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May 28 2021

May 28, 2021

VIA Electronic Filing

Ms. Kimberley A. Campbell, Chief Clerk
North Carolina Utilities Commission
Dobbs Building
430 North Salisbury Street
Raleigh, North Carolina 27603-5918

**Re: Docket No. E-100, Sub 165
Reply Comments of Virginia Electric and Power Company, d/b/a
Dominion Energy North Carolina**

Dear Ms. Campbell:

Enclosed for filing in the above referenced docket, on behalf of Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina (the "Company"), are the Company's Reply Comments.

Please do not hesitate to contact me if you have any questions. Thank you for your assistance in this matter.

Very truly yours,

/s/Andrea R. Kells

ARK:sjg

Enclosures

cc: Lucy Edmondson
Layla Cummings
Robert Josey

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-100, SUB 165

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of) REPLY COMMENTS OF VIRGINIA
2020 Integrated Resource Plans and) ELECTRIC AND POWER COMPANY
Related 2020 REPS Compliance Plans) D/B/A DOMINION ENERGY NORTH
CAROLINA

NOW COMES Virginia Electric and Power Company d/b/a Dominion Energy North Carolina (“DENC” or the “Company”) and, pursuant to the Order Granting Further Extension of Time issued by the North Carolina Utilities Commission (“Commission”) in the above-captioned proceeding on May 11, 2021, hereby submits these Reply Comments in response to the Comments of the Public Staff filed in this docket on February 26, 2021.

INTRODUCTION

On May 1, 2020, the Company filed its 2020 Integrated Resource Plan (“2020 Plan”) in the above-captioned docket pursuant to N.C. Gen. Stat. §§ 62-2 and 62-110.1 and Commission Rule R8-60, as well as its 2020 Renewable Energy and Energy Efficiency Portfolio Standard Compliance Plan (“2020 REPS Plan”) pursuant to Rules R8-60(h)(4) and R8-67(b). On the same date, the Company filed the 2020 Plan with the Virginia State Corporation Commission (“VSCC”).¹

On February 1, 2021, the VSCC issued its final order on the 2020 Plan. While the VSCC found that it could not conclude that the 2020 Plan was reasonable and in the public interest based on the record in that proceeding, the VSCC also recognized the time

¹ *In re: Virginia Electric and Power Company’s Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Case No. PUR-2020-00035.

constraints under which the Company operated to incorporate into the 2020 Plan the many interrelated aspects of the Virginia Clean Economy Act (“VCEA”),² which was signed into law on April 11, 2020, and became effective July 1, 2020.³ The VSCC directed the Company to include certain information in future integrated resource plans (“IRPs”), as discussed further below.⁴

By its Order Granting Second Extension of Time issued on February 26, 2021, the Commission extended the date for parties to file initial comments in this proceeding to March 1, 2021, and extended the deadline for reply comments to April 30, 2021. On February 26, 2021, the Public Staff filed initial comments on the 2020 Plan. No other parties filed comments on the 2020 Plan. By its Order Granting Further Extension of Time issued on May 11, 2021, the Commission extended the date for parties to file reply comments to May 28, 2021.

REPLY COMMENTS IN RESPONSE TO THE PUBLIC STAFF

Based on its investigation of the 2020 Plan, the Public Staff recommends that the Commission accept DENC’s Plan B as reasonable for planning purposes over the near term.⁵ The Public Staff also concludes that DENC met all the filing requirements of Rule R8-60,⁶ and recommends that the Commission approve the Company’s, Duke Energy Carolinas, LLC’s, and Duke Energy Progress, LLC’s (“Utilities”) 2020 REPS Compliance

² Virginia 2020 Acts of Assembly, ch. 1193 and ch. 1194.

³ *In re: Virginia Electric and Power Company’s Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Final Order at 5, Case No. PUR-2020-00035 (Feb. 1, 2021) (“2020 VSCC Final Order”). For clarification, the VCEA requires the Company to meet annual requirements for the sale of renewable energy based on a percentage of non-nuclear load sold to retail customers in the Company’s service territory. This percentage reaches 100% in 2045. Because the percentage calculation is based on non-nuclear load, the VCEA focuses on “clean” sources by 2045, rather than “renewable” sources as stated by the Public Staff. Comments of the Public Staff (“Public Staff”) at 9.

