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Case Name (if known) Virginia Electric and Power Company — To revise its
fuel factor pursuant to VA Code § 56-249.6

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Voices ("Environmental Respondent")

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June 16, 2022

VIA ELECTRONIC FILING

Mr. Bernard Logan, Clerk
c/o Document Control Center
State Corporation Commission
Tyler Building – First Floor
1300 East Main Street
Richmond, Virginia 23219

**RE: Virginia Electric and Power Company — To revise its fuel factor
pursuant to VA Code § 56-249.6**

Case No. PUR-2022-00064

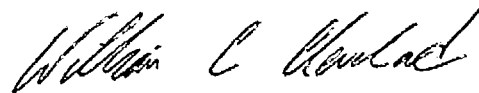
Dear Mr. Logan:

Please find enclosed for filing in the above-referenced docket the **Public (Redacted)** version of the direct testimony and exhibits of Gregory L. Abbott on behalf of Appalachian Voices (“Environmental Respondent”). Included with this testimony are Mr. Abbott’s one-page summary and three attachments.

As authorized by Rule 140 of the Commission’s Rules of Practice and Procedure, Environmental Respondent is providing, and agrees to accept, service of documents in this case exclusively via email unless parties request otherwise.

If you should have any questions regarding this filing, please do not hesitate to contact me at (434) 977-4090.

Regards,



William C. Cleveland

cc: Parties on Service List
Commission Staff

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF)
)
VIRGINIA ELECTRIC AND POWER)
COMPANY)
)
To revise its fuel factor pursuant to Va.)
Code § 56-249.6)

Case No. PUR-2022-00064

SUMMARY OF
DIRECT TESTIMONY OF
GREGORY L. ABBOTT
ON BEHALF OF
ENVIRONMENTAL RESPONDENT

June 16, 2022

Summary of the Direct Testimony of Gregory Abbott

My testimony examines the prudence of the unit dispatch practices employed by Virginia Electric and Power Company ("Dominion") for Dominion's coal units.

Based on my review, there are many hours in the prior fuel recovery period where Dominion voluntarily dispatched coal-fired generating units even when it was uneconomic to do so, and Dominion is proposing in this case to recover the costs of that voluntary action from its captive customers in this case.

I believe that Dominion's practice of dispatching its coal units as self-scheduled or must-run is speculative and imprudent and make three recommendations regarding this practice. I also make a recommendation regarding Dominion's proposed mitigation plan.

First, I recommend that the Commission disallow all imprudently incurred costs for Dominion's coal units due to self-scheduled non-economic dispatch for the period Jul. 1, 2021 through Jun. 30, 2022 included in its projected Jun. 30, 2022 fuel deferral balance in this case. To the extent that the self-scheduled dispatch of a coal unit in a given hour had dispatch costs that were higher than the PJM energy price in that hour, cost recovery should be limited to the PJM energy price and any amount of dispatch cost above that amount should be disallowed as imprudently incurred.

Second, to protect captive ratepayers from unreasonable or imprudent costs going forward, I recommend that the Commission direct Dominion to stop the practice of uneconomically self-scheduling its coal units on a going forward basis and instead rely on the PJM system operator to dispatch the coal units only when it is economic to do so. This is consistent with representations from Dominion in this proceeding and prior cases that its generation planning is based on operating its generation units using economic dispatch.

Third, I recommend that the Commission direct its Staff to perform an audit of Dominion's calculation of off-system sales margins for those hours where an off-system sale occurred in hours that Dominion voluntarily self-scheduled its units to dispatch even when it was uneconomic to do so.

Lastly, as an alternative to Dominion's two-year and three-year mitigation proposals, I recommend that the Commission defer making any judgment on the prudence of Dominion's fuel costs associated with its coal units for the period Jul. 1, 2021 through Jun. 30, 2022 included in its projected Jun. 30, 2022 fuel deferral balance in this case. I further recommend that the determination of, and recovery of, prudently incurred fuel costs associated with Dominion's coal units for this period be deferred to Dominion's next fuel factor case.

**COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION**

APPLICATION OF)	
)	
VIRGINIA ELECTRIC AND POWER)	
COMPANY)	Case No. PUR-2022-00064
)	
<i>To revise its fuel factor pursuant to Va.</i>)	
<i>Code § 56-249.6</i>)	

**DIRECT TESTIMONY OF
GREGORY L. ABBOTT
ON BEHALF OF
ENVIRONMENTAL RESPONDENT**

June 16, 2022

EXHIBITS

Exhibit	GLA-1	Testimonies/Reports
Exhibit	GLA-2	Dominion response to APV Set 2-5
Exhibit	GLA-3	Dominion response (public) to APV Set 3-1

1 **Q1. PLEASE STATE YOUR NAME AND ADDRESS AND YOUR ROLE WITH THE**
2 **ENVIRONMENTAL RESPONDENT.**

3 **A1.** My name is Gregory Abbott, and my address is 8610 Sunview Lane, North Chesterfield,
4 VA. My expert testimony in this proceeding is on behalf of Appalachian Voices
5 (“Environmental Respondent”).

6 **Q2. PLEASE SUMMARIZE YOUR EXPERIENCE IN ELECTRIC UTILITY**
7 **REGULATION IN VIRGINIA.**

8 **A2.** I was previously employed as a member of the Commission Staff and recently retired as a
9 Deputy Director after 24 years of service in the Commission’s Division of Public Utility
10 Regulation. I have extensive experience in the regulation of electric, gas, water and sewer
11 utilities located in the Commonwealth. This experience runs the gamut from general rate
12 increase applications, class cost of service, rate design, Integrated Resource Plans (“IRPs”),
13 generation certificates, Renewable Portfolio Standard (“RPS”) cases, coal ash disposal,
14 rate adjustment clauses (“RACs”), Demand-Side Management, PJM matters, weather
15 normalization adjustments, CARE plans, and pole attachments. I have testified before the
16 Commission in scores of cases and a representative list of cases is provided in Attachment
17 GLA-1.

18 **Q3. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?**

19 **A3.** My testimony examines the prudence of the unit dispatch practices employed by Virginia
20 Electric and Power Company (“Dominion”) for Dominion’s coal units. My testimony will
21 also provide an overview of the evolution of the electric grid and the ever-increasing

1 incompatibility of coal units with the modern grid. My testimony also examines the
2 potential impact of Dominion's dispatch decisions for its coal units on off-system sales.
3 Lastly, my testimony addresses Dominion's alternatives to soften the immediate impact to
4 customer bills by deferring recovery of fuel costs over a two or three-year period.

5 **Q4. PLEASE IDENTIFY DOMINION'S COAL UNITS.**

6 **A4.** Dominion currently has eight coal units in operation including: Chesterfield units 5 and 6;
7 Clover units 1 and 2; Mt. Storm units 1, 2, and 3; and the Virginia City Hybrid Energy
8 Center ("VCHEC").

9 **Q5. DO THESE COAL UNITS CURRENTLY PROVIDE ECONOMIC VALUE TO**
10 **CUSTOMERS?**

11 **A5.** In Dominion's 2020 IRP, Case No. PUR-2020-00035, in its extraordinarily sensitive
12 response to discovery, Dominion provided the results of a unit retirement analysis for all
13 of its fossil fuel units performed by Dominion dated March 2020. At that time, only
14 Dominion's Mt. Storm units were projected to provide economic value to customers and
15 all of the remaining coal units were projected to operate at a loss. The summary page of
16 results from that study was subsequently made public and the results for Dominion's Base
17 Case scenario are shown below:

	<u>Unit(s)</u>	<u>10-Year NPV Results</u>
1		
2	Chesterfield 5 & 6	(\$78 million)
3	Clover 1 & 2	(\$21 million)
4	Mt. Storm 1, 2, & 3	\$100 million
5	VCHEC	(\$472 million)

6 It is my understanding that the modeling Dominion performed for the retirement
7 analysis assumed that all generation units will be dispatched by PJM based on *economic*
8 *dispatch*. Similarly, all modeling presented in the 2020 IRP, and all prior IRPs, also
9 assumed that all generation units will be dispatched by PJM based on *economic dispatch*.

