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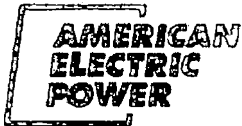

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Application of Appalachian Power Company For a 2020 Triennial Review of the Rates, Terms and Conditions for the Provision of Generation, Distribution and Transmission Services Pursuant to § 56-585.1 A of the Code of Virginia Case No. PUR-2020-00015

Dear Mr. Logan:

Please find attached for filing in the above-referenced case the *Post-hearing Brief of Appalachian Power Company.*

Sincerely,

Noelle J. Coates

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COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF APPALACHIAN POWER COMPANY For a 2020 Triennial Review of the Rates, Terms and Conditions for the Provision of Generation, Distribution and Transmission Services Pursuant to §56-585.1 A of the Code of Virginia	))))))))	CASE NO. PUR-2020-00015

BRIEF OF APPALACHIAN POWER COMPANY

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COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF APPALACHIAN POWER COMPANY	)))	CASE NO. PUR-2020-00015
For a 2020 Triennial Review of the Rates, Terms and Conditions for the Provision of Generation, Distribution and Transmission Services Pursuant to §56-585.1 A of the Code of Virginia	))))))	

BRIEF OF APPALACHIAN POWER COMPANY

Pursuant to the Order on Post-Hearing Briefs issued by the State Corporation Commission, and the directive of the Commission at the conclusion of the evidentiary hearing on the above-captioned proceeding, Appalachian Power Company ("Appalachian," "APCo," or the "Company") files this Brief. As required by the Order, the Brief addresses the issues of fact and law that the Company asks the Commission to consider and also includes a summary table that lists each discrete issue and finding that Appalachian requests.[1]

1. Introduction.

The purpose of this proceeding is to set Appalachian's base rates for the next three years, the upcoming triennial period. The purpose of setting rates is, as Staff witness Welsh testified, to "provide the Company with the opportunity to recover its cost of service...with a fair return as part of that."[2] The purpose of designing rates is not, as Mr. Welsh also explained, "to create a revenue deficiency."[3]

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[1] Attached to this Brief as Exhibit 1.

[2] Tr. 995.

[3] Tr. 995.

But that is exactly what the Staff recommends, and would be the result if the Commission accepts the following Staff recommendations:

- To un-do the Company's valid December 2019 decision to expense, per books for financial accounting purposes, the costs on Appalachian's accounting books related to the coal units that Appalachian retired in 2015 pursuant to an early retirement decision (the "Retired Units")[4] pursuant to Section 56-585.1 A 8 ("Subsection A8"), and instead recover the costs over an arbitrarily chosen ten-year period that keeps Appalachian's customers paying for the Retired Units far into the future.
- To retroactively implement depreciation rates effective after December 31, 2017, and then implement new rates retroactively again effective after December 31, 2019, without any corresponding rate increase.
- To authorize an anemic, and unprecedented, return on equity ("ROE") of 8.73%. A return that the Company will never have a reasonable opportunity of earning because, pursuant to Staff's own testimony, such an ROE will result in the Company needing, but prohibited from receiving, a rate increase of $17 million.
- To adopt the above and numerous other recommendations and adjustments, some of which run contrary to the evidence in the record, others of which are contrary to precedent, the law, or logic.

The sum result of the recommendations before the Commission would, if adopted, place the Company in an assured position of significant under-earnings over the next triennial period (2020, 2021, and 2022). Staff's own calculation is that the Company will earn only 7.73%, a full 100 basis points below the 8.73% that Staff is recommending in this proceeding.[5]

In other words, by its own testimony, Staff is asking the Commission to implement rates for Appalachian that Staff knows will create a significant revenue deficiency. This is not the purpose of setting rates; it is inexplicably punitive; it puts the financial health of the Company at risk, after years of working to establish a position of stability; and it places

[4] The coal-fired assets of Clinch River Units 1&2; Clinch River 3; Glen Lyn Units 5&6; Kanawha River Units 1&2; APCo's share of Philip Sporn. *See* Ex. 21 at 3.

[5] Tr. 1002.

Appalachian in the position to need a more substantial rate increase when it comes before the Commission in 2023 in the next triennial proceeding.[6]

Appalachian does not request a rate increase in this proceeding because it is greedy or insensitive to the financial stress that some of its customers face. Rather, it asks for a modest rate increase, one that is largely offset by a $40 million decrease in the fuel factor that will go into effect on an interim basis on November 1, 2020,[7] because its revenues will be insufficient to cover the cost of providing service and to earn a fair return.[8] Moreover, this request comes after a decade of relatively flat rates:[9] the total bill for a residential customer using 1,000 kWh a month was one penny cheaper at the end of 2019 than it was in 2010.[10] Appalachian's rates for all its customer classes are competitive and among the lowest in the nation, and will remain so if the Commission grants the necessary requested increase.[11]

Thus, as presented in the Application and at the hearing, and as set out in this Brief, the law and evidence before the Commission support the grant of a base rate increase that will allow the Company a reasonable opportunity to earn a fair return over the upcoming triennial period. On the other hand, the positions of Staff and the Attorney General would penalize the Company, be contrary to the plain and unambiguous statutory language, and effectively result in a taking under the Constitutions of the United States and Virginia.

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[6] Ex. 19 at 3.

[7] Ex. 116 at 2.

[8] Ex. 116 at 1.

[9] Ex. 116 at 2.

[10] Ex. 19 at 4.

[11] Ex. 19 at 4-5.

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2. Denying Appalachian an Appropriate Rate Increase Would Violate the Federal and State Constitutions.

On the facts of this case, any decision that denies Appalachian an appropriate revenue increase would result in a taking of private property for public use without just compensation, in violation of the Fifth Amendment and Fourteenth Amendment to the United States Constitution and Article I, § 11 of the Virginia Constitution.[12] The record in this proceeding confirms that over the upcoming triennial period, Appalachian's costs will exceed revenues by tens of millions of dollars. Without a corresponding increase in rates, the Company will assuredly be unable to recover its prudently incurred operating costs and earn a fair return on invested capital. Such an outcome would deprive the Company of its fundamental right to just compensation for the use of its private property for public purposes, as enshrined in the federal and state constitutions, and embodied in precedent.

The U.S. Supreme Court has long recognized that the Fifth Amendment's Takings Clause, applicable to the states through the Fourteenth Amendment, governs the authority of a state to fix the rates public utilities are allowed to charge for service. From the earliest cases, "[t]he guiding principle has been that the Constitution protects utilities from being limited to a charge for their property serving the public which is so 'unjust' as to be confiscatory."[13] The Court's landmark decisions in *Hope*[14] and *Bluefield*[15] establish that rates must be set high

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[12] U.S. Const. amend. V ("private property [shall not] be taken for public use, without just compensation"); Va. Const. art. I, § 11 ("private property shall [not] be damaged or taken for public use without just compensation to the owner thereof").

[13] *Duquesne Light Co. v. Barasch*, 488 U.S. 299, 307 (1989) (citing *Covington & Lexington Turnpike Road Co. v. Sandford*, 164 U.S. 578, 597 (1896); *FPC v. Nat. Gas Pipeline Co.*, 315 U.S. 575, 585 (1942); *FPC v. Texaco Inc.*, 417 U.S. 380, 391-92 (1974)).

[14] *Fed. Power Comm'n v. Hope Nat. Gas Co.*, 320 U.S. 591 (1944) ("*Hope*").

[15] *Bluefield Water Works & Improvement Co. v. Pub. Serv. Comm'n of W.Va.*, 262 U.S. 679 (1923) ("*Bluefield*").

enough to allow the utility to recover its prudent operating expenses and earn a rate of return that will maintain the utility's financial integrity, assure its ability to attract capital on reasonable terms, and provide investors earnings commensurate with the returns on other investments of comparable risk.[16] Rates that fail to meet these standards "are unjust, unreasonable and confiscatory, and their enforcement deprives the public utility company of its property in violation of the Fourteenth Amendment."[17] That is, "[i]f the rate does not afford sufficient compensation, the State has taken the use of utility property without paying just compensation and so violated the Fifth and Fourteenth Amendments."[18]

In Virginia, these principles have an equally strong footing. As the Virginia Supreme Court recognized nearly a century ago, a "public service corporation cannot be compelled to consume its property in public service, and thus be forced to submit to confiscation, appears to be perfectly well settled."[19] The Court has also warned of the "disastrous effect" of failing to allow public service companies "just and reasonable" compensation:

> Our social system rests largely upon the sanctity of private property, and that State or community which seeks to invade it will soon discover the error in the disaster which follows. The slight gain to the consumer, which he would obtain from a reduction in the rates charged by public service corporations, is as nothing compared with his share in the ruin which would be brought about by denying to private property its just reward, thus unsettling values and destroying confidence.[20]

In addition to the protections set out in the Virginia Constitution, the General Assembly has codified these principles in Section 56-8 of the Code, which declares that "no law shall be

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[16] *See Hope*, 320 U.S. at 603; *Bluefield*, 262 U.S. at 692-93.

[17] *Bluefield*, 262 U.S. at 690.

[18] *Duquesne Light*, 488 U.S. at 308.

[19] *City of Portsmouth v. Va. Ry. & Power Co.*, 141 Va. 44, 51 (1925).

[20] *Petersburg Gas Co. v. Petersburg*, 132 Va. 82, 92 (1922) (quoting *City of Knoxville v. Knoxville Water Co.*, 212 U.S. 1, 18 (1909)).

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passed for taking from a company its works or property without making to it just compensation."

Here, the record confirms that, absent a rate increase, Appalachian will have no chance of recovering its cost of service going forward. Based on its analysis in its Application, Appalachian calculated that base rates must increase by approximately $64.9 million to ensure that the Company has the opportunity to recover its costs and earn a fair return over the next triennial period. The evidence of record shows that APCo's earnings were 8.24% on common equity during the Earnings Test Period, which is the equivalent of $23.6 million in pre-tax earnings below 8.72%, the bottom of the authorized ROE band for the period. Pursuant to Section A8, the Company deferred that amount on its books and requested a regulatory asset for that amount to be recovered over three years. APCo's going-forward revenue requirement reflects an approximate $7.8 million increase in annual expense to recover that statutorily-created regulatory asset.[21]

Although it disagrees with that analysis, Staff concedes that a rate increase is indeed necessary. Staff's going-forward analysis is based upon an anemically low ROE of 8.73%, a return that is almost seventy basis points below Appalachian's currently authorized ROE, and wildly out of line with the returns awarded to other vertically-integrated utilities across the country this year.[22] Staff's analysis also includes several major adjustments that reduce the Company's costs (for the sole purpose of determining a regulatory return) substantially. And yet even with that significant downward pressure on the Company's cost of service, Staff still

[21] Ex. 27 at 8-10, 54.
[22] Ex. 116 at 6; Ex. 123 at 3.

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concludes that rates need to increase by $17 million per year.[23] "[A] $17 million increase," Staff witness Welsh testified, "is needed."[24]

The record also illustrates the confiscatory and punitive results that will occur if rates do not increase. For instance, Mr. Welsh acknowledged that if the Commission accepts Staff's position, Appalachian will earn a return of just 7.73% over the next triennial period.[25] In other words, even if the Commission adopts Staff's recommended ROE of 8.73%, which in this case is the lowest possible ROE that statutory law will allow, the Company's earned return will still be one hundred basis points short of the authorized return deemed fair by the Commission.[26] In fact, if the Commission were to accept all of Staff's proposals in this case, Appalachian's earned return in the upcoming triennial period will be even lower than 7.73%. As Mr. Castle explained, the results-oriented proposals advocated by Staff would yield a prospective return of less than 7.5%, such that the Company will be "virtually assured of earning below the band."[27] Outcomes such as these in which Appalachian has no possible chance of recovering its costs cannot be reconciled with the protections afforded by the federal and state Constitutions.

Despite acknowledging that a rate increase is necessary, Staff urges the Commission to find that no increase is possible. As Mr. Welsh explained in response to a question from the bench:

> Q: Staff, as I read it, acknowledges that the Company will underearn, but that – but that [the Commission's] hands are tied

[23] Tr. 929.

[24] Tr. 951.

[25] Tr. 1002.

[26] Tr. 1002.

[27] Ex. 133 at 4.

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> because of the way the statute is written. Is that correct? Is my understanding correct?
>
> A. Yeah, that's correct.[28]

In fact, Staff's conclusion that the Commission's "hands are tied" has a simple explanation: in evaluating Appalachian's earnings for 2017-2019, Staff itself chose to recommend certain adjustments that increase the Company's earned return to a level just above the Company's authorized return, just high enough, in other words, that it prevents the Commission from awarding a rate increase.[29] The record strongly suggests, if not confirms, that those proposals are deliberately engineered to block the Commission from granting a rate increase that Staff itself admits is necessary.[30]

Appalachian's witnesses, including the Company's President, testified at length about the harmful consequences that will occur if the Commission adopts certain recommendations of Staff and other parties or otherwise does not approve an appropriate rate increase. Their statements were unequivocal:

- "We will not have even a remote possibility of recovering our cost of service, which puts the health of the Company at risk."[31]
- "Simply put, there [will be] no way to earn the authorized return without a rate increase."[32]
- "[I]f the Commission adopts Staff's recommendations, the Company would under-earn by millions of dollars a year."[33]

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[28] Tr. 951.

