

**PETITION OF**

**APPALACHIAN POWER COMPANY**

2024 AUG 30 P 12: 04  
CASE NO. PUR-2024-00020

**For approval of its 2024 RPS Plan under  
§ 56-585.5 of the Code of Virginia and  
related requests**

**REPORT OF MICHAEL D. THOMAS, SENIOR HEARING EXAMINER**

**August 30, 2024**

This case involves a request by Appalachian Power Company (“APCo” or “Company”) for approval of its annual filing for the development of new solar, onshore wind, and energy storage resources (“RPS Filing”) pursuant to Code § 56-585.5 D 4 (“2024 RPS Plan”). The Company did not propose any new renewable generation resources or energy storage resources in this proceeding. The record in this proceeding supports: (i) the approval of the Company’s 2024 RPS Plan; (ii) the adoption of Staff’s actual December 31, 2023 ratemaking capital structure with an authorized ROE of 9.20% and 9.50% for the applicable periods for the development of the Company’s total Rate Year revenue requirement; (iii) the approval of a total 2024 RPS Plan revenue requirement of \$16,477,482, which consists of an A.5 RPS RAC of \$13,880,541, an A.5 PCAP RAC of \$1,427,767, an A.6 RPS RAC of \$1,201,956, and a Rider NBC credit of (\$32,782); (iv) the approval of the Company’s request to collect approximately \$1.2 million in abandonment costs related to the cancellation of the Bedington and Firefly solar facilities; and (v) the approval of the Company’s proposed Rider NBC to recover VCEA costs, net of benefits, from the Company’s shopping customers.

**HISTORY OF THE CASE**

The Virginia Clean Economy Act (“VCEA”)<sup>1</sup> established a mandatory renewable energy portfolio standard (“RPS”) for the Company and requirements for the procurement of zero-carbon electricity generating capacity and energy storage resources. Additionally, Subdivision D 4 of § 56-585.5 of the Code of Virginia (“Code”) requires the Company to submit annually to the State Corporation Commission (“Commission”) an RPS Filing including plans and petitions for approval of new solar and onshore wind generation capacity. The RPS Filing must also include the Company’s plan to meet the energy storage project targets of Code § 56-585.5 E. The Commission must determine whether the RPS Filing is reasonable and prudent, giving due consideration to the following factors: (i) the RPS and carbon dioxide reduction requirements in Code § 56-585.5; (ii) the promotion of new renewable generation and energy storage resources within the Commonwealth, and associated economic development; and (iii) fuel savings projected to be achieved by the plan.<sup>2</sup> The Commission’s final order regarding any RPS Filing is required by Code § 56-585.5 D 4 to be entered by the Commission not more than six months after the date of such

<sup>1</sup> 2020 Va. Acts chs. 1193 and 1194.

<sup>2</sup> Code § 56-585.5 D 4.

filing. On April 25, 2024, the Company filed its annual RPS Filing with the Commission (“2024 RPS Filing” or “Petition”), and the next day, APCo filed a Motion for Protective Ruling.

In its 2024 RPS Filing, the Company requested that the Commission: (i) approve the Company’s 2024 RPS Plan for the development of new solar, wind, and energy storage resources pursuant to Code § 56-585.5 D 4; (ii) approve a revenue requirement of \$16,503,258 for the period November 1, 2024 through October 31, 2025 (“Rate Year”) to be recovered through the rate adjustment clauses (“RACs”) previously approved by the Commission in the *RPS Cost Allocation Case*;<sup>3</sup> (iii) approve Rider VCEA – Net of Benefits Cost Rider (“Rider NBC”); and (iv) approve the Company’s request to be relieved of the requirement to conduct a retirement analysis of its Amos and Mountaineer coal-fired power plants in future VCEA filings.<sup>4</sup>

The Company stated to meet the requirements of the VCEA, its 2024 RPS Plan includes multiple scenarios to inform future requests for proposals for renewable and storage resources, and that “[a]ll scenarios meet both the RPS goals (Subsection C), Virginia-domiciled renewable generator requirements (Subsection D), and the energy storage requirements (Subsection E).”<sup>5</sup> The Company further stated the 2024 RPS Plan continues to support a balanced and diverse portfolio of resources consisting of solar, wind, and renewable energy certificate (“REC”) purchases.<sup>6</sup>

The Company stated, in developing the 2024 RPS Plan, APCo ran multiple portfolio optimizations with different resources available.<sup>7</sup> The Company further stated each of the portfolios modeled for this RPS analysis was least cost, VCEA compliant, and demonstrated an optimal selection of diverse resources.<sup>8</sup> According to the Company, the 2024 RPS Plan is designed to:

- Issue requests for proposals for onshore wind, solar, and energy storage resources;
- Pursue lowest cost compliance options consistent with the allocation percentages for construction or purchase described in Subsection D of Code § 56-585.5; and
- Make market REC purchases when advantageous.<sup>9</sup>

Additionally, the Company stated it has an application pending before the Commission for approval to construct and operate a battery energy storage system, the Glade-Whitetop Project,<sup>10</sup> which the Company stated is in compliance with the VCEA, and the interim targets established by the Commission’s Regulations Governing the Deployment of Energy Storage.<sup>11</sup>

<sup>3</sup> *Filing of Appalachian Power Company, For consideration of the appropriate framework for cost recovery, the allocation of costs net of benefits pursuant to Code § 56-585.5 F, and class and jurisdictional cost allocation*, Case No. PUR-2022-00166, Final Order (Sep. 15, 2023) (“*RPS Cost Allocation Case*” or “*RPS Cost Allocation Order*,” as applicable).

<sup>4</sup> See Ex. 2, at 1, 17 (Petition).

<sup>5</sup> Ex. 3, at 4 (Stevens Direct).

<sup>6</sup> *Id.*

<sup>7</sup> Ex. 2, at 9 (Petition).

<sup>8</sup> *Id.*

<sup>9</sup> *Id.*

<sup>10</sup> See, *Application of Appalachian Power Company, For approval to construct and operate a battery energy storage system*, Case No. PUR-2024-00001, Doc. Con. Cen. No. 240240025, Order for Notice and Hearing (Feb. 23, 2024).

<sup>11</sup> See Ex. 2, at 8 (Petition); Ex. 3, at 5 (Stevens Direct) (citing 20 VAC 5-302-10 *et seq.*).

The Company requested approval to recover the Rate Year revenue requirement, through the RPS RACs, of \$16,503,258.<sup>12</sup> The Company stated this revenue requirement consists of: (i) the under-recovery of costs through December 2023 in the amount of \$7,042,124; (ii) the Bridge Period credit of \$9,812,605 for the period January 2024 through October 2024; and (iii) the VCEA Rate Year revenue requirement of \$19,273,739.<sup>13</sup>

The Company included in the revenue requirement a request to recover \$1,008,260 in costs associated with two solar facilities (Bedington and Firefly) that the Commission approved in its Final Order in the Company’s 2021 RPS Plan Case,<sup>14</sup> but that were canceled shortly thereafter.<sup>15</sup> The Company represented that: (i) these costs include engineering and legal costs associated with developing the purchase-sale agreements and evaluating the site, interconnection requirement assessments, and technology performance estimates; and (ii) APCo abandoned each project for reasons beyond its control, including the rapidly escalating costs of components and labor.<sup>16</sup>

The Company stated the cost allocation methodologies and mechanisms used in this Petition are those approved by the Commission in the RPS Cost Allocation Case, which are as follows:<sup>17</sup>

- (1) A.5 RPS RAC to recover \$13,880,179, the non-energy, non-ancillary services, non-capacity costs for all owned facilities, power purchase agreements (“PPAs”), and REC purchases;
- (2) A.5 PCAP RAC to recover \$1,427,767, the costs of the capacity purchased through PPAs; and
- (3) A.6 RPS RAC to recover \$1,195,313, the costs of capacity and energy from facilities owned by the Company.

The Company indicated the bill impact of the 2024 RPS Filing on a residential customer using 1,000 kilowatt-hours per month would be an increase of \$0.05, or 0.03% compared to rates in effect on March 31, 2024.<sup>18</sup>

In its 2024 RPS Filing, the Company proposed a new additional rider, Rider NBC, which would apply to a subset of APCo’s shopping customers switched pursuant to Code § 56-577 A 5 and that take service from APCo’s Open Access Distribution (“OAD”) tariff.<sup>19</sup> The Company asserted that because shopping customers are not subject to the fuel factor, the energy components of PPAs, which are the VCEA costs that are assigned to the fuel factor under the approved cost recovery framework, cannot be collected from shopping customers.<sup>20</sup> The Company proposed a

<sup>12</sup> Ex. 2, at 10 (Petition).

<sup>13</sup> *Id.* at 10, 11.

<sup>14</sup> *Petition of Appalachian Power Company, For approval of its 2021 RPS Plan under § 56-585.5 of the Code of Virginia and related requests*, Case No. PUR-2021-00206, 2022 S.C.C. Ann. Rep. 345, 349, Final Order on Petition and Associated Requests, and Order Bifurcating Proceeding (July 15, 2022) (“2021 RPS Plan Case” or 2021 RPS Plan Order,” as applicable).

<sup>15</sup> Ex. 2, at 11 (Petition).

<sup>16</sup> *Id.*

<sup>17</sup> *Id.* at 10.

<sup>18</sup> *Id.* at 11; Ex. 10, at 16 and Schedule 2 (Spaeth Direct).

<sup>19</sup> Ex. 2, at 15 (Petition).

<sup>20</sup> *Id.*

single rate mechanism, Rider NBC, to be trued-up annually that both collects the energy component of VCEA PPA riders and returns the energy benefits of the VCEA resources whose costs are collected through APCo's three VCEA RACs.<sup>21</sup>

Pursuant to prior Commission directive, the Company modeled a portfolio sensitivity to evaluate the customer impacts of potential early retirement of the Amos and Mountaineer power plants.<sup>22</sup> The Company represented that, in this analysis, all four units at these facilities were modeled as individual generators available for economic retirement selection, and that all assumptions and inputs used were the same as those used for modeling the least-cost plan for achieving RPS Program compliance and the APCo's VCEA Plan for achieving RPS Program compliance.<sup>23</sup>

The Company asserted that under this analysis, the model selected all the Amos and Mountaineer units to continue operations until 2040 as part of the least cost plans. According to the Company, this result reflects APCo's assumption that both units will run through 2040, consistent with orders from the Commission and the Public Service Commission of West Virginia.<sup>24</sup> Consequently, the Company requested that it be relieved of the requirement to conduct this analysis in future VCEA filings.<sup>25</sup>

The Company requested a waiver of Rule 60 of the Commission's Rules Governing Utility Rate Applications and Annual Informational Filings of Investor-Owned Electric Utilities ("Rate Case Rules")<sup>26</sup> that applications requiring an overall cost of capital include Schedules 3, 4, 5, and 8. The Company asserted that it is not asking for a change in its overall cost of capital from that which the Commission approved in Case No. PUR-2023-00002.<sup>27</sup>

Lastly, the Company requested a limited waiver of the requirements under the Rate Case Rules to file voluminous documents related to its legacy wind PPAs as part of Schedule 46.<sup>28</sup>

On May 13, 2024, the Commission entered an Order for Notice and Hearing, which among other things: docketed the Company's Petition; established a procedural schedule; required the Company to provide public notice of its Petition; allowed interested persons an opportunity to file written comments on the Petition; allowed any interested person to participate as a respondent by filing a notice of participation; directed Staff to investigate the Petition; granted the Company's

<sup>21</sup> *Id.*

<sup>22</sup> *Petition of Appalachian Power Company, For approval of its 2023 RPS Plan under § 56-585.5 of the Code of Virginia and related requests*, Case No. PUR-2023-00001, Doc. Cen. Con. No. 230910123, Final Order at 7 (Sept. 7, 2023) ("2023 RPS Plan Case" or "2023 RPS Plan Order," as applicable). *See also, Petition of Appalachian Power Company, For approval of its 2023 RPS Plan under § 56-585.5 of the Code of Virginia and related requests*, Case No. PUR-2023-00001, Doc. Cen. Con. No. 230820001, Report of A. Ann Berkebile, Senior Hearing Examiner at 51 (July 31, 2023).

<sup>23</sup> Ex. 2, at 14 (Petition).

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> 20 VAC 5-204-5 *et seq.* ("Rate Case Rules").

<sup>27</sup> Ex. 2, at 16-17 (Petition). *See also, Application of Appalachian Power Company, For a 2023 triennial review of its base rates, terms and conditions pursuant to § 56-585.1 of the Code of Virginia*, Case No. PUR-2023-00002, Doc. Cen. No. 231140010, Final Order (Nov. 30, 2023).

<sup>28</sup> Ex. 2, at 17 (Petition).

requests for limited waivers from the filing of certain schedules related to the Company's overall cost of capital and the filing of certain voluminous documents as part of Schedule 46 relating to APCo's legacy wind PPAs; and assigned the case to a Hearing Examiner to conduct all further proceedings in this matter on behalf of the Commission and file a final report.

By Hearing Examiner's Protective Ruling entered on May 20, 2024, APCo's Motion for Protective Ruling was granted.

On May 23, 2024, the Office of the Attorney General's Division of Consumer Counsel ("Consumer Counsel") filed a Notice of Participation.

On May 31, 2024, the Sierra Club filed a Notice of Participation. The Sierra Club is a nonprofit conservation organization incorporated in California, which represents approximately 600,000 dues-paying members nationwide and 16,753 dues-paying members in Virginia. The Sierra Club and its members are dedicated to exploring and protecting the wild places; practicing and promoting the responsible use of natural resources and ecosystems; educating and enlisting others to protect and restore the quality of the natural and human environment; and using all lawful means to carry out the foregoing objectives.

On June 11, 2024, the Old Dominion Committee for Fair Utility Rates ("Committee") filed a Notice of Participation. The members of the Committee are customers of APCo and are vitally interested in the outcome of this proceeding.

On June 14, 2024, Appalachian Voices filed a Notice of Participation. Appalachian Voices is nonprofit environmental organization that is dedicated to bringing people together to solve the environmental problems having the greatest impact on the central and southern Appalachian Mountains. Appalachian Voices advocates for solutions that protect the land, air, and water of the region, and that also foster resilient local economies and ensure a just and equitable transition to a clean energy economy.

On June 18, 2024, the Company filed its Proof of Notice and Service ("Proof of Notice").<sup>29</sup>

On July 10, 2024, the Company filed a Notice of Termination of Renewable Energy Purchase Agreement between Horsepen Branch Solar LLC and APCo. The Company stated the termination of the project does not have any impact on the revenue requirement requested in this case. The Company further stated the project was included as a resource in its RPS compliance portfolio set out in the RPS Plan proposed in this case. Lastly, the Company stated the loss of the project would be addressed in the 2025 RPS Plan.

The hearing was convened, as scheduled, on July 25, 2024. There were no public witnesses. The Company appeared by its counsel Noelle J. Coates, Esquire. The Sierra Club appeared by its counsel Dorothy E. Jaffe, Esquire, with the Sierra Club, and Claire M. Horan, Esquire, with Appalachian Mountain Advocates. The Committee appeared by its counsel Christian F. Tucker, Esquire, with the law firm of Christian & Barton LLP. Appalachian Voices appeared by its counsel Rachel James, Esquire, and Tyler Demetriou, Esquire, with the Southern Environmental Law

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<sup>29</sup> Ex. 1 (Proof of Notice).

Center. Consumer Counsel appeared by its counsel C. Meade Browder, Jr., Esquire, and Carew S. Bartley, Esquire. Staff appeared by its counsel Kiva Bland Pierce, Esquire, Raymond L. Doggett, Jr., Esquire, and Michael Zielinski, Esquire.

Post-Hearing Briefs were filed timely by the Company, Staff, Consumer Counsel, Appalachian Voices, the Sierra Club, and the Committee.

## WRITTEN COMMENTS

James D. LeBlanc, a resident of Forest, Virginia, objected to the Company raising its rates again. Mr. LeBlanc explained that he is retired and his Social Security payments have not kept up with inflation. He, and other senior citizens, are finding it difficult keeping up with the rising cost for essential services. Mr. LeBlanc requested that senior citizens be exempt from this and future rate increases.

## SUMMARY OF THE RECORD

### Appalachian Power Company

APCo presented the direct testimony of five witnesses: **John A. Stevens**, Regulatory Consultant – VA/TN for APCo; **Aaron C. Thomas**, Senior Accounting Manager for American Electric Power Service Company (“AEPSC”); **Michael M. Spaeth**, Manager, Regulated Pricing and Analysis for AEPSC; **William K. Castle**, Director of Regulatory Services – VA/TN for APCo; and **Ismael Martinez**, Manager, Resource Planning for AEPSC.

In his direct testimony, **Mr. Stevens**:

- Provided a summary of the proposed RPS revenue requirement and cost recovery;
- Provided an overview of the Petition and the 2024 RPS Plan;
- Provided an update on the Company’s previously approved VCEA-related projects;
- Explained the implications of the cost/benefit sharing between the Virginia and West Virginia jurisdictions;
- Demonstrated that the Company complied with the Commission’s reporting protocols and directives;
- Demonstrated that the Company complied with the RPS requirement set forth in Subsection C of the VCEA for 2023 through the retirement of renewable energy credits (“RECs”) in the PJM Interconnection LLC (“PJM”) Environmental Information Services, Generation Attribute Tracking System (“GATS”); and
- Discussed the Company’s progress towards meeting the requirement in Subsection D and E of the VCEA.<sup>30</sup>

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<sup>30</sup> Ex. 3, at 2 (Stevens Direct).

Mr. Stevens sponsored the following exhibits with his direct testimony:

- APCo Exhibit No. \_\_ (JAS) Schedule 1 – Commission Directives from the 2023 VCEA Order;
- APCo Exhibit No. \_\_ (JAS) Schedule 2 – RPS Compliance Report;
- APCo Exhibit No. \_\_ (JAS) Schedule 3 – Accelerated Renewable Energy Buyers Information; and
- APCo Exhibit No. \_\_ (JAS) Schedule 4 – Virginia SCC Tariff No. 27 VCEA-NBP (Virginia Clean Economy Act – Non-Bypassable) Riders.<sup>31</sup>

Mr. Stevens explained in the Company's Petition, APCo requested approval of a total annual revenue requirement of \$16,503,258 for the Rate Year, which consists of: (i) an under-recovery of costs through December 2023 of \$7,042,124; (ii) an expected Bridge Period over-recovery balance of \$9,812,605 for the period January 2024 through October 2024; and (iii) the Rate Year revenue requirement of \$19,273,739. The requested revenue requirement would result in an increase in the monthly bill of a residential customer using 1,000 kWh of approximately \$0.05 or 0.03%. Mr. Stevens confirmed the revenue apportionment and rates proposed are consistent with the rate framework and cost allocation methodology approved by the Commission in the Company's *RPS Cost Allocation Case*.<sup>32</sup>

Mr. Stevens explained the Company's 2024 RPS Plan includes multiple scenarios for renewable and storage resources. These scenarios meet both the RPS goals (Subsection C), Virginia-domiciled renewable generator requirements (Subsection D), and the energy storage requirements (Subsection E) of the VCEA. He asserted the Company's RPS Plan includes a balanced portfolio of resources consisting of solar, wind, and market purchases. In this case, the Company requested cost recovery for previously approved VCEA renewable resources that are in service or will go in service during the rate year.<sup>33</sup>

Mr. Stevens explained, as required by the VCEA,<sup>34</sup> the Company issued three separate competitive Request for Proposals ("RFPs") on April 4, 2023, one each for: (i) Purchase Sale Agreements ("PSAs"); (ii) PPAs; and (iii) RECs. The Company received 13 conforming PSA bids, 18 conforming PPA bids, and no bids from the REC RFP. APCo selected three Virginia solar PPA projects (County Line Solar, Elliot Solar, and 7 Bridges Solar), obtained prudency approval from the Commission, and included the projects in the Company's RPS portfolio.<sup>35</sup>

Mr. Stevens described the Company's efforts to comply with the Virginia Environmental Justice Act ("VEJA").<sup>36</sup> Based on its review, the Company determined that none of the selected projects are expected to have a disproportionately high or adverse environmental impacts on environmental justice communities in the area where each is being built.<sup>37</sup>

<sup>31</sup> *Id.*

<sup>32</sup> *Id.* at 3; *See, RPS Cost Allocation Case*, Case No. PUR-2022-00166, Final Order (Sep. 15, 2023).

<sup>33</sup> Ex. 3, at 4 (Stevens Direct).

<sup>34</sup> Code § 56-585.5 D 3.

<sup>35</sup> Ex. 3, at 4-5 (Stevens Direct).

<sup>36</sup> Code § 2.2-234 *et seq.*

<sup>37</sup> Ex. 3, at 5-6 (Stevens Direct).

Mr. Stevens provided an update on the seven solar PPAs and one wind PSA approved by the Commission in APCo's last VCEA proceeding in the chart below:<sup>38</sup>

**Figure 1: 2023 Projects Development Status Update**

Facility	Type	Developer	Size	Term	Location	Target COD
River Trail	PPA	Energix	20 MW	20 yr.	VA	11/1/2024
Shifting Sands	PPA	Energix	19 MW	20 yr.	VA	11/1/2024
Sunny Rock	PPA	Energix	20 MW	20 yr.	VA	11/1/2024
Mountain Brook	PPA	Energix	20 MW	20 yr.	VA	12/1/2025
Green Acres	PPA	Madison	5 MW	30 yr.	VA	12/1/2024
Pleasant Prairie	PPA	Invenergy	100 MW	20 yr.	OH	3/1/2026
Horsepen Branch	PPA	Clenera	20 MW	30 yr.	VA	12/1/2025
Grover Hill	PSA	Lotus	143 MW	-	OH	2/1/2026

Mr. Stevens described the resources the Company will use to meet the RPS requirements through the end of the Rate Year, which includes the Virginia retail share of its base rate hydro assets, the Legacy Wind PPAs (Camp Grove, Fowler Ridge, and Bluff Point), two solar facilities (Leatherwood and Wytheville), the contracted Depot and Amherst solar facilities, RECs from the falling water portion of the Company's Smith Mountain Lake ("SML") Facility, and the purchase of market RECs. In addition, four solar PPAs approved in the *2023 RPS Plan Case* (River Trail, Shifting Sands, Sunny Rock, and Green Acres) are projected to commence commercial operations in 2024 and would be available to meet the Company's RPS requirements during the Rate Year. For this reason, the Company is requesting approval to recover the costs associated with those PPAs in this case.<sup>39</sup>

Mr. Stevens confirmed that even with the RPS projects previously approved by the Commission and the RECs that those projects are expected to generate, by 2027, the Company estimates it would be short by approximately 0.9 million RECs of meeting the 2027 Virginia retail REC requirement. To meet this shortfall, the Company stated it would have to rely on the REC market. In this case, the Company requested to recover the costs of RECs purchased in the PJM REC market to meet its RPS requirements during the Rate Year.<sup>40</sup>

Mr. Stevens described the cost allocation between Virginia and West Virginia if the Commission approves an RPS project and the West Virginia Public Service Commission ("WVPSC") denies the project. In that case, Virginia would be assigned 100% of the costs, 100% of the output, and 100% of the RECs associated with the project. Mr. Stevens confirmed the WVPSC approved West Virginia's jurisdictional share of the renewable projects that were the subject of the *2023 RPS Plan Case*.<sup>41</sup>

<sup>38</sup> *Id.* at 6.

<sup>39</sup> *Id.* at 6-7.

<sup>40</sup> *Id.* at 7-8.

<sup>41</sup> *Id.* at 8-9.



Mr. Stevens confirmed the Company complied with the VCEA compliance reporting protocols established by the Commission.<sup>42</sup>

Mr. Stevens explained the new multi-fuel designation assigned by PJM to the SML Facility, which was approved by PJM on March 6, 2024. Effective February 1, 2024, this allowed the Company to retire monthly RECs generated by the SML Facility in GATS.<sup>43</sup>

In APCo Exhibit No. \_\_ (JAS) Schedule 1, included with Mr. Stevens direct testimony, the Company provided a summary of the Commission's directives from the *2023 RPS Plan Case*, which included a description of each directive and the case number and specific document in which the directive was addressed. Since the Company modeled the retirement of the Amos and Mountaineer power plants in the *2023 RPS Plan Case* based on input from Staff, the Company requested that it be relieved of the requirement to conduct this analysis in future VCEA filings.<sup>44</sup>

Mr. Stevens stated the RPS requirement for the Company for 2023 was to procure and retire RECs from RPS eligible sources for 8% of the total electric energy sold in 2022.<sup>45</sup> He confirmed the Company complied with this requirement through the retirement of RECs in GATS.<sup>46</sup>

Mr. Stevens provided a summary below of the Company's RPS Compliance Report, which was included in APCo Exhibit No. \_\_ (JAS) Schedule 2 filed with his direct testimony:

**Figure 2: RPS Program Requirement**

Line	Description	Compliance Year
		<b>2023</b>
1	Total Retail Sales in the previous calendar year (MWh)	14,735,947
2	Exempt Customer Load (MWh)*	344,007
3	RPS Applicable Total Electric Energy (MWh)	14,391,940
4	Annual Percentage Requirement	8%
5	RPS Program Requirements (RECs)	1,151,355
6	Over-retired RECs from 2021 and 2022 Compliance Years	53,644
7	Amount of RECs to be retired for 2023 Compliance Year	1,097,711

\*The exempt customer load represents load from customers that elected pursuant to subdivision A 3 of § 56-577 to purchase electric energy from a competitive service provider prior to February 1, 2019.

Mr. Stevens explained to comply with the RPS Program goals, the Company retired 1,097,711 RECs in 2023. As a result, the Company did not need to pay any deficiency payments for compliance as set forth in the VCEA. These RECs were comprised of: APCo VCEA Eligible

<sup>42</sup> *Id.* at 9-10.

<sup>43</sup> *Id.* at 11.

<sup>44</sup> *Id.* at 12-13.

<sup>45</sup> Code § 56-585.5 C.

<sup>46</sup> Ex. 3, at 13 (Stevens Direct).