⁴ 2020 VSCC Final Order at 6-16.

⁵ Public Staff at 10, 15, 157.

⁶ *Id.* at 35.

Plans.⁷ The Company’s following reply comments address the Public Staff’s additional recommendations as they apply to DENC.

Pursuant to Va. Code § 56-599 A, the Company is now required to file a full IRP every three years in Virginia, while still filing full IRPs in even years in North Carolina. As a result, certain years will be “full IRP” years in both states (*e.g.*, 2026), other years will be “update” years in both states, with fewer requirements⁸ (*e.g.*, 2021), other years will be a “full IRP” year in North Carolina and an “update” year in Virginia (*e.g.*, 2022), and other years will be an “update” year in North Carolina and a “full IRP” year in Virginia (*e.g.*, 2023). For purposes of these reply comments, when addressing recommendations that the Public Staff makes with respect to the “next IRP,” DENC interprets such recommendations to apply to the next full IRP to be filed in North Carolina, which will occur in 2022.

A. In preparing the least-cost plan in future IRPs, the Company will not force the model to select any specific resource nor exclude any reasonable resource.

The Public Staff comments that the Company’s alternative plans “force in significant amounts of resources without letting the model optimally solve for a least-cost plan compliant with the VCEA; as such, the Public Staff does not believe that the Commission should accept the high cost of plans C and D.”⁹ The Public Staff also states that some parties in the Company’s Virginia 2020 Plan proceeding were critical of DENC for failing to include a least-cost “VCEA compliant plan.”¹⁰ The Public Staff notes that in

⁷ *Id.* at 19.

⁸ *See* Commission Rule R8-60(h)(2).

⁹ Public Staff at 157.

¹⁰ *Id.* at 135. The Company disagreed with the concept of a least-cost “VCEA compliant plan” in the Virginia 2020 Plan proceeding. *See* Rebuttal Testimony of Glenn A. Kelly at 38-39, Case No. PUR-2020-00035 (filed Oct. 29, 2020).

the Virginia 2020 Plan proceeding, to address these concerns, the Company proposed in future filings to include a least-cost plan that would meet (i) applicable carbon regulations and (ii) the mandatory renewable energy portfolio standard program (“RPS Program”) requirements of the VCEA, and, for that plan, the Company would not to force the model to select any specific resource nor exclude any reasonable resource and allow the model to optimize the accompanying resource plan.¹¹ The VSCC accepted the Company’s recommendation, and directed the Company to file such a least-cost plan.¹² The Public Staff agrees with the VSCC and recommends that the Company file a resource plan that does not include forced resources, nor excludes certain resources.¹³

The Company does not oppose this recommendation. As the Public Staff recognizes, the Company proposed criteria for a least-cost plan to use as a benchmark for future IRP proceedings, which the VSCC found reasonable.¹⁴ This least-cost plan will model (i) applicable carbon regulations and (ii) the mandatory RPS Program in Virginia.¹⁵ In preparing the least-cost plan, the Company will not force the model to select any specific resource nor exclude any reasonable resource. The Company may, however, include in this least-cost plan commonsense build constraints, such as reasonably limiting the maximum number of specific resources that could feasibly be built in one year, and specifying the year in which a resource is available as an option based on realistic permitting and construction timelines for that specific resource. Other than these criteria, the Company will allow its model to optimize the accompanying resource plan.

¹¹ Public Staff at 135-136 (citing 2020 VSCC Final Order at 13-14).

¹² 2020 VSCC Final Order at 14.

¹³ Public Staff at 15, 136.

¹⁴ *Id.* at 136; 2020 VSCC Final Order at 14.

¹⁵ The VSCC has removed the requirement that the Company model a scenario with no carbon regulations. *Id.* at 6 n.17.