[29] *See, e.g.*, Ex. 133 at 2, 4, 5, 6.

[30] *See, e.g.*, Ex. 133 at 2, 4, 5, 6.

[31] Ex. 116 at 3.

[32] Ex. 116 at 4.

[33] Ex. 116 at 4.

- "An 8.7[3]% ROE would be an outlier.... The Company would not even be in a position to earn that punitively low ROE."[34]
- "Their recommendations are extreme ... ROE values of 8.73% and 8.75% are below a reasonable range for APCo and fail to reflect the risk perceptions and return requirements of real-world investors in the capital markets."[35]
- "If the Commission adopts the Staff's proposals and recommendations, the Company can expect to earn less than 7.5% on equity. This is a punitive, unfair, and unwarranted result."[36]
- "The Commission cannot set rates that would have every reasonable expectation of the Company earning less than the fair return determined by the Commission itself."[37]
- "When rates are set, they are set to enable the Company to earn not less than its allowed return.... If any known or expected cost[s], including [costs associated with major storms and coal combustion residuals], are left out, the Company will earn less than its allowed return.... *In every single scenario* the Company will earn less than its allowed return."[38]
- "[The 8.73% ROE proposed by Staff] would make it very difficult to run this Company.... It would really make it difficult for us to attract capital for sure. And any capital that we would be able to attract no doubt in my mind would be more expensive."[39]
- "I think we will struggle."[40]

Neither Staff nor any party challenged this testimony or otherwise disputed that Appalachian will be unable to recover its cost of service if rates do not increase in this case. In fact, several of the case participants admitted (implicitly if not explicitly) that this confiscatory outcome will occur—but were content simply to chalk it up to a game of regulatory "winners and losers."[41] In their view, the idea that a utility can be poised to not

[34] Ex. 116 at 6.

[35] Ex. 123 at 2-3.

[36] Ex. 133 at 3.

[37] Ex. 133 at 14.

[38] Tr. 1229, 1230 (emphasis added).

[39] Tr. 1025-26.

[40] Tr. 1036.

[41] *See, e.g.*, Tr. 954-55; Tr. 54-55; Tr. 46; Tr. 34.

recover tens of millions of dollars per year in costs reasonably incurred to meet its obligations to its customers, and yet still receive no rate increase, is simply a reality of the biennial/triennial review framework created by the General Assembly.[42] Sometimes the utility might be the winner, other times it might be the loser. The problem with that nonchalant attitude is that Appalachian, a regulated utility required by law to use its property to serve the public, its customers, at rates set by the government, has a fundamental right to just compensation under the federal and state Constitutions. If a state action, including a law passed by the legislature, an order of the Commission, or a combination of the two, conflicts with a constitutional provision, the constitutional provision must prevail.[43] The Commission need not entangle itself in such a controversy.

Whether Virginia's regulatory framework is designed to create "winners and losers" might be open to debate, but one unrelenting rule is not: any rates that this Commonwealth prescribes for Appalachian must satisfy the requirements of the Constitution.[44] There is ample evidence in the record for the Commission to determine that Appalachian earned below

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[42] *See, e.g.*, Tr. 54-55 (counsel for Consumer Counsel: "While the Company has made much of its claim that [it could be] prevent[ed] from earning a fair rate of return ... this is merely a result of the strict outcomes required by Virginia law."); Tr. 46 (counsel for Environmental Respondent: "Now, some might argue, as APCo has, that it is unjust to prevent a utility from raising its rates when the analysis projects a revenue deficiency.... [but] that is exactly what the law requires."); Tr. 34 (counsel for VPLC: "I think the evidence is going to show that Appalachian's real problem in this case is with ... the statutory framework that applies to this case. The law simply dictates certain results depending on whether the Company's earnings are found to be above or below an authorized earnings band.").

[43] *See, e.g.*, *Commonwealth v. Owens-Corning Fiberglass Corp.*, 238 Va. 595, 600 (1989) ("Ours is a government whose powers are limited by the Constitution. Where statutory enactments and common-law rules come into conflict with constitutional principles, the latter must prevail.").

[44] *Duquesne Light*, 488 U.S. at 308 ("If the rate does not afford sufficient compensation, the State has taken the use of utility property without paying just compensation and so violated the Fifth and Fourteenth Amendments.").

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its authorized return during the Earnings Test Period and is thus eligible for a rate increase under the Code.

3. The Company's Impairment of the Retired Units Was Proper.

In recording the impairment related to the Retired Units against its earnings in the triennial review period at issue in this Application (the years 2017, 2018, and 2019, the "Earnings Test Period")), Appalachian properly exercised a right established by the plain and unambiguous statutory language of Subsection A8. Subsection A8 states that:

> In any triennial review proceeding, for the purposes of reviewing earnings on the utility's rates for generation and distribution services, the following utility generation and distribution costs not proposed for recovery under any other subdivision of this subsection, as recorded per books by the utility for financial reporting purposes and accrued against income, shall be attributed to the test periods under review and deemed fully recovered in the period recorded: ***costs associated with asset impairments related to early retirement determinations made by the utility for utility generation facilities fueled by coal,*** natural gas, or oil or for automated meter reading electric distribution service meters; costs associated with projects necessary to comply with state or federal environmental laws, regulations, or judicial or administrative orders relating to coal combustion by-product management that the utility does not petition to recover through a rate adjustment clause pursuant to subdivision 5 e; costs associated with severe weather events; and costs associated with natural disasters. (emphasis added)

Thus, in the Earnings Test Period, the costs associated with asset impairments related to early retirement determinations made by Appalachian for the Retired Units, as recorded per books by Appalachian for financial reporting purposes and accrued against income, "shall be attributed" to the Earnings Test Period and deemed fully recovered, as long as the costs are not proposed for recovery elsewhere pursuant to another provision, which they have not been. As a result, Appalachian's customers will pay, at most, a fraction of the remaining costs associated with those Retired Units. In contrast, in Staff's view, the costs would not qualify for treatment under Subsection A8, and instead, pursuant to the plan proposed by Staff, would

be recovered through a regulatory asset with a 10-year amortization period beginning in May 2015.[45] The Commission should not displace the Company's decision, which was consistent with the clear language of the Code, because doing so would be to the detriment of Appalachian's customers.

A. The Asset Impairment Complied with Accounting Principles.

Appalachian's recording of an impairment and the attribution of that impairment to the Earnings Test Period complied with Generally Accepted Accounting Principles ("GAAP"). Appalachian had maintained the costs on its books since the Units were retired, after the Commission denied its request in the 2014 Biennial Review to implement new depreciation rates related to the Retired Assets and recover the costs over a future period.[46] In 2015, Appalachian management evaluated the assets, determined that they should be retired early but should still be maintained on the books as the assets were probable of future recovery through rates, and thus there was no need to impair them at that time.[47] In the 2014 Biennial Review, for instance, no party indicated that any of the associated costs were imprudent or suggested any disallowance.[48]

Each quarter, the Company evaluates, as needed, whether any of the assets on the Company's books no longer meet the requirement of probability of recovery. If, "at any time," an asset no longer meets this requirement, then it "shall be charged to earnings," or

[45] Ex. 116 at 5.

[46] Tr. 200; Final Order at 40-41, *Application of Appalachian Power Company for a 2014 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia*, Case No. PUE-2014-00026 ("2014 Biennial Review"), Doc. Con. Cen. No. 141120290 (Nov. 26, 2014) ("2014 Biennial Order").

[47] Tr. 201-202.

[48] Tr. 202-203.

impaired, pursuant to FASB ASC 980-340-40-1.[49] After conducting such an evaluation in the last quarter of 2019, Appalachian management made the determination that the costs of the Retired Units were no longer probable of future recovery, pursuant to the guidance of FASB ASC 980.[50] The main factor driving that 2019 determination was a very significant change in circumstances: the enactment of the 2018 Grid Transformation and Security Act, which revised Subsection A8 to include asset impairments related to early retirement determinations of coal facilities such as the Retired Units.[51] Another factor was Staff's directive in 2018 that the Retired Units should be excluded from depreciation studies and dealt with in this proceeding.[52] Finally, by the end of 2019, the Company had a full picture of its earnings during the Earnings Test Period and saw that it could expense the $88 million in Virginia jurisdictional costs of the Retired Units against its 2017-2019 earnings, which keeps the costs of those Units in the past such that APCo's customers will not pay for the vast majority of them in future rates.[53]

The impairment was reported in the Company's Form 10K for the year ended December 31, 2019, which is on file with the Securities and Exchange Commission, as follows:

> Based on management's interpretation of Virginia law and more certainty regarding APCo's triennial revenues, expenses and resulting earnings upon reaching the end of the three-year review period, APCo recorded a pretax expense of $93 million related to its previously retired coal-fired generation assets in December 2019. This expense is included in Asset Impairments and Other Related Charges on the statements of income. As a

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[49] Ex. 132 at 10.

[50] Ex. 132 at 5, 8.

[51] Ex. 132 at 9-10.

[52] Ex. 133 at 5.

[53] Ex. 133 at 5.

> result, management deems these costs to be substantially recovered by APCo during the triennial review period.[54]

Significantly, the Company's independent auditors did not find the impairment to be incorrectly determined or unreasonable. APCo's external auditors reviewed the 2019 expensing of the Retired Units and issued an unqualified opinion on APCo's 2019 financial statements. In fact, APCo's external auditors issued unqualified opinions for each year from 2015 through 2019, which covers the period from the retirement of the Retired Units through the recording of the costs associated with asset impairments related to the remaining Virginia share of the Retired Units.[55]

B. The Asset Impairment Met All of Subsection A8's Criteria.

The Company's December 2019 expensing of the Virginia portion of the Retired Units also met all the statutory criteria set out in Subsection A8.

- APCo made an early retirement determination for the Retired Units in 2011 and the units were coal-fueled generating facilities. Staff agreed that the Company met this criteria.[56]
- The costs recorded were associated with an asset impairment related to such early retirement determination, as Appalachian's management no longer considered the costs of the Retired Units to be probable of future recovery as required by FASB ASC 980 due to the provisions of Subsection A8 that deemed APCo's earnings for the Earnings Test Period sufficient to have recovered such costs from APCo's customers through rates in effect during those years.
- The costs of the asset impairment related to the early retirement determinations were properly recorded for financial reporting purposes, as discussed above, and reflected in APCo's per books cost of service during the Earnings Test Period and accrued against income by the expensing of such amounts. Staff agrees that the Company met this requirement.[57]

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[54] Ex. 132 at 6; Tr. 199.

[55] These unqualified opinions on APCo's financial statements were issued by Deloitte and Touche LLP for the years ended 2015-2016 and PricewaterhouseCoopers LLP for the years ended 2017-2019. Ex. 132 at 6, Sched. 1; Tr. 199.

[56] *See, e.g.*, Ex. 100 at 14, 24.

[57] Tr. 1005.

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- The Company has not requested recovery of these costs related to the Retired Units under any other recovery mechanism.[58] Staff agrees that the Company met this requirement.[59]

Subsection A8 does not define what an asset impairment is or require any specific criteria be met in order to reflect an asset impairment.[60] Nor is there a requirement in Subsection A8 or elsewhere in the Code that Appalachian seek approval from the Commission to exercise this statutory right. As the Commission stated when it reviewed Dominion Energy Virginia's ("Dominion's") exercise of this right as part of its 2011 and 2012 earnings test, Subsection A8 "*requires approval of these costs* 'as recorded per books by the utility for financial reporting purposes and accrued against income.'"[61]

The Commission again affirmed the absolutely clear language of Subsection A8. In its Final Order in Dominion's 2018 Integrated Resource Plan proceeding, the Commission stated as follows: "Closing [coal-fired generating] plants early allows Dominion to write them off against overearnings in the upcoming triennial review."[62] Staff explicitly agreed: "If the Company takes such a write-off on its books, [Subsection A8] requires that, for purposes of reviewing Dominion's earnings in triennial reviews, the cost of asset impairments related to early retirement determinations made by the Company for generation facilities fueled by coal ... are deemed fully recovered in the test period in which they were recorded per books by the

[58] Ex. 132 at 8.

[59] Tr. 1005.

[60] Ex. 132 at 11.

[61] Final Order at 3-4, *Application of Virginia Electric and Power Company For a 2013 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585 .1 A of the Code of Virginia*, Case No. PUE-2013-00020, Doc. Con. Cen. No. 131130148 (Nov. 26, 2013) (emphasis added).

[62] Final Order at 9, *Commonwealth of Va., ex rel. State Corp. Comm'n, In Re: Virginia Electric and Power Company's Integrated Resource Plan Filing Pursuant to Va. Code § 56-597, et seq.*, Case No. PUR-2018-00065, Doc. Con. Cen. No. 190640049 (June 27, 2019).