Renewable Production – 649,146 RECs; SML Falling Water – 41,554 RECs; Market Purchases or REC Bank Withdrawals – 276,283; and Intercompany Purchases – 130,728 RECs.<sup>47</sup>

Mr. Stevens confirmed the Company does not have any customers certified as accelerated renewable buyers at this time, although APCo has identified some customers that could qualify.<sup>48</sup>

Mr. Stevens explained in the *2023 RPS Plan Case*, the Company reported that it inadvertently over-retired 41,960 RECs in the 2021 compliance year and 11,684 RECs in the 2022 compliance year, for a total over-retirement of 53,644 RECs. In the *2023 RPS Plan Case*, the Commission found that APCo should be permitted to count these over-retired RECs toward future RPS Program requirements. Accordingly, the Company counted those RECs towards its RPS Program requirement for the 2023 compliance year.<sup>49</sup>

Mr. Stevens discussed the Company’s compliance with Subsections D and E of the VCEA. Subsection D requires APCo to petition the Commission for necessary approvals to construct, acquire, or enter into agreements to purchase the energy, capacity, and environmental attributes of 600 MW of generating capacity located in the Commonwealth using energy derived from sunlight or onshore wind. The VCEA requires that 65% must be Company-owned projects. Mr. Stevens stated, to date, the Company has petitioned the Commission for approximately 155 MW of owned generation and approximately 463 MW of PPA generation to comply with Subsection D.<sup>50</sup>

Regarding the battery energy storage requirement in the VCEA, the Company must petition the Commission for approval to construct or acquire 25 MW of energy storage by year-end 2025, with at least 35% of that amount being owned by someone other than the utility or purchased by the utility from a party other than the utility. Mr. Stevens confirmed the Company has a petition pending before the Commission to construct and operate a 7.5 MW battery energy storage system along its Glade-Whitetop distribution circuit.<sup>51</sup>

Mr. Stevens discussed the incentive the Company provides for behind the meter storage, which is available to customers who enroll in Optional Rider DRS (Demand Response Service). He noted the Company is currently working on automating the notification and compensation process, which is currently preventing a wider rollout of the rate schedule. In the meantime, Mr. Stevens indicated customers may obtain discounts under the Company’s Smart Time of Day or Smart Demand rate schedules by timing the charging and discharging of their storage resources to coincide with off-peak and on-peak periods.<sup>52</sup>

Mr. Stevens highlighted the Company’s progress towards meeting the requirement in the Grid Transformation and Security Act of 2018 (“GTSA”) for APCo to construct or acquire not less than 200 MW of solar sited in Virginia. He stated the Company recently acquired the Amherst

<sup>47</sup> *Id.* at 14-15.

<sup>48</sup> *Id.* at 16; *See*, APCo Exhibit No. \_\_\_ ( JAS) Schedule 3 Accelerated Renewable Energy Buyers Information.

<sup>49</sup> *Id.* at 17.

<sup>50</sup> *Id.* at 18-19.

<sup>51</sup> *Id.* at 19.

<sup>52</sup> *Id.* at 20.

solar facility (4.875 MW); however, the Firefly solar facility (150 MW) that APCo had received Commission approval to purchase was cancelled by the developer.<sup>53</sup>

Lastly, Mr. Stevens sponsored APCo Exhibit No. \_\_ (JAS) Schedule 4 – Virginia SCC Tariff No. 27 VCEA-NBP (Virginia Clean Economy Act – Non-Bypassable) Riders that would go into effect December 1, 2024.<sup>54</sup>

On cross-examination, Mr. Stevens confirmed the Company’s RPS modeling in this case did not include the impact of the final Environmental Protection Agency (“EPA”) rules on legacy coal combustion residuals, Section 111 greenhouse gas standards, revised effluent limitations guidelines, and the revised mercury and air toxics standards. He indicated that the new EPA rules would not be incorporated into APCo’s RPS modeling until the rules are implemented. He agreed the rules might impact the costs associated with different generation resources in the Company’s portfolio and when it might be economic to retire the Amos and Mountaineer power plants.<sup>55</sup>

Mr. Stevens was asked a series of questions regarding the new Section 111 greenhouse gas standards that he was unable to answer because he had no familiarity with the new regulation. The best that he could answer was that the Company plans to retire the Amos and Mountaineer power plants in 2040, which would make those power plants long-term coal-fired steam-generating units under the new regulation and would subject Amos and Mountaineer to the new requirements applicable to those power plants.<sup>56</sup>

Mr. Stevens confirmed APCo’s RPS Plan complies with Subsection B of Code § 56-585.5. In addition, he confirmed APCo’s RPS Plan complies with the GTSA.<sup>57</sup>

Regarding minimizing harms to environmental justice communities, Mr. Stevens agreed the Company considers the health effects associated with air pollution a harm. He was unsure whether missed days from work due to pollution-related illnesses constituted a harm.<sup>58</sup>

Mr. Stevens confirmed that if the Commission approves an RPS project and the WVPSC disapproves the project, Virginia would be allocated 100% of the costs and 100% of the benefits of the facility. He indicated that he did not know whether the same held true if the WVPSC approved an RPS project and the Commission denied it. Mr. Stevens was unsure whether Small Modular Reactors (“SMRs”) would be RPS compliant.<sup>59</sup>

Mr. Stevens confirmed the Company is aware of 17 projects with a total demand of approximately 7,732 MW and the earliest date of engagement with a prospective customer with an expected load over 200 MW was March 2023, more than a year before the Company filed its *2024 RPS Plan Case*.<sup>60</sup>

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<sup>53</sup> *Id.*

<sup>54</sup> *Id.* at 21.

<sup>55</sup> Tr. at 33-36 (Stevens).

<sup>56</sup> *Id.* at 38-43; *See*, Ex. 4.

<sup>57</sup> *Id.* at 51-53; *See*, 2018 Va. Acts ch. 296.

<sup>58</sup> *Id.* at 53-55.

<sup>59</sup> *Id.* at 55-58.

<sup>60</sup> *Id.* at 60-65; *See*, Exs. 7 and 8.

In his direct testimony, **Mr. Thomas**:

- Described the Company's calculations for the mandatory RPS RACs during the 13-month review period ending December 31, 2023 ("Review Period");
- Supported the Company's accounting and reporting of the allowable costs and revenues pursuant to its RPS RACs, including the associated regulatory assets and liabilities using deferral accounting, in accordance with Generally Accepted Accounting Principles ("GAAP") and the Federal Energy Regulatory Commission ("FERC") Uniform System of Accounts ("USOA"); and
- Supported the actual costs incurred by the Company in accordance with Schedule 46 filing requirements for RAC updates.<sup>61</sup>

Mr. Thomas sponsored the following exhibits with his direct testimony:

- Schedule 46 (c)(1)(i) – Actual Costs; and
- Schedule 46 (c)(1)(ii) – Transaction Support.<sup>62</sup>

Mr. Thomas identified the RACs that the Company requested to update in this case, which included:

1. NBP-Rider A.5 RPS – Compliance;
2. NBP-Rider A.5 PCAP Capacity;
3. NBP-Rider A.6 RPS Renewables – Capacity & Energy; and
4. Rider F.F.R. (Fuel Factor).<sup>63</sup>

Mr. Thomas confirmed: (i) the Review Period addressed in this case was December 1, 2022 through December 31, 2023; (ii) the Company recorded revenues and expenses to the proper FERC accounts and associated APCo sub-accounts in accordance with GAAP and FERC USOA; and (iii) the allowable costs, net of benefits, for each RPS RAC were compared to the RAC revenues to determine if the Company either over/under collected allowable expenses in a particular month.<sup>64</sup>

Mr. Thomas explained the Company created regulatory asset and liability sub-accounts within FERC Accounts 182.3 and 254 to track the over/under recovery deferrals for each RAC. In addition, the Company established separate sub-accounts within FERC Accounts 403 (Depreciation expense), 555 (Purchase power expense), and 557 (Other expenses) to track the income statement adjustments related to the over/under recovery deferrals.<sup>65</sup>

Mr. Thomas provided a chart showing the balance of the Company's regulatory assets/liabilities as of December 31, 2023.<sup>66</sup>

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<sup>61</sup> Ex. 9, at 2 (Thomas Direct).

<sup>62</sup> *Id.* at 3.

<sup>63</sup> *Id.*

<sup>64</sup> *Id.* at 3-4.

<sup>65</sup> *Id.* at 4.

<sup>66</sup> *Id.* at 5.

**Table 2. Regulatory Asset / (Regulatory Liability) Balances**

	December 31, 2023		
	A.5 RPS-RAC Account 1823703/ (2543703)	A.5 PCAP-RAC Account 1823704 / (2543704)	A.6. RPS-RAC Account 1823705 / (2543705)
Under-/(Over-) Recovery Balance	\$ 7,994,000	\$ (381,769)	\$ (170,017)
Review Period Adjustments	(145,789)	(312)	(60,321)
<b>Adjusted Under-/(Over-) Recovery Balance</b>	<b>\$ 7,848,211</b>	<b>\$ (382,081)</b>	<b>\$ (230,338)</b>

Mr. Thomas explained the Company separately tracked and identified costs related to approved VCEA resources to support the annual RAC revenue requirement and to recover costs from the appropriate customer groups based on the approved RAC framework.<sup>67</sup>

Mr. Thomas explained the costs recoverable through the Company’s approved RPS RAC are those reasonable and necessary costs incurred to meet the requirements in the VCEA, which included:

- weighted average cost of capital (“WACC”) return on VCEA-related capital investment, net of accumulated deferred income taxes (“ADIT”);
- depreciation and amortization expenses;
- asset retirement obligation expense;
- incremental VCEA-related operation & maintenance (“O&M”) expenses;
- property and income taxes related to VCEA investments and revenues;
- PPA expense;
- capacity sale benefits related to VCEA investments;
- REC expense related to RPS compliance; and
- benefits from federal investment or production tax credits.

Mr. Thomas explained the Company’s VCEA-related capital investment consists of the acquisition price of renewable generation facilities and any capitalizable costs incurred incidental to acquisition, and the Company’s VCEA-related rate base (VCEA-related capital investment, net of ADIT), serves as the basis to calculate a return using its approved WACC.<sup>68</sup>

Mr. Thomas described the procedures used by the Company for accruing and capitalizing allowance for funds used during construction (“AFUDC”).<sup>69</sup>

Mr. Thomas provided a chart summarizing how the VCEA resource costs and benefits were allocated between the RPS RACs during the Review Period.<sup>70</sup>

<sup>67</sup> *Id.* at 5-7.

<sup>68</sup> *Id.* at 7-8.

<sup>69</sup> *Id.* at 8.

<sup>70</sup> *Id.* at 9.

**Table 3. VCEA Resource Value Stream Percentages**

Facility Description	A.6. RPS-RAC	A.5 RPS-RAC	A.5 PCAP-RAC	Rider F.F.R (Fuel Factor)
Amherst	86.64%	13.36%	0.00%	0.00%
Leatherwood <sup>1</sup>	0.00%	100.00%	25.81%	74.19%
Wytheville <sup>1</sup>	0.00%	100.00%	25.96%	74.04%
Depot	0.00%	21.48%	38.45%	40.08%
Camp Grove	0.00%	44.70%	5.29%	50.01%
Fowler Ridge	0.00%	43.99%	5.94%	50.08%
Bluff Point	0.00%	35.08%	4.86%	60.07%
REC Purchase / Sale	0.00%	100%	0.00%	0.00%

<sup>1</sup> Leatherwood and Wytheville have two distinct products, bundled energy and capacity as well as RECs, with two contract prices delineating the two products. In accordance with the final order in Case No. PUR-2023-00001, the company is allocating 100% of the REC costs to the A.5 RPS RAC. The energy and capacity costs will follow the methodology approved in Case No. PUR-2021-00206.

Mr. Thomas confirmed the Company's retail energy jurisdictional allocation factor was used for all eligible RPS RAC costs and benefits, except for REC transactions related to VCEA compliance, which used a Virginia retail REC allocation factor.<sup>71</sup>

Mr. Thomas provided an overview of the VCEA resource costs, benefits, and revenues by RPS RAC for the Review Period.<sup>72</sup>

**Table 4. VCEA Costs, Benefits and Revenues by RPS RAC**

Description	A.5 RPS-RAC Account 1823703 /(2543703)	A.5 PCAP-RAC Account 1823704 /(2543704)	A.6. RPS-RAC Account 1823705 /(2543705)
Under/(Over-) Recovery Balance at November 30, 2022	\$ 15,204,764	\$ 1,172,838	\$ (83,072)
Amherst	24,243	-	157,181
Leatherwood	292,581	156,515	-
Wytheville	266,389	144,035	-
Depot	114,390	205,811	-
Wind REPs (Bluff Point, Camp Grove, and Fowler Ridge 3)	9,232,300	(203,020)	-
REC Purchase / Sale	8,154,542	-	-
Capacity Sale Benefits	-	(12,360)	-
PPA RFP Costs	-	193,668	-
Wind, Water and Sunlight Rider Renewable Energy Premium Revenues	(510,778)	-	-
Less RAC Revenues	(24,774,431)	(3,445,296)	(244,126)
Under/(Over-) Recovery Balance at December 31, 2023	\$ 7,994,000	\$ (381,769)	\$ (170,017)
Adjustments Related to Review Period	(145,789)	(312)	(60,321)
Adjusted Under/(Over-) Recovery Balance at December 31, 2023	\$ 7,848,211	\$ (382,081)	\$ (230,338)

Mr. Thomas explained the three RPS adjustments made by the Company after the close of the Review Period. First, the Company identified various formula errors in the monthly Amherst

<sup>71</sup> *Id.*

<sup>72</sup> *Id.* at 10-12.

over/under journal entry and corrected the errors, which resulted in a \$60,321 increase in the December 31, 2023 A.6 RPS RAC regulatory liability and a \$9,304 decrease in the December 31, 2023 A.5 RPS RAC regulatory asset. Second, the Company identified a formula error and classification error in the REC purchase/sale deferral schedule. These corrections resulted in a \$137,047 decrease in the December 31, 2023 A.5 RPS RAC regulatory asset. Lastly, the Company updated the Depot Solar PPA value stream percentages to the approved percentages in Case No. PUR-2021-00206. The adjustment resulted in a \$312 increase in the December 31, 2023 A.5 PCAP RAC regulatory liability and a \$561 increase in the December 31, 2023 A.5 RPS RAC regulatory asset.<sup>73</sup>

Finally, Mr. Thomas provided a summary of the abandonment costs associated with two VCEA-approved projects that were cancelled.<sup>74</sup>

**Table 5. Abandoned Project Cost as of December 31, 2023**

Project	Amount <sup>1</sup>
Bedington	\$ 620,621
Firefly	1,543,352
<b>Total</b>	<b>\$ 2,163,973</b>

<sup>1</sup>Amounts exclude AFUDC and are recorded to FERC Account 107.

In his direct testimony, Mr. Spaeth sponsored the Rate Year revenue requirement of \$16,503,258 for the period November 2024 through October 2025. Mr. Spaeth provided a table with a breakdown of the Company's revenue requirement by time period and by RAC.<sup>75</sup>

**Table 1. Rate Year revenue requirement by period**

	A.6 RPS RAC	A.5 RPS RAC	A.5 PCAP RAC	Total
Actuals through Dec 2023	(\$230,338)	\$7,848,211	(\$575,749)	\$7,042,124
Bridge Period (Jan 2024 - Oct 2024)	\$209,614	(\$8,762,360)	(\$1,259,859)	(\$9,812,605)
VCEA Rate Year (Nov 2024 - Oct 2025)	\$1,216,037	\$14,794,328	\$3,263,375	\$19,273,739
<b>Total Revenue Requirement</b>	<b>\$1,195,313</b>	<b>\$13,880,179</b>	<b>\$1,427,767</b>	<b>\$16,503,258</b>

Mr. Spaeth sponsored the following exhibits with his direct testimony:

- APCo Exhibit No. \_\_ (MMS) Schedule 1 – Amherst Cost of Service; and

<sup>73</sup> Ex. 9, at 13-14 (Thomas Direct); See, 2021 RPS Plan Case, Case No. PUR-2021-00206, 2022 S.C.C. Ann. Rep. 345, 349, Final Order on Petition and Associated Requests, and Order Bifurcating Proceeding (July 15, 2022).

<sup>74</sup> Ex. 9, at 14-15 (Thomas Direct).

<sup>75</sup> Ex. 10, at 2 (Spaeth Direct).

- APCo Exhibit No. \_\_ (MMS) Schedule 2 – Typical Bill Comparison.<sup>76</sup>

Mr. Spaeth also sponsored the following schedules:

- Schedule 46 (c)(1)(i), Statement 1 A.5 – RPS RAC;
- Schedule 46 (c)(1)(i), Statement 2 A.5 – PCAP RAC;
- Schedule 46 (c)(1)(i), Statement 3 A.6 – RPS RAC;
- Schedule 46 (c)(1)(iv), Statement 1 A.5 – RPS RAC Revenue Requirement Calculation;
- Schedule 46 (c)(1)(iv), Statement 2 A.5 – PCAP RAC Revenue Requirement Calculation;
- Schedule 46 (c)(1)(iv), Statement 3 A.6 – RPS RAC Revenue Requirement Calculation;
- Schedule 46 (c)(1)(v), Statement 1 A.5 – RPS RAC Allocation of Revenue Requirement by Class;
- Schedule 46 (c)(1)(v), Statement 2 A.5 – PCAP RAC Allocation of Revenue Requirement by Class; and
- Schedule 46 (c)(1)(v), Statement 3 A.6 – RPS RAC Allocation of Revenue Requirement by Class.<sup>77</sup>

Mr. Spaeth discussed the allocation factors, demand or energy, used to allocate the RPS revenue requirement to the Virginia retail jurisdiction. Consistent with the Commission’s *RPS Cost Allocation Order*, the Company allocated VCEA-related resource costs consistent with the method used for APCo’s existing generation resources. For owned generation, the Company allocated the costs to customer classes based on the 6CP demand allocator. The A.5 RACs are both class-allocated using the 6CP demand allocator except for REC-related costs which are allocated on annual energy. The jurisdictional allocation factors used in developing the revenue requirement are included in Schedule 46 Section 5, Statement 3. The class allocation factors are shown in Schedule 46 Section 5, Statement 3.<sup>78</sup>

Mr. Spaeth described the costs and revenues that are associated with the Bridge Period (January 2024 through October 2024), and how they factor into the 2024 Rate Year. The Bridge Period is used to determine the appropriate over/under recovery balance leading into the 2024 Rate Year that begins in November 2024. Mr. Spaeth described the calculation of the Bridge Period revenue requirement.<sup>79</sup>

Mr. Spaeth explained the Virginia jurisdictional revenue requirement is \$16,503,258 for the Rate Year, which is comprised of actual costs through December 2023 and the Bridge Period from January 2024 through October 2024. The Bridge Period includes estimated costs of RPS compliance, and RAC revenues approved in the *2023 RPS Plan Case*,<sup>80</sup> from approved renewable facilities and market REC purchases through October 2024. The resulting costs, by RAC mechanism, comprise the revenue requirement to be collected during the Rate Year.<sup>81</sup>

<sup>76</sup> *Id.*

<sup>77</sup> *Id.* at 3.

<sup>78</sup> *Id.* at 3-6.

<sup>79</sup> *Id.* at 7-9.

<sup>80</sup> *2023 RPS Plan Case*, Case No. PUR-2023-00001, Final Order (Sep. 7, 2023).

<sup>81</sup> Ex. 10, at 8 (Spaeth Direct).



Mr. Spaeth described the development of the going level revenue requirement forecast for the A.6 G-RAC, which represents the Virginia jurisdictional cost of the Amherst solar facility anticipated to occur in the Rate Year. Schedule 46, Section 5, Statement 3 presents an estimate of the revenue requirement over the 35-year life of the facility from 2023 to 2057.<sup>82</sup>

Mr. Spaeth described the development of the going level revenue requirement for the A.5 RPS RAC, which recovers the costs associated with REC purchases used to meet RPS compliance and the REC component of the Company's Legacy Wind Assets.<sup>83</sup>

Mr. Spaeth described the development of the going level revenue requirement for the A.5 PCAP RAC, which recovers the capacity-related costs associated with the resources described in the A.5 RPS RAC, except for the Amherst solar facility, REC transactions, and the Water, Wind, Sunlight premium.<sup>84</sup>

Pursuant to the Commission's direction in the *2024 Prudency Review Case*,<sup>85</sup> Mr. Spaeth confirmed the Company agreed that the marginal CO<sub>2</sub> emissions rate from the 2023 PJM Emissions Report is the appropriate data source to be used in future Social Cost of Carbon ("SCoC") calculations with the nominal cost of carbon produced by the U.S. Department of Energy's Report.<sup>86</sup>

Finally, Mr. Spaeth stated, as shown in APCo Exhibit No. \_\_\_ (MMS) Schedule 2 – Typical Bill Comparison, a residential customer using 1,000 kWh per month would see an increase of \$0.05, or 0.03% when compared to rates effective March 31, 2024.<sup>87</sup>

On cross-examination, Mr. Spaeth explained the process of developing the bill impacts analysis. He confirmed the analysis is the product of the cost allocation methodology approved by the Commission in the *RPS Cost Allocation Case*. He explained the approved methodology was used for the Rate Year, but the True-up and Bridge Period were calculated under the previous methodologies because rates were in effect at the time.<sup>88</sup>

Mr. Spaeth explained the relationship between Table 25 and 26 in the 2024 RPS Plan. He explained the inputs for Table 26 are fed from Table 25, which are the total portfolio costs and benefits of the RPS Plan, the Preferred Portfolio. He explained while Table 25 shows resources that are proposed to be part of the RPS Plan, Table 26 is more precise and shows the Rate Year impact of resources approved by the Commission that will be generating energy. In Table 25, the costs and benefits are allocated on the basis of 85% energy and 15% demand. Mr. Spaeth explained this was done to show the rate impact on an entire portfolio of renewable resources, not just those approved

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<sup>82</sup> *Id.* at 10-11.

<sup>83</sup> *Id.* at 11-13.

<sup>84</sup> *Id.* at 13-14.

<sup>85</sup> *Petition of Appalachian Power Company, For a prudency review, pursuant to § 56-585.1:4 H of the Code of Virginia, with respect to the purchase of the energy, capacity, and environmental attributes from solar facilities through power purchase agreements*, Case No. PUR-2023-00212, Final Order (Mar. 27, 2024) ("*2024 Prudency Review Case*" or "*2024 Prudency Review Order*," as applicable).

<sup>86</sup> Ex. 10, at 15 (Spaeth Direct).

<sup>87</sup> *Id.* at 16.

<sup>88</sup> Tr. at 70-71 (Spaeth).

by the Commission. He confirmed the VCEA RACs were calculated in accordance with the Commission's approved allocation methodology. He noted that the Company has been working with Staff to develop a more precise method of presenting a long-term bill impacts analysis. Mr. Spaeth confirmed that while SMRs are included as a resource in Table 25, the Company will not seek cost recovery until the Commission approves the development of SMRs.<sup>89</sup>

Mr. Spaeth confirmed that Table 25 in the 2024 RPS Plan only shows the long-term revenue requirement for renewable resources, it does not include any natural gas resources that may be part of a modeled portfolio. As a result, Table 26 would not show the bill impacts of any natural gas resources.<sup>90</sup>

Mr. Spaeth explained that the VCEA RACs are included in existing rates, the existing rate is \$171.73, and the proposed rate is \$171.78, an increase of \$0.05. He further explained that customer rates are also impacted by the Company's Fuel Factor Rider, which is impacted by the Company's renewable generation resources. Mr. Spaeth explained that the revenue requirement shown in Table 26 of the 2024 RPS Plan only shows the revenue required for the energy-related resources and does not include capacity-related offsets.<sup>91</sup>

Lastly, Mr. Spaeth confirmed that Staff witness Glattfelder's Table 20 shows an increase in two RACs and a decrease in two RACs, with the net result an overall \$0.05 increase.<sup>92</sup>

In his direct testimony, **Mr. Castle:**

- Addressed issues regarding cost allocation and cost responsibility for shopping customers; and
- Supported the request for approval to recover certain costs incurred for projects that were abandoned prior to going into service.<sup>93</sup>

Mr. Castle sponsored the following exhibit with his direct testimony:

- APCo Exhibit No. \_\_ (WKC) Schedule 1 – Net of Benefits Cost Rider applicable to the Company's F.O.A.D. and O.A.D. tariffs.<sup>94</sup>

To implement the Commission's *RPS Cost Allocation Case*, Mr. Castle explained the Company had to develop a mechanism to collect VCEA costs from shopping customers who are a non-exempt subset of customers who take service under APCo's OAD tariff.<sup>95</sup> The Company developed a single rate mechanism, Rider VCEA – Net of Benefits Cost Rider, that collects the energy component of the VCEA PPA riders, and returns the energy benefits of the VCEA resources whose costs are collected through APCo's three VCEA RACs. The Rider NBC rate will initially be

<sup>89</sup> *Id.* at 71-76; *See*, Ex. 13, 2024 RPS Plan at 34-35 (Martinez Direct).

<sup>90</sup> Tr. at 77-78 (Spaeth).

<sup>91</sup> *Id.* at 78-86.

<sup>92</sup> *Id.* at 86-88; *See*, Ex. 22, at 32 (Glattfelder Direct).

<sup>93</sup> Ex. 11, at 2 (Castle Direct).