B. DENC has committed to modeling retirements within the PLEXOS model going forward.

In considering unit retirements, and specifically retirements of fossil fuel generating units, the Public Staff recommends that the “Utilities” should use economically optimal endogenous plant retirement dates in future IRPs with the Encompass model, as opposed to exogenously specified retirement dates.¹⁶ While the Public Staff’s discussion of this recommendation appears to be specific to Duke Energy Carolinas, LLC, and Duke Energy Progress, LLC (“Duke Utilities”),¹⁷ the Company addresses the recommendation to the extent it is also directed toward DENC.

The Company uses the PLEXOS modeling program as opposed to Encompass, but the programs are comparable in that both are used for utility modeling and resource optimization.¹⁸ In the Virginia 2020 Plan proceeding, in response to respondents’ testimony, the Company committed to modeling retirements of at-risk generating units within the PLEXOS model going forward, which will permit the determination of a retirement date based on economics of dispatchable resources. The VSCC agreed that DENC should model retirements as part of the PLEXOS modeling.¹⁹ This modeling approach should address the Public Staff’s concerns with respect to unit retirements.

The Company notes that, while it commits to provide the retirement dates as determined by PLEXOS, that commitment does not necessarily mean that DENC will use those retirement dates in the plans beyond the least-cost plan presented in future IRPs. There may be reasonable considerations that support deviating from the retirement

¹⁶ Public Staff at 15.

¹⁷ *Id.* at 109-110.

¹⁸ See Rebuttal Testimony of Glenn A. Kelly at 7, Case No. PUR-2020-00035 (filed Oct. 29, 2020) (explaining PLEXOS).

¹⁹ 2020 VSCC Final Order at 10.

dates determined by PLEXOS based solely on economics. These considerations could include, for example, reliability (*e.g.*, local transmission and distribution constraints, reliance on available on-site fuel versus reliance on fuel that is subject to pipeline constraints, reliance on intermittent energy sources, dispatchability, ramp rate, cycling, black start, or system recovery), or other issues such as personnel needs. In addition, the model may choose to retire multiple units in one year, which may not be reasonable in practice due to capacity obligations. DENC will explain any such deviations in future IRPs.

C. The Company continues to work toward developing and validating the inputs and processes required to utilize sub-hourly analysis for future IRPs.

The Public Staff recommends that in future IRPs, the Utilities continue to evaluate the feasibility and benefits of advanced analytic techniques that incorporate sub-hourly modeling and more granular system performance data. The Public Staff states that, to the extent these advanced analytics are available at reasonable cost, the Utilities should utilize these resources to provide better information and understanding of reserve margin needs, as well as overall system operations.²⁰

As discussed in the 2020 Plan, the Company currently models its system in PLEXOS based on hourly data, and the 2020 Plan did not incorporate sub-hourly analysis because the Company is still evaluating the inputs required for such an analysis and the length of time required to complete such an analysis.²¹ Sub-hourly analysis will require sub-hourly inputs based on historical performance for all resource types that could represent the operating characteristics of those resources for future projections. In addition,

²⁰ Public Staff at 16.

²¹ 2020 Plan at 37.

the Company must use internal information to establish the adjusted reserve margin and coincidence factor, because PJM Interconnection, L.L.C. (“PJM”) does not provide this level of detail. However, the Company intends to incorporate several modeling improvements into future IRPs, once the required inputs and processes are developed and validated. In addition, DENC’s efforts with respect to integrated distribution planning, which were discussed at the technical conference held by the Commission on March 9, 2021, do evaluate the system at a higher resolution.

D. DENC plans to provide the transmission related information requested by the Public Staff in future full IRPs.

The Public Staff states that the Utilities have complied with the Commission’s filing requirements with respect to transmission considerations. It also comments that it considers DENC’s Plan B to be acceptable for planning purposes with respect to estimated transmission upgrade costs.²²

The Public Staff expresses a desire to better evaluate the overall system and determine the reasonableness of cost estimates for required imports into each utility’s respective balancing area.²³ To address its concerns, the Public Staff recommends that in future IRPs, for each capacity expansion plan presented, to the extent not already done, the Utilities should: (1) provide the amount of existing firm transmission import capacity; (2) list the additional incremental transmission import capacity needed to support each respective plan; (3) provide a high-level cost estimate associated with these increases; and (4) include those transmission costs in their present value revenue requirement (“PVR”) analyses.²⁴ The Public Staff also recommends that the Utilities attempt to include network

²² Public Staff at 136-137, 142.