10 Economic dispatch is the short-term determination of the optimal output of
11 generation facilities, to meet the system load, at the lowest possible cost, subject to
12 transmission and operational constraints. With regard to specific units, it means that the
13 price the unit receives for dispatching in a given hour is higher than the unit's dispatch cost
14 in the same hour.

15 **Q6. PLEASE PROVIDE AN OVERVIEW OF HOW ECONOMIC DISPATCH WORKS**
16 **IN PJM.**

17 **A6.** PJM has two energy markets for unit dispatch – the Day-Ahead energy market and the
18 Real-Time energy market. Both of these energy markets match hourly energy price offers
19 or bids from energy generators with hourly energy demand from load serving entities
20 (“LSEs”). Most energy transactions occur in the Day-Ahead energy market. However, the
21 Day-Ahead hourly energy demand is a projection and the amount of actual energy required

1 can deviate from that projection in real-time. Such deviations are handled through energy
2 transactions in the Real-Time energy market.¹

3 A unit is considered to be economic in any given hour when its dispatch costs, or
4 incremental variable costs, that are bid into the market are lower than the market-clearing
5 hourly PJM energy price. PJM determines the hourly PJM energy price by stacking energy
6 offers from generators based on offer or bid price from lowest to highest. When there are
7 enough MWs offered to satisfy the aggregate amount of energy required to serve the LSEs,
8 the hourly equilibrium market price is determined. All generators that clear the market in
9 a given hour receive the equilibrium market-clearing price for the energy generated rather
10 than the specific price that the generator bid into the market for each unit. To the extent
11 that the variable dispatch cost for a generating unit is lower than the hourly equilibrium
12 market-clearing price, this generates economic profit margins for merchant generating
13 plants and economic value to customers for vertically integrated utilities such as Dominion.

14 **Q7. WHAT HAS DOMINION REPRESENTED TO THE COMMISSION ABOUT UNIT**
15 **DISPATCH IN THIS PROCEEDING?**

16 **A7.** On page 3 of Dominion witness Farmer's direct testimony, Dominion states that it utilizes
17 the PLEXOS model to simulate the economic dispatch of Dominion's units to meet its
18 projected load requirements. Thus, in preparing its estimates for future fuel expenses,
19 Dominion assumed in this case that all of its generation units will be dispatched on an
20 economic basis in its development of the projected energy requirements and fuel expenses

¹ The PJM Real-Time energy market also dispatches units on a sub-hourly (5-minutes) basis to continuously match generation with system load.

1 for the current period (July 1, 2022 – June 30, 2023) in this case. This is consistent with
 2 Dominion’s prior representations in prior fuel factor cases.

3 **Q8. ARE YOU AWARE OF ANY CASES WHERE DOMINION REPRESENTED TO**
 4 **THE COMMISSION THAT ITS GENERATION UNITS WERE NOT**
 5 **DISPATCHED ON AN ECONOMIC BASIS?**

6 **A8.** No. To my knowledge, Dominion has always represented to the Commission that its
 7 generation units are dispatched by PJM using economic dispatch. In fact, in the Rider
 8 RGGI case, the Hearing Examiner expressly stated his understanding that Dominion’s
 9 “CO₂ regulated generation units are dispatched by PJM based on *economic* dispatch.”² His
 10 understanding is based on Dominion’s express claims that its units dispatch on an economic
 11 basis: “Actual CO₂ emissions, in turn, will be determined by how PJM . . . dispatches
 12 generators in the region. PJM dispatches generators *economically* based on the unit offer
 13 price, which includes the projected cost of Regional Greenhouse Gas Initiative (“RGGI”)
 14 allowance purchases along with other costs, such as fuel.”³ My analysis shows that there
 15 are many hours in a year where Dominion, not PJM, determines whether a carbon-emitting
 16 unit will dispatch, thus incurring both fuel and RGGI compliance costs, and that voluntary
 17 dispatch is not premised on economics.

² Report of D. Mathias Roussy, Jr., Hearing Examiner, *Virginia Electric and Power Company – for approval of rate adjustment clause, designated Rider RGGI, under section 55-585.1 A 5 e of the Code of Virginia*, Case No. PUR-2020-00169 (June 2, 2021) at 31 (emphasis added).

³ Rebuttal Testimony of Dominion Witness George E. Hitch, *Virginia Electric and Power Company – for approval of rate adjustment clause, designated Rider RGGI, under section 55-585.1 A 5 e of the Code of Virginia*, Case No. PUR-2020-00169 (April 13, 2021) at 3:13-16 (emphasis added).

1 **Q9. ARE YOU AWARE OF ANY EVIDENCE THAT INDICATES THAT DOMINION**
2 **HAS DEVIATED FROM ECONOMIC DISPATCH FOR ITS COAL UNITS IN**
3 **ACTUAL PRACTICE?**

4 **A9.** Yes. In Case No. PUR-2021-00114, Staff witness Dalton's investigation revealed that
5 Dominion's VCHEC unit was dispatched as "self-scheduled" or "must-run" for a
6 significant number of hours. In this case, Environmental Respondent requested the hourly
7 dispatch data for VCHEC provided by Dominion in Case No. PUR-2021-00114. Dominion
8 provided this data in response to APV Interrogatory 2-9 (a) and Attachment APV Set 2-
9 09 (a) (WAH) (CONF). Further, Environmental Respondent requested the hourly dispatch
10 data for VCHEC for the period Aug. 27, 2021 through Apr. 30, 2022 in APV Interrogatory
11 2-9 (b). In response, Dominion provided this data through Feb. 15, 2022 in Attachment
12 APV Set 2-09 (b) (WAH) SUPP CONF. For the period, Jan. 1, 2021 through Feb. 15, 2022,
13 VCHEC generated and sold [Begin Confidential] [REDACTED] [End Confidential]
14 into the PJM energy markets. Of this amount [Begin Confidential] [REDACTED]
15 [End Confidential] were not dispatched by PJM on an economic basis but were rather
16 dispatched by Dominion as self-scheduled or "must-run." Dominion did not provide the
17 unit dispatch hours for the rest of its coal units, so I have not been able to calculate how
18 many hours other units, like Clover or Mt. Storm, were uneconomically self-scheduled for
19 dispatch.

20 Further, in Case No. PUR-2022-00006, currently pending before the Commission,
21 Sierra Club witness Glick's investigation revealed that Dominion's Mt. Storm units were

1 similarly dispatched by Dominion as “self-scheduled” or “must-run” for a significant
2 number of hours.⁴

3 **Q10. WHAT IS THE SIGNIFICANCE OF DOMINION’S DECISION TO DESIGNATE**
4 **ITS COAL UNITS AS SELF-SCHEDULED IN THE PJM ENERGY MARKETS?**

5 **A10.** When a generation unit is dispatched by PJM on an economic basis, the dispatch cost of
6 running the unit is lower than the hourly PJM energy price.⁵ However, when a coal
7 generation unit is designated by its owner to be self-scheduled in a given hour, then the
8 opposite is likely true. Namely, it is likely that the dispatch cost of running the coal unit
9 will be *higher* than the hourly PJM energy price. The coal unit is still only paid the
10 equilibrium market-clearing price for the energy produced, and the unit will suffer a loss
11 on the transaction. For a merchant coal plant, that company’s shareholders would realize
12 this loss. For a vertically integrated utility like Dominion, its captive customers bear the
13 burden of this loss, which flows to its customers through the fuel factor. The cost profile
14 and operational inflexibility of coal units relative to the needs of the modern grid have
15 created a challenging environment for operating coal units economically and the
16 continuation of such trends will likely make coal units obsolete in the future.

