COMMONWEALTH OF VIRGINIA

STATE CORPORATION COMMISSION

AT RICHMOND, JULY 26, 2024

PETITION OF

APPALACHIAN POWER COMPANY CASE NO. PUR-2023-00169

For approval to continue rate adjustment clause, the EE-RAC, and for approval of new energy efficiency programs pursuant to §§ 56-585.1 A 5 c and 56-596.2 of the Code of Virginia

FINAL ORDER

On November 30, 2023, Appalachian Power Company ("APCo" or "Company"), pursuant to §§ 56-585.1 A 5 c and 56-596.2 of the Code of Virginia ("Code") and the Final Order of the State Corporation Commission ("Commission") in Case No. PUR-2021-00236,[1] filed with the Commission a petition ("Petition") for approval: (i) of the continued implementation of its rate adjustment clause ("EE-RAC") to recover the costs of its portfolio ("EE-Portfolio") of energy efficiency ("EE") programs; (ii) of two new EE programs; and, (iii) to continue and enhance several existing programs.[2]

In its Petition, the Company proposed to recover a total annual revenue requirement for the EE-RAC of approximately $32.9 million for the rate year of September 1, 2024 to August 31, 2025 ("Rate Year").[3] The proposed revenue requirement consists of two components: (i) a projected factor of approximately $27.8 million in costs related to the EE-Portfolio during the Rate Year, and (ii) a true-up factor of approximately $5.1 million

[1] *Petition of Appalachian Power Company, For approval to continue rate adjustment clause, the EE-RAC, and for approval of a new energy efficiency program pursuant to §§ 56-585.1 A 5 c and 56-596.2 of the Code of Virginia*, Case No. PUR-2021-00236, 2022 S.C.C. Ann. Rept. 371, Final Order (July 15, 2022).

[2] Ex. 2 (Petition) at 1, 9.

[3] *See id.* at 6, 7 and Schedule 46C; Ex. 3 (Catron Direct) at 3.

designed to return (or recover) any over- or under-recovery of costs associated with the EE-Portfolio from prior periods ("True-Up Factor").[4] APCo represented that it calculated the margin on EE program expenses based on a return on common equity of 9.2%, and that the Company anticipates the margin to change to 9.5% prospectively in accordance with the Commission's Final Order in Case No. PUR-2023-00002.[5]

APCo stated that the implementation of the proposed EE-RAC effective September 1, 2024, would increase the monthly bill of a residential customer using 1,000 kilowatt hours per month by approximately $1.29.[6] APCo stated that the Company intends to submit its next EE-RAC petition two years from now, and asks the Commission to order the Company make this filing on or before November 30, 2025.[7] Therefore, the Company proposed that the rates set in this proceeding would be in effect for approximately two years.

The two new EE programs APCo proposed to implement are the Residential School Kits Program and the Residential Multifamily In-Unit Program.[8] The Company stated that its Residential School Kits Program will provide energy education and take-home kits to students throughout APCo's service territory.[9] The Company stated that its Residential Multifamily In-Unit Program will provide a range of products and services that result in lower energy usage, including the direct installation of energy-saving measures and materials in individual units of

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[4] *See* Ex. 2 (Petition) at 6, 7.

[5] *See* Ex. 3 (Catron Direct) at 5-6; Ex. 7 (Cash Direct) at 6; Ex. 6 (Johnston Direct) at Schedule 1.

[6] Ex. 2 (Petition) at 7; Ex. 6 (Johnston Direct) at 4.

[7] Ex. 2 (Petition) at 9.

[8] *Id.* at 6.

[9] *Id.*

multifamily buildings with five or more units, and will identify and assist residents in completing additional energy savings opportunities.[10]

There are three existing programs previously approved by the Commission, comprising the Residential Low Income Single Family Program, the Residential Low Income Multifamily Program, and the Home Performance Program, that the Company seeks to extend by establishing a new five-year cycle to start in 2025.[11] Further, APCo proposed to make changes to enhance programs previously approved by the Commission, including the Energy Efficiency Kits Program, the Efficient Products Program, the Business Energy Solutions Program, and the Small Business Direct Install Program.[12]

On December 19, 2023, the Commission issued an Order for Notice and Hearing that, among other things, docketed this case; required the Company to provide notice of the Petition; established a schedule for the submission of notices of participation and prefiled testimony; scheduled a public hearing on the Petition; directed the Staff of the Commission ("Staff") to investigate the Petition and file testimony and exhibits containing its findings and recommendations thereon; and appointed a Hearing Examiner to conduct all further proceedings in this matter and to file a final report.