²³ *Id.* at 145-146.

²⁴ *Id.* at 16, 146.

upgrade cost estimates within the capacity expansion model in the same manner as transmission interconnection costs.²⁵ The Company does not object to the Public Staff's recommendations; DENC is already planning to provide the suggested information for its expansion plans in future full IRPs.

E. DENC will continue to provide information related to subsequent license renewals for nuclear plants in future IRPs.

The Public Staff notes the pending expiration of operating licenses for several of the Utilities' nuclear resources and the potential for subsequent license renewals ("SLRs") for these resources. The Public Staff recommends that the Utilities file a cost analysis in the 2022 and 2024 IRPs to demonstrate that continued operation of each individual nuclear unit or plant is in the best economic interest for ratepayers.²⁶ The Public Staff also recommends that the Commission require the Utilities to work with the Public Staff to develop the requirements of the cost analysis report prior to the 2022 IRP filing.²⁷ Additionally, the Public Staff suggests that the Commission continue to direct the Utilities in future IRPs to include a discussion and evaluation of potential SLRs for each of their existing nuclear units, including an anticipated schedule for SLR application submission and review, and an evaluation of the risks and required costs for upgrades.²⁸ Finally, the Public Staff recommends that the Utilities continue to reflect any relicensing plans in future IRPs.²⁹

The Company will continue to provide the recommended SLR information in future full IRPs with the requested SLR cost analysis provided informally to the Public Staff.

²⁵ *Id.*

²⁶ *Id.* at 17, 101.

²⁷ *Id.* at 101.

²⁸ *Id.*

²⁹ *Id.*

DENC previously applied for, and received approval from the Nuclear Regulatory Commission (“NRC”) of, an SLR for its two units at the Surry Power Station. DENC applied for an SLR from NRC for its two units at the North Anna Power Station in August 2020, and that application is pending. Currently, DENC is also preparing a detailed analysis related to extending the lives of its four nuclear units in preparation for a filing with the VSCC in the second half of 2021, and is willing to discuss that analysis with the Public Staff prior to filing. To be clear, the Company does not typically analyze individual units at its nuclear sites for purposes of extending their lives, but rather evaluates the units at both Surry and North Anna Power Stations for economies of scale purposes.

F. DENC will continue to use the PJM load and energy sales forecast, scaled down to the Company’s load serving entity level; continued evaluation of summer and winter capacity and energy needs, including actual historical peaks, and the alternative plans’ ability to meet those requirements, will best enable DENC to understand the winter peaks occurring on its system.

The Public Staff finds DENC’s revised peak load and energy sales forecasts to be reasonable for planning purposes and notes its support for continued use of PJM-based forecasts.³⁰ The Public Staff recommends that the Utilities continue reviewing their load forecasting methodology to ensure that assumptions and inputs “remain current and employ appropriate models quantifying customers’ response to weather, especially abnormally cold winter weather events.”³¹ The Public Staff opines that the observed growth in winter peaks may represent an increased saturation of electric space heating, as compared to other heating sources, and expresses concern over the “growing dominance of morning winter peaks” observed in the Company’s service territory.³² The Public Staff suggests that

³⁰ *Id.* at 49.

³¹ *Id.* at 17.

³² *Id.* at 49.

DENC continue evaluating the growth of winter peaks. Additionally, the Public Staff recommends that in the future the Company weather-normalize its winter and summer peaks, which the Public Staff suggests will lead to a better understanding of the growth of winter peaks.³³ Finally, the Public Staff recommends that the Utilities continue to review their options for addressing the winter peak as well as better quantifying the response of customers to low temperatures.³⁴

The VSCC has directed the Company to use the Dominion Energy Zone (“DOM Zone”) PJM load forecast and energy sales forecast, scaled down to the Company’s load serving entity level.³⁵ The Company complied with this directive with its 2020 Plan. The VSCC has directed the Company to continue using the PJM forecast,³⁶ and to include high and low load forecast scenarios among other sensitivities in its modeling,³⁷ and the Company will comply accordingly in the development of its future full IRPs and IRP updates.

