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*Petition of Virginia Electric and Power Company, For approval of a rate adjustment clause,
designated Rider RGGI, under § 56-585.1 A 5 e of the Code of Virginia*
Case No. PUR-2020-00169

Dear Mr. Logan:

Please find enclosed for electronic filing in the above-captioned proceeding Virginia Electric and Power Company's Rebuttal Testimony.

Please do not hesitate to call if you have any questions in regard to the enclosed.

Highest regards,

/s/ Elaine S. Ryan

Elaine S. Ryan

Enclosures

cc: Honorable D. Mathias Roussy, Hearing Examiner
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David J. DePippo, Esq.
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Service List

WITNESS REBUTTAL TESTIMONY SUMMARY

Witness: George E. Hitch
Title: Senior Market Originator

Company Witness George E. Hitch responds to testimony offered by Appalachian Voices Witness Karl R. Rábago on how the Company plans to meet its obligations under RGGI. Notably, no other witnesses in this proceeding share the concerns raised by Mr. Rábago. Mr. Hitch explains his belief that Mr. Rábago’s conclusions are based on a misunderstanding of both the focus of this proceeding and the Company’s RGGI compliance strategy, and should be rejected.

As to the focus of this proceeding, Mr. Hitch explains that the Company seeks approval to recover projected and actual costs associated with purchasing sufficient RGGI allowances to cover its CO₂ emissions through the end of the initial rate year—July 31, 2022. In the short term, RGGI compliance will be based on the Company’s existing generation fleet. This is because the actual number of allowances the Company must obtain to comply with RGGI is going to be determined by the actual emissions of CO₂ from the Company’s generators—not on the potential future generation mixes considered in IRPs. Actual CO₂ emissions, in turn, will be determined by how PJM dispatches generators in the region. PJM dispatches generators economically based on the unit offer price, which includes the projected cost of RGGI allowance purchases along with other costs, such as fuel. If a generator subject to RGGI clears the day-ahead market and is dispatched by PJM, the unit is required to run. If the unit runs, it will emit CO₂. The Company must then acquire allowances to cover the CO₂ emissions of these generators. While the Company will evaluate its long-term strategy for CO₂ emissions in its IRP proceedings, as Company Witness Compton can address, the focus in this proceeding should remain on complying with RGGI in the short term—through 2022.

Next, Mr. Hitch describes the Company’s plan to meet its obligation under RGGI, which Mr. Rábago seems to misunderstand. Generally, the Company’s plans to acquire allowances for the current year to cover CO₂ emissions as the emissions are occurring. The Company does not intend to “purchase huge amounts of allowances and then carry a significant surplus” as Mr. Rábago suggests. As Mr. Hitch explains, the Company determined its approach based on the size of the Company’s compliance requirement in the short term, as well as the relevant market structure and dynamics. The Company also plans to acquire a bank of 10% to 20% of the annual requirement at the end of each three-year control period to cover both (i) deviations from the emissions forecast in the final two months of the control period; and (ii) unexpected auction results in the final auction of the control period.

Mr. Hitch concludes that the Company must start purchasing allowances now to ensure that it can cost-effectively comply with its obligations under RGGI. The projected and actual costs presented in this proceeding focus on the short term—through July 2022. Commission Staff does not oppose these costs, with Staff Witness Patrick Carr stating on page 4 of his testimony that “[a]ll cost described are appropriately recoverable through Rider RGGI because all are costs incurred to comply with RGGI requirements.” These costs are necessary to comply with RGGI, and are based on a reasonable and prudent strategy for compliance.

**REBUTTAL TESTIMONY
OF
GEORGE E. HITCH
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2020-00169**

1 **Q.** Please state your name, business address, and position with Virginia Electric and
2 Power Company (“Dominion Energy Virginia” or the “Company”).

3 **A.** My name is George E. Hitch, and I am a Senior Market Originator for the Company. My
4 business address is 600 East Canal Street, Richmond, Virginia 23219. A statement of my
5 backgrounds and qualifications is attached as Appendix A.

6 **Q.** Have you previously submitted testimony in this proceeding?

7 **A.** No, but I am adopting the pre-filed direct testimony of Company Witness C. Eric
8 McMillan, which was filed with the State Corporation Commission of Virginia (the
9 “Commission”) on November 9, 2020.

10 **Q.** What is the purpose of your rebuttal testimony in this proceeding?

11 **A.** I am presenting testimony in support of the Company’s petition for approval of a rate
12 adjustment clause, designated Rider RGGI, under § 56-585.1 A 5 e of the Code of
13 Virginia (“Va. Code”) to recover projected and actual costs related to the purchase of
14 allowances through the Regional Greenhouse Gas Initiative (“RGGI”) market-based
15 trading program for carbon dioxide (“CO₂”) emissions, a program in which the Company
16 is required to participate. Specifically, my rebuttal testimony responds to testimony
17 offered by Karl R. Rábago on behalf of Appalachian Voices (“APV”) on how the
18 Company plans to meet its obligations under RGGI.

