, including the Public Service Commission of Maryland and the Pennsylvania Public Utility Commission,⁴⁹³ and should similarly be rejected here.

However, SWEPCO contends that, because the purpose of rate regulation is to be a substitute for marketplace competition, non-price-regulated firms operating in the competitive marketplace make an excellent proxy if they are comparable in total risk to the utility proxy group.⁴⁹⁴ SWEPCO points out that Dr. Woolridge agreed that SWEPCO must compete with non-price-regulated companies for equity investment.⁴⁹⁵ Thus, while these companies provide different products than SWEPCO, they represent SWEPCO's competition for equity investment. SWEPCO asserts that both of Mr. D'Ascendis's proxy groups have a comparable, though not identical, risk profile to SWEPCO.

⁴⁹⁰ TIEC Ex. 3 (Gorman Dir.) at 78.

⁴⁹¹ Tr. at 903, 933.

⁴⁹² TIEC Ex. 3 (Gorman Dir.) at 78.

⁴⁹³ TIEC Ex. 51, Pennsylvania Public Utility Commission Order dated April 16, 2020, at Bates 026; TIEC Ex. 52, Public Service Commission of Maryland Order dated March 22, 2019, at Bates 029-030.

⁴⁹⁴ SWEPCO Initial Brief at 37.

⁴⁹⁵ SWEPCO Reply Brief at 44 (citing Tr. at 1006).

2. DCF Analysis**a. Constant Growth DCF Analysis**

To analyze SWEPCO's cost of equity capital, each of the ROE witnesses performed a DCF analysis. The DCF approach is based on the theory that a stock's current price represents the present value of all expected future cash flows. In its most general form, the DCF model is expressed as follows:

$$P_0 = \frac{D_1}{(1+k)^1} + \frac{D_2}{(1+k)^2} + \dots + \frac{D_n}{(1+k)^n}$$

Where P_0 represents the current stock price; D_1 , D_2 , and D_n are the dividends in (respectively) years 1, 2, and future years (n); and k is the expected discount rate, or required ROE. If it is reasonable to assume that earnings and dividends will grow at a constant rate, the equation can be simplified and rearranged to ascertain the required ROE:

$$k = \frac{D_1}{P_0} + g$$

This is commonly referred to as the "constant growth DCF" model in which the first term (D_1/P_0) is the expected dividend yield and the second term (g) is the expected long-term growth rate.

For his DCF analysis, SWEPCO witness D'Ascendis calculated the dividend yield using his proxy companies' dividends as of July 31, 2020, divided by the average closing market price for the 60 trading days ended July 31, 2020, adjusted to reflect the fact that dividends are paid periodically (*e.g.*, quarterly) instead of continuously.⁴⁹⁶ For the growth rate, Mr. D'Ascendis used analysts' five-year forecasts of earnings-per-share growth from Value Line, Zacks Investment Research (Zacks), and Yahoo! Finance (Yahoo!).⁴⁹⁷ He explained that using analysts' earnings-

⁴⁹⁶ SWEPCO Ex. 8 (D'Ascendis Dir.) at 26.

⁴⁹⁷ SWEPCO Ex. 8 (D'Ascendis Dir.) at 27.

per-share forecasts is appropriate because over the long run, there can be no growth in dividends per share without growth in earnings per share. The mean result of applying his constant growth DCF model to his Utility Proxy Group was 8.63%, the median result was 8.82%, and the average of the two was 8.73%.⁴⁹⁸ In rebuttal, Mr. D'Ascendis updated his DCF analysis to reflect more current conditions, resulting in 9.32% as the average of his mean and median results.⁴⁹⁹ Mr. D'Ascendis applied his constant growth DCF model in an identical manner to the Non-Price Regulated Proxy Group, which resulted in a common equity cost rate of 11.50% (updated to 11.62% on rebuttal).⁵⁰⁰

CARD witness Woolridge relied primarily on his DCF analysis to estimate SWEPCO's cost of equity.⁵⁰¹ He calculated the dividend yields for the companies in his proxy groups using the current annual dividend and the 30-day, 90-day, and 180-day average stock prices.⁵⁰² Dr. Woolridge next adjusted the dividend yield by one-half (1/2) of the expected growth to reflect growth over the coming year.⁵⁰³ For his growth rate, Dr. Woolridge considered several sources. He reviewed Value Line's five- and ten-year historical and projected growth rate estimates for earnings per share, dividends per share, and book value per share.⁵⁰⁴ He also used the average earnings-per-share growth-rate forecasts of Wall Street analysts as provided by Yahoo!, Zacks, and S&P Cap IQ.⁵⁰⁵ Lastly, he assessed prospective growth as measured by prospective earnings retention rates and earned returns on common equity.⁵⁰⁶

⁴⁹⁸ SWEPCO Ex. 8 (D'Ascendis Dir.) at 27.

⁴⁹⁹ SWEPCO Ex. 38 (D'Ascendis Reb.) at 9, Table 1.

⁵⁰⁰ SWEPCO Ex. 8 (D'Ascendis Dir.) at 49-50; SWEPCO Ex. 8 (D'Ascendis Reb.) at Schedule DWD-1R at 36.

⁵⁰¹ CARD Ex. 4 (Woolridge Dir.) at 28, 54.

⁵⁰² CARD Ex. 4 (Woolridge Dir.) at 29.

⁵⁰³ CARD Ex. 4 (Woolridge Dir.) at 32-33.

⁵⁰⁴ CARD Ex. 4 (Woolridge Dir.) at 33, 38-39.

⁵⁰⁵ CARD Ex. 4 (Woolridge Dir.) at 33-34.

⁵⁰⁶ CARD Ex. 4 (Woolridge Dir.) at 34.

Although he incorporates them in his analysis, Dr. Woolridge warned against relying exclusively on earnings-per-share forecasts prepared by Wall Street analysts in identifying a DCF growth rate, as they are upwardly biased.⁵⁰⁷ According to Dr. Woolridge, this upward bias has been demonstrated by a number of academic studies, and was confirmed by a study he performed of forecasted versus actual long-term earnings-per-share growth rates for electric utilities over the 1985 to 2019 time period.⁵⁰⁸ In that study, he found that the mean forecasted earnings-per-share growth rate was over 200 basis points above the actual earnings-per-share growth rate for utilities. To account for this bias, Dr. Woolridge adjusted his DCF growth rate downward.⁵⁰⁹

After considering these factors, Dr. Woolridge concluded that, for his proxy group, the appropriate projected growth rate is in the range of 5.0% to 5.5%, and he used the midpoint, 5.25%, as his DCF growth rate.⁵¹⁰ For Mr. D'Ascendis's Utility Proxy Group, Dr. Woolridge determined that the appropriate growth rate is 5.00%, which is the value he used in his DCF analysis for that group. Overall, Dr. Woolridge concluded that his DCF analysis suggested a cost of equity of 9.15% for his proxy group and 9.00% for Mr. D'Ascendis's Utility Proxy Group.⁵¹¹

TIEC witness Gorman's constant growth DCF model used his proxy group's 13-week average stock price and most recently reported quarterly dividends, along with a 5.46% growth rate, which was based on the mean of professional securities analysts' growth estimates for those companies.⁵¹² The resulting average and median constant growth DCF returns for the proxy group were 9.43% and 9.35%, respectively.⁵¹³

⁵⁰⁷ CARD Ex. 4 (Woolridge Dir.) at 36. CARD clarifies that Dr. Woolridge does not eschew the use of projected growth in earnings per share, but instead cautions against blind reliance on such projections because it leads to inflated ROEs. CARD Reply Brief at 14.

⁵⁰⁸ CARD Ex. 4 (Woolridge Dir.) at 36-37.

⁵⁰⁹ CARD Ex. 4 (Woolridge Dir.) at 38.

⁵¹⁰ CARD Ex. 4 (Woolridge Dir.) at 40.

⁵¹¹ CARD Ex. 4 (Woolridge Dir.) at 41.

⁵¹² TIEC Ex. 3 (Gorman Dir.) at 28-30, Exh. MPG-4.

⁵¹³ TIEC Ex. 3 (Gorman Dir.) at 30, Exh. MPG-5.

Mr. Gorman also ran a sustainable growth DCF model. This model is based on the principle that a utility's earnings will grow over time as it invests in additional utility plant and equipment, which enables it to earn its authorized return on a larger total rate base.⁵¹⁴ To estimate the sustainable growth in SWEPCO's rate base, Mr. Gorman looked to the proportion of total earnings that his proxy group retained for reinvestment rather than paying out in dividends.⁵¹⁵ He found that, on average, the sustainable growth rate for SWEPCO's proxy group is 4.50%.⁵¹⁶ Performing a DCF analysis using this sustainable growth rate resulted in average and median ROE results of 8.44% and 8.45%, respectively.⁵¹⁷

Staff witness Filarowicz testified that the purpose of a DCF method is not to measure the rate at which SWEPCO will actually grow (which is primarily a function of economic conditions, management ability, regulatory actions, etc.), but rather the growth expectations that investors have embodied in the current price of the stock.⁵¹⁸ Because of the relationship between earnings growth and dividends growth, the growth rates Mr. Filarowicz used in his constant growth DCF analysis were the projected earnings growth rates for each of the proxy companies as forecasted by Value Line and Zacks.⁵¹⁹ Over the entire period Mr. Filarowicz modeled for his constant growth DCF analysis, he used the average of analysts' estimates for the proxy group's earnings growth over the next five years.⁵²⁰ His constant growth DCF analysis produced ROE estimates ranging from 6.59% to 12.00%, with a 75th percentile of 9.38%.⁵²¹

⁵¹⁴ TIEC Ex. 3 (Gorman Dir.) at 31.

⁵¹⁵ TIEC Ex. 3 (Gorman Dir.) at 31, Exh. MPG-6.

⁵¹⁶ TIEC Ex. 3 (Gorman Dir.) at 32, Exh. MPG-7

⁵¹⁷ TIEC Ex. 3 (Gorman Dir.) at 32, Exh. MPG-8

⁵¹⁸ Staff Ex. 1 (Filarowicz Dir.) at 19.

⁵¹⁹ Staff Ex. 1 (Filarowicz Dir.) at 19.

⁵²⁰ Staff Ex. 1 (Filarowicz Dir.) at 18.

⁵²¹ Staff Ex. 1 (Filarowicz Dir.) at 21, 28. For his DCF analyses, Mr. Filarowicz used the 75th percentile results in light of the current low interest rate environment, the proxy group he selected, and the nature of SWEPCO's operations. *Id.* at 21-22. He noted that the 75th percentile results are in accordance with recent trends in authorized ROEs approved by the Commission and across the country.

Of the intervenor and Staff ROE experts, only CARD witness Woolridge raised significant concerns with Mr. D'Ascendis's DCF analysis. In contrast, TIEC specifically notes that Mr. D'Ascendis's DCF analysis produces a reasonable estimate of SWEPCO's cost of equity (ranging from 8.73% in his direct testimony to 9.32% in his rebuttal testimony).⁵²²

CARD criticizes Mr. D'Ascendis for seemingly giving very little, if any, weight to his DCF results, pointing out that his mean DCF result for his proxy group is 8.73%, yet his overall recommendation is 167 basis points higher at 10.35%.⁵²³ Had Mr. D'Ascendis given his resulting 8.73% any weight, CARD contends he would have arrived at a much lower recommendation for his estimated cost of equity. Additionally, CARD notes that Mr. D'Ascendis relied exclusively on Wall Street analysts' and Value Line's forecasts of growth rates in earnings per share, which Dr. Woolridge testified produce overly optimistic and upwardly biased results.⁵²⁴ According to CARD, it is not likely that investors rely exclusively on such forecasts to the exclusion of other growth-rate measures in arriving at their expected growth rates for equity investments. Further, as Dr. Woolridge testified, the appropriate growth rate in the DCF model is the dividend growth rate rather than the earnings growth rate. Thus, in determining SWEPCO's ROE, and serving as a substitute for competition, it is necessary to give consideration to other indicators of growth, including historical and prospective dividend growth, internal growth, and projected earnings growth. And, in light of their inaccuracy, CARD urges that limited weight be given to analysts' projected earnings-per-share growth rates.

However, SWEPCO disagrees with CARD's contentions regarding analyst bias. As Mr. D'Ascendis explained, the bias of analyst-projected earnings-per-share growth rates for companies comparable in size to the average company in Dr. Woolridge's and Mr. D'Ascendis's proxy groups is very small, -0.009 (mean) and -0.003 (median).⁵²⁵ Moreover, the forecast errors for analyst-projected earnings-per-share growth rates for the average company in the S&P 500 are

⁵²² TIEC Initial Brief at 32; TIEC Ex. 3 (Gorman Dir.) at 64.

⁵²³ CARD Initial Brief at 30.

⁵²⁴ CARD Ex. 4 (Woolridge Dir.) at 60.

⁵²⁵ SWEPCO Ex. 38 (D'Ascendis Reb.) at 121-22.

also small, -0.015 (mean) and 0.007 (median). Thus, the growth rates used by Mr. D'Ascendis are highly accurate and have a low "bias."

SWEPCO also critiqued CARD's and TIEC's DCF analyses.⁵²⁶ As to CARD, SWEPCO asserts that Dr. Woolridge's primary reliance on his DCF results is problematic because current market conditions cause the DCF model to understate investors' expected return.⁵²⁷ Additionally, according to SWEPCO, Dr. Woolridge misapplied his DCF. In particular, he used retention growth rates (also called sustainable growth rates), which are inappropriate because: (1) they introduce increased potential for forecasting errors; (2) they are circular in nature in that to estimate the required ROE for a particular company, the model itself first requires an estimate of the earned ROE; and (3) they assume that increasing retention ratios are associated with increasing future growth, which is empirically incorrect.⁵²⁸

SWEPCO further contends that Dr. Woolridge used projected earnings-per-share growth rates—despite criticizing their use—and misapplied them.⁵²⁹ Dr. Woolridge used projected growth rates of 5.25% and 5.00%, based on an acceptable range of 5.00% to 5.50%, for his and Mr. D'Ascendis's proxy groups, respectively. Yet the range of growth rates based on the projected earnings-per-share growth rates from his sources of Value Line, Yahoo!, Zacks, and S&P Capital IQ are 5.2% to 6.0%, and 4.8% to 5.9%, for the two proxy groups, respectively.⁵³⁰ Taking the midpoint of those respective ranges results in corrected DCF results for Dr. Woolridge's and Mr. D'Ascendis's proxy groups of 9.53% and 9.37%, according to SWEPCO.⁵³¹

⁵²⁶ SWEPCO witness D'Ascendis testified that, while he disagrees with Staff witness Filarowicz's use of the *multi-stage* DCF model (discussed below), Mr. Filarowicz's indicated ROE using the DCF model of 9.35% is comparable to Mr. D'Ascendis's updated DCF model result of 9.32%. SWEPCO Ex. 38 (D'Ascendis Reb.) at 32.

⁵²⁷ SWEPCO Initial Brief at 46-47; SWEPCO Ex. 38 (D'Ascendis Reb.) at 109-11.

⁵²⁸ SWEPCO Ex. 38 (D'Ascendis Reb.) at 55-59, 123.

⁵²⁹ SWEPCO Initial Brief at 47.

⁵³⁰ See CARD Ex. 4 (Woolridge Dir.), Exh. JRW-7 at 4-5.

⁵³¹ SWEPCO Initial Brief at 47.

With respect to TIEC, SWEPCO notes that Mr. Gorman's constant growth DCF results (9.43% average) are comparable to Mr. D'Ascendis's DCF results.⁵³² However, Mr. Gorman's sustainable growth DCF results (8.44% average) are too low and as a consequence unreasonably lower his overall DCF recommendation. Citing Morin and Financial Analysts Journal, Mr. D'Ascendis testified that the sustainable growth model has numerous flaws, including its reliance on a positive relationship between retention ratios and future earnings when the evidence suggests there is a negative relationship between the two.⁵³³

b. Multi-Stage DCF Analysis

TIEC witness Gorman and Staff witness Filarowicz also performed a multi-stage DCF analysis. The multi-stage DCF model is an extension of the constant growth version and reflects the possibility of non-constant growth for a company over time.⁵³⁴ The multi-stage DCF model enables the analyst to specify different growth rates over two or three distinct stages.

Mr. Gorman's multi-stage DCF model used three growth periods: (1) a short-term growth period consisting of the first five years; (2) a transition period, consisting of the next five years (years six through ten); and (3) a long-term growth period starting in year eleven through perpetuity.⁵³⁵ His multi-stage DCF model reflected that, while a utility may experience periods of high or low short-term growth, its growth rate will eventually regress toward a long-term sustainable rate.⁵³⁶ To model this expectation, Mr. Gorman's analysis started with the consensus economists' growth rate projections he used in his constant growth DCF (5.46%), which represent reasonable investor expectations for the next five years. Then, for years six through ten, he adjusted the proxy group's growth rates halfway toward the long-term sustainable growth rate of 4.35%, based on economists' projections for total gross domestic product (GDP) growth. For years eleven

⁵³² SWEPCO Initial Brief at 51.

⁵³³ SWEPCO Ex. 38 (D'Ascendis Reb.) at 56-57.

⁵³⁴ TIEC Ex. 3 (Gorman Dir.) at 33.

⁵³⁵ TIEC Ex. 3 (Gorman Dir.) at 33.

⁵³⁶ TIEC Initial Brief at 24-25.

and after, Mr. Gorman projected growth at the long-term sustainable rate of 4.35%. Mr. Gorman testified that the GDP growth rate is a conservative proxy for the long-term growth rate because the long-term growth of a utility cannot exceed the growth rate of the economy in which it sells goods and services.⁵³⁷ His resulting multi-stage DCF analysis produced average and median ROEs of 8.56% and 8.72%, respectively.⁵³⁸

Staff witness Filarowicz's multi-stage DCF analysis used two stages.⁵³⁹ The first stage covered five years and used the same analysts' estimates he used in his constant growth analysis. The second stage, which covered years six through the end of the period studied (year 150), used an expected long-run nominal growth rate of 5.13%, consisting of the 3.13% per year average real growth-rate of GDP for the period 1950 through 2020 as calculated from data reported by the U.S. Bureau of Economic Analysis, and the 2.00% rate of inflation forecast by the Board of Governors of the Federal Reserve System.⁵⁴⁰ Mr. Filarowicz's multi-stage DCF analysis produced ROE estimates ranging from 7.26% to 9.99%, with a 75th percentile of 9.31%.⁵⁴¹

Mr. D'Ascendis criticized the use of the multi-stage DCF for utilities.⁵⁴² He testified that the multi-stage DCF model is inapplicable to utilities because they are not in a growth stage, but a mature "steady-state" stage, which is characterized by limited, slightly attractive investment opportunities and steady earnings growth, dividend payout ratios, and ROEs.⁵⁴³ Mr. Filarowicz's multi-stage DCF analysis produced results comparable to Mr. D'Ascendis's updated constant growth DCF model result of 9.32%.⁵⁴⁴ However, SWEPCO contends Mr. Gorman's multi-stage

⁵³⁷ TIEC Ex. 3 (Gorman Dir.) at 34-37.

⁵³⁸ TIEC Ex. 3 (Gorman Dir.) at 40.

⁵³⁹ Staff Ex. 1 (Filarowicz Dir.) at 19-20.

⁵⁴⁰ Staff Ex. 1 (Filarowicz Dir.) at 20.

⁵⁴¹ Staff Ex. 1 (Filarowicz Dir.) at 21, 28.

⁵⁴² SWEPCO Ex. 38 (D'Ascendis Reb.) at 60-61.

⁵⁴³ SWEPCO Initial Brief at 51; SWEPCO Ex. 38 (D'Ascendis Reb.) at 60-61.

⁵⁴⁴ SWEPCO Ex. 38 (D'Ascendis Reb.) at 32.