<sup>94</sup> *Id.*

<sup>95</sup> Some of APCo's shopping customers are exempt from the non-bypassable charges pursuant to Subsection H of the VCEA. *Id.* at 3.

set to reflect the energy cost rate of the VCEA PPAs less the forecasted avoided energy costs of the VCEA resources for the Rate Year, excluding the Company's hydro facilities, which will constitute the in-period factor. In subsequent VCEA filings, the rate would consist of an estimate of the energy component of the VCEA PPAs for the rate year, an estimate of the avoided energy costs for the rate year, a reversal of the prior period estimates, and the prior period actual VCEA costs and actual avoided/off-system energy purchases and energy sales.<sup>96</sup>

Finally, Mr. Castle discussed the Company's proposal regarding the abandonment costs for the VCEA-approved projects that were cancelled. The Company proposed to defer such costs to the A.6 RPS RAC regulatory asset/liability and recover the costs over a one-year period. The Company proposed to collect approximately \$1.2 million in abandonment costs for the cancelled Bedington and Firefly solar facilities. Mr. Castle described the circumstances that led to the cancellation of the two solar projects, which generally related to significant cost increases for both projects.<sup>97</sup>

On cross-examination, Mr. Castle confirmed the timing of the cancellation of the Bedington and Firefly solar facilities. The Commission approved the Firefly solar facility on July 15, 2022. On September 28, 2022, APCo moved to suspend the Firefly certificate of public convenience and necessity ("CPCN") proceeding citing rising costs that could go materially above the amount presented in the *2021 RPS Plan Case*. On September 29, 2022, a Ruling suspending the CPCN case was entered. On November 29, 2022, APCo and the developer filed a joint motion to withdraw the application for a CPCN for the Firefly solar facility. The Commission granted the joint motion on December 14, 2022. Mr. Castle confirmed: (i) the cost increases for the Firefly solar facility related to the site, panel costs, and supply chain issues; (ii) the abandonment costs the Company is seeking to recover in this case were incurred by APCo, and the Company has not previously sought recover of those costs; and (iii) the Company is not seeking to recover any costs incurred by the developer.<sup>98</sup>

Mr. Castle confirmed the same cost issues that impacted the Firefly solar facility impacted the Bedington solar facility. By December 2022, the developer notified the Company that it would not move forward on the project unless it received a purchase price increase. Mr. Castle confirmed most of the material costs for the Bedington solar facility were incurred prior to December 2022.<sup>99</sup>

On questioning from the bench, Mr. Castle stated the Company provided a response to Staff Interrogatory No. 6-98, which provided invoices supporting the abandonment costs requested for the Bedington and Firefly solar facilities.<sup>100</sup>

Lastly, Mr. Castle explained how the Company developed Rider NBC after the *RPS Cost Allocation Case* to collect and return certain costs to shopping customers. He further explained the tariff change involving customers whose loads exceed 200 MW.<sup>101</sup>

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<sup>96</sup> *Id.* at 3-4.

<sup>97</sup> *Id.* at 4-7.

<sup>98</sup> Tr. at 91-96 (Castle).

<sup>99</sup> *Id.* at 96-97.

<sup>100</sup> *Id.* at 98-99; *See*, Ex. 12.

<sup>101</sup> Tr. at 100-03 (Castle).

In his direct testimony, **Mr. Martinez** sponsored the Company's 2024 RPS Plan.<sup>102</sup>

On cross-examination, Mr. Martinez confirmed the Company's RPS modeling did not incorporate any new EPA regulations adopted in April 2024, which included the legacy coal combustion residuals rule, Section 111 greenhouse gas standards, revised effluent limitation guidelines, and revised mercury and air toxic standards. Mr. Martinez explained the reason why the new regulations were not incorporated in the Company's RPS modeling was the regulations became final after APCo filed its Petition in this case. Mr. Martinez explained the regulations may or may not be included in next year's RPS Plan case, depending on when the regulations are actually implemented by the states. Once the regulations are implemented, Mr. Martinez confirmed the Company could run an economic sensitivity analysis on the resources in its generation portfolio. It is Mr. Martinez's understanding that the new EPA regulations will impact the cost of operating its generation fleet.<sup>103</sup>

Mr. Martinez agreed that under the EPA's new emission reduction regulations the Amos and Mountaineer power plants would be considered long-term units because their planned retirement is 2040. As a result, both power plants would have to meet the new carbon capture storage/sequestration ("CCS") standard with 90% capture of CO<sub>2</sub>, unless the Company's retirement plans change. Mr. Martinez confirmed the compliance date for the new CCS standard is January 1, 2032.<sup>104</sup>

Mr. Martinez confirmed that the Company has not evaluated the cost of complying with the new Section 111 greenhouse gas standards. He stated American Electric Power ("AEP") is currently analyzing the impact of the new EPA regulations on its overall generation fleet, and any changes that come out of that analysis would be reflected in next year's RPS Plan case. Mr. Martinez confirmed APCo has not evaluated whether to install carbon capture or dual gas-firing technology at either its Amos or Mountaineer power plant. He indicated APCo is currently evaluating whether CCS would be a viable option.<sup>105</sup>

Mr. Martinez confirmed APCo has not evaluated the cost of the new EPA effluent limitation guidelines or whether the guidelines will impact the retirement analysis of the Amos and Mountaineer power plants. Mr. Martinez agreed it might be cheaper to retire Amos and Mountaineer before 2040 than install the new effluent treatment equipment required by the new effluent limitation guidelines.<sup>106</sup>

On questioning from the bench, Mr. Martinez confirmed the Company would have to comply with the new EPA regulations and there is a cost associated with compliance with those regulations.<sup>107</sup>

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<sup>102</sup> Ex. 13, at 1 (Martinez Direct).

<sup>103</sup> Tr. at 107-12 (Martinez).

<sup>104</sup> *Id.* at 112-15; *See*, Ex. 4.

<sup>105</sup> *Id.* at 116-18; *See*, Ex. 5 at 1-3 and 1-4.

<sup>106</sup> *Id.* at 119-27; *See*, Ex. 5 at 1-5 and 1-6.

<sup>107</sup> Tr. at 126 (Martinez).

Mr. Martinez explained that nuclear energy was included as an indirect reduction to the Company's RPS obligations in the PLEXOS Model because SMRs do not produce any CO<sub>2</sub>. He further explained the model does account for the RECs that would be generated by SMRs.<sup>108</sup>

Mr. Martinez agreed that APCo has to construct solar and wind generation resources in Virginia. His understanding is that VCEA requires the Company to construct 600 MW of wind or solar in Virginia.<sup>109</sup>

Mr. Martinez explained: (i) the Company modeled natural gas generation resources in one of its portfolios for informational purposes to compare with a portfolio that did not include fossil generation; (ii) the Company assumed that the natural gas generation resources would not be located in Virginia; and (iii) the PLEXOS Model selects resources no matter where they are located.<sup>110</sup>

Mr. Martinez agreed APCo's environmental justice policy evaluates a project's impact on environmental justice communities once potential sites have been identified. He further agreed the Company's policy provides for a meaningful evaluation of impacts to environmental justice communities. Mr. Martinez confirmed APCo's environmental justice policy applies wherever the Company does business, not just in Virginia. Regarding the PLEXOS Model, he stated the model does not evaluate generation resources based on environmental justice criteria.<sup>111</sup>

Mr. Martinez stated the PLEXOS Model does not consider the environmental impacts of APCo's current generation resources or whether those resources have any impacts on environmental justice communities. In addition, he stated the model includes an 8% "buffer" above the PJM-installed reserve margin to ensure that APCo's resource portfolio, which includes renewable resources, meets PJM's capacity requirements. Mr. Martinez explained the model, as part of its optimization, will select between base load, intermediate, or peaking generation resources. He further explained model selection is primarily based on capacity, need, cost, and other requirements for the RPS Plan.<sup>112</sup>

Regarding generation resources selected by the PLEXOS Model, Mr. Martinez is unaware of any SMRs currently operating in the United States. In addition, Mr. Martinez identified Portfolio D as the only portfolio that was modeled using the VCEA's percentage allocation between owned-resources and PPAs. To the extent any portfolio includes natural gas generation resources, Mr. Martinez stated the net present value ("NPV") for that portfolio includes those resources.<sup>113</sup>

Mr. Martinez confirmed he was the sponsor for the Company's load forecast in this case, which was completed in September 2023. Mr. Martinez stated he was unaware of the 7,000 MW of new load mentioned in Company witness Stevens' testimony. He stated this information would not

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<sup>108</sup> *Id.* at 132-34.

<sup>109</sup> *Id.* at 135-41.

<sup>110</sup> *Id.* at 141-44.

<sup>111</sup> *Id.* at 144-49.

<sup>112</sup> *Id.* at 150-54, 157-62; *See*, Ex. 16.

<sup>113</sup> Tr. at 163-68 (Martinez).

have changed the load forecast used in this case because inquiries by potential customers might not necessarily translate into additional load for the Company.<sup>114</sup>

On redirect, Mr. Martinez confirmed the Company's load forecasting group prepares the load forecast that he uses in modeling runs.<sup>115</sup>

Commission Staff

Staff presented the direct testimony of **Alexander W. Elms**, Utility Specialist with the Division of Utility Accounting and Finance ("UAF"); **Patrick W. Carr**, Deputy Director with UAF; **Kenneth Curtis**, Director of Power Markets for Enverus, Inc. ("Enverus");<sup>116</sup> **Matthew S. Glattfelder**, Public Utility Analyst with the Division of Public Utility Regulation ("PUR"); **Tanner R. Brunelle**, Public Utility Analyst with PUR; and **Matthew B.C. Unger**, Senior Public Utility Analyst with PUR.

In his direct testimony, **Mr. Elms** addressed the appropriate capital structures and costs of capital the Company used to develop the RPS Plan RAC revenue requirements.<sup>117</sup>

The Company presented a December 31, 2022 rate making capital structure with an authorized ROE of 9.20% and 9.50%, for the four periods covered in its Petition. Staff recommended using an actual December 31, 2023 ratemaking capital structure with an authorized ROE of 9.20% and 9.50% for the respective periods, as shown in the chart below:<sup>118</sup>

	Capital Structure	WACC	ROE	Effective Date
Oct./Nov. 2023 Under-Recovery	12/31/2023	6.997%	9.20%	10/1/2023 - 11/29/2023
Dec. 2023 Under-Recovery	12/31/2023	7.142%	9.50%	11/30/2023 - 12/31/2023
Bridge Period	12/31/2023	7.142%	9.50%	1/1/2024 - 10/31/2024
Rate Year	12/31/2023	7.142%	9.50%	11/1/2024 - 10/31/2025

In his direct testimony, **Mr. Carr** addressed the Company's RPS Plan and the associated RACs. Specifically, he addressed:

1. Staff's recommended RAC revenue requirements;
2. The Company's proposed Rider NBC; and
3. The estimated long-term revenue requirement ("LTRR") and related bill impact analysis.<sup>119</sup>

<sup>114</sup> *Id.* at 171-74.

<sup>115</sup> *Id.* at 176-77.

<sup>116</sup> Enverus designs and develops software solutions through mobile, web, and desktop platforms to identify and analyze energy insights and energy analytics. Enverus is headquartered in Austin, Texas, and serves oil field, midstream, and financial companies worldwide. See, <https://www.bloomberg.com/profile/company/338297Z:US>.

<sup>117</sup> Ex. 19, at 1 (Elms Direct).

<sup>118</sup> *Id.* at 2-3.

<sup>119</sup> Ex. 20, at 1 (Carr Direct).

Mr. Carr’s recommendations included the following:

1. Staff recommended the following revenue requirements for each RAC:

A.5 RPS RAC <sup>120</sup>	\$13,880,541
A.5 PCAP RAC <sup>121</sup>	\$1,427,767
A.6 RPS RAC <sup>122</sup>	\$1,201,956
Subtotal Approved RACs	\$16,510,264 <sup>123</sup>
<u>Rider NBC<sup>124</sup></u>	<u>(\$32,782)</u>
Total	\$16,477,482

2. Staff does not oppose the Company’s proposed Rider NBC;
3. The estimated LTRR for the RPS Plan is \$10.5 billion, and estimated bills incorporating that LTRR through 2038, incorporating Staff’s allocation methodology, are shown below for select years:

<u>Customer Class</u>	<u>2023</u>	<u>2030</u>	<u>2038</u>	<u>Cumulative % Increase</u>
Residential	\$159.48	\$168.45	\$208.99	31.0%
Small General Service	\$560.76	\$587.02	\$715.29	27.6%
Large Power Service	\$54,195	\$55,965	\$70,479	30.0%

4. Staff recommended that the Commission direct the Company to incorporate approved cost allocation methodologies in future RPS Plan bill impact analyses.<sup>125</sup>

Mr. Carr explained the difference between the Company’s and Staff’s revenue requirements. First, Staff incorporated the capital structures and WACC recommended by Staff witness Elmes, which increased the A.6 RPS RAC and A.5 RPS RAC revenue requirements by \$13,230 and \$363, respectively. Second, Staff removed a small amount of abandonment costs, which reduced the A.6

<sup>120</sup> The A.5 RPS RAC recovers REC-related costs of VCEA owned resources and PPAs, as well as stand-alone REC purchases. *Id.* at 2, n.3.

<sup>121</sup> The A.5 PCAP RAC recovers the capacity portion of VCEA PPA costs, net of any capacity revenue benefits. *Id.* at n.4.

<sup>122</sup> The A.6 RPS RAC recovers the REC costs of VCEA resources owned by APCo, net of any capacity revenue benefits. At this time, the only such resource is APCo’s Amherst solar facility. *Id.* at n.2.

<sup>123</sup> Staff noted if the Commission denied implementation of Rider NBC, the resulting revenue requirement would be \$7,006 higher than the amount publicly noticed. Staff further noted the Commission has historically limited the revenue requirement to the amount that was noticed to the public. If Rider NBC is denied, the Commission may limit the resulting revenue requirement to the noticed amount and the difference could be included in a future true-up. *Id.* at n.5.

<sup>124</sup> Rider NBC is designed to recover certain PPA energy costs, net of energy benefits related to both PPAs and owned resources, from shopping customers. These costs, net of these benefits, are recovered from non-shopping customers through APCo’s fuel factor. *Id.* at n.6.

<sup>125</sup> *Id.* at 1-3.

RPS RAC revenue requirement by \$6,586.<sup>126</sup> The Company's and Staff's revenue requirements are compared in the chart below:<sup>127</sup>

RAC	Company	Staff	Difference
A.5 RPS RAC	\$13,880,179	\$13,880,541	\$363
A.5 PCAP RAC	\$1,427,767	\$1,427,767	\$0
A.6 RPS RAC	\$1,195,313	\$1,201,956	\$6,644
Subtotal	\$16,503,258	\$16,510,264	\$7,006
Rider NBC	(\$32,782)	(\$32,782)	\$0
Total	\$16,470,476	\$16,477,482	\$7,006

Mr. Carr explained the Company's proposed Rider NBC. Since shopping customers are not subject to the Company's fuel factor, the Company proposed Rider NBC to collect the energy cost portions of PPAs, energy revenue benefits of PPAs, and energy revenue benefits of owned resources, net of benefits, from shopping customers. Staff agreed that Rider NBC is necessary, given the current VCEA recovery framework, to collect these costs, net of benefits, from shopping customers.<sup>128</sup>

Mr. Carr explained the two other cost recovery modifications proposed by the Company. First, as a result of the *RPS Cost Allocation Order*, the Company incorporated a change for owned resources beginning in the Rate Year. Beginning in the Rate Year, the cost is first apportioned to RECs (which are recovered through the A.5 RPS RAC) based on current market values for the RECs produced by the resource. Then, all of the remaining costs are considered capacity and recovered through the A.6 RPS RAC. Second, the Company proposed a change for the cost of PPA resources. Beginning in the Rate Year, the REC component is determined first for owned resources. Then, the remaining costs are split between energy (the fuel factor) and capacity (the A.5 PCAP RAC) based on the relative values of each based on near-term market values.<sup>129</sup>

Mr. Carr discussed the Company's LTRR and the bill impact analysis. The Petition presents a \$10.5 billion LTRR for the RPS Plan. Staff believes the Petition appears to properly reflect the costs, offsets, and resulting revenue requirements of the Company's proposed RPS Plan. However, Staff disagreed with the Company's Estimated Bill Impact Analysis because it did not incorporate the cost allocations approved in the *RPS Cost Allocation Case*, but relied on a split of 85% energy and 15% demand. Consequently, Staff adjusted the Estimated Bill Impact Analysis to reflect the allocation factors in the *RPS Cost Allocation Case*. Staff believes its revised bill impacts may be more reasonable estimates for the various rate classes.<sup>130</sup>

At the hearing, Mr. Carr confirmed Staff is not opposed to Rider NBC. He explained how Rider NBC impacts the Company's revenue requirement. The Company noticed a revenue

<sup>126</sup> During the course of its audit, Staff identified \$6,586 of Virginia-jurisdictional costs that were not related to the abandoned projects and removed the costs from its recommended revenue requirement. *Id.* at 6, n.10.

<sup>127</sup> *Id.* at 3-6.

<sup>128</sup> *Id.* at 7.

<sup>129</sup> *Id.* at 8-9.

<sup>130</sup> *Id.* at 9-12.



requirement of \$16,503,258, which represents the sum of the revenue requirements for the currently approved RACs but does not include the negative revenue requirement for Rider NBC. Mr. Carr explained Staff developed a total revenue requirement of \$16,477,482, which includes the currently approved RACs and the Rider NBC. While Staff's revenue requirement for the approved RACs exceeds the amount noticed, the negative revenue requirement for Rider NBC brings the total revenue requirement below the amount noticed.<sup>131</sup>

Mr. Carr confirmed the Company agreed with Staff's total revenue requirement of \$16,477,482.<sup>132</sup>

Mr. Carr explained the differences between Tables 23 and 25 in the 2024 RPS Plan. He explained Table 23 includes the NPVs for the holistic plan, which includes natural gas that might have been selected by the model in the resource mix. He further explained Table 25 is limited to renewable resources, which includes nuclear but excludes natural gas and other fossil fuel generating resources. He explained the NPV for each plan would drive a decision whether the plan is good or bad, or better or worse.<sup>133</sup>

On cross-examination, Mr. Carr explained he used an 75% energy and 25% demand allocation for the cost of benefits for his long-term bill-impact analysis. The Company used an 85% energy and 15% demand allocation. Given the outcome of the *RPS Cost Allocation Case*, Mr. Carr felt it would be useful, for illustrative purposes, to provide another view of what the bill impact might be based on another allocation split that is closer to the one approved by the Commission in the *RPS Cost Allocation Case*. Mr. Carr explained Staff's allocation percentages place a greater burden on residential and small business customers.<sup>134</sup>

Mr. Carr explained the mere fact that his long-term bill-impacts analysis included SMRs should not be construed as Staff's endorsement for the recovery of costs associated with those VCEA resources. Mr. Carr confirmed there has been no request by the Company to recover any costs associated with SMRs.<sup>135</sup>

Mr. Carr explained that Rider NBC only applies to shopping customers and it is designed to recover from those customers the energy costs and benefits of PPAs and owned resources that otherwise would not be recovered. The practical effect is the revenue requirement on the fuel factor for non-shopping customers would be approximately \$32,782 higher but for Rider NBC. Mr. Carr believes Rider NBC is appropriate given the requirements of the VCEA. He explained in this case Rider NBC is a credit but that might not always be the case based on energy prices in the PJM market.<sup>136</sup>

Mr. Carr confirmed Staff audited the Company's requested abandonment costs for the Bedington and Firefly solar facilities and determined the costs were reasonably and prudently

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<sup>131</sup> Tr. at 180-82 (Carr).

<sup>132</sup> *Id.* at 182-83.

<sup>133</sup> *Id.* at 183-84; *See*, Ex. 13, 2024 RPS Plan at 30, 34.

<sup>134</sup> *Id.* at 185-87, 189-90.

<sup>135</sup> *Id.* at 187-88.

<sup>136</sup> *Id.* at 191-97.

incurred. As part its audit, Staff determined that a few thousand dollars were not related to abandonment and that is why Staff's revenue requirement is slightly less than the Company's. Mr. Carr confirmed that 96% of the abandonment costs were incurred prior to September 28, 2022, and a handful of invoices representing approximately \$37,000 were received after that date. Mr. Carr was questioned whether Code § 56-585 A 6 or Code § 56-585.5 F permits recovery of abandonment costs.<sup>137</sup>

On questioning from the bench, Mr. Carr stated the abandonment costs were incurred with the intention to construct the Bedington and Firefly solar facilities. He agreed the costs were not incurred to construct some other solar facilities; they were incurred for those two specific facilities.<sup>138</sup>

In his direct testimony, **Mr. Curtis** explained that Enverus was engaged by Staff to:

1. Provide its proprietary benchmark and basis 25-year price forecasts for Natural Gas (Henry Hub, Dominion South); Coal (NAPP, CAPP); PJM AEP-Zone On-Peak Power Prices; and PJM AEP-Zone Off-Peak Power Prices;
2. Review APCo's 25-year commodity and power price forecasts contained in its 2024 RPS Plan. Compare and contrast the Enverus commodity and power price forecasts with APCo's commodity and power price forecasts;
3. Review APCo's 25-year commodity and power price forecasts from prior Integrated Resource Plans ("IRPs") (2009 - 2022) and RPS Plans (2020 - 2023) and provide a detailed discussion on APCo's track record in making commodity and power price forecasts;
4. Provide Energy Sales and Peak Load 25-year forecasts for the AEP Zone and the APCo LSE. Provide Peak Load forecasts for the PJM Summer Coincident Peak, the Summer Non-Coincident Peak, and the Winter Non-Coincident Peak. Compare and contrast the Contractor's Energy Sales and Peak Load forecasts with APCo's forecasts contained in its 2024 RPS Plan and with PJM's 2024 forecasts;
5. Review APCo's 25-year Energy Sales and Peak Load forecasts from prior IRPs (2009 - 2022) and RPS Plans (2021 - 2023) and provide a detailed discussion on APCo's track record in making accurate Energy Sales and Peak Load forecasts;
6. Review APCo's Regional Greenhouse Gas Initiative ("RGGI") and national CO<sub>2</sub> pricing included within its model and compare it to other RGGI and CO<sub>2</sub> forecasts available. Provide a detailed discussion on the reasonableness of including a national CO<sub>2</sub> price within the planning model;
7. Provide a 15-year REC forecast for the PJM region;
8. Review APCo's load, commodity price, market price and energy sales forecasts and forecasting methodologies and provide a detailed discussion of the reasonableness of the forecasting methodologies, assumptions, and inputs; and
9. Provide a 15-year capacity price forecast for the AEP Zone within PJM.<sup>139</sup>

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<sup>137</sup> *Id.* at 197-203.

<sup>138</sup> *Id.* at 204.

<sup>139</sup> Ex. 21, at 2 (Curtis Direct).

Mr. Curtis provided a summary Enverus' findings:

### **Forecast Comparison:**

- APCo's forecasts are generally different from those produced by Enverus, for two primary reasons:
  - Timing – the Company load forecast was completed in September 2023 while its commodity market forecast was completed in July of 2023. The Enverus forecasts were all produced in June of 2024; and
  - Outlook for Load Growth – the Company forecast shows flat to declining load in its service territory. Both PJM and Enverus see increased load growth in the region.
- The national narrative in support of data center growth and increased electricity demand required to support widespread deployment of Generative AI technology has expanded during the period between the Company's forecast and the Enverus forecast. The outlook for this transformational technology remains hotly debated and uncertain. It may have contributed to the forecast differences.

### **Historical Forecast Performance**

- Comparing actual prices to the Company's forecasts after the fact, the short-term portion of the forecasts are generally accurate.
- For IRPs and RPS Filings filed more than 2-3 years ago, the trend across the long-term portion of both price and sales forecasts exhibited overly optimistic positive trajectories that were not supported by actual results. However, that pattern appears to have been corrected with the past few IRPs and RPS Filings, and this 2024 RPS Plan appears to have a reasonable outlook for commodity prices.
- Enverus disagrees with the outlook on energy sales and capacity prices:
  - The largest difference in the Enverus outlook as compared to the Company's appears in the Capacity price forecast; and
  - The Company uses Energy Exemplar's Aurora model which is an acceptable and common industry practice. However, for reasons outlined in its report, Enverus believes the output is overly optimistic.

### **Company Forecasting Methodologies**

- The Company provides a description of its methodology in Section 4 of the 2024 RPS Plan.
- The APCo load forecast was developed by the AEPSC Economic Forecasting organization and completed in September 2023.
- The Fundamental Forecast is a long-term commodity market forecast completed for internal use and approval in July 2023.
- The Company appears to rely on historical econometric signals and attempts to blend separate short- and long-term methodologies to account for the dominant drivers for each time horizon.

- Enverus relies more heavily on machine learning in energy sales forecasting in order to better capture trends that may not be apparent in subjective observance of econometric data.
- In other instances, Enverus does employ similar frameworks as laid out in Section 4 of the 2024 RPS Plan and does not object to their use.
- However, with any forecast methodology, the output can be greatly affected by varying inputs to accommodate desired results.
- Therefore, the Company could endeavor to:
  - Utilize timelier price and economic inputs. Although the Company used inputs developed within one year of filing (consistent with the Commission's Final Order in Case No. PUR-2023-00001), more up-to-date market data is now more accessible than it ever has been, and reliance on inputs from 2023 appears dated; and
  - Benchmark more transparently against similar forecasts being published by PJM and specifically address any deviations.<sup>140</sup>

Finally, Mr. Curtis sponsored the report prepared by Enverus, which was attached to his testimony as Attachment KC-1 (SUMMARY REPORT & FINDINGS, Case No, PUR-2024-00020, 2024 APCo Renewable Portfolio Standard Plan (Jun. 17, 2024)).<sup>141</sup>

At the hearing, Mr. Curtis explained regarding load growth that the national narrative in support of data center growth and increased electricity demand required to support the widespread proliferation of degenerative AI technology has expanded during the period of the Company's load growth forecast and the Enverus forecast. The Enverus forecast was approximately 1% higher.<sup>142</sup>

Regarding the economic and demographic data in APCo's load forecast, Mr. Curtis believes the Company should use more timely price and economic data since more up-to-date market data is more accessible than it has ever been. Mr. Curtis believes the Company's reliance on data from 2023 appears dated. While the Company complied with the Commission's directive to use forecasts that were no older than one year from its RPS Plan filing, Mr. Curtis recommended that the Commission reconsider whether the one-year requirement provides timely enough information for the purpose of creating the forecast to be used in the Company's modeling, or if a shorter time period might be appropriate. Mr. Curtis proposed for the Commission's consideration that the Company be required to use forecasts completed within six months of the RPS Plan filing. Since the Company is no longer required to file an IRP, Mr. Curtis believes his recommendation is appropriate.<sup>143</sup>

On cross-examination, Mr. Curtis stated he is generally aware that the Company has been in discussions with customers with significant load requirements, including data center customers. He explained that Enverus's proprietary Pattern Record Technology software uses machine learning to pick up on such trends and utilize that data in the development of a forecast. Mr. Curtis believes there are advantages in using forecasts that are closer in time, especially considering what might be occurring at PJM that could be incorporated into a forecast. Mr. Curtis agreed that it would be

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<sup>140</sup> *Id.* at 2-4

<sup>141</sup> *Id.* at 4.