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Company for financial reporting purposes. ... [S]uch a write-off will serve to reduce the Company's earnings in the first triennial review."[63]

Had the General Assembly intended to grant the Commission the authority to overturn a utility's exercise of this right, "it could have done so expressly. It did not."[64]

i. *Early versus a Normal Retirement*

Staff seems to suggest that the Company did not consider the retirements of the Retired Units to be "early."[65] The significance of Staff's suggestion is unclear, as Staff's own testimony demonstrates that the Company retired the Units years earlier than initially planned.[66] As Company witness Cash explains, when Appalachian refers to "normal" retirements, it is referring to the accounting treatment of the Retired Units when they were retired.

> that is, the Company followed FERC Electric Plant Instruction 10 by crediting plant in-service and debiting accumulated depreciation when the plants were retired from service, leaving any undepreciated balance in accumulated depreciation.[67]

In contrast, when the Company speaks of "early" retirements, the Company is referring to the change in the retirement dates of the Retired Units due to the MATS rules,

[63] Prefiled Testimony of Carol B. Myers at 4, *Commonwealth of Virginia, ex rel. State Corporation Commission, In re: Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Case No. PUR-2018-00065 (Apr. 18, 2019).

[64] *Commonwealth of Virginia v. Washington Gas Light Co.*, 221 Va. 315, 323 (1980). *See also Appalachian Power Company v. Walker*, 214 Va. 524, 528 (1974) ("We have said repeatedly that the Commission has no inherent power simply because it was created by the Virginia Constitution; and therefore its jurisdiction must be found either in constitutional grants or in statutes which do not contravene that document.") (citations omitted).

[65] Tr. 1003, 1004; Ex. 100 at 20, 23.

[66] Ex. 100 at 14.

[67] Tr. 1090.

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which forced the Company to retire these coal facilities earlier than was previously expected.[68]

C. Staff and the Attorney General Improperly Add Words to the Statute.

Both Staff and the Attorney General urge the Commission to ignore the Company's proper exercise of its statutory rights under Subsection A8 and both justify their recommendations by urging the Commission to add language into the Code, which is well-established to be improper.[69]

i. *Staff's Improper Addition of a Causation Condition.*

Staff justifies its determination that the costs of the Retired Units that the Company expensed in 2019 "are not associated with an asset impairment related to an early retirement determination,"[70] because, Staff asserts, the asset impairment was not "due to" the early retirement determination of the Retired Units.[71] That is, according to Staff's interpretation of Subsection A8, the asset impairment must have happened simultaneously with the early retirement determination in 2011 in order for the costs to be subject to the Subsection A8 regulatory treatment.[72] But this has no basis in the statutory language. Despite Staff's continued use of the term "due to" in testimony in discussing Subsection A8, that Code section does not contain that phrase. It states plainly: "costs associated with asset impairments *related to* early retirement determinations made by the utility for utility generation facilities fueled by coal." (emphasis added)

[68] Tr. 1090.

[69] *Appalachian Power Co. v. State Corp. Comm'n*, 284 Va. 695, 707 (2012), citing *BBF, Inc. v. Alstom Power, Inc.*, 274 Va. 326, 331 (2007) ("*Appalachian Power*").

[70] Ex. 100 at 12.

[71] Ex. 100 at 19, 20.

[72] Tr. 1005-1006.

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As Mr. Welsh explained when questioned on Staff's use of the term "due to," "[w]e don't see much daylight between related to and due to."[73] But "Due to" and "related to" do not have identical meanings. "Due to" is defined "as a result of" or "because of."[74] It suggests causation. In contrast, "related to" is broader and suggests a relationship.[75] In considering an argument regarding the clauses "arising out" and "related to," the Virginia Supreme Court concluded that "an arbitration clause covering claims 'relating to' a contract is broader than a clause covering claims 'arising out of' a contract."[76] That is, there is a difference between disputes that are caused by a contract and those that are related to the contract.[77]

The U.S. Supreme Court has also interpreted the term "related to" broadly. *In Celotex Corp. v. Edwards,* the Court held that Congress's jurisdictional grant to bankruptcy courts to hear proceedings "related to" a bankruptcy case "suggests a grant of some breadth" and includes suits between third parties that have an effect on the bankruptcy estate.[78] In *Morales v. Trans World Airlines, Inc.,* the Court concluded that the provision of the Airline Deregulation Act, which preempted laws "relating to rates, routes, or services" of any air carrier should be broadly construed.[79] In *Shaw v. Delta Air Lines, Inc.*, the Court held that a state law that "relates to" an employee benefit plan is therefore preempted by ERISA "if it has

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[73] Tr. 1005-1006.

[74] *See, e.g.*, https://www.merriam-webster.com/dictionary/ (last visited Oct. 15, 2020).

[75] *See, e.g.*, https://www.merriam-webster.com/dictionary/ (last visited Oct. 15, 2020).

[76] *McMullin v. Union Land & Management Co.*, 242 Va. 337, 341 (1991) (citation omitted).

[77] *Id., Brush Arbor Home Construction, LLC v. Alexander*, 297 Va. 151, 155 (2019).

[78] 514 U.S. 300, 307–08 (1995).

[79] 504 U.S. 374, 383–84 (1992).

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a connection with, or reference to, such a plan."[80] Finally, Black's Law Dictionary also defines "relate" far more broadly than Staff: "Connected in some way; having relationship to or with something else."[81]

Thus, Staff's conclusion that "related to" is the equivalent to "due to" is restrictive in a way that is out of step with general jurisprudence, as well as with the intention of the General Assembly set out in the plain and unambiguous statutory text of Subsection A8. And there is no question that the asset impairment was related to, or connected to, the Company's early retirement of the Units, as the $93 million expense recorded on the books in December 2019 was comprised of the remaining Virginia portion of the net book value of the Retired Units, plus related asset retirement obligation costs and materials and supplies. Staff's interpretation therefore "effectively adds a ... condition to the statute," which the Virginia Supreme Court has found to be improper.[82] The Commission should not adopt Staff's interpretation.

ii. *The Attorney General's Improper Addition of a Temporal Condition*

The Attorney General also urges the Commission to add language to Subsection A8, a requirement that the retired units be retired during the earnings test period at issue in order to qualify for treatment under the statute.[83] The Attorney General can point to no language in the statute that supports its theory, as there is none. As it is well-established that the Commission cannot add language to the statute,[84] the Commission should decline to adopt this recommendation.

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[80] 463 U.S. 85, 96–97 (1983).

[81] Black's Law Dictionary (11th ed. 2019).

[82] *Appalachian Power*, 284 Va. at 707.

[83] Ex. 70 at 16, 18.

[84] *Appalachian Power*, 284 Va. at 707.

Importantly, the Attorney General's position (and that of Staff) does not comply with GAAP, which do not preclude the recording of an asset impairment subsequent to an early retirement decision or after the actual retirement. FASB ASC 980-340-40-1 provides that "If at any time an entity's incurred cost no longer meets the criteria for the capitalization of an incurred cost, that cost shall be charged to earnings." Thus, a utility can impair an asset at any time due to (1) a change in its assessment of the probability of cost recovery or (2) actions of the regulator.[85] The positions of the Attorney General and Staff ignore the need to reflect changes in circumstances that is built into the accounting standards that govern the Company's accounting decisions, such as the one made when it decided to impair the Retired Units.

D. Staff's proposed amortization period is arbitrary and capricious.

Staff proposed a ten-year period over which to recover the costs of the Retired Units. This chosen length is not based on any precedent, as Staff admits,[86] or fact. Rather, Staff states that it is the result of "judgment,"[87] and is a "reasonable recovery period that is not overly burdensome to ratepayers while also minimizing the inter-generational inequity created by a longer recovery period," noting that, in 2014, Appalachian and Staff agreed to a ten-year recovery period for recovery of the Clinch River assets, which comprise some but not all of the Retired Units.[88] Other than this, Staff offers no evidence, concrete reason or clarity for the selection of a ten-year amortization period. In fact, the length seems to have been engineered to keep the Company in the upper portion of the earnings band established by Section 56-

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[85] Ex. 132 at 10.

[86] Tr. 1009-1010.

[87] Tr. 968, 1010.

[88] Ex. 100 at 27, n.31.

585.1, from 9.42% to 10.12%,[89] so that, by statute, the Commission cannot grant the Company an increase in rates.[90] Even if the Commission disagrees that the impairments meet the criteria of Subsection A8, the Commission should not adopt Staff's proposal for amortizing the costs.

First, the ten year period is, in fact, burdensome to ratepayers and in no way reduces inter-generational inequity, especially when compared to the statutorily-provided treatment of the Retired Units. Under Staff's proposal, the Company's customers will be responsible for $9 million a year,[91] related to units that stopped providing service to those customers in 2015, from 2021 through 2025, and customers will undoubtedly be faced with increased base rates in 2024.[92] In contrast, under the Company's exercise of its statutory right, in which the Company used its 2017-2019 earnings to expense and recover the costs associated with the Retired Units through existing base rates, Appalachian's customers will pay only a fraction of the associated costs in the coming years.[93]

Second, Staff witness Welsh testified that he could have chosen a shorter period. It is, he stated, "mathematically possible"[94] to calculate a shorter amortization period that would result in different earnings results for the Earnings Test Period, including a three year period that would put Appalachian's earnings in the lower portion of the band (8.72%-9.42%) such that the Commission could authorize a revenue increase.[95] A shorter period would be similar

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[89] *See, e.g.*, Ex. 102.

[90] Ex. 133 at 5.

[91] Ex. 100 at 27.

[92] Ex. 116 at 5; Tr. 1010.

[93] Ex. 116 at 5.

[94] Tr. 968.

[95] Tr. 1009; Ex. 115.

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to Staff's primary position in the 2014 Biennial Review, which was the depreciation of the assets over an 18-month time period.[96]

If the Commission determines that the impairment recorded by the Company and included in the earnings test does not meet the criteria set out in Subsection A8, the Commission should select a shorter amortization period that places the Company below its allowed return in the lower portion of the band, which would allow the Commission to grant some level of increase in rates to eliminate the revenue deficiency that Staff calculates.[97] Moreover, with a shorter amortization period, such as the three year period from 2017-2019 set out in Exhibit 115, Appalachian's customers would pay significantly less for the Retired Units than they would if Staff's proposed ten-year period is adopted.[98]

E. Staff and the Attorney General improperly reach back to 2015 and 2016.

Staff's proposed ten year amortization period to recover the costs of the Retired Units is also improper as it begins in May 2015,[99] and thus imputes seven months of amortization costs to Appalachian in 2015 and all of 2016, which is explicitly prohibited by Virginia Code Section 56-585.1:1. This section established a transitional rate period for Appalachian from January 1, 2014 through December 31, 2016. During this period, the subsection A of this section states:

> No biennial reviews of the rates, terms, and conditions for any service of [Appalachian] shall be conducted at any time by the Commission for the three successive 12-month test periods beginning January 1, 2014, and ending December 31, 2016. ... no adjustment to an investor-owned incumbent electric utility's existing tariff rates...:shall be made between the beginning of the Transitional Rate Period and the conclusion of the first review after the

[96] Tr. 203.

[97] Ex. 133 at 6.

[98] Tr. 968-969.

[99] Ex. 100 at 24.

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> conclusion of the Transitional Rate Period, except as may be provided pursuant to § 56-245 or 56-249.6 or subdivisions A 4, 5, or 6 of § 56-585.1.

Thus, in enacting Section 56-585.1:1, the General Assembly chose to freeze Appalachian's base rates in 2015 and 2016, leaving untouched the base rates in place and expenses incurred during those years, a decision that the Virginia Supreme Court upheld as constitutional.[100]

But Staff's proposal pretends to unfreeze those rates, as it imputes amortization costs related to the Retired Units back to 2015 and 2016. This effectively adjusts Appalachian's base rates retroactively during this time period, which is not permitted by the Code. As the Court has held, the Commission's "regulatory jurisdiction is not plenary. ... The [SCC] is the creation of the Constitution and has no inherent power. All of its jurisdiction is [either] conferred ... by the Constitution or is derived from statutes which do not contravene the Constitution. The SCC must adhere to statutory language..."[101] The Commission therefore cannot adopt the ten-year proposed amortization period because, by effectively adjusting Appalachian's rates during 2015 and 2016, the proposal does not adhere to the language of Section 56-585.1:1.

The Attorney General similarly and improperly attempts to re-write the past. In the hearing, counsel for the Attorney General argued that an order issued by the Commission in September 2016 to close a proceeding initiated in 2015 placed the Company "on notice."[102] It was not clear of what the Company should have been on notice that is relevant to this Application. The purpose of the 2015 proceeding is stated clearly in its case caption: "in the

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[100] *Old Dominion Comm. for Fair Util. Rates v. State Corp. Comm'n*, 294 Va. 168, 181 (2017).

[101] *Level 3 Commc'ns. v. State Corp. Comm'n*, 282 Va. 41, 47 (2011) (internal citations omitted).