⁴ Pre-filed Testimony of Sierra Club Witness Devi Glick, *Virginia Electric and Power Company - For revision of rate adjustment clause: Rider E, for the recovery of costs incurred to comply with state and federal environmental regulations pursuant to VA Code section 56-585.1 A 5 e*, Case No. PUR-2022-00006 (May 24, 2022) at 57:3-59:6.

⁵ This is true unless the unit is the marginal, or last, unit that clears the market, in which case its dispatch cost would be equal to the PJM energy price.

Q11. PLEASE ELABORATE ON THE EVOLUTION OF THE GRID AND THE CHALLENGING OPERATIONAL ENVIRONMENT FOR COAL UNITS.

A11. The environment is challenging due to both changing economic realities and the introduction of significant amounts of intermittent resources onto the grid. Historically, coal units were constructed to operate as baseload units. In the past, coal units were the workhorses of the generation fleet for many decades. These baseload coal units generally had higher capital costs to construct but had lower fuel costs than oil and natural gas units. As baseload units, these coal units were expected to operate at capacity factors of 80% to 90%. Coal units have long start up and shut down times and relatively high start-up costs. In other words, they were designed to be turned on and left on except to perform maintenance. The operational environment for coal units began to change about 10 to 15 years ago. First, the shale gas revolution led to extremely low gas prices. Further, improvements in gas-fired combined-cycle ("CC") technology greatly improved the heat rates of these gas units. The combination of lower gas prices and a lower amount of gas required to generate the same amount of energy led to these CC units displacing coal as baseload units in the PJM economic dispatch paradigm. The economics of coal units have been further exacerbated by ever more stringent and costly environmental requirements.

The increasing levels of intermittent non-dispatchable resources onto the grid also presents a significant disadvantage for coal units compared to gas-fired units. Both CC and combustion turbine gas units have the ability to follow load. That is, these units can be ramped up and ramped down much more rapidly than coal units. Similarly, battery storage technology also has the ability to follow load, and as battery storage technology continues to evolve, it is expected that the amount of battery storage within the PJM footprint will

1 grow, especially if costs come down as many predict.⁶ In contrast, coal units typically have
2 relatively long minimum run times included in their bids into the PJM energy markets. For
3 example, a coal unit may have a minimum run time requirement of 8 hours. This means,
4 that PJM would have to determine that it was economic to dispatch it for a minimum of 8
5 hours before it would be dispatched. Such minimum run times were not an issue when coal
6 units were baseload units in the PJM economic stack. As coal units have moved more into
7 an intermediate status in the PJM economic stack, higher minimum run times can impact
8 whether the unit gets dispatched by PJM or not.

9 **Q12. WHY WOULD UTILITIES SUCH AS DOMINION SELF-DISPATCH COAL**
10 **UNITS INTO THE PJM ENERGY MARKET RATHER THAN RELY ON PJM'S**
11 **ECONOMIC DISPATCH?**

12 **A12.** There's nothing in the case Dominion presented to the Commission that even
13 acknowledges that it uneconomically self-schedules its units, much less provides a
14 justification for such dispatch. Although there could be other reasons, I believe that coal
15 units are designated as self-supply by Dominion to avoid shutting the units down. As I
16 mentioned earlier, coal units have long start-up times and high start-up costs. If a unit is
17 not running, PJM requires the start-up costs to be included in the dispatch costs that are bid
18 into the PJM energy market. The inclusion of these start-up costs in the coal unit dispatch
19 costs makes it even less likely that the coal unit will be dispatched by PJM on an economic
20 basis. If a utility anticipates entering a period where the coal unit dispatch costs are higher

⁶ Battery storage is somewhat insulated from natural gas price volatility and also has the ratepayer benefit of not incurring a RGGI compliance cost and providing other services to the grid (and ratepayers) in off-peak hours when many gas-fired combustion turbines are simply idle.

1 than the expected PJM off-peak energy prices (for example at night) but lower than PJM
2 on-peak energy prices, this could encourage the utility to designate the unit as must-run
3 during the off-peak hours in order to be available for dispatch on an economic basis during
4 the on-peak hours. If the utility allows the coal units to shut down because the units are not
5 economic during the off-peak hours, then the inclusion of the start-up costs in the unit
6 hourly bids will likely make those coal units uneconomic during the on-peak hours and the
7 units will not be dispatched by PJM. Another example would be if, for example, energy
8 prices are lower than expected during a winter month due to warmer than normal
9 temperatures. Dominion may self-dispatch the coal unit at a loss for an extended number
10 of days in the hopes of capturing higher energy prices during a return to more seasonable
11 weather and higher energy prices.⁷

12 As I mentioned earlier, coal units are designed to be operated as baseload units that
13 are turned on and left on. They are ill-suited for operation as intermediate units that may
14 require cycling on and off more frequently when operated on an economic basis. In my
15 opinion, the relatively high levels of coal unit generation dispatched by Dominion as self-
16 scheduled or must-run is an indication that Dominion is engaging in market speculation.

17 **Q13. WHY DO YOU CHARACTERIZE THIS AS ENGAGING IN MARKET**
18 **SPECULATION?**

19 **A13.** When Dominion dispatches its coal units as self-scheduled or must-run during a period of
20 relatively low PJM energy prices, Dominion customers will experience a loss. However,

⁷ [Begin Confidential]

[End
Confidential]

1 as a result, start-up costs are avoided and the coal units are subsequently available, and
2 more likely, to be dispatched by PJM based on economic dispatch during on-peak hours
3 with higher hourly energy prices. In order for this strategy to generate value for Dominion's
4 customers, the economic value realized during the on-peak hours must be greater than the
5 economic loss incurred during the off-peak hours. When Dominion makes the decision to
6 dispatch the coal units by designating them as self-scheduled or must-run, Dominion does
7 not know whether or not its coal units will clear the PJM Day-Ahead energy market during
8 the on-peak hours, nor does it know what the hourly equilibrium market-clearing energy
9 prices will be. Further, Dominion does not know what the hourly equilibrium market-
10 clearing energy prices will be for the must-run period either. Dominion can make estimates
11 of what these values will be, but there is no way for them to know what the values will be
12 with 100% certainty.

13 For a merchant coal plant that engages in this speculative strategy, if the gamble
14 does not pay off, the merchant coal plant's shareholders experience the loss. That is not the
15 case for a vertically integrated monopoly such as Dominion, which passes along all costs
16 to its customers regardless of whether the gamble pays off or not. Further, to the extent that
17 Dominion has a significant amount of non-economic must-run coal unit generation during
18 hours where Dominion is realizing off-system sales, Dominion's shareholders could
19 potentially receive additional profits from such non-economic speculative activity. This
20 creates the perverse reality where Dominion customers can lose money while Dominion
21 shareholders increase their profits in the same hour, assuming that the customers'
22 operational loss on the coal unit is larger than the customers' 75% portion of the off-system
23 sale.

**Q14. PLEASE EXPLAIN HOW DOMINION'S SHAREHOLDERS RECEIVE
ADDITIONAL PROFITS WHEN DOMINION MAKES AN OFF-SYSTEM SALE.**

A14. To the extent that Dominion's energy sales are greater than Dominion's load requirements to serve its customers in a given hour, Dominion realizes an off-system sale. Dominion's shareholders receive 25% of the margins above the incremental fuel factor costs incurred in the production and delivery of such sales pursuant to § 56-249.6 D 1 of the Code of Virginia. To the extent that an off-system sale is made in a given hour based on the economic dispatch of the units by PJM, then the off-system sale creates a win-win scenario for Dominion's customers and its shareholders. However, if Dominion has dispatched any of its uneconomic coal units as self-scheduled or must-run during that given hour, then it is not clear if this will similarly result in a win-win for Dominion's customers and its shareholders.