<sup>142</sup> Tr. at 206-07 (Curtis).

<sup>143</sup> *Id.* at 208-09.

reasonable for the Company to run sensitivity analyses using possible load scenarios. Mr. Curtis confirmed the Enverus forecast would also pick up if the Company had large wholesale customers leaving at the end of their contract term for another energy supplier.<sup>144</sup>

Lastly, Mr. Curtis explained there are two pieces involved in forecasting load growth. First, there is the analysis piece that looks at the trend to determine where load growth is going. Second, there is the analysis of the actual load data.<sup>145</sup>

In his direct testimony, **Mr. Glattfelder** discussed Staff's findings and recommendations concerning the inputs used in the Company's 2024 RPS Plan, as well as SCoC considerations, and the four RACs that would recover the costs associated with the 2024 RPS Plan.<sup>146</sup>

Mr. Glattfelder provided a summary of APCo's owned and contracted generation resources. The combined capacity of both the Company's owned and contracted generation resources is approximately 7,422 MW. Of this total, approximately 777.1 MW, or 10%, of the total capacity is non-carbon-emitting and located in Virginia. The Company confirmed three hydro units (Buck, Byllesby, and Niagara) that were listed to retire in 2024 are in the process of license renewal, with full license renewal expected by the end of 2024. The Company has no current plans to retire these generating units. Additionally, the Company confirmed that its Clinch River gas steam facility has the necessary permits to continue operations through May 31, 2030, and was included in its modeling.<sup>147</sup>

Mr. Glattfelder explained, in its Petition, the Company assumed that the Amos and Mountaineer power plants would run through 2040. These facilities represent approximately 4,235.1 MW of capacity resources in the Company's generation portfolio. Pursuant to the *2021 RPS Plan Order*,<sup>148</sup> the Company modeled a portfolio sensitivity to evaluate the potential for an economic early retirement of the two coal facilities. The Company's modeling indicated that it is economically beneficial for ratepayers to continue the operation of Amos and Mountaineer through 2040. As a result, the Company requested that it be relieved of the requirement to conduct this analysis in future VCEA filings. However, Staff expressed its concern that recent EPA final carbon pollution standards for existing coal-fired power plants, which were not considered by the Company in its modeling, may impact the economics of Amos and Mountaineer over the course of APCo's RPS transition. For this reason, Staff recommended that the early retirement sensitivity analysis continue to be required by the Commission and reported in future APCo RPS proceedings.<sup>149</sup>

Pursuant to Code § 56-585.5 C, the Company is required to retire a certain quantity of RECs annually based on a percentage of its non-nuclear retail energy sales. Mr. Glattfelder summarized the requirement by year in his Table 3.<sup>150</sup> For example, beginning in 2024, the Company must

<sup>144</sup> *Id.* at 210-14.

<sup>145</sup> *Id.* at 215-16.

<sup>146</sup> Ex. 22, at 1-2 (Glattfelder Direct).

<sup>147</sup> *Id.* at 2-4.

<sup>148</sup> *2021 RPS Plan Case*, Case No. PUR-2021-00206, 2022 S.C.C. Ann. Rep. 345, 347, Final Order on Petition and Associated Requests, and Order Bifurcating Proceeding (July 15, 2022).

<sup>149</sup> Ex. 22, at 5-6 (Glattfelder Direct).

<sup>150</sup> *Id.* at 7-8. One REC is equal to one megawatt-hour ("MWh") of renewable energy. *Id.* at n.15.

retire 1,423 RECs, by 2030 the amount is 4,284 RECs, by 2040 the amount is 9,400 RECs, and by 2050 the amount is 14,715 RECs.<sup>151</sup>

Mr. Glattfelder provided the Company’s current status on meeting its next RPS target requirements. The Company has met its PPA renewable generation requirement but it must petition for an additional 105.5 MW of owned generation by December 31, 2027. The Company has an application pending for 7.5 MW of storage and is evaluating two additional 7.5 MW storage projects. In addition, the Company has an RFP currently open for storage resources. The storage requirement is to petition for 25 MW by December 31, 2025.<sup>152</sup>

Mr. Glattfelder described the Company’s forecasted energy need. The Company’s Virginia retail load begins at approximately 14,552,799 MWh in 2024, and drops to approximately 14,411,934 MWh in 2026, and then increases to approximately 14,833,033 MWh in 2043. In addition, Mr. Glattfelder addressed the Company’s capacity need and the resource mix APCo expects to meet that forecasted need.<sup>153</sup>

Mr. Glattfelder described the Company’s modeling assumptions, the modeling process, and the resource alternatives used in the model. The following generation resources were made available for selection by the PLEXOS Model:

- Baseload Resource Options
  - Small Modular Reactor (“SMR”) nuclear generating unit, 600 MW;<sup>154</sup>
  - Combustion Turbine H Class, Combined Cycle Single Shaft, 380 MW, with 90% CO<sub>2</sub> Capture;
  - Combustion Turbine H Class, 1100 MW Combined Cycle; and
  - Combustion Turbine H Class, Combined Cycle Single Shaft, 430 MW.
- Peaking Resource Options
  - Combustion Turbine F Class, 240 MW, Simple Cycle;
  - Combustion Turbines Aero-Derivative, 100 MW Simple Cycle; and
  - Internal combustion Engines, 20 MW.
- Intermittent Resource Options
  - Battery Energy Storage System, 50 MW/200 MWh, 4 hr.;
  - Battery Energy Storage System, 50 MW/300 MWh, 6 hr.;
  - Battery Energy Storage System, 50 MW/400 MWh, 8 hr.;
  - Battery Energy Storage System, 50 MW/500 MWh, 10 hr.;
  - Solar Photovoltaic with Battery Energy Storage System, consisting of a 150 MW alternating current (“MWac”) solar generating facility coupled with a 50 MW, 200 MWh lithium-ion energy storage resource;
  - Onshore Wind, Large Plant Footprint, 200 MWac; and

<sup>151</sup> *Id.*

<sup>152</sup> *Id.* at 9-11.

<sup>153</sup> *Id.* at 11-13.

<sup>154</sup> Staff noted that while the Company indicated 600 MW as the electric capability for SMRs in its Table 11, the block size for SMR resources is currently 300 MW. Further, the Company has stated that “[t]he analysis does not distinguish specifically if two single 300 MW plants or a combined 600 MW plant would be built. The individual 300 MW blocks are only a modeling parameter to provide flexibility in resource selections in the model.” *Id.* at 16, n.39; *See*, Company’s Response to Staff Interrogatory No. 2-52 (a).

- Solar Photovoltaic, 150 MWac.
- Demand Side Resource Options
  - Eleven residential energy efficiency bundles under various assumptions;<sup>155</sup>
  - Ten non-residential energy efficiency bundles under various assumptions;<sup>156</sup> and
  - One residential/commercial demand response program.
- Volt VAR Optimization (“VVO”)
  - 15 tranches of VVO resources.<sup>157</sup>

Mr. Glattfelder confirmed the Company’s modeling included limitations imposed on individual resource types made available for selection by the PLEXOS Model. Staff expressed some concern with the rating of the Battery Energy Storage Systems shown in the model and the fact they deviate from the projects proposed by the Company.<sup>158</sup>

Mr. Glattfelder explained the Company excluded certain RPS-compliant resources from the PLEXOS Model. These included Hydro, RPS-Compliant Biomass, and Geothermal. The Company provided reasons related to cost and uncertainty for rejecting each of the technologies.<sup>159</sup>

The Company used a 20.5% capacity factor for modeling all new solar generating resources, which represents a three-year rolling average capacity factor for solar generating resources located in Virginia. Staff agreed the Company should continue to use the three-year rolling average for calculating its assumed solar capacity factor for modeling purposes. For other capacity factors, the Company used PJM Effective Load Carrying Capability (“ELCC”) annual equivalent data obtained from PJM. The Company held ELCC values constant after 2026 for modeling purposes. Staff noted that this assumption might not be realistic since PJM has updated its ELCC guidance twice in 2024. Staff recommended that the Commission require the Company to use the most-recently available ELCC guidance from PJM in future filings for which such information would be relevant.<sup>160</sup>

Mr. Glattfelder confirmed the Company allowed the PLEXOS Model to select market purchases of RECs for RPS compliance for years 2028-2033 and again beginning in 2048. The Company has indicated that it would make market REC purchases when advantageous.<sup>161</sup>

Staff noted this case does not include any proposed PPAs or Company-owned generation. Consequently, the value of the SCoC has not been applied to any proposed facilities for specific review by Staff. The Company indicated that it has a calculation for the SCoC that could have been incorporated in the PLEXOS Model. The SCoC value is \$59.53 per ton for 2024 in real dollars, based on 288,232 MWh of solar generation and 116,294 tons avoided.<sup>162</sup>

<sup>155</sup> The “various assumptions” referred to by Staff are the details contained in Table 13: Residential EE Bundles on page 24 of the 2024 RPS Plan. *Id.* at 14, n.40.

<sup>156</sup> The “various assumptions” referred to by Staff are the details contained in Table 14: Commercial EE Bundles on page 25 of the 2024 RPS Plan. *Id.* at 14, n.41.

<sup>157</sup> *Id.* at 16-17; *See*, 2024 RPS Plan at 18, Table 11.

<sup>158</sup> *Id.* at 17-19.

<sup>159</sup> *Id.* at 19-20.

<sup>160</sup> *Id.* at 21-25.

<sup>161</sup> *Id.* at 25.

<sup>162</sup> *Id.* at 25-27 and n.64.

Mr. Glattfelder described the Company's proposed RACs. He explained the revenue requirement associated with each of the RACs consists of three components: (i) Actuals through December 2023; (ii) a Bridge Period between January 2024 and October 2024; and (iii) the VCEA Rate Year period from November 2024 to October 2025. In addition to existing RACs, the Company proposed Rider NBC, which is designed to recover certain PPA energy costs net of benefits from shopping customers.<sup>163</sup>

Mr. Glattfelder confirmed in the *RPS Cost Allocation Order*,<sup>164</sup> the Commission addressed the appropriate framework for cost recovery, the allocation of costs net of benefits pursuant to Code § 56-585.5 F, and class and jurisdictional cost allocation for VCEA-related costs. In his Table 8, Mr. Glattfelder provided a description of how the recovery mechanism for each of the Company's RPS RACs is applied to the Company's resources.<sup>165</sup>

Mr. Glattfelder described the Company's cost allocation methodologies for its VCEA RACs. For Company-owned generation resources, the Company uses the 6CP class allocator based on demand, after removing the value of RECs. For the Company's PPA resources, the Company first separates PPA revenue requirements into capacity, energy, and REC related components, using a value stream methodology. The class cost allocation methodology is then based on 6CP demand for capacity costs and annual energy for REC and energy costs.<sup>166</sup>

Mr. Glattfelder noted Staff does not oppose the Company's updated methodology for extracting REC value in this case.<sup>167</sup>

For a residential customer using 1,000 kWh per month, the Company's proposed RPS surcharges in the Rate Year will result in a monthly bill increase of \$0.05, an increase of 0.03%. While Staff witness Carr recommends alternative revenue requirements for the Company's A.6 and A.5 RACs, the magnitude of the changes is not material and will not impact a residential customer's proposed bill increase of \$0.05.<sup>168</sup>

Mr. Glattfelder discussed the Company's proposed Rider NBC to account for shopping customers that are not subject to the Fuel Factor. Rider NBC will collect the energy component of VCEA PPA riders and return the energy benefits of the VCEA resources whose costs are collected through the Company's three VCEA RACs. Since Rider NBC only applies to shopping customers, it will have no direct impact on residential customers. Staff does not oppose the Company's proposed Rider NBC or the Company's proposal to allocate by customer class such costs and benefits on an energy basis. If the Commission approves Rider NBC, shopping customers who use 1,000 kWh per month would receive a monthly credit of \$0.067.<sup>169</sup>

At the hearing, Mr. Glattfelder explained if the recently adopted EPA regulations are implemented at some later date, the Company's RPS Plan should be planning 15 to 20 years into the

<sup>163</sup> *Id.* at 27.

<sup>164</sup> *RPS Cost Allocation Case*, Case No. PUR-2022-00166, Doc. Con. Cen. No. 230930056, Final Order (Sep. 15, 2023).

<sup>165</sup> Ex. 22, at 28-30 (Glattfelder Direct).

<sup>166</sup> *Id.* at 30.

<sup>167</sup> *Id.* at 31.

<sup>168</sup> *Id.* 31-32.

<sup>169</sup> *Id.* at 32-34.



future and those regulations have an impact on the economics of the Amos and Mountaineer power plants. He believes this is especially true given that Amos and Mountaineer account for 4,235.1 MW of capacity. Mr. Glattfelder further believes that the Company and the Commission cannot wait until the economic tipping point to decide what generation resources should replace Amos and Mountaineer. For this reason, he believes an early retirement sensitivity analysis should continue to be part of the Company's RPS Plan.<sup>170</sup>

In his direct testimony, **Mr. Brunelle** discussed the modeled resource portfolios that the Company considered to meet its capacity and energy obligations, as well as the Company's need for RECs. In addition, he discussed how the Company addressed environmental justice in its 2024 RPS Plan.<sup>171</sup>

Mr. Brunelle described the Company's modeling process, which was similar to previous RPS cases. Pursuant to the Commission's decision in the *2020 RPS Plan Case*,<sup>172</sup> the Company identified Portfolio B as the "least cost" portfolio as required by the Commission. The VCEA Plan is the Company's preferred plan for compliance with the VCEA.<sup>173</sup>

Mr. Brunelle discussed the Company's six portfolios: (i) Portfolio A, the Company's Base Portfolio;<sup>174</sup> (ii) Portfolio B, the low REC and least cost option;<sup>175</sup> (iii) Portfolio C, the no capacity benefit plan;<sup>176</sup> (iv) Portfolio D, the no new natural gas resources plan;<sup>177</sup> (v) Portfolio E, the economic retirement plan;<sup>178</sup> and (vi) the VCEA Plan, the Company's preferred plan.<sup>179</sup>

Mr. Brunelle described the Company's methodology for calculating the SCoC, which relies on the "Technical Support Document: Social Cost of Carbon, Methane, and Nitrous Oxide Interim Estimates under Executive Order 13990." The Company converted the dollars per metric ton of

<sup>170</sup> Tr. at 224-25 (Glattfelder).

<sup>171</sup> Ex. 23, at 2 (Brunelle Direct).

<sup>172</sup> *Commonwealth of Virginia, ex rel. State Corporation Commission, Ex Parte: Establishing 2020 RPS Proceeding for Appalachian Power Company*, Case No. PUR-2020-00135, 2021 S.C.C. Ann. Rep. 254, 255-56, Final Order (Apr. 30, 2021) ("2020 RPS Plan Case" or "2020 RPS Plan Order," as applicable).

<sup>173</sup> Ex. 23, at 2-3 (Brunelle Direct).

<sup>174</sup> *Id.* at 3-9. Portfolio A is considered the Base Portfolio with all resources made available to the PLEXOS Model, and it recognizes the value of capacity in the PJM market. *Id.* at 3. The NPV cost of Portfolio A is approximately \$28,847,000.

<sup>175</sup> *Id.* at 9-14. Portfolio B includes the same physical resources alternatives and assumptions as Portfolio A, but the Base REC price assumption is replaced with a Low REC price assumption. Portfolio B also includes a High REC price assumption as an alternative for selection which meets the analysis requirements for the Company to also run a sensitivity where REC prices are higher and lower. *Id.* at 9-10. The NPV cost for Portfolio B is approximately \$28,830,000. *Id.* at 14.

<sup>176</sup> *Id.* at 14-18. Portfolio C was modeled with the same assumptions and resource options as Portfolio A, but the capacity revenue benefit was excluded for new resources. *Id.* at 14. The NPV cost for Portfolio C is approximately \$29,137,000. *Id.* at 18.

<sup>177</sup> *Id.* at 18-22. Portfolio D was modeled to evaluate the resource selections when no new natural gas resources are an option. *Id.* at 18. The NPV cost of Portfolio D is approximately \$33,598,000. *Id.* at 22.

<sup>178</sup> *Id.* at 22-27. Portfolio E modeled the customer impacts of potential early retirement of the Amos and Mountaineer units on an economic basis. *Id.* at 22. The NPV cost of Portfolio E is approximately \$28,816,000. *Id.* at 27.

<sup>179</sup> *Id.* at 27-31. The VCEA Plan is the Company's preferred plan going forward. The Company developed the VCEA Plan from Portfolio A, but with an adjustment of the type of solar resources included. *Id.* at 27. The NPV cost of the VCEA Plan is approximately \$28,894,000. *Id.* at 31.

CO<sub>2</sub> referenced to real dollars at a 2% rate for inflation. In this case, the Company proposed to utilize the marginal CO<sub>2</sub> emissions rate from the most recent PJM Emissions Report. The annual energy value, for each renewable resource, is multiplied by the emissions rate to arrive at the carbon tons avoided. This amount is then multiplied by the dollars per ton to calculate the value of the resource's SCoC, by year. For 2024, the Company calculated an SCoC value of \$6,923,403. Through 2050, the Company calculated an NPV of the SCoC of \$110,103,666.<sup>180</sup>

Regarding the SCoC, Staff recommended that in future RPS Filings, the Company should be directed to calculate NPVs of all modeled portfolios inclusive and exclusive of the SCoC.<sup>181</sup>

Mr. Brunelle summarized the Company's owned generation resource retirements and contracted generation resource retirements.<sup>182</sup>

In response to a Staff Interrogatory No. 1-22, the Company stated that it did not perform any environmental justice screening in this case because it is not proposing any new projects. Staff is not opposed to the Company's plans to address environmental justice for its future Company-owned and PPA resources.<sup>183</sup>

Lastly, Mr. Brunelle summarized Staff's conclusions and recommendations:

1. The Company's preferred plan, the VCEA Plan, has a NPV of approximately \$28,894,000;
2. In future RPS Filings, the Company should be directed to calculate NPVs of all modeled portfolios inclusive and exclusive of the SCoC;
3. The Company did not perform any environmental justice screening in this case; and
4. Staff is unopposed to how the Company plans to address environmental justice for its future Company-owned and PPA resources.<sup>184</sup>

On cross-examination, Mr. Brunelle confirmed: (i) the Company did not perform any environmental justice analysis on the portfolios included in the 2024 RPS Plan; (ii) Staff is not opposed to the Company's plans to address environmental justice for future Company-owned and PPA resources through the RFP process; and (iii) Staff's position is that environmental justice screening is site specific.<sup>185</sup>

Mr. Brunelle stated he was aware of Virginia's Clean Energy Policy that requires equitably incorporating requirements for technical policy and economic analysis and assessments that recognize the unique attributes of different energy resources and delivery systems to identify pathways to net zero carbon that maximize Virginia's energy reliability and resilience, economic development, and jobs.<sup>186</sup>

<sup>180</sup> *Id.* at 32-33.

<sup>181</sup> *Id.* at 33-24.

<sup>182</sup> *Id.* at 34-36.

<sup>183</sup> *Id.* at 36-41; *See*, Company Responses to Staff Interrogatories 1-22, 1-25, and 3-60.

<sup>184</sup> Ex. 23, at 41 (Brunelle Direct).

<sup>185</sup> Tr. at 227-28 (Brunelle).

<sup>186</sup> *Id.* at 229-30; *See*, Code § 45.2-1706.1.

As part of Staff's review of APCo's 2024 RPS Plan, Mr. Brunelle agreed environmental justice is a factor that the Commission must consider. When asked whether APCo should have to explain the benefits and harms of its proposed generation resources, identify which resources might best benefit environmental justice and fenceline communities, or just identify fenceline communities in APCo's service territory, Mr. Brunelle responded that the Commission could find that information helpful.<sup>187</sup>

Lastly, Mr. Brunelle was asked a series of questions regarding the Commission's decision in Case No. PUR-2023-00006.<sup>188</sup> Mr. Brunelle agreed that the Commission's decision in that case might impose additional environmental justice requirements on the review of APCo's 2024 RPS Plan.<sup>189</sup>

On redirect, Mr. Brunelle confirmed Staff served an interrogatory on APCo regarding environmental justice, Staff Interrogatory No. 1-22. In its response, APCo stated the references to additional environmental justice requirements were not applicable in this case because the Company was not proposing any new projects. APCo further stated that it abides by both the Commonwealth's and APCo's environmental justice policies. Mr. Brunelle agreed APCo has the burden of showing that the Company complies with the VEJA.<sup>190</sup>

In his direct testimony, **Mr. Unger**:

- Evaluated the Company's calculation of its annual RPS Program requirements for the 2023 compliance year;
- Evaluated the Company's approach towards compliance;
- Discussed the retirement of RECs in GATS; and
- Discussed the Company's stated progress towards meeting the requirements in Subsection C of Code § 56-585.5.<sup>191</sup>

Mr. Unger confirmed the Company submitted its 2023 RPS Compliance Report as Schedule 2 of Company witness Stevens testimony. He noted the Compliance Report does not state whether the Company complied with the mandatory RPS requirements, including the retirement of RECs equal to a percentage of APCo's "Total Electric Energy" sold in the previous calendar year.<sup>192</sup> The Compliance Report stated the Company did not need to pay any deficiency payments for compliance with the Code requirements.<sup>193</sup>

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<sup>187</sup> Tr. at 230-33 (Brunelle).

<sup>188</sup> *Commonwealth of Virginia, ex rel. State Corporation Commission, Ex. Parte: In the matter adopting new rules of the State Corporation Commission governing utility rate applications by investor-owned gas utilities*, Case No. PUR-2023-00006, Order Adopting Regulations (Oct. 30, 2023).

<sup>189</sup> Tr. at 233-34 (Brunelle).

<sup>190</sup> *Id.* at 235-36.

<sup>191</sup> Ex. 24, at 2-3 (Unger Direct).

<sup>192</sup> *See*, Code § 56-585.5 C, "[t]he RPS Program requirements shall be a percentage of the total electric energy sold in the previous calendar year . . . ."

<sup>193</sup> Ex. 24, at 3-4 (Unger Direct).



Given the uncertainty around the Company’s Retail Sales numbers, Staff believes there is too much uncertainty around the values provided by the Company to support APCo’s calculation of its RPS Program REC Requirement at this time. Staff believes that an RPS Program Requirement of 1,151,355 RECs has the potential to be on the high side when accounting for this uncertainty. Staff believes this issue may be resolved in this case, the *REC Treatment Case*, or a future RPS case.<sup>201</sup>

Regarding the Company’s 2023 RPS Compliance Report, Staff could not make a recommendation for acceptance of the Report given the uncertainty around the Total Electric Energy calculation. Staff again noted this issue may be resolved in the *REC Treatment Case*.<sup>202</sup>

Staff offered a preferred calculation methodology for the Commission’s consideration:

1. Start with Retail Sales Subtotal of 15,079,029 MWh.
2. Subtract Nuclear output of 0 MWh.
3. Subtract Exempt Customer Load of 296,681 MWh.
4. Equals the “Total Electric Energy” of between 14,782,348 MWh and 14,783,282 MWh.
5. Multiplied by the 8% 2023 RPS Program Requirement percentage.
6. Equals the Total RPS Program Requirement of between 1,182,588 RECs and 1,182,663 RECs.

Staff noted its Total RPS Program Requirement differs from the Company’s 1,151,355 RPS Program Requirement RECs.<sup>203</sup>

Mr. Unger provided Staff’s conclusions and recommendations:

1. Staff could not make a recommendation at this time for acceptance of the Company’s Compliance Report until the *REC Treatment Case* is completed, due to uncertainty around the Company’s “Total Electric Energy” expected to be addressed in that docket;
2. Staff recommended APCo’s use of applicable FERC Form 1 data to calculate its annual RPS obligation, including calculation of the statutory nuclear offset percentage to two decimal places;
3. Staff recommended that the Company apply any methodology refinements addressed in this case, and the *REC Treatment Case*, to the Company's 2021 through 2023 RPS Compliance Periods, as well as future RPS Compliance Period filings;
4. Staff recommended that the Company notify and provide the GATS Administrator with the Commission's approval of any relevant findings and the actions directed by the Commission on affected RECs;
5. Staff recommended that the Commission direct the Company to put in a request to the GATS Administrator to unretire RECs associated with the 2021 and 2022 RPS Compliance Periods so that the Company can appropriately allocate them as directed by the Commission; and

<sup>201</sup> *Id.* at 17-18.

<sup>202</sup> *Id.* at 20-21.

<sup>203</sup> *Id.* at 21-22.