The Office of the Attorney General's Division of Consumer Counsel ("Consumer Counsel") and Appalachian Voices filed notices of participation. Public comments were filed on the Petition. Appalachian Voices filed testimony and exhibits on March 26, 2024. Staff filed testimony and exhibits on April 9, 2024. On April 30, 2024, APCo filed its rebuttal testimony.

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[10] *Id.*

[11] *See* Ex. 8 (Stafford Direct) at 2, 11; Ex. 3 (Catron Direct) at 4-5.

[12] *See* Ex. 5 (Diebel Direct) at 2 and Schedule 8, p. 5; Ex. 8 (Stafford Direct) at 2.

The evidentiary hearing was convened on May 21, 2024.[13] APCo, Consumer Counsel, Appalachian Voices, and Staff participated at the hearing.

On June 17, 2024, the Report of C. Mitch Burton, Jr., Hearing Examiner ("Report") was filed. In the Report, the Hearing Examiner made the following findings:

1. The non-contested revenue requirement amount of $29,462,849 should be approved for the updated EE-RAC.

2. The Company should continue to recover a current return on the [Volt/VAR Optimization or] VVO pilot program's capitalized investment using Construction Work in Progress.

3. The Commission should approve the Petition's requested approval for two new energy efficiency programs: (i) the Residential School Kits program and (ii) the Residential Multifamily In-Unit program. The record evidence demonstrated that these two EE programs qualify as being "in the public interest" pursuant to Va. Code § 56-576.

4. The Commission has the discretion to address all modifications and/or enhancements to existing EE programs that have been proposed in this case.

5. The Commission should approve the Company's unopposed modifications and extensions to existing EE programs.

6. The Commission should approve Staff's uncontested recommendation to establish cost caps based solely on the program costs for each approved energy efficiency and demand response program.

7. The record is insufficient to recommend that the Commission direct modifications, as proposed by Appalachian Voices, to existing EE programs that would (1) require customers to opt out of participation in the [Bring Your Own Thermostat or] BYOT program; (2) expand the BYOT program to small commercial customers; (3) offer tiered HVAC equipment rebates for customers displacing electric resistance heating with heat pumps; or (4) expand the Efficient Products Program to offer rebates for central heat pumps. Should the Commission, however, conclude that the public interest would be served by adopting some, or all, of Appalachian Voices' proposed modifications, the fact that the projected factor of the revenue requirement does not include these costs should not be an impediment. I also find that the Commission should adopt Appalachian Voices' alternative recommendation that the Commission direct the Company to consider these

[13] Three public witnesses appeared at the hearing to provide testimony on the Petition. Tr. 12-22; 37-44.

proposed modifications in the stakeholder process at the earliest opportunity, and then, bring the proposed modifications to the Commission for approval in its next EE-RAC Petition.

8. APCo should be directed, to the extent that it is not already, to ensure that its EE programs are marketed towards customers that have shown an interest in renewable energy efforts.

9. The Company should be required to present its progress towards Va. Code § 56-596.2's total annual energy savings on a net and gross basis in future EE-RAC petitions.

10. The Company should be directed to include in its annual EM&V report information and metrics, to the extent such information and metrics exist, that can be used to facilitate the Commission's reporting requirements identified in § 56-585.1 A 5 c.

11. All of Staff's unopposed recommendations regarding future reporting requirements should be adopted.

12. APCo's uncontested request to have the next EE-RAC petition be filed on March 15, 2026, should be approved, pending the Company's explanation for what would happen to the EE-RAC charge after August 31, 2025, and until the next EE-RAC filing.[14]

APCo, Staff, Appalachian Voices and Consumer Counsel filed comments on the Report ("Comments").

NOW THE COMMISSION, upon consideration of this matter, is of the opinion and finds as follows.[15]

[14] Report at 53-54.