1 **Q. Before you begin, do any of the other witnesses in this proceeding share the**
2 **concerns raised by APV Witness Rábago?**

3 A. No, they do not. Witnesses for Commission Staff (“Staff”) does not oppose approval of
4 Rider RGGI with one small correction to the revenue requirement with which the
5 Company agrees, as addressed by Company Witness John C. Ingram. The witness for the
6 Office of the Attorney General’s Division of Consumer Counsel only provides testimony
7 on the Company’s proposal to include financing costs as part of the proposed revenue
8 requirement, which Company Witness Ingram also addresses.

9 Mr. Rábago is thus the only witness in this proceeding that questions the necessity of the
10 RGGI-related costs proposed by the Company, and the Company’s RGGI compliance
11 strategy. As I will explain, I believe that Mr. Rábago’s conclusions are based on a
12 misunderstanding of both the focus of this proceeding and the Company’s RGGI
13 compliance strategy, and should be rejected.

14 **Q. What is the focus of this proceeding?**

15 A. In this proceeding, the Company seeks approval to recover projected and actual costs
16 associated with purchasing sufficient RGGI allowances to cover its CO₂ emissions
17 through the end of the initial rate year—July 31, 2022. In other words, this proceeding
18 focuses on the short term, the next one to two years.

19 Mr. Rábago seems to misunderstand the scope of this proceeding, stating on page 7 of his
20 testimony that we must “start from the results of an approved and sufficient integrated
21 resource plan.” I disagree. I understand that an integrated resource plan (“IRP”) is a
22 long-term planning document that evaluates how to meet customer demand over the next

1 15 and 25 years. As discussed further by Company Witness Shane T. Compton, the
2 Company evaluates generation development, plant retirements, heat rate improvements,
3 and energy efficiency improvements (all mentioned by Mr. Rábago on page 5 of his
4 testimony), among other issues, through its integrated resource planning process. While
5 these actions will factor in to a long-term strategy for CO₂ emissions, they have virtually
6 no effect on short-term CO₂ emissions or, correspondingly, on short-term RGGI
7 allowance requirements.

8 Accordingly, instead of starting with an approved IRP as Mr. Rábago suggests, the
9 appropriate starting point for RGGI compliance in the short term is the Company's
10 existing generation fleet. This is because the actual number of allowances the Company
11 must obtain to comply with RGGI will be determined by the actual emissions of CO₂
12 from our generators—not on the potential future generation mixes considered in IRPs.
13 Actual CO₂ emissions, in turn, will be determined by how PJM Interconnection, LLC
14 (“PJM”) dispatches generators in the region. PJM dispatches generators economically
15 based on the unit offer price, which includes the projected cost of RGGI allowance
16 purchases along with other costs, such as fuel. If a generator subject to RGGI clears the
17 day-ahead market and is dispatched by PJM, the unit is required to run. If the unit runs, it
18 will emit CO₂. The Company must then acquire allowances to cover the CO₂ emissions
19 of these generators.

20 In sum, while the Company will evaluate its long term strategy for CO₂ emissions in its
21 IRP proceedings, as Mr. Compton can address, the focus in this proceeding should
22 remain on complying with RGGI in the short term—through 2022.

1 Q. Turning to the Company's plan to meet its obligations under RGGI, APV Witness
2 Rábago summarizes the Company's plan on page 13 of his testimony as one "to
3 rapidly purchase huge amounts of allowances and then carry a significant surplus of
4 allowances, on which the Company proposes to earn a return on equity." Is this
5 description accurate?

6 A. No, not at all. As described in the Company's direct testimony, the Company forecasted
7 the emissions from its existing generation fleet through the end of 2022. The Company
8 intends to acquire approximately 25% of the forecasted annual allowance requirement in
9 each quarterly auction, and then use the secondary market to fill any auction deficiencies.
10 In other words, the Company's plan to meet its RGGI obligation is to acquire allowances
11 for the current year to cover CO₂ emissions as the emissions are occurring.

12 In practice, now that RGGI has become effective in the Commonwealth, the Company is
13 tracking forecasted CO₂ emissions volumes against actual volumes on a monthly basis as
14 those volumes become known. The Company is also refining its intra-year forecast based
15 on the most up-to-date forward market conditions. My Rebuttal Table 1 illustrates the
16 Company's current and forecasted net position for 2021 to help provide some context.