6. Staff recommended that the Company directly request, with a list of specific RECs, Commission approval of any GATS exclusion for a closed RPS Compliance Period so that tracking can be handled in GATS.<sup>204</sup>

At the hearing, Mr. Unger addressed the assertion in Company witness Stevens rebuttal testimony that the Commission's finding in the *2023 RPS Plan Case*, that APCo should simply count the over-retired RECs from 2021 and 2022 towards future RPS program requirements, presents the most straightforward and understandable approach to addressing the over-retired REC issue.<sup>205</sup>

Mr. Unger stated Staff believes the Company's position is neither straightforward nor understandable. Although Staff believes the crediting of over-retired RECs towards 2024 compliance in Virginia is likely the easiest approach to REC retirement for the Company to implement, Staff believes this approach would be confusing to the public at large and market participants who use the public data associated with GATS. Staff noted that not even half of the RECs retired in Virginia in GATS are retired by either APCo or Dominion Energy ("Dominion"). Staff stated there are market participants that retire RECs in Virginia and that look at the public REC reporting data. Staff believes that if the Commission makes a policy determination that impacts REC retirements in Virginia, the GATS Administrator would be expected to update the GATS website on the validity of the GATS public reporting.<sup>206</sup>

Mr. Unger further stated Staff disagrees with the Company that the 2021 and 2022 Compliance Periods are closed due to the way retirement reporting requirements in GATS have been set up by the Commission and implemented within GATS. Furthermore, Staff does not believe this is a second attempt at trying to resolve the issue of APCo's REC over-retirements. Staff believes its actions are consistent with the Commission's Final Order in the *2023 RPS Plan Case*, where the Commission stated "[a]ny issues related to the treatment of over-compliance, and with related RECs, may be addressed as needed through future RPS proceedings."<sup>207</sup>

Mr. Unger stated that if the Commission adopts Staff's position, the Commission could direct APCo to work with Staff and the GATS Administrator, as necessary, to implement the Commission's findings regarding RPS program requirements for compliance years 2021, 2022, and 2023. Staff noted while compliance for the 2023 compliance year will be determined in this case, the values for all three compliance periods will not be able to be determined at least until after the treatment of voluntary and competitive service provider RECs is determined in the *REC Treatment Case*. Mr. Unger explained in the *REC Treatment Case*, the uncertainty around the definition of "Total Electric Energy" used by APCo in its 2021 through 2023 RPS Compliance Reports means that the 2023 Compliance Report is being addressed in that case and this case. He noted the *REC Treatment Case* does not have a statutory deadline and a more complete determination on APCo's 2023 Compliance Report may be reached in that case.<sup>208</sup>

<sup>204</sup> *Id.* at 22-23.

<sup>205</sup> Tr. at 238-39 (Unger).

<sup>206</sup> *Id.* at 239-40.

<sup>207</sup> *Id.* at 240; *2023 RPS Plan Case*, Case No. PUR-2023-00001, Doc. Con. Cen. No. 230910123, Final Order at 10 (Sep. 7, 2023).

<sup>208</sup> Tr. at 241-42 (Unger).

Appalachian Power Company Rebuttal Testimony

In his rebuttal testimony, **Mr. Stevens** responded to the testimony of Staff witness Unger. Specifically, Mr. Stevens responded to Staff witness Unger’s recommendation that the Company submit a request to the GATS Administrator to “unretire” certain RECs associated with the 2021 and 2022 RPS compliance years so that the Company could appropriately allocate them as directed by the Commission. Additionally, Mr. Stevens addressed Staff witness Unger’s recommendation that the Company directly request, with a list of specific RECs, Commission approval of any GATS exclusion for a closed RPS compliance year.<sup>209</sup>

Regarding the over-retired RECs, Mr. Stevens explained in the *2023 RPS Plan Case*, the Company reported that it inadvertently over-retired 41,960 RECs in the 2021 compliance year and 11,684 RECs in the 2022 compliance year, for a total over-retirement of 53,644 RECs. Mr. Stevens asserted the Commission approved the most straightforward and understandable approach to address the REC over-retirement in the *2023 RPS Plan Case*, which was to simply count those RECs towards future RPS Program requirements. Mr. Stevens confirmed the Company counted these RECs towards its RPS Program requirement for the 2023 compliance year.<sup>210</sup>

Mr. Stevens explained “unretiring” the RECs that were over-retired in the 2021 and 2022 compliance years is not necessary to comply with the Commission’s decision in the *2023 RPS Plan Order*. He asserted the Commission’s straightforward and understandable approach is all that is required by the VCEA. Mr. Stevens asserted no further action is required by the Company or the Commission. Additionally, he asserted Staff witness Unger’s recommendation would impose a significant administrative and cost burden on the Company, which would not be in the public interest. He asserted unretiring the RECS would not make the GATS records more accurate; the records are currently accurate.<sup>211</sup>

Mr. Stevens noted there is no language in the VCEA indicating that PJM-EIS is responsible for ensuring the Company complies with Virginia’s RPS Program requirements. He further noted the role of PJM-EIS is to function as an electronic bulletin board for recording or documenting REC retirement activity. As such, Mr. Stevens asserted that PJM-EIS is essentially indifferent regarding when, and in what amounts, the Company retires its RECs.<sup>212</sup>

Mr. Stevens addressed Staff’s recommendation that the Commission require the Company to specifically identify the over-retired RECS by their exact type, vintage, and locations of the REC resources and provide that information in a list. Mr. Stevens noted the Commission has already directed in the *2023 RPS Plan Order* how the over-retired RECs are to be accounted for. He further asserted that the facts surrounding the over-retired RECs have not changed since the *2023 RPS Plan Case*. Mr. Stevens asserted that the information requested by Staff is not required by the VCEA, and is not necessary to verify that the Company has complied with the RPS Program. Lastly,

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<sup>209</sup> Ex. 25, at 1 (Stevens Rebuttal).

<sup>210</sup> *Id.* at 1-2.

<sup>211</sup> *Id.* at 2-3.

<sup>212</sup> *Id.* at 3.

Mr. Stevens highlighted the costs that would be incurred in making another formal filing with the Commission, and maintained that, in this instance, those costs would not be reasonably incurred to address a matter that has been appropriately resolved by the Commission.<sup>213</sup>

**DISCUSSION**

Code of Virginia

Code § 56-585.5 C provides, in part, that:

[APCo] shall participate in a renewable energy portfolio standard program (RPS Program) that establishes annual goals for the sale of renewable energy to all retail customers in the utility’s service territory, other than accelerated renewable energy buyers pursuant to subsection G, regardless of whether such customers purchase electric supply service from the utility or from suppliers other than the utility. To comply with the RPS Program, [APCo] shall procure and retire Renewable Energy Certificates (RECs) originating from renewable energy standard eligible sources (RPS eligible sources). For purposes of complying with the RPS Program from 2021 to 2024, [APCo] may use RECs from any renewable energy facility, as defined in § 56-576, provided that such facilities are located in the Commonwealth or are physically located within the PJM Interconnection, LLC (PJM) region. However, at no time during this period or thereafter may [APCo] use RECs from (i) renewable thermal energy, (ii) renewable thermal energy equivalent, or (iii) biomass-fired facilities that are outside the Commonwealth. From compliance year 2025 and all years after, [APCo] may only use RECs from RPS eligible sources for compliance with the RPS Program . . . .

Code § 56-585.5 D provides that:

[APCo] shall petition the Commission for necessary approvals to procure zero-carbon electricity generating capacity as set forth in this subsection and energy storage resources as set forth in subsection E. To the extent that [APCo] constructs or acquires new zero-carbon generating facilities or energy storage resources, the utility shall petition the Commission for the recovery of the costs of such facilities, at the utility’s election, either through its rates for generation and distribution services or through a rate adjustment clause pursuant to subdivision A 6 of § 56-585.1. All costs not sought for recovery through a rate adjustment clause pursuant to subdivision A 6 of § 56-585.1 associated with generating facilities provided by sunlight or onshore or offshore wind are also eligible to be applied by the utility as a customer credit reinvestment offset as provided in subdivision A 8 of § 56-585.1. Costs associated with the purchase of energy, capacity, or environmental attributes from facilities owned by the persons other than the utility required by this subsection shall be recovered by the utility either through its rates for generation and distribution services or pursuant to § 56-249.6.

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<sup>213</sup> *Id.* at 4-5.



Code § 56-585.1 D 3 provide, in part, that:

Nothing in this section shall prohibit a utility from petitioning the Commission to construct or acquire zero-carbon electricity or from entering into contracts to procure the energy, capacity, and environmental attributes of zero-carbon electricity generating resources in excess of the requirements in subsection B. The Commission shall determine whether to approve such petitions on a stand-alone basis pursuant to §§ 56-580 and 56-585.1, provided that the Commission’s review shall also consider whether the proposed generating capacity (i) is necessary to meet the utility’s native load, (ii) is likely to lower customer fuel costs, (iii) will provide economic development opportunities in the Commonwealth, and (iv) serves a need that cannot be more affordably met with demand-side or energy storage resources.

[APCo] shall, at least once every year, conduct a request for proposals for new solar and wind resources. Such requests shall quantify and describe the utility's need for energy, capacity, or renewable energy certificates . . . .

Code § 56-585.5 D 4 provides that:

In connection with the requirements of this subsection, [APCo] shall, commencing in 2020 and concluding in 2035, submit annually a plan and petition for approval for the development of new solar and onshore wind generation capacity. Such plan shall reflect, in the aggregate and over its duration, the requirements of subsection D concerning the allocation percentages for construction or purchase of such capacity. Such petition shall contain any request for approval to construct such facilities pursuant to subsection D of § 56-580 and a request for approval or update of a rate adjustment clause pursuant to subdivision A 6 of § 56-585.1 to recover the costs of such facilities. Such plan shall also include the utility’s plan to meet the energy storage project targets of subsection E, including the goal of installing at least 10 percent of such energy storage projects behind the meter. In determining whether to approve the utility’s plan and any associated petition requests, the Commission shall determine whether they are reasonable and prudent and shall give due consideration to (i) the RPS and carbon dioxide reduction requirements in this section, (ii) the promotion of new renewable generation and energy storage resources within the Commonwealth, and associated economic development, and (iii) fuel savings projected to be achieved by the plan. Notwithstanding any other provision of this title, the Commission’s final order regarding any such petition and associated requests shall be entered by the Commission not more than six months after the date of the filing of such petition.

Code § 56-585.5 E provides that:

To enhance reliability and performance of the utility’s generation and distribution system, [APCo] shall petition the Commission for necessary approvals to construct or acquire new, utility-owned energy storage resources.

1. By December 31, 2035, [APCo] shall petition the Commission for necessary approvals to construct or acquire 400 megawatts of energy storage capacity. Nothing

in this subdivision shall prohibit [APCo] from constructing or acquiring more than 400 megawatts of energy storage, provided that the utility receives approval from the Commission pursuant to §§ 56-580 and 56-585.1.

...

4. All energy storage projects procured pursuant to this subsection shall meet the competitive procurement protocols established in subdivision D 3.

5. After July 1, 2020, at least 35 percent of the energy storage facilities placed into service shall be (i) purchased by the public utility from a party other than the public utility or (ii) owned by a party other than a public utility, with the capacity from such facilities sold to the public utility. By January 1, 2021, the Commission shall adopt regulations to achieve the deployment of energy storage for the Commonwealth required in subdivisions 1 and 2, including regulations that set interim targets and update existing utility planning and procurement rules. The regulations shall include programs and mechanisms to deploy energy storage, including competitive solicitations, behind-the-meter incentives, non-wires alternatives programs, and peak demand reduction programs.

Code § 56-585 F provides that:

All costs incurred by [APCo] related to compliance with the requirements of this section or pursuant to § 56-585.1:11, including (i) costs of generation facilities powered by sunlight or onshore or offshore wind, or energy storage facilities, that are constructed or acquired by [APCo] after July 1, 2020, (ii) costs of capacity, energy, or environmental attributes from generation facilities powered by sunlight or onshore or offshore wind, or falling water, or energy storage facilities purchased by the utility from persons other than the utility through agreements after July 1, 2020, and (iii) all other costs of compliance, including costs associated with the purchase of RECs associated with RPS Program requirements pursuant to this section shall be recovered from all retail customers in the service territory of [APCo] as a nonbypassable charge, irrespective of the generation supplier of such customer, except (a) as provided in subsection G for an accelerated renewable energy buyer or (b) as provided in subdivision C 3 of § 56-585.1:11, with respect to the costs of an offshore wind generation facility, for a PIPP eligible utility customer or an advanced clean energy buyer or qualifying large general service customer, as those terms are defined in § 56-585.1:11. If [APCo] serves customers in more than one jurisdiction, such utility shall recover all of the costs of compliance with the RPS Program requirements from its Virginia customers through the applicable cost recovery mechanism, and all associated energy, capacity, and environmental attributes shall be assigned to Virginia to the extent that such costs are requested but not recovered from any system customers outside the Commonwealth.

By September 1, 2020, the Commission shall direct the initiation of a proceeding for [APCo] to review and determine the amount of such costs, net of benefits, that should be allocated to retail customers within the utility's service territory which have elected to receive electric supply service from a supplier of electric energy other than the utility, and shall direct that tariff provisions be implemented to recover those costs from such

customers beginning no later than January 1, 2021. Thereafter, such charges and tariff provisions shall be updated and trued up by the utility on an annual basis, subject to continuing review and approval by the Commission.

Uncontested Issues

1. Whether the Commission should approve APCo’s proposed 2024 RPS Plan?

Pursuant to Code § 56-585.5 D 4, the Company submitted its 2024 RPS Plan to the Commission for approval to meet the requirements of the VCEA. The 2024 RPS Plan provides information on the assumptions and the results of modeling prepared for determining the Company’s optimal generation sources and the quantities of renewable energy required by the VCEA. The Company modeled VCEA compliant portfolios using the APCo’s base forecasts of power prices that reflect Virginia’s participation in RGGI, REC prices, and new resource availability. Each of the modeled VCEA compliant portfolios resulted in the selection of a diverse portfolio of generation resources, both Company and third-party owned, demand-side resources, as well as market REC purchases. The Company represented that it would continue to issue RFPs in 2024 and beyond for the resources and/or RECs needed for compliance with the VCEA.<sup>214</sup>

The Company developed the VCEA compliant portfolios similar to how IRPs are developed, using the same general methods, commodity price forecasts, optimization software, load forecasts, and resource cost assumptions. The Company used the PLEXOS Model to determine the amount and timing of the resource additions, adjusted to include resource additions to meet certain annual requirements associated with Virginia-domiciled renewable generation resources and energy storage. The Company presented a summary of the portfolios and the modeling result in Section 6 of the 2024 RPS Plan.<sup>215</sup>

The Company modeled all portfolios where RGGI standards are in place along with Inflation Reduction Act (“IRA”) tax benefits for eligible resources. The Company explained the resource selections in the various portfolios produced similar themes including the preference of wind resources for their energy value and the consistent selection of REC resources up to the annual limit in years 2029-2032. The Company further explained solar resources were also selected but did not reach the annual limits available for the modeling.<sup>216</sup>

The following portfolios were modeled by the Company. Portfolio A, the Base Option, was modeled with all resources made available and the portfolio recognized the value of capacity in the PJM market. Portfolio A also included two REC alternatives, the Company’s Base REC price forecast and a High REC price forecast. Portfolio A resource additions through 2043 were illustrated in Figure 14 and listed in Table 18 of the 2024 RPS Plan.<sup>217</sup> The resources included the selection of wind and solar resources along with additional SMR nuclear resources in 2036. The

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<sup>214</sup> Ex. 13, 2024 RPS Plan at 5.

<sup>215</sup> *Id.*; *See, id.* at 26.

<sup>216</sup> *Id.* at 26.

<sup>217</sup> *See, id.* at 27.

Company manually included storage resources in the portfolio to meet the requirements of the VCEA. The model also selected REC resources in years 2028 through 2033.<sup>218</sup>

Portfolio B, the Low REC Option, was modeled with the same physical resource alternatives and assumptions as Portfolio A but the Base REC price forecast was replaced with a Low REC price forecast. Portfolio B also included the High REC price forecast to allow the model to run a sensitivity where REC prices were higher and lower. Portfolio B resource additions through 2043 were illustrated in Figure 15 and listed in Table 19 of the 2024 RPS Plan.<sup>219</sup> The resource selections in Portfolio B resulted in the maximum selection of the Low REC resource and a small shift in the timing of new PPA solar resources.<sup>220</sup>

As directed by the Commission, the Company modeled Portfolio C, the No Capacity Benefit Option, with the same assumptions and resources as Portfolio A but the capacity revenue benefit was excluded for new resources. Portfolio C resource additions through 2043 were illustrated in Figure 16 and listed in Table 20 of the 2024 RPS Plan.<sup>221</sup> The non-recognition of capacity benefits resulted in Portfolio C having a small reduction in wind and solar resources in 2031.<sup>222</sup>

The Company modeled Portfolio D, the No Gas Option, to evaluate the resource selections when no new natural gas resources are an option. The modeling included all other resources and assumptions as Portfolio A. Portfolio D resource additions through 2043 were illustrated in Figure 17 and listed in Table 21 of the 2024 RPS Plan.<sup>223</sup> With no gas resources available, the model selected fewer solar resources, additional SMR nuclear resources, and all available storage resources were selected to replace capacity when the Amos and Mountaineer power plants retired. In addition, more RECs, including the High REC resources, were selected as part of the optimal plan to meet the Company's RPS requirement.<sup>224</sup>

Pursuant to the *2023 RPS Plan Order*, the Company modeled Portfolio E, the Economic Retirement Option, to evaluate the customer impacts of potential early retirement of the Amos and Mountaineer power plants on an economic basis. In this analysis, all four units at each power plant were modeled as individual generators available for economic retirement selection beginning in 2029. All other input assumptions used for modeling Portfolio A and the VCEA Plan were kept the same. The model was then given the option to continue to operate each unit every year from 2029 through 2040 as part of a least-cost long-term resource plan or select to retire the units if a less expensive replacement plan could be identified in the model. As with Portfolios A-D, the model was required to comply with the Company's two primary PJM regulatory requirements. The first requirement was to maintain the targeted PJM capacity reserve margin every year, and the second was to comply with the VCEA's renewable energy requirements every year. To simulate customer cost of service from each year through 2040, all fuel cost, variable O&M, fixed O&M, and future capital expense were considered to be costs of selecting these units as a resource. The model also considered any remaining unrecovered on-going capital value of each unit to be a cost of retirement

<sup>218</sup> *Id.* at 26-27.

<sup>219</sup> *See, Id.* at 27-28.

<sup>220</sup> *Id.* at 27

<sup>221</sup> *See, Id.* at 28.

<sup>222</sup> *Id.* at 28

<sup>223</sup> *See, Id.* at 28.

<sup>224</sup> *Id.* at 29.



*Triennial Review Order.*<sup>232</sup> The Company represented that it proposed a December 31, 2022 ratemaking capital structure because of the timing of its pending *2024 Biennial Review Case.*<sup>233</sup>

Staff recommended the use of an actual December 31, 2023 ratemaking capital structure with an authorized ROE of 9.20% and 9.50% for the applicable periods. For the under-recovery of costs between October and November 2023, Staff supported the use of an actual end of period December 31, 2023 ratemaking capital structure with a WACC of 6.997%, including a 9.20% ROE. For the under-recovery of costs in December 2023, the Bridge Period, and the Rate Year, Staff supported the use of an actual end of period December 31, 2023 ratemaking capital structure with a WACC of 7.142%, including a 9.50% ROE.<sup>234</sup> Staff recommended the use of the 2023 ratemaking capital structure due to the Company recovering 2023 over/under recovered costs. The 2023 ratemaking capital structure is being litigated in the Company’s pending *2024 Biennial Review Case.* Staff noted any differences in the capital structure approved in the *2024 Biennial Review Case* can be trued-up in a future APCo RPS Plan proceeding.<sup>235</sup>

The Company agreed with Staff’s actual December 31, 2023 ratemaking capital structure with an authorized ROE of 9.20% and 9.50% for the applicable periods. The other parties in this case had no position on this issue.<sup>236</sup> I find Staff’s actual December 31, 2023 ratemaking capital structure with an authorized ROE of 9.20% and 9.50% for the applicable periods is reasonable. Accordingly, I recommend the Commission adopt Staff’s actual December 31, 2023 ratemaking capital structure with an authorized ROE of 9.20% and 9.50% for the applicable periods for the development of the Company’s total Rate Year revenue requirement.

3. Whether the Commission should approve APCo’s proposed Rate Year Revenue Requirement and VCEA RACs?

The Company’s and Staff’s revenue requirements are set forth in the chart below.<sup>237</sup>

RAC	Company	Staff	Difference
A.5 RPS RAC	\$13,880,179	\$13,880,541	\$363
A.5 PCAP RAC	\$1,427,767	\$1,427,767	\$0
A.6 RPS RAC	\$1,195,313	\$1,201,956	\$6,644
Subtotal	\$16,503,258	\$16,510,264	\$7,006
Rider NBC	(\$32,782)	(\$32,782)	\$0
Total	\$16,470,476	\$16,477,482	\$7,006

<sup>232</sup> *Application of Appalachian Power Company, For a 2023 triennial review of its base rates, terms and conditions pursuant to § 56-585.8 of the Code of Virginia*, Case No. PUR-2023-00002, Doc. Con. Cen. No. 231140010, Final Order (Nov. 30, 2023) (“*2023 Triennial Review Case*” or “*2023 Triennial Review Order*,” as applicable).

<sup>233</sup> Ex. 19, at 2 and n.4 (Elmes Direct); *See, Application of Appalachian Power Company, For a 2024 biennial review of its base rates, terms and conditions pursuant to § 56-585.1 of the Code of Virginia*, Case No. PUR-2024-00024, Doc. Con. Cen. No. 240430075, Order for Notice and Hearing (Apr. 25, 2024) (“*2024 Biennial Review Case*” or “*2024 Biennial Review Order*,” as applicable).

<sup>234</sup> Ex. 19, at 2-3 (Elmes Direct).

<sup>235</sup> *Id.*, at 3 n.6.

<sup>236</sup> Joint Issues Matrix at ¶ 23.

<sup>237</sup> Ex. 20, at 4 (Carr Direct).

The Company supports Staff's total revenue requirement of \$16,477,482, which includes Staff's proposed RACs and Rider NBC.<sup>238</sup> The other parties in this case had no position on this issue.<sup>239</sup> I find Staff's total revenue requirement of \$16,477,482, which includes Staff's proposed RACs and Rider NBC, is reasonable and supported by the record herein. Accordingly, I recommend the Commission approve a total 2024 RPS Plan revenue requirement of \$16,477,482, which consists of an A.5 RPS RAC of \$13,880,541, an A.5 PCAP RAC of \$1,427,767, an A.6 RPS RAC of \$1,201,956, and a Rider NBC credit of (\$32,782).

4. Whether the Commission should approve APCo's proposed abandonment costs for the cancelled Bedington and Firefly solar facilities?

Company witness Castle described the abandonment costs the Company is seeking to recover include engineering and legal costs associated with developing contracts and evaluating the site, interconnection requirement assessments, and technology performance estimates. For Company-owned projects, the costs are recorded to FERC Account 183 (Preliminary survey and investigation charges) or FERC Account 107 (Construction work in progress) in anticipation of the project going in-service. If the project does not go in-service, and is abandoned, Mr. Castle asserted those costs need to be recovered through the Company's revenue requirement. The Company proposed to defer any such costs to the A.6 RPS RAC regulatory asset/liability and recover the costs over a one-year amortization period. The Company proposed to collect approximately \$1.2 million in abandonment costs, which represents Virginia's allocated portion of the costs, associated with the approved, but ultimately cancelled, Bedington (\$620,621) and Firefly (\$1,543,352) solar facilities. The total cost incurred for both projects was approximately \$2,163,973.<sup>240</sup>

Company witness Castle described the Bedington solar facility, which was a proposed 50 MW solar facility located in West Virginia that would have been acquired by the Company as a result of an RFP. In the *2021 RPS Plan Case*, APCo requested approval of the recovery of costs related to the acquisition of the Bedington solar facility, which was approved by the Commission.<sup>241</sup> Faced with significantly rising costs, in December 2022, Bedington's developer determined that it could not continue with the project without an increase in the purchase price. In January 2023, APCo and the developer determined it was in the best interests of both parties to terminate the purchase agreement and abandon the project.<sup>242</sup>

Company witness Castle described the Firefly solar facility, which was a proposed 150 MW solar facility located in Virginia that would have been acquired by the Company as a result of an RFP. In the *2021 RPS Plan Case*, the Commission determined that APCo's acquisition of the Firefly solar facility was prudent.<sup>243</sup> On September 28, 2022, Firefly's developer and APCo filed a joint motion to suspend the proceeding for a CPCN because the costs to construct the project might "rise materially above the amount" presented to the Commission in the *2021 RPS Plan Case*. On

<sup>238</sup> Tr. at 11 (Coates).

<sup>239</sup> Joint Issues Matrix at ¶ 2.

<sup>240</sup> Ex. 9, at 14-15 (Thomas Direct); Ex. 11, at 4-6 (Castle Direct).

<sup>241</sup> *2021 RPS Plan Case*, Case No. PUR-2021-00206, 2022 S.C.C. Ann. Rep. 345, 348-349, Final Order on Petition and Associated Requests, and Order Bifurcating Proceeding (July 15, 2022).

<sup>242</sup> Ex. 11, at 7 (Castle Direct).

<sup>243</sup> *2021 RPS Plan Case*, Case No. PUR-2021-00206, 2022 S.C.C. Ann. Rep. 345, 348-349, Final Order on Petition and Associated Requests, and Order Bifurcating Proceeding (July 15, 2022).

September 29, 2022, the Commission suspended the CPCN case, after which the developer and APCo continued to evaluate the viability of the project in light of rising material and labor costs. The parties determined they could not proceed with the project, and on November 30, 2022, they filed a joint motion to withdraw the application for the CPCN, which was granted by the Commission on December 14, 2022.<sup>244</sup>

Staff witness Carr confirmed Staff audited the Company's requested abandonment costs for the Bedington and Firefly solar facilities and determined the costs were reasonably and prudently incurred. As part its audit, Staff determined that a few thousand dollars were not related to abandonment and that is why Staff's revenue requirement is slightly less than the Company's. Mr. Carr confirmed that 96% of the abandonment costs were incurred prior to September 28, 2022, and a handful of invoices representing approximately \$37,000 were received after that date. Mr. Carr questioned whether Code § 56-585.1 A 6 or § 56-585.5 F permits recovery of the abandonment costs.<sup>245</sup>

On questioning from the bench, Mr. Carr stated the abandonment costs were incurred with the intention to construct the Bedington and Firefly solar facilities. He agreed the costs were not incurred to construct some other solar facilities; they were incurred for those two specific facilities.<sup>246</sup>

Code § 56-585.1 A 6 provides in relevant part that:

A utility that *constructs* or makes modifications to any such facility . . . shall have the right to recover the costs of the facility . . . through its rates, including projected construction work in progress, and any associated allowance for funds used during construction, planning, development and construction or acquisition costs, life-cycle costs . . . and costs of infrastructure associated therewith, plus, as an incentive to undertake such projects . . . (emphasis added).