[102] Tr. 687.

matter of determining the proper treatment of regulatory assets authorized for Appalachian Power Company." The Commission has never authorized any regulatory assets related to the Retired Units, and specifically declined to adopt such a treatment, as urged by Staff in the 2014 Biennial Review.[103] This Order is therefore wholly inapplicable to the Application.

4. The Commission Should Include CCR and Major Storm Costs in the Revenue Requirement.

Staff,[104] the Attorney General,[105] and the Old Dominion Committee for Fair Utility Rates ("ODCFUR")[106] each argue that the Commission should assume that major storm and/or coal combustion residual ("CCR") costs should be zero for ratemaking purposes. The Commission should not adopt these recommendations, because doing so will deprive Appalachian of any realistic chance of recovering its costs and a fair return during the upcoming triennial period.

The witnesses base their recommendation on the 2014 Biennial Order. There, the Commission ruled that "under the current statutory framework for biennial reviews, it is no longer appropriate to include an estimated cost for future major storm damage in operating expenses for prospective ratemaking."[107] As Staff witness Welsh explains, Staff also removed CCR expense from its going-forward analysis as CCR costs are "subject to the same regulatory treatment as severe weather events" under Subsection A8 and thus should be excluded from the going-forward cost of service.[108]

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[103] 2014 Biennial Order at 40-42; Ex. 74 at 67, Ex. 111 at 28-29.

[104] Ex. 100 at 31-32.

[105] Ex. 70 at 39-40.

[106] Ex. 48 at 22-26.

[107] 2014 Biennial Order at 41-42.

[108] Ex. 100 at 32.

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The Company's request to include a reasonable estimate of its major storm and CCR costs in its cost of service for the upcoming triennial period does not violate the Commission's holding in the 2014 Biennial Order, because the current statutory framework is different. In that year, the Code prevented the Commission from changing Appalachian's rates and required the Company to return for a biennial review of its rates in 2016. Currently, the law allows the Commission to change the Company's rates. Excluding a reasonable level of major storm and CCR costs from the revenue requirement simply "places an immediate handicap on the Company's ability to fully recover its costs."[109]

It is undisputed that these are legitimate and likely, if not guaranteed, costs that Appalachian will incur in the upcoming triennial period.[110] No party disputes, or could dispute, that they are a necessary part of providing service. As Mr. Beam, who began his tenure as Appalachian's President at the beginning of the Earnings Test Period, and encountered his first major storm within his first month on the job, testified, "major storms are a consistent part of our business year over year."[111] Rate Case Schedule 32 sets out the frequency and cause of major storms during the Earnings Test Period, and the costs Appalachian incurred as a result. In 2018, for example, there were 11 major storm events caused by wind storms, thunder storms, snow storms, ice storms, and hurricanes.[112] Appalachian spent $28.2 million in O&M expenses as a result of these storms to repair the damage to its equipment (failed poles, cross arms, conductors and insulators) in order to

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[109] Ex. 133 at 14.

[110] Tr. 998.

[111] Tr. 1027.

[112] Ex. 1, Sched. 32.

restore service to its customers.[113] Thus, the evidence in the record demonstrates that the Company experienced major storms, and major storm-related costs in each year of the Earnings Test Period despite Staff's testimony that major storm costs are not guaranteed.[114]

And the evidence before the Commission shows how significant major storms are for the territory that Appalachian serves. As Staff witness Joshipura testified, Appalachian's territory is "a particularly challenging terrain, which can lead to longer restoration times especially during storm-related outages."[115] Similarly, the evidence in the record shows that Appalachian spent over $33 million in the Earnings Test Period related to CCR.[116]

Despite the evidence, Staff supports its position to exclude $12.2 million in CCR expense and $8.8 million in major storm expense from the annual revenue requirement[117] because they "are afforded special regulatory recovery treatment under" Subsection A8. As Staff witness Welsh explained on the stand: "the law already provides for the opportunity to recover the costs, either because overall rates are sufficient to recover the costs, earnings are insufficient and the Company is granted regulatory asset treatment."[118]

Mr. Welsh's testimony lays bare the fundamental flaw with Staff's logic. Pursuant to Staff's proposal, which does not include a change in revenues, the Company will have a revenue deficiency and will not have sufficient earnings during the upcoming triennial period to recover its costs. This is true, even if all things being equal, major storm and CCR costs are

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[113] *Id.*

[114] Tr. 998.

[115] Ex. 17 at 9.

[116] Ex. 100/C at 29.

[117] Ex. 100/C at 30.

[118] Tr. 953.

zero for three years straight.[119] Thus, the special regulatory treatment that Staff cites will assuredly apply if rates are not increased in this proceeding. And, in the next triennial review, when returns are calculated to be well below the bottom of the earnings band, the special regulatory treatment will allow the Company to establish a regulatory asset. The regulatory asset under special treatment will be only for those costs that result in a return below the earnings band.[120] In this way, the Company will then recover a portion of the major storm and CCR costs it incurred in years 2020, 2021, and 2022 from its customers starting in year 2024 and onward. But this will only be a portion of this costs. Instead of forcing this convoluted and limited recovery of these necessary and prudent costs, the Commission can minimize the likelihood of this scenario by granting the Company an increase in this proceeding that includes a reasonable estimate of these "known and expected" major storm and CCR costs in the revenue requirement.

If major storm and CCR costs are excluded, the Company will not have a reasonable chance to recover its costs and earn "not less than its allowed return," when rates should be designed to achieve the opposite result.[121] The Commission should therefore decline to adopt the recommendations by Staff, the Attorney General, and the Committee to exclude these costs from the revenue requirement.

5. The Only Depreciation Rates that Should be Implemented Are Those in the Company's Corrected 2019 Depreciation Study as of the Effective Date of the Rates Approved in this Case.

The Commission should adopt the depreciation rates contained in the Company's 2019 depreciation study ("2019 Study"), as modified by Company witness Cash to reflect the

[119] Ex. 21 at 11.

[120] Tr. 1229-1230.

[121] Tr. 1229.

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correct retirement dates and depreciation rates for certain of APCo's hydro-electric (hydro) generating units,[122] as of the effective date of the Company's going-forward rates.[123] This approach not only is consistent with applicable Commission precedent, it also is supported by the evidence.

The Commission's directives regarding depreciation in the Company's most recent statutorily-required rate review are unambiguous. After reviewing a variety of proposals,[124] the Commission stated as follows:

> ... we find that depreciation rates should not be changed at this time. Rather, the Commission will revisit this issue as part of APCo's next biennial review .... We conclude that it is reasonable to review depreciation rates *at that time*.[125]

In his written testimony, Staff witness Welsh confirmed that this triennial review is the "successor review" to the biennial review mentioned in the Commission's Order, and that legislative changes removed any regulatory review by the Commission for the years 2014-2016.[126]

A. The 2017 Depreciation Study—Staff's first recommendation.[127]

When the Company received the Staff's October 2, 2017 letter requesting that APCo provide Staff with a depreciation study based upon plant balances as of December 31, 2017,[128]

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[122] Ex. 121 at 7, Rebuttal Scheds. 1-3.

[123] Ex. 133 at 9.

[124] Those proposals included depreciating the remaining undepreciated balances associated with the soon-to-be Retired Units and Amos Plant through 2040; or depreciating the soon-to-be Retired Units over approximately 18 months and all three units at the Amos Plant through 2032/2033; or establishing a regulatory asset for the Retired Units and amortizing that asset over no more than five years without any return on the asset. Ex. 74 at 65-67; Ex. 111 at 21-23 and 27-29.

[125] 2014 Biennial Order at 41 (emphasis added).

[126] Ex. 100/C at 40.

[127] Ex. 100/C at 45.

[128] Ex. 109.

the Company wondered what could be more of a "valid reason"[129] for not performing a depreciation study prior to this current case than the Commission's rulings on depreciation in the 2014 Biennial Order.[130] Still, recognizing the Commission's finding that Virginia law gives it and Staff "broad latitude to request information from public utilities,"[131] the Company prepared and submitted the requested depreciation study ("2017 Study") to Staff on June 1, 2018. APCo did not request any change to its depreciation rates. The Company's 2017 Study, which showed an additional annual depreciation accrual of approximately $26.8 million on a total Company basis (not a Virginia jurisdictional basis), included rates to depreciate the undepreciated balances of the Retired Units over the remaining lives of the Company's Amos and Mountaineer generating units, with 2040 as the estimated retirement date for both plants, as well as an increase in distribution plant depreciation rates due primarily to a shortening of the average service lives of the Company's meters from 25 to 15 years.[132] In its November 14, 2018 letter to APCo, Staff accepted the transmission, distribution and general plant depreciation rates contained in the 2017 Study; adjusted that study's interim generation retirements; and removed the Retired Units entirely from the Study, recommending that APCo address its proposed accounting and ratemaking treatment of the Retired Units in the Company's next triennial review (*i.e.* this case). Staff also requested that

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[129] In Ex. 106 (the Washington Gas & Light Final Order in Case No. PUE-2002-00364 at 23), the Commission directed as follows:

> We further expect [WGL] and other utilities to file depreciation studies at least every five years, *unless they are able to demonstrate a valid reason for not so doing.* We direct staff to monitor this expectation, in order to avoid the disturbances that can result from the failure to conduct timely depreciation studies. In addition, Staff should examine any reserve imbalance during the course of its review of these depreciation studies. (emphasis added).

[130] Ex. 133 at 8.

[131] Ex. 114.

[132] Ex. 100/C at 34-35.

APCo inform Staff of any material changes in the lifespan of the Company's generation units and recommended that the depreciation rates contained in the 2017 Study, as revised by Staff ("Staff's Revised 2017 Study") be implemented as of December 31, 2017.[133]

Notably, Staff's November 14, 2018 letter makes no mention of the Commission's depreciation rulings in the 2014 Biennial Order, or the creation of a regulatory asset for the Retired Units, or the existence of large or concerning depreciation reserve imbalances that were developing as a result of the Company's adherence to the 2014 Biennial Order. Consequently, given the factual situation at the time, Staff's recommendation that APCo implement Staff's Revised 2017 Study on December 31, 2017 is distinguishable from that in the Washington Gas & Light ("WGL") case, upon which Staff relies as precedent in this proceeding. In that case, "an enormous depreciation reserve imbalance" was found to exist because WGL, of its own volition, had not conducted a depreciation study in more than 20 years.[134] In addition, as recognized by Judge Jagdmann during the hearing,[135] the regulatory regime currently in place in Virginia (*i.e.* triennial reviews) is vastly different than the one in place in 2003/2004, when the Commission found in the WGL case that "[c]ompanies are free to schedule their depreciation studies and rate cases so that the impact of depreciation changes can be coordinated with rate changes."[136]

In its December 18, 2018 letter responding to the Staff's recommendation that APCo implement the jurisdictional depreciation rates attached to Staff's November 14, 2018 letter, the Company informed Staff that it would be inappropriate to do so, citing the 2014 Biennial

[133] Ex. 100/C at 35; Ex. 100/C, Appendix B at 1-2.

[134] Ex. 106 at 19-20; Ex. 107 at 2-5.

[135] Tr. 944-945.

[136] Ex. 106 at 25; Ex. 107 at 8.

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Order, and the Commission's Order in the Company's 2011 Biennial Review,[137] which held that new depreciation rates should be implemented as of the date of approved electric rates. The Company also pointed out that APCo had not had an opportunity to contest the Staff's proposed changes to the 2017 Study. Importantly, APCo's letter indicated it was available to discuss the matter with Staff at its convenience. Staff did not contact the Company, or respond in any way to the Company's letter. Nor did Staff ask the Commission to initiate a proceeding to adjudicate any of the legal and factual issues related to Staff's recommendations, which had been raised by the Company.[138]

On cross-examination, Staff witness Welsh indicated that Staff made an affirmative decision not to take any action on the Company's December 18, 2018 letter, and testified that that Staff understood the 2017 Study "would be addressed in this proceeding,"[139] apparently thinking that the possibility of retroactive regulation was preferable to lawfully resolving the issues at that time.

Like Staff, the Attorney General's position in written testimony was that, for earnings test purposes, the Commission should pretend that it authorized APCo to change its Virginia jurisdictional depreciation rates effective December 31, 2017, notwithstanding the Commission's 2014 Biennial Order.[140] But in response to questions by Judge Jagdmann during Attorney General witness Norwood's oral sur-rebuttal testimony, he freely explained

[137] Final Order, *Application of Appalachian Power Company for a 2011 biennial review of the rates, terms and conditions for the provision of generation, distribution and transmission services pursuant to § 56-585.1 A of the Code of Virginia,* Case No. PUE-2011-00037, Doc. Con. Cen. No. 111160074 (Nov. 30, 2011) ("2011 Biennial Order").

[138] Ex. 133 at 9. Having done so as recently as 2016, the Staff is well aware of its right to initiate a Commission proceeding. Tr. 984; 5 VAC 5-20-90; Ex. 133 at 9.

[139] Tr. 1015.

[140] Ex. 59/C at 6; Ex. 70/C at 64; Tr. 650-51.