Q15. HOW IS THE OFF-SYSTEM SALES MARGIN DETERMINED?

A15. In hours where the energy produced by Dominion's generation units is greater than the amount of energy required to serve Dominion's customers, an off-system sale occurs. It is my understanding that the incremental fuel factor costs used in the calculation is based on the last Dominion generation unit(s) dispatched by PJM for each hour through *economic dispatch*. Since economic dispatch stacks energy bids from cheapest to most expensive, the highest cost units that cleared the market in a given hour are used as the basis for calculating the off-system sales margin in that hour. For example, if the PJM hourly energy cost is \$35 per MWh and the last Dominion unit dispatched by PJM had a dispatch cost of \$30 per MWh, then the off-system sales margin would be \$5 per MWh multiplied by the number

1 of MWhs of off-system sales. The shareholders get 25% of this amount and the remaining
2 75% flows to customers through the fuel factor.

3 **Q16. HOW IS THE OFF-SYSTEM SALES MARGIN CALCULATED DURING HOURS**
4 **WHEN DOMINION HAS SELF-SCHEDULED A NON-ECONOMIC COAL UNIT?**

5 **A16.** It is not clear what happens to the calculation of the off-system sales margin in hours when
6 Dominion has self-scheduled a noneconomic coal unit. It is also not clear if Dominion
7 highlights for the Commission whether self-scheduled dispatch from uneconomic coal
8 units occurred when Dominion makes the calculation of off-system sales margins and
9 presents the results to the Commission for approval. If the coal unit is non-economic, then
10 the unit dispatch cost of that unit is higher than the PJM hourly energy price and that unit
11 would not have been dispatched by PJM. In my opinion, the bids should still be ranked
12 from the cheapest to the most expensive regardless of whether generation units were
13 dispatched by PJM on an economic basis or self-scheduled by Dominion. The most
14 expensive unit dispatched during each hour should be used as the basis for calculating the
15 off-system sales margin.

16 However, if Dominion treats the non-economic self-scheduled coal unit as being
17 dispatched *first* to serve its native load, and consequently bases the calculation of off-
18 system sales margins on the last unit dispatched by PJM under *economic dispatch*, then
19 this could potentially result in Dominion's shareholders receiving more off-system sales
20 margin revenues than they would have received in the absence of Dominion's self-dispatch
21 of the non-economic coal unit.

Q17. IS IT ALWAYS THE CASE THAT A UNIT IS UNECONOMIC IF IT WAS SELF-SCHEDULED?

1 **A17.** No, not necessarily. But a significant portion of this energy will be non-economic.

2 **Q18. IS DOMINION'S PRACTICE OF SELF-SCHEDULING ITS COAL UNITS**
 3 **CONTRARY TO THE POLICY GOALS OF THE VIRGINIA CLEAN ECONOMY**
 4 **ACT ("VCEA")?**

5 **A18.** Yes. Although the VCEA allows VCEC and Clover units 1&2 to remain open through
 6 2045, it is clear that the policy goal of the VCEA is to move the Commonwealth to a zero-
 7 carbon energy future. Further, Virginia's participation in the RGGI is to provide a price
 8 signal to reduce the dispatch of fossil fuel units to reduce carbon output. Dominion is
 9 required to purchase RGGI allowances for every ton of carbon that is produced. Under
 10 RGGI, it is assumed that utilities will dispatch their units based on economic dispatch. In
 11 fact, the Hearing Examiner's Report in Dominion's Rider RGGI expressly relies on the
 12 incorrect belief that Dominion's "CO₂ regulated generation units are dispatched by PJM
 13 based on *economic* dispatch."⁸ When units must comply with RGGI and also operate under
 14 economic dispatch, the costs of the required RGGI allowances are included in each unit's
 15 dispatch costs. This effectively increases the dispatch costs of Dominion's coal units and
 16 should move those units up the economic dispatch stack, ultimately resulting in less energy
 17 being generated, and less carbon emitted, from those units. Dominion's practice of self-
 18 scheduling its uneconomic coal units defeats the purpose of Virginia's participation in

⁸ Report of D. Mathias Roussy, Jr., Hearing Examiner, *Virginia Electric and Power Company – for approval of rate adjustment clause, designated Rider RGGI, under section 55-585.1 A 5 e of the Code of Virginia*, Case No. PUR-2020-00169 (June 2, 2021) at 31 (emphasis added).

1 RGGI. This practice could significantly and needlessly increase Dominion's customers'
2 RGGI compliance costs.

3 **Q19. WHAT ARE YOUR RECOMMENDATIONS CONCERNING THE NON-**
4 **ECONOMIC DISPATCH OF COAL GENERATION UNITS?**

5 **A19.** I believe that Dominion's practice of dispatching its coal units as self-scheduled or must-
6 run is speculative and imprudent, especially since Dominion has offered no justification in
7 this case for why any hour of uneconomic, self-scheduled dispatch is reasonable, prudent,
8 or in ratepayers' best interests.

9 In discovery responses, Dominion identified multiple reasons why it *might*
10 voluntarily dispatch a unit even when it was uneconomic to do so. Those reasons include:

- 11 • LMP forecast
- 12 • Unit cost
- 13 • Weather forecast
- 14 • PJM emergency notifications
- 15 • Length of expected run
- 16 • Environmental limits
- 17 • Environmental requirements
- 18 • Upcoming outages
- 19 • Fuel inventory/availability
- 20 • Testing requirements⁹

21 We asked Dominion in follow-up discovery to identify the hours where each unit
22 was designated as "must-run" even though it was uneconomic to do so for each of these
23 identified reasons. In response, Dominion was unable to provide any justification for any
24 hour of any unit's uneconomic "self-run" status, instead objecting that "[i]t would take a
25 significant amount of original manual work across multiple departments in the Company

⁹ Dominion Response to APV Set 2-5, attached as Exhibit GLA-2.

1 to identify whether the unit was uneconomic to dispatch during a “must-run” hour and the
 2 dispatch reasons for the hours when a unit’s status was “must-run.”¹⁰ Dominion further
 3 stated that it “does not maintain the reasons why a unit was designated “must-run” in the
 4 manner requested.”¹¹

5 By objecting to providing a full response because it would require “original work”
 6 (*i.e.*, work that has not already been done), Dominion is admitting it has not even attempted
 7 in this case to justify a single hour of voluntary uneconomic dispatch at any of its units.
 8 This is especially problematic because, absent such a justification, this practice of
 9 voluntary uneconomic dispatch needlessly increases RGGI compliance costs that are
 10 currently recovered from customers through Rider RGGI. Therefore, I recommend that on
 11 a going-forward basis, the Commission direct Dominion to stop the practice of
 12 uneconomically self-scheduling its coal units on a going forward basis and instead rely on
 13 the PJM system operator to dispatch the coal units only when it is economic to do so.¹²
 14 This is consistent with representations from Dominion in this proceeding and prior cases
 15 that its generation planning is based on operating its generation units using economic
 16 dispatch.

17 Secondly, with regards to the prior fuel period, I recommend that the Commission
 18 disallow all imprudently incurred costs for its coal units due to non-economic dispatch for
 19 the period Jul. 1, 2021 through Jun. 30, 2022 included in its projected Jun. 30, 2022 fuel
 20 deferral balance in this case. To the extent that the self-scheduled dispatch of a coal unit in

¹⁰ Dominion Public Response to APV Set 3-1, attached as Exhibit GLA-3.

¹¹ *Id.*

¹² In addition, the PJM system operator may dispatch the coal units for system reliability purposes. In those instances when PJM dispatches an uneconomic coal unit for system reliability purposes, PJM pays uplift to make the generator whole.