Code § 56-585.5 F provides in relevant part that:

All costs incurred by a Phase I or Phase II Utility related to compliance with the requirements of this section . . . including (i) costs of generation facilities powered by sunlight or onshore or offshore wind, or energy storage facilities, that are *constructed* or acquired by a Phase I or Phase II Utility after July 1, 2020, . . . and (iii) *all other costs of compliance* . . . shall be recovered from all retail customers in the service territory of a Phase I or Phase II Utility as a non-bypassable charge, irrespective of the generation supplier of such customer . . . (emphasis added).

Staff does not oppose the Company's request to recover the abandonment costs incurred for the Bedington and Firefly solar facilities.<sup>247</sup>

<sup>244</sup> Ex. 11, at 6-7 (Castle Direct).

<sup>245</sup> Tr. at 197-203 (Carr).

<sup>246</sup> *Id.* at 204.

<sup>247</sup> Joint Issues Matrix at ¶ 3,



Based on the factual circumstances of this case, and there being no indications of unreasonableness or imprudence in either the costs incurred or the timing of the projects' termination, Consumer Counsel does not oppose the Company's request to recover the abandonment costs.<sup>248</sup> However, in its Post-Hearing Brief, Consumer Counsel questioned whether a statutory right to abandonment costs exists in Code § 56-585.5 F for a planned generation facility that is not completed. Consumer Counsel asserted "Subsection F does not include project abandonment costs as a cost of a generation facility recoverable under VCEA non-bypassable charges, and it is doubtful to Consumer Counsel that such costs of a failed project can be considered a cost of compliance with the VCEA."<sup>249</sup> Consumer Counsel asserted the specific facts and circumstances surrounding the abandonment of the Bedington and Firefly solar facilities, rather than a statutory mandate, support the approval of the Company's abandonment costs.<sup>250</sup>

The other parties in this case had no position on this issue.<sup>251</sup>

In ordinary usage *construct*, *constructs*, or *constructed* means "to form by assembling or combining parts; build."<sup>252</sup> There is no evidence in the record that the abandonment costs associated with the cancellation of the Bedington and Firefly solar facilities were not reasonably and prudently incurred by the Company, or that the costs were incurred for any other purpose than to construct or build the two solar facilities.<sup>253</sup> Pursuant to Code § 56-585.1 A 6, I find the Company's abandonment costs were reasonably and prudently incurred by APCo to construct or build the Bedington and Firefly solar facilities. If the Commission disagrees with this finding, Code § 56-585.5 F permits the recovery of all costs incurred by APCo, without limitation, to comply with the VCEA, which would include the abandonment costs related to the two solar facilities. It is undisputed that the costs were incurred to construct or build the Bedington and Firefly solar facilities, those facilities were being constructed to comply with the VCEA, and the Commission had approved the construction of both facilities pursuant to the VCEA. Accordingly, I recommend the Commission approve the Company's request to collect approximately \$1.2 million in abandonment costs related to the cancellation of the Bedington and Firefly solar facilities.

5. Whether the Commission should approve APCo's proposed Rider NBC?

To implement the Commission's *RPS Cost Allocation Order*, the Company developed a mechanism to collect VCEA costs from shopping customers who are a non-exempt subset of customers who take service under APCo's OAD tariff. The Company developed a single rate mechanism, Rider NBC, that collects the energy component of the VCEA PPA riders, and returns the energy benefits of the VCEA resources whose costs are collected through APCo's three VCEA RACs. The Rider NBC rate will initially be set to reflect the energy cost rate of the VCEA PPAs less the forecasted avoided energy costs of the VCEA resources for the Rate Year, excluding the Company's hydro facilities, which will constitute the in-period factor. In subsequent VCEA filings, the rate would consist of an estimate of the energy component of the VCEA PPAs for the rate year,

<sup>248</sup> *Id.*

<sup>249</sup> Consumer Counsel Post-Hearing Brief at 4.

<sup>250</sup> *Id.*

<sup>251</sup> Joint Issues Matrix at ¶ 3.

<sup>252</sup> American Heritage College Dictionary 299 (3d ed. 1997).

<sup>253</sup> Tr. at 197-204 (Carr).

an estimate of the avoided energy costs for the rate year, a reversal of the prior period estimates, and the prior period actual VCEA costs and actual avoided/off-system energy purchases and energy sales.<sup>254</sup>

Staff noted since Rider NBC only applies to shopping customers, it will have no direct impact on residential customers. Staff does not oppose the Company's proposed Rider NBC or the Company's proposal to allocate by customer class such costs and benefits on an energy basis. If the Commission approves Rider NBC, shopping customers who use 1,000 kWh per month would receive a monthly credit of \$0.067.<sup>255</sup>

The other parties in this case had no position on this issue.<sup>256</sup>

I find that, given the VCEA's framework for the recovery of costs, Rider NBC is necessary to recover VCEA costs, net of benefits, from APCo's shopping customers. Accordingly, I recommend the Commission approve the Company's proposed Rider NBC.

6. Whether the Commission should require the Company to endeavor to use the most recent ELCC guidance from PJM in future filings where such information would be relevant?

In this case, the Company utilized ELCC annual equivalent data contained in a PJM PowerPoint presentation dated July 27, 2023.<sup>257</sup> The Company noted that these ELCC values were held constant after 2026 for modeling purposes.<sup>258</sup> For the years 2024 through 2026, the Company assumed decreases in the ELCC values for all resources except onshore wind.<sup>259</sup>

Staff noted that the Company's assumption that ELCC values would hold constant after 2026 might not be a realistic assumption. Staff further noted that since July of 2023, PJM has updated its ELCC guidance twice: once on March 13, 2024, to provide the ELCC values for the 2025-2026 delivery year,<sup>260</sup> and once on April 24, 2024, to provide PJM's preliminary ELCC class ratings for delivery years 2026-2027 through 2034-2035.<sup>261</sup> Staff further noted that PJM's April 24, 2024 update projected that ELCC ratings for solar and wind resources would continue to decrease over time.<sup>262</sup> Staff recognized that it might have been impracticable for the Company to include the most recent PJM guidance in its modeling because of the timing of the filing of its Petition.<sup>263</sup> However, Staff recommended that the Commission require the Company to endeavor to

<sup>254</sup> Ex. 11, at 3-4 (Castle Direct).

<sup>255</sup> Ex. 20, at 7 (Carr Direct); Ex. 22, at 32-34 (Glattfelder Direct).

<sup>256</sup> Joint Issues Matrix at ¶ 4.

<sup>257</sup> Ex. 13, 2024 RPS Plan at 19.

<sup>258</sup> *Id.*

<sup>259</sup> Ex. 22, at 23 (Glattfelder Direct).

<sup>260</sup> PJM, *2025/2026 BRA ELCC Class Ratings*, <https://www.pjm.com/-/media/planning/res-adeq/elcc/2025-26-bra-elcc-class-ratings.ashx> (last visited June 5, 2024). *See*, Ex. 22, at Attachment MSG-3.

<sup>261</sup> PJM, *Preliminary ELCC Class Ratings for period Delivery Year 2026/2027 – Delivery Year 2034/2035*, <https://www.pjm.com/-/media/planning/res-adeq/elcc/preliminary-elcc-class-ratings-for-period-2026-2027-through-2034-2035.ashx> (last visited Aug. 26, 2024). *See*, Ex. 22, at Attachment MSG-4.

<sup>262</sup> Ex. 22, at 24 (Glattfelder Direct).

<sup>263</sup> *Id.* at 24-25.

utilize the most-recently available ELCC guidance from PJM in future filings for which such information would be relevant.<sup>264</sup>

The Company and Appalachian Voices agreed with the Staff's recommendation, and the other parties in this case had no position on this issue.<sup>265</sup>

I find a requirement for the Company to endeavor to use the most recent PJM ELCC guidance in future RPS Filings, where such information is relevant, is reasonable. Accordingly, I recommend the Commission direct the Company to endeavor to use the most recent PJM ELCC guidance in future RPS Filings, where such information is relevant.

7. Whether the Commission should approve APCo's cost recovery framework modifications, in addition to Rider NBC?

The Company proposed two additional cost recovery framework modifications, in addition to Rider NBC. First, as a result of the *RPS Cost Allocation Order*, the Company incorporated a change to the cost recovery framework for owned resources beginning in the Rate Year. Prior to the Rate Year, the total cost of owned resources was split into RECs, energy, and capacity based on a value-stream methodology that compared the relative long-term values of the three benefits. These costs were recovered through the A.5 RPS RAC, A.6 RPS RAC<sub>E</sub>, and A.6 RPS RAC<sub>C</sub>, respectively. Consistent with the *RPS Cost Allocation Order*, beginning in the Rate Year, the cost would be first apportioned to RECs (which are recovered through the A.5 RPS RAC) based on current market values for the RECs produced by the resource. Then, all of the remaining costs are considered capacity and recovered through the A.6 RPS RAC<sub>C</sub>.<sup>266</sup>

The second change was for the cost of PPA resources. Prior to the Rate Year, most PPAs were split into the same three components as owned resources. The REC piece was recovered through the A.5 RPS RAC, the energy piece through the fuel factor, and the capacity piece through the A.5 PCAP RAC. During the Rate Year, the REC component would be determined first as described for owned resources. Then, the remaining costs would be split between energy (the fuel factor) and capacity (the A.5 PCAP RAC) based on relative values of each based on near-term market values. Staff noted the Commission's *RPS Cost Allocation Order* did not explicitly address RAC-apportionment of PPAs. Staff further noted the Company's methodology appears to be a reasonable application to PPAs of the "REC-first" methodology adopted by the Commission for owned resources.<sup>267</sup>

Staff supported the Company's proposed changes to its cost recovery framework. The other parties in this case had no position on this issue.<sup>268</sup>

<sup>264</sup> *Id.* at 25.

<sup>265</sup> Joint Issues Matrix at ¶ 7. *See*, Appalachian Voices Post-Hearing Brief at 3 and 10-11.

<sup>266</sup> Ex. 20, at 8 (Carr Direct).

<sup>267</sup> *Id.* at 8-9.

<sup>268</sup> Joint Issues Matrix at ¶ 8.

I find the Company’s proposed changes to its cost recovery framework to address owned resources and PPAs are reasonable. Accordingly, I recommend the Commission approve the two proposed changes to the Company’s cost recovery framework.

- 8. a. Whether the Commission should direct the Company to incorporate approved cost allocation methodologies in future RPS Plan bill impact analyses?
- b. Whether the long-term bill impact analysis presented in future RPS Plans reflect the VCEA cost allocation methodology approved by the Commission?<sup>269</sup>

The above issues are interrelated and will be addressed together below because the Commission’s approved cost allocation methodology impacts the Company’s long-term bill impacts analysis.

Staff noted that the Company’s bill impact analysis did not incorporate the cost allocations approved by the Commission in the *RPS Cost Allocation Order*. Specifically, Staff noted the Company’s LTRR took a simplified approach by splitting all costs and benefits 85% energy and 15% demand. In contrast, the Commission’s approved allocations applied specific allocation methodologies for individual costs and benefits. For example, owned resources’ costs, after REC values are extracted for recovery through the A.5 RPS RAC on an energy basis, are recovered through the A.6 RPS RAC and recovered 100% on demand. Energy revenues, for those resources and others, are allocated 100% on energy. Staff believes the Commission’s approved methodologies are important because they can produce different results for the different customer classes when compared to the simplified 85% energy/15% demand methodology. Staff provided examples of the difference in bill impacts using the Commission’s approved allocations. Staff recalculated the bill impacts using the Commission’s approved cost allocations for the Residential, Small General Service, and Large Power Service customer classes. Staff’s bill impact calculations were on average 29.5% higher than the Company’s. For this reason, Staff recommended that the Company be directed to incorporate the Commission’s approved cost allocation methodologies in future RPS Plan bill impact analyses.<sup>270</sup>

The Company is not opposed to the Staff’s recommendation.<sup>271</sup> However, the Company proposed that it provide the rate impact as it proposed in Case No. PUR-2024-00001.<sup>272</sup> Specifically, the Company would provide with each RPS Filing an analysis similar to what APCo provided as a Late-Filed Exhibit 7 in that proceeding, which shows the incremental rate impacts of each proposed new renewable energy project as each project is proposed in the annual RPS Filing.<sup>273</sup>

Consumer Counsel supports Staff’s recommendation that the Company incorporate the Commission’s approved cost allocation methodologies in future RPS Plan bill impact analyses.

<sup>269</sup> Joint Issues Matrix at ¶ 9 and ¶ 20.

<sup>270</sup> Ex. 20, at 10-12 (Carr Direct).

<sup>271</sup> Joint Issues Matrix at ¶ 9 and ¶ 20.

<sup>272</sup> See, *Application of Appalachian Power Company, For approval to construct and operate a battery energy storage system*, Case No. PUR-2024-00001, Doc. Con. Cen. No. 240240025, Order for Notice and Hearing (Feb. 23, 2024).

<sup>273</sup> Joint Issues Matrix at ¶ 9 and ¶20.

Consumer Counsel asserted “[f]or accuracy and transparency of VCEA cost impacts on consumers, the Company’s bill impact projections should reflect the Commission’s approved cost allocation methodologies.”<sup>274</sup>

The Committee supports the Staff’s recommendation. However, the Committee asserted the costs for SMRs should not be included in bill impact forecasts for VCEA-related non-bypassable riders.<sup>275</sup> In its Post-Hearing Brief, the Committee asserted that not only was the Company’s long-term bill impacts analysis the product of a flawed methodology, the analysis included costs associated with SMRs when calculating the bill impacts of VCEA compliance. The Committee asserted the costs associated with SMR development are clearly distinguishable from costs associated with VCEA compliance. Lastly, the Committee asserted since SMR-related costs are not recovered through APCo’s VCEA-related riders, the costs associated with SMR development should not be included in the LTRR or the long-term bill impacts associated with VCEA compliance going forward.<sup>276</sup>

The other parties in this case had no position on this issue.<sup>277</sup>

I find the Company should incorporate the Commission’s approved cost allocations in its bill impacts analysis. As Staff demonstrated, the different allocation methodologies can produce a higher cumulative rate impact for Residential customers and a lower cumulative impact for Large Power Service customers.<sup>278</sup> The overarching requirement for the Company’s bill impacts analysis is to be as accurate as possible so that the costs of compliance with the VCEA are transparent to the Company’s various customer classes. The same logic applies to SMRs. To the extent SMRs are included in the Company’s 2024 RPS Plan as a generation resource commencing in 2036 and beyond, the costs associated with SMRs should be included in the long-term bill impacts analysis for complete transparency. I find the Committee’s argument slightly disingenuous. On the one hand, the Committee argues that the Commission’s approved allocations would provide greater transparency for the Company’s customers, and on the other hand, it wants to exclude the costs associated with SMRs because they are not technically a VCEA generation resource, even though the inclusion of SMRs in the RPS Plan could have a significant impact on customer bills. Whether SMRs are a cost-effective source of non-carbon emitting generation whose costs should be recovered from the Company’s customers is an issue for another day. However, for planning purposes, since SMRs are included in the 2024 RPS Plan, the expected costs to customers for those generation resources should be included in the plan. I find the Company should continue to include the costs associated with SMRs in its bill impacts analysis. I further find the Company’s proposal to provide with each RPS Filing an analysis similar to what APCo provided as Late-Filed Exhibit 7 in Case No. PUR-2024-00001 is reasonable. Accordingly, I recommend the Commission direct the Company to incorporate the Commission’s approved cost allocations in its bill impacts analysis and continue to include the costs associated with SMRs in that analysis. I further recommend the Commission approve the Company’s proposal to provide with each RPS Filing an analysis similar to what APCo provided as Late-Filed Exhibit 7 in Case No. PUR-2024-00001.

<sup>274</sup> Consumer Counsel Post-Hearing Brief at 4-5.

<sup>275</sup> Joint Issues Matrix at ¶ 9.

<sup>276</sup> Committee Post-Hearing Brief at 3-4.

<sup>277</sup> Joint Issues Matrix at ¶ 9 and ¶ 20.

<sup>278</sup> Ex. 20, at 10-12 (Carr Direct).

9. Whether the Commission should direct the Company to calculate the NPVs of all modeled portfolios inclusive and exclusive of the SCoC?

In the Company's response to Staff Interrogatory No. 1-21, the Company stated the NPVs of Portfolios A-E and the VCEA Plan Lifetime Revenue Requirement excluded the SCoC. The Company stated its "revenue requirement would not include a societal cost, by definition" because "[s]ocietal costs are borne by the public, at large, not just the Company's customers."<sup>279</sup> The Company further stated it relied on the Interagency Working Group on Social Cost of Greenhouse Gases, United States Government's report titled "Technical Support Document: Social Cost of Carbon, Methane, Nitrous Oxide Interim Estimates under Executive Order 13990" (Table ES-1, utilizing the 3% discount rate). The dollars per metric ton of CO<sub>2</sub> referenced was converted to real dollars at a 2% rate for inflation. The Company has historically used the EPA's Reliability First Corporation West Subregion emissions rate as its emissions source, but in this proceeding the Company proposed to utilize the marginal CO<sub>2</sub> emissions rate from the most recent PJM Emissions Report. The annual energy value, for each renewable resource, was multiplied by the emissions rate to arrive at the carbon tons avoided. This amount was then multiplied by the dollars per ton to calculate the value of the resource's SCoC, by year.<sup>280</sup>

APCo provided a calculated NPV of the SCoC for the period 2024 through 2050 in the Company's Response to Staff Interrogatory No. 6-97.<sup>281</sup> The Company calculated the SCoC by multiplying its total solar generation in MWh by PJM's marginal emissions rate of 811 pounds per MWh. The Company then multiplied the tons of CO<sub>2</sub> by the estimated cost of carbon in 2024 of \$59.53 per ton CO<sub>2</sub>. For 2024, the Company calculated an SCoC value of \$6,923,403, and through 2050, the Company calculated a SCoC NPV of \$110,103,666.<sup>282</sup>

In its 2024 RPS Plan, the Company's NPVs for Portfolios A-E and the VCEA Plan excluded the SCoC.<sup>283</sup>

Staff recommended in future RPS Filings, the Company should be directed to calculate NPVs of all modeled portfolios inclusive and exclusive of the SCoC.<sup>284</sup>

The Company does not oppose Staff's recommendation. Appalachian Voices supports Staff's recommendation. The other parties in this case had no position on this issue.<sup>285</sup>

I find requiring the Company to calculate the NPVs of all modeled portfolios inclusive and exclusive of the SCoC in future RPS Filings is reasonable. Accordingly, I recommend the Commission direct the Company to calculate NPVs of all modeled portfolios inclusive and exclusive of the SCoC in future RPS Filings.

<sup>279</sup> Ex. 23, Attachment TRB-1, Staff Interrogatory No. 1-21 (Brunelle Direct).

<sup>280</sup> *Id.* at 32-33.

<sup>281</sup> *Id.*, Attachment TRB-1, Staff Interrogatory No. 6-97.

<sup>282</sup> *Id.* at 33.

<sup>283</sup> *Id.*

<sup>284</sup> *Id.* at 34.

<sup>285</sup> Joint Issues Matrix at ¶ 11. *See*, Appalachian Voices Post-Hearing Brief at 3, 12-13.

10. Whether the Commission should approve APCo’s use of FERC Form 1 data to calculate its annual RPS obligation, including calculation of the statutory nuclear offset percentage to two decimal places?

Staff noted a discrepancy in the Company’s total retail sales for the 2023 RPS Compliance Period, which uses previous calendar year data reported by the Company. There was a difference of more than 0.003% between the values reported by the U.S. Energy Information Administration (“EIA”) in Form EIA-861 Annual Electric Power Industry Report and the value that the Company reported in the FERC Financial Report FERC Form 1 for calendar years 2021 and 2022.<sup>286</sup> Staff noted for the 2021 and 2022 RPS Compliance Periods, the differences between the two data sources were each less than 0.00002%.<sup>287</sup>

Staff recommended that, in cases where the data sources are inconsistent, the Commission should direct the Company to use the same methodology that the Commission adopted in Case No. PUR-2023-00142, where the Commission approved:

Dominion’s use of applicable FERC Form 1 data to calculate its annual RPS obligation, including calculation of the statutory nuclear offset percentage to two decimal places.<sup>288</sup>

Staff believes, given the shared statutory terminology used for RPS compliance between Phase I and Phase II utilities, the information reported in the Company’s FERC Form 1 is reasonable to use in calculating the Company’s annual RPS Program requirement. Staff noted if errors are found in the FERC Form 1 after submission, FERC allows for updates to be made after the submission date.<sup>289</sup> Staff further noted EIA will only update Form EIA-861 if the error impacts the total state level energy consumption values. Considering those differences, Staff recommended that FERC Form 1 data be used for RPS compliance.<sup>290</sup>

In response to Staff Interrogatory 5-74, the Company acknowledged that “[t]he EIA data is considered more preliminary in nature. As such, it appears to be more appropriate to utilize the FERC Form 1 data as the basis for determining the Company’s annual RPS requirements.”<sup>291</sup>

The Company does not oppose Staff’s recommendation that APCo use FERC Form 1 data to calculate its annual RPS obligation, including calculation of the statutory nuclear offset percentage to two decimal places. The other parties in this case had no position on this issue.<sup>292</sup>

Considering the slight differences between the EIA and FERC data sources, I find Staff’s recommendation that the Company use FERC Form 1 data to calculate its annual RPS obligation is

<sup>286</sup> Ex. 24, Attachment MBCU-1, Staff Interrogatory No. 5-74 (Unger Direct).

<sup>287</sup> *Id.* at 10-11.

<sup>288</sup> *Petition of Virginia Electric and Power Company, For approval of its 2023 RPS Development Plan under § 56-585.5 D 4 of the Code of Virginia and related requests*, Case No. PUR-2023-00142, Doc. Con. Cen. No. 594466, Final Order at 6 (Mar. 29, 2024).

<sup>289</sup> *See*, 18 CFR § 141.1.

<sup>290</sup> Ex. 24, at 11-12 (Unger Direct).

<sup>291</sup> *Id.* at 12 n.28; *See Id.*, Attachment MBCU-1, Staff Interrogatory No. 5-74.

<sup>292</sup> Joint Issues Matrix at ¶ 16.

reasonable. Accordingly, I recommend the Commission direct the Company to use FERC Form 1 data to calculate its annual RPS obligation, including the calculation of the statutory nuclear offset percentage to two decimal places.

11. Whether the Commission should direct APCo to apply any methodology refinements addressed in this case, to the Company's 2021 through 2023 RPS Compliance Periods, as well as future RPS Compliance Period filings?

Based on information adduced in this case, Staff submitted the following methodology for calculating APCo's Total RPS Program Requirement for the Commission's consideration.<sup>293</sup>

- a. Start with Retail Sales Subtotal of 15,079,029 MWh.
- b. Subtract Nuclear Output of 0 MWh.
- c. Subtract Exempt Customer Load of 296,681 MWh.<sup>294</sup>
- d. Equals the "Total Electric Energy" of between 14,782,348 MWh and 14,783,282 MWh.<sup>295</sup>
- e. Multiplied by the 8% 2023 RPS Program Requirement percentage.<sup>296</sup>
- f. Equals the Total RPS Program Requirement of between 1,182,588 RECs and 1,182,663 RECs.<sup>297</sup>

Staff noted the difference between its Total RPS Program Requirement and the Company's 1,151,355 Total RPS Program Requirements (RECs).<sup>298</sup> Staff noted there is continued uncertainty around the Total Electric Energy calculation.<sup>299</sup> Staff noted the *REC Treatment Case* is pending and that case would address topics relevant to REC Compliance. For that reason, Staff believes its preferred calculation methodology might be subject to change.<sup>300</sup>

The Company does not oppose Staff's methodology refinements for calculating its Total RPS Program Requirement for its 2021 through 2023 RPS Compliance Periods, as well as future RPS Compliance Period filings. The other parties in this case had no position on this issue.<sup>301</sup>

<sup>293</sup> Ex. 24, at 21-22 (Unger Direct).

<sup>294</sup> Staff noted when it filed its testimony, the Company had not clarified the discrepancy between CSP sales found in FERC Form 1. Staff estimated that the difference in REC retirements associated with this category could not be more than 75 RECs. Staff made this determination by multiplying the Virginia Only CSP Jurisdictional Retail Sales difference in Figure 1: Original Retail Sales subtotal (MWh) by the 2023 RPS Program Requirement percentage of 8%. *Id.*, at 21 n.57 (Unger Direct).

<sup>295</sup> Staff noted the variance depends on how the Company reconciles the 934 MWh difference for customers receiving generation supply from a CSP. *Id.*, at n.58.

<sup>296</sup> The Company refers to this as the "Annual Percentage Requirement" in Ex. 3, at 14, Figure 2: RPS Program Requirement, Line 4 (Stevens Direct).

<sup>297</sup> Staff noted when it filed its testimony, the Company had not clarified the discrepancy between CSP sales found in FERC Form 1. Staff estimated that the difference in REC retirements associated with this category could not be more than 75 RECs. Staff made this determination by multiplying the Virginia Only CSP Jurisdictional Retail Sales difference in Figure 1: Original Retail Sales subtotal (MWh) by the 2023 RPS Program Requirement percentage of 8%. Ex. 24, at 22 n.60 (Unger Direct).

<sup>298</sup> Ex. 3, at 14, Figure 2: RPS Program Requirement, Line 5 (Stevens Direct).

<sup>299</sup> See, Code § 56-585.5 A.