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that depreciation rates stay the same until the Commission approves new rates.[141] In fact, when he was reminded by his counsel of the Attorney General's written position on the 2017 Study, he stated that he thought that the Attorney General "had changed that position," presumably referring to page six of his written testimony.[142]

The depreciation recommendations of Staff and the Attorney General regarding the use of the Staff's Revised 2017 Study in this case are further proof that their purpose is to penalize the Company, if not for purposes of the Earnings Test Period, then in the Company's next triennial period, which covers 2020-2022.[143] Staff witness Welsh testified that the Company did not record depreciation expense associated with the Staff's Revised 2017 Study,[144] which means the Company would need to record approximately $27 million of 2018-2019 depreciation expense in 2020, if the Commission adopts Staff's position.[145] This is on top of any amortization expense associated with Staff's recommended treatment of the Company's Retired Units that APCo would need to record in 2020: $9 million a year starting in 2015. Coupled with Staff's finding that APCo needs a $17 million annual going-forward revenue increase[146] and its position that the Company is not entitled to any increase in rates,

[141] Tr. 535. This comports with Company witness Cash's testimony that depreciation rates are only changed in other jurisdictions following a commission review. Ex. 121 at 4.

[142] Tr. 537-38; Ex. 59/C at 6. The idea of changing depreciation rates without a Commission Order was apparently so alien to Mr. Norwood that he continued to misstate the Attorney General's position. Tr. 538. Attorney General's counsel corrected his testimony after the fact. Tr. 1021-1022.

[143] As shown on Exhibit 101, Staff's recommendation to pretend that the depreciation rates in its Revised 2017 Study were implemented as of December 31, 2017, reduces APCo's earnings during the Earnings Test Period by approximately 57 basis points.

[144] Ex. 100/C at 17.

[145] Tr. 1097; Ex. 100/C at 36 [19.7M- $3.9M- $18.0M- $3.5M-$27.3M]; Ex. 133 at 7.

[146] Ex. 103.

adopting Staff's position regarding 2018 and 2019 depreciation will condemn APCo to severe under-earnings from 2020 through 2022.[147]

It is worth noting that Staff's own evidence shows that APCo's going-forward depreciation accruals of $489.9 million under its proposed 2019 depreciation study, which does not reflect any 2018-2019 effects of Staff's Revised 2017 Study, are nearly identical to Staff's recommended going-forward depreciation accruals of $489.4 million based on its proposed revisions to the 2019 Study.[148] Both the Company's and Staff's versions of the 2019 Study exclude any depreciation expense associated with the Retired Units, but Staff's treatment of the Retired Units will result in $9 million in additional expense in each year from 2020 through May 2025 to complete its proposed 10-year amortization of Retired Unit costs.

Staff's calculations show that, even without implementing Staff's Revised 2017 Study effective December 31, 2017, the Company's per books reserve deficiency declined from 11.4% of the Company's per books accumulated depreciation reserve, on December 31, 2017, to 10% of its per books accumulated depreciation reserve on December 31, 2019. This demonstrated that there is no reason to penalize the Company by adopting the Staff's position regarding its Revised 2017 Study.

Neither Staff's nor the Attorney General's recommended use of Staff's Revised 2017 Study for earnings test purposes in this case is supported by Commission precedent or the facts in this case. As Company witness Beam explained, when the Commission said in the 2014 Biennial Order that APCo's depreciation rates would be evaluated in its next case, the

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[147] Ex. 133 at 5; Tr. 123.

[148] Ex. 100/C at 43. Company witness Cash testified that his adjustment to reflect an estimated 2064 retirement date for certain hydro units reduced the depreciation accruals under the Company's going-forward depreciation rates by $0.7 million (Ex. 121 at 7), which brings the going-forward depreciation recommendations even closer together.

Company took the Commission at its word.[149] Consequently, the Commission should reject any use of Staff's Revised 2017 Study for earnings test purposes in this case.

B. The 2019 Depreciation Study—Staff's second recommendation.[150]

The Company's 2019 Study was sponsored by Company witness Cash and supported by him throughout this case, except for corrections to the estimated retirement dates and depreciation rates for certain hydro units,[151] which were not opposed by any party and were accepted by Staff.[152] Both APCo's 2019 Study and Staff's revised 2019 depreciation study ("Staff's Revised 2019 Study") exclude any undepreciated balances associated with the Retired Units from the depreciation calculations, albeit for different reasons: in the Company's case, because it expensed those balances during the Earnings Test Period, per Subsection A8, and, in Staff's case, because it recommends that the Commission establish a regulatory asset related to those balances, retroactively back to 2015, and amortize that regulatory asset over ten years, through May 2025, outside of depreciation rates.

Staff's Revised 2019 Study also calculated interim retirement rates using only 25 years of data, rather than the full history of such retirements, and incorporated the effects of the Staff's Revised 2017 Study, as if the rates from that study had actually been recorded on APCo's books during 2018 and 2019.[153] Staff witness Welsh testified that those two Staff proposed adjustments "largely offset" each other and do not result in a significant change in annual depreciation accruals, on a total Company basis,[154] when compared to the annual

[149] Ex. 116 at 5.

[150] Ex. 100/C at 45.

[151] Ex. 28 at 3; Ex. 121 at 7.

[152] Ex. 100/C at 42.

[153] Ex. 121 at 2-3, 6.

[154] Ex. 100/C at 43.

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accruals under the Company's proposed depreciation rates, which reflect per book accruals through 2019, as opposed to Staff's fictional accruals due to its presumption that Staff's Revised 2017 Study depreciation rates had been booked by APCo in 2018 and 2019.[155] If not further evidence that Staff is "engineering" results in this case, then it is at least evidence that the Staff is not recommending that the depreciation rates in the Staff's Revised 2017 Study be implemented December 31, 2017 to deal with some real depreciation reserve imbalance identified in that study, given that there was no perceptible effect on going-forward depreciation rates or accruals.

Mr. Norwood recommends a further change to the 2019 Study. Rather than using the current 2032 and 2033 estimated retirement dates for Amos units 1 and 2, and unit 3, respectively, Mr. Norwood recommends using a 2040 estimated retirement date for all Amos units, which would result in a $27.7 million reduction in Virginia Retail depreciation accruals under both the 2019 Study and Staff's Revised 2019 Study.

It is unclear from the testimony of Attorney General witnesses Smith and Norwood whether the Attorney General is recommending that depreciation rates associated with either the Company's or Staff's 2019 studies, as proposed to be adjusted by Mr. Norwood, be implemented December 31, 2019, or coincident with the Commission's prospective setting of new rates in this case. Mr. Smith repeatedly describes his adjustments to the 2019 Study as being "for prospective ratemaking," and recall that Mr. Norwood, before being corrected by his counsel, testified that previously-approved depreciation rates "would stay in effect until you've [*i.e.* the Commission] approved a different—a different rate."[156] What is clear is that

[155] Ex. 59/C at 28. Note that Company witness Cash's correction regarding certain hydro retirement dates does not materially change this comparison. Ex. 121 at 7.

[156] Ex. 70/C at 64-66; Tr. 535.

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Staff recommends the implementation of the depreciation rates from its Revised 2019 Study on December 31, 2019, coincident with the end-date of the study, which would result in new depreciation rates going into effect 11 months prior to the Commission's Final Order in this case, and 13 months prior to the date that new customer rates could go into effect.[157]

For the reasons explained below, the Attorney General's and Staff's recommended adjustments to the Company's Corrected 2019 Study should be rejected by the Commission. In addition, the depreciation rates in the Corrected 2019 Study should become effective as of the date that going-forward rates are approved by the Commission's Final Order in this case.

The Attorney General's recommendation to use 2040 as the estimated retirement dates, for all Amos units, on a going-forward basis, should be rejected for several reasons. To begin with, the estimated 2032/2033 retirement dates used in both the Company's and Staff's 2019 studies remain unchanged from those in the depreciation study filed by the Company in the 2011 Biennial Review, when APCo's Virginia depreciation rates were last approved by the Commission.[158] In the Company's 2014 Biennial Review, although the Commission decided not to change APCo's depreciation rates, Staff argued against extending the estimated retirement dates for the Amos units from 2032/2033 to 2040, in part, because Staff thought it unwise for all of APCo's coal-fired generating units to have the identical 2040 estimated retirement date.[159] Finally, recent public policy initiatives by the Virginia General Assembly, such as those contained in the Virginia Clean Economy Act of 2020[160] strongly suggest

[157] Ex. 100/C at 43.

[158] Ex. 121 at 7.

[159] Ex. 111 at 19-21.

[160] 2020 Va. Acts c.1193 (HB1526).

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leaving the estimated service lives of APCo's coal-fired plants unchanged from the currently-approved lives.[161]

Likewise, the Commission should not accept Staff's non-hydro-related revisions to the Company's 2019 Study. Staff's revisions related to its recommendation that APCo be required to book approximately $27 million of 2018-2019 depreciation expense in 2020, to pretend that the Staff's Revised 2017 Study depreciation rates had been implemented on December 31, 2017, should not be adopted by the Commission for the reasons explained above in section A. As for the revisions based upon only 25 years of interim retirement experience, which appear to be designed to keep APCo's annual depreciation accruals at the same level as in the Company's 2019 study, Company witness Cash explained why the Commission should continue to consider APCo's full interim retirement history when developing approved depreciation rates.[162]

Although the Company recognizes that other public utilities in Virginia have implemented new depreciation rates, absent a Commission order, and as of the underlying depreciation study's end-date, it does not necessarily follow that the depreciation rates from APCo's 2019 Study should be implemented as of December 31, 2019. Contrary to Staff's assertions regarding the WGL line of cases, and its recitation of companies that have implemented new depreciation rates as of the end of the applicable study dates,[163] the relevant precedent here is the 2011 Biennial Order. In that case, APCo filed a depreciation study

[161] Ex. 21 at 16.

[162] Ex. 121 at 6.

[163] Ex. 100/C at 39.

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based upon depreciable plant balances as of December 31, 2010, and, as to the appropriate implementation date for depreciation rates from that study, the Commission ruled as follows:

> *Based on the particular circumstances presented in this proceeding*, we find that … new depreciation rates should be implemented as of the effective date of rates approved herein (not on January 1, 2011 as requested by Staff). (emphasis added).[164]

As in APCo's 2011 Biennial Review, the particular circumstances in this case support an implementation date for the 2019 Study depreciation rates as of the effective date of the going-forward rates approved herein (not on December 31, 2017 as requested by Staff). Company witness Castle provided unrefuted testimony regarding the Company's specific circumstances, and how those circumstances differ from other public utilities that are experiencing load and revenue growth, as follows:

> If a utility is growing, and revenues are increasing, implementing new, higher depreciation rates prior to implementing a change in rates (which could even be adjusted downward, in a higher growth scenario) does not harm the utility to any great extent. However, in the case of APCo, with flat or declining revenues, implementing new [depreciation] rates, absent incremental revenues is simply confiscatory.[165]

This is also confirmed by the fact that Staff concluded that APCo needs an increase in rates in order to earn a reasonable return on equity.

C. Staff's third and fourth depreciation recommendations.[166]

Staff's third and fourth depreciation recommendations in this case were summarized by Staff witness Welsh as follows:

- The Company should file its next depreciation study based upon plant balances as of no later than December 31, 2024. Rates resulting from that study should be implemented as of the study date.

[164] Ex. 108 at 10-11.

[165] Ex. 133 at 10.

[166] Ex. 100/C at 45.

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- Should the Company become aware of any major changes in the assumptions utilized in the 2019 Study, particularly regarding the estimated retirement dates of its coal-fired generation plants, the Company should promptly inform Staff and prepare an update of depreciation rates reflecting the impact of the changes.[167]

Staff's fourth recommendation is substantially similar to requests made in the last paragraph of Staff's November 14, 2018 letter addressing the Staff-requested 2017 Study.[168]

Except for Staff's recommendation regarding the implementation date of APCo's next depreciation study, in his rebuttal testimony, Company witness Cash addressed the substance of Staff's third and fourth recommendations, as follows:

> It is the Company's intention, absent a valid reason for not doing so, to conduct a new depreciation study and file that study in each upcoming triennial proceeding and to inform the Staff about any material changes in estimated retirement dates in advance of such filings, just as it did in this case. Such an approach not only recognizes the Staff's fourth recommendation in this case, but also complies with the Commission's directive regarding the frequency of depreciation filings.[169]

As for the Staff's recommendation that the Commission pre-judge when to implement the Company's next depreciation study, in this case, the Commission should adhere to its ruling in the 2011 Biennial Order[170] and find that it will make that determination based upon the particular circumstances presented in the Company's next triennial proceeding.

6. The Commission Should Adopt the Company's Proposed Treatment of Prepaid Pension and Other Postretirement Employee Benefits (OPEB) Assets and Related Accumulated Deferred Income Taxes (ADIT).

In its 2014 Biennial Order, the Commission approved the inclusion of APCo's prepaid pension asset in rate base, both for earnings test and going-forward ratemaking purposes. The Commission found that APCo's prepaid pension asset, which represents the cumulative

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[167] Ex. 100/C at 45.