1 a given hour had dispatch costs that were higher than the PJM energy price, cost recovery
 2 should be limited to the PJM energy price, while any amount of dispatch cost above that
 3 PJM energy price should be disallowed as imprudently incurred.¹³

4 Lastly, I recommend that the Commission direct its Staff to perform an audit of
 5 Dominion's calculation of off-system sales margins for those hours where an off-system
 6 sale occurred that coincided with the non-economic self-scheduled dispatch of Dominion's
 7 coal units.

8 **Q20. DO YOU HAVE ANY COMMENTS ON THE DOMINION PROPOSAL TO DEFER**
 9 **COST RECOVERY OVER THE PROPOSED TWO-YEAR OR THREE-YEAR**
 10 **MITIGATION PROPOSAL?**

11 **A20.** Yes. Given that the projected fuel deferral balance attributable to the Jul. 1, 2021 through
 12 Jun. 30, 2022 period is substantial given the relatively large increase in commodity fuel
 13 prices over the past year, Dominion proposes to defer immediate recovery of these fuel
 14 expenses and instead recover the fuel costs over either a two or three-year period. To the
 15 extent that cost recovery is deferred, as explained by Dominion witness Gaskill, Dominion
 16 would recover any incremental financing costs associated with the deferred fuel balance as
 17 a component of working capital in Dominion's rate base for base rates cost of service.

18 Dominion is making the two-year and three-year mitigation proposals as a means
 19 to soften the immediate impact on customer bills which could result in rate shock. In my

¹³ Based on my review of the hourly dispatch data that Dominion provided for VCHEC, this recommendation would result in **[Begin Confidential]** **[End Confidential]**. The total amount of ratepayer cost associated with uneconomic, self-scheduled dispatch is likely higher, but Dominion would not provide hourly unit dispatch data for the rest of its coal units.

1 opinion, the logic for making such proposals rests upon Dominion's assumption that the
2 past year's spike in commodity fuel prices was an anomaly and that future commodity fuel
3 prices will return to prior levels. The danger inherent in this strategy is that if commodity
4 fuel prices continue to increase rather than moderate, then future fuel cost recovery could
5 lead to even greater rate shock.

6 For instance, Dominion's most recent natural gas price forecast has gas above
7 \$8/MMBtu in every month through at least February 2023.¹⁴ According to communications
8 between Dominion and Appalachian Voices seeking clarity about some discovery
9 responses, Dominion stated that it has updated its fuel cost projections since filing this
10 case, increasing total expected jurisdictional fuel costs for the coming period from \$2.278
11 billion to about \$3.03 billion. Dominion counsel stated, however, that Dominion was not
12 planning to amend its proposed 3.0784 cents/kWh fuel rate or its mitigation plans as a
13 result of this updated fuel cost projection. Assuming this most recent fuel cost projections
14 hold true, Dominion customers will likely face another substantial fuel deferral balance in
15 next year's proceeding, which calls into question the fundamental purpose of the mitigation
16 plans.

17 Further, under the mitigation plans, customers will be saddled with higher financing
18 costs which could reduce customer refunds in Dominion's next triennial review. I do not
19 take a position on whether Dominion's two-year or three-year mitigation proposals should
20 be approved by the Commission, however, I believe it is important for the Commission to
21 be fully aware of the very real risk of even higher commodity fuel prices in the future
22 potentially creating an even greater future bill increase problem before approving either of

¹⁴ Attachment APV Set 02-10(a) (WWJ).

1 the Company's mitigation proposals. At this point, we just don't know what commodity
2 fuel prices will be over the next two or three years. I have an alternative proposal to
3 moderate bill impacts for the Commission's consideration.

4 **Q21. WHAT IS YOUR ALTERNATIVE PROPOSAL TO MODERATE CUSTOMER**
5 **BILL IMPACTS?**

6 **A21.** I recommend that the Commission defer making any judgment on the prudence of
7 Dominion's fuel costs associated with its coal units for the period Jul. 1, 2021 through June
8 30, 2022 included in its projected Jun. 30, 2022 fuel deferral balance in this case. I further
9 recommend that the determination of, and recovery of, prudently incurred fuel costs
10 associated with Dominion's coal units for this period be deferred to Dominion's next fuel
11 factor case. This will provide Dominion ample time to identify the prudently-incurred costs
12 by examining the hourly dispatch costs for each of its coal units during any self-scheduled
13 or must-run periods and to identify the amount of such dispatch costs that exceed the PJM
14 energy price for each hour for the period Jul. 1, 2021 through Jun. 30, 2022. This
15 recommendation is not mutually exclusive and could be implemented in addition to
16 Dominion's two-year or three-year mitigation proposal should the Commission approve
17 one of these proposals.

18 **Q22. DO YOU HAVE ANY ADDITIONAL COMMENTS?**

19 **A22.** Yes. My testimony has focused on the non-economic self-scheduled dispatch of
20 Dominion's coal units. Given the recent spike in gas prices and the requirement to purchase
21 RGGI allowances for Dominion's gas units, I have concerns that the Company could

1 potentially also engage in self-scheduling its non-economic gas units. To address this
2 concern, I further recommend that the Commission direct Dominion to not engage in the
3 self-scheduling of its gas units on a going forward basis and instead rely on the PJM system
4 operator to dispatch the gas units only when it is economic to do so.

5 **Q23. DOES THIS CONCLUDE YOUR TESTIMONY?**

6 **A23.** Yes.

Exhibit GLA-1

Gregory Abbott Testimonies/Reports

Proceeding	Case/Docket No.	On Behalf of:
Dale Service Corporation For General Increase in Rates	Virginia SCC Case No. PUE-2001-00200	Virginia SCC Staff
CPV Cunningham Creek LLC For Approval of a Generation Certificate	Virginia SCC Case No. PUE-2001-00477	Virginia SCC Staff
CPV Warren LLC For Approval of a Generation Certificate	Virginia SCC Case No. PUE-2002-00075	Virginia SCC Staff
Dale Service Corporation For Review of Changes to Terms and Conditions	Virginia SCC Case No. PUE-2002-00092	Virginia SCC Staff
Virginia Natural Gas, Inc. For Approval of a Weather Normalization Adjustment Rider	Virginia SCC Case No. PUE-2002-00237	Virginia SCC Staff
Virginia-American Water Company For General Increase in Rates	Virginia SCC Case No. PUE-2002-00375	Virginia SCC Staff
Community Electric Cooperative For Approval of Retail Access Tariffs and Terms and Conditions of Service for Retail Access	Virginia SCC Case No. PUE-2003-00007	Virginia SCC Staff
A&N Electric Cooperative For Review of Tariffs and Terms and Conditions of Service for Retail Service	Virginia SCC Case No. PUE-2003-00279	Virginia SCC Staff
Central Virginia Electric Cooperative For Approval of Its Plan to Implement Retail Access	Virginia SCC Case No. PUE-2003-00327	Virginia SCC Staff
Atmos Energy Corporation For an Increase in Rates	Virginia SCC Case No. PUE-2003-00507	Virginia SCC Staff
Virginia-American Water Company For General Increase in Rates	Virginia SCC Case No. PUE-2003-00539	Virginia SCC Staff
Washington Gas Light Company For Approval of an Experimental Weather Normalization Adjustment	Virginia SCC Case No. PUE-2001-00010	Virginia SCC Staff
Craig-Botetourt Electric Cooperative For a General Increase in Electric Rates	Virginia SCC Case No. PUE-2005-00012	Virginia SCC Staff
Virginia Natural Gas, Inc. For Approval of a Performance Based Rate Regulation Methodology	Virginia SCC Case No. PUE-2005-00057	Virginia SCC Staff