<sup>300</sup> Ex. 24, at 22 (Unger Direct).

<sup>301</sup> Joint Issues Matrix at ¶ 17.



I find Staff's methodology for calculating the Company's Total RPS Program Requirement is reasonable. Accordingly, I recommend the Commission direct the Company to: (i) adopt Staff's methodology for calculating APCo's Total RPS Program Requirement; (ii) once the issue regarding Total Electric Energy is resolved in the *REC Treatment Case*, refile its 2021, 2022, and 2023 RPS Compliance Reports using Staff's methodology; and (iii) use Staff methodology for future RPS Compliance Period filings.

- 12. Whether the Commission should require the Company to account for prospective large (200 MW+) load customers in its future RPS Filings by including a high load forecast sensitivity as well as a narrative description of when the potential load is anticipated?

At the hearing Company witness Stevens was asked a series of questions regarding the Company's response to Staff Interrogatory No. 9-109. The interrogatory related to the Company's request in the Company's *2024 Biennial Review Case* to modify its Terms and Conditions to negotiate credit terms with new customers with loads in excess of 200 MW.<sup>302</sup> In its response, the Company indicated that it had been contacted by 17 large power customers with expected loads greater than 200 MW, which would represent approximately 7,732 MW in new load. The Company further indicated that approximately 9 of those large power customers are data centers, which would represent approximately 3,760 MW in new load.<sup>303</sup>

The Company is not opposed to this proposal. Appalachian Voices and the Sierra Club supported this proposal.<sup>304</sup> Staff, Consumer Counsel, and the Committee had no position on this issue.<sup>305</sup>

With the General Assembly relieving the Company of the requirement to submit an IRP to the Commission, the RPS Plan represents the only long-range planning document subject to Commission review and approval that is designed to match APCo's expected load with expected generation resources. In short, the Company's RPS Plan ensures that the lights stay on for APCo's customers. I find the proposal to require the Company to account for prospective large (200 MW+) load customers in its future RPS Filings is reasonable. Accordingly, I recommend the Commission direct the Company to account for prospective large (200 MW+) load customers in its future RPS Filings by including a high load forecast sensitivity as well as a narrative description of when the potential load is anticipated.

Contested Issues

- 1. a. Whether the Commission should approve APCo's request to be relieved of the requirement to conduct a retirement analysis of its Amos and Mountaineer coal-fired power plants in future VCEA filings?  
  
b. Whether the Commission should require the Company to model in its RPS Plan the impacts of all new state and federal regulations, including but not limited to the New Source

<sup>302</sup> Ex. 7 (Staff Interrogatory No. 9-109); Tr. at 61-65 (Stevens).  
<sup>303</sup> Ex. 7 (Staff Interrogatory No. 9-109).  
<sup>304</sup> Joint Issues Matrix at ¶ 21. See, Appalachian Voices Post-Hearing Brief at 2-3, 9-10.  
<sup>305</sup> *Id.* at ¶ 21.

Performance Standards for Greenhouse Gas Emissions published on May 9, 2024 (“2024 Clean Air Act Rule”)<sup>306</sup> and the 2024 Effluent Limitations Guidelines and Standards for the Steam Electric Power Generating Point Source Category published on May 9, 2024 (“2024 ELG Rule”)<sup>307</sup>

The above issues are interrelated and will be addressed together below.<sup>308</sup>

Pursuant to the *2023 RPS Plan Order*, the Company modeled a portfolio sensitivity to evaluate the customer impacts of potential early retirement of the Amos and Mountaineer coal-fired power plants.<sup>309</sup> The Company represented that, in this analysis, all four units at these facilities were modeled as individual generators available for economic retirement selection, and that all assumptions and inputs used were the same as those used for modeling the least-cost plan for achieving RPS Program compliance and modeling APCo’s VCEA Plan for achieving RPS Program compliance.<sup>310</sup>

The Company asserted that under this analysis, the PLEXOS Model selected all the Amos and Mountaineer units to continue operations until 2040 as part of the least cost plan. According to the Company, this result reflects APCo’s assumption that both facilities would run through 2040, consistent with orders from the Commission and the WVPSC.<sup>311</sup> In its Petition, the Company requested that it be relieved of the requirement to conduct this analysis in future RPS Plan cases.<sup>312</sup>

In its testimony, Staff noted while the economics in this case suggest that the Amos and Mountaineer power plants remaining operational through 2040 is in ratepayers’ best interests, Staff asserted that the economics of operating those units might change over time. Staff noted on April 25, 2024, the day the Company filed its Petition, the EPA announced new regulations pursuant to Section 111(b) of the Clean Air Act governing new source performance standards for greenhouse gas emissions from new, modified, and reconstructed fossil-fuel-fired power plants, the 2024 Clean Air Act Rule. Staff noted that compliance with these new emission standards would increase the operating cost of Amos and Mountaineer.<sup>313</sup> In response to Staff Interrogatory No. 2-41, APCo confirmed that the new 2024 Clean Air Act Rule was not taken into consideration in its RPS modeling in this case.<sup>314</sup> Considering the economic impact the new 2024 Clean Air Act Rule, as well as other potential new regulations might have on the economics of Amos and Mountaineer over the course of the Company’s RPS transition, Staff recommended that the early retirement sensitivity analysis continue to be required and reported in subsequent RPS Filings.<sup>315</sup>

<sup>306</sup> New Source Performance Standards for Greenhouse Gas Emissions from New, Modified, and Reconstructed Electric Generating Units, <https://www.epa.gov/stationary-sources-air-pollution/nsps-ghg-emissions-new-modified-and-reconstructed-electric-utility>.

<sup>307</sup> Steam Electric Power Generating Effluent Guidelines – 2024, <https://www.epa.gov/eg/steam-electric-power-generating-effluent-guidelines-2024-final-rule>.

<sup>308</sup> Joint Issues Matrix at ¶ 5 and ¶ 15.

<sup>309</sup> *2023 RPS Plan Case*, Case No. PUR-2023-00001, Doc. Cen. Con. No. 558552, Final Order at 7 (Sept. 7, 2023).

<sup>310</sup> Ex. 2, at 14 (Petition).

<sup>311</sup> *Id.*

<sup>312</sup> *Id.*

<sup>313</sup> Ex. 22, at 6 (Glattfelder Direct).

<sup>314</sup> *Id.*, Attachment MSG-1, Staff Interrogatory No. 2-41.

<sup>315</sup> *Id.* at 6.

In its Post-Hearing Brief, Staff recommended that the Commission reject the Company's request to discontinue modeling the early retirement of the Amos and Mountaineer facilities in future RPS Filings.<sup>316</sup>

In addition to the 2024 Clean Air Act Rule, the Sierra Club also noted that on April 25, 2024, the EPA announced new regulations to strengthen the wastewater discharge standards that apply to coal-fired power plants, the 2024 ELG Rule. The Sierra Club further noted that the 2024 ELG Rule was also not incorporated into the Company's retirement analysis.<sup>317</sup> The Sierra Club agreed with Staff that the impact of the new 2024 Clean Air Act Rule<sup>318</sup> and the 2024 ELG Rule<sup>319</sup> should be thoroughly analyzed by APCo to ensure that "the Company's customers are not investing hundreds of millions of dollars into uneconomic generation."<sup>320</sup>

In its Post-Hearing Brief, the Sierra Club noted that it served discovery on the Company asking whether APCo had estimated the costs to comply with the 2024 ELG Rule.<sup>321</sup> As of June 5, 2024, the Company responded "No. AEP is analyzing the impact of the new regulations on its overall generation fleet and any changes that come of that analysis will be reflected in the next year's RPS plan."<sup>322</sup> The Sierra Club noted that the Company reiterated that position on July 25, 2024, at the hearing in this case.<sup>323</sup> The Sierra Club further noted that on July 26, 2024, a day after the hearing, the Vice President for Environmental Services at AEP filed a declaration before the United States Court of Appeals for the Eighth Circuit,<sup>324</sup> estimating that the 2024 ELG Rule would cost the Company approximately \$680 million during the first ten years of operating the mandated treatment technology at Amos and Mountaineer, increasing the average residential bill by an estimated \$42-60/year.<sup>325</sup>

Appalachian Voices also opposes the Company's request to be relieved of the requirement to continue modeling the economic early retirement of the Amos and Mountaineer power plants.<sup>326</sup> In its Post-Hearing Brief, Appalachian Voices recommended that the Commission direct the Company in future RPS Plan cases to model the impact of new state and federal regulations,

<sup>316</sup> Staff Post-Hearing Brief at 2-4.

<sup>317</sup> Sierra Club Post-Hearing Brief at 2.

<sup>318</sup> *Id.* at 3-5.

<sup>319</sup> *Id.* at 5-8.

<sup>320</sup> *Id.* at 2.

<sup>321</sup> *Id.* at 6.

<sup>322</sup> Ex. 5, Sierra Club Interrogatories 1-2 and 1-5.

<sup>323</sup> Sierra Club Post-Hearing Brief at 6; Tr. at 119 (Martinez).

<sup>324</sup> *Id.* at 6. *See, Southwestern Electric Power v. Environmental Protection Agency*, Case No. 24-2123(L), Utility and State Petitioners' Motion for a Stay Pending Review, Exhibit 1 ¶¶ 29, 37 (8th Cir. July 26, 2024) (Motion for Stay), attached as an Appendix to Sierra Club's Post-Hearing Brief. The Sierra Club asserted the Commission can take judicial notice of the pendency of this suit and any related filings before the federal appeals court. *See, Cherewick v. State Farm Fire & Casualty*, Case No. 3:20-cv-00693-BEN-MSB, 2022 WL 80429, at \*18 (S.D. Cal. Jan. 7, 2022) ("It is well-established that courts may take judicial notice of the pleadings, filings, and court records of any court."); *See also, Wal-Mart Stores East v. State Corporation Commission*, 299 Va. 57, 75 at n.7 (2020) (taking judicial notice of the pendency of a related case before the Commission); *2021 RPS Plan Case*, Case No. PUR-2021-00206, 2022 S.C.C. Ann. Rep. 345, 349 at n.30, Final Order on Petition and Associated Requests, and Order Bifurcating Proceeding (July 15, 2022) (Commission took judicial notice of an order of the WVPSC).

<sup>325</sup> Sierra Club Post-Hearing Brief at 6.

<sup>326</sup> Joint Issues Matrix at ¶ 5 and ¶ 15.

including but not limited to the 2024 Clean Air Act Rule and the 2024 ELG Rule.<sup>327</sup> Appalachian Voices asserted that the Company's modeling assumptions could change in response to the new federal regulations and those changes are likely to impact the cost calculations for the operation of APCo's fossil fuel generation resources. In particular, Appalachian Voices noted the costs associated with technologies like carbon capture and sequestration may make it cheaper to retire Amos and Mountaineer before 2040.<sup>328</sup> Appalachian Voices asserted the Company's "modeling inputs should reflect recent, relevant, and thoroughly evaluated resource assumptions."<sup>329</sup> Otherwise, the Company's modeling would yield results that do not represent likely outcomes. For this reason, Appalachian Voices urged the Commission not to grant APCo's request to be relieved from the requirement to continue modeling the economic early retirement of Amos and Mountaineer.<sup>330</sup>

Consumer Counsel and the Committee had no position on this issue.<sup>331</sup>

I find the EPA's promulgation of the 2024 Clean Air Act Rule and the 2024 ELG Rule has raised sufficient uncertainty regarding the economic impact of those rules on the future costs to operate the Company's Amos and Mountaineer power plants that APCo should continue to model the economic early retirement of those coal-fired generation facilities. I further find that, since the 2024 Clean Air Act Rule and the 2024 ELG Rule are final EPA rules, the Company should specifically model the impacts of the of those rules in future RPS Plan cases, unless or until those rules are either modified, vacated, or withdrawn. Accordingly, I recommend that the Commission deny the Company's request to be relieved of the requirement to conduct an economic early retirement analysis of its Amos and Mountaineer power plants. I further recommend that the Commission direct the Company to specifically model the impact of the EPA's 2024 Clean Air Act Rule and the 2024 ELG Rule in future RPS Plan cases.

2. Whether the Commission should require the Company to continue to use a three-year rolling average when calculating its assumed solar capacity factor for modeling purposes?

In its testimony,<sup>332</sup> Staff noted the Company used a 20.5% capacity factor for modeling all new solar generating resources, which represents a three-year rolling average capacity factor for solar generating resources located in Virginia.<sup>333</sup> Staff further noted the Company used an approximate capacity factor of 24% for the purpose of informing resource costs contained in RFP responses.<sup>334</sup> Staff believes the Company should continue to use a three-year rolling average for calculating APCo's capacity factors for solar generating resources, as previously ordered by the Commission in the *2021 RPS Plan Case*.<sup>335</sup>

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<sup>327</sup> Appalachian Voices Post-Hearing Brief at 3.

<sup>328</sup> *Id.* at 11-12.

<sup>329</sup> *Id.* at 12.

<sup>330</sup> *Id.*

<sup>331</sup> Joint Issues Matrix at ¶ 5 and ¶ 15.

<sup>332</sup> Ex. 22, at 21 (Glattfelder Direct).

<sup>333</sup> Ex. 13, 2024 RPS Plan at 19 (Martinez Direct); *See also*, Ex.22, Attachment MSG-1, Staff Interrogatory No. 1-7.

<sup>334</sup> Ex. 13, 2024 RPS Plan at 20 (Martinez Direct).

<sup>335</sup> *2021 RPS Plan Case*, Case No. PUR-2021-00206, 2022 S.C.C. Ann. Rep. 345, 347, Final Order on Petition and Associated Requests, and Order Bifurcating Proceeding (July 15, 2022).

The Company believes it should be able to use the best, most current, and most relevant information in its modeling assumptions.<sup>336</sup> Consumer Counsel supported Staff's position on this issue.<sup>337</sup> Appalachian Voices, Sierra Club, and the Committee had no position on this issue.<sup>338</sup>

With solar facilities subject to the vagaries of weather and the declining efficiency of the solar equipment over time, I find a three-year rolling average represents the most reasonable capacity planning factor for solar resources located in Virginia. On average, it represents what those solar facilities are actually capable of producing in a given year. Accordingly, I recommend the Commission direct the Company to continue to use a three-year rolling average capacity factor for modeling solar generating resources located in Virginia.

3. Whether the Company's general methodology to calculate the SCoC is appropriate, and whether the Company should incorporate the MWhs of all non-carbon emitting resources in its SCoC calculation?

Staff believes, at a high level, the Company's methodology for calculating the SCoC appears to be appropriate. However, Staff recommended that the Company incorporate the MWhs of all non-carbon emitting resources in its SCoC calculation in future RPS Filings.<sup>339</sup>

The Company supported Staff's assessment of its methodology for calculating the SCoC; however, the Company disagreed with Staff's recommendation that the Company incorporate the MWhs of all non-carbon emitting resources in its SCoC calculation in future RPS Filings. The Company believes rather than using all non-carbon emitting resources in its generation portfolio, it should only use the marginal units located in PJM. The other parties in this case had no position on this issue.<sup>340</sup>

I find the Company's general methodology for calculating the SCoC and including and excluding the SCoC in its modeling is reasonable. I further find the Company's proposal to include only the non-carbon emitting resources located in PJM in APCo's SCoC calculation is reasonable. Staff's recommendation could be interpreted as requiring all of AEP's non-carbon emitting generation resources to be included in the calculation, when it is APCo's non-carbon emitting generation located in PJM that is germane to the calculation. Accordingly, I recommend the Commission approve the Company's general methodology for calculating the SCoC and direct the Company to incorporate the MWhs of all non-carbon emitting resources located in PJM in its SCoC calculation in future RPS Filings.

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<sup>336</sup> Joint Issues Matrix at ¶ 6.

<sup>337</sup> *Id.*

<sup>338</sup> *Id.*

<sup>339</sup> Ex. 23, at 34 (Brunelle Direct).

<sup>340</sup> Joint Issue Matrix at ¶ 11.

- 4. Whether the Commission should reconsider the requirement established in the *2023 RPS Plan Order* directing APCo to utilize forecasts no older than one year in its RPS Plan modeling going forward?

In the *2023 RPS Plan Order*, the Commission adopted Staff's recommendation that APCo be directed to utilize forecasts no older than one year in its RPS Plan modeling.<sup>341</sup> Based on the testimony of Staff witness Curtis, it appears the Company relied on forecasts that were dated in developing APCo's 2024 RPS Plan given the nature and level of changes that the energy market is experiencing.<sup>342</sup> Staff noted in this case, the load forecast was developed in September 2023, and the 2024 RPS Plan was not filed until April 2024. As further noted by Staff, the Company was able to request a tariff change in its *2024 Biennial Review Case* to accommodate data center development, yet in this case, the same data center load growth was not included in the load forecasts upon which the modeling for the Company's 2024 RPS Plan was based. The practical effect was that Staff's more timely load forecast showed 1% greater load growth than the Company's load forecast.<sup>343</sup> As a result, Staff recommended that the Commission reconsider whether the requirement established in the *2023 RPS Plan Order* provides timely enough information for use in RPS Plan modeling. Staff recommended that the Commission consider requiring APCo to use in its RPS Plan modeling only those forecasts completed within six months of its RPS Filings going forward.<sup>344</sup>

The Company opposed the Staff's recommendation, and the other parties in this case had no position on this issue.<sup>345</sup>

I find a 1% difference in load growth is not inconsequential and would have a direct impact on RPS generation resource planning. Accordingly, I recommend the Commission reconsider its decision to require the Company to utilize forecasts no older than one year in its RPS Plan modeling, and instead, direct APCo to utilize only those forecasts completed within six months of its RPS Plan Filing going forward.

- 5. Whether the Commission should approve APCo's Compliance Report?

Staff confirmed the Company submitted its 2023 RPS Compliance Report as Schedule 2 of Company witness Stevens testimony. Staff noted the Compliance Report does not state whether the Company complied with the mandatory RPS requirements, including the retirement of RECs equal to a percentage of APCo's Total Electric Energy sold in the previous calendar year.<sup>346</sup> The Compliance Report stated the Company did not need to pay any deficiency payments for compliance with the Code requirements.<sup>347</sup>

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<sup>341</sup> *2023 RPS Plan Case*, Case No. PUR-2023-00001, Report of A. Ann Berkebile, Senior Hearing Examiner (Public Version), Doc. Con. Cen. No. 230820001 at 50-51, 67-68 (July 31, 2023) (*citing* Ex. 29, at 22 (Ricketts Direct)).

<sup>342</sup> Ex. 21, at 4 (Curtis Direct); Tr. at 206-09 (Curtis).

<sup>343</sup> Tr. at 207-08 (Curtis).

<sup>344</sup> Staff Post-Hearing Brief at 4-5.

<sup>345</sup> Joint Issues Matrix at ¶ 14.

<sup>346</sup> *See*, Code § 56-585.5 C, "[t]he RPS Program requirements shall be a percentage of the total electric energy sold in the previous calendar year . . . ."

<sup>347</sup> Ex. 24, at 3-4 (Unger Direct).

Regarding the Company's 2023 RPS Compliance Report, Staff could not make a recommendation for acceptance of the Report given the uncertainty around the Company's Total Electric Energy calculation. Staff noted this issue might be resolved by the Commission in the *REC Treatment Case*.<sup>348</sup>

The Company urged the Commission to approve its 2023 Compliance Report. The other parties in this case had no position on this issue.<sup>349</sup>

Considering the uncertainty surrounding the Total Electric Energy calculation in the Compliance Report, rather than approve the report, I recommend the Commission accept the Company's 2023 Compliance Report subject to modification based on the Commission's decision in the *REC Treatment Case*.

6. Whether the Commission should direct, either in this case or the *REC Treatment Case*, APCo to submit a request to the GATS Administrator to unretire RECs associated with the 2021 and 2022 RPS Compliance Periods so that the Company can appropriately allocate RECs for the 2023 Compliance Period?

In its testimony, Staff asserted the Company's over-retirement of RECs in 2021 and 2022 is complicated and cannot be resolved by simply administratively crediting the over-retired RECs to APCo's 2023 Compliance Period. The problem lies with the "Total Electric Energy" calculation in the 2021, 2022, and 2023 Compliance Reports, the calculation of which drives the total number of RECs that must be retired by APCo for each Compliance Period. Staff noted that not even half of the RECs retired in Virginia in GATS were retired by either APCo or Dominion. Staff further noted there are many market participants that retire RECs in Virginia that rely on the public reporting data in GATS. For the integrity of the GATS reporting data, Staff asserted, once the Commission resolves the issue of the Total Electric Energy calculation in the *REC Treatment Case*, APCo should be directed to resubmit corrected 2021, 2022, and 2023 Compliance Reports to the Commission. Once those reports are submitted and accepted by the Commission, Staff further asserted the Commission should direct APCo to work with Staff and PJM EIS as the GATS Administrator to ensure the information reported in GATS conforms with APCo's corrected 2021, 2022, and 2023 Compliance Reports.<sup>350</sup>

In its Post-Hearing Brief, Staff recommended that the Commission direct the Company submit a request to the GATS Administrator to unretire RECs associated with the 2021 and 2022 RPS Compliance Periods so that the Company can appropriately allocate them as directed by the Commission, finding that this is necessary to keep GATS records accurate and to allow REC market participants to know the total volume of RECs available.<sup>351</sup>

The Company believes it is not necessary to unretire any RECs in GATS; however, APCo is amenable to working with Staff to resolve this issue.<sup>352</sup>

<sup>348</sup> *Id.* at 20-21.

<sup>349</sup> Joint Issues Matrix at ¶ 13.

<sup>350</sup> Tr. at 238-42 (Unger).

<sup>351</sup> Staff Post-Hearing Brief at 6.

<sup>352</sup> Joint Issues Matrix at ¶ 22.

The other parties in this case had no position on this issue.<sup>353</sup>

I find Staff's request for the Company to submit a request to the GATS Administrator to unretire RECs associated with the 2021 and 2022 Compliance Periods, after the Commission decides the issue of the Total Electric Energy calculation in the *REC Treatment Case*, is reasonable. The unretirement of these RECs may be necessary to correct the information in GATS to conform with the actual number of RECs required to be retired by APCo in Virginia for the 2021, 2022, and 2023 Compliance Periods. Accordingly, I recommend the Commission direct the Company, after the resubmission and acceptance of corrected 2021, 2022, and 2023 Compliance Reports, to submit a request to the GATS Administrator to correct the information reported by APCo for the applicable reporting periods.

7. a. Whether APCo's plans are sufficient to address environmental justice for its future Company-owned and PPA resources?
- b. Whether the Commission should require APCo to incorporate environmental justice considerations into its RPS Plan long-term resource planning process?

The above issues are interrelated and will be addressed together below.<sup>354</sup>

In its Post-Hearing Brief, the Company noted that AEP and APCo are dedicated to protecting and advancing the interest of environmental justice communities. AEP's environmental justice policy not only seeks to minimize harm to environmental justice communities, but also ensures those communities have access to the benefits of clean energy development.<sup>355</sup>

The Company asserted in cases where it has proposed an actual project or PPA,<sup>356</sup> APCo "performs a robust and thorough environmental justice screening in compliance with the [VEJA]."<sup>357</sup> The Company noted, to date, neither the Commission nor Staff has faulted APCo's environmental justice screening process. As Staff stated in a previous APCo RPS Plan case, "environmental justice considerations are site specific and such considerations are more appropriately evaluated in the context of applications for approval of specific projects."<sup>358</sup>

The Company noted that no projects were proposed in this case; therefore, there are no projects to screen for environmental justice.<sup>359</sup>

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<sup>353</sup> *Id.*

<sup>354</sup> Joint Issues Matrix at ¶ 18 and ¶ 19.

<sup>355</sup> APCo Post-Hearing Brief at 4. *See*, Ex. 3, at 5-6 (Stevens Direct).

<sup>356</sup> *See, Application of Appalachian Power Company, For approval to construct and operate a battery energy storage system*, Case No. PUR-2024-00001, Doc. Con. Cen. No. 240120117 and 240140009, Direct Testimony of Hallie L. Long (filed Jan. 23, 2024); *Petition of Appalachian Power Company, For a prudency review, pursuant to § 56-585.1:4 H of the Code of Virginia, with respect to the purchase of the energy, capacity, and environmental attributes from solar facilities through power purchase agreements*, Case No. PUR-2023-00212, Doc. Con. Cen. No. 240120013, Direct Testimony of Hallie L. Long (filed Jan. 11, 2024).

<sup>357</sup> Code § 2.2-234 *et seq.*

<sup>358</sup> *2020 RPS Plan Case*, Case No. PUR-2020-00135, Doc. Con. Cen. No. 210110199, Direct Testimony of Gregory L. Abbott at 28 (filed Jan. 12, 2021).

<sup>359</sup> APCo Post-Hearing Brief at 5.



The Company asserted environmental justice is, by definition, dependent on the location of the project and the location of the environmental justice population relative to the project. The Company noted the VEJA defines: (i) "Community of color" as "*any geographically distinct area* where the population of color, expressed as a percentage of the total population of such area, is higher than the population of color in the Commonwealth expressed as a percentage of the total population of the Commonwealth;" (ii) "Fenceline community" as "an area that contains all or part of a low-income community or community of color and that presents an increased health risk to its residents *due to its proximity to a major source of pollution*;" and (iii) "Low-income community" as "*any census block group* in which 30 percent or more of the population is composed of people with low income."<sup>360</sup>

The Company asserted Appalachian Voices appears to suggest in its recommendation to the Commission that APCo should screen its entire 11,000 square mile Virginia service territory and its over 500,000 customers based on all potential projects, including those that may or may not be developed, and identify "negative environmental impacts"<sup>361</sup> associated with those projects. The Company asserted "[s]uch an exercise, even if it were possible, would serve no purpose and would only dilute the concept of environmental justice, which is dedicated to protecting and advancing real communities in relation to actual projects."<sup>362</sup>

Staff does not oppose the Company plans to address environmental justice for its future Company-owned and PPA resources, and has no position on the issue whether the Commission should direct APCo to incorporate environmental justice in its long-term RPS planning process.<sup>363</sup>

Consumer Counsel and the Committee had no position on these issues.<sup>364</sup>

The Sierra Club supported Appalachian Voices recommendation that the Commission should require APCo to incorporate environmental justice considerations into its RPS Plan long-term resource planning process, and had no position on the issue whether APCo's plans are sufficient to address environmental justice for its future Company-owned and PPA resources.<sup>365</sup>

Appalachian Voices urged the Commission to: (i) find that APCo's plan to address environmental justice for future Company-owned and PPA resources is insufficient; and (ii) direct APCo, in future RPS Plans, to identify environmental justice and fence-line communities within its service territory, identify the negative environmental impacts experienced in these communities, and provide an overview of the potential impacts to the environment (as the term is defined in Code § 2.2-234) associated with the full resource mix (both existing and proposed new resources) of each portfolio, and address environmental justice in any other ways germane to its RPS Plan.<sup>366</sup>

<sup>360</sup> Code § 2.2-234 (emphasis added).