DCF produced unreasonably low results, and consequently, unreasonably lowered his overall DCF recommendation.⁵⁴⁵

TIEC responded that, while utilities may not have the explosive growth of less mature industries, they do experience periods of relatively higher growth.⁵⁴⁶ As Mr. Gorman explained, when utilities undertake large capital expenditure programs, their rate base grows rapidly, which accelerates earnings growth.⁵⁴⁷ Once a major construction cycle levels off, rate base growth slows, and earnings growth also drops to a lower sustainable rate. Currently, as reported by Standard and Poor's (S&P), utilities are in a period of high capital investment that is expected to taper off.⁵⁴⁸ Thus, the current average projected growth rate of 5.46% is not expected to be sustained over the long term.⁵⁴⁹ That utilities are a relatively mature industry experiencing only modestly high growth is captured by the limited difference between the short-term and long-term growth rates that Mr. Gorman used.⁵⁵⁰

3. Risk Premium Analysis

The risk premium approach is based on the basic financial tenet that investors require greater returns for bearing greater risk. Common equity capital has greater investment risk than debt capital, as common equity shareholders are behind debt holders in any claim on a company's assets and earnings. To compensate for bearing that additional risk, equity investors require a premium over the return they would have earned as a bondholder. Risk premium approaches estimate the cost of equity as the sum of the equity risk premium and the yield on a particular class of bonds. The equity risk premium is not directly observable, so it typically is estimated using a variety of approaches.

⁵⁴⁵ SWEPCO Initial Brief at 51.

⁵⁴⁶ TIEC Reply Brief at 16.

⁵⁴⁷ TIEC Ex. 3 (Gorman Dir.) at 33.

⁵⁴⁸ TIEC Ex. 3B (Gorman Conf. Workpapers) at MPG Confidential WP 8 at 1.

⁵⁴⁹ TIEC Ex. 3 (Gorman Dir.) at 33-34.

⁵⁵⁰ TIEC Reply Brief at 17.

Mr. D'Ascendis used two risk premium methods to derive an estimated ROE for SWEPCO.⁵⁵¹ First, he used the Predictive Risk Premium Model (PRPM), which estimates the risk-return relationship directly, as the predicted equity risk premium is generated by predicting volatility or risk.⁵⁵² The PRPM is based on the variance of historical equity risk premiums. The inputs to the model are the historical returns on the common shares of each proxy group company minus the historical monthly yield on long-term U.S. Treasury securities. Using statistical software, Mr. D'Ascendis calculated a predicted annual equity risk premium, to which he then added the forecasted 30-year U.S. Treasury bond yield of 2.09%. Averaging the mean and median results of the Utility Proxy Group resulted in an ROE of 10.27%.⁵⁵³

Second, Mr. D'Ascendis used the "total market approach."⁵⁵⁴ In this form of the risk premium model, he added a prospective public utility bond yield to an average of: (1) an equity risk premium that is derived from a Beta-adjusted total market equity risk premium; (2) an equity risk premium based on the S&P Utilities Index; and (3) an equity risk premium based on authorized ROEs for electric utilities.⁵⁵⁵

The first step in the total market approach is to determine the appropriate bond yield.⁵⁵⁶ Mr. D'Ascendis testified that, because setting the cost of capital is prospective, it is essential to use a prospective (not historical) yield. In determining the bond yield, he relied on a consensus forecast of 50 economists of the expected yield on Aaa-rated corporate bonds for the six calendar quarters ending with the fourth quarter of 2021 and Blue Chip's long-term projections for 2022-2026 and 2027-2031. He then adjusted that rate slightly upward to reflect the riskier bond

⁵⁵¹ SWEPCO Initial Brief at 38-41.

⁵⁵² SWEPCO Ex. 8 (D'Ascendis Dir.) at 29-30.

⁵⁵³ SWEPCO Ex. 8 (D'Ascendis Dir.) at 30.

⁵⁵⁴ SWEPCO Ex. 8 (D'Ascendis Dir.) at 30-40.

⁵⁵⁵ SWEPCO Ex. 8 (D'Ascendis Dir.) at 30.

⁵⁵⁶ SWEPCO Ex. 8 (D'Ascendis Dir.) at 30-31.

rating of the Utility Proxy Group, resulting in an expected bond yield for that proxy group of 3.78%.⁵⁵⁷

The components of the Beta-adjusted total market equity risk premium are: (1) an expected market equity risk premium over corporate bonds; and (2) the Beta coefficient.⁵⁵⁸ The total Beta-derived equity risk premium that Mr. D'Ascendis applied is based on an average of six equity risk premiums, three that are historical in nature and three that are prospective. These six equity risk premiums are: (1) Ibbotson Equity Risk Premium (5.78%); (2) Regression on Ibbotson Risk Premium Data (9.34%); (3) Ibbotson Equity Risk Premium Based on PRPM (9.55%); (4) Equity Risk Premium Based on Value Line Summary and Index (13.50%); (5) Equity Risk Premium Based on Value Line S&P 500 Companies (10.63%); and (6) Equity Risk Premium Based on Bloomberg S&P 500 Companies (10.72%).⁵⁵⁹ The average equity risk premium of these six models is 9.92%. Adjusting by the Beta coefficient to account for the slightly lower risk of the Utility Proxy Group relative to the overall market results in an equity risk premium of 9.42%.⁵⁶⁰

Mr. D'Ascendis also estimated three equity risk premiums based on the S&P Utilities Index holding period returns and two equity risk premiums based on the expected returns of the S&P Utilities Index, using Value Line and Bloomberg data, respectively.⁵⁶¹ As with the market equity risk premiums, he averaged each risk premium based on each source (*i.e.*, historical, Value Line, and Bloomberg) to arrive at a utility-specific equity risk premium of 5.77%.⁵⁶²

Finally, Mr. D'Ascendis derived an equity risk premium of 5.88% by performing a regression analysis based on regulatory awarded ROEs related to the yields on Moody's A2-rated

⁵⁵⁷ SWEPCO Ex. 8 (D'Ascendis Dir.) at 31.

⁵⁵⁸ SWEPCO Ex. 8 (D'Ascendis Dir.) at 32.

⁵⁵⁹ SWEPCO Ex. 8 (D'Ascendis Dir.) at Schedule DWD-4 at 8.

⁵⁶⁰ SWEPCO Ex. 8 (D'Ascendis Dir.) at 37.

⁵⁶¹ SWEPCO Ex. 8 (D'Ascendis Dir.) at 38.

⁵⁶² SWEPCO Ex. 8 (D'Ascendis Dir.) at 38.

public utility bonds for 1,167 fully litigated electric utility rate cases from 1980 to 2019.⁵⁶³ The results of this analysis show an inverse relationship between the equity risk premium and interest rates—that is, as interest rates decline, the equity risk premium for utilities increases.⁵⁶⁴ According to SWEPCO, the inverse relationship between the equity risk premium and interest rates is supported by multiple academic studies and is recognized by Staff witness Filarowicz. And although TIEC witness Gorman criticized Mr. D’Ascendis’s observation of the inverse relationship, SWEPCO claims that Mr. Gorman’s own data demonstrates the very inverse relationship that his testimony denies exists.⁵⁶⁵

Averaging the equity risk premium from these three methodologies resulted in an equity risk premium of 7.02% for Mr. D’Ascendis’s total market approach.⁵⁶⁶ When that premium is added to the prospective Moody’s A3-rated utility bond applicable to the Utility Proxy Group of 3.78%, it indicates an ROE of 10.8%.⁵⁶⁷

When considering both of his risk premium approaches, Mr. D’Ascendis estimated a risk premium return of 10.54% for the Utility Proxy Group, which is the average of his PRPM risk premium (10.27%) and his total market approach risk premium (10.80%).⁵⁶⁸ Mr. D’Ascendis applied nearly identical approaches to his Non-Price Regulated Proxy Group, except that he did not use public-utility-specific equity risk premiums, nor did he apply the PRPM to the individual non-price regulated companies.⁵⁶⁹ For that proxy group, he concluded that the indicated common equity cost rate is 12.86%.⁵⁷⁰

⁵⁶³ SWEPCO Ex. 8 (D’Ascendis Dir.) at 39.

⁵⁶⁴ SWEPCO Ex. 8 (D’Ascendis Dir.) at 39.

⁵⁶⁵ SWEPCO Ex. 38 (D’Ascendis Reb.) at 85-87.

⁵⁶⁶ SWEPCO Ex. 8 (D’Ascendis Dir.) at 40.

⁵⁶⁷ SWEPCO Ex. 8 (D’Ascendis Dir.) at 40.

⁵⁶⁸ SWEPCO Ex. 8 (D’Ascendis Dir.) at 41.

⁵⁶⁹ SWEPCO Ex. 8 (D’Ascendis Dir.) at 49-50.

⁵⁷⁰ SWEPCO Ex. 8 (D’Ascendis Dir.) at 50.

TIEC witness Gorman conducted a Bond Yield Plus Risk Premium analysis that estimated the additional return that investors will require to hold utility stock instead of Treasury bonds and A-rated utility bonds.⁵⁷¹ His analyses are based on a comparison of historically awarded utility ROEs to 30-year Treasury yields and A-rated utility bond yields, respectively, from 1986 through 2020.⁵⁷² To reflect the dynamic nature of utility risk premiums and mitigate the impact of anomalous market conditions, Mr. Gorman calculated five- and ten-year rolling average risk premiums. The average indicated risk premium over 30-year Treasury yields and A-rated utility bond yields was 5.65% and 4.28%, respectively.⁵⁷³

However, after comparing historical and recent yield spreads for utility bonds and general corporate bonds, Mr. Gorman concluded that the market is currently paying a premium for access to lower-risk utility securities.⁵⁷⁴ As a result, Mr. Gorman took a conservative approach and applied risk premiums based solely on the high end of his ranges. This resulted in an equity risk premium over Treasury bonds of 7.02%, which is considerably higher than the 5.65% historical average premium.⁵⁷⁵ Combined with a 2.4% projected U.S. Treasury bond yield, this resulted in a risk premium ROE estimate of 9.42%. Similarly, his equity risk premium over utility bonds was 5.77%, compared to the historical average of 4.28%. Adding this equity risk premium to current Baa-rated utility bond yields of 3.21% resulted in a risk premium ROE estimate of 8.98%.⁵⁷⁶ Thus, after rounding, Mr. Gorman's risk premium analysis indicated an ROE in the range of 9.00% to 9.40%, with a midpoint of 9.20%.⁵⁷⁷

⁵⁷¹ TIEC Ex. 3 (Gorman Dir.) at 50-51.

⁵⁷² TIEC Ex. 3 (Gorman Dir.) at 41.

⁵⁷³ TIEC Ex. 3 (Gorman Dir.) at 42, Exhs. MPG-12, MPG-13.

⁵⁷⁴ TIEC Ex. 3 (Gorman Dir.) at 44-46.

⁵⁷⁵ TIEC Ex. 3 (Gorman Dir.) at 46-47.

⁵⁷⁶ TIEC Ex. 3 (Gorman Dir.) at 47.

⁵⁷⁷ TIEC Ex. 3 (Gorman Dir.) at 47.

Staff witness Filarowicz performed a “conventional” risk premium approach.⁵⁷⁸ His analysis estimated the cost of SWEPCO’s equity by comparing the costs of equity authorized for electric utilities across the United States to the yields of large-company corporate bonds that are rated Baa by Moody’s Mergent Bond Data.⁵⁷⁹ Mr. Filarowicz subtracted the bond yields from the historical authorized costs of equity to determine a risk premium for the riskier equity.⁵⁸⁰ He then tested the data for correlation by performing a regression analysis, which showed the existence of an inverse trend in the relationship between risk premiums and bond yields with high confidence.⁵⁸¹ That is, as risk premiums increase, bond yields decrease. On average, from 1980 to 2020, risk premiums increased 0.4457% for every 1.00% that bond yields decreased. The results of Mr. Filarowicz’s risk premium analysis produced a cost of equity of 9.05%.⁵⁸²

TIEC and CARD each identify alleged flaws in Mr. D’Ascendis’s risk premium analyses. TIEC argues the PRPM approach should be rejected outright, as it is “an opaque, idiosyncratic, and biased model.”⁵⁸³ TIEC notes that the PRPM, which was developed by three of Mr. D’Ascendis’s former colleagues at AUS Consultants, requires proprietary statistical software and produces inflated ROE results. In a follow-up article to the original article presenting the PRPM, Mr. D’Ascendis and the original three authors touted that the PRPM “produces a higher average indicated ROE than both the DCF and the CAPM.”⁵⁸⁴ While Mr. D’Ascendis claims the PRPM has never been rebutted in the academic literature, the article first setting forth the PRPM is behind a paywall and has rarely been accessed or cited.⁵⁸⁵ As the Pennsylvania Public Utility Commission noted in rejecting Mr. D’Ascendis’s use of the PRPM, the PRPM is a specialized

⁵⁷⁸ Staff Ex. 1 (Filarowicz Dir.) at 24-25. Mr. Filarowicz refers to his approach as a “conventional” risk premium to distinguish it from the concept of risk premiums in general and to denote that it is the primary risk-premium method on which Staff has relied for many years. *Id.* at 24.

⁵⁷⁹ Staff Ex. 1 (Filarowicz Dir.) at 24.

⁵⁸⁰ Staff Ex. 1 (Filarowicz Dir.) at 24.

⁵⁸¹ Staff Ex. 1 (Filarowicz Dir.) at 24-25.

⁵⁸² Staff Ex. 1 (Filarowicz Dir.) at 25.

⁵⁸³ TIEC Initial Brief at 33.

⁵⁸⁴ SWEPCO Ex. 38A (D’Ascendis Reb. Workpapers) at 1177.

⁵⁸⁵ Tr. at 886-87; TIEC Ex. 48, SWEPCO’s response to TIEC RFI 15-8.

form of the risk premium method that is not commonly used.⁵⁸⁶ Further, according to TIEC, the PRPM overestimates the equity risk premium by failing to account for the volatility of bonds.⁵⁸⁷

TIEC also contends that Mr. D'Ascendis's "total market approach" risk premium analysis is flawed.⁵⁸⁸ As described above, as part of this approach, Mr. D'Ascendis averaged three estimates of equity risk premium. TIEC focuses its criticisms on the first estimate—the Beta-adjusted total market equity risk premium (8.46%)—noting that the other two estimates (5.77% and 5.78%) were reasonable.⁵⁸⁹ To determine his Beta-adjusted total market equity risk premium, Mr. D'Ascendis used the average of six equity risk premiums he calculated.⁵⁹⁰ TIEC contends that three of these—specifically, Ibbotson Equity Risk Premium Based on PRPM (9.74%), Equity Risk Premium Based on Value Line S&P 500 Companies (10.77%), and Equity Risk Premium Based on Bloomberg S&P 500 Companies (12.17%)—are based on flawed methodologies that bias the resulting equity risk premium upward.⁵⁹¹

The PRPM estimate should be rejected, according to TIEC, because it is based on the biased PRPM methodology as explained above. The remaining two results were calculated using a constant growth DCF model based on analysts' earnings growth expectations from Value Line and Bloomberg for every company in the S&P 500. However, Mr. D'Ascendis used three- to five-year growth rates from Value Line and Bloomberg, in direct contravention of the fundamental assumption of the constant growth DCF model that growth rates are in perpetuity. TIEC points out that, for many of the companies in the S&P 500, analysts are projecting three- to five-year growth rates that are much higher than what would be reasonably expected in perpetuity. For example,

⁵⁸⁶ TIEC Ex. 51, Pennsylvania Public Utility Commission Opinion and Order dated April 16, 2020, at Bates 025; Tr. at 916-17.

⁵⁸⁷ TIEC Initial Brief at 33-34.

⁵⁸⁸ TIEC Initial Brief at 34-38.

⁵⁸⁹ TIEC Initial Brief at 34. TIEC's briefing used the updated percentages provided in Mr. D'Ascendis's rebuttal testimony, so they vary from those listed above, which were from his direct testimony.

⁵⁹⁰ SWEPCO Ex. 8 (D'Ascendis Dir.), Exh. DWD-4 at 8.

⁵⁹¹ TIEC Initial Brief at 35. Again, the percentages here are based on Mr. D'Ascendis's updated analysis in his rebuttal testimony, and therefore, they vary from those listed above.

Amazon's growth rate was projected to be 32.3% and 33.5% by Value Line and Bloomberg, respectively.⁵⁹² It is unreasonable to project that any company will grow at a 33% growth rate, or any growth rate that is significantly higher than the long-term GDP growth rate of 4.35%, in perpetuity. The impact of using unreasonably high growth rates is shown by Mr. D'Ascendis's estimates of the total market return, which are 14.21% and 15.61%, and are unreasonably high when compared with historical returns on the market, which ranged from 6.1% to 7.9% between 1926 and 2019.⁵⁹³ Mr. D'Ascendis's estimated returns are also nearly double what Value Line projects the return on the overall market to be.⁵⁹⁴

If the PRPM and the two S&P 500 estimates of the equity risk premium are ignored, TIEC contends the total market approach would result in an equity risk premium of 6.36%.⁵⁹⁵ However, TIEC asserts this figure is still too high because, while Mr. D'Ascendis used an A3-rated utility bond as the starting point in his analysis, he calculated the spread between Aaa-rated corporate bonds and the total market,⁵⁹⁶ resulting in an apples-to-oranges comparison. TIEC further contends that Mr. D'Ascendis's analysis is inflated because it uses a projected utility bond yield that exceeds currently observable utility bond yields.⁵⁹⁷ As Dr. Woolridge testified, interest rate projections are extremely inaccurate.⁵⁹⁸ Using the most recent observable Baa-rated utility bond yields (3.42%) and a corrected version of Mr. D'Ascendis's equity risk premium (5.8%) results in an ROE of 9.22%, which is similar to the result of Mr. Gorman's risk premium study of 9.2%.

CARD criticizes Mr. D'Ascendis's PRPM and the first three inputs to his Beta-adjusted total market equity risk premium for being based on historic stock and bond returns/yields.⁵⁹⁹ As

⁵⁹² TIEC Ex. 3 (Gorman Dir.) at 44-46.

⁵⁹³ TIEC Ex. 3 (Gorman Dir.) at 73.

⁵⁹⁴ Tr. at 892-93.

⁵⁹⁵ TIEC Initial Brief at 36-37.

⁵⁹⁶ Tr. at 900.

⁵⁹⁷ TIEC Initial Brief at 37.

⁵⁹⁸ Tr. at 1005-06.

⁵⁹⁹ CARD Initial Brief at 31-33.

Dr. Woolridge testified, using historical returns to measure an *ex ante* equity risk premium is erroneous and overstates the true market or equity risk premium.⁶⁰⁰ This approach can produce differing results depending on several factors, including the measure of central tendency used, the time period evaluated, and the stock-market index employed.⁶⁰¹ Dr. Woolridge also noted several empirical problems in the approach that result in inflated estimates of expected risk premiums.⁶⁰² Further, Duff & Phelps, which Mr. D'Ascendis relied on,⁶⁰³ cautioned against using historical returns to compute an equity risk premium.⁶⁰⁴ Duff & Phelps publishes its recommended U.S. equity risk premium, which decreased from 6.00% to 5.50%, as of December 9, 2020.⁶⁰⁵

CARD further contends the variability in returns included in Mr. D'Ascendis's PRPM study—ranging from a low of 7.62% for Ameren to a high of 13.38% for Entergy—makes his analyses suspect because it suggests the companies he uses are not similar to each other or SWEPCO.⁶⁰⁶ According to CARD, one would expect that similar-risk companies would display a closer range in equity costs, and thus, the wide range in results indicates the data do not provide reliable estimates.

In addition, CARD contends the remaining three inputs to Mr. D'Ascendis's Beta-adjusted total market equity risk premium are based on unrealistic assumptions about future earnings.⁶⁰⁷ Dr. Woolridge calculated that the implied earnings-per-share growth rates for the three approaches are 14.33%, 11.46%, and 11.55%, respectively, with an average of 12.45%, which is nearly triple the long-term projected growth rate of the economy as measured by GDP.⁶⁰⁸ In comparison,

⁶⁰⁰ CARD Ex. 4 (Woolridge Dir.) at 63.

⁶⁰¹ CARD Ex. 4 (Woolridge Dir.) at 63.

⁶⁰² CARD Ex. 4 (Woolridge Dir.) at 63-64.

⁶⁰³ Mr. D'Ascendis used studies of returns published by Ibbotson. However, the compilation of historical returns is now compiled and published by the investment advisory firm Duff & Phelps. CARD Ex. 4 (Woolridge Dir.) at 64.

⁶⁰⁴ CARD Ex. 4 (Woolridge Dir.) at 64-65.

⁶⁰⁵ CARD Ex. 4 (Woolridge Dir.) at 65.

⁶⁰⁶ CARD Ex. 4 (Woolridge Dir.) at 63.

⁶⁰⁷ CARD Initial Brief at 33-37.