Rebuttal Table 1: Actual and Forecast Net Allowance Position												
(thousands of short tons CO ₂)	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21
Forecast Short Tons CO ₂	1,295	1,402	1,595	1,210	1,353	1,435	2,057	2,148	1,625	946	1,259	1,619
Actual Short Tons CO ₂	1,663	2,117	1,691									
Monthly Deviation	368	715	96									
Total Deviation	368	1,083	1,179									
Cumulative Requirement	1,663	3,780	5,471	6,681	8,034	9,469	11,526	13,674	15,299	16,245	17,504	19,123
Inventory	1,300	1,300	1,300	5,375	5,375	5,375	10,375	10,375	10,375	15,375	15,375	15,375
Auction Purchases	0	0	4,075	0	0	4,250	0	0	4,250	0	0	4,250
Bilateral Purchases	0	0	0	0	0	750	0	0	0	0	0	0
Planned Purchases	0	0	0	0	0	0	0	0	750	0	0	750
Net Position	(363)	(2,480)	(96)	(1,306)	(2,659)	906	(1,151)	(3,299)	76	(870)	(2,129)	1,252

Notes: 1) CO₂ emissions volumes are actuals through March 2021, and forecasts for the balance of the calendar year. 2) If Rider RGGI is approved, these actual volumes will be accounted for through the true-up in next year's Rider RGGI.

1 The top half of Rebuttal Table 1 shows forecasted versus actual CO₂ emissions. As can
2 be seen, actual emissions can vary significantly from forecasts. As I explained, actual
3 emissions result from how PJM dispatches generators in the region. The bottom half of
4 Rebuttal Table 1 shows the Company's allowance requirement (one allowance per short
5 ton of CO₂ emitted) against the Company's actual and forecasted inventory of
6 allowances. As can be seen, the Company has a negative net allowance position in most
7 months. The Company has not "purchased huge amounts of allowances" and is not
8 carrying "a significant surplus," as Mr. Rábago suggests.

9 **Q. APV Witness Rábago also provides more general criticism of the Company's plan to**
10 **meet its obligations under RGGI primarily through the quarterly auctions. Does**
11 **the size of the Company's compliance requirement factor in to the Company's**
12 **strategy?**

13 **A. Yes, it does. The Company determined its strategy based on the forecasted volume of**

1 allowances it will need to obtain in the near term—approximately 19,000,000 allowances
2 per year during the period from January 1, 2021 to December 31, 2023 (“fifth control
3 period”). Based on these forecasts—which are tracking with actuals as shown above in
4 my Rebuttal Table 1—the Company’s requirement is approximately 20% of the annual
5 allowances sold in the RGGI quarterly auctions. Indeed, APV Witness Rábago seems to
6 recognize the significance of the Company’s obligation, stating through discovery that he
7 “is not aware of an existing operator or owner in other RGGI jurisdictions that is both
8 vertically integrated and will be using allowances on the same scale as the Company.”
9 That response is attached to my testimony as Rebuttal Schedule 1.

10 **Q. With these potential compliance requirements in mind, please describe the market**
11 **structure and dynamics that factored in to the Company’s proposed approach to**
12 **RGGI compliance.**

13 **A.** As Company Witness McMillan explained in his pre-filed direct testimony, which I
14 adopt, regulated sources acquire allowances to comply with RGGI by purchasing them at
15 quarterly auctions or through secondary markets. The quarterly RGGI auctions offer the
16 greatest volume and liquidity. The most recent RGGI quarterly auction was conducted
17 on March 2, 2021, in which 23,467,261 allowances were sold. Forty-eight separate
18 bidders participated in the auction, with three separate bidders in the March auction
19 purchasing in excess of 4,000,000 allowances each. This shows the high degree of
20 liquidity in the quarterly auctions. By contrast, the average transaction in the over-the-
21 counter market is 100,000 to 250,000 allowances, or 0.5 to 1.25% of the Company’s
22 forecasted annual CO₂ emissions. On the day of the March auction, the futures market
23 net volume (excluding spread transactions where a party simultaneously buys and sell

1 two different vintages) was only 1,962,000 allowances. As these numbers show, the
2 Company's compliance obligation is simply too large to be met through the secondary
3 markets alone.

4 Another important consideration is that RGGI auction rules limit each bidder to 25% of
5 the volume offered in each auction. Because Dominion Energy Virginia requires
6 approximately 20% of the annual auction volume to cover its emissions, if the Company
7 falls behind, it will not be able to make up the difference in future auctions. Given the
8 size of the Company's allowance requirement, it is not prudent for the Company to fall
9 behind because this will expose customers to unnecessary price and compliance risk. To
10 put this in perspective, this means that if the Company does not acquire allowances in just
11 2 of the 12 quarterly auctions in the fifth control period, the Company will not be able
12 to "catch up" by the end of the control period through auction purchases, and there will
13 be a higher likelihood that allowances would have to be purchased at a higher price
14 through the less liquid, more volatile secondary market.

15 The Company's programmatic, auction-centered approach means that these allowances
16 will generally be acquired in the next auction without the risks associated with
17 speculating on future prices. If there are opportunities in the secondary markets at
18 favorable price levels, the Company may acquire allowances in those markets as well.
19 For the Company, the secondary markets are more appropriate for managing monthly
20 deviations from the forecast.

1 Q. APV Witness Rábago suggests on page 8 of his testimony that the Company should
2 be “optimiz[ing] costs from allowance auctions and secondary market purchases,
3 including futures contracts.” Please comment.