Virginia Natural Gas, Inc. For Investigation of Justness and Reasonableness of Current Rates, Charges, and Terms and Conditions of Service	Virginia SCC Case No. PUE-2005-00062	Virginia SCC Staff
Roanoke Gas Company For and Expedited Increase in Rates	Virginia SCC Case. No. PUE-2005-00075	Virginia SCC Staff
Highland New Wind Development, LLC For Approval to Construct, Own and Operate an Electric Generation Facility	Virginia SCC Case. No. PUE-2005-00101	Virginia SCC Staff
Dale Service Corporation For an Expedited Increase in Rates	Virginia SCC Case. No. PUE-2006-00070	Virginia SCC Staff
Virginia Natural Gas, Inc. For Approval of an Experimental Weather Normalization Adjustment for General Service Customers	Virginia SCC Case. No. PUE-2006-00095	Virginia SCC Staff
Roanoke Gas Company For an Expedited Increase in Rates	Virginia SCC Case. No. PUE-2006-00099	Virginia SCC Staff
CPV Warren, LLC For Approval of a Generation Certificate	Virginia SCC Case. No. PUE-2007-00018	Virginia SCC Staff
Appalachian Power Company For Adjustment to Capped Electric Rates	Virginia SCC Case. No. PUE-2007-00069	Virginia SCC Staff
Old Dominion Electric Coop. & Columbia Gas of Virginia For Approval of a Certificate to Acquire Ownership Interest	Virginia SCC Case. No. PUE-2007-00088	Virginia SCC Staff
James River Cogeneration Company For a Certificate to Operate as an Electric Generating Facility	Virginia SCC Case. No. PUE-2007-00092	Virginia SCC Staff
Spectra Energy Virginia Pipeline Co. For Cancellation of Certificates	Virginia SCC Case. No. PUE-2007-00106	Virginia SCC Staff
Appalachian Power Company For Approval to Participate in the Virginia Renewable Energy Portfolio Standard Program	Virginia SCC Case. No. PUE-2008-00003	Virginia SCC Staff
Atmos Energy Corporation For an Expedited Increase in Rates	Virginia SCC Case. No. PUE-2008-00007	Virginia SCC Staff
Virginia Electric and Power Company For Approval of a Generation Certificate	Virginia SCC Case. No. PUE-2008-00014	Virginia SCC Staff
Columbia Gas of Virginia, Inc. For Approval of an Experimental Weather Normalization Adjustment Mechanism	Virginia SCC Case. No. PUE-2008-00074	Virginia SCC Staff

Roanoke Gas Company For an Expedited Increase in Rates	Virginia SCC Case. No. PUE-2008-00088	Virginia SCC Staff
Mecklenburg Electric Cooperative For a General Increase in Electric Rates	Virginia SCC Case. No. PUE-2009-00006	Virginia SCC Staff
Virginia Electric and Power Company For Approval of Annual Filing of Rider S	Virginia SCC Case. No. PUE-2000-00011	Virginia SCC Staff
Virginia Electric and Power Company For Approval of a Rate Adjustment Clause for Recovery of the Costs of the Bear Garden Generating Station	Virginia SCC Case. No. PUE-2009-00017	Virginia SCC Staff
Washington Gas Light Company For Approval of Natural Gas Conservation and Ratemaking Efficiency Plan including a Decoupling Mechanism	Virginia SCC Case. No. PUE-2009-00064	Virginia SCC Staff
Craig-Botetourt Electric Cooperative For a General Increase in Electric Rates	Virginia SCC Case. No. PUE-2009-00065	Virginia SCC Staff
Appalachian Power Company For Approval of Purchase Power Agreements as Part of Its Participation in the Virginia Energy Portfolio Standard Program	Virginia SCC Case. No. PUE-2009-00102	Virginia SCC Staff
Columbia Gas of Virginia, Inc. For Authority to Increase Rates and Charges and to Revise the Terms and Conditions	Virginia SCC Case. No. PUE-2010-00017	Virginia SCC Staff
Virginia Electric and Power Company For Approval to Continue Two Rate Adjustment Clauses, Riders C1 and C2	Virginia SCC Case. No. PUE-2010-00084	Virginia SCC Staff
Appalachian Power Company Proposed Pilot Programs on Dynamic Rate Structures for Renewable Generation Facilities	Virginia SCC Case. No. PUE-2010-00134	Virginia SCC Staff
Virginia Natural Gas, Inc. For an Increase in Base Rates and Authority to Revise the Terms and Conditions	Virginia SCC Case. No. PUE-2010-00142	Virginia SCC Staff
Virginia Electric and Power Company For Approval to Establish an Electric Vehicle Pilot Program	Virginia SCC Case. No. PUE-2010-00014	Virginia SCC Staff
Appalachian Power Company For Approval of a Rate Adjustment Clause, RPS-RAC, to Recover the Incremental Costs of Participation in the Virginia Renewable Energy Portfolio Standard Program	Virginia SCC Case. No. PUE-2010-00034	Virginia SCC Staff

Virginia Electric and Power Company For Approval to Implement New Demand-Side Management Programs and For Approval of Two Updated Rate Adjustment Clauses	Virginia SCC Case. No. PUE-2011-00093	Virginia SCC Staff
Virginia-American Water Company For a General Increase in Rates	Virginia SCC Case. No. PUE-2011-00127	Virginia SCC Staff
Virginia Electric and Power Company To Revise a Rate Adjustment Clause: Rider R	Virginia SCC Case. No. PUE-2012-00068	Virginia SCC Staff
Virginia Electric and Power Company For Revision of Rate Adjustment Clause: Rider B	Virginia SCC Case. No. PUE-2012-00072	Virginia SCC Staff
Appalachian Power Company For Approval of the Recovery of Incremental Costs of Participation in the Renewable Energy Portfolio Program	Virginia SCC Case. No. PUE-2012-00094	Virginia SCC Staff
Virginia Electric and Power Company For Approval & Certification of Proposed Brunswick Co. Power Station	Virginia SCC Case. No. PUE-2012-00128	Virginia SCC Staff
Atmos Energy Corporation For Approval of a Special Contract for Gas Transportation Service	Virginia SCC Case. No. PUE-2013-00038	Virginia SCC Staff
Northern Virginia Electric Cooperative For Approval of Pole Attachment Rates and Terms and Conditions	Virginia SCC Case. No. PUE-2013-00055	Virginia SCC Staff
Virginia Electric and Power Company Integrated Resource Plan	Virginia SCC Case. No. PUE-2103-00088	Virginia SCC Staff
Virginia Electric and Power Company For Revision of Rate Adjustment Clause: Rider BW	Virginia SCC Case. No. PUE-2013-00122	Virginia SCC Staff
Appalachian Power Company Petition for Approval of Rat Adjustment Clause	Virginia SCC Case. No. PUE-2014-00007	Virginia SCC Staff
Appalachian Power Company Application for a 2014 Biennial Review of the Rates, Terms and Conditions for the Provision of Generation, Distribution and Transmission Services	Virginia SCC Case. No. PUE-2014-00026	Virginia SCC Staff
Virginia Electric and Power Company For Establishment of a Rate Adjustment Clause: Rider U, New Underground Distribution Facilities	Virginia SCC Case. No. PUE-2014-00089	Virginia SCC Staff
Appalachian Power Company Petition for Approval of Rate Adjustment Clause Related to its Participation in the Renewable Portfolio Energy Portfolio Program	Virginia SCC Case. No. PUE-2015-00034	Virginia SCC Staff