⁶⁰⁸ CARD Ex. 4 (Woolridge Dir.) at 58, 66.

Dr. Woolridge's study of growth in nominal GDP, S&P stock-price appreciation, and S&P growth in earnings per share and dividends per share since 1960 showed historical long-run growth rates in the 6% to 7% range.⁶⁰⁹ Dr. Woolridge further testified that there is a direct link between long-term earnings per share and GDP growth, and that GDP growth has slowed in recent decades and is projected to slow in the future.⁶¹⁰

In response to TIEC, SWEPCO notes that the PRPM is based on the research of Dr. Robert F. Engle dating back to the early 1980s, has been published six times in peer-reviewed journals, has not been rebutted in the academic literature, and has been accepted by utility industry groups and regulators.⁶¹¹ Mr. D'Ascendis also explained that his PRPM does not overestimate the equity risk premium.⁶¹² He charted the predicted market risk premiums with the actual market risk premiums from 1936 to 2019, and the volatility patterns are nearly identical, showing the PRPM accurately reflects volatility. SWEPCO further contends that the critiques regarding use of the total market approach and projected utility bond yields are unwarranted.⁶¹³ Mr. D'Ascendis testified that, because estimating the common equity cost rate is a forward-looking exercise (which multiple witnesses acknowledged), he reasonably relied on a consensus forecast of about 50 economists as well as Blue Chip's long-term projections for 2022 through 2031.⁶¹⁴ He then made several adjustments to reflect the credit spread between Aaa-rated corporate bonds and the issuer rating of the proxy group.

As to CARD's critiques, SWEPCO states that Dr. Woolridge's concern about using the historical relationship between stock and bond returns is not an issue here because it does not apply to the individual electric company PRPM-derived equity risk premiums and ROEs, which are

⁶⁰⁹ CARD Ex. 4 (Woolridge Dir.) at 70.

⁶¹⁰ CARD Ex. 4 (Woolridge Dir.) at 71-73.

⁶¹¹ SWEPCO Reply Brief at 45; SWEPCO Ex. 38 (D'Ascendis Reb.) at 89-93.

⁶¹² SWEPCO Ex. 38 (D'Ascendis Reb.) at 91-92.

⁶¹³ SWEPCO Reply Brief at 45-46.

⁶¹⁴ SWEPCO Ex. 38 (D'Ascendis Reb.) at 30-32.

based on the individual company, not a broad-based index.⁶¹⁵ In addition, SWEPCO contends CARD is inconsistent by criticizing the variable range of Mr. D'Ascendis's PRPM results while also arguing that Mr. D'Ascendis should give more weight to his DCF model, which also produced a wide range of results.⁶¹⁶

SWEPCO also raised concerns with TIEC's and Staff's risk premium analyses. SWEPCO contends Mr. Gorman's risk premium results are too low because he relies on a short historical period (1986-2020) and ignores the negative correlation between equity risk premiums and interest rates.⁶¹⁷ Staff witness Filarowicz's risk premium analysis is also flawed, according to SWEPCO, because he: (1) used current interest rates even though the cost of equity is a forward-looking concept; (2) relied on an annual average of authorized returns and prospective Moody's bond yields in determining their relationship to each other, which is less accurate than considering those variables on an individual basis; and (3) used corporate bond yields for both his regression and ROE comparison rather than public utility bond yields, which is less precise.⁶¹⁸

4. CAPM Analysis

The CAPM is a risk premium approach that estimates the ROE for a given security as a function of a risk-free return plus a risk premium to compensate investors for the non-diversifiable, or systematic, risk of that security. The traditional CAPM formula is as follows:

$$K = R_f + \beta(R_m - R_f)$$

Where K equals the required market ROE; β equals the Beta (a measure of risk) of an individual security; R_f equals the risk-free rate of return; and R_m equals the required return on the market as a whole. In this equation, $(R_m - R_f)$ represents the market risk premium. Thus, the inputs to the

⁶¹⁵ SWEPCO Reply Brief at 43; SWEPCO Ex. 38 (D'Ascendis Reb.) at 131-33.

⁶¹⁶ SWEPCO Ex. 38 (D'Ascendis Reb.) at 133.

⁶¹⁷ SWEPCO Ex. 38 (D'Ascendis Reb.) at 64.

⁶¹⁸ SWEPCO Ex. 8 (D'Ascendis Dir.) at 33-34.

CAPM are the Beta, a risk-free rate of return, and a risk premium. The CAPM assumes that all non-market or unsystematic risk can be eliminated through diversification. The risk that cannot be eliminated through diversification is called market, or systematic, risk. The CAPM presumes that investors only require compensation for systematic risk, which is measured by a stock's Beta. A Beta coefficient less than 1.0 indicates lower variability than the market as a whole, while a Beta coefficient greater than 1.0 indicates greater variability than the market.⁶¹⁹

Mr. D'Ascendis undertook two CAPM analyses—a traditional CAPM (described above) and the empirical CAPM (ECAPM). According to Mr. D'Ascendis, the ECAPM formula better reflects the reality that the empirical “security market line” described by the CAPM formula is not as steeply sloped as predicted.⁶²⁰ In other words, the returns on the low beta portfolios tend to be higher than predicted and the returns on the high beta portfolios tend to be lower than predicted. In view of this theory and the practical research, Mr. D'Ascendis applied both models and averaged the results.⁶²¹

In performing both analyses, Mr. D'Ascendis used Beta coefficients from Value Line and Bloomberg Professional Services.⁶²² For the risk-free rate, Mr. D'Ascendis used 2.09%, which is based on the average of the Blue Chip consensus forecast of the expected yields on 30-year U.S. Treasury bonds for six quarters ending with the fourth calendar quarter of 2021.⁶²³ The yield on long-term U.S. Treasury bonds is appropriate because it is virtually risk free and its term is consistent with: (1) the long-term cost of capital to public utilities measured by the yields on Moody's A-rated public utility bonds; (2) the long-term investment horizon inherent in utilities' common stocks; and (3) the long-term life of the jurisdictional rate base to which the allowed fair rate of return (*i.e.*, cost of capital) will be applied. In contrast, Mr. D'Ascendis testified that short-term U.S. Treasury yields are more volatile and largely a function of Federal Reserve

⁶¹⁹ SWEPCO Ex. 8 (D'Ascendis Dir.) at 41.

⁶²⁰ SWEPCO Ex. 8 (D'Ascendis Dir.) at 42-43.

⁶²¹ SWEPCO Ex. 8 (D'Ascendis Dir.) at 44.

⁶²² SWEPCO Ex. 8 (D'Ascendis Dir.) at 44-45.

⁶²³ SWEPCO Ex. 8 (D'Ascendis Dir.) at 45.

monetary policy.⁶²⁴ Mr. D'Ascendis's market risk premium is derived from an average of three historical data-based market risk premiums and three prospective market-risk premiums, which are the same six measures he used in his risk premium analysis described above.⁶²⁵ When averaged, these six measures result in an average total market equity risk premium of 10.92%.⁶²⁶

Using these inputs for the Utility Proxy Group, the mean result of Mr. D'Ascendis's CAPM/ECAPM is 12.61%, the median is 12.30%, and the average of the two is 12.46%.⁶²⁷ Consistent with Mr. D'Ascendis's reliance on the average of mean and median DCF results, the indicated ROE for SWEPCO using these models is 12.46%. Mr. D'Ascendis also performed the same CAPM/ECAPM analyses for his Non-Price Regulated Proxy Group, which indicated a common equity cost rate of 12.09%.⁶²⁸

CARD's, TIEC's, and Staff's witnesses each conducted a traditional CAPM analysis. Staff witness Filarowicz, however, did not incorporate the results of his CAPM analysis into his ROE recommendation because it yielded a markedly lower ROE (7.26%) than his other estimates.⁶²⁹ Instead, he used the CAPM result as a qualitative check on his other analyses.

CARD witness Woolridge's CAPM analysis used a risk-free rate of 2.5%, which is toward the middle of the range of recent yields on 30-year U.S. Treasury bonds.⁶³⁰ He also used a Beta of 0.85, which is the median Beta for his proxy group.⁶³¹ To determine the market risk premium, Dr. Woolridge reviewed a series of studies that calculate the market risk premium using different methodologies. Based on his analysis of these studies, he concluded that the appropriate market

⁶²⁴ SWEPCO Ex. 8 (D'Ascendis Dir.) at 45.

⁶²⁵ SWEPCO Ex. 8 (D'Ascendis Dir.) at 46.

⁶²⁶ SWEPCO Ex. 8 (D'Ascendis Dir.) at 46-47.

⁶²⁷ SWEPCO Ex. 8 (D'Ascendis Dir.) at 47.

⁶²⁸ SWEPCO Ex. 8 (D'Ascendis Dir.) at 50.

⁶²⁹ Staff Ex. 1 (Filarowicz Dir.) at 25-28.

⁶³⁰ CARD Ex. 4 (Woolridge Dir.) at 43.

⁶³¹ CARD Ex. 4 (Woolridge Dir.) at 47.

risk premium in the United States is in the 4.0% to 6.0% range.⁶³² Dr. Woolridge used the upper end of the range, 6.0%, as his market risk premium. With these inputs, Dr. Woolridge's CAPM analysis for both his proxy group and Mr. D'Ascendis's Utility Proxy Group resulted in a cost of equity of 7.6%.⁶³³ However, Dr. Woolridge relied primarily on the DCF model and less on the CAPM.⁶³⁴

TIEC witness Gorman used a risk-free rate of both current and projected 30-year Treasury yields of 1.85% and 2.40%, respectively.⁶³⁵ He then reviewed data from Value Line to determine the current average Beta for his proxy group of 0.89.⁶³⁶ Mr. Gorman explained that current published Betas are extremely elevated relative to their historical levels, which has generally ranged from 0.6 to 0.8, and that forward-looking Beta estimates have consistently been around 0.7.⁶³⁷ Accordingly, Mr. Gorman conducted two CAPM analyses: (1) a current CAPM analysis that used current 30-year Treasury yields (1.85%) and current estimates of Beta (0.89); and (2) a normalized CAPM analysis that used projected 30-year Treasury yields (2.4%) and normalized estimates of Beta (0.7).⁶³⁸

For the final component of his CAPM analysis, Mr. Gorman derived two market risk premium estimates. His forward-looking estimate projected the returns of the S&P 500 into the future by adding an expected inflation rate to the long-term arithmetic average real return on the market (as determined by Duff & Phelps), which represents the market's achieved return above inflation.⁶³⁹ This forward-looking method produced an expected market return of 11.29%. Subtracting the estimated projected risk-free rate of 2.4% resulted in a forward-looking market

⁶³² CARD Ex. 4 (Woolridge Dir.) at 53.

⁶³³ CARD Ex. 4 (Woolridge Dir.) at 53-54.

⁶³⁴ CARD Reply Brief at 14; CARD Ex. 4 (Woolridge Dir.) at 54.

⁶³⁵ TIEC Ex. 3 (Gorman Dir.) at 47.

⁶³⁶ TIEC Ex. 3 (Gorman Dir.) at 49, Exh. MPG-16.

⁶³⁷ TIEC Ex. 3 (Gorman Dir.) at 49.

⁶³⁸ TIEC Ex. 3 (Gorman Dir.) at 53.

⁶³⁹ TIEC Ex. 3 (Gorman Dir.) at 51.

risk premium of 8.89%, and subtracting the current risk-free rate of 1.85% resulted in a current market risk premium of 9.44%.⁶⁴⁰

Mr. Gorman also determined a historical estimate of the market risk premium by reviewing data from Duff & Phelps, which showed that the historical arithmetic average of the achieved total return on the S&P 500 was 12.1%.⁶⁴¹ By subtracting the historical total return on long-term Treasury bonds of 6.0%, he determined that the historical market risk premium was 6.1%. Based on this analysis, Mr. Gorman found that his market risk premium fell in the range of 6.1% to 9.44%, which is consistent with (though toward the higher end of the range of) market risk premium estimates made by Duff & Phelps, which are in the range of 5.5% to 7.2%.⁶⁴²

Using these inputs, Mr. Gorman's CAPM analysis resulted in an expected ROE of 8.65% to 10.24%.⁶⁴³ Mr. Gorman recommended the midpoint of his CAPM indicated ROE range (9.45%, rounded up to 9.5%) as his CAPM return.⁶⁴⁴

Both CARD and TIEC raise concerns with Mr. D'Ascendis's CAPM and ECAPM analyses.⁶⁴⁵ They each contend that his CAPM results are inflated because he generally used the same six methodologies for determining the market risk premium as in his risk premium analysis discussed above.⁶⁴⁶ CARD states that Mr. D'Ascendis's market risk premium of 10.92% is markedly higher than published market risk premiums, and was developed using unrealistic assumptions of future earnings growth and stock market returns.⁶⁴⁷ In addition, TIEC notes that if the PRPM and the two S&P 500 DCF results are excluded, then the resulting market risk premium

⁶⁴⁰ TIEC Ex. 3 (Gorman Dir.) at 50.

⁶⁴¹ TIEC Ex. 3 (Gorman Dir.) at 50-51.

⁶⁴² TIEC Ex. 3 (Gorman Dir.) at 52-53.

⁶⁴³ TIEC Ex. 3 (Gorman Dir.) at 53.

⁶⁴⁴ TIEC Ex. 3 (Gorman Dir.) at 53.

⁶⁴⁵ CARD Initial Brief at 37; TIEC Initial Brief at 38-39.

⁶⁴⁶ The one exception is that instead of taking the spread between Aaa-rated corporate bonds and the return on the market, Mr. D'Ascendis took the spread between 30-year Treasury yields and the return on the market. Tr. at 902.

⁶⁴⁷ CARD Ex. 4 (Woolridge Dir.) at 73, 78.

goes down from 9.59% (the market risk premium Mr. D'Ascendis used in rebuttal) to 7.44%, which is in the middle of Mr. Gorman's range of estimates of the market risk premium.⁶⁴⁸ TIEC also asserts that Mr. D'Ascendis's CAPM analysis contains the same faulty assumption regarding projected interest rates as his risk premium analysis because he used a forecast of the 30-year Treasury yield that goes out to 2031.⁶⁴⁹

CARD and TIEC also urge rejection of Mr. D'Ascendis's ECAPM analysis.⁶⁵⁰ Mr. Gorman explained that the ECAPM model flattens the security market line by adjusting up Betas that are less than one and adjusting down Betas that are greater than one. However, because utility Betas are currently at 0.97 (and extremely high relative to their historical levels), the impact of the ECAPM is minimal. Nevertheless, according to TIEC, Mr. D'Ascendis's ECAPM should be rejected because the Betas reported by Value Line are already adjusted, meaning that the ECAPM results in a double adjustment. Additionally, TIEC contends that regulatory commissions generally disregard the use of the ECAPM, particularly when an adjusted Beta is used in the model.⁶⁵¹

CARD asserts that the ECAPM has not been theoretically or empirically validated in refereed journals.⁶⁵² The ECAPM provides for weights that are used to adjust the risk-free rate and market risk premium in applying the ECAPM. According to CARD, Mr. D'Ascendis used 0.25 and 0.75 factors to boost the equity risk premium measure, but provided no empirical justification for those figures.⁶⁵³ Then, Mr. D'Ascendis took his analysis a step further and used adjusted Betas to produce his ECAPM results, a practice CARD describes as at best untested. Therefore, CARD concludes his ECAPM produces unreliable outputs.

⁶⁴⁸ TIEC Ex. 3 (Gorman Dir.) at 53.

⁶⁴⁹ TIEC Initial Brief at 38.

⁶⁵⁰ CARD Initial Brief at 37; TIEC Initial Brief at 39.

⁶⁵¹ *See, e.g.*, TIEC Ex. 52, Public Service Commission of Maryland Order dated March 22, 2019, at Bates 030 (stating that "the ECAPM is not widely accepted by the financial community in determining ROEs.").

⁶⁵² CARD Ex. 4 (Woolridge Dir.) at 79.

⁶⁵³ CARD Ex. 4 (Woolridge Dir.) at 79.

SWEPCO responds that Mr. D'Ascendis explained that financial theory and practical research support the use of the ECAPM as an appropriate tool in estimating the cost of equity.⁶⁵⁴ In addition, as with his risk premium analyses, Mr. D'Ascendis demonstrated that his expected market returns are not inflated. The market risk premiums he uses, 10.92% (direct) and 9.59% (rebuttal), occur approximately 44% to 49% of the time looking at actual returns observed from 1926 to 2019.⁶⁵⁵

SWEPCO also had critiques of the CAPM analyses by CARD, TIEC, and Staff. As to CARD, SWEPCO dismisses Dr. Woolridge's CAPM results because he relied primarily on the DCF model and essentially "dismissed his own CAPM analysis."⁶⁵⁶ In response to Mr. Gorman's CAPM, SWEPCO contends his results are too low because he fails to consider long-term projection of the risk-free rate published by Blue Chip (although he uses Blue Chip elsewhere in his analysis).⁶⁵⁷ Moreover, Mr. Gorman's market risk premium calculation is flawed because it principally relies on the historical real market rate of return, which does not track investor sentiment or current market conditions.⁶⁵⁸ With respect to Staff, SWEPCO contends Mr. Filarowicz's 7.26% result is unreasonable on its face, which he recognizes by not directly incorporating his CAPM results in his ROE determination.⁶⁵⁹ According to SWEPCO, the driving factor for its unreasonableness is Mr. Filarowicz's misapplication of the CAPM by relying on historical, *i.e.*, recent, 20-year Treasury bond yield as his risk-free rate, using the total return on long-term government bonds in calculating his market risk premium, and not performing an ECAPM.⁶⁶⁰

⁶⁵⁴ SWEPCO Ex. 38 (D'Ascendis Reb.) at 75-77.

⁶⁵⁵ SWEPCO Ex. 38 (D'Ascendis Reb.) at 94-95.

⁶⁵⁶ SWEPCO Initial Brief at 46; SWEPCO Ex. 38 (D'Ascendis Reb.) at 125.

⁶⁵⁷ SWEPCO Initial Brief at 51-52; SWEPCO Ex. 38 (D'Ascendis Reb.) at 71.

⁶⁵⁸ SWEPCO Ex. 38 (D'Ascendis Reb.) at 73.

⁶⁵⁹ SWEPCO Initial Brief at 48.

⁶⁶⁰ SWEPCO Initial Brief at 48-49; SWEPCO Ex. 38 (D'Ascendis Reb.) at 36-42.

5. Economic and Market Considerations

Intervenors identify two economic and market considerations that they claim support a lower ROE for SWEPCO: (1) low interest rates; and (2) a declining trend in authorized ROEs. In particular, CARD and TIEC note that interest rates are at historically low levels, which they contend results in lower capital costs.⁶⁶¹ According to TIEC, the cost of capital has declined significantly since SWEPCO's last rate case, as both 30-year Treasury yields and Aaa-rated corporate bond yields are more than 100 basis points lower than they were during the pendency of that case.⁶⁶² CARD argues that Mr. D'Ascendis's analyses and ROE results do not reflect this reality, as they are based on assumptions of *higher* interest rates and capital costs that have not occurred. As Dr. Woolridge testified, while economists continue to forecast higher interest rates, as does Mr. D'Ascendis, the predictions continue to be inaccurate.⁶⁶³

CARD, TIEC, and Walmart also point to a declining trend in authorized ROEs for utilities across the United States.⁶⁶⁴ CARD witness Woolridge testified that from 2012 to 2020, the average authorized ROE for electric utilities declined from 10.01% to 9.39%.⁶⁶⁵ As to Texas, Walmart notes that since 2017 the Commission has issued orders with stated ROEs in seven cases for investor owned utilities with an average approved ROE of 9.56%.⁶⁶⁶ Yet, despite declines in awarded ROEs, TIEC contends that regulatory commissions have lagged behind the steep decline in interest rates.⁶⁶⁷ Interest rates have declined by over 100 basis points since 2017, but average authorized ROEs have only dropped by approximately 20 basis points.⁶⁶⁸ The result is that the spread between authorized ROEs and interest rates (or the implied equity risk premium) is higher

⁶⁶¹ CARD Initial Brief at 17-19; TIEC Initial Brief at 18-19.

⁶⁶² TIEC Ex. 46, SWEPCO's response to TIEC RFI 12-1.

⁶⁶³ Tr. at 1004-06.

⁶⁶⁴ CARD Initial Brief at 16-17; TIEC Initial Brief at 19-22; Walmart Initial Brief at 4-6.