4 A. I do not believe this approach is practical given the size of the Company’s compliance
5 obligation in the short term. Even if the Company correctly “picks the bottom” price of
6 the markets, the Company simply cannot acquire enough allowances at that price to meet
7 its compliance obligations. That strategy might be appropriate for a single combustion
8 turbine that needs to acquire 100,000 allowances a year, but it simply will not work for
9 the Company’s fleet of 47 regulated sources that require 20% of the allowances auctioned
10 by RGGI each year in the short term. The RGGI secondary market is not a sufficiently
11 liquid market to rely upon to attempt to optimize the purchased cost of RGGI allowances
12 for a fleet of the Company’s size.

13 I would also note that if the Company purchases futures contracts, it has no control over
14 the vintage of allowances delivered. To the extent the counterparty delivers allowances
15 with pre-2021 vintages, no proceeds from those transactions would flow back to the
16 Commonwealth of Virginia as they would with auction purchases.

17 Q. Overall, APV Witness Rábago suggest on page 8 of his testimony that the Company
18 “should develop a least-cost strategy” for RGGI compliance. Do you believe the
19 Company has done so?

20 A. Yes, I do. Acquiring allowances in the RGGI quarterly auctions is the most prudent path
21 to compliance in the short term because of the liquidity and depth of allowances offered
22 in the auctions as compared to the secondary markets. In determining its approach, the
23 Company compared volumes across the primary RGGI market (*i.e.*, the auction) and the

1 secondary markets (*i.e.*, over-the-counter and futures), and determined the most prudent
2 approach was to acquire most of the required allowances in the auctions where the
3 volume is the greatest, and the liquidity supports the largest volume purchases. Overall,
4 the Company can only acquire the significant volume of allowances it needs using an “all
5 of the above” approach to compliance, centered on the RGGI auctions.

6 As stated in the direct testimony, the Company will continue to evaluate its compliance
7 strategy and adjust it as needed. However, in the short term, there are limited options
8 available to reach compliance because of the size of the Company’s compliance
9 requirement. Purchasing the majority of required allowances in the most liquid market is
10 the reasonable and prudent approach, and will very likely prove to be the least-cost
11 approach.

12 **Q. APV Witness Rábago states on page 8 of his testimony that it would be “wise for the**
13 **Company to develop a banking strategy,” but disagrees with the Company’s**
14 **proposed strategy. Please explain the Company’s proposed banking strategy and**
15 **why it represents a reasonable approach.**

16 **A.** The Company agrees that a bank is important, but believes there may have been some
17 confusion on how the Company has used the term “bank.” In pre-filed direct testimony
18 and here, the Company defines the term “bank” to mean the quantity of allowances
19 owned by a compliance entity in excess of the compliance requirement for a given three-
20 year control period. In other words, the “bank” will become relevant at the end of the
21 control period (*i.e.*, every three years) once final CO₂ emissions are known. For example,
22 the Company will know the total quantity of allowances required for the fifth control
23 period (*i.e.*, 2021 to 2023) in early January 2024, after the December 2023 quarterly

1 auction. In January 2024, the bank will be calculated as allowances that the Company
2 has on hand minus tons of CO₂ emissions from 2021 to 2023.

3 The bank is necessary to cover both (i) deviations from the emissions forecast in the final
4 two months of the control period; and (ii) unexpected auction results in the December
5 2023 auction, the final auction in the fifth control period. Prudent risk management
6 dictates that the Company must have a bank of excess allowances at the end of each
7 control period to protect customers from forecast uncertainty, price volatility, and
8 noncompliance penalties. The penalty for noncompliance in RGGI is steep, requiring
9 three allowances for every short ton of excess emissions rather than one.

10 The Company has proposed a bank of 10% to 20% of the annual requirement at the end
11 of each three-year control period, or approximately 2 to 3 million allowances. This
12 proposed bank is based on prior deviations the Company observed between actual
13 emission and forecasted emissions. For example, in 2019, the Company observed two
14 consecutive months where actual CO₂ emissions exceeded forecasted emissions by
15 1,271,000 short tons. More recently, actual emissions exceeded forecasted emissions by
16 1,083,000 tons in January and February 2021. This magnitude of weather-driven forecast
17 deviation, combined with the potential for under-procurement in the final auction of the
18 control period due to a clearing price significantly above than the market, make the
19 proposed bank of approximately 2 to 3 million allowances both reasonable and prudent.

20 **Q. Do you have any final comments in response to APV Witness Rábago's testimony?**

21 **A.** For the reasons I have discussed, the Company must start purchasing allowances now to
22 ensure that it can cost-effectively comply with its obligations under RGGI. The projected

1 and actual costs presented in this proceeding focus on the short term—through July 2022.
2 Staff does not oppose these costs, with Staff Witness Patrick Carr stating on page 4 of his
3 testimony that “[a]ll cost described are appropriately recoverable through Rider RGGI
4 because all are costs incurred to comply with RGGI requirements.” These costs are
5 necessary to comply with RGGI, and are based on a reasonable and prudent strategy for
6 compliance.

