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For approval and certification of electric facilities: Line 
#65 115 kV rebuild across the Rappahannock River

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Mr. Joel H. Peck, Clerk
Virginia State Corporation Commission
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Re: Application of Virginia Electric and Power Company For approval and certification of electric facilities: Line #65 115 kV rebuild across the Rappahannock River

Case No. PUE-2016-00021

Dear Mr. Peck:

On behalf of Old Dominion Electric Cooperative, attached you will find the Response to the Hearing Examiner’s Report of Old Dominion Electric Cooperative in the above-referenced matter.

Please see that the Response is filed with the other papers submitted in this proceeding. If you have any questions or concerns regarding the filing, please do not hesitate to contact me.

Thank you for your attention to this matter.

Sincerely,

John A. Pirko

JAP/ab
Enclosure
cc: Service List
Mark Ringhausen
COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF
VIRGINIA ELECTRIC AND POWER
COMPANY

For approval and certification of
electric facilities: Line #65 rebuild
across the Rappahannock River

Case No. PUE-2016-00021

RESPONSE TO THE HEARING EXAMINER’S REPORT
OF
OLD DOMINION ELECTRIC COOPERATIVE

SEPTEMBER 18, 2017
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COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

APPLICATION OF
VIRGINIA ELECTRIC AND POWER COMPANY

For approval and certification of
electric facilities: Line #65 rebuild
across the Rappahannock River

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RESPONSE TO THE HEARING EXAMINER’S REPORT OF
OLD DOMINION ELECTRIC COOPERATIVE


I. EXECUTIVE SUMMARY

In this proceeding, Virginia Electric and Power Company d.b.a. Dominion Energy Virginia (“Dominion” or “the Applicant”) is seeking approval of its proposal to rebuild and operate an electric transmission line in the counties of Lancaster and Middlesex, Virginia. The subject transmission line, the Harmony Village-Northern Neck Line #65 (“Line #65”), crosses the Rappahannock River near the Robert O. Norris Bridge (“Norris Bridge”). A certificate of public convenience and necessity (“CPCN”) under § 56-265.2 of the Code of Virginia (“Code”) has been requested and the proposal has been evaluated pursuant to the standards described in § 56-46.1 of the Code.
Currently, Line #65 is a 2.2 mile overhead 115 kilovolt ("kV") transmission line that crosses the Rappahannock in a hybrid arrangement, partly attached to the Norris Bridge and partly on transmission towers. Built in 1962 and nearing the end of its useful existence, the 1.9 mile water-crossing portion of Line #65 currently comprises seven wooden H-frame structures in the water and 14 davit arms fastened to the Norris Bridge. Dominion proposes to replace both the bridge attachments and the in-water structures with ten new galvanized steel H-frame structures in the river. The proposed rebuild project would place an additional three structures in the water, allowing the removal of all of the attachments to the Norris Bridge. The new in-water structures would be built approximately 100 feet to the east of the bridge on a new right-of-way permitted by the Virginia Marine Resources Commission ("VMRC").

Dominion considered a number of alternative approaches to rebuilding Line #65, including an overhead 230 kV line option, a variety of underground/underwater options, and options where the line would continue to be attached to the Norris Bridge. Other than the overhead 230 kV option, which could be built at little additional cost, the alternative proposals were rejected as unacceptable, infeasible, or unreasonably costly. After Staff re-evaluated the projected costs, creating more of an "apples to apples" comparison, the overhead 115 kV solution still proved to be the best and the least costly alternative.

ODEC supports approval of the overhead line, at either 115 kV or 230 kV, as proposed by Dominion.

II. BACKGROUND AND PROCEDURAL HISTORY

On February 29, 2016, Dominion filed with the Commission its application ("Application") for a CPCN for the proposed Line #65 rebuild across the Rappahannock River near the Norris Bridge. Dominion proposes to rebuild approximately 2.2 miles of its existing
115 kV Line #65, including the approximately 1.9-mile crossing of the Rappahannock River. The Commission's issued its Order for Notice and Hearing on March 18, 2016, and on May 27, 2016, ODEC timely filed its Notice of Participation as a Respondent. Additional Notices of Participation were filed by the County of Lancaster, Virginia ("Lancaster"), William C. Barnhardt ("Barnhardt"), and the Save the Rappahannock Coalition, Inc. ("Coalition") (collectively, the "Opposing Respondents").