⁶⁶⁵ CARD Ex. 4 (Woolridge Dir.) at 13; *see also* TIEC Ex. 3 (Gorman Dir.) at 7.

⁶⁶⁶ Walmart Ex. 1 (Perry Dir.), Exh. LVP-3.

⁶⁶⁷ TIEC Initial Brief at 19-20.

⁶⁶⁸ TIEC Ex. 3 (Gorman Dir.) at 7.

than it has ever been,⁶⁶⁹ which according to TIEC, is due to the fact that regulators, due to structural factors, are often slower to lower ROEs than what market conditions dictate.⁶⁷⁰

TIEC also criticizes Mr. D'Ascendis for ignoring the decline in the cost of capital since SWEPCO's last rate case and instead narrowly focusing on increased volatility, which has been largely due to the COVID-19 pandemic. TIEC notes that the economy has started to recover, and the utility industry performed well during the pandemic. As S&P stated in a 2021 credit report:

Encouragingly, the [utility] industry has generally performed well throughout the pandemic. Lower electric and gas deliveries to C&I customers were mostly offset by higher residential deliveries, the industry generally worked well with regulators to defer COVID-19-related costs for future recovery, market returns improved, and the industry generally had consistent access to the capital markets.⁶⁷¹

Indeed, while Mr. D'Ascendis noted the risk of utilities lowering dividends during a prolonged economic downturn in his direct testimony, he acknowledged at the hearing that only two utility companies lowered dividends, and that other utility companies increased dividends in 2020, including AEP.⁶⁷²

SWEPCO responds that CARD and TIEC take a narrow view of the capital markets by focusing on interest rates.⁶⁷³ In contrast, Mr. D'Ascendis takes a broader view by looking at interest rates, volatility indices, the impact of COVID-19 on the economy, and both near-term and long-term economic projections.⁶⁷⁴ Notably, COVID-19 impacted the market through both declining interest rates and increased volatility.⁶⁷⁵ As Mr. D'Ascendis testified, sudden and

⁶⁶⁹ TIEC Ex. 3B (Gorman Conf. Workpapers) at MPG Confidential WP 15, Moody's Investors Service, *2021 Outlook Stable on Strong Regulatory Support and Robust Residential Demand* (Oct. 29, 2020) at 5.

⁶⁷⁰ TIEC Ex. 3A (Gorman Dir. Workpapers) at WP 11, *When "What Goes Up" Does Not Come Down: Recent Trends in Utility Returns*, Charles S. Griffey (Feb. 15, 2017) at Bates 335-36.

⁶⁷¹ TIEC Ex. 3 (Gorman Dir) at 19-20.

⁶⁷² Tr. at 875-77; TIEC Ex. 6, SWEPCO's response to TIEC RFI 1-32 at Bates 010.

⁶⁷³ SWEPCO Reply Brief at 36-39.

⁶⁷⁴ SWEPCO Ex. 8 (D'Ascendis Dir.) at 8-13.

⁶⁷⁵ SWEPCO Ex. 38 (D'Ascendis Reb.) at 11-12.

significant drops in interest rates are associated with increased volatility in the market. When this happens, risk-averse investors move to Treasury securities, which even Dr. Woolridge agreed happened in 2020.⁶⁷⁶ Those investors that remain in the market require a higher return in response to the increased risk.⁶⁷⁷ As instances of extreme volatility subside, interest rates begin to recover (move up). That is, there is an inverse relationship between extreme changes in volatility and extreme changes in interest rates.⁶⁷⁸

SWEPCO further disagrees with TIEC that the increased spread between interest rates and authorized returns is due to regulatory lag in setting ROEs, rather than an inverse relationship between interest rates and volatility, as argued by Mr. D'Ascendis.⁶⁷⁹ According to SWEPCO, TIEC's argument is short-sighted and ignores the investor-required return on a forward-looking basis as the market recovers from the COVID-19 pandemic.

Further, SWEPCO claims that TIEC and CARD discount the fact that interest rates are on the rise.⁶⁸⁰ Dr. Woolridge acknowledged at the hearing that the 30-year Treasury yield had climbed from 1.25% in mid-2020 to 2.29% at the hearing.⁶⁸¹ Mr. D'Ascendis noted that projected interest rates mirror this real-time rise and show a continued steady climb.⁶⁸² In addition, SWEPCO asserts that TIEC and CARD tie low interest rates to lower authorized ROEs during a declining trend, but fail to apply that same approach when interest rates are increasing. For example, since the Commission authorized an ROE of 9.45% for Southwestern Public Service Company (SPS) in 2020, the 30-year Treasury yield increased from about 1.45% to approximately 2.29% at the time of SWEPCO's hearing.⁶⁸³ It follows then that SWEPCO's ROE would be higher than SPS's, but

⁶⁷⁶ Tr. at 1002.

⁶⁷⁷ SWEPCO Ex. 38 (D'Ascendis Reb.) at 11-12.

⁶⁷⁸ SWEPCO Ex. 38 (D'Ascendis Reb.) at 12.

⁶⁷⁹ SWEPCO Reply Brief at 37-38.

⁶⁸⁰ SWEPCO Reply Brief at 38.

⁶⁸¹ Tr. at 984.

⁶⁸² SWEPCO Ex. 38 (D'Ascendis Reb.) at 13, Table 2.

⁶⁸³ Tr. at 993, 996-97.

Dr. Woolridge testified that there was not a one-to-one relationship between interest rates and Commission-authorized ROEs.⁶⁸⁴

As to the “trend” in authorized ROEs, SWEPCO states that, taking out 2020, which both Mr. Gorman and Dr. Woolridge agreed is an outlier year,⁶⁸⁵ there is no discernible trend downward in authorized ROEs approved by regulatory agencies. On cross-examination, several ROE witnesses admitted that authorized ROEs have been stable from 2014 to 2019.⁶⁸⁶ Further, as Mr. D’Ascendis pointed out, using average annual data can obscure variations in returns, and when charting individual ROEs, rather than annual averages, there is no meaningful trend since 2016.⁶⁸⁷ If one considers all recently authorized ROEs, rather than simple annual averages, there is no discernible downward trend. Moreover, there is no statistical difference in the averages over the past six years.⁶⁸⁸

6. SWEPCO’s Proposed ROE Adjustments for Size and Credit Risk

Because no proxy group can be identical in risk to any single company, SWEPCO contends there must be an evaluation of relative risk between the company and the proxy group to determine if it is appropriate to adjust the proxy group’s indicated rate of return.⁶⁸⁹ According to SWEPCO, it is relatively riskier than the companies in the proxy groups in two areas that warrant a small upward adjustment: smaller size and credit quality.

SWEPCO notes that size affects business risk because smaller companies generally are less able to cope with significant events that affect sales, revenues, and earnings.⁶⁹⁰ For example,

⁶⁸⁴ Tr. at 993, 996-97.

⁶⁸⁵ Tr. at 987 (Woolridge), 1013 (Gorman).

⁶⁸⁶ Tr. at 989 (Woolridge), 1013 (Gorman), 1054-55 (Filarowicz).

⁶⁸⁷ SWEPCO Ex. 38 (D’Ascendis Reb.) at 53-54.

⁶⁸⁸ SWEPCO Ex. 38 (D’Ascendis Reb.) at 53.

⁶⁸⁹ SWEPCO Initial Brief at 42-43.

⁶⁹⁰ SWEPCO Initial Brief at 42.

smaller companies face more risk exposure to business cycles and economic conditions, both nationally and locally. Additionally, the loss of revenues from a few larger customers would have a greater effect on a small company than on a bigger company with a larger, more diverse customer base.⁶⁹¹ SWEPCO witness D'Ascendis testified that neither S&P nor Moody's has minimum company size requirements for any given rating level, which means, all else equal, a relative size analysis must be conducted for equity investments in companies with similar bond ratings.⁶⁹²

The average company in Mr. D'Ascendis's Utility Proxy Group has a market capitalization 8.7 times the size of SWEPCO's estimated market capitalization.⁶⁹³ To calculate his proposed size adjustment, Mr. D'Ascendis relied on the size premiums for portfolios of New York Stock Exchange, American Stock Exchange, and NASDAQ-listed companies ranked by deciles for the 1926 to 2019 period, which he concluded indicated a 0.84% adjustment.⁶⁹⁴ However, to be conservative, Mr. D'Ascendis recommended a size premium of 0.20%.

SWEPCO also contends a credit risk adjustment is warranted to reflect the lower credit rating of SWEPCO compared to the Utility Proxy Group.⁶⁹⁵ Mr. D'Ascendis explained that his credit risk adjustment reflects both Moody's and S&P's bond ratings for SWEPCO compared to the proxy groups.⁶⁹⁶ SWEPCO's Moody's bond rating is two notches below the average Moody's bond rating of the proxy group and SWEPCO's S&P bond rating is one notch above the average S&P bond rating of the proxy group.⁶⁹⁷ Thus, SWEPCO is net one credit rating notch below the

⁶⁹¹ SWEPCO Ex. 8 (D'Ascendis Dir.) at 52.

⁶⁹² SWEPCO Ex. 8 (D'Ascendis Dir.) at 17.

⁶⁹³ SWEPCO Ex. 8 (D'Ascendis Dir.) at 55.

⁶⁹⁴ SWEPCO Ex. 8 (D'Ascendis Dir.) at 55.

⁶⁹⁵ SWEPCO Initial Brief at 43.

⁶⁹⁶ SWEPCO Ex. 38 (D'Ascendis Reb.) at 48.

⁶⁹⁷ SWEPCO Ex. 38 (D'Ascendis Reb.) at 48.

proxy group. To reflect the credit spread between SWEPCO and the proxy group, Mr. D'Ascendis proposed a 0.09% upward adjustment to SWEPCO's ROE.⁶⁹⁸

CARD, TIEC, and Staff disagree that either a size or credit risk adjustment is warranted for SWEPCO. As to the size adjustment, they each note that Mr. D'Ascendis could only identify three cases where a size adjustment had been adopted, all of which were utilities in rural Pennsylvania with rate bases in the range of \$17 million,⁶⁹⁹ several orders of magnitude smaller than SWEPCO's rate-base request in this proceeding of \$5.4 billion.⁷⁰⁰ Mr. D'Ascendis could not point to any precedent in which the Commission had approved an adjustment to an electric utility's ROE based on its size.⁷⁰¹ CARD's and Staff's witnesses further testified that it is questionable whether a small-size premium is appropriate at all for regulated public utilities.⁷⁰²

TIEC also argues that Mr. D'Ascendis ignores the fact that SWEPCO is a wholly owned subsidiary of AEP, one of the largest publicly traded utility holding companies in the United States.⁷⁰³ AEP has a market capitalization of \$38 billion, more than double the average market capitalization of the proxy group of \$15 billion.⁷⁰⁴ As Mr. Gorman testified, being part of AEP's system reduces SWEPCO's standalone investment risk, as SWEPCO receives equity capital through AEP and accesses the debt markets with its credit standing affiliation with AEP.⁷⁰⁵ Additionally, SWEPCO is entitled to services from AEP through affiliate service contracts that provide SWEPCO benefits—such as being able to attract larger management and allowing

⁶⁹⁸ Mr. D'Ascendis initially recommended an upward adjustment of 0.27%, but he adjusted his recommendation in rebuttal to reflect the credit ratings of both Moody's and S&P. *See* SWEPCO Ex. 8 (D'Ascendis Dir.) at 56-57; SWEPCO Ex. 38 (D'Ascendis Reb.) at 48.

⁶⁹⁹ TIEC Ex. 57, SWEPCO's response to Staff RFI 6-5; TIEC Ex. 51, Pennsylvania Public Utility Commission Opinion and Order dated April 16, 2020; Tr. at 913-16, 927-29.

⁷⁰⁰ SWEPCO Ex. 1 (Application), Schedule B-1.

⁷⁰¹ Tr. at 926.

⁷⁰² CARD Ex. 4 (Woolridge Dir.) at 80-83; Staff Ex. 1 (Filarowicz) at 34-35; Tr. at 1051.

⁷⁰³ TIEC Initial Brief at 40-41.

⁷⁰⁴ TIEC Ex. 3 (Gorman Dir.) at 62.

⁷⁰⁵ TIEC Ex. 3 (Gorman Dir.) at 63.

SWEPCO to rely on AEP services including executive, treasury, accounting, legal, and engineering—that also reduce SWEPCO’s business risk.

Additionally, Staff contends a size premium is not justified because Mr. D’Ascendis’s recommended ROE is far higher than the average nationwide authorized ROE of 9.44%.⁷⁰⁶

As to SWEPCO’s proposed credit risk adjustment, CARD, TIEC, and Staff criticize Mr. D’Ascendis’s analysis for ignoring SWEPCO’s S&P credit rating, which is one notch *higher* than the Utility Proxy Group’s average.⁷⁰⁷ When considering both the Moody’s and S&P ratings, they argue that SWEPCO’s investment risk level is similar to the proxy group and therefore no credit risk adjustment is necessary.

CARD also argues that Mr. D’Ascendis’s analysis is flawed because he considered the credit ratings for the operating subsidiaries of the proxy companies, rather than the parent holding companies that are represented in the proxy groups.⁷⁰⁸ The operating companies, like SWEPCO, do not have common stock outstanding, so they cannot be used to estimate an equity cost rate. Therefore, the correct comparison is between SWEPCO and the proxy holding companies.

Staff adds that, because of the incommensurately high range for ROE recommended by Mr. D’Ascendis, as well as the general principle that a utility is responsible for managing its own creditworthiness, the Commission should not reward SWEPCO with a higher ROE based on its credit rating.⁷⁰⁹ Staff asserts that it is not the Commission’s role to serve as guarantor of SWEPCO’s creditworthiness.

⁷⁰⁶ Staff Ex. 1 (Filarowicz Dir.) at 35.

⁷⁰⁷ CARD Initial Brief at 39; TIEC Initial Brief at 42; Staff Initial Brief at 42.

⁷⁰⁸ CARD Initial Brief at 39; CARD Ex. 4 (Woolridge Dir.) at 84.

⁷⁰⁹ Staff Initial Brief at 42.

7. Staff's Proposed ROE Adjustment and Independent Consultant for Transmission Outage

PURA § 36.052 requires the Commission to consider the following factors in establishing a reasonable return on invested capital: (1) the efforts and achievements of the utility in conserving resources; (2) the quality of the utility's services; (3) the efficiency of the utility's operations; and (4) the quality of the utility's management.

In this proceeding, Staff recommends a downward adjustment to SWEPCO's ROE under subsections (2) and (4) for the alleged poor quality of SWEPCO's service and management as evidenced by a cascading outage on SWEPCO's system in 2019.⁷¹⁰ Staff witness John Poole testified that a major outage on SWEPCO's system occurred on August 18-19, 2019, resulting in multiple cascading interruptions on SWEPCO's transmission grid and affecting electric cooperatives directly connected to SWEPCO's transmission system.⁷¹¹ Vegetation contact with SWEPCO's transmission lines initially caused the outage, resulting in SWEPCO spending \$1.13 million to perform additional vegetation management and transmission line, substation, and protection work.⁷¹²

According to Staff, the outage is indicative of SWEPCO's failure to adequately perform necessary vegetation management and maintain its transmission system so as to avoid unnecessary service interruptions. Staff points out that post-outage photographs provided by SWEPCO on November 14, 2019, showed significantly developed vegetation, including mature trees reaching transmission lines involved in the outage.⁷¹³ Furthermore, Staff notes that multiple transmission lines in SWEPCO's transmission system had been in service for 50 or more years, with some lines having been in service since the 1930s and 40s. In addition, system average interruption duration index (SAIDI) and system average interruption frequency index (SAIFI) information submitted by

⁷¹⁰ Staff Initial Brief at 40-41.

⁷¹¹ Staff Ex. 5 (Poole Dir.) at 6.

⁷¹² Staff Ex. 5 (Poole Dir.) at 6.

⁷¹³ Staff Ex. 5 (Poole Dir.) at 6; Staff Ex. 5C (Poole Dir. Conf.), Attachment JP-4 at 12-13.

SWEPCO illustrates, according to Staff, that reliability did not appreciably increase following the in-service dates of certain rebuilt transmission lines.

For these reasons, Staff proposes to decrease SWEPCO's return by \$1.13 million. This amount is approximately equal to the costs incurred by SWEPCO in response to the outage, which were largely for vegetation management.⁷¹⁴ Using Staff's recommended rate base and SWEPCO's requested capital structure, Staff witness Filarowicz calculated the \$1.13 million downward adjustment as an approximate 12.5 basis point reduction to SWEPCO's ROE.⁷¹⁵

Additionally, Staff recommends that the Commission require SWEPCO to hire an independent consultant to promptly conduct a comprehensive review of SWEPCO's transmission system and make recommendations regarding SWEPCO's vegetation management practices, facilities replacement, and transmission system protection.⁷¹⁶ As part of this requirement, Staff proposes that the Commission open a compliance docket and require SWEPCO to file reports regarding its hiring and use of the independent consultant, including the request for proposals to perform the related work, a notification of the independent consultant selection, a timeline for the consultant's work, as well as the consultant's reports and recommendations. Staff notes that the Commission previously ordered that an electric utility contract with an independent consultant due to the utility's poor reliability and management.⁷¹⁷ Thus, requiring SWEPCO to contract with an independent consultant to review its transmission system is in accordance with Commission precedent.

According to SWEPCO, Staff's recommendations should be rejected for at least two reasons:

⁷¹⁴ Staff Ex. 5 (Poole Dir.) at 11.

⁷¹⁵ Staff Ex. 1 (Filarowicz Dir.) at 29-30.

⁷¹⁶ Staff Initial Brief at 43; Staff Ex. 5 (Poole Dir.) at 11-12.

⁷¹⁷ See *Entergy Gulf States, Inc. Service Quality Issues*, Docket No. 18249, Order on Rehearing at 28-29, 37 (Apr. 22, 1998); *Application of Entergy Texas for Approval of Its Transition to Competition Plan and the Tariffs Implementing the Plan and for the Authority to Reconcile Fuel Costs to Set Revised Fuel Factors and to Recover a Surcharge for Underrecovered Fuel Costs*, Docket No. 16705, Second Order on Rehearing at 18-19 (Jul. 22, 1998).

- (1) Staff has not established any legal basis for such an ROE penalty or independent consultant and the evidence shows SWEPCO makes reasonable efforts to prevent interruption of service, consistent with 16 TAC § 25.52(b)(1); and
- (2) Staff's proposed ROE penalty would total approximately \$4.5 million over the typical four-year span between rate cases, which vastly exceeds the Commission's authorized penalty authority of up to \$25,000 per day of violation.⁷¹⁸

SWEPCO contends that Mr. Poole's recommended ROE penalty seems to be premised on the fact that the outage occurred, rather than establishing any legal basis for such a large penalty.⁷¹⁹ His testimony focuses on a single seven-hour outage,⁷²⁰ the likes of which has not occurred before or since on SWEPCO's system, but he does not examine the overall quality of SWEPCO's service, the quality of its management, or its efforts to prevent service interruptions. In addition, while Mr. Poole opined that prudent vegetation management on the Knox-Pirkey Line and the Pirkey-to-Whitney 138-kilovolt (kV) Line during 2010-2019 would have prevented the cascading interruptions,⁷²¹ he agreed at hearing that he does not have any specific qualifications with respect to vegetation management.⁷²²

SWEPCO also contends the evidence shows it satisfies the relevant outage prevention standard in 16 TAC § 25.52(b)(1) because it makes reasonable efforts to prevent interruptions of service.⁷²³ These efforts include annual aerial vegetation inspection patrols for all lines less than 200 kV and twice annual aerial patrols for lines greater than 200 kV. The data from these inspections is used to determine reactive vegetation management strategies to remove immediate

⁷¹⁸ SWEPCO Initial Brief at 52.

⁷¹⁹ SWEPCO Initial Brief at 52-53.

⁷²⁰ SWEPCO notes that Staff incorrectly refers to the outage as a two-day event, when instead, the evidence shows that the outage lasted seven hours and power was restored to all load by 11:00 p.m. on August 18. SWEPCO Reply Brief at 49; SWEPCO Ex. 41 (Boezio Reb.) at 2.

⁷²¹ Staff Ex. 5 (Poole Dir.) at 9.

⁷²² Tr. at 429.