7 **Q. Does this conclude your pre-filed rebuttal testimony?**

8 **A. Yes, it does.**

**BACKGROUND AND QUALIFICATIONS
OF
GEORGE E. HITCH**

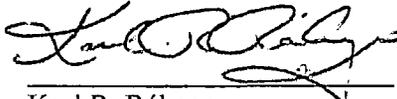
George Hitch joined Dominion Energy in 2002 as an Hourly Trader. Since then he has also held the roles of Coordinator Hourly Trading and Generation Asset Trader at both the regulated utilities and Dominion Energy Marketing. In these roles, he has traded physical and financial power, capacity, RECs, and emissions in the spot and forward markets.

Mr. Hitch assumed his current role of Senior Market Originator in November 2016. In this role, he is part of the group responsible for managing the Company's regulated capacity, energy, emissions, and REC portfolios. His group is also responsible for developing and executing short-term compliance strategies for the renewable energy portfolio standards in both Virginia and North Carolina, and for the Regional Greenhouse Gas Initiative.

Mr. Hitch has a Bachelor of Science degree from Virginia Tech. He has previously presented testimony before the North Carolina Utility Commission.

Virginia Electric and Power Company
Case No. PUR-2020-00169
Environmental Respondent's Responses to
Dominion Energy Virginia First Set

The following response to Question No. 6 of the First Set of Interrogatories and Requests for Production of Documents propounded by Dominion Virginia Power to Environmental Respondent received on March 8, 2021, has been prepared under my supervision.


Karl R. Rábago

Question No. 6

Refer to page 4 of Rábago Direct. Please define “resource portfolio-based strategy.” Please provide examples of where such a strategy has been used for RGGI compliance in other jurisdictions.

Response:

As used in his testimony, a “resource portfolio-based strategy” is one that identifies least-cost compliance strategies, taking into account the Company’s entire existing and future supply-side generation portfolio and is integrated with resource planning efforts in the Integrated Resource Plan and RPS Compliance plan.

Environmental Respondent is not aware of an existing operator or owner in other RGGI jurisdictions that is both vertically integrated and will be using allowances on the same scale as the Company.

WITNESS REBUTTAL TESTIMONY SUMMARY

Witness: Shane T. Compton
Title: Manager, Integrated Strategic Planning

Company Witness Shane T. Compton responds to testimony offered by Appalachian Voices Witness Karl R. Rábago regarding the Company's long-term integrated resource planning ("IRP") process.

Mr. Compton explains that long-term compliance with RGGI and other environmental regulations through changes to the Company's generation fleet will be evaluated as part of the IRP process. But long-term planning is not at issue in this proceeding; the focus of this proceeding is on complying with RGGI in the short term—through 2022. Mr. Compton states that this proceeding should not be turned into another long-term planning proceeding; the Va. Code requires IRP proceedings for that purpose.

To determine the forecasted CO₂ emissions through 2022 for this proceeding, Mr. Compton explains that the Company did not need to factor in long-term planning decisions. Specifically, the Company modeled its existing fleet, as well as publicly-announced retirements and new generation development that the Commission has approved or that is pending approval. The modeling also included a generic 20 MW block of small-scale solar PPAs in January 2022 to align with the Company's RPS Development Plan. The Company then used the PLEXOS modeling software to simulate the economic dispatch of the Company's generating units to determine the Company's forecasted CO₂ emissions through 2022, adding the forecasted cost of CO₂ allowances to units subject to RGGI.

**REBUTTAL TESTIMONY
OF
SHANE T. COMPTON
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2020-00169**

1 **Q.** Please state your name, business address, and position with Virginia Electric and
2 Power Company (“Dominion Energy Virginia” or the “Company”).

3 **A.** My name is Shane T. Compton and I am Manager of Integrated Strategic Planning. My
4 business address is 600 East Canal Street, Richmond, Virginia 23219.

5 **Q.** Have you previously submitted testimony in this hearing?

6 **A.** Yes, my pre-filed direct testimony was filed with the State Corporation Commission of
7 Virginia (the “Commission”) on November 9, 2020, supporting the Company’s petition
8 for approval of a rate adjustment clause, designated Rider RGGI, under § 56-585.1 A 5 e
9 of the Code of Virginia (“Va. Code”) to recover projected and actual costs related to the
10 purchase of allowances through the Regional Greenhouse Gas Initiative (“RGGI”)
11 market-based trading program for carbon dioxide (“CO₂”) emissions, a program in which
12 the Company is required to participate.

13 **Q.** What is the purpose of your rebuttal testimony in this proceeding?

14 **A.** My rebuttal testimony responds to testimony offered by Karl R. Rábago on behalf of
15 Appalachian Voices (“APV”) regarding the Company’s long-term integrated resource
16 planning (“IRP”) process.

1 months of the period being studied, and then blends forward market prices with estimates
2 provided by a third party—ICF Resources, LLC—for the next 18 months. Projected
3 RGGI allowance costs will continue to be updated for all future modeling unless and until
4 carbon laws and regulations change.