With regard to weather normalization of winter and summer peaks, the Company has not historically weather normalized historical peak demand figures because the results are not reliable. The Company does weather normalize energy and sales, for which it has significantly more data points than for peaks, since peaks occur once a year or once a season. Additionally, peak loads may result from multiple combinations of factors such as weather during and leading up to the peak day, calendar effects, school closures, cloud cover, storms, and customer outages, among other variables. Therefore, the results of

³³ *Id.* at 17, 49-50.

³⁴ *Id.* at 17.

³⁵ *In re: Virginia Electric and Power Company’s Integrated Resource Plan filing pursuant to Va. Code § 56-597 et seq.*, Final Order, Case No. PUR-2018-00065 (June 27, 2019) (“2018 VSCC Final Order”).

³⁶ 2020 VSCC Final Order at 11.

³⁷ *Id.* at 7, n. 25.

weather normalizing peaks may vary greatly based on the methodology deployed. Additionally, PJM has acknowledged on several occasions that it does not use weather normalized peak figures for its load forecasting process, and only produces them to meet a PJM member request. Given that the Company's peak demand is driven by peak-producing weather (that may not occur every year), a better representation of historical peaks is to examine actual unrestricted peaks. Continuing to evaluate actual peaks will therefore best enable DENC to understand the winter peaks occurring on its system; accordingly, the Commission should reject the Public Staff's recommendation to weather-normalize winter and summer peaks.

The VSCC also directed the Company to study and report separately on its summer and winter capacity and energy needs, and its alternative plans' ability to meet those requirements, and to consider winter purchases from the PJM wholesale market.³⁸ The Company's compliance with these directives should further address the Public Staff's other recommendations with respect to summer and winter peaks.

G. Continuance of DENC's current approach to developing and implementing demand side management ("DSM") programs should address the Public Staff's comments with respect to DSM; the "major changes" threshold for reporting changes in future projections of energy efficiency ("EE") savings should be maintained.

The Public Staff also discusses the Company's DSM/EE portfolio. The Public Staff provides an update on the Commission's recent approval of 6 of the 11 Virginia-approved DSM/EE programs and notes the Company's EE stakeholder group process as required by Virginia Code Section 56-596.2. More generally with regard to all of the Utilities, the Public Staff raises concerns regarding the Utilities' ability to develop and implement cost-

³⁸ *Id.* at 11-12.

effective DSM/EE programs,³⁹ and offers several recommendations with regard to DSM/EE for future IRPs.

First, the Public Staff recommends that the Utilities' DSM resources forecasts should represent the reasonably expected load reductions that are available at the time the Utilities call upon the resource capacity.⁴⁰ Each year, DENC files an Evaluation, Measurement, and Verification ("EM&V") report with the Commission presenting the Company's performance related to its active EE and DSM programs. The results received and delivered by these programs are used as the basis for the forecasted load reductions in the Company's 25-year plan. Additionally, Section 4.1.3 of the 2020 Plan⁴¹ demonstrates how the DSM forecast was created using existing and proposed EE programs as well as a "generic" EE program designed to meet the requirements of the VCEA and the Virginia Grid Transformation and Security Act of 2018.⁴² The Company plans to provide additional information regarding DSM resources intended to meet these targets as well as the 2020 DSM Potential Study report⁴³ results as the basis for future program participation and program make-up in future DSM filings. Finally, dispatchable DSM programs will continue to be called out as a capacity resource. This approach should meet the Public Staff's recommendation with regard to DSM related forecasted load reductions.

Second, the Public Staff recommends that the Utilities maintain use of their DSM to reduce fuel costs, especially when marginal costs of energy are high, as well as to ensure reliability.⁴⁴ The Company plans to continue to offer new additional DSM programs in

³⁹ Public Staff at 50-55.

⁴⁰ *Id.* at 18.