Senior Hearing Examiner Alexander F. Skirpan presided over an evidentiary hearing conducted between April 18 and April 24, 2017. As directed by his Hearing Examiner's Ruling of May 17, 2017, post-hearing briefs were filed on or before June 13, 2017. The Report of Senior Hearing Examiner Alexander F. Skirpan, Jr. ("Report") was issued on August 21, 2017. The following is ODEC's Response to the Hearing Examiner's Report.

III. SUMMARY OF THE HEARING EXAMINER'S CONCLUSIONS

In the Report, the Hearing Examiner briefly discussed all of the written testimony filed by the Applicant and the various Respondents, described the testimony of the public witnesses and of the sponsored witnesses at the several hearings held in the proceeding, and reviewed a number of the exhibits included in the record. The Hearing Examiner then proceeded to summarize what he regarded as the pertinent points brought forth in the process, leading to his conclusions and recommendations to the Commission.

The Hearing Examiner outlined the statutory requirements, discussed the need for replacement of the subject transmission line, and described what information there was in the record on the cost of various options. The impacts and effects of the proposed project on a variety of factors, including the "viewshed," economic development, public safety, the Baylor Grounds Legislation, reliability, the Lancaster County Comprehensive Plan, and "Other
Environmental Considerations" were described and considered. After discussing these factors, and ascribing a measure of the weight that several carried, the Report concluded with its overall "Weighing of Factors" and the Findings and Recommendations to the Commission.

In the Weighing of Factors section, the breadth of the evaluation in the Hearing Examiner's Report is substantially narrowed. While a number of matters were discussed and weighed, here the Report essentially dismisses many of the factors considered and states that the case can be decided by looking at merely four factors. According to the Report, the whole case "boils down to a determination of whether the added cost of an underground option is reasonable in light of the impact the Proposed 115 kV Overhead Route would have on the viewshed, economic development, and public safety."\(^1\) The Report finds that the proposed overhead route "will significantly and negatively impact the viewshed,"\(^2\) which is "vital to a local economy dependent on tourism and retirees,"\(^3\) and, when tied to "the negative impact of the added towers and fenders may have on boating"\(^4\) concludes "that the negative impacts of the Proposed 115 kV Overhead Route outweigh the added cost of an underground option."\(^5\)

In conclusion, the Report recommends two non-overhead options, the Underground Option and Soleski Variation 3, as the choices that best satisfy "the statutory requirement that the line is needed and that the corridor or route the line is to follow will reasonably minimize adverse impact on the scenic assets, historic districts and environment of the area concerned."\(^6\)

IV. DISCUSSION

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\(^1\) Report at 113.
\(^2\) Id.
\(^3\) Id.
\(^4\) Id. at 113-14.
\(^5\) Id. at 114.
\(^6\) Id.
A. Weighing of Factors

Throughout the discussion, the Report attaches weight to a number of the factors considered for purposes of a “multifactorial balancing” analysis. Ultimately, the Report finds that deciding this case is simply a matter of balancing the substantially higher cost of putting the transmission line under the river against impacts to the view, Lancaster County’s economy, and safety. Stated another way, the Report finds it is a question of whether the purported adverse impacts of Dominion’s proposal to build a 115 kV overhead transmission line on those three factors – viewshed, economic development and public safety (which the Report explains to mean the impact the proposed towers and fenders “may have on boating”) – outweigh the substantial added expense of options that place the subject transmission line under the Rappahannock River. The Report concludes, in essence, that an effort to protect the already visually compromised viewshed is worth the substantial added expense and recommends placing the transmission line beneath the Rappahannock River.

What is most striking in this proceeding is the dearth of hard evidence to support the findings and recommendations of the Report. The bulk of the findings of the Report are based on speculation, conjecture, strongly-held belief, and a sample of public opinion. Much of the supporting “expert” opinion that is offered in support of the conclusions and recommendations is either unsubstantiated or based on unreliable assumptions. Overall, the weakness, or in some cases complete absence, of factual support for the findings of the Report seriously undermine its credibility.

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7 Id. at 91.
8 Id. at 114.
9 For example, the Report recommends Soleski Variation 3 in spite of finding that “no weight” could be afforded any of the cost estimates for those options provided by Mr. Soleski.
1. Cost

The projected cost of the proposed 115 kV Overhead route is largely undisputed. Dominion's cost estimate for the 115 kV Overhead alternative, projected to be about $24 million,\(^{10}\) was not challenged by any of the Respondents and was accepted by Staff. Therefore, when the subject of the increased cost for placing the transmission line under the Rappahannock River is broached, there is a common, accepted cost baseline for comparison – the 115 kV Overhead line alternative should cost about $24 million.