Virginia Electric and Power Company Integrated Resource Plan	Virginia SCC Case. No. PUE-2015-00035	Virginia SCC Staff
Washington Gas Light Company Application for Approval of a Natural Gas Supply Investment Plan	Virginia SCC Case. No. PUE-2015-00055	Virginia SCC Staff
Virginia Electric and Power Company For Approval of Special Rates, Terms and Conditions	Virginia SCC Case. No. PUE-2015-00103	Virginia SCC Staff
Virginia Electric and Power Company For Approval to Establish Experimental Companion Rates Designated Rate Schedule MBR - GS-3 and Rate Schedule MBR - GS-4	Virginia SCC Case. No. PUE-2015-00108	Virginia SCC Staff
Virginia Electric and Power Company For Establishment of a Rate Adjustment Clause: Rider U, New Underground Distribution Facilities	Virginia SCC Case. No. PUE-2015-00114	Virginia SCC Staff
Atmos Energy Corporation Application for Expedited Approval of a Special Contract for Gas Transportation Service	Virginia SCC Case. No. PUE-2015-00125	Virginia SCC Staff
Virginia Electric and Power Company Integrated Resource Plan	Virginia SCC Case. No. PUE-2016-00049	Virginia SCC Staff
Virginia Electric and Power Company For Revision of a Rate Adjustment Clause: Rider U	Virginia SCC Case. No. PUE-2016-00136	Virginia SCC Staff
Appalachian Power Company For Approval of a Wind G Rate Adjustment Clause	Virginia SCC Case. No. PUR-2017-00031	Virginia SCC Staff
Virginia Electric and Power Company Integrated Resource Plan	Virginia SCC Case. No. PUR-2017-00051	Virginia SCC Staff
Virginia Electric and Power Company For Approval to Establish Experimental Companion Tariff, Designated Schedule RF	Virginia SCC Case. No. PUR-2017-00137	Virginia SCC Staff
Virginia Electric and Power Company Integrated Resource Plan	Virginia SCC Case. No. PUR-2018-00065	Virginia SCC Staff
Virginia Electric and Power Company For Approval of a Rate Adjustment Clause, Designated Rider E	Virginia SCC Case. No. PUR-2018-00195	Virginia SCC Staff
Virginia Electric and Power Company For Approval & Certification of Proposed US-3 Solar Projects and for Approval of a Rate Adjustment Clause, Designated Rider US-3	Virginia SCC Case. No. PUR-2018-00101	Virginia SCC Staff

Virginia Electric and Power Company For Prudency Determination with Respect to the Coastal Virginia Offshore Wind Project	Virginia SCC Case. No. PUR-2018-00121	Virginia SCC Staff
Virginia Electric and Power Company For Revision of Rate Adjustment Clause: Rider US- 3	Virginia SCC Case. No. PUR-2019-00104	Virginia SCC Staff
Virginia Electric and Power Company For Approval & Certification of Proposed US-4 Solar Projects and for Approval of a Rate Adjustment Clause, Designated Rider US-4	Virginia SCC Case. No. PUR-2019-00105	Virginia SCC Staff
Virginia Electric and Power Company For a Prudency Determination with Respect to the Westmoreland Solar Power Purchase Agreement	Virginia SCC Case. No. PUR-2019-00133	Virginia SCC Staff
Virginia Electric and Power Company Integrated Resource Plan	Virginia SCC Case. No. PUR-2020-00035	Virginia SCC Staff
Virginia Electric and Power Company Establishing 2020 RPS Proceeding	Virginia SCC Case. No. PUR-2020-00134	Virginia SCC Staff
Appalachian Power Company Establishing 2020 RPS Proceeding	Virginia SCC Case. No. PUR-2020-00135	Virginia SCC Staff
Virginia Electric and Power Company Allocating RPS Costs to Certain Customers of Virginia Electric and Power Company	Virginia SCC Case. No. PUR-2020-00164	Virginia SCC Staff

Exhibit GLA-2

Virginia Electric and Power Company
Case No. PUR-2022-00064
Appalachian Voices
Second Set

The following response to Question No. 5 of the Second Set of Interrogatories and Requests for Production of Documents propounded by Appalachian Voices received on June 3, 2022 has been prepared under my supervision.

Wesley A. Hudson
Manager – Electric Market Operations
Virginia Electric and Power Company

Question No. 5

Please reference the Company's response to APV Interrogatory 1-4:

- (a) Does PJM have the authority to dispatch one of Dominion's units even when the energy market clearing price is lower than the unit's actual dispatch cost? If so, please explain the scope of that authority.
- (b) If PJM has the authority described in subpart a but has not exercised it, does Dominion have the ability to voluntarily dispatch one of its units even when the energy market clearing price is lower than the unit's actual dispatch cost? If so, please explain the scope of that ability.
- (c) Were there any units between July 1, 2021 at hour ending 1 through April 30, 2022 at hour ending 24 where Dominion voluntarily dispatched the unit even when the energy market clearing price was lower than the unit's actual dispatch cost?
- (d) If so, which units did Dominion voluntarily dispatch in this manner?

Response:

- (a) Yes. PJM performs this action in both the Day-Ahead Market via a Day-Ahead award or telephone call and the Real-Time Market via a telephone call. These PJM dispatches are typically due to transmission constraints, reliability, reserves, emergency situations, and economic minimum down time scenarios.
- (b) The Company has the ability to voluntarily dispatch one of its units even when the energy market clearing price is lower than the unit's actual dispatch cost. Factors that the Company considers in the unit commitment decision-making process are:
 - LMP forecast
 - Unit cost
 - Weather forecast
 - PJM emergency notifications
 - Length of expected run
 - Environmental limits
 - Environmental requirements

- Upcoming outages
- Fuel inventory/availability
- Testing requirements

(c) Yes.

(d) Every unit is self-dispatched by the Company during the year for testing at various times.
See also the Company's response to APV Set 2-6.

Exhibit GLA-3

Virginia Electric and Power Company
Case No. PUR-2022-00064
Appalachian Voices
Third Set

The following response to Question No. 1 of the Third Set of Interrogatories and Requests for Production of Documents propounded by Appalachian Voices received on June 8, 2022 has been prepared under my supervision.

Wesley A. Hudson
Manager – Electric Market Operations
Virginia Electric and Power Company

As it pertains to legal matters, the following response to Question No. 1 of the Third Set of Interrogatories and Requests for Production of Documents propounded by Appalachian Voices received on June 8, 2022 has been prepared under my supervision.

Elaine S. Ryan
McGuireWoods LLP

Question No. 1

Please reference Dominion's response to Appalachian Voices Request 2-5 which states that Dominion "has the ability to voluntarily dispatch one of its units even when the energy market clearing price is lower than the unit's actual dispatch cost," and Dominion's response to APV Set 2-6, which states that "a must run status does not mean the unit was not economic." Please also reference Attachment APV Set 02-06 CONF (WAH).

- a) For each of the fossil-fired and biomass-fired units, please identify which hours in Attachment APV Set 02-06 CONF (WAH) that Dominion designated a unit as "must-run" when the unit was also not economic to dispatch.
- b) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as "must-run" even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of "LMP forecast," as identified in Dominion's response to APV Set 2-5(b).
- c) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as "must-run" even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of "unit cost," as identified in Dominion's response to APV Set 2-5(b).
- d) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as "must-run" even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of "weather forecast," as identified in Dominion's response to APV Set 2-5(b).

e) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as “must-run” even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of “PJM emergency notifications,” as identified in Dominion’s response to APV Set 2-5(b).

f) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as “must-run” even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of “length of expected run,” as identified in Dominion’s response to APV Set 2-5(b).

g) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as “must-run” even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of “environmental limits,” as identified in Dominion’s response to APV Set 2-5(b).

h) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as “must-run” even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of “environmental requirements,” as identified in Dominion’s response to APV Set 2-5(b).

i) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as “must-run” even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of “upcoming outages,” as identified in Dominion’s response to APV Set 2-5(b).

j) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as “must-run” even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of “fuel inventory/availability,” as identified in Dominion’s response to APV Set 2-5(b) or because of “fuel inventory concerns,” as identified in Dominion’s response to APV Set 2-6.

k) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as “must-run” even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of “testing requirements,” as identified in Dominion’s response to APV Set 2-5(b).

l) Of the hours identified in response to subpart (a) when Dominion chose to designate a fossil-fired or biomass-fired unit as “must-run” even though it was uneconomic to do so, please identify the hours for each unit when Dominion made this choice because of “startup” purposes,” as identified in Dominion’s response to APV Set 2-6.