⁷²³ SWEPCO Initial Brief at 53.

threats and proactive strategies to manage future work plans and determine frequency of maintenance. SWEPCO witness Daniel Boezio testified that the Company's O&M programs to minimize and prevent interruptions are based on industry standards.⁷²⁴ SWEPCO's O&M expenditures for transmission vegetation management in Texas have increased significantly in recent years, from \$2.85 million in 2016 to over \$6 million in 2019 and 2020.⁷²⁵ In addition, SWEPCO has invested an average of \$60 million per year since its last rate case on asset improvement projects to replace aging transmission infrastructure.⁷²⁶ While the Company's overall system reliability did not appreciably increase following the rebuilds, SWEPCO notes that system reliability metrics can be affected by a number of factors, most notably weather.⁷²⁷

SWEPCO criticizes Mr. Poole for largely dismissing the impact of weather, specifically excessive rainfall, in contributing to the August 18, 2019 outage.⁷²⁸ Although Mr. Poole asserted that it would have taken a number of years for trees to grow to the height shown in SWEPCO's post-outage report to Staff and that annual rainfall over the previous decade was not unusual,⁷²⁹ SWEPCO contends these conclusions are mistaken. Mr. Poole's focus on annual rainfall over a decade is misplaced since the relevant evidence shows that the area received 32 inches of rain during the April-June growing season prior to the outage, 13.7 inches above average.⁷³⁰ This rainfall not only contributed to abnormal levels of vegetation growth prior to the outage but also hindered the Company's efforts to access flooded or impassable rights-of-way to manage the growing vegetation.

SWEPCO emphasizes that the initial vegetation contact for the August outage was a vine that had been specifically monitored in the aerial inspection several months earlier. The inspection

⁷²⁴ SWEPCO Ex. 11 (Boezio Dir.) at 13-14.

⁷²⁵ SWEPCO Ex. 41 (Boezio Reb.) at 5.

⁷²⁶ SWEPCO Ex. 41 (Boezio Reb.) at 4-5.

⁷²⁷ SWEPCO Initial Brief at 54.

⁷²⁸ SWEPCO Initial Brief at 54-55.

⁷²⁹ Staff Ex. 5 (Poole Dir.) at 9.

⁷³⁰ SWEPCO Ex. 41 (Boezio Reb.) at 6, Figure 2.

noted greater than 25 feet of clearance between the vine and the conductor, which is not considered to be a threat.⁷³¹ At the hearing, Mr. Poole acknowledged that he has no expertise in that specific type of vine and did not dispute the possibility that it could grow 25 feet in a period of a few months during heavy rainfall events.⁷³² In addition, SWEPCO notes that its service area has fast-growing trees that can grow as much as 10 feet in a single season, and they grew more than anticipated due to the abnormal rainfall.⁷³³

Finally, according to SWEPCO, Mr. Poole's proposed ROE penalty is grossly disproportionate to the Commission's authority to impose administrative penalties. Under PURA § 15.023, the Commission is authorized to impose a penalty of up to \$25,000 for each day a violation continues or occurs. By contrast, Mr. Poole's proposed ROE penalty is \$1.13 million, which, under the standard Commission four-year schedule for rate cases, would amount to more than \$4.5 million. This would be the equivalent of roughly 180 days at \$25,000 per day,⁷³⁴ even though the outage lasted only seven hours.

In response, Staff disagrees that Mr. Poole's recommended ROE reduction is predicated solely on the fact that the outage occurred.⁷³⁵ Instead, Staff contends SWEPCO failed to perform diligent vegetation management over a multi-year period, which is shown by the lack of any vegetation management activities for approximately five years immediately preceding 2019 for three of the four lines that sustained vegetation contact during the outage.⁷³⁶ According to Staff, the failure to perform adequate vegetation management is also reflected in SWEPCO's worsening SAIDI and SAIFI scores. Higher scores indicate longer and more frequent interruptions, and therefore, worse reliability. Since 2018, SWEPCO's transmission SAIFI score rose from 45.68 to

⁷³¹ SWEPCO Ex. 41 (Boezio Reb.) at 7.

⁷³² Tr. at 431.

⁷³³ SWEPCO Ex. 41 (Boezio Reb.) at 7.

⁷³⁴ Tr. at 434-35.

⁷³⁵ Staff Reply Brief at 30-31.

⁷³⁶ Tr. at 528.

105.83, and its 2020 SAIFI score is SWEPCO's highest since 2011.⁷³⁷ Similarly, SWEPCO's transmission SAIDI scores have increased since 2017, from 22.22 to 60.41, with the 2020 score being SWEPCO's highest since 2011.⁷³⁸

In addition, Staff argues that SWEPCO has mischaracterized the proposed ROE adjustment as a "penalty" that would be limited by PURA § 15.023.⁷³⁹ Instead, Staff states that the adjustment is pursuant to the Commission's authority under PURA § 36.052, which authorizes a reduction to SWEPCO's ROE, and is consistent with Commission precedent, including Docket No. 18249.⁷⁴⁰

8. ALJs' Analysis

The ALJs begin by addressing certain analyses and adjustments they excluded when setting SWEPCO's ROE because these determinations narrow the range of reasonable ROEs considered.

First, the ALJs conclude that SWEPCO did not demonstrate that either a size or credit risk adjustment was appropriate in setting its ROE. As to the size adjustment, much of the potential risk Mr. D'Ascendis identified is ameliorated by SWEPCO's status as a wholly owned subsidiary of AEP. In addition, the few instances that Mr. D'Ascendis cited where a size adjustment had been adopted involved utilities orders of magnitude smaller than SWEPCO and that were not located in Texas. With regard to the credit risk adjustment, Mr. D'Ascendis noted that SWEPCO is net one credit rating lower than the Utility Proxy Group after considering both its Moody's and S&P bond ratings; however, the ALJs are persuaded by intervenors and Staff that SWEPCO's investment risk level is sufficiently similar to the proxy group that an adjustment is not justified. Therefore, neither of SWEPCO's proposed adjustments is adopted.

⁷³⁷ Staff Ex. 56, SWEPCO's response to CARD RFI 9-20; Tr. at 535.

⁷³⁸ Staff Ex. 57, SWEPCO's response to CARD RFI 9-21; Tr. at 536-37.

⁷³⁹ Staff Reply Brief at 33.

⁷⁴⁰ Docket No. 18249, Order on Rehearing at 28-29, 37 (Apr. 22, 1998);

The ALJs also conclude that Staff failed to demonstrate that an ROE penalty is warranted. The August 18, 2019 outage was a one-time event, albeit a serious one. While this outage was caused by vegetation contact, Staff did not demonstrate that SWEPCO was negligent in its vegetation management practices. Notably, the vine that initially sparked the cascading outage was aurally examined in April, just months before the outage, and at that time, had a clearance of 25 feet from the conductor.⁷⁴¹ While SWEPCO's worsening SAIFI and SAIDI scores are troubling, the evidence is insufficient to show that these changing metrics warrant an ROE penalty under PURA § 36.052(2) and (4) due to the quality of SWEPCO's services and management. Instead, as addressed in Section VII below, the ALJs find these concerns are more appropriately addressed by adjusting SWEPCO's vegetation management expense. Accordingly, Staff's recommended ROE penalty is not adopted. For the same reasons, SWEPCO should not be required to retain an independent consultant to review its transmission system.

In addition, the ALJs exclude from consideration the results of Mr. D'Ascendis's analyses that used the Non-Price Regulated Proxy Group. SWEPCO failed to demonstrate that the companies in this proxy group were comparable in risk to SWEPCO. Accordingly, the ALJs give no weight to the 12.12% (11.81% rebuttal) equity cost rate that Mr. D'Ascendis calculated for this group and used in his analysis.⁷⁴²

The parties' remaining analyses were factored into the ALJs' recommended ROE. As discussed at the outset of this section, the experts presenting testimony on the appropriate ROE for SWEPCO employed both mathematical analyses and empirical data. The results of their analyses and examinations were predictably grouped: Staff and the intervenors at one end with a relatively tight grouping of recommended ROEs in the range of 9.0% to 9.225%, and SWEPCO at the opposite end recommending an ROE of 10.35%.⁷⁴³

⁷⁴¹ SWEPCO Ex. 41 (Boezio Reb.) at 7.

⁷⁴² See SWEPCO Ex. 8 (D'Ascendis Dir.), Exh. DWD-7 at 1; SWEPCO Ex. 38 (D'Ascendis Reb.), Exh. DWD-1R at 36.

⁷⁴³ The exception is Walmart's recommendation of "no higher than 9.6%," which was based on a review of approved ROEs nationwide and in Texas, rather than mathematical analyses.

Despite these variations, the ROE experts' constant growth DCF analyses produced relatively similar results—notably, with SWEPCO at 8.73% (direct) and 9.42% (rebuttal)—and the parties had few criticisms of each other's inputs and results. However, as Mr. D'Ascendis pointed out, the use of multiple models adds reliability to the estimation of the common equity cost rate and is supported in both the financial literature and regulatory precedent.⁷⁴⁴ Even so, the ALJs find it is appropriate to give the constant growth DCF analyses more weight, as Mr. D'Ascendis did himself.⁷⁴⁵ In contrast, the ALJs find that CARD and TIEC raised sufficient concerns with Mr. D'Ascendis's use of the PRPM risk premium approach that it should be given less weight in the analysis.

The economic metrics raised by the parties are not singularly aligned. Some of the metrics argue in favor of a lower ROE, while others argue for a higher ROE. It appears to the ALJs that there is no clearly dispositive factor on the subjective side of the analysis.

Taking these analyses into consideration, weighted as described, a reasonable range for SWEPCO's ROE would be from 9.0% on the low end to 9.9% on the high end. Given that there is no clear indicator within the economic, subjective group of factors, the ALJs conclude that a mid-point of this range is the best approximation of the appropriate ROE for SWEPCO. In this case, the point would be 9.45%, which the ALJs recommend the Commission adopt.

B. Cost of Debt [PO Issue 8]

SWEPCO requests adoption of its actual cost of debt at the end of the test year of 4.18%.⁷⁴⁶ SWEPCO witness Renee Hawkins testified that the Company's cost of debt was calculated in accordance with Commission practices and is consistent with prior Texas rate cases.⁷⁴⁷

⁷⁴⁴ SWEPCO Ex. 38 (D'Ascendis Reb.) at 106.

⁷⁴⁵ See SWEPCO Reply Brief at 42-43 (explaining that Mr. D'Ascendis gave 62.5% weight to his DCF result).

⁷⁴⁶ SWEPCO Ex. 9 (Hawkins Dir.) at 4-5.

⁷⁴⁷ SWEPCO Ex. 9 (Hawkins Dir.) at 4-5.

The only party to challenge SWEPCO's requested cost of debt was Staff, which proposes that it be reduced to 4.08%.⁷⁴⁸ This reduction results from Staff witness Filarowicz's recommendation to adjust the cost of debt to remove the annual amortization of a Series I Hedge Loss sustained by SWEPCO in February 2012.⁷⁴⁹ He testified that the Series I Hedge Loss will be fully amortized in January 2022, and SWEPCO customers have already paid 93% of this amortization as of the filing of his testimony in April 2021.⁷⁵⁰ By the time new rates from this docket go into effect, there will be only approximately six months of amortization remaining. As such, Staff contends it is inappropriate to set new rates based on the hedge loss because the annual amortization is not indicative of SWEPCO's current annual cost of debt.

SWEPCO responds that Mr. Filarowicz's recommendation is shortsighted and an inappropriate known and measurable change.⁷⁵¹ SWEPCO points out that the test year ended March 31, 2020, and the rates set in this case will go into effect as of March 18, 2021. Based on these facts, Ms. Hawkins testified that the Series I Hedge Loss amortization occurs during both the test year and the period when new rates will be in effect. The full amortization of the loss will not take place until almost two years after the end of the test year.

SWEPCO further argues that Staff's recommendation pulls one distinct item out of the cost of debt without considering any other changes that may occur on or before February 2022. Ms. Hawkins explained that the Company's inclusion of the Series I Hedge Loss is reasonable and consistent with 16 TAC § 25.231(c)(2)(F), the Commission's rule regarding post-test-year adjustments to rate base. She testified that, although removal of the Series I Hedge Loss may not be a rate base decrease, it was part of the debt and equity components connected to rate base at the test year end. According to SWEPCO, removing that one component without considering any other

⁷⁴⁸ Staff Initial Brief at 43-44.

⁷⁴⁹ Staff Ex. 1 (Filarowicz) at 31.

⁷⁵⁰ Staff Ex. 1 (Filarowicz) at 31.

⁷⁵¹ SWEPCO Initial Brief at 56-57.

post-test-year happenings disregards the scope and purpose of the Commission rule in evaluating rate base at test year end.

There is no dispute that SWEPCO's actual cost of debt at the end of the test year was 4.18%. The sole issue is whether the timing of the Series I Hedge Loss amortization supports an adjustment. However, because the effective date for rates set in this proceeding will relate back to March 18, 2021, the Series I Hedge Loss will remain on SWEPCO's books for the vast majority of the rate year. Thus, even though most of the loss has been amortized as Staff points out, the amount remaining is not insubstantial. In addition, Staff's adjustment would remove one item from the cost of debt without considering other potential changes that could occur during that time period. For these reasons, the ALJs find it is not appropriate to remove the effect of the amortization when setting SWEPCO's cost of debt. Accordingly, the ALJs recommend that the Commission adopt SWEPCO's actual cost of debt at the end of the test year of 4.18%.

C. Capital Structure [PO Issue 7]

SWEPCO presented testimony showing that its capital structure was composed of 50.63% long-term debt and 49.37% equity.⁷⁵² No party contested the reasonableness of this capital structure; therefore, the ALJs recommend that the Commission adopt that structure.

D. Overall Rate of Return [PO Issue 8]

The overall rate of return is a product of the capital structure, ROE, and cost of debt. Based on the discussion set forth above, the ALJs recommend that the Commission adopt the following overall rate of return for SWEPCO:

Component	Cost	Weighting	Weighted Cost
Debt	4.18%	50.63%	2.12%
Equity	9.45%	49.37%	4.67%
Overall			6.79%

⁷⁵² SWEPCO Ex. 9 (Hawkins Dir.) at 3.

E. Financial Integrity, Including “Ring Fencing” [PO Issue 9]

To protect SWEPCO’s financial integrity and ensure reliable service at just and reasonable rates, Staff recommends the implementation of certain financial protections to insulate SWEPCO from its parent company, AEP, and AEP’s other subsidiaries.⁷⁵³ Staff notes that AEP, with \$81 billion of assets,⁷⁵⁴ is a large corporation that includes not only SWEPCO as a subsidiary, but several other entities, including:

- Vertically Integrated Utilities: AEP Generating Company, Appalachian Power Company, Indiana Michigan Power Company, Kingsport Power Company, Kentucky Power Company, Public Service Company of Oklahoma, SWEPCO, and Wheeling Power Company, whose business activities consist of owning and operating assets for the generation, transmission, and distribution of electricity for sale to retail and wholesale customers;
- Transmission and Distribution Utilities: AEP Texas and Ohio Power Company, which own and operate assets for the transmission and distribution of electricity for sale to retail and wholesale customers. Ohio Power Company purchases energy and capacity at auction to serve standard service offer customers and provides transmission and distribution services for all connected load;
- AEP Transmission Holdco: a company that develops, constructs, and operates transmission facilities through investments in AEP Transmission Company. AEP Transmission Holdco also develops, constructs, and operates transmission facilities through investments in AEP’s transmission-only joint ventures; and
- Generation and Marketing: AEP also has business: (1) owning competitive generation in PJM Interconnection (PJM); (2) performing marketing, risk management, and retail activities in the Electric Reliability Council of Texas (ERCOT), MISO, PJM, and SPP; and (3) holding contracted renewable energy investments and management services.⁷⁵⁵

⁷⁵³ SWEPCO Initial Brief at 44-48.

⁷⁵⁴ Staff Ex. 1 (Filarowicz Dir.) at 38.

⁷⁵⁵ Staff Ex. 1 (Filarowicz Dir.) at 39-40.

The effects of financial instability or weakness in one entity, according to Staff, could affect not only AEP as the parent company, but other subsidiaries as well.⁷⁵⁶ In an extreme case, an event that causes severe financial distress for AEP could lead to its bankruptcy—a situation that, absent the presence of protective measures, could impact subsidiaries like SWEPCO and drag them into the bankruptcy process.

To address these concerns, Staff recommends that the Commission order SWEPCO to implement certain “ring-fencing” provisions designed to create a degree of insulation between SWEPCO and its parent company AEP, as well as other AEP affiliates. In particular, Staff witness Filarowicz proposed the financial protections listed below.⁷⁵⁷ To the extent that SWEPCO’s existing policies comply with these provisions, he recommended that the Commission require SWEPCO to commit to maintaining those policies.⁷⁵⁸

Staff Proposed Financial Protections
1. <u>SWEPCO Credit Ratings.</u> SWEPCO will work to ensure that its credit ratings at S&P and Moody’s remain at or above SWEPCO’s current credit ratings. 2. <u>Notification of Less-than-Investment-Grade Rating.</u> SWEPCO will notify the Commission if its credit issuer rating or corporate rating as rated by either S&P or Moody’s falls below investment-grade level. 3. <u>ROE Commitment.</u> If SWEPCO’s issuer credit rating is not maintained as investment grade by S&P or Moody’s, SWEPCO will not use its below-investment-grade ratings to justify an argument in favor of a higher regulatory ROE. 4. <u>Stand-Alone Credit Rating.</u> SWEPCO will take the actions necessary to ensure the existence of a SWEPCO stand-alone credit rating. 5. <u>No Cross-Default Provisions.</u> SWEPCO’s credit agreements and indentures will not contain cross-default provisions by which a default by AEP or its other affiliates would cause a default by SWEPCO.

⁷⁵⁶ Staff Ex. 1 (Filarowicz Dir.) at 40.

⁷⁵⁷ Staff Ex. 1 (Filarowicz Dir.) at 44-45. TIEC generally supports the adoption of standardized ring-fencing measures for all Texas utilities and also the specific recommendations of Mr. Filarowicz in this case. TIEC Initial Brief at 43.

⁷⁵⁸ Staff Ex. 1 (Filarowicz Dir.) at 44.

6. No Financial Covenants or Rating-Agency Triggers Related to Another Entity. The financial covenant in SWEPCO's credit agreement will not be related to any entity other than SWEPCO. SWEPCO will not include in its debt or credit agreements any financial covenants or rating-agency triggers related to any entity other than SWEPCO.
7. No Sharing of a Credit Facility. SWEPCO will not share a credit facility with any unregulated affiliates.
8. No SWEPCO Debt Secured by Non-SWEPCO Assets. SWEPCO's debt will not be secured by non-SWEPCO assets.
9. No SWEPCO Assets Pledged for Other Entities' Debt. SWEPCO's assets will not secure the debt of AEP or its non-SWEPCO affiliates. SWEPCO's assets will not be pledged for any other entity.
10. No Credit for Affiliate Debt. SWEPCO will not hold out its credit as being available to pay the debt of any AEP affiliates.
11. No Commingling of Assets. Except for access to the utility money pool and the use of shared assets governed by the Commission's affiliate rules, SWEPCO will not commingle its assets with those of other AEP affiliates.
12. Affiliate Asset Transfer Commitment. SWEPCO will not transfer any material assets or facilities to any affiliates, other than a transfer that is on an arm's-length basis in accordance with the Commission's affiliate standards applicable to SWEPCO, regardless of whether such affiliate standards would apply to the particular transaction.
13. No Inter-Company Lending and Borrowing Commitment. Except for any participation in an affiliate money pool, SWEPCO will not lend money to or borrow money from AEP affiliates.
14. No Debt Disproportionally Dependent on SWEPCO. Without prior approval of the Commission, neither AEP nor any affiliate of AEP (excluding SWEPCO) will incur, guaranty, or pledge assets in respect of any incremental new debt that is dependent on: (1) the revenues of SWEPCO in more than a proportionate degree than the other revenues of AEP; or (2) the stock of SWEPCO.
15. No Bankruptcy Cost Commitment. SWEPCO will not seek to recover from customers any costs incurred as a result of a bankruptcy of AEP or any of its affiliates.