5 **Q. Did the modeling that your team completed to determine forecasted CO₂ emissions**
6 **through 2022 include new generation development or unit retirements?**

7 A. Because the focus in this proceeding is on the short term, the Company modeled its
8 existing fleet, as well as publicly-announced retirements and new generation
9 development that the Commission has approved or that is pending approval. For this
10 case, that included the retirement of Possum Point 5 in December 2020, the addition of
11 the new Sadler Solar Facility, which was approved by the Commission in Case No. PUR-
12 2019-00105, and the addition of certain CE-1 Solar Projects and CE-1 Solar PPAs
13 pending approval in Case No. PUR-2020-00134 that are expected to be online by
14 December 2022—Grassfield, Norge, Sycamore, Rivanna, Watlington, and Pleasant Hill .
15 The modeling also included a generic 20 MW block of small-scale solar PPAs in January
16 2022 to align with the Company’s RPS Development Plan. As I explained in my pre-
17 filed direct testimony, the Company then used the PLEXOS modeling software to
18 simulate the economic dispatch of the Company’s generating units, adding the forecasted
19 cost of CO₂ emissions allowances to units subject to RGGI.

20 **Q. So the Company did not need to factor in long-term planning decisions to determine**
21 **the Company’s forecasted CO₂ emissions through 2022?**

22 A. No, it did not. The focus here is on the rate year—the short term. If approved, Rider
23 RGGI will be trued up annually based on actual emissions and allowance purchases, as

1 explained by Company Witness John C. Ingram. Long-term planning is simply not
2 relevant to this proceeding.

3 **Q. Was any longer-term modeling completed for this proceeding?**

4 A. It was, for the limited purpose of calculating a projected long-term revenue requirement
5 for Rider RGGI in response to the Commission's Order dated November 23, 2020. But
6 my understanding is that this requirement is simply to provide a data point for the
7 Commission and interested parties. In practice, Rider RGGI, if approved, will be updated
8 annually, with forecasting focused on the Company's existing fleet plus any known
9 changes in the short term.

10 **Q. Does this conclude your pre-filed rebuttal testimony?**

11 A. Yes, it does.

WITNESS REBUTTAL TESTIMONY SUMMARY

Witness: John C. Ingram
Title: Director, Regulatory Accounting

Company Witness John C. Ingram responds to testimony regarding the revenue requirement for Rider RGGI and the appropriate accounting methodology.

Mr. Ingram agrees with the revenue requirement recommended by Commission Staff of \$167.76 million for the Rider RGGI rate year of August 1, 2021 through July 31, 2022.

Mr. Ingram disagrees with the recommendation of Consumer Counsel Witness Smith that carrying costs should be recovered through base rates instead of Rider RGGI. Mr. Ingram explains that the plain language Subsection A 5 e does not exclude the recovery of financing costs arising on reasonable and prudent costs of allowances purchased to comply with RGGI, and that the Company has an existing approved RAC—Rider E—that includes financing costs on rate base items.

Finally, Mr. Ingram responds to the accounting-related testimony of APV Witness Rábago, which provides unsupported, and at times conflicting, opinions.

**REBUTTAL TESTIMONY
OF
JOHN C. INGRAM
ON BEHALF OF
VIRGINIA ELECTRIC AND POWER COMPANY
BEFORE THE
STATE CORPORATION COMMISSION OF VIRGINIA
CASE NO. PUR-2020-00169**

1 **Q. Please state your name, business address, and position with Virginia Electric and**
2 **Power Company (“Dominion Energy Virginia” or the “Company”).**

3 **A.** My name is John C. Ingram, and my business address is 120 Tredegar Street, Richmond,
4 Virginia 23219. I am a Director – Regulatory Accounting, and am responsible primarily
5 for overseeing regulatory accounting matters and the analysis and development of
6 revenue requirement calculations for the Company.

7 **Q. Have you previously submitted testimony in this proceeding?**

8 **A.** Yes. My pre-filed direct testimony was filed with the State Corporation Commission of
9 Virginia (the “Commission”) on November 9, 2020.

10 **Q. What is the purpose of your rebuttal testimony in this proceeding?**

11 **A.** I am presenting rebuttal testimony in support of the Company’s petition for approval of a
12 rate adjustment clause (“RAC”), designated Rider RGGI, under § 56-585.1 A 5 e
13 (“Subsection A 5 e”) of the Code of Virginia (“Va. Code”) to recover projected and
14 actual costs related to the purchase of allowances through the Regional Greenhouse Gas
15 Initiative (“RGGI”) market-based trading program for carbon dioxide (“CO₂”) emissions,
16 a program in which the Company is required to participate. Specifically, my rebuttal
17 testimony responds to testimonies offered by Patrick W. Carr on behalf of Commission
18 Staff (“Staff”), Ralph C. Smith on behalf of the Office of the Attorney General’s Division

1 of Consumer Counsel (“Consumer Counsel”), and Karl R. Rábago on behalf of
2 Appalachian Voices (“APV”).