[15] The Commission has thoroughly considered and evaluated the evidence and arguments in the record of this proceeding. *See also Board of Supervisors of Loudoun County v. State Corp. Comm'n*, 292 Va. 444, 454 n.10 (2016) ("We note that even in the absence of this representation by the Commission, pursuant to our governing standard of review, the Commission's decision comes to us with a presumption that it considered all of the evidence of record.") (citation omitted).

Hearing Examiner's Report

After analyzing the law and weighing the evidence – and providing a thorough and detailed analysis thereof – the Hearing Examiner recommended the issuance of an order that:[16]

(1) ***ADOPTS*** the findings and recommendations of this Report;

(2) ***DIRECTS*** APCo to file its next EE-RAC petition no later than March 15, 2026; and

(3) ***DISMISSES*** this case from the Commission's docket of active cases.[17]

Upon consideration of this matter, the Commission concludes the Hearing Examiner's findings and recommendations are supported by the law and evidence, have a rational basis, and are adopted subject to the modifications and additional findings herein.

Finding Nos. 1, 3 and 5

The Commission approves APCo's two new proposed energy efficiency programs, the Residential School Kits program and the Residential Multifamily In-Unit program, as well as the Company's proposed modifications and extension of existing energy efficiency programs, as recommended by the Hearing Examiner.[18] The Commission also approves an EE-RAC Rate Year revenue requirement of $29,462,849, which was uncontested.

Finding No. 6

The Commission approves Staff's recommended cost caps based solely on program costs for each approved energy efficiency and demand response program, which is shown below in the Total column:[19]

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[16] Report at 54.

[17] *Id.*

[18] *Id.* at 53.

[19] *Id.*; Ex. 15 (Watkins Direct) at Statement 4.

Program Cost Caps for New and Extended EE Programs $ 000s						
Program	**2025**	**2026**	**2027**	**2028**	**2029**	**Total**
Residential School Kits Program	570	587	604	623	641	3,025
Residential Multifamily In-Unit Program	1,332	1,137	1,161	1,187	1,213	6,030
Low Income Multifamily Program (Extend)	5,806	5,813	5,820	5,827	5,835	29,100
Low Income Single-Family Program (Extend)	4,594	4,599	4,604	4,609	4,613	23,019
Home Performance Program	3,846	3,857	3,867	3,878	3,890	19,338
Grand Total	16,148	15,992	16,056	16,123	16,193	80,512

The Commission further takes this opportunity, as it has in two recent cases,[20] to emphasize the cost caps established herein are based on the utility's estimated costs and the programs' benefits. To the extent the facts underlying the Commission's approval change significantly, including the associated cost, reevaluation of a particular program or measure may be needed to determine if it continues to be reasonable and prudent. A cost cap is not a blanket authorization to spend up to an identified level. Instead, a cost cap signals only that costs up to the cap in pursuit of the program or measure are presumed to be reasonable and prudent based on the record herein. Importantly, a cost cap does not relieve the Company of its obligation to prudently manage costs.

[20] *Application of Washington Gas Light Company, For approval of a biogas supply investment plan and for a rate adjustment clause designated RNG Rider and related tariff provisions pursuant to Chapters 10.1 and 30 of Title 56 of the Code of Virginia*, Case No. PUR-2023-00220, Doc. Con. Cen. No. 240560079, Final Order at 10-11 (May 30, 2024); *Petition of Virginia Electric and Power Company, For revision of a rate adjustment clause, designated Rider GT, under § 56-585.1 A 6 of the Code of Virginia*, Case No. PUR-2023-00136, Doc. Con. Cen. No. 240510023, Final Order at 13 (May 1, 2024).