In support of these proposed financial protections, Staff notes that the Commission has previously required ring-fencing provisions in several other dockets, including recent rate cases.⁷⁵⁹ The ring-fencing provisions in the final orders in those cases are identical or similar to the provisions Staff suggests in this proceeding.⁷⁶⁰ Mr. Filarowicz noted that ring-fencing protections have been proven to work, most notably, for Oncor Electric Delivery Company (Oncor).⁷⁶¹ In that instance, the Commission had ordered ring-fencing provisions in Docket No. 34077 that later effectively insulated Oncor from its parent company's 2014 multi-billion-dollar bankruptcy.⁷⁶²

SWEPCO disagrees, however, that Commission-imposed protections are necessary to safeguard its financial integrity and ability to provide reliable service at reasonable rates.⁷⁶³ SWEPCO notes that the following segregation between SWEPCO and its AEP affiliates already occurs:

- SWEPCO does not share its credit facility with any unregulated affiliates;
- SWEPCO debt is not secured by non-SWEPCO assets;
- SWEPCO assets do not secure the debt of AEP or its non-SWEPCO affiliates; and
- SWEPCO has no assets pledged for any other entity.

In addition, SWEPCO contends Mr. Filarowicz did not provide any direct evidence regarding the specific need to build a ring-fence around SWEPCO, but instead, cites Oncor as a successful example of ring-fencing measures.

⁷⁵⁹ See, e.g., *Application of Southwestern Public Service Company for Authority to Change Rates*, Docket No. 49831, Order at FoF Nos. 75-91 (Aug. 27, 2020); *Application of AEP Texas Inc. for Authority to Change Rates*, Docket No. 49494, Order at FoF Nos. 108-121 (Apr. 6, 2020); *Application of CenterPoint Energy Houston Electric, LLC for Authority to Change Rates*, Docket No. 49421, Order at FoF Nos. 71-87 (Mar. 9, 2020).

⁷⁶⁰ Staff Ex. 1 (Filarowicz Dir.) at 43.

⁷⁶¹ Staff Ex. 1 (Filarowicz Dir.) at 46.

⁷⁶² Staff Ex. 1 (Filarowicz Dir.) at 46-47 (citing *Joint Report and Application of Oncor Electric Delivery Company and Texas Energy Future Holdings Limited Partnership Pursuant to PURA § 14.101*, Docket No. 34077, Order on Rehearing (Apr. 24, 2008)).

⁷⁶³ SWEPCO Initial Brief at 58-60.

SWEPCO witness Hawkins testified that the proposed ring-fencing recommendations are costly and generally unnecessary.⁷⁶⁴ SWEPCO already adheres to the Texas affiliate rules and there are existing protections in place for SWEPCO's stand-alone credit rating. SWEPCO notes that the Commission recently addressed ring-fencing measures recommended by Staff for SWEPCO affiliate AEP Texas in Docket No. 49494.⁷⁶⁵ In that proceeding, however, the Commission only imposed those measures agreed to by AEP Texas in settlement. Ms. Hawkins noted that SWEPCO already abides by most of the ring-fencing measures included in the final order in Docket No. 49494, and confirmed that SWEPCO is amenable to similar measures in this docket. However, Ms. Hawkins disagreed with several of Mr. Filarowicz's recommendations.⁷⁶⁶

Specifically, Ms. Hawkins testified against Recommendation No. 3, which requires that SWEPCO agree not to seek a higher ROE if its credit ratings fall below investment grade.⁷⁶⁷ She pointed out that many unknown variables could impact SWEPCO's credit rating and it would be imprudent to restrict SWEPCO's ability to request a higher ROE. Mr. D'Ascendis likewise testified against this recommendation.⁷⁶⁸ He maintained that ROE is related to risk, and limiting SWEPCO's ability to seek a higher ROE commensurate with increased risk does not reflect the investor-required return. Quite simply, investors will not take on more risk without a higher potential return.

Ms. Hawkins further testified that Recommendation Nos. 5 and 6 regarding no cross-default provisions and rating agency triggers are unnecessary and would increase compliance costs for customers.⁷⁶⁹ SWEPCO already issues its own debt based on its stand-alone credit rating.

⁷⁶⁴ SWEPCO Ex. 39 (Hawkins Reb.) at 3-4.

⁷⁶⁵ Docket No. 49494, Order at FoF Nos. 108-121 (Apr. 6, 2020).

⁷⁶⁶ Ms. Hawkins initially raised concerns with Staff's Recommendation No. 1 because it was unclear (due to the inadvertent inclusion of the word "dividend" in the title) whether Mr. Filarowicz intended to tie dividend restrictions to SWEPCO's credit rating. SWEPCO Ex. 39 (Hawkins Reb.) at 5. However, on cross-examination, Mr. Filarowicz confirmed he did not recommend any dividend restrictions. Tr. at 1062. Therefore, that issue is no longer contested. SWEPCO Initial Brief at 59.

⁷⁶⁷ SWEPCO Ex. 39 (Hawkins Reb.) at 8-9.

⁷⁶⁸ SWEPCO Ex. 38 (D'Ascendis Reb.) at 50.

⁷⁶⁹ SWEPCO Ex. 39 (Hawkins Reb.) at 9.

In addition, she testified that Recommendation No. 13 is too restrictive.⁷⁷⁰ Although Mr. Filarowicz excluded the utility money pool from his recommendation, there are other inter-company lending and borrowing programs that could be accessed by SWEPCO in certain circumstances that would benefit customers.

Based on the foregoing, SWEPCO requests that any additional ring-fencing measures that unnecessarily increase compliance costs for SWEPCO and its customers be rejected. Moreover, SWEPCO specifically requests that Staff's ring-fencing Recommendation Nos. 3, 5, 6, and 13 be rejected as unnecessary, overly burdensome, and prohibitive of SWEPCO's ability to provide reliable service and earn a reasonable return.

In response, Staff argues the ring-fencing provisions should be adopted because the benefits to SWEPCO's ratepayers far outweigh the costs involved in implementation.⁷⁷¹ Given that SWEPCO admitted it already abides by most of the ring-fencing measures ordered in Docket No. 49494, Staff calls into question SWEPCO's claim that instituting Recommendation Nos. 5 and 6 will unnecessarily increase compliance costs for customers. Moreover, to the extent compliance costs will increase, Staff emphasizes it is important to keep in mind the end goal of ensuring SWEPCO's financial integrity and proper insulation from AEP. As such, Staff concludes that SWEPCO's contention that the proposed ring-fencing provisions "unnecessarily increase compliance costs for SWEPCO and its customers" should be rejected in favor of the recommended provisions.

Staff demonstrated that ring-fencing provisions serve a valuable purpose and have proven effective in Texas specifically in the case of Oncor. Ring-fencing provisions have also been ordered in three recent rate cases, although each involved a settlement among the parties.⁷⁷² As both SWEPCO and Staff note, one of those settlements involved SWEPCO's affiliate, AEP Texas,

⁷⁷⁰ SWEPCO Ex. 39 (Hawkins Reb.) at 9.

⁷⁷¹ Staff Reply Brief at 34.

⁷⁷² Docket No. 49831, Order at FoF Nos. 75-91 (Aug. 27, 2020); Docket No. 49494, Order at FoF Nos. 108-121 (Apr. 6, 2020); Docket No. 49421, Order at FoF Nos. 71-87 (Mar. 9, 2020).

and SWEPCO confirmed it is amenable to similar measures in this docket.⁷⁷³ However, Staff's proposed ring-fencing provisions go beyond those ordered for AEP Texas, specifically as to Recommendation Nos. 3, 5, 6, and 13, which SWEPCO opposes. Staff did not explain why the specific provisions it recommends were appropriate for SWEPCO. Instead, Staff's primary support for its ring-fencing recommendations is that they were adopted in other cases for other utilities.

Yet, given the demonstrated value of ring-fencing protections and SWEPCO's non-opposition to measures similar to those adopted for AEP Texas, the ALJs conclude that the essentially uncontested provisions (Recommendation Nos. 1-2, 4, 7-12, and 14-15) should be adopted. While SWEPCO raises an overall concern regarding increased compliance costs of adopting ring-fencing provisions in general, the Company acknowledges that it is already abiding by most of these measures. Thus, any increase in compliance costs is likely outweighed by the benefit to SWEPCO and its customers of having the ring-fencing protections in place. As to the remaining contested provisions (Recommendation Nos. 3, 5, 6, and 13), the ALJs find that the evidence does not show they are reasonable and necessary for SWEPCO.

Accordingly, the ALJs recommend that the Commission adopt Staff's proposed ring-fencing provisions listed above, with the exception of Recommendation Nos. 3, 5, 6, and 13, which should not be adopted.

VII. EXPENSES [PO Issues 1, 14, 24, 25, 27, 29, 30, 32, 33, 34, 35, 40, 41, 42, 44, 45, 46, 49, 72, 73, 74]

A. Transmission and Distribution O&M Expenses

1. Transmission O&M Expense [PO Issue 24]

No party challenged the reasonableness of SWEPCO's transmission O&M expenses, and SWEPCO provided evidence in support of its expenses. SWEPCO witness Dan Boezio discussed AEP's and SWEPCO's transmission systems, the services provided to ensure the system is

⁷⁷³ SWEPCO Initial Brief at 58-59.

maintained and provides reliable service, and cost and staffing level trends and their underlying drivers.⁷⁷⁴ He also discussed the affiliate component of SWEPCO's O&M transmission expenses, recent AEPSC billings to SWEPCO, and benchmarking studies used to gauge the reasonableness of SWEPCO's affiliate O&M transmission charges for the test year.⁷⁷⁵

2. Transmission Expenses and Revenues under FERC-approved Tariff [PO Issue 46]

The net amount that SWEPCO incurred under the SPP OATT during the test year is included in SWEPCO's requested cost of service in this proceeding.⁷⁷⁶ Other than Eastman and TIEC's challenge regarding SPP OATT charges incurred for Eastman's retail behind-the-meter load, the inclusion of the test year SPP OATT expenses and revenues in SWEPCO's requested cost of service is uncontested.⁷⁷⁷

3. Proposed Deferral of SPP Wholesale Transmission Costs [PO Issues 72, 73, 74]

SWEPCO proposes that the portion of its ongoing SPP OATT bill that is above or below the net test year level approved by the Commission in this proceeding be deferred into a regulatory asset or liability until it can be addressed in a future TCRF or base-rate proceeding. Net ATC (Approved Transmission Charges) is the difference between the charges that SWEPCO is assessed for its use of the SPP transmission system that qualify as ATC under 16 TAC § 25.239(b)(1) and the payments that SWEPCO receives for the use of its transmission system.⁷⁷⁸ In short, SWEPCO seeks an ATC tracker. TIEC, Staff, and ETWSD oppose SWEPCO's request.

SWEPCO argues that its request is authorized by statute, serves as a complement to an administrative rule, and is appropriate here to reconcile costs and avoid regulatory lag. SWEPCO

⁷⁷⁴ SWEPCO Ex. 11 (Boezio Dir.) at 3, 7, 11.

⁷⁷⁵ SWEPCO Ex. 11 (Boezio Dir.) at 23, 24, 26.

⁷⁷⁶ SWEPCO Ex. 4 (Brice Dir.) at 12.

⁷⁷⁷ SWEPCO Initial Brief at 61.

⁷⁷⁸ Staff Ex. 4A (Narvaez Dir.) at 7.

asserts that its request falls under PURA § 36.209(b), which allows for the recovery of changes in wholesale transmission charges to the electric utility under a tariff approved by a federal regulatory authority to the extent that the costs or charges have not otherwise been recovered.⁷⁷⁹ SWEPCO states that the net charges and revenues that are subject to its proposal are incurred and received under the FERC-approved SPP OATT, and SWEPCO proposes to record a regulatory asset or liability only to the extent that those net charges and revenues vary from the net amount being recovered in base rates. Thus, SWEPCO asserts, the Commission has the authority to implement an ATC tracker under PURA § 36.209, and implementing one would be consistent with the law's legislative history, which indicates the law was intended to allow non-ERCOT utilities cost recovery opportunities similar to those available to ERCOT utilities.⁷⁸⁰ SWEPCO argues that 16 TAC § 25.239 (the TCRF rule which applies to Distribution Service Providers in ERCOT) supports its request because that rule allows ERCOT Distribution Service Providers to track certain costs. SWEPCO explains that its proposal is similar and not a substitute for but a complement to 16 TAC § 25.239 (the Commission's non-ERCOT TCRF rule). SWEPCO states its proposal is an effective way to reduce regulatory lag by providing for more timely cost recovery.

The parties that oppose SWEPCO's request argue that it is contrary to statute, administrative rule, and Commission precedent. First, they distinguish PURA § 35.004(d) for ERCOT utilities from PURA § 36.209, which applies to non-ERCOT utilities like SWEPCO. They argue that Section 36.201 prohibits automatic adjustments with one exception not applicable here.⁷⁸¹ PURA § 35.004(d) (for ERCOT utilities) specifically makes Section 36.201 inapplicable and allows the Commission to "approve wholesale rates that may be periodically adjusted to ensure timely recovery of transmission investment."⁷⁸² But the non-ERCOT provision, PURA § 36.209, lacks this authorizing language.⁷⁸³

⁷⁷⁹ PURA § 36.209(b).

⁷⁸⁰ House Research Org., Bill Analysis, Tex. C.S.H.B. 989, 79th Leg., R.S. (Apr. 15, 2005).

⁷⁸¹ PURA § 36.201.

⁷⁸² PURA § 35.004.

⁷⁸³ PURA § 36.209.

Second, these parties argue that SWEPCO's request is inconsistent with 16 TAC § 25.239—the non-ERCOT TCRF rule. They state that the ERCOT TCRF rule is based on a different statute,⁷⁸⁴ and the ERCOT rule implements a tracking mechanism, unlike the non-ERCOT rule.⁷⁸⁵ They also argue that the non-ERCOT rule limits amendments to TCRFs to once per calendar year, and the proposed ATC tracker would circumvent this limitation by providing for contemporaneous rather than annual cost recovery of the ATC component of transmission costs.⁷⁸⁶ They contend that, rather than an ATC tracker in a base rate case, § 25.239(b) provides the mechanism to account for changes in ATC outside of a base rate case.⁷⁸⁷ These parties also argue that the proposed ATC tracker goes beyond the historical test year construct used by the Commission.⁷⁸⁸ Moreover, the Commission previously denied a request by SWEPCO to make a post-test year adjustment for SPP expenses, stating that the TCRF “must be based on the unadjusted costs that were actually incurred during a historical test year.”⁷⁸⁹

Third, these parties assert that SWEPCO's request is contrary to Commission precedent. In Docket No. 46449, SWEPCO proposed to defer certain SPP expenses, but the Commission denied the request.⁷⁹⁰ The Commission also found that such deferred accounting treatment is an extraordinary remedy warranted only under special circumstances.⁷⁹¹ The parties opposed to the request argue that SWEPCO has not demonstrated special circumstances here, where its SPP

⁷⁸⁴ *Rulemaking Proceeding to Amend PUC Subst R. 25.193 Relating to Distribution Service Provider Transmission Recovery Factor (TCRF)*, Project No. 37909, Order Adopting Amendments to § 25.193 as Approved at the September 29, 2010 Open Meeting at 33-35 (Oct. 4, 2010) (explaining amendment was adopted under PURA § 35.004); PURA § 35.004(d).

⁷⁸⁵ Compare 16 TAC § 25.193(b)(2)(B) with 16 TAC § 25.239.

⁷⁸⁶ TIEC Initial Brief at 44; 16 TAC § 25.193(b)(2)(B); TIEC Ex. 1 (Pollack Dir.) at 10.

⁷⁸⁷ Staff Initial Brief at 50; Staff Ex. 4A (Narvaez Dir.) at 9.

⁷⁸⁸ 16 TAC §§ 25.231(a)-(b), .239; TIEC Initial Brief at 22; TIEC Reply Brief at 22.

⁷⁸⁹ *Application of Southwestern Electric Power Company for Approval of a Transmission Cost Recovery Factor*, Docket No. 42448, Order at FoF Nos. 32-45 and CoL No. 8 (Nov. 24, 2014).

⁷⁹⁰ Docket No. 46449, Order on Rehearing, FoF Nos. 238-244 (Mar. 19, 2018).

⁷⁹¹ Docket No. 46449, PFD at 278-79 (Sep. 22, 2017).

OATT revenues have increased more than its SPP OATT charges since SWEPCO's last rate case and its last TCRF proceeding.⁷⁹²

Finally, TIEC, Staff, and ETSWD contend that a ATC tracker is unnecessary. They argue that, if rates are cost-based, increased revenues resulting from load growth should more or less match increases in base rate revenue recovery from customers.⁷⁹³ SWEPCO responds that load growth would match increases in SPP OATT charges only if SPP OATT transmission rates are static, but they are not—SPP OATT charges can change as often as every month.⁷⁹⁴ And Staff witness Adrian Narvaez admits that, if SWEPCO's rates are not sufficiently cost-based, then it is possible SWEPCO could recover either more or less than the amount of costs included in the test year ATC component of the TCRF baseline.⁷⁹⁵ Those opposing the request emphasize the same evidence, arguing that SWEPCO's proposal could result in an over-recovery of transmission charges—which PURA § 36.209(b) and 16 TAC § 25.239 prohibit.⁷⁹⁶ Those opposing the request also give a second reason a ATC tracker is unnecessary here: SWEPCO's SPP revenues have increased more than SWEPCO's charges since SWEPCO's last rate case and last TCRF proceeding.⁷⁹⁷ They add that SWEPCO's request is piecemeal ratemaking because it only tracks changes to a single part of rates (ATC), not changes in other costs and revenues.⁷⁹⁸

The ALJs recommend rejecting SWEPCO's proposed ATC tracker. SWEPCO's comparison to the ERCOT TCRF rule is misplaced because here 16 TAC § 25.239 applies, rather than PURA § 35.004(d). As Staff, TIEC, and ETSWD argue, an ATC tracker is contrary to and not specified in 16 TAC § 25.239. Additionally, SWEPCO has not shown that deferred accounting

⁷⁹² TIEC Ex. 1 (Pollock Dir.) at 11.

⁷⁹³ Staff Ex. 4A (Narvaez Dir.) at 8.

⁷⁹⁴ See Docket No. 42448, Order at FoF No. 37 (Nov. 24, 2014) (finding SWEPCO's charges under SPP's schedules 9 and 11 can change as often as every month).

⁷⁹⁵ Staff Ex. 4A (Narvaez Dir.) at 8.

⁷⁹⁶ Staff Ex. 4A (Narvaez Dir.) at 10-11.

⁷⁹⁷ TIEC Ex. 1 (Pollock Dir.) at 11.

⁷⁹⁸ TIEC Ex. 1 (Pollock Dir.) at 10.

is appropriate in this situation or that the proposed recovery mechanism is needed here, where its SPP revenues have increased more than its charges.

4. Distribution O&M Expense [PO Issue 24]

SWEPCO states that its total company adjusted test year O&M expenses for distribution activities was approximately \$93.65 million.⁷⁹⁹ No party contests this amount.

SWEPCO provided evidence in support of the necessity and reasonableness of its distribution O&M expense. SWEPCO explained its distribution system—over 9,960 square miles, comprising approximately 8,769 miles of overhead conductor, and 832 miles of underground conductor to a low-density customer group distributed over a large area.⁸⁰⁰ SWEPCO discussed its budgeting and cost-control initiatives to keep costs at the minimal reasonable level and confirmed that it outsources work where appropriate to control costs.⁸⁰¹ SWEPCO also provided benchmarking data showing that its average total company distribution O&M costs compare favorably to the median level of expenditures for peer groups for each year studied.⁸⁰²

The ALJs recommend approval of SWEPCO's proposed distribution O&M expense.

5. Distribution Vegetation Management Expenses and Program Expansion [PO Issue 27]

SWEPCO seeks an annual vegetation management spend of \$14.57 million.⁸⁰³ This is an increase of \$5 million over the \$9.57 million in vegetation management expenses incurred in the test year.⁸⁰⁴ SWEPCO states that the requested increase will be used solely for increased vegetation

⁷⁹⁹ SWEPCO Ex. 10 (Seidel Dir.) at 21.

⁸⁰⁰ SWEPCO Ex. 10 (Seidel Dir.) at 3-4.

⁸⁰¹ SWEPCO Ex. 10 (Seidel Dir.) at 25.

⁸⁰² SWEPCO Ex. 10 (Seidel Dir.) at 27-28.

⁸⁰³ SWEPCO Ex. 3 (Smoak Dir.) at 6.