3 **Q. Please first address Staff Witness Carr’s testimony regarding the revenue**
4 **requirement in this proceeding.**

5 A. Staff Witness Carr recommends a revenue requirement of \$167.76 million for Rider
6 RGGI for the rate year of August 1, 2021 through July 31, 2022, which incorporates a
7 small mathematical correction to the Company’s calculation. As Mr. Carr notes, this
8 amount is higher than the Company’s corrected proposal of \$167.37 million, but lower
9 than the noticed amount of \$168.26 million. The Company concurs with Staff’s
10 mathematical correction and supports Staff’s recommended revenue requirement of
11 \$167.76 million in this proceeding. This recommended revenue requirement is inclusive
12 of financing costs. Mr. Carr testifies on page 4 of his testimony that “Staff believes it is
13 appropriate for the RAC to include financing costs on reasonably and prudently incurred
14 allowance inventory, since these are costs of complying with RGGI.”

15 In light of concerns raised by Consumer Counsel Witness Smith, however, Mr. Carr also
16 offers as an alternative for the Commission’s consideration that the financing costs could
17 be recovered through base rates rather than through Rider RGGI. As I will address later
18 in my testimony, recovery of the financing costs for the rate base components associated
19 with the allowances in Rider RGGI is consistent with both the express language of Va.
20 Code Subsection A 5 e and the Company’s other approved RAC under this subsection—
21 Rider E.

1 **Q. Please summarize the matters raised by Consumer Counsel Witness Smith and APV**
 2 **Witness Rábago that you will be commenting on.**

3 A. Mr. Smith recommends that only the direct cost of allowances be recoverable under Rider
 4 RGGI, with any rate base investment in purchased allowances and resulting financing
 5 costs being addressed in base rates. This recommendation seems largely based on his
 6 view that RGGI allowance costs are akin to fuel costs and should be recovered in exactly
 7 the same manner.

8 Mr. Rábago provides somewhat conflicting opinions on the Company’s proposed
 9 accounting method for purchasing and using allowances. On the one hand, he proposes a
 10 “default” accounting methodology that is substantially the same as that used by the
 11 Company, treating allowances costs as inventory to be consumed on a first-in-first-out
 12 basis with financing costs on prudently incurred advance purchases. On the other hand,
 13 he appears to take exception to that very method, recommending an ill-defined
 14 “expensing treatment” based a view that treating advance purchases as assets incentivizes
 15 over-procurement by the Company.

16 **Q. Turning to the testimony of Consumer Counsel Witness Smith, please address his**
 17 **testimony concerning the recovery of carrying costs under Subsection A 5 e.**

18 A. Mr. Smith suggests on page 10 of this testimony that under the language of Subsection A
 19 5 e, no carrying costs should be allowed for rider-based recovery, and that only the direct
 20 cost of the CO₂ allowances should be recovered through Rider RGGI.

1 Subsection A 5 e authorizes recovery of:

2 Projected and actual costs of projects that the Commission
3 finds to be necessary . . . to comply with state or federal
4 environmental laws or regulations applicable to generation
5 facilities used to serve the utility's native load obligations,
6 including the costs of allowances purchased through a
7 market-based trading program for carbon dioxide emissions.

8 Nothing in the language of Subsection A 5 e suggests that the financing costs of
9 reasonably and prudently incurred allowances purchased to comply with RGGI are
10 ineligible for RAC recovery. In fact, the Company has an existing approved RAC under
11 Subsection A 5 e—Rider E—that includes rate base items and an accompanying return.
12 Rider E was first approved by the Commission under Subsection A 5 e, inclusive of a
13 return, in Case No. PUR-2018-00195.¹ Likewise, financing costs arising under RGGI on
14 prudently incurred allowance purchases are appropriately recoverable under Subsection
15 A 5 e as proposed by the Company and as not opposed by Staff.

16 **Q. Please respond to Consumer Counsel Witness Smith justification that Rider RGGI**
17 **should be treated in a manner similar to the Company's fuel factor.**

18 A. As I just explained, the plain language of Subsection A 5 e does not exclude the recovery
19 of financing costs arising on reasonable and prudent costs of allowances purchased to
20 comply with this state-mandated program. By contrast, the Company's fuel factor is
21 governed by a specific definitional framework established by the Commission that
22 expressly limits the costs to be recovered in the fuel factor to include only fuel-related

¹ The first annual update to Rider E was approved in Case No. PUR-2020-00003. The most recent annual update to Rider E is currently under review in Case No. PUR-2021-00013.

1 expenses, and not rate base or financing costs on fuel inventories. There is no such
2 framework for Subsection A 5 e costs.