Finding No. 7

The Commission declines to adopt the modifications to the existing EE programs recommended by Appalachian Voices, consistent with the Hearing Examiner's recommendation.[21] The Commission agrees with the Hearing Examiner that "[i]t would be beneficial to have foresight into the potential impacts – especially when the statutory framework places emphasis on passing a certain number of proscribed cost benefit analyses."[22] The Commission adopts the Hearing Examiner's alternative recommendation in this regard and directs the Company to consider these proposed modifications in the stakeholder process at the earliest opportunity, and then, if appropriate, bring the proposed modifications to the Commission for approval in its next EE-RAC Petition.[23]

Finding No. 9

Once DSM programs have been approved, the Company is required to submit annual evaluation, measurement, and verification ("EM&V") reports of the approved programs to the Commission including evidence of actual energy savings achieved as a result of each specific program along with revised cost-benefit test results that incorporate actual Virginia energy savings and cost data. APCo's 2022 EM&V Report includes data regarding both the "gross" and "net" savings of APCo's program for calendar year 2022.[24] As defined by APCo's 2022 EM&V Report, "gross impacts" are "changes in energy consumption/demand that result directly from

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[21] Report at 53-54.

[22] *Id.* at 42-43.

[23] *Id.* at 54.

[24] APCo's 2022 EM&V Report includes two sub-components: the 2022 Virginia Commercial & Industrial Program EM&V Report and the 2022 Virginia Residential Portfolio EM&V Report. The 2022 EM&V Report is dated April 2023 and was filed with the Commission on May 1, 2023. The 2022 EM&V Report is included in the record of this proceeding in Ex. 2 (Petition).

program-promoted actions regardless of the extent or nature of program influence on these actions."[25] APCo's 2022 EM&V Report defines "net impacts" as "[t]he portion of gross impacts that is directly attributable to the actions of the Company's energy efficiency and/or demand response programs."[26] The 2022 EM&V Report further explains the distinction between net and gross impacts as follows:

> Net savings may be less than gross savings because of free ridership impacts, which arise to the extent that participants in a program would have adopted energy efficiency measures and achieved the observed energy changes even in the absence of the program. Free riders for a program are defined as those participants that would have installed the same energy efficiency measures without the program. Spillovers occur when the program influences the implementation of measures that do not receive program incentives and may add to the total program net savings.[27]

Staff and parties request the Commission rule on the proper calculation of the Company's total annual energy savings for purposes of the energy savings requirements contained in Code § 56-596.2 B, particularly whether it should be on a net or gross basis. APCo asserts that the total annual energy savings should be calculated on a gross basis, which is unadjusted for the impacts of free ridership and spillover.[28] Staff, Consumer Counsel, and Appalachian Voices argue that total annual energy savings should be calculated on a net basis, which would remove

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[25] Ex. 2 (Petition), 2022 Commercial & Industrial Program EM&V Report at 5.

[26] *Id.*

[27] *Id.* at 23.

[28] Tr. 96; Report at 50.

the impacts of free ridership.[29] Staff also posits that spillover energy savings can be attributed to net savings, as APCo has presented in this case.[30]

The energy savings requirements at issue are contained in Code § 56-596.2 B, which states, in part (emphasis added):

> Notwithstanding any other provision of law, each investor-owned incumbent electric utility shall implement energy efficiency programs and measures to achieve the *following total annual energy savings*:
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> 1. For Phase I electric utilities:
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> a. In calendar year 2022, at least 0.5 percent of the average annual energy jurisdictional retail sales by that utility in 2019;
> b. In calendar year 2023, at least 1.0 percent of the average annual energy jurisdictional retail sales by that utility in 2019;
> c. In calendar year 2024, at least 1.5 percent of the average annual energy jurisdictional retail sales by that utility in 2019; and
> d. In calendar year 2025, at least 2.0 percent of the average annual energy jurisdictional retail sales by that utility in 2019;

In turn, Code § 56-576 defines "[t]otal annual energy savings" as follows (emphasis added):

> (i) the total combined kilowatt-hour savings *achieved* by electric utility energy efficiency and demand response programs and measures installed in that program year, as well as savings still being achieved by measures and programs implemented in prior years, or (ii) savings attributable to newly installed combined heat and power facilities, including waste heat-to-power facilities, and any associated reduction in transmission line losses, provided that biomass is not a fuel and the total efficiency, including the use of thermal energy, for eligible combined heat and power facilitates must meet or exceed 65 percent and have a nameplate capacity rating of less than 25 megawatts.

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[29] Tr. 137 (Holmes), Tr. 141 (Bartley).

[30] Ex. 14 (Brunelle Direct) at 39 (supporting the Company's net calculation as set forth in its 2022 EM&V Report at 27); Tr. 135-136.