⁸⁰⁴ SWEPCO Ex. 3 (Smoak Dir.) at 6.

management.⁸⁰⁵ SWEPCO also agrees to periodic reporting to the Commission about the vegetation management and the funds spent.⁸⁰⁶

a. SWEPCO's Position

SWEPCO argues that additional vegetation management is needed for the reliability of its distribution system.⁸⁰⁷ SWEPCO notes that its overhead distribution lines are in rural areas with heavy vegetation and some of the heaviest levels of precipitation in the state.⁸⁰⁸ One of the top causes of outages within its territory is vegetation.⁸⁰⁹ During the test year, for example, vegetation accounted for 2,641 customer service interruptions—40.1% and 49.1% of its overall SAIFI and SAIDI, respectively.⁸¹⁰ SWEPCO states that additional funds should be spent to address this.⁸¹¹

SWEPCO argues that additional spending on vegetation management will improve system reliability.⁸¹² SWEPCO relies on past experience in 2018 and 2019 where 11 circuits with approximately 283 circuit miles (about 3.3% of SWEPCO's overhead distribution circuits) were fully cleared, resulting in improved reliability—fewer outages, a reduced number of customers affected, and reduced customer minutes of interruption.⁸¹³ SWEPCO witness Drew Seidel testified that he expects the additional spending to produce similar improvements.⁸¹⁴

⁸⁰⁵ SWEPCO Initial Brief at 66.

⁸⁰⁶ SWEPCO Initial Brief at 66.

⁸⁰⁷ SWEPCO Ex. 10 (Seidel Dir.) at 16.

⁸⁰⁸ SWEPCO Ex. 10 (Seidel Dir.) at 4.

⁸⁰⁹ SWEPCO Ex. 10 (Seidel Dir.) at 19.

⁸¹⁰ SWEPCO Ex. 10 (Seidel Dir.) at 19.

⁸¹¹ SWEPCO Initial Brief at 66.

⁸¹² SWEPCO Initial Brief at 66-67.

⁸¹³ SWEPCO Ex. 10 (Seidel Dir.) at 17-18.

⁸¹⁴ SWEPCO Ex. 10 (Seidel Dir.) at 18, 20.

SWEPCO agrees that implementing a four-year trim cycle would produce improved reliability benefits for customers.⁸¹⁵ And SWEPCO is willing to accept Staff's proposal of a four-year trim cycle if fully funded.⁸¹⁶ But SWEPCO argues that because the four-year trim cycle is estimated to cost \$38.35 million annually, the cost is too much for customers to absorb at once.⁸¹⁷

SWEPCO emphasizes that additional vegetation management is needed because without it there will likely be degradation in SAIDI and SAIFI.⁸¹⁸ SWEPCO also notes that the additional vegetation management spend authorized in a prior case had a significant positive effect on SAIDI and SAIFI for the cleared circuits.⁸¹⁹

b. Staff's Position

Staff argues that SWEPCO's request for an additional \$5 million for vegetation management should be approved with conditions: (1) SWEPCO should be required to file periodic reports in a compliance docket related to additional vegetation management funds and report on the effect of the additional spending in a manner consistent with another case; and (2) SWEPCO should implement a four-year trim cycle within twelve months of the filing of the final order in this proceeding.⁸²⁰

Staff contends that SWEPCO should receive the proposed increase in vegetation management expense to help improve service reliability. Staff notes that SWEPCO's service reliability has failed to meet the Commission's standards. In the test year ending in March 2020, SWEPCO slightly failed the Commission's SAIFI standard.⁸²¹ And over the past nine years,

⁸¹⁵ SWEPCO Initial Brief at 68; SWEPCO Ex. 10 (Seidel Dir.) at 20.

⁸¹⁶ SWEPCO Initial Brief at 68.

⁸¹⁷ SWEPCO Initial Brief at 68-69; SWEPCO Ex. 10 (Seidel Dir.) at 20.

⁸¹⁸ SWEPCO Ex. 40 (Seidel Reb.) at 7.

⁸¹⁹ SWEPCO Ex. 10 (Seidel Dir.) at 18.

⁸²⁰ Staff Initial Brief at 50.

⁸²¹ Staff Ex. 2 (Ramaswamy Dir.) at 5.

SWEPCO has consistently failed to meet the Commission's SAIDI standard.⁸²² To address service reliability, Staff recommends that SWEPCO's vegetation management request be approved and that the additional \$5 million be spent on distribution vegetation management on SWEPCO's targeted circuit list.⁸²³ Staff states that this recommendation is consistent with the treatment of a similar disputed request in SWEPCO's last base-rate case, where the Commission approved the request but required periodic status reports.⁸²⁴

Staff also argues that a four-year trim cycle should be implemented. Staff notes that utilities must make reasonable efforts to prevent interruptions of service.⁸²⁵ SWEPCO witness Seidel agrees that a four-year trim cycle would be the best long-term solution for vegetation management.⁸²⁶ Staff argues that, although SWEPCO protests that a four-year trim cycle is too expensive, SWEPCO should not be allowed to fail to meet reliability standards.⁸²⁷ And Staff states that even though the amount of money needed to implement a four-year trim cycle is not known and measurable and therefore cannot be recovered in rates in this case, SWEPCO must improve its reliability and can seek recovery of increased vegetation management expenses in its next rate case after implementing a four-year trim cycle.⁸²⁸

c. OPUC's Position

OPUC opposes SWEPCO's proposed increase in vegetation management expense.⁸²⁹ OPUC argues that, although SWEPCO provided data about particular circuits and identified improvements for 11 circuits with approximately 283 miles, the SAIFI and SAIDI scores do not

⁸²² Staff Ex. 2 (Ramaswamy Dir.) at 5.

⁸²³ Staff Ex. 2 (Ramaswamy Dir.) at 12.

⁸²⁴ Staff Ex. 2 (Ramaswamy Dir.) at 13; *Compliance Report on Southwestern Electric Power Company in Accordance with the Order on Rehearing in Docket No. 46449*, Docket No. 50052, Order No. 8 at 1 (Jun. 9, 2020).

⁸²⁵ 16 TAC § 25.52.

⁸²⁶ See SWEPCO Ex. 10 (Seidel) at 20.

⁸²⁷ Staff Initial Brief at 54.

⁸²⁸ Staff Initial Brief at 54.

⁸²⁹ OPUC Ex. 1 (Cannady Dir.) at 48.

show that the proposed increase in spending will produce similar improvements on a system-wide basis.⁸³⁰ Relying on past spending and data, OPUC witness Cannady noted that changes in spending do not necessarily result in corresponding improvements to the SAIFI for the distribution system.⁸³¹ She added that SWEPCO's SAIDI has significantly increased.⁸³² And the SAIDI increase, according to SWEPCO, was in part due to new policies on tree trimming, and SWEPCO has not shown how additional vegetation management spending will impact the duration time of outages under its new trimming policy.⁸³³ Thus, OPUC argues, SWEPCO's request for additional vegetation management expense should be denied because SWEPCO has failed to show a positive correlation between additional spending and better customer service.⁸³⁴

d. CARD's Position

CARD opposes SWEPCO's proposed \$5 million increase in vegetation management expense. CARD argues that the additional spending is unjustified. CARD witness M. Garrett explained that in its previous rate case SWEPCO received a \$2 million increase in funding over its 2016 test year level—authorizing SWEPCO to recover approximately \$9.93 million per year.⁸³⁵ But, although spending more money since 2016, SWEPCO reported a SAIFI of 1.73 for 2016 and 1.79 for the test year—not a meaningful improvement.⁸³⁶ And after the last rate case, in 2017 SWEPCO did not “follow through” on vegetation management spending—spending approximately \$6 million in 2017, \$13 million in 2018, and \$9.5 million in 2019.⁸³⁷ Mr. Garrett stated that a company is not required to spend the amount authorized for vegetation management expense, but when a company indicates a certain expenditure is necessary and yet fails to spend it,

⁸³⁰ OPUC Ex. 1 (Cannady Dir.) at 49.

⁸³¹ OPUC Ex. 1 (Cannady Dir.) at 50.

⁸³² OPUC Ex. 1 (Cannady Dir.) at 50.

⁸³³ OPUC Ex. 1 (Cannady Dir.) at 50-51.

⁸³⁴ OPUC Initial Brief at 15.

⁸³⁵ CARD Ex. 2 (M. Garrett Dir.) at 39.

⁸³⁶ CARD Ex. 2 (M. Garrett Dir.) at 40.

⁸³⁷ CARD Ex. 2 (M. Garrett Dir.) at 40.

that “raises questions” about whether the cost level is essential.⁸³⁸ Overall, CARD’s point is that SWEPCO’s previous vegetation management expenses have not produced sufficient results to justify additional spending.⁸³⁹ CARD adds that SWEPCO can spend more money on vegetation management if needed and in fact is required to do so to provide safe and reliable service to customers.⁸⁴⁰ Thus, CARD asserts, there is no need to increase SWEPCO’s vegetation management expense.⁸⁴¹

e. Texas Cotton Ginners’ Position

TCGA opposes SWEPCO’s request for increased vegetation management expenses. In addition to joining OPUC’s and CARD’s arguments, TCGA argues that additional vegetation management spending is not reasonable or prudent in regard to the Cotton Gin class. TCGA has five member gins in rural counties in the Texas Panhandle.⁸⁴² That service territory in the Texas Panhandle is over 300 miles from the rest of SWEPCO’s service territory. The Texas Panhandle area is mostly flat, treeless, grassy plains with little rainfall. The rest of SWEPCO’s service territory in Texas has heavy vegetation and high precipitation.⁸⁴³ TCGA points out that almost all of SWEPCO’s vegetation management costs are incurred outside the Texas Panhandle service area.⁸⁴⁴ Only 1% of line items for manual clearing distribution management spending were in the Texas Panhandle,⁸⁴⁵ and under a list of herbicide application jobs performed in the test year, none were in the Texas Panhandle.⁸⁴⁶ TCGA argues that if additional vegetation management expenses are approved, there should be an adjustment to the Cotton Gin rate class because almost all the

⁸³⁸ CARD Ex. 2 (M. Garrett Dir.) at 40.

⁸³⁹ CARD Reply Brief at 19.

⁸⁴⁰ CARD Ex. 2 (M. Garrett Dir.) at 39.

⁸⁴¹ CARD Initial Brief at 41-42.

⁸⁴² TCGA Ex. 1 (Evans Cross-Reb.) at 15.

⁸⁴³ SWEPCO Ex. 10 (Seidel Dir.) at 1.

⁸⁴⁴ Tr. at 202.

⁸⁴⁵ TCGA Ex. 11, SWEPCO’s response to CARD RFI 4-53 at 47-48; Tr. at 202.

⁸⁴⁶ See Tr. at 207-08.

vegetation management expenses are for work more than 300 miles away done for a different group of customers.⁸⁴⁷

f. ALJs' Analysis

The ALJs agree with SWEPCO and Staff that an additional \$5 million for vegetation management is justified. The evidence shows that SWEPCO's service reliability is lacking and should improve through increased vegetation management. Without the requested increase, the evidence does not show that SWEPCO would otherwise be able to improve its service reliability scores. As recommended by Staff, the ALJs also agree that the additional \$5 million should be spent on distribution vegetation management on SWEPCO's targeted circuit list. Although OPUC, CARD, and TCGA are correct that the sample size of past cleared circuits is small, SWEPCO's experience with these circuits shows that well-targeted additional spending should produce improved reliability results.

The ALJs further agree with SWEPCO's and Staff's recommendation to open a compliance docket to examine SWEPCO's vegetation management practices and spending. Given SWEPCO's compliance history, further study is prudent, and the periodic reporting should assist the Commission in ensuring that SWEPCO is spending the additional funds as committed in this docket.

The ALJs, however, decline to require SWEPCO to implement a four-year trim cycle. A four-year trim cycle comes at significant cost. OPUC, CARD, and TCGA already raise reasonable concerns about whether additional spending is worthwhile. A compliance docket will allow the parties to gather additional information for a future decision, and, if needed in the meantime, Staff has other enforcement methods to address SWEPCO's service reliability.

⁸⁴⁷ TCGA Initial Brief at 12.

TCGA's concern—that vegetation management expenses are not attributable to its customer class so an adjustment to cotton gin rates is appropriate—is addressed below in the Cost Allocation section of this PFD.

6. Allocated Transmission Expenses Related to Retail Behind-the-Meter Generation

To serve its retail and wholesale customers, SWEPCO purchases Network Integration Transmission Service (NITS) from SPP for the use of SPP's transmission system.⁸⁴⁸ SPP charges for NITS pursuant to its FERC-approved OATT.⁸⁴⁹ SPP allocates the cost of using its transmission system to NITS customers (referred to as Network Customers in the OATT)⁸⁵⁰ based on the ratio of each customer's monthly "Network Load" to the total system load at the time of the monthly system peak.⁸⁵¹ To obtain the data necessary to make this allocation, SPP requires Network Customers, such as SWEPCO, to submit their monthly Network Load data to SPP.

In October 2018, SWEPCO changed how it reports its monthly Network Load to SPP by adding load served by retail behind-the-meter generation (BTMG).⁸⁵² In this context, BTMG refers to a generation unit that is behind the transmission system meter—*i.e.*, not directly connected to the bulk transmission system—and is intended to serve all or part of the capacity or energy needs for the load behind the meter without withdrawing energy from the SPP transmission system.⁸⁵³

⁸⁴⁸ SWEPCO Ex. 52 (Ross Reb.) at 4. SWEPCO has transferred functional control of its transmission facilities to SPP.

⁸⁴⁹ SWEPCO Ex. 52 (Ross Reb.) at 4.

⁸⁵⁰ SPP OATT at Part I, Section 1 "N – Definitions."

⁸⁵¹ SWEPCO Ex. 52 (Ross Reb.) at 5. The SPP OATT defines "Network Load" as "The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load." SWEPCO Ex. 51 (Locke Reb.) at 3.

⁸⁵² SWEPCO Initial Brief at 78; SWEPCO Ex. 52 (Ross Reb.) at 12.

⁸⁵³ SWEPCO Ex. 52 (Ross Reb.) at 7.

Retail BTMG (in contrast to wholesale BTMG) is on-site generation operated by a retail end-use customer to serve its own local load requirements.⁸⁵⁴ Retail BTMG may be large scale, such as an industrial customer with a cogeneration facility, or small scale, such as a residential rooftop solar facility.

Historically, for SPP transmission cost allocation purposes, SWEPCO had reported retail BTMG on a *net* basis, meaning that it excluded any portion of a retail customer's load served by its own BTMG.⁸⁵⁵ However, in October 2018, SWEPCO began reporting retail BTMG on a *gross* basis, so that it now includes the load served by retail BTMG in its calculation of Network Load. In other words, SWEPCO is reporting the load it serves, plus the load the retail customer supplies to itself with its BTMG. SWEPCO made this change after SPP provided educational information to its stakeholders clarifying that FERC policy and the SPP OATT do not exclude or "net" BTMG from the Network Load calculation.⁸⁵⁶

At this time, SWEPCO is only reporting the retail BTMG load of one customer, Eastman. Eastman operates an on-site cogeneration facility that generates approximately 150 MW of power to supply the full load requirements of Eastman's operations.⁸⁵⁷ However, during scheduled maintenance outages and forced/unscheduled outages when Eastman's generation is not operating, Eastman purchases standby electricity service from SWEPCO under SWEPCO's Supplementary, Backup, Maintenance and As-Available Power Service Tariff (SBMAA Tariff).⁸⁵⁸ Under this tariff, Eastman pays a reservation demand charge for standby power each month and a daily demand charge when it actually takes standby power from SWEPCO.⁸⁵⁹

⁸⁵⁴ Eastman Ex. 1 (Al-Jabir Dir.) at 5.

⁸⁵⁵ If the retail customer's BTMG was offline or not serving its full load requirement, the retail customer's actual load would have been included in Network Load if it occurred at a monthly peak.

⁸⁵⁶ SWEPCO Ex. 51 (Locke Reb.) at 23; SWEPCO Ex. 52 (Ross Reb.) at 11.

⁸⁵⁷ Eastman Ex. 1 (Al-Jabir Dir.) at 4, 11. Eastman purchased the cogeneration facility, a combined-cycle gas-fired turbine generator, from AEP in 2008 and has been a SWEPCO customer since then. Eastman Initial Brief at 5.

⁸⁵⁸ Eastman Ex. 1 (Al-Jabir Dir.) at 4, 12.

⁸⁵⁹ Eastman Ex. 1 (Al-Jabir Dir.) at 4.

During the test year, the Network Load that SWEPCO reported to SPP included 146 MW of load served by Eastman's BTMG.⁸⁶⁰ The higher reported Network Load resulted in SPP allocating a higher share of its transmission system costs to SWEPCO, which was reflected in SWEPCO's NITS charges in the test year. SWEPCO requests recovery of its test year NITS charges in this proceeding. The charges are part of SWEPCO's overall transmission costs, which SWEPCO allocates jurisdictionally among Texas, Arkansas, and Louisiana. SWEPCO estimates that including the retail BTMG load in its calculation of Network Load resulted in an increase of \$5.7 million to its Texas retail revenue requirement in the test year.⁸⁶¹ SWEPCO proposes to recover this additional cost, in part, through a new transmission charge that would apply solely to Eastman.⁸⁶² This charge would increase Eastman's annual cost by \$3.96 million as proposed in SWEPCO's application or \$3.27 million as revised in SWEPCO's rebuttal.⁸⁶³

Eastman and TIEC argue that SWEPCO should not have included retail BTMG load in its calculation of Network Load. Therefore, they recommend a disallowance of \$5.7 million from SWEPCO's requested revenue requirement.

a. Parties' Positions

To support their competing positions, SWEPCO, Eastman, and TIEC advance various arguments regarding: (1) the applicability of the filed rate doctrine and FERC jurisdiction; (2) the proper interpretation of the SPP OATT; (3) whether SWEPCO's treatment of retail BTMG violates protections for qualifying facilities (QFs) under the Public Utility Regulatory Policies Act of 1978 (PURPA);⁸⁶⁴ (4) whether Eastman's BTMG has imposed additional costs on SWEPCO's system;

⁸⁶⁰ TIEC Ex. 1 (Pollock Dir.) at 13.

⁸⁶¹ Eastman Ex. 7, SWEPCO's response to TIEC RFI 5-1.

⁸⁶² Tr. at 1262-63.

⁸⁶³ TIEC Ex. 77, Excerpt from RFP Schedule Q-7; TIEC Ex. 78, SWEPCO's response to Staff RFI 19-2, Attachment 1; Tr. at 1504-05.

⁸⁶⁴ QFs are small power production facilities and cogeneration facilities that are either self-certified or certified by FERC as QFs under PURPA. *See* 16 U.S.C. § 796(17)(C), (18)(A); 18 C.F.R. § 292.203. QFs receive certain benefits, such as the right to sell power to utilities and the right to purchase certain services from utilities. Eastman Ex. 1 (Al-Jabir Dir.) at 20 n.16. Small solar rooftop generators are also QFs. Tr. at 1162.

(5) whether SWEPCO's treatment of Eastman's BTMG is discriminatory; and (6) whether SWEPCO has met its burden of proof regarding the proposed \$5.7 million revenue-requirement increase.

i. Filed Rate Doctrine/FERC Jurisdiction

There is no dispute that the NITS charges included in SWEPCO's application were billed by SPP and paid by SWEPCO.⁸⁶⁵ According to SWEPCO, that fact alone is sufficient to establish their reasonableness under the filed rate doctrine, which requires that interstate power rates filed with FERC or fixed by FERC be given binding effect by the Commission when determining interstate rates.⁸⁶⁶ In support, SWEPCO cites Docket No. 42448, a SWEPCO TCRF case in which the Commission concluded that: "Under the filed rate doctrine, proof that the SPP charges included in the approved transmission charges were billed to and paid by SWEPCO pursuant to the SPP OATT demonstrates the reasonableness of the charges for retail ratemaking purposes *as a matter of law*."⁸⁶⁷

SWEPCO also claims TIEC and Eastman are seeking to circumvent FERC's exclusive jurisdiction. According to SWEPCO, the retail BTMG issue boils down to a dispute between SPP and both Eastman and TIEC over how to interpret the SPP OATT, a matter solely within FERC's jurisdiction to resolve.⁸⁶⁸ Under the Federal Power Act, FERC has exclusive jurisdiction over the wholesale sale or transmission of electricity in interstate commerce, and therefore, is the exclusive arbiter of disputes involving a tariff's interpretation.⁸⁶⁹ SWEPCO contends it is immaterial whether FERC has specifically been asked to decide the proper treatment of retail BTMG under the SPP

⁸⁶⁵ SWEPCO Initial Brief at 71.