3 **Q. Turning to the observations by APV Witness Rábago, you indicated that he**
4 **proposed an accounting method very similar to the Company's accounting method.**
5 **Will you describe, once again, the Company's account treatment for the costs of**
6 **allowances under Rider RGGI?**

7 **A.** Sure. I described the accounting method briefly in my pre-filed direct testimony.
8 Purchased allowances meet the definition of an asset under guidance directed by
9 generally accepted accounting principles ("GAAP") and the Federal Energy Regulatory
10 Commission uniform system of accounts ("FERC USofA"). The Company records
11 purchased allowances as intangible assets. On a monthly basis, the Company reduces
12 this intangible asset by amortizing the equivalent number of allowances for each short ton
13 of CO₂ emitted, under the general accrual accounting principle of matching and in
14 recognition that an obligation to tender allowances under the RGGI program arises when
15 the CO₂ emissions occur. This monthly expense is measured using a weighted-average
16 price per allowance. As more fully described in the direct testimony of Company
17 Witness C. Eric McMillan (which Company Witness George E. Hitch has adopted), the
18 Company will likely maintain a monthly balance of unamortized allowances based the
19 Company's prudently administered procurement strategy and the timing of quarterly
20 allowance auctions relative to when emission occur.

1 Q. Is this the same accounting treatment you used to develop the revenue requirement
2 for Rider RGGI?

3 A. Yes, it is. Generally, the Company's revenue requirements follow its per book
4 accounting unless regulatory accounting or other adjustments are directed by the
5 Commission; Rider RGGI is no exception.

6 Q. What accounting treatment does Mr. Rábago recommend?

7 A. Mr. Rábago testifies on pages 9-10 of this testimony:

8 Like fuel, emissions are directly related to energy generation. In my view,
9 that means the default approach here should be that allowance costs are
10 treated as inventory expenses, and managed according to a first-in, first-out
11 [FIFO] accounting to better reflect the matching principle

12 Mr. Rábago's recommended accounting treatment in this section of his testimony is
13 similar to the Company's accounting treatment. The only difference is classification:
14 "inventory" as used by Mr. Rábago versus "intangible asset" as used by the Company.
15 Recognizing the expense related to consumption of allowances is an accounting policy
16 decision that should be consistently applied. Where Mr. Rábago proposing to expense
17 allowances using the FIFO method, the Company's accounting policy uses an equally
18 acceptable weighted-average cost method. There is no compelling reason for the
19 Company to adopt a different accounting policy nor would there be a notable difference
20 in annual expense over time, given the relatively high turnover of allowances during the
21 year.

22 I would also note that Mr. Rábago appears to agree with the Company that purchased
23 allowances prior to consumption are rate base items that warrant carrying costs.

1 **Q. Mr. Rábago ultimately concludes on page 14 of this testimony that the Company's**
2 **proposed accounting method for allowance costs is unreasonable. Please respond.**

3 A. Mr. Rábago's conclusion is inconsistent with earlier sections of his testimony concerning
4 the accounting method. As I discussed, it appears that his suggested "default" method is
5 closely aligned with the Company's method. He then proceeds later in his testimony to
6 raise a concern that this commonly accepted accounting method may incentivize over-
7 procurement and therefore recommends "expensing treatment." He does not define this
8 expensing treatment, but my interpretation is that he is recommending that the Company
9 expense and recover the cost of allowances when purchased rather than when emissions
10 occur and allowances are consumed. This approach unnecessarily deviates from
11 commonly accepted accounting methods and would accelerate the recovery of costs from
12 customer and should not be approved.

13 **Q. Do you have any other comments on APV Witness Rábago's testimony?**

14 A. Just briefly. Mr. Rábago suggests on page 10 of his testimony that a "performance-based
15 revenue mechanism" or an "incentive compensation approach" should be implemented
16 for Rider RGGL. Mr. Rábago provides no support for this concept under the law and
17 offers no explanation for what this type of mechanism would entail. See my Rebuttal
18 Schedule 1, which provides Mr. Rabago's response to the Company's request for support
19 of this concept. This recommendation is unsupported, contrary to Subsection A 5 e, and
20 should be rejected.

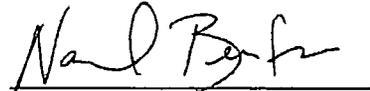
21 **Q. Does this conclude your rebuttal testimony?**

22 A. Yes, it does.

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Virginia Electric and Power Company
Case No. PUR-2020-00169
Environmental Respondent's Responses to
Dominion Energy Virginia First Set

The following response to Question No. 7 of the First Set of Interrogatories and Requests for Production of Documents propounded by Dominion Virginia Power to Environmental Respondent received on March 8, 2021, has been prepared under my supervision.



Nathaniel Benforado

Question No. 7

Refer to page 10 of Rábago Direct. Please explain the rationale for a “performance-based revenue mechanism” being permitted under the relevant statutory provisions.

Response:

Environmental Respondent objects to this request as calling for a legal conclusion, vague and ambiguous as it does not specify any statutory provisions, and not relevant or reasonably calculated to lead to the production of admissible evidence. Environmental Respondent further objects to this request to the extent that it seeks to discover information that is protected from disclosure by the attorney-client privilege, work product doctrine, and/or other recognized protections.