Beyond that, the cost estimates are sometimes questionable, sometimes completely unsupported, and lack any substantiated accuracy. Dominion's estimate of the cost for its Underground Option, $83.6 million, was accepted by Staff,\(^{11}\) but there were certain factors identified that could result in at least a marginal reduction to that figure. The Lanzalotta 115 kV version was estimated at $49.65 million,\(^{12}\) but was thought to underestimate certain costs. The Report concluded that the cost of the Dominion Underground Option was a little above the top of the range for this method and the Lanzalotta version is below the bottom of the range of likely costs for the underground options.\(^{13}\) The Report recommended the Dominion Underground Option; at approximately $80 million (when discounted, and assuming everything goes smoothly), this cost is approximately 3.3 times higher than the 115 kV Overhead option, an extra $56 million. In ODEC's view, and likely in the view of Dominion ratepayers disinterested in the aesthetics of the Norris Bridge transmission line crossing, this is a considerable sum.

The cost of the Trenching Options (Barnhardt Option 2, Soleski Variations 1 and 3) is pure conjecture at this point. Regarding the Trenching Options, the Report found that "none of

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\(^{10}\) Report at 97.
\(^{11}\) Id.
\(^{12}\) Id. at 99.
\(^{13}\) Id. at 100.
the cost estimates provided in this case are particularly reliable or convincing.” Cost estimates provided by Mr. Soleski were afforded no weight by the Hearing Examiner, essentially rejecting those estimates. Even so, Soleski Variation 3 was selected as one of the two options recommended in the Report. It is striking that the Report chose to recommend a solution for which the cost is simply unknown. The benefit of going through the lengthy and costly hearing process only to arrive at a recommendation without reliable cost estimate calls the value of the proceedings and the recommendations of this Report into serious doubt.

Dominion’s cost estimates, likely the most credible received, were: $102.1 million for Barnhardt Option 2; $71.4 million for Soleski Variation 1; and $95.9 million for Soleski Variation 3. Since Soleski Variation 3 was one of the two options recommended in the Report, that figure will be used for comparison. Soleski Variation 3 comes in at just about 4 times the cost of the 115 kV Overhead option, representing an additional $72 million.

The Report rightly acknowledges that the likely added cost for its ultimate recommendation, to place the line under the river, is “substantial.” It is important to recognize what “substantial” means, and to understand how many dollars in increased charges to wholesale transmission ratepayers are involved in addressing the viewshed, economic development and public safety concerns of Lancaster County. The amount for undergrounding to be considered in the multifactorial balancing is somewhere between $80 and $96 million, 3 to 4 times the cost of the 115 kV Overhead option, an increase of from $56 to $72 million. This increase may not be regarded as a sizeable sum to many in the electric utility sector but to cooperatives, like ODEC

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14 Id. at 103.
15 The Report recommended that if Commission chooses an underground option, Dominion be directed to seek bids from submarine transmission cable companies for the installation of an appropriately-sized trenched underwater option, with such bids to be compared to Dominion’s estimated cost of the Underground Option. Report at 103.
16 Id. at 103.
17 Id. at 113.
and its members, who focus on providing the best service at the lowest reasonable cost, $56 to $72 million is a significant amount of money. Simply describing it as "substantial" is insufficient to explain the real added expense included in the balancing analysis undertaken here. The extra amount to be expended to meet the objective of the Report's recommendation, trying to protect an already compromised "scenic treasure," is indeed substantial and must be seriously questioned.

2. Viewshed

In assessing potential impacts on the visual environment in the area of the Norris Bridge, the Report notes that Dominion presented photographs to exhibit that it was not a "pristine" or purely natural aesthetic environment. In addition, "Truscape" renditions of the appearance of the proposed new transmission line were presented. Dominion claimed that, owing to the existing overhead transmission line, with its seven 83-foot-tall wooden H-frame towers, any visual impacts from the new location of the overhead line were only incremental. In Dominion's estimation, replacing an old, existing transmission line with a new one will change the view, but the change will not be that significant. The Report notes that Dominion also emphasized that the proposed 115 kV Overhead route "will not cross or impact any formally designated scenic rivers or visually sensitive areas such as, but not limited to, scenic byways or scenic viewpoints, recreational sites or facilities (such as biking or hiking trails); and historic resources either listed or eligible for listing in the National Register of Historic Places." The Report is highly critical of Dominion's experts and evidence but offers little or no evidence to contradict Dominion's presentation. The Report relies on an assertion from the Coalition brief stating that inserting "huge industrial transmission towers" (emphasis added) on

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18 Id. at 103.
19 Id. at 103.
the Rappahannock River "would deface a scenic treasure and inflict a