Response:

a) through l) The Company objects to this request as overly broad, unduly burdensome, and potentially voluminous to the extent it seeks hourly information for each fossil and biomass unit in the Company’s generation fleet for a ten month time period. Additionally, the Company

objects to this request because it would require original work. It would take a significant amount of original manual work across multiple departments in the Company to identify whether the unit was uneconomic to dispatch during a "must-run" hour and the dispatch reasons for the hours when a unit's status was "must-run." Notwithstanding and subject to these objections, the Company provides the following response:

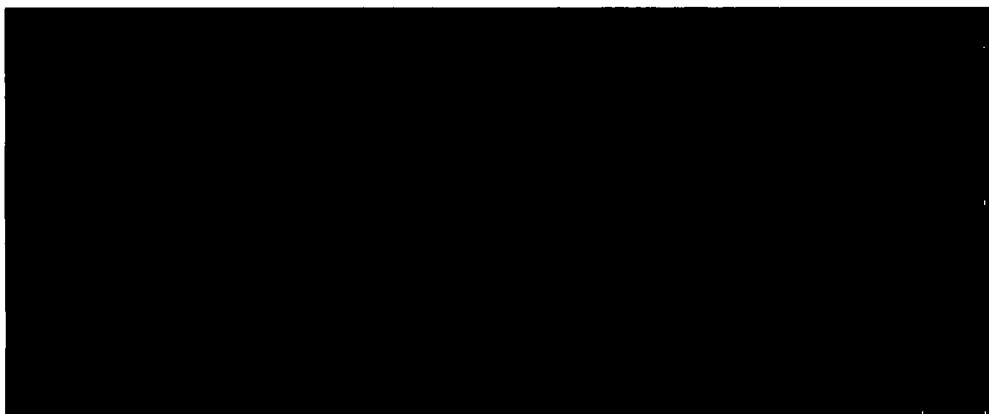
This response contains confidential information as indicated and is being provided pursuant to the protections set forth in 5 VAC 5-20-170, the Hearing Examiner's Protective Ruling issued on May 25, 2022, the Hearing Examiner's Protective Ruling Providing Additional Protective Treatment for Extraordinarily Sensitive Capacity Market Information issued on June 13, 2022, any subsequent protective order or ruling that may be issued for confidential or extraordinarily sensitive information in this proceeding, and the Agreements to Adhere executed pursuant to any such orders or rulings.

a) See the Company's supplemental responses to APV Set 1-4 (dated June 10, 2022) and APV Set 1-11(h) (dated June 10, 2022). These responses provided the data needed to undertake the original work requested to determine when a unit's status was "must-run" and it was uneconomic to dispatch. The Company does not maintain the reasons why a unit was designated "must-run" in the manner requested.

[BEGIN CONFIDENTIAL INFORMATION]

[REDACTED]

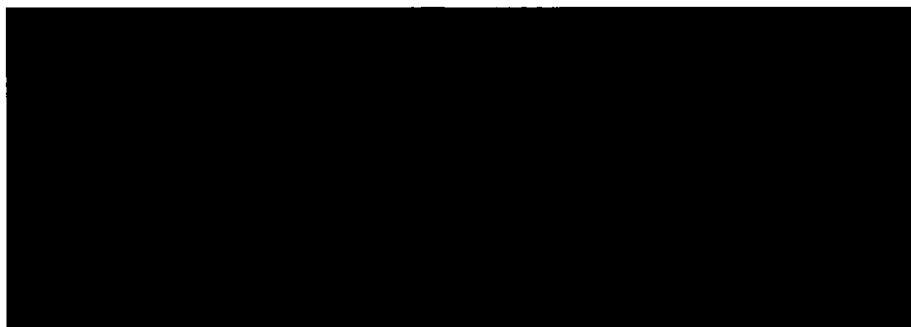
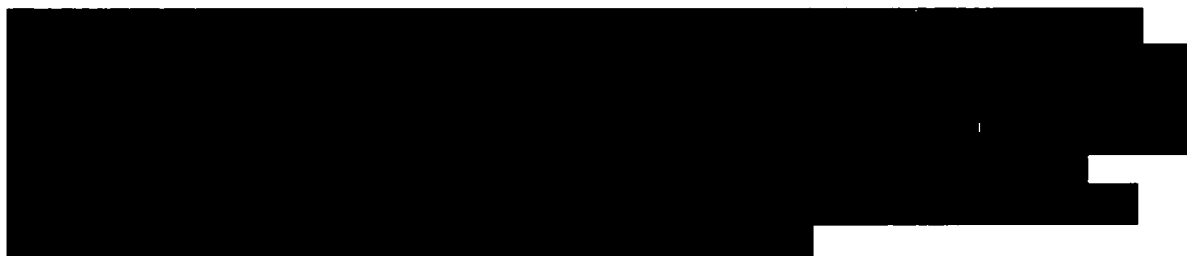
[REDACTED]

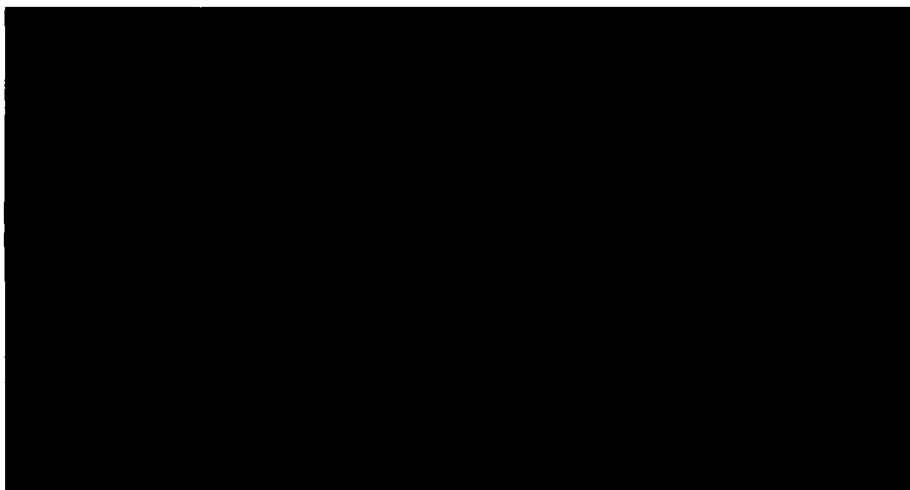


[END CONFIDENTIAL INFORMATION]

b) See the Company's supplemental responses to APV Set 1-4 (dated June 10, 2022) and APV Set 1-11(h). These responses provided the data needed to undertake the original work requested to determine when a unit's status was "must-run" and it was uneconomic to dispatch. The Company does not maintain the reasons why a unit was designated "must-run" in the manner requested.

[BEGIN CONFIDENTIAL INFORMATION]





[END CONFIDENTIAL INFORMATION]

c) through e) and l) See the Company's supplemental responses to APV Set 1-4 (dated June 10, 2022) and APV Set 1-11(h). These responses provided the data needed to undertake the original work requested to determine when a unit's status was "must-run" and it was uneconomic to dispatch. The Company does not maintain the reasons why a unit was designated "must-run" in the manner requested. However, for an example, see the Company's response to APV Set 3-1(a).

f) through k) The Company does not maintain this information in the manner requested. See the Company's supplemental responses to APV Set 1-4 (dated June 10, 2022) and APV Set 1-11(h) (dated June 10, 2022). These responses provided the data needed to undertake the original work requested to determine when a unit's status was "must-run" and it was uneconomic to dispatch.

CERTIFICATE OF SERVICE

I hereby certify that the following have been served with a true and accurate copy of the foregoing via electronic mail:

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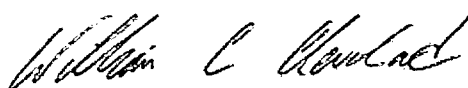
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