⁴¹ 2020 Plan at 50 ("Energy Efficiency Adjustment").

⁴² Virginia 2018 Acts of Assembly, ch. 296.

⁴³ *See* 2020 Plan at 107 ("Future DSM Initiatives").

⁴⁴ Public Staff at 18.

order to reduce its fuel costs and its capacity obligations while ensuring a safe and reliable grid. The Company will continue to market those DSM programs that are not only cost effective but also produce the greatest benefits when the marginal cost of energy and capacity are the greatest. DENC will also continue to work with the DSM stakeholders to identify those programs and DSM-related measures and opportunities that could be offered in future DSM proceedings.

Finally, the Public Staff recommends that the Utilities identify “any changes” in EE-related technologies, regulatory standards, or other drivers that would impact future projections of EE savings regardless of the 10% threshold required by the Commission.⁴⁵ The Company contracts with DNV, an independent third party, to collect and analyze EM&V data for all of DENC’s DSM/EE programs. Using this continuously updated data, the Company will continue to explain changes of 10% or more in the savings projections from the previous IRP or IRP update in its future full IRPs. However, the Company does not support the Public Staff’s recommendation with regard to future projections of EE savings. A requirement to identify “any” changes in EE-related technologies, regulatory standards, or other drivers that would impact future projections of EE savings would be impractical. The more reasonable approach is to continue to identify “major known” changes in regulations and manufacturing standards that would impact future EE savings projections, rather than each change regardless of any type of materiality standard. The Commission found this approach reasonable in the 2016 IRP proceeding (Docket No. E-

⁴⁵ *Id.*

100, Sub 147),⁴⁶ and the Public Staff has not provided any rationale for changing this requirement.

H. While historical data should not be the only consideration in determining solar and wind capacity factors, the Company will continue to model future solar PV based on a three-year average of historical Company-owned solar tracking facilities located in Virginia.

In the course of its investigation of the 2020 Plan, the Public Staff reviewed solar generation included in the expansion plans. The Public Staff reports that for Plans A, B₁₉, and D, the Company used a solar capacity factor of 19%, which is the average capacity factor of its solar tracking facilities in Virginia for the most recent three-year period at the time the 2020 Plan was filed (2017 through 2019), and that for Plans B and C, DENC used a solar capacity factor of 25%, which is the expected future output from solar facilities with tracking. The Public Staff comments that a capacity factor of 25% may be achievable for future solar with tracking, but states its concern that the Company's capacity factors may be overly optimistic estimates that may not include practical factors that impact solar site operation, such as weather events, panel outages, cloud cover, wildlife, and system losses. The Public Staff also notes that the Company used a capacity factor of 42% for its planned offshore wind facilities, which was determined by wind speeds at the Norfolk, Virginia, airport adjusted by using data from the National Renewable Energy Laboratory's ("NREL") Wind Tool Kit for the Virginia Wind Energy Area. The Public Staff questions these capacity factors and recommends that DENC "provide more analysis in its next IRP

⁴⁶ *In the Matter of 2016 Biennial Integrated Resource Plans and Related 2016 REPS Compliance Plans, Order Accepting Integrated Resource Plans and Accepting REPS Compliance Plans at 32-33, Docket No. E-100, Sub 147 (June 27, 2017)* ("The Commission also finds it reasonable for the IOUs to continue to address *major known changes* in EE-related technologies, regulatory standards, and other drivers that would impact future projections of EE savings.") (emphasis added).

since limited knowledge of capacity factors exists for solar with tracking, onshore wind, and offshore wind in the Virginia area.”⁴⁷

As the Company communicated to the Public Staff through recent discussions on this topic, capacity factors used in the IRP represent an average of those expected over a wide range of future projects based on industry data, company experience, general locations of installations, and current bid data. With the exception of the Coastal Virginia Offshore Wind (“CVOW”) Demonstration Pilot discussed further below, specific project performance is not evaluated in the IRP. A specific project can be designed with various capacity factors and must consider the specific site data in projecting a capacity factor. Historical data is reviewed, but is not indicative of future trends—such as the move from fixed solar systems to tracking systems to more efficient solar modules, or the move to larger wind turbines, which can be more efficient. Based on these factors, use of historical capacity factors is not representative of longer term average performance, and the Company does not believe historical data should be the only consideration to determine the capacity factors, whether for solar, wind, or other resources. Accordingly, the Company has recommended that solar capacity factors should be representative of expected performance in the relevant region. Note also that the Company does not directly estimate capacity factors for new dispatchable generation assets. Operational parameters are modeled, and the resulting capacity factor is determined based on the fuel and associated costs for that resource.