[168] Ex. 100/C, Appendix B at 2.

[169] Ex. 121 at 13, Rebuttal Sched. 4.

[170] Ex. 108.

amount of pension fund cash contributions made by the Company, less cumulative, actuarially-determined pension expense,[171] was reasonable to include in rate base because it actually produces a net benefit to customers.[172] The Commission commented in that Order that the prepaid pension asset was historically part of rate base, referring to the Commission's treatment of these assets in prior APCo base rate cases, such as Case Nos. PUE-2008-00046 and PUE-2009-00030.[173]

The Company's Application included its prepaid pension asset and its prepaid OPEB asset, which was not established on APCo's books until 2014,[174] in rate base for both earnings test and going-forward ratemaking purposes. Company witness Allen's evidence in this case demonstrates that both of these prepaid assets produce actual net benefits to customers through substantially reduced pension and OPEB costs reflected in cost-of-service.[175] As such, consistent with the Commission's finding in the Company's 2014 Biennial Review, it is reasonable to include APCo's prepaid pension and OPEB assets in rate base both during the Earnings Test Period and for going-forward ratemaking in this case.

Although Staff and the Attorney General both included the same level of prepaid pension and OPEB assets as the Company in their Earnings Test Period calculations, as well as in their going-forward revenue requirements, they did identify issues related to the

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[171] Ex. 132 at 17; Tr. 1205-1207.

[172] 2014 Biennial Order at 13 and 46.

[173] Ex. 132 at 26.

[174] On cross-examination, ODCFUR witness Kollen confirmed that he had reviewed Company discovery responses that confirmed that APCo did not record a prepaid OPEB asset until 2014 because cumulative contributions did not exceed cumulative costs until that year, and that, prior to 2014, the difference between cumulative OPEB costs and cumulative OPEB contributions was typically near zero. Tr. 372-374; Ex. 51.

[175] Ex. 27 at 63-66; Ex. 27, Sched. 1; Ex. 132 at 26-27.

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appropriate level of ADIT associated with those prepaid assets to subtract from rate base.[176] In her rebuttal testimony, Company witness Keaton sponsored a correction to APCo's Rate Case Schedule 36 to properly reflect ADIT related to its Virginia jurisdictional share of prepaid assets.[177] That correction was used by Staff witness Morgan in his supplemental testimony,[178] and seemingly accepted by Attorney General witness Smith as reasonable during his oral sur-rebuttal.[179]

Only ODCFUR witness Kollen recommends excluding prepaid pension and OPEB assets from rate base. In his written testimony, Mr. Kollen indicates that, if approved, his recommendation would result in specified reductions to the Company's 2019 per books Virginia jurisdictional rate base and "reductions to the requested rate increase."[180] He does not mention any earnings test effects. Whether solely for going-forward ratemaking, or for both earnings test and going-forward ratemaking purposes, the Commission should reject Mr. Kollen's recommendation as it is contrary to the evidence of record in this case.

Mr. Kollen's testimony, including his oral sur-rebuttal, presents a scatter-shot of rationales that attempt to support his recommendation, but all those rationales miss the mark. Company witness Allen summarized those rationales and refuted them, in detail, in his

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[176] Ex. 18 at 3-5; Ex. 70/70C at 70-71. ODCFUR witness Kollen had similar concerns in the event that the Commission rejected his recommendation to exclude the Company's prepaid pension and OPEB assets from rate base in this proceeding. Ex. 48 at 20-21.

[177] Ex. 9 at 1-2, Rebuttal Sched. 1.

[178] Ex. 18; Ex. 101.

[179] Tr. 631.

[180] Ex. 48 at 21. As Company witness Allen points out, the amounts referenced by ODCFUR witness Kollen are overstated in total as he failed to recognize that the Company had reduced those per book balances, in ratemaking adjustment WC-80, to reflect 13-month average balances for going-forward ratemaking purposes. Ex. 132 at 27-28.

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rebuttal and oral sur-rebuttal testimony.[181] Given the comprehensive nature of Mr. Allen's testimony, this brief will focus on what Mr. Kollen describes as the "fundamental issue" regarding whether to include prepaid pension and OPEB assets in rate base in this case.

According to ODCFUR witness Kollen:

> The fundamental issue is whether the Company in fact financed the assets. If not, then it is inappropriate to include them in rate base because the Company does not actually incur any related financing costs. If the Company *does* actually incur financing costs related to these assets, then it *is* appropriate to include them in rate base, net of the related ADIT, to permit the Company to recover its related financing costs.[182]

Mr. Kollen goes on to state that the answer to the question of whether APCo has financed its prepaid pension and OPEB assets is based on whether those assets are "cash" or "non-cash" assets.[183] While he seems to argue in his written testimony that the Company's prepaid assets are "non-cash" assets,"[184] Mr. Kollen readily admitted during cross-examination that the Company did in fact make cash contributions to fund its prepaid pension and OPEB assets, as shown on pages 17 and 18 of his testimony,[185] and then promptly reiterated that the relevant question is whether those cash assets were financed by the Company.[186]

Mr. Kollen tries to make the argument that the Company's cash contributions to its pension and OPEB trust funds that result in the prepaid assets came from sources such as customer rates, rather than debt or equity capital.[187] But, Company witness Allen explained

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[181] Ex. 132 at 13-27; Tr. 1204-1207.

[182] Ex. 48 at 14 (italics in original).

[183] *Id.*

[184] *Id.* at 14-15.

[185] Company witness Allen's rebuttal confirms that APCo's prepaid pension and OPEB assets are cash assets. Ex. 132, Rebuttal Sched. 2.

[186] Tr. 349; Ex. 48 at 17-18.

[187] Tr. 349-350.

that APCo does not generally record entries to debt and equity capital accounts for cash transactions such as prepaid pension and OPEB assets because the recording of cash assets and the recording of new debt or equity are very separate transactions, and because entries to debt and equity accounts are recorded infrequently.[188] As Mr. Allen testified:

> APCo's pension plan contributions over the last 10 years (2010-2019) totaled $160 million as shown on Schedule 1 to my direct testimony compared to increases of $994 million, $409 million and $100 million, respectively, in retained earnings, long-term debt and equity contributions over this same time period. The $160 million exceeded the GAAP pension expense and therefore the excess was not recovered from customers. These amounts show that the Company's pension contributions were funded with investor supplied capital. Note that retained earnings are not customer supplied capital. The Company could choose to dividend that capital out but instead redeploys much of it within the Company to operate the business for the benefit of customers.[189]

Contrary to ODCFUR witness Kollen's assertions, the evidence demonstrates that APCo's prepaid pension and OPEB assets are funded by Company supplied capital, which satisfies his criterion for including those prepaid assets in rate base. More importantly, in accordance with the Commission's criterion, the evidence demonstrates that APCo's prepaid pension and OPEB assets produce actual net benefits to customers through substantially reduced pension and OPEB costs reflected in cost-of-service. Consequently, the Commission should reject ODCFUR's recommendation to exclude those assets from rate base in this case.

7. APCo's Share of Joint-Use Assets Should Remain on its Books, Both for Earnings Test and Ratemaking Purposes.

In the 2014 Biennial Order, the Commission originally found that future joint-use assets[190] should be recorded on AEPSC's books, not the Company's books, and that APCo

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[188] Ex. 132 at 15-16.

[189] *Id.* at 16.

[190] Joint-use assets are technology assets that are jointly used by multiple AEP utility affiliates. Ex. 3 at 4; Ex. 98 at 2.

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should pay an appropriate facilities charge to AEPSC.[191] The Commission clarified its finding in its Order on Petition for Reconsideration and Clarification,[192] as follows:

> … the Company, on the narrow issue identified in the Petition, is authorized to comply with the Final Order through *ratemaking adjustments* that are functionally equivalent to excluding the APCo Virginia share of future Joint-Use Assets on the Company's books and requiring such assets to be recorded on the books of AEP Service Company. This ruling is limited to the specific facts presented in this case, and to compliance with the Final Order, and shall not serve as precedent in any other proceeding.[193]

The Commission's footnote 4 stated that the "specific ratemaking treatment for future Joint-Use Assets will be determined in future cases."

Company witness Castle spent several pages of his direct testimony explaining why APCo's share of joint-use assets should remain on the Company's books, both for earnings test and ratemaking purposes in this case, and in future cases.[194] As Mr. Castle testified, the Commission's current regulatory treatment of joint-use assets sets up poor incentives; does not recognize that APCo's customers already reap sizable cost savings as a result of sharing joint-use assets; and does not reflect the actual cost of financing such assets, as that treatment essentially precludes recovery of any equity return component related to APCo's share of joint-use assets.[195]

Only ODCFUR witness Kollen even attempts to address Mr. Castle's testimony and recommendation to keep APCo's share of joint-use assets on its books, both for purposes of

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[191] *Id.* at 43.

[192] Order on Petition for Reconsideration and Clarification, 2014 Biennial, Doc. Con. Cen. No. 150210056 (Feb. 3, 2015) ("Clarification Order").

[193] Clarification Order at 2 (emphasis added).

[194] Ex. 21 at 12-15.

[195] *Id.* at 13, 15; Ex. 133 at 16.

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this case[196] and in future cases.[197] His arguments fall flat because they fail to recognize that AEP's capital structure, which supports AEPSC's borrowing, includes an equity component, as Company witness Castle testified.[198]

Neither the Staff nor the Attorney General even bothered to address Mr. Castle's recommendation to leave the Company's joint-use assets on its books in their testimonies. Consequently, the Commission should, at a minimum, find that any joint-use assets on APCo's books should remain there in future cases, both for earnings test and going-forward ratemaking purposes. For the reasons set out below, as an alternative to the Company's primary recommendation in this case, the Commission should do no more than adopt the Company's proposed joint-use asset ratemaking adjustments, and reject Staff's proposal to make regulatory accounting adjustments related to joint-use assets for earnings test purposes.

To comply with the Commission's Clarification Order, in this case, APCo made a number of ratemaking adjustments to its going-forward cost-of-service to remove joint-use assets from its books and replace them with imputed billings from AEPSC.[199] Staff accepted the Company's ratemaking adjustments, as well as the methodology underlying them.[200] But, unlike the other parties to this case, which did not take issue with the Company's ratemaking adjustments, Staff did not stop there. Through the testimony of Staff witness Carr, Staff recommends ignoring, or reading additional words into, the Commission's Clarification Order, which authorized APCo to comply with the 2014 Biennial Order "through ratemaking

[196] If the Commission agrees with Company witness Castle, and leaves APCo's share of joint-use assets on its books in this case, then there is no EDIT issue to resolve.

[197] Ex. 48 at 24-26.

[198] Ex. 21 at 15; Ex. 133 at 16.

[199] Ex. 3 at 4-7.

[200] Ex. 98 at 3-4.

adjustments," and urges the Commission to adopt similar regulatory accounting adjustments for earnings test purposes.[201] According to Mr. Carr, his recommendation results in increasing the Company's combined 2017-2019 earned ROE by 10.1 basis points.[202]

The Commission's Clarification Order should not be rewritten or expanded in this case, as recommended by Staff, to retroactively include regulatory accounting adjustments. The instructions to the Commission's Rate Case Rules, which are found in 20 VAC 5-201-90, provide that ratemaking adjustments are to be listed on Schedule 25, Detail of Ratemaking Adjustments, and shall reflect a rate year level of revenues and expenses. Such adjustments, which are also commonly referred to as going-forward adjustments,[203] are specifically not to be included as earnings test adjustments on Schedule 16, Detail of Regulatory Accounting Adjustments, per that schedule's instructions.[204]

APCo's treatment of its joint-use assets in its Application followed both the Commission's Clarification Order and its Rate Case Rules. Although the Company recognizes that the Commission could change its Clarification Order and direct APCo to make both regulatory accounting and ratemaking adjustments related to joint-use assets in future cases, given the language of that order and the Commission's Rate Case Rules, it should not adopt the Staff's recommendation to retroactively increase APCo's earned ROE by 10.1 basis points during the Earnings Test Period.

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[201] Ex. 98 at 3-4.

[202] Ex. 98 at 4; Ex. 101.

[203] Ex. 133 at 15.

[204] Order Adopting Regulations, *Commonwealth of Virginia At the relation of the State Corporation Commission, Ex Parte: In the matter of revising the rules of the State Corporation Commission governing utility rate increase applications pursuant to Chapter 933 of the 2007 Acts of Assembly*, Case No. PUE-2008-00001 (Dec. 16, 2008).