⁸⁶⁶ *Entergy Louisiana, Inc. v. Louisiana Pub. Serv. Comm'n*, 539 U.S. 39, 47 (2003).

⁸⁶⁷ Docket No. 42448, Order at CoL No. 18 (Nov. 24, 2014) (emphasis added) (citing *Mississippi Power & Light Co. v. Mississippi ex rel. Moore*, 487 U.S. 354, 373 (1988)).

⁸⁶⁸ SWEPCO Initial Brief at 73-74.

⁸⁶⁹ *AEP Texas North Co. v. Texas Indus. Energy Consumers*, 473 F.3d 581, 585-86 (5th Cir. 2006) ("FERC, not the state, is the appropriate arbiter of any disputes involving a tariff's interpretation. Congress has given FERC exclusive jurisdiction to determine whether wholesale rates are just and reasonable."); *see also* 16 U.S.C. § 824(b).

OATT, as FERC jurisdiction does not turn on whether a particular matter was actually determined in a FERC proceeding.⁸⁷⁰ SWEPCO notes that Eastman witness Ali Al-Jabir and TIEC witness Jeffry Pollock agreed that FERC has exclusive jurisdiction to address violations of the SPP OATT.⁸⁷¹ SWEPCO further asserts that Eastman and TIEC may raise the issue at FERC if they choose to do so.⁸⁷²

Eastman responds that the filed rate doctrine does not apply here because Eastman is not disputing whether SPP applied the FERC-approved rate to calculate SWEPCO's NITS charges.⁸⁷³ Instead, the higher allocation of jurisdictional costs is due to SWEPCO's voluntary decision to change its interpretation of the SPP OATT and start reporting Eastman's BTMG load. If SWEPCO had not changed how it reports retail BTMG load, SPP would not have billed the additional costs SWEPCO now seeks to recover. Eastman also contends that SWEPCO's treatment is contrary to one of the principles underlying the filed rate doctrine, which is to prevent carriers from engaging in pricing discrimination between ratepayers.⁸⁷⁴ According to Eastman, SWEPCO's decision to report the retail BTMG load of only one customer in one jurisdiction actually results in price discrimination between ratepayers. Additionally, Eastman claims that SWEPCO's reliance on Docket No. 42448 is misplaced because it was a TCRF case designed to recover expenditures for transmission infrastructure improvement costs and changes in wholesale transmission charges.⁸⁷⁵

⁸⁷⁰ See *Entergy Louisiana, Inc.*, 539 U.S. at 50 ("It matters not whether FERC has spoken to the precise classification of ERS units, but only whether the FERC tariff dictates how and by whom that classification should be made.").

⁸⁷¹ Tr. at 621, 644.

⁸⁷² SWEPCO Initial Brief at 74; see also 16 U.S.C. §§ 824e, 825e; 18 C.F.R. § 385.206(a) ("Any person may file a complaint seeking Commission action against any other person alleged to be in contravention or violation of any statute, rule, order, or other law administered by the Commission, or for any other alleged wrong over which the Commission may have jurisdiction.").

⁸⁷³ Eastman Reply Brief at 7.

⁸⁷⁴ Eastman Reply Brief at 8 (citing *Keogh v. Chicago & N.W. Ry. Co.*, 260 U.S. 156, 163 (1922) ("[The filed rate doctrine] prevails, because otherwise the paramount purpose of Congress—prevention of unjust discrimination—might be defeated."); *Town of Norwood, Mass. v. New England Power Co.*, 202 F.3d 408, 419 (1st Cir. 2000) ("It is quite true that one rationale of the filed rate doctrine is to prevent discriminatory damage awards to different customers."); *Marcus v. AT&T Corp.*, 138 F.3d 46, 58 (2d Cir. 1998) (recognizing one of the principles underlying the filed rate doctrine as "preventing carriers from engaging in price discrimination as between ratepayers"))).

⁸⁷⁵ Eastman Reply Brief at 8-10.

In this case, however, SWEPCO did not identify any new construction of transmission facilities that drives the new allocation of costs from SPP.

Eastman further argues that its redress is with the Commission, not FERC.⁸⁷⁶ According to Eastman, there are at least three problems with SWEPCO suggesting FERC as the sole solution. First, it is questionable whether Eastman would have standing to file a complaint because it is not an SPP Network Customer as defined by the OATT. Second, SWEPCO has not addressed the Commission's jurisdiction to inquire whether a new SPP jurisdictional allocation of costs is includable in SWEPCO's revenue requirement under the facts of this case. And third, SWEPCO does not dispute that FERC's jurisdiction is exclusively wholesale, not retail. The Commission has sole authority to set SWEPCO's retail rates.

TIEC contends that the Commission precedent in Docket No. 42448 regarding the filed rate doctrine relates to amounts paid to SPP "pursuant to the SPP OATT," which does not apply here because, according to TIEC, SWEPCO's treatment of retail BTMG is inconsistent with the OATT.⁸⁷⁷ TIEC further contends that the other cases SWEPCO cites do not deprive the Commission of the ability to disallow payments that were not pursuant to the OATT. Specifically, in *Entergy Louisiana, Inc.*, the court stated that "we have no occasion to address the exclusivity of FERC's jurisdiction to determine whether and when a tariff has been violated;"⁸⁷⁸ thus, the court did not address the issue. *AEP Texas North Co.* is distinguishable in TIEC's view because the tariff at issue, a FERC-approved agreement, specifically authorized AEPSC to implement the agreement's cost-sharing terms. Therefore, when a state rejected AEPSC's determination, the state's decision was inconsistent with the tariff and preempted by federal law. Here, however, TIEC states that FERC has not designated SWEPCO as the sole, official arbiter of monthly Network Load calculations under the OATT, and SPP disclaims that it has any audit or enforcement responsibility.⁸⁷⁹

⁸⁷⁶ Eastman Reply Brief at 11-12.

⁸⁷⁷ TIEC Reply Brief at 33.

⁸⁷⁸ See *Entergy Louisiana, Inc.*, 539 U.S. at 51.

⁸⁷⁹ TIEC Reply Brief at 34.

Finally, as discussed below, TIEC contends the \$5.7 million revenue-requirement increase that SWEPCO identifies results from how SWEPCO allocated its transmission charges jurisdictionally.⁸⁸⁰ Thus, TIEC concludes the issue here is not a disallowance of SPP charges, but rather, the appropriateness of SWEPCO's jurisdictional allocation, a matter well within the Commission's jurisdiction to address.⁸⁸¹

ii. Interpretation of the SPP OATT

SWEPCO contends that the change in how it reports retail BTMG load was not the result of the Company's interpretation of the SPP OATT or a voluntary choice, despite Eastman's and TIEC's assertions otherwise.⁸⁸² Instead, SWEPCO was directed by SPP to change how it reports monthly Network Load.⁸⁸³ In support, SWEPCO offered the testimony of Charles Locke, SPP's Director of Transmission Policy and Rates, who testified that FERC policy under Order Nos. 888 and 890 requires generation, including BTMG that serves Network Load, to be included in the Network Customer's load ratio share of costs.⁸⁸⁴ According to Mr. Locke, the rules set forth in these FERC orders are implemented by SPP's OATT, which: (1) provides no exception to exclude or "net" BTMG from Network Load calculations; and (2) does not differentiate between retail and wholesale BTMG (thus, providing no basis to report the two differently).⁸⁸⁵ As a result, all Network Customers should be including loads served by BTMG in their monthly Network Load calculations.⁸⁸⁶

⁸⁸⁰ TIEC Reply Brief at 27-28.

⁸⁸¹ See *Entergy Texas, Inc. v. Nelson*, 889 F.3d 205, 209-10 (5th Cir. 2018).

⁸⁸² SWEPCO Ex. 52 (Ross Reb.) at 8.

⁸⁸³ SWEPCO Ex. 52 (Ross Reb.) at 10.

⁸⁸⁴ SWEPCO Ex. 51 (Locke Reb.) at 6; *Promoting Wholesale Competition Through Open Access Nondiscriminatory Transmission Services by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities*, Order No. 888, FERC Stats. & Regs. ¶ 31,036, 61 Fed. Reg. 21,540 (1996); see *Preventing Undue Discrimination and Preference in Transmission Service*, Order No. 890, FERC Stats. & Regs. ¶ 31,241, 72 Fed. Reg. 12,266, at P 1619 (2007).

⁸⁸⁵ SWEPCO Ex. 51 (Locke Reb.) at 5. Eastman's and TIEC's witnesses on this topic acknowledged that *wholesale* BTMG is reported on a gross basis, but each argued that retail BTMG should be reported on a net basis. Eastman Ex. 1 (Al-Jabir Dir.) at 6-7; TIEC Ex. 1 (Pollock Dir.) at 17.

⁸⁸⁶ SWEPCO Ex. 51 (Locke Reb.) at 5.

The calculation of monthly Network Load is specifically addressed in Section 34.4 of the SPP OATT, which provides that: “The Network Customer’s monthly Network Load is its hourly load (60 minutes, clock-hour); provided, however, the Network Customer’s monthly Network Load will be its hourly load coincident with the monthly peak of the zone where the Network Customer load is physically located.”⁸⁸⁷ Mr. Locke testified that this language requires SWEPCO to include in its monthly Network Load all electricity that a retail customer is providing to itself at the time of the zonal coincident peak.⁸⁸⁸ He maintained that there are no exceptions—the requirement applies to QFs under PURPA and small generators such as rooftop solar.⁸⁸⁹

According to SWEPCO, SPP has confirmed the directive to report retail BTMG loads in multiple presentations to SPP members.⁸⁹⁰ For example, in a March 2018 presentation regarding Network Load reporting, SPP asserted that “[f]or network service at a discrete delivery point, SPP understands FERC’s general policy as requiring all actual load to be reported,” and “[f]or a discrete delivery point under network service, SPP has identified no generally applicable exemptions for partial load served by: Behind-the-Meter Generation.”⁸⁹¹

Eastman and TIEC, however, disagree that there was an SPP directive for Network Customers to change how they report Network Load.⁸⁹² They note that, when asked to provide all instances in which SWEPCO was instructed to include retail BTMG load in Network Load, SWEPCO did not produce a single document.⁸⁹³ At the hearing, Mr. Locke could not identify a specific date when SPP determined that retail BTMG load must be included.⁸⁹⁴ Further, according to Eastman, the SPP presentations that SWEPCO relies on do not qualify as a directive, especially

⁸⁸⁷ SPP OATT at Part III, Section 34.4.

⁸⁸⁸ Tr. at 817.

⁸⁸⁹ Tr. at 817-18.

⁸⁹⁰ SWEPCO Ex. 52 (Ross Reb.) at 7 and Exh. CRR-1R at 19-20, 42.

⁸⁹¹ SWEPCO Ex. 52 (Ross Reb.), Exh. CRR-1R at 19-20.

⁸⁹² Eastman Initial Brief at 12-13; TIEC Reply Brief at 29-30.

⁸⁹³ See TIEC Exs. 66-68, SWEPCO’s responses to TIEC RFIs 14-1, 14-2, 14-3.

⁸⁹⁴ Tr. at 788.

when they note inconsistencies in the reporting practices of Network Customers and the “need for clarity.”⁸⁹⁵ Without a formal directive, Eastman claims SWEPCO’s decision to report Eastman’s BTMG load was voluntary.

The voluntariness of SWEPCO’s decision is further shown, according to Eastman, by the fact that the dispute within SPP and among its stakeholders on how to report retail BTMG is not settled.⁸⁹⁶ As support, Eastman lays out the chronology of events regarding the policy debate at SPP on the proper treatment of retail BTMG. In 2016 and 2017, SPP considered revisions to its business practices and OATT, respectively, (discussed in more detail below) that would have addressed retail BTMG, but neither proposal was adopted. SPP also conducted two surveys of its members regarding treatment of retail BTMG, one in 2017 to gain an understanding of the load reporting practices of Network Customers, and another in 2019 to gauge SPP stakeholder interest in changes to the Network Load reporting requirements.⁸⁹⁷ In the 2019 survey, a minority of Network Customers (11 of 44) were reporting retail BTMG load on a gross basis.⁸⁹⁸ In presentations in 2018 and 2019, SPP staff noted that Network Customers were not consistently reporting retail BTMG in their Network Load.⁸⁹⁹ And more recently, in a presentation dated January 11-12, 2021, SPP staff proposed to “develop a whitepaper containing proposed policies for proper treatment of behind-the-meter load and generation,” but such action was deferred until at least July 2021.⁹⁰⁰

Eastman further argues SWEPCO’s inclusion of retail BTMG load was voluntary because Mr. Locke admitted that SPP has no authority to audit Network Customers’ reports and has no enforcement responsibility.⁹⁰¹ According to Mr. Locke, SPP is obligated to accept the Network

⁸⁹⁵ See SWEPCO Ex. 52 (Ross Reb.), Exh. CRR-1R at 41.

⁸⁹⁶ Eastman Initial Brief at 13-15.

⁸⁹⁷ See SWEPCO Ex. 51 (Locke Reb.) at 22.

⁸⁹⁸ TIEC Ex. 36A, SWEPCO response to TIEC RFI 13-2, Attachment 2.

⁸⁹⁹ See SWEPCO Ex. 52 (Ross Reb.), Exh. CRR-1R at 31-33, 41.

⁹⁰⁰ See Eastman Ex. 2 (Al-Jabir Supp. Dir.) at 11-12; SWEPCO Ex. 52 (Ross Reb.), Exh. CRR-1R at 37.

⁹⁰¹ Eastman Initial Brief at 15 (citing Tr. at 771).

Load reports provided by its customers.⁹⁰² Given the lack of enforcement authority and inconsistency in how Network Customers were reporting retail BTMG loads, Eastman asserts SWEPCO should have declined to start including Eastman's BTMG load in its monthly reports.

In addition, both Eastman and TIEC contend SWEPCO's decision to change how it reports retail BTMG load was not required by the SPP OATT.⁹⁰³ The OATT's definition of monthly Network Load has not changed since its adoption more than 20 years ago.⁹⁰⁴ According to TIEC, adding retail BTMG load to SWEPCO's monthly Network Load is actually inconsistent with the plain language of the OATT.⁹⁰⁵ Specifically, Section 34.4 of the OATT requires a Network Customer to report *its* hourly load coincident with the zonal peak. Here, the Network Customer is SWEPCO, not the retail customer, so the OATT is referring to *SWEPCO's* hourly load, not the retail customer's load served by its BTMG. TIEC also notes that AEP, on behalf of SWEPCO and its affiliates, previously agreed that load served by retail BTMG did not meet the OATT's definition of Network Load.⁹⁰⁶ AEP explained, in response to SPP's 2019 survey, that the definition of Network Load includes "all load served by the output of any Network Resources designated by the Network Customer;"⁹⁰⁷ however, the Network Customer does not serve load supplied by a retail customer's BTMG (unless the BTMG is offline), and such load is not a Network Resource as defined by the OATT.⁹⁰⁸

As further support for their interpretation of the OATT, Eastman and TIEC point to two SPP "revision requests" that were not adopted.⁹⁰⁹ In 2016, the SPP Billing Determinants Task Force prepared a revision request to SPP's business practices to clarify that Network Load does

⁹⁰² Tr. at 774.

⁹⁰³ Eastman Initial Brief at 13; TIEC Initial Brief at 48-51.

⁹⁰⁴ See Tr. at 784.

⁹⁰⁵ TIEC Initial Brief at 50.

⁹⁰⁶ See TIEC Ex. 36B, AEP response to SPP 2019 survey.

⁹⁰⁷ SPP OATT at Part I, Section 1 "N – Definitions."

⁹⁰⁸ TIEC Ex. 36B, AEP response to SPP 2019 survey.

⁹⁰⁹ TIEC Initial Brief at 51-53; Eastman Reply Brief at 17. A revision request is an SPP process to amend certain SPP governing documents, including the OATT and SPP Business Practices. SWEPCO Ex. 51 (Locke Reb.) at 10 n.21.

not include the capacity of “a generator of an individual retail customer where the output of such generator is owned by the retail customer and is intended to be consumed by that retail customer,” *i.e.*, retail BTMG.⁹¹⁰ Because there was no corresponding proposal to change the OATT, TIEC contends this revision request reflected an assumption that the existing OATT language did not include retail BTMG in monthly Network Load. Otherwise, a revision to the OATT, not a business practice, would have been required.

The following year, SPP staff proposed Revision Request (RR) 241, which would have amended Section 34.4 of the OATT to, among other things, add the following language related to retail BTMG:

The output from a generation unit with a nameplate rating greater than 1.0 MW, or the sum of the output from generation units with a combined nameplate rating greater than 1.0 MW, located behind a retail end-use customer’s meter shall be included in the Network Customer’s determination of monthly Network Load.⁹¹¹

According to Eastman and TIEC, this language would have for the first time included retail BTMG load greater than 1.0 MW in the calculation of a Network Customer’s monthly Network Load. Adding this language would have been unnecessary if the calculation of monthly Network Load already included retail BTMG load. They assert the plain language does not support SWEPCO’s opposite interpretation that RR 241 would have excluded retail BTMG loads *less than* 1.0 MW. RR 241 was ultimately rejected,⁹¹² so in Eastman’s and TIEC’s view, the OATT continues to exclude all retail BTMG when calculating Network Load.

Eastman and TIEC also assert that SWEPCO’s interpretation of the OATT is contrary to a FERC decision addressing MISO’s tariff, which defines monthly network load virtually identically

⁹¹⁰ TIEC Ex. 45 at Bates 016.

⁹¹¹ TIEC Ex. 42 at Bates 005.

⁹¹² TIEC Ex. 42 at Bates 002.

to SPP's OATT.⁹¹³ When Entergy joined MISO approximately ten years ago, it brought with it a number of QFs under PURPA that generated their own electricity.⁹¹⁴ MISO adopted an "Integration Plan" that allowed Entergy's operating companies to report the *net* load of QFs in Entergy's service area when determining network load.⁹¹⁵ A QF challenged the Integration Plan with FERC, but FERC declined to order changes to the Integration Plan or require it to be included in MISO's tariff.⁹¹⁶ Therefore, according to Eastman and TIEC, FERC has determined that reporting a QF's *net* electricity is consistent with MISO's tariff.⁹¹⁷

Eastman also generally contends SWEPCO should have considered that other Regional Transmission Organizations (RTOs) and Independent System Operators (ISOs) do not require their network customers to include retail BTMG load in determining monthly network load.⁹¹⁸ While some of these entities, including PJM and the California Independent System Operator (CAISO), have gone to FERC for a specific ruling, Eastman and TIEC contend this fact is not dispositive in this case.⁹¹⁹ TIEC also notes that FERC's PJM decision was issued ten years before its decision in the MISO case discussed above, which TIEC concludes resolved any ambiguity that the existing language in the FERC OATT did not include retail BTMG load.⁹²⁰

SWEPCO responds to each of Eastman's and TIEC's arguments regarding the SPP OATT and whether retail BTMG load must be reported. As to whether there was an SPP "directive" to report retail BTMG load, SWEPCO asserts that the notion Mr. Locke, as SPP's Director of Transmission Policy and Rates, does not represent or speak on behalf of SPP is nonsense.⁹²¹

⁹¹³ See TIEC Ex. 1A (Pollock Dir. Workpapers) at 835 (excerpt from MISO tariff regarding "Determination of Network Customer's Monthly Network Load").

⁹¹⁴ Tr. at 1187.

⁹¹⁵ TIEC Ex. 1A (Pollock Dir. Workpapers) at 840.

⁹¹⁶ *Occidental Chem. Corp. v. Midwest Independent System Operator, Inc.*, 155 FERC ¶ 61,068 at P 76 (2016).

⁹¹⁷ Eastman Initial Brief at 17-18; TIEC Initial Brief at 53-54.

⁹¹⁸ Eastman Initial Brief at 17; *see also* Eastman Ex. 1 (Al-Jabir Dir.) at 19-22.

⁹¹⁹ Eastman Reply Brief at 16; TIEC Reply Brief at 31.

⁹²⁰ TIEC Reply Brief at 31.

⁹²¹ SWEPCO Reply Brief at 65.