<sup>361</sup> Joint Issues Matrix at ¶ 18 and ¶ 19.

<sup>362</sup> APCo Post-Hearing Brief at 6.

<sup>363</sup> Ex. 23, at 41 (Brunelle Direct); Joint Issues Matrix at ¶ 18.

<sup>364</sup> Joint Issues Matrix at ¶ 18 and ¶ 19.

<sup>365</sup> *Id.*

<sup>366</sup> Appalachian Voices Post-Hearing Brief at 2; Joint Issues Matrix at ¶ 18 and ¶ 19.

In support of its recommendations, Appalachian Voices asserted that APCo did not account for environmental justice in its RPS Plan.<sup>367</sup> Appalachian Voices noted that the Company has instead taken the position that environmental justice can only be meaningfully considered once a specific site for a resource has been identified.<sup>368</sup> Appalachian Voices asserted the Company's position is wrong under Virginia law and inconsistent with recent Commission guidance.<sup>369</sup>

Appalachian Voices noted the VEJA makes it the Commonwealth's policy to "promote environmental justice and ensure that it is carried out throughout the Commonwealth, with a focus on environmental justice communities and fenceline communities."<sup>370</sup> In addition to the requirements of the VEJA, Appalachian Voices noted the Commonwealth's Clean Energy Policy established the policy to "[e]quitably incorporate requirements for technical, policy, and economic analyses and assessments that recognize the unique attributes of different energy resources and delivery systems to identify pathways to net-zero carbon that *maximize* Virginia's energy reliability and resilience, economic development, and jobs."<sup>371</sup>

Given the requirements of the VEJA, Appalachian Voices asserted the Commission must consider environmental justice and fenceline communities when it determines whether APCo's RPS Plan is reasonable and prudent under Code § 56-585.5 D 4. To fulfill this requirement, Appalachian Voices asserted APCo must provide information on environmental justice necessary for the Commission to make that determination.<sup>372</sup>

Appalachian Voices asserted that the fact APCo has not proposed any new resources in this case does not eliminate the need to consider environmental justice. According to Appalachian Voices, it just means that APCo must consider environmental justice differently than in a case involving the approval of new resources in its RPS Plan. Appalachian Voices noted the Commission has established, "addressing environmental justice should not be limited to cases involving specific siting decisions but should also extend to addressing environmental justice in the context of business policies and processes that are *germane to the application being filed*."<sup>373</sup>

<sup>367</sup> Tr. at 148-49 (Martinez) (Mr. Martinez was asked as part of the planning process, does APCo take into consideration environmental justice communities in the planning and locating of resources? He responded that the PLEXOS Model does not have any inputs that would associate benefits based on environmental justice.); Tr. at 151-52 (Martinez) (Mr. Martinez was asked whether the Company's resource planning included an assessment of the environmental impacts of APCo's current supply and demand resources that are located in Virginia. He responded, "[t]he environmental impacts, no." As a follow-on question, Mr. Martinez was asked to confirm that there would not be an assessment of whether existing resources are impacting environmental justice communities. He responded, "[t]hat's correct.").

<sup>368</sup> Ex. 13, 2024 RPS Plan at 10 (Martinez Direct); Ex. 23, at Attachment TRB-1, Staff Interrogatory No. 1-22 (The Company responded that the Staff's discovery request was not applicable to this proceeding because APCo was not proposing any new projects. The Company stated that it abides by both the Commonwealth's and AEP's environmental justice policies).

<sup>369</sup> Appalachian Voices Post-Hearing Brief at 4-5.

<sup>370</sup> Code § 2.2-235.

<sup>371</sup> Code § 45.2-1706.1 C 1 (emphasis added); Appalachian Voices Post-Hearing Brief at 5.

<sup>372</sup> Appalachian Voices Post-Hearing Brief at 5.

<sup>373</sup> *Commonwealth of Virginia, ex rel. State Corporation Commission, Ex Parte: In the matter adopting new rules of the State Corporation Commission governing utility rate applications by investor-owned gas utilities*, Case No. PUR-2023-00006, Doc. Con Cen. Nos. 590134-590137, Order Adopting Regulations at 6 (Oct. 30, 2023) (emphasis added) (In its Order, by way of example and not limitation, the Commission provided examples to illustrate how environmental justice may be addressed in cases not involving specific siting decisions. Such a responsive narrative and supporting materials may include, as germane to the application, discussions of the following: (i) a utility's

Appalachian Voices further noted that the Commission required Dominion to address environmental justice, as appropriate, in its long-term integrated resource plans by “consider[ing] the impact of unit retirement decisions on environmental justice communities or fenceline communities.”<sup>374</sup> Appalachian Voices asserted that APCo’s 2024 RPS Plan should not be subject to a lesser standard since the RPS Plan is now the Commission’s primary opportunity to review APCo’s long-term resource planning.<sup>375</sup>

Appalachian Voices provided examples of how the Company could incorporate environmental justice in APCo’s RPS planning process. For example, APCo could identify, engage, and assess the environmental justice and fenceline communities in its service territory to determine how those communities might benefit or be harmed by resources included in APCo’s RPS plan. Additionally, the Company should plan more comprehensively for resource development in environmental justice and fenceline communities, rather than relying primarily on the RFP process and waiting until a project is sited.<sup>376</sup>

Appalachian Voices noted Staff agreed that identifying the fenceline communities in APCo’s service territory,<sup>377</sup> and identifying which resources might best benefit fenceline and environmental justice communities<sup>378</sup> could be helpful to the Commission in determining whether APCo’s RPS Plan is reasonable and prudent.<sup>379</sup> Appalachian Voices asserted the RPS Plan is the

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environmental justice policy and any related policies; (ii) a utility’s consideration of the environmental justice impacts in the context of its capital project authorization process; (iii) a utility’s consideration of environmental justice in the context of the utility’s disconnection for non-payment policies; (iv) a utility’s process of educating environmental justice communities and other low-income communities regarding available programs to reduce demand through efficiency; and (v) a utility’s process of educating environmental justice communities and other low-income communities regarding billing assistance and other payment assistance. The Commission stated the foregoing examples were not intended to be exhaustive but to provide examples to assist utilities in complying with the new filing requirement. For applications involving specific siting decisions, the consideration of environmental justice would necessarily include the utility’s environmental review process (including whether it was internal or external (consultants)); the extent to which environmental justice communities would be impacted including specific costs and benefits; and any enhanced public participation to ensure meaningful involvement by environmental justice communities). *Id.* at 6-7.

<sup>374</sup> *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-2020-00035, 2021 S.C.C. Ann. Rep. 190, 195, Final Order (Feb. 1, 2021) (“2020 Dominion IRP Case”).

<sup>375</sup> Appalachian Voices Post-Hearing Brief at 6. Appalachian Voices noted at the hearing, Staff counsel seemed to suggest that because the Commission did not require plan-level consideration of environmental justice in APCo’s 2020 RPS Plan Case, the last time APCo’s RPS Plan did not propose any specific projects, APCo satisfied the VEJA in this case. Tr. at 27-28 (Pierce). Appalachian Voices distinguished the facts in APCo’s 2020 RPS Plan Case where the Commission required the Company to consider environmental justice as part of its RFP process. Appalachian Voices asserted there is nothing in the Commission’s Final Order in that case that foreclosed further consideration of environmental justice in the Company’s RPS Plan. 2020 RPS Plan Case, Case No. PUR-2020-00135, 2021 S.C.C. Ann. Rep. 254, 257, Final Order (Apr. 30, 2021). Appalachian Voices further asserted had the Commission intended to limit environmental justice consideration to the RFP process, it may be appropriate to reconsider now that the RPS Plan is APCo’s primary filing for long-term resource planning. Appalachian Voices Post-Hearing Brief at 6 n.14.

<sup>376</sup> Appalachian Voices Post-Hearing Brief at 6-7.

<sup>377</sup> Tr. at 233 (Brunelle).

<sup>378</sup> *Id.* at 232.

<sup>379</sup> *Id.*

proper vehicle to ensure APCo's transition to clean energy will be equitable, consistent with Virginia's statutory policies.<sup>380</sup>

Lastly, Appalachian Voices reiterated its recommendations set forth above.<sup>381</sup>

In its *2020 RPS Plan Order*,<sup>382</sup> the Commission established certain standards for the Company's compliance with the VEJA. The Commission required that APCo's RFPs address environmental justice considerations by assessing the impacts of proposed projects on underserved communities.<sup>383</sup> The Commission directed that APCo's RPS Filings identify how the RFP assessed environmental justice considerations, including any non-price considerations that were included in the Company's RFP analysis. The Commission further directed that these considerations should include assessments of the local demographics in close proximity to each project proposal.<sup>384</sup> Besides requiring that APCo's RFPs address environmental justice, the Commission decision is important for two additional reasons. First, it suggests that consideration of environmental justice in the context of the Company's RPS Plans should focus upon actual proposed renewable generation projects. Second, it requires that any proposed project be evaluated based on its proximity to an environmental justice community, which includes low-income communities and communities of color.

In the 2024 RPS Plan, the Company addressed environmental justice in Section 3.2 of the plan.<sup>385</sup> That section provides:

[APCo] works to adhere to both AEP's Environmental & Social Justice Policy<sup>386</sup> and the Commonwealth's Policy on [e]nvironmental [j]ustice and considers both in all prospective transactions for renewable resources. Identification and remediation of potential concerns are made during the RFP process, as discussed in the [P]etition. Because [e]nvironmental [j]ustice is specific to the communities immediately surrounding resources, meaningful evaluation of impacts to environmental justice communities can only be accomplished once potential sites have been identified. The [PLEXOS] selected resource additions identified in this plan are generic in nature and are not site specific and thus cannot be evaluated for potential [e]nvironmental [j]ustice

<sup>380</sup> Appalachian Voices Post-Hearing Brief at 8.

<sup>381</sup> *Id.*

<sup>382</sup> *2020 RPS Plan Order*, Case No. PUR-2020-00135, 2021 S.C.C. Ann. Rep. 254, 257, Final Order (Apr. 30, 2021).

<sup>383</sup> The Commission noted the Commonwealth's policy on environmental justice is broad, including "the fair treatment and meaningful involvement of every person, regardless of race, color, national origin, income, faith, or disability, regarding the development, implementation, or enforcement of any environmental law, regulation or policy." Code § 2.2-234; *See also*, *2020 Dominion IRP Case*, Case No. PUR-2020-00035, 2021 S.C.C. Ann. Rep. 190, 195, Final Order (Feb. 1, 2021). In addition, Code § 56-585.1 A 6 directs that "[t]he Commission shall ensure that the development of new, or expansion of existing, energy resources of facilities does not have a disproportionate adverse impact on historically economically disadvantaged communities." *2020 RPS Plan Case*, Case No. 2020-00135, 2021 S.C.C. Ann. Rep. 254, 257 at n.20, Final Order (Apr. 30, 2021).

<sup>384</sup> *2020 RPS Plan Order*, Case No. 2020-00135, 2021 S.C.C. Ann. Rep. 254, 257, Final Order (Apr. 30, 2021).

<sup>385</sup> Ex. 13, 2024 RPS Plan at 10 (Martinez Direct).

<sup>386</sup> *See*, [https://aep.com/Assets/docs/AEP\\_Environmental\\_Social\\_Justice\\_Policy.pdf](https://aep.com/Assets/docs/AEP_Environmental_Social_Justice_Policy.pdf).

issues. Notwithstanding, the Company screens each of the proposed projects submitted in response to its RFPs for environmental justice concerns.<sup>387</sup>

In its Petition, the Company stated that it was not seeking approval of any specific project. The Company confirmed that it screened the proposed projects included the *2024 APCo Prudency Case* (Elliot Solar, County Line Solar, 7 Bridges Solar),<sup>388</sup> and the Glade-Whitetop Battery Energy Storage Project for environmental justice concerns in compliance with the VEJA. As discussed in those proceedings, APCo concluded that none of the projects was anticipated to have disproportionately high or adverse environmental impacts on environmental justice communities in the area where the projects were being built. As explained in Company witness Stevens testimony in this proceeding,<sup>389</sup> the Company noted that its environmental justice policy emphasizes equitable distribution of the benefits of its capital investments. Through its Environmental & Social Justice Policy, the Company confirmed that it not only seeks to minimize harm to environmental justice communities, but also to ensure those communities have access to the benefits of clean energy development.

Appalachian Voices is asking the Commission to mandate that APCo identify potentially hundreds of environmental justice communities in its service territory; identify potentially thousands of building sites in close proximity to those environmental justice communities; perform an environmental justice review on each of the thousands of potential building sites; and proactively engage every environmental justice community whether or not the Company intends to build a solar generating facility or battery storage facility in that community. In my assessment, the Commission's adoption of Appalachian Voices' request would constitute regulatory overreach because it would require APCo to expend significant resources performing environmental justice reviews on communities in which it has no current plans to build any RPS Plan resources. I find APCo's Environmental & Social Justice Policy included within its 2024 RPS Plan is reasonable and complies with the *2020 RPS Plan Order*.<sup>390</sup> Accordingly, I recommend the Commission approve

<sup>387</sup> See, Ex. 3, at 5-6 (Stevens Direct) ("In compliance with the [VEJA], the Company screened each of the proposed projects for environmental justice concerns. The Company's environmental justice policy emphasizes equitable distribution of the benefits of its capital investments. The Company seeks to not only minimize harm to environmental justice communities, but also to ensure these communities have access to benefits of clean energy development. Based on its review, the Company determined that none of the selected projects are anticipated to have disproportionately high or adverse environmental impacts on environmental justice communities in the area where each is being built.").

<sup>388</sup> *Petition of Appalachian Power Company, For a prudency review, pursuant to § 56-585.1:4 H of the Code of Virginia, with respect to the purchase of the energy, capacity, and environmental attributes from solar facilities through power purchase agreements*, Case No. PUR-2023-00212, Final Order (Mar. 27, 2024) ("*2024 APCo Prudency Case*").

<sup>389</sup> Ex. 3, at 5-6 (Stevens Direct).

<sup>390</sup> *2020 RPS Plan Case*, Case No. PUR-2020-00135, 2021 S.C.C. Ann. Rep. 254, 257, Final Order (Apr. 30, 2021). Having reached the conclusion that APCo's consideration of environmental justice was reasonable in this case. I also recognize that the Commission has rejected the premise that the evaluation of environmental justice *must be* project site specific in other resource planning cases. See, e.g., *2020 Dominion IRP Case*, Case No. PUR-2020-00035, 2021 S.C.C. Ann. Rep. 190, 195, Final Order (Feb 1, 2021) (concluding that the consideration of environmental justice is not limited to specific contexts such as CPCNs). Should the Commission be concerned that APCo's project-specific approach toward evaluating environmental justice in its RPS Filings is insufficient, the Commission could direct APCo to perform and include with its next RPS Filing the same type of evaluation and ranking of potential environmental justice impacts associated with differing renewable options that Dominion is required to perform in connection with its RPS Filings. See, *Commonwealth of Virginia, ex rel. State Corporation Commission, Ex Parte: Establishing 2020 RPS Proceeding for Virginia Electric and Power Company*, Case No. PUR-2020-00134, 2021 S.C.C. Ann. Rep. 242, 252, Final Order (April 30, 2021); *Petition of Virginia Electric and Power Company, For approval of the RPS Development*

APCo’s plans to address environmental justice for its future Company-owned and PPA resources. I further recommend the Commission reject Appalachian Voices recommendation that APCo, in future RPS Plans, identify environmental justice and fence-line communities within its service territory, identify the negative environmental impacts experienced in these communities, and provide an overview of the potential impacts to the environment (as the term is defined in Code § 2.2-234) associated with the full resource mix (both existing and proposed new resources)<sup>391</sup> of each portfolio, and address environmental justice in any other ways germane to its RPS Plan.

**FINDINGS AND RECOMMENDATIONS**

Based on the evidence received in this case, and for the reasons set forth above, I find that:

- (1) The Company’s 2024 RPS Plan is reasonable and prudent;
- (2) Staff’s actual December 31, 2023 ratemaking capital structure with an authorized ROE of 9.20% and 9.50% for the applicable periods is reasonable;
- (3) Staff’s total revenue requirement of \$16,477,482, which includes Staff’s proposed RACs and Rider NBC, is reasonable and supported by the record herein;
- (4) The Company’s abandonment costs associated with the Bedington and Firefly solar facilities were reasonably and prudently incurred by APCo to construct or build the two solar facilities;
- (5) Given the VCEA framework for the recovery of costs, Rider NBC is necessary to recover VCEA costs, net of benefits, from APCo’s shopping customers;
- (6) A requirement for the Company to endeavor to use the most recent PJM ELCC guidance in future RPS Filings, where such information is relevant, is reasonable;
- (7) The Company’s proposed changes to its cost recovery framework to address owned resources and PPAs are reasonable;
- (8) The Company should incorporate the Commission’s approved cost allocations in its bill impacts analysis and continue to include costs associated SMRs in that analysis;
- (9) The Company’s proposal to provide with each RPS Filing an analysis similar to what APCo provided as a Late-Filed Exhibit 7 in Case No. PUR-2024-00001 is reasonable;

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*Plan, approval and certification of the proposed CE-2 Solar Projects pursuant to §§ 56-580 D and 56-46.1 of the Code of Virginia, revision of rate adjustment clause, designated Rider CE, under § 56-585.1 A 6 of the Code of Virginia, and a prudence determination to enter into power purchase agreements pursuant to § 56-585.1:4 of the Code of Virginia, Case No. PUR-2021-00146, 2022 S.C.C. Ann. Rep. 309, 321, Final Order (March 15, 2022).*

<sup>391</sup> A general rule of statutory construction is that new statutes are to be applied prospectively, unless the General Assembly evidences its clear intent that the statute is to be applied retrospectively. The VEJA does not contain a clear pronouncement from the General Assembly that it shall apply to existing utility facilities, unless of course, a utility proposes major unit modifications after the date the VEJA was adopted, then the VEJA would apply to those modifications.

- (10) Requiring the Company to calculate the NPVs of all modeled portfolios inclusive and exclusive of the SCoC in future RPS Filings is reasonable;
- (11) Staff's recommendation that the Company use FERC Form 1 data to calculate its annual RPS obligation is reasonable;
- (12) Staff's methodology for calculating the Company's Total RPS Program Requirement is reasonable;
- (13) The proposal to require the Company to account for prospective large (200 MW+) load customers in its future RPS Filings is reasonable;
- (14) The EPA's adoption of the 2024 Clean Air Act Rule and the 2024 ELG Rule has raised sufficient uncertainty regarding the economic impact those rules would have on the future cost to operate the Company's Amos and Mountaineer power plants to warrant APCo's continued modeling of the economic early retirement of those coal-fired generation facilities;
- (15) Since the 2024 Clean Air Act Rule and the 2024 ELG Rule are final EPA rules, the Company should specifically model the impacts of those rules in future RPS Plan cases, unless or until those rules are either modified, vacated, or withdrawn;
- (16) A three-year rolling average represents the most reasonable capacity planning factor for solar resources located in Virginia;
- (17) The Company's proposal to include only the non-carbon emitting resources located in PJM in APCo's SCoC calculation is reasonable;
- (18) The Company's general methodology for calculating the SCoC and including and excluding the SCoC in its modeling is reasonable;
- (19) A 1% difference in load growth is not inconsequential and would have a direct impact on RPS generation resource planning;
- (20) Staff's request for the Company to submit a request to the GATS Administrator to unretire RECS associated with the 2021 and 2022 Compliance Periods, after the Commission decides the issue of the Total Electric Energy calculation in the *REC Treatment Case*, is reasonable; and
- (21) APCo's Environmental & Social Justice Policy included within its 2024 RPS Plan is reasonable and complies with the Commission's *2020 RPS Plan Order*.

I therefore **RECOMMEND** the Commission enter an order that:

- (1) **ADOPTS** the findings and recommendations contained in this Report;

- (2) **APPROVES** the Company's 2024 RPS Plan;
- (3) **ADOPTS** Staff's actual December 31, 2023 ratemaking capital structure with an authorized ROE of 9.20% and 9.50% for the applicable periods for the development of the Company's total Rate Year revenue requirement;
- (4) **APPROVES** a total 2024 RPS Plan revenue requirement of \$16,477,482, which consists of an A.5 RPS RAC of \$13,880,541, an A.5 PCAP RAC of \$1,427,767, an A.6 RPS RAC of \$1,201,956, and a Rider NBC credit of (\$32,782);
- (5) **APPROVES** the Company's request to collect approximately \$1.2 million in abandonment costs related to the cancellation of the Bedington and Firefly solar facilities;
- (6) **APPROVES** the Company's proposed Rider NBC;
- (7) **DIRECTS** the Company to endeavor to use the most recent PJM ELCC guidance in future RPS Filings, where such information is relevant;
- (8) **APPROVES** the Company's two proposed changes to its cost recovery framework to address owned resources and PPAs;
- (9) **DIRECTS** the Company to incorporate the Commission's approved cost allocations in its bill impacts analysis and continue to include costs associated with SMRs in that analysis;
- (10) **APPROVES** the Company's proposal to provide with each RPS Filing an analysis similar to what APCo provided as a Late-Filed Exhibit 7 in Case No. PUR-2024-00001, which shows the incremental rate impacts of each proposed new renewable energy project as each project is proposed in the annual RPS Plan Filing;
- (11) **DIRECTS** the Company to calculate NPVs of all modeled portfolios inclusive and exclusive of the SCoC in future RPS Filings;
- (12) **DIRECTS** the Company to incorporate the MWhs of all non-carbon emitting resources in its SCoC calculation in future RPS Filings;
- (13) **DIRECTS** the Company to use FERC Form 1 data to calculate its annual RPS obligation, including the calculation of the statutory nuclear offset percentage to two decimal places;
- (14) **DIRECTS** the Company to: (i) adopt Staff's methodology for calculating APCo's Total RPS Program Requirement; (ii) once the issue regarding the "Total Electric Energy" calculation is resolved in the *REC Treatment Case*, refile its 2021, 2022, and 2023 RPS Compliance Reports using Staff's methodology; and (iii) use Staff's methodology for future RPS Compliance Period filings;



- (15) **DIRECTS** the Company to account for prospective large (200 MW+) load customers in its future RPS Filings by including a high load forecast sensitivity as well as a narrative description of when the potential load is anticipated;
- (16) **DENIES** the Company’s request to be relieved of the requirement to conduct an economic early retirement analysis of its Amos and Mountaineer power plants;
- (17) **DIRECTS** the Company to specifically model the impact of the EPA’s 2024 Clean Air Act Rule and the 2024 ELG Rule in future RPS Filings;
- (18) **DIRECTS** the Company to continue to use a three-year rolling average capacity factor for modeling solar generating resources located in Virginia;
- (19) **DIRECTS** the Company to incorporate the MWhs of all non-carbon emitting resources located in PJM in its SCoC calculation in future RPS Filings;
- (20) **APPROVES** the Company’s general methodology for calculating the SCoC;
- (21) **DIRECTS** the Company to utilize only those forecasts completed with six months of its RPS Filing going forward;
- (22) **ACCEPTS** the Company’s 2023 Compliance Report subject to modification based on the Commission’s decision in the *REC Treatment Case*;
- (23) **DIRECTS** the Company, after the resubmission and acceptance of corrected 2021, 2022, and 2023 Compliance Reports, to submit a request to the GATS Administrator to correct the information reported by APCo for the applicable reporting periods;
- (24) **APPROVES** the Company’s plans to address environmental justice for its future Company-owned and PPA resources;
- (25) **REJECTS** Appalachian Voices’ recommendation that APCo, in future RPS Plans, identify environmental justice and fence-line communities within its service territory, identify the negative environmental impacts experienced in these communities, and provide an overview of the potential impacts to the environment (as the term is defined in Code § 2.2-234) associated with the full resource mix (both existing and proposed new resources) of each portfolio, and address environmental justice in any other ways germane to its RPS Plan.

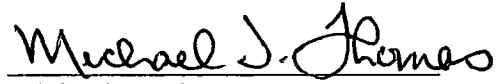
**COMMENTS**

The parties are advised that, pursuant to Rule 5 VAC 5-20-120 C of the Commission’s Rules of Practice and Procedure,<sup>392</sup> any comments to this Report must be filed on or before September 11, 2024. To promote administrative efficiency, the parties are encouraged to file electronically in accordance with Rule 5 VAC 5-20-140 of the Commission’s Rules of Practice. If not filed

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<sup>392</sup> 5 VAC 5-20-10 *et seq.*

electronically, an original and fifteen (15) copies must be submitted in writing to the Clerk of the Commission, c/o Document Control Center, P.O. Box 2118, Richmond, Virginia 23218. Any party filing such comments shall attach a certificate to the foot of such document certifying that copies have been served by electronic mail to all counsel of record and any such party not represented by counsel.

  
Michael D. Thomas  
Senior Hearing Examiner

The Clerk of the Commission is requested to send a copy of this Report to all persons on the official Service List in this matter. The Service List is available from the Clerk of the State Corporation Commission, c/o Document Control Center, 1300 East Main Street, First Floor, Tyler Building, Richmond, VA 23219.