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Besides being inconsistent with the Commission's Clarification Order and its Rate Case Rules, Staff's proposed treatment of joint-use assets for triennial earnings test purposes is also inconsistent with how the EDIT associated with those assets were treated in APCo's tax reform proceeding, Case No. PUR-2018-00054.[205] If the treatment in that case was consistent with what Staff is proposing in this case, Mr. Castle testified that the result would have been a credit that was $3.6 million less than what APCo is currently returning to its Virginia customers through Rider TRR.[206]

Exhibit 99, sponsored by Staff witness Carr during his oral sur-rebuttal,[207] does not change APCo's position. To begin with, the Staff accepted the Company's methodology for calculating ratemaking adjustments for joint-use assets.[208] Moreover, as Company witness Castle testified during his oral sur-rebuttal, the $3.6 million amount described in his rebuttal testimony is the computed EDIT revenue basis for the joint-use assets on APCo's books, and APCo would only be credited with a fraction of the amounts shown on Exhibit 99 if those assets were held on AEPSC's books. Consequently, the Commission needs to adjust the Company's Rider TRR to reflect consistent treatment, if the Commission adopts Staff's recommendations regarding joint-use assets in this case, or allow APCo's joint-use assets to stay on its books.[209]

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[205] Final Order, *Commonwealth of Virginia, ex rel. State Corporation Commission Ex Parte: In the matter concerning the implementation by Appalachian Power Company d/b/a American Electric Power-Virginia of reductions in rates for generation and distribution services pursuant to Enactment Clause Nos. 6 and 7 of Senate Bill 966*, Case No. PUR-2018-00054, 2019 S.C.C. Ann. Rep. 187 (March 8, 2019).

[206] Ex. 133 at 15; Ex, 9 at 3-4.

[207] Tr. 912.

[208] Ex. 98 at 3-4.

[209] Tr. 1233.

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Mr. Castle's testimony demonstrates that APCo's share of joint-use assets should remain on the Company's books, both for earnings test and ratemaking purposes in this case, and in future cases. In the event that the Commission does not accept this recommendation, it should, given the evidence of record, as well as the language of the Commission's Clarification Order and Rate Case Rules, adopt the Company's proposed going-forward ratemaking adjustments, and reject the Staff's proposed regulatory accounting adjustments, related to APCo's joint-use assets.

8. The Company's Management of the Coal Inventory during the Earnings Test Period was Reasonable and Prudent and the Record Supports Using the Maximum Daily Burn Rate on a Going Forward Basis.

Under Commission precedent, Appalachian can recover its actual coal inventory by establishing that those levels were reasonable and necessary to provide reliable electricity to ratepayers. During the Earnings Test Period, the Company navigated a number of unforeseeable weather events, market disruptions and mechanical breakdowns and has established that it reasonably managed its coal inventory during those "unforeseen vagaries of the market or the weather." No party has identified a single action or omission by the Company as unreasonable or imprudent. Thus, for the earnings test, Appalachian should be allowed to reflect in rate base its actual average inventory level of 1.6 million tons with a value of $84,472,584. Regarding the going-forward analysis, energy diversification has caused the deployment of the Company's coal generation units to be increasingly unpredictable and its total coal consumption to decrease even as its high burn events increased through the Earnings Test Period. Given this volatility and the increasing potential that using an average burn places the units at risk, it is more appropriate than ever to set coal inventory using a maximum burn target than an average burn.

A. The 2014 Biennial Order.

In the 2014 Biennial Review, the Commission accepted the Company's actual inventory levels in rate base because the Company showed that its actual coal inventory was reasonable for determining earned return.[210] Acknowledging that past orders set the going forward amount of coal inventory in rate base to a thirty-five day supply of coal at average burn rates, the Commission clarified that such an amount could not "predetermine the reasonableness of actual expenditures that may be incurred during the historical two-year period."[211] The Commission further guided that "[w]hether or not the Company's coal inventory is reasonable for determining earned return must be based on the reasonableness of the Company's actions, not on the unforeseen vagaries of the market or the weather."[212]

Viewed through this lens, the Commission determined that the Company's actions were reasonable and necessary because "no party has identified even a single unreasonable action (or lack of action) on the Company's behalf," and because the Company reasonably responded to various unforeseen disruptions and circumstances "beyond [the Company's] control."[213] In sum, although the Commission cautioned that the Company did not have a "blank check," and that the facts of a future case may be different, the Commission granted the Company recovery of its actual inventory levels during the earnings test period, and set a going forward target of thirty-five days at average burn.[214]

[210] 2014 Biennial Order at 14-15.

[211] *Id.* at 15.

[212] *Id.* at 15-16.

[213] *Id.* at 16-17.

[214] *Id.*

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B. Earnings Test Period.

The evidence presented in this case mirrors the circumstances of the 2014 Biennial Review, and demonstrates that the Company prudently managed its coal inventory while navigating unforeseeable market, mechanical and weather events. In the winter of 2017 and spring of 2018, high river levels and flooding stymied timely transportation to the coal plants due to the inability to transport by barge.[215] During 2018, coal prices also dramatically increased due to international demand, depleting domestic supply and driving coal prices to as high as $76 per ton, compared to a prior price of $58.[216] This demand, coupled with high burn rates due to a cold winter prevented timely delivery of inventories that inhibited the Company from maintaining its forecast targets.[217] Finally, in 2019, the Amos plant experienced an unplanned 73-day outage when a turbine failed, preventing any use of its coal during a peak burn period, and resulting in an unanticipated build-up of inventory.[218] Through it all, the Company had to make decisions on its inventory in real time to ensure it could provide reliable energy to consumers.

Even while responding to these unforeseeable events, the Company also took a number of actions to reduce its coal inventory. In 2017, when faced with an excess of holdover inventory due to circumstances from prior years, the Company entered into a sales agreement with a coal supplier to sell 200,000 tons of coal at a loss to meet its projected inventory targets.[219] But the Company could not abandon its obligations to suppliers and had

[215] Ex. 24 at 8.

[216] *Id.* at 8.

[217] *Id.*

[218] Ex. 117 at 3.

[219] *Id.* at 6.

to adhere to the terms of certain long-term coal contracts, some dating as far back as 2012 with expiration dates of 2021.[220] Any attempt to breach or tamper with these contracts would risk the Company's relationships with the ever-dwindling number of coal suppliers. Similarly, in 2018, when inventory levels were severely depleted, the Company chose to replenish its inventories, in part, by purchasing some coal over-the-counter rather than enter into long-term contracts to prevent excessive supply in the future.[221] In 2019, when the Company determined that its coal supply needed for generation was less than forecasted, the Company worked closely with suppliers to defer tons of coal to future years to prevent an immediate buildup.[222] That year, the Company deferred approximately 10% of its low-sulfur coal obligations and approximately 13% of its legacy high-sulfur contracts to 2020.[223] In sum, labeling the Company's triennial coal inventory as unreasonably high ignores the lengths that Appalachian went to limit inventory.

The Company's request to include actual inventory in rate base does not reflect a "blank check" approach to coal inventory. All parties agree that forecasting and maintaining coal inventory is an exceedingly complex task but one that is essential to the Company's ability to provide reliable electricity.[224] Yet no party has identified a single unreasonable action taken by the Company during the Earnings Test Period.[225] When asked on cross-examination, Staff witness Kaufman expressly admitted that he was unable to identify one

[220] Tr. at 167-68.

[221] Ex. 117 at 6.

[222] *Id.* at 6-7.

[223] *Id.* at 7.

[224] Tr. at 589-590.

[225] Tr. at 595.

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action or inaction by the Company that was unreasonable.[226] Thus, the evidence is unrebutted that Appalachian's actions were reasonable and prudent in maintaining its coal inventory.[227] Nonetheless, the Attorney General and Staff object to the inclusion of the Company's actual inventory in rate base during the Earnings Test Period solely on grounds that its coal inventory remained above target during a period of months during those years.[228] The Attorney General and Staff argue that this alone should prevent the Company from including its actual inventory in rate base for earnings test purposes. Such an analysis is directly contrary to the 2014 Biennial Order, which requires that objecting parties point to discrete acts of the Company to establish unreasonableness. In short, Staff and the Attorney General's assessment of the Company's coal inventory is entirely result-oriented without any evidence regarding the Company's mismanagement or unreasonable procurement of coal.

The Company has met its burden of proving its actual coal inventory was reasonable and necessary to provide reliable electricity to consumers. As a result, the Company seeks to include in rate base during the Earnings Test Period 1.6 million tons of coal with a value of $84,472,584, which is 15 percent less than the amount the Commission approved in the 2014 Biennial Order as related to Amos and Mountaineer.[229]

C. Going Forward Analysis.

In past cases, the Commission has set a going forward target coal inventory of 35 days at average burn. The decisions in those cases were made in the context of coal plants being

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[226] Ex. 117 at 2.

[227] Notably, no witness presented by Staff or the Attorney General have any actual experience in forecasting or maintaining coal inventory.

[228] Tr. at 660; Ex. 65 at 9; Ex. 70 at 51.

[229] Tr. at 1052.

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used as primary base load units. As coal plants are increasingly being used more cyclically, the overall coal consumption is decreasing but the high burn events for which the Company must remain prepared have actually increased. Continuing to utilize the average burn methodology in light of these contrasting trends places the coal units at increasing risk that the Company will not have sufficient coal when the "unforeseen vagaries of market or the weather" occur. Given this issue along with the practical shortfalls in the average burn methodology, the Company seeks to set a going forward target based on maximum load burn.

In recent years, the Company's utilization of its coal generation facilities has become more sporadic, which creates difficulties in forecasting and purchasing its coal inventory for future generation.[230] Thus, using a 35-day average burn target, which is set using metrics from previous years, is not likely to correctly predict the amount of coal generation in the Company's capacity plan. This problem is even more apparent in light of the decreasing number of coal suppliers that could meet the Company's needs on short notice. Moreover, determining the appropriate period to create a 35-day average presents its own practical shortfalls. Staff and the Attorney General arrived at different recommended targets using the 35-day average burn methodology because the parties did not agree on the relevant time period and what months should be included in the calculation.[231] Regardless, any 35-day average burn calculation will use figures from past years, which are inherently incompatible with various weather, market, or operational forces that can impact the coal inventory in the future. A maximum load burn allows for both ease of setting targets and ensuring the Company can provide reliable electricity to consumers at any given time.

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[230] Ex. 117 at 2.

[231] *Compare* Ex. 65 at 5-7, with Ex. 70 at 53-54.

Given the overall decreases in coal consumption, use of a 35-day average burn would place the Company at risk of outages due to insufficient fuel availability if the plants operated at maximum load capacity for an extended period of time. Such a circumstance is not hyperbole. In the Earnings Test Period, maximum coal burned at Mountaineer and Amos over a 35-day period actually increased each year.[232] In other words, despite the Company's diversification of its energy plan, its coal units are still called on for maximum load generation for significant periods of time. In those periods, a maximum load inventory is necessary to ensure the Company can provide reliable electricity, and a 35-day average burn target risks the Company's ability to meet those obligations. Given the growing uncertainty of the role of coal generation units, and the Company's continued obligation to provide reliable electricity, the Commission should utilize a maximum burn methodology on a going forward basis. Consequently, the Commission should set rates based upon a coal inventory of $55,287,889, as recommended by Company witness Jeffries.[233]

9. Appalachian's Investments in AMI Are Reasonable and Prudent.

Overwhelming evidence in the record confirms that Appalachian's investments in advanced metering infrastructure ("AMI") were and are reasonable and prudent. These investments were needed, the costs are reasonable and comparable to other utilities' costs, and Appalachian's plan for deploying AMI meters will help ensure that the benefits of this technology are maximized.

[232] Ex. 69.

[233] Ex. 24 at 10.

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A. AMI was and is needed.

Above all else, Appalachian's decision to install AMI meters was driven by need.[234] At the time the Company made that decision, in 2016, the automated meter reading ("AMR") meters then used throughout the Company's Virginia service territory were in need of replacement—quickly.[235] The AMR meters were installed in 2004 and 2005 and, according to the company that manufactured them, the devices could be expected to remain in service for ten to fifteen years.[236] By 2016, then, the meters were quickly approaching the end of their useful service life, if they had not reached it already.[237] Meanwhile, three of the five AMR manufacturers no longer produced them; the fourth had announced it would cease production by 2019; and the fifth was considering the same route.[238] Appalachian correctly recognized that it "had no reasonable choice"[239] but to replace its aging AMR meters with AMI, which was and is "the only practical alternative."[240] As a newer technology, AMI offers numerous functionalities and benefits not possible with AMR meters,[241] which explains why AMI has emerged over the last ten years as the clear industry standard.[242]

Attorney General witness Norwood attacked Appalachian's decision to replace the AMR meters as premature, but at every turn the facts stood in his way. First, in his pre-filed

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[234] Ex. 25 at 18 ("The primary factor for replacement was the age and life expectancy of the AMR meters.").

[235] *Id.*

[236] Ex. 25 at 18; Ex. 119 at 3.

[237] Ex. 25 at 18.

[238] *Id.*; Ex. 119 at 3.

[239] Ex. 25 at 19.

[240] Ex. 133 at 12.

[241] *E.g.*, Ex. 25 at 23-26.