On this issue, the Hearing Examiner found that (i) "[i]n light of the fact that the net versus gross debate has no impact on the revenue requirement for this proceeding, the Commission need not address the issue"[31] and (ii) "in the event that the Commission desired to address the request of the parties to resolve this issue in this case, I recommend that the Commission use a net savings metric . . . ."[32] In support of his recommendation to use a net savings metric, the Hearing Examiner reasoned that "to ignore the known free ridership and spillover impacts, by calculating total annual energy savings using a gross savings calculation, would be measuring something other than the savings 'attributed to the effects of [an EE] program.'"[33]

The Commission finds that deciding this issue is appropriate in this proceeding. Code § 56-585.1 A 5 c requires the Commission to "annually monitor and report to the General Assembly the performance of all programs approved pursuant to this subdivision, including each utility's compliance with the total annual savings required by § 56-596.2 . . . ."[34] This case presents the first instance involving a year (2022) where the Commission must report the Company's total annual energy savings pursuant to Code § 56-585.1 A 5.

In its Final Order in Case No. PUR-2021-00247, the Commission explained that:

> Determining whether [a utility] has achieved the 2022 total annual savings percentage in Code § 56-596.2 B will require a factual analysis based on a separate record, which has yet to be developed and which is not yet before us for such purpose. Under the statute, that required factual analysis is not articulated in terms of "gross" or "net" savings, which are neither referenced nor defined therein. Rather, [the utility] has the burden to establish, on a factual basis,

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[31] Report at 47.

[32] *Id.* at 51.

[33] *Id.* (quoting APCo's 2022 EM&V Report).

[34] Staff Comments at 3.

> the "total combined kilowatt-hour savings achieved by" its energy efficiency and demand response programs and measures.
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> In this regard, the definition of "achieved" is: "1 a : to bring to a successful conclusion : carry out successfully : accomplish ... 2 : to get as the result of exertion : succeed in obtaining or gaining : win, reach, attain." Accordingly, based on the plain language thereof, when [the utility] seeks findings on the savings achieved for purposes of this statute, the Company must factually establish the amount of savings that occurred *as the result* of its programs and measures.[35]

The Commission further noted therein that: "[f]or example, to the extent the term 'free riders' factually represents specific savings that can be reasonably identified, and that were *not* achieved as a result of [the utility's] programs and measures, such savings do not fall within the plain language of this statute."[36] Accordingly, the Commission concludes that "net" savings, which removes free ridership from total gross savings, is the appropriate measurement of the total annual savings required by § 56-596.2. Based on the record in this case, APCo has provided sufficient justification to include additional energy savings from program participant spillover effects, which increases net savings.[37]

The Commission concludes that the evidence supports a factual finding that the net savings presented by the Company and supported by its 2022 EM&V Report are appropriately used to determine the "total combined kilowatt-hour savings achieved by" APCo's energy efficiency and demand response programs and measures. These amounts exclude savings that have been reasonably identified as not achieved by APCo's programs and measures. This

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[35] *Petition of Virginia Electric and Power Company, For approval of its 2021 DSM Update pursuant to § 56-585.1 A 5 of the Code of Virginia*, Case No. PUR-2021-00247, 2022 S.C.C. Ann. Rept. 384, 387 (Aug. 10, 2022) (internal footnotes omitted).

[36] *Id.* at 387 n.33.

[37] Ex. 14 (Brunelle Direct) at 34-35.

conclusion is supported by, among other things, the analysis contained in APCo's 2022 EM&V Report, which "spends considerable effort addressing the impacts of free riders and spillover to calculate net savings."[38] Indeed, APCo's 2022 EM&V Report acknowledges "[t]he basic challenge in net savings analysis is determining what part of gross savings achieved by program participants *can be attributed to the effects of the program.*"[39]

Using the net impacts figures from the 2022 EM&V Report, as updated by the Company's rebuttal testimony, the Commission finds that APCo had total combined kilowatt-hour savings of 219,036 MWh,[40] which is more than APCo's 2022 total annual energy savings target of 0.5% or 72,260 MWh.[41]

Finally on this issue, the Hearing Examiner's Finding No. 9 states the Company should be required to present its progress towards the total annual energy savings required by Code § 56-596.2 on a net and gross basis in future EE-RAC petitions. The Commission agrees and will require the Company to present its progress on both a gross and net basis,[42] and such should also be included in the Company's annual EM&V report.