However, pursuant to the 2018 VSCC Final Order, the Company must model future solar resources based on a three-year rolling average of actual capacity factors of its solar

⁴⁷ Public Staff at 96-99.

tracking fleet in Virginia. In that order, the VSCC directed the Company to “model future solar PV tracking resources using two alternative capacity factor values: (a) the actual capacity performance of Dominion’s Company-owned solar tracking fleet in Virginia using an average of the most recent three-year period; and (b) 25%.”⁴⁸ Therefore, even though the Company believes that projected capacity factors are more appropriate, the Company will model future solar resources based on a three-year average of the actual capacity performance (*i.e.*, historical data) of the Company-owned solar tracking fleet in Virginia, and at least for solar, the Company will provide in its future IRPs at least one plan using that historical data, which will be available to the Public Staff in the next IRP proceeding.

For offshore wind capacity factors, the Company used NREL data developed specifically for the CVOW Demonstration Pilot⁴⁹ and CVOW Commercial Project⁵⁰ during its work with the Department of Energy, which considered the specific conditions expected at the wind energy lease area. In addition, the Company is obtaining operational data from the CVOW Demonstration Pilot to inform the expected capacity factor of the CVOW Commercial Project. The Company can provide more analysis of the offshore wind capacity factor using these and other relevant sources, including actual data from the CVOW Demonstration Pilot, to determine capacity factors for offshore wind for the next full IRP.

⁴⁸ 2018 VSCC Final Order at 11-12.

⁴⁹ The CVOW Demonstration Pilot, a two turbine, 12 MW pilot project located off the coast of Virginia, was placed into service in January 2021.

⁵⁰ The CVOW Commercial Project will provide approximately 2,600 MW of offshore wind capacity and is projected to be fully constructed in 2026. See <https://www.dominionenergy.com/projects-and-facilities/wind-power-facilities-and-projects/coastal-virginia-offshore-wind> (last visited May 27, 2021).

Based on discussions with the Public Staff, the Company understands the Public Staff to recommend that DENC collect as much output data as practical, at an hourly or daily granularity, for the following generation resource types in the Company's service territories or nearby relevant territories, as applicable: fixed tilt solar, single-axis tracking solar, dual-axis tracking solar, bifacial solar, onshore wind, and offshore wind. The Public Staff also recommends that this historical collected output data should support DENC's proposed capacity factors in its 2022 IRP filing. In addition to the modeling of future solar tracking resources based on a three-year average of the actual capacity performance of the Company-owned solar tracking fleet in Virginia, the Public Staff has also requested that the Company provide through a standing data request, on September 1 or the next business day each year, separate historical data for Company-owned fixed tilt solar facilities and Company-owned solar facilities located in North Carolina. The Company has agreed with this arrangement.

The Company understands the Public Staff to find this response sufficient to meet its concerns and that the Public Staff will investigate the data presented in future IRPs.

CONCLUSION

WHEREFORE, Dominion Energy North Carolina respectfully requests that the Commission issue an order accepting these Reply Comments, accepting its 2020 Plan and 2020 REPS Plan filed on May 1, 2020, and granting such other relief as may be appropriate.

Respectfully submitted,

/s/ Andrea R. Kells

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*Counsel for Virginia Electric and Power
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May 28, 2021

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing *Reply Comments of Virginia Electric and Power Company, d/b/a Dominion Energy North Carolina* filed in Docket No. E-100, Sub 165 was served electronically or via U.S. mail, first class postage prepaid, upon all parties of record.

This 28th day of May, 2021.

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