[242] *Id.* at 20.

testimony, Mr. Norwood claimed incorrectly that Appalachian's depreciation studies have assumed a twenty-five year life expectancy for AMR meters.[243] Although the depreciation studies the Company performed in 2011 (based on year-end 2010 plant balances), and 2014 (based on year-end 2013 plant balances) did in fact utilize a twenty-five year service life, that number was based on the service life of electromechanical meters, the technology that preceded AMR.[244] As the Company's depreciation expert, Mr. Cash, explained, depreciation studies rely on the retirement history of specific utility accounts, including Meter Account 370.[245] Until recently, "the retirement history of Meter Account 370 consisted primarily of electromechanical meters," which had an average service life of twenty-five years.[246] (Unlike AMR and AMI meters, electromechanical meters are not electronic.[247] They are older and much simpler devices with fewer components, and have none of the electronic and semiconductor components found in AMR and AMI meters.[248] Having been used in the electric utility industry for decades, their long performance history supports their twenty-five year service life.[249])

As a result, Appalachian's depreciation studies from 2014 and earlier "were based primarily on the retirement history of electromechanical meters and did not recognize the retirement history of AMR meters, which typically have an average service life of 15

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[243] Ex. 59 at 17.

[244] Ex. 121 at 9; Tr. 1091.

[245] Ex. 121 at 8.

[246] *Id.* at 8-9.

[247] Tr. 1072.

[248] Tr. 1072-1073.

[249] *Id.*

years."[250] By contrast, all of the depreciation studies Appalachian has performed since the 2014 Biennial Review have reflected the retirement history of AMR meters, and have used a fifteen-year average service life.[251] That includes the study Appalachian filed in West Virginia in 2018, the one it provided to Staff in 2018 (based on year-end 2017 plant balances), and the one that the Company filed in this case.[252] Staff has accepted that fifteen-year service life as reasonable.[253]

Apparently, Mr. Norwood either did not review those studies or he chose simply to ignore them. Even though he had them, and attached the 2018 West Virginia and Virginia studies to his testimony, Mr. Norwood claimed that "the Company's Virginia depreciation studies *since 2012* have assumed an estimated useful life of 25 years for AMR meters."[254] He also failed to acknowledge that Appalachian's January 2017 presentation to Staff on its planned deployment of AMI, another document that Mr. Norwood attached to his testimony, indicated clearly that the useful life cycle of an AMR meter is ten to fifteen years.[255] He also attached a schedule from the depreciation study performed for Staff in 2018 as Exhibit SN-11 of his direct testimony, which clearly indicates a 15-year average service life for Account 370 (Meters).[256]

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[250] Ex. 121 at 9.

[251] *Id.*

[252] *Id.*

[253] Ex. 100 at 49.

[254] Ex. 59/C at 17 (emphasis added). Mr. Norwood corrected this error when he took the stand, by replacing "since 2012" with "before 2010." Tr. 494.

[255] Ex. 59/C at Ex. SN-16 (page 4 of 10).

[256] Ex. 59/C at Ex. SN-11.

Mr. Norwood himself exposed another critical flaw in his argument when he took the stand: he acknowledged that AMI meters have a service life of fifteen years—an admission that, while correct, severely undermines his argument that AMR meters have a longer life cycle of twenty-five years.[257] As Company witness Johnson explained, despite their different functionalities, AMR meters and AMI meters are technologically "close to identical."[258] The AMR and AMI devices used on Appalachian's system—the Aclara I-210+ and the Aclara I-210+C—are produced by the same manufacturer using the same manufacturing processes. They are exposed to the same environmental stresses during their lifetimes, and they contain nearly all of the same mechanical and electronic components.[259] Importantly, for both meters it is the failure of those components that typically causes the device to reach the end of its service life.[260] As a result, Mr. Johnson explained, the two meters "should generally be expected to have the same life expectancy,"[261] and "If you accept, as Mr. Norwood does, a fifteen-year life expectancy for an AMI meter, then I think you also must accept the same is true for an AMR meter."[262]

When pressed on this point during the hearing, Mr. Norwood insisted that assigning fifteen years to AMI but twenty-five years to AMR is "perfectly logical."[263] He had no evidence to support that position, as his cross-examination demonstrated:

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[257] Tr. 558.

[258] Tr. 1068.

[259] Tr. 1067-1068.

[260] Tr. 1068.

[261] Tr. 1068.

[262] Tr. 1068.

[263] Tr. 559.

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Q. It's my understanding that AMI and AMR are both electronic meters. Do you not agree that they would have similar life expectancies?

A. No, I mean, not really.

Q. Why?

A. Well, just by observation.

Q. Have you spoken with manufacturers?

A. I have not. I have not spoken with manufacturers.[264]

When asked again whether he had any facts to support his assumed AMR service life of twenty-five years, Mr. Norwood's only response was to refer vaguely to an unidentified discovery response that (as he described it) does not actually address the point.[265] Quite literally, Mr. Norwood offered no evidence to support his position.

Another point of Mr. Norwood's testimony—that Appalachian should possess documentation verifying the service life of AMR meters—is also unpersuasive.[266] Mr. Norwood first criticized Appalachian for not having documentation from the manufacturer to support the AMR meters' ten-to-fifteen-year service life.[267] As Mr. Johnson explained, manufacturers generally do not give the Company any sort of written statement representing that their product has a certain life expectancy, whether the product is a meter or another type of distribution equipment.[268] Indeed, Mr. Johnson could not remember a single instance of that happening in all his years working in distribution operations.[269] In any case, as Mr. Johnson testified repeatedly, Appalachian had discussions with the manufacturer about this

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[264] Tr. 558.

[265] Tr. 559.

[266] Tr. 527-528.

[267] Tr. 528-9.

[268] Tr. 1071.

[269] Tr. 1071.

very issue, and the manufacturer advised the Company that the devices' life expectancy was ten to fifteen years.[270] Mr. Norwood also criticized Appalachian for not keeping detailed records of every individual meter failure that occurs on its system.[271] For obvious reasons, the Company historically has not maintained records with such a granular level of detail for meters but also for other types of distribution equipment.[272]

Finally, Mr. Norwood's claim that Appalachian should have conducted a comprehensive cost-benefit analysis prior to deploying AMI deserves no weight.[273] As with any major investment, Appalachian carefully evaluated the costs, benefits, and risks of moving to AMI.[274] Based on that decision-making process, the Company determined that the best option—and indeed the only practical option—for replacing its aging AMR meters was to install AMI.[275] Moreover, as Appalachian's witnesses explained, quantifying the benefits of AMI is an inherently subjective task.[276] It depends upon numerous assumptions and other factors incapable of verification, which explains why the Company traditionally does not conduct such analyses before undertaking distribution investments.[277] Mr. Norwood also did not acknowledge that AMI is the clear standard in the electric utility industry[278] or that it

[270] Ex. 25 at 18; Ex. 19 at 3-4; Tr. 1071.

[271] Ex. 59 at 17; Tr. 527.

[272] Tr. 1071-1072.

[273] *See, e.g.* Ex 59 at 19.

[274] Ex. 21 at 21; Ex. 25 at 17-21.

[275] Ex. 25 at 19.

[276] *E.g.*, Ex. 119 (Johnson Rebuttal), Schedule 1 at 1 (Company's response to OAG Interrogatory No. 3-033) (explaining that Company does not perform economic analyses of distribution projects that maintain or improve grid reliability or functionality because the economic benefits cannot be quantified without the use of unverifiable assumptions).

[277] *Id.*

[278] Ex. 25 at 20.

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offers numerous benefits that other meter technologies do not, benefits that are so widely recognized as to be beyond dispute.[279] In short, although the lack of a formal cost-benefit analysis might be relevant evidence in other contexts, in this case Mr. Norwood is simply incorrect.

B. Appalachian's AMI costs are reasonable.

The record also confirms that the actual costs of Appalachian's AMI deployment have been and continue to be reasonable. In fact, no witness in this case argued otherwise.

From the beginning, Appalachian has taken the necessary steps to ensure that the costs of this project are reasonable. The Company selected its AMI manufacturer based on the results of a competitive bidding process.[280] It also negotiated a blanket contract under which the manufacturer provides AMI equipment and materials at volume-based pricing, which also lowers costs.[281] Additionally, with several of its affiliates having already transitioned from AMR to AMI, Appalachian has used those companies' knowledge and experience to reduce the costs of its own deployment.[282] One example is the Company's strategy of replacing meters on an area-by-area basis over multiple years, which takes advantage of economies of scale by focusing on the most densely populated areas first and then adjusting resources to cover the more travel-intensive rural areas.[283] Moreover, the Company's overall approach of replacing meters shortly before they fail also reduces costs, because the process is planned, organized, and more efficient.[284] By contrast, replacing meters only after they have been

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[279] *Id.* at 23-26.

[280] *Id.* at 21.

[281] *Id.*; Tr. 190.

[282] *Id.* at 22.

[283] *Id.*

[284] Ex. 119 at 7-8.

allowed to run to the point of "widespread failure," as Mr. Norwood suggests Appalachian should have done,[285] would not only be inconsistent with prudent utility practice, it also can result in unnecessarily higher costs.[286]

In addition, Appalachian presented evidence demonstrating that its AMI-related costs line up favorably with those of other utilities. To provide a useful benchmark, the Company compared its total meter cost per customer against a peer group of twenty-one similar utilities.[287] The Company's total meter cost of $23.46 per customer was below the peer group's median value of $24.88, placing it comfortably within the range of reasonableness.[288] Indeed, no witness in this case (including Mr. Norwood) argued that the actual amounts Appalachian has incurred to deploy AMI have been excessive or otherwise unreasonable. The record points directly to the opposite conclusion.

C. Appalachian has developed a plan to maximize the benefits of AMI.

The record also illustrates that Appalachian has developed a plan to ensure that the benefits of AMI are maximized. The chief components of this plan include two voluntary time-varying rate designs, known as Rate Schedule Smart Demand and Rate Schedule Smart Time of Use,.that the Company has proposed for approval in this case.[289] Both programs rely upon (and would not be possible without) the Company's AMI infrastructure.[290] Although

[285] Tr. 527 ("[T]here is really no evidence of widespread failure on these meters."); Tr. 529 ("We don't really have any records that there was widespread failure."); Tr. 559 ("[T]here is no widespread failure rate that would say the house is on fire; we need to put in the AMIs.").

[286] Ex. 119 at 8.

[287] *Id.* at 8. Mr. Johnson lists the twenty-one peer group companies in Schedule 2 to his rebuttal testimony.

[288] *Id.* at 8, 9.

[289] Ex. 21 at 22.

[290] Ex. 21 at 21.

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they differ in their rate structures, both are designed to send targeted price signals to encourage customers to reduce consumption during times of peak usage and higher energy costs.[291] By inducing customers to shift usage, these programs will reduce costs for all retail customers by: (1) lowering Appalachian's PJM capacity requirement; (2) lowering transmission costs allocated to the Company; (3) lowering the allocation of costs to the Company's Virginia jurisdiction; and (4) lowering marginal fuel and market energy costs.[292] Quantifying the projected benefits of rate schedules such as these is intrinsically difficult, but similar programs implemented by other utilities have achieved peak demand reductions as high as thirty percent.[293] With its AMI infrastructure already in place, the Company can implement Rate Schedule Smart Demand and Rate Schedule Smart Time of Use at minimal cost.[294]

Appalachian's deployment plan also includes various other features to help realize the full potential of AMI technology. For example, by the end of this year, Appalachian will launch a web-based customer information portal that will allow customers to access usage information via their smart phone or computer, and eventually to perform rate comparisons to determine which tariff offering best suits their needs.[295] Customers also will be able to receive detailed usage reports by email, with information down to the individual appliance level, effectively alerting a customer to any potential issues—a malfunctioning air conditioner, for example—that might cause the customer's usage (and electric bill) to

[291] *Id.* at 21-22; Ex. 38 at 17-19.

[292] Ex. 21 at 22.

[293] *Id.*

[294] *Id.*

[295] *Id.* at 23; Tr. 1232.

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fluctuate.[296] In addition, Appalachian plans to implement an even more targeted behavior-based program that will provide individually tailored information to participating customers.[297] The Company also will use AMI to support its Volt/VAR optimization program, an initiative the Company will present to the Commission for approval in its next EE-RAC case.[298] Although AMI is not essential to Volt/VAR programs, it can enhance their effectiveness in minimizing voltages and conserving energy.[299]

Although Mr. Norwood takes issue with Appalachian's planning, his criticism apparently is not with the AMI deployment plan presented in this case, but rather with its timing. In his view, Appalachian should have developed a plan for maximizing AMI's benefits before deciding to move forward with the deployment.[300] As an initial matter, Mr. Norwood continues to ignore the fact that the Company's transition to AMI was driven primarily by need. By 2016, the Company's AMR meters were at or near the end of their useful life cycle and would take several years to replace, and AMI—the clear standard in the electric utility industry—was the only reasonable and practical solution. Moreover, time-of-use rates and other programs designed to capture AMI's benefits are not possible if the AMI infrastructure is not actually in place.[301] If a utility has not installed the technology, any plan to maximize its benefits will be meaningless. Finally, despite all his criticism of Appalachian's planning, Mr. Norwood offered no opinion on the plan the Company presented

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[296] Tr. 140-41.

[297] Tr. 141.

[298] Tr. 141-42.

[299] *Id.*

[300] Tr. 565.

[301] Tr. 1232.

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