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[38] Report at 50 n.226.

[39] *Id.* at 50 (quoting 2022 Commercial & Industrial Program EM&V Report at 23).

[40] Of this amount, 28,289 MWh is associated with the energy savings associated with Large General Service customers that opted-out of paying for the Company's energy efficiency programs because they have installed their own energy efficiency measures. Ex. 5 (Diebel Direct) at 26.

[41] Ex. 14 (Brunelle Direct) at 40; Ex. 19 (Diebel Rebuttal); Ex. 10 (Corrected Portions of EM&V Report). The Company's 2019 retail energy sales were 14,452,000 MWh. Ex. 14 (Brunelle Direct) at 8-9, 24.

[42] Such reporting should include a chart comparable to that presented by Staff witness Brunelle and should also separately identify savings from opt-out customers. Ex. 14 (Brunelle Direct) at 40.

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Total Performance Incentive Calculation

APCo included in its requested revenue requirement an amount for a projected total performance incentive the Company believes it will earn on 2023 EE program operating expenses.[43] Staff made an adjustment to exclude from the revenue requirement any total performance incentives based on EE program expenses incurred after December 31, 2022, arguing that the Company must demonstrate that it met its energy savings targets set forth in Code § 56-596.2 to be eligible to receive any performance incentives on actual EE program operating expenses.[44] In calculating the total performance incentive due to APCo under the provisions of the VCEA, the Commission finds that the amount awarded in this case is limited to that earned on actual calendar year 2022 EE program operating expenses, as calculated by Staff.[45]

Finding No. 12

Recommendation No. 12 found that APCo's uncontested request to have the next EE-RAC petition be filed on March 15, 2026, should be approved, pending the Company's explanation for what would happen to the EE-RAC charge after August 31, 2025, and until the next EE-RAC filing. In its comments on the Hearing Examiner's Report, APCo responded to this recommendation, stating "the Company proposes to leave the EE-RAC rates approved in Case No. PUR-2023-00169 in place until such time that the new rates are approved in the Company's

[43] *See* Ex. 15 (Watkins Direct) at 10-12. The Company included projected margins for the future period of January 1, 2023, through August 31, 2024, in addition to actual earned performance incentives. *Id.* at 11 n.24.

[44] *See e.g.,* Report at 25-26; Ex. 15 (Watkins Direct) at 10-12.

[45] *See e.g.,* Ex. 15 (Watkins Direct) at 10-12. Because APCo did not contest Staff's proposed revenue requirement (Ex. 17 (Stafford Rebuttal) at 7), no further adjustments to the revenue requirement are needed based on this determination.

next EE-RAC proceeding."[46] The Commission finds the Company's unopposed request reasonable.[47]

Accordingly, IT IS ORDERED THAT:

(1) The Commission adopts the findings and recommendations of the Hearing Examiner, subject to the modifications and additional findings herein.

(2) The Hearing Examiner's recommendations, set forth and modified herein, are hereby ordered.

(3) The Company forthwith shall file a revised EE-RAC and supporting workpapers with the Clerk of the Commission and submit the same to the Commission's Divisions of Public Utility Regulation and Utility Accounting and Finance, as is necessary to comply with the directives set forth in this Final Order. The Clerk of the Commission shall retain such filings for public inspection in person and on the Commission's website: scc.virginia.gov/pages/Case-Information.

(4) The EE-RAC as approved herein shall become effective for usage on and after September 1, 2024, and shall remain in place until such time as the new rates are approved in the Company's next EE-RAC proceeding.

(5) APCo shall file its next EE-RAC petition on or before March 15, 2026.

(6) This case is continued.

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[46] APCo's Comments at 1.

[47] The Company shall continue to comply with all previous Commission directives concerning filing requirements related the EE-RAC and the annual EM&V Report.

A COPY hereof shall be sent electronically by the Clerk of the Commission to all persons on the official Service List in this matter. The Service List is available from the Clerk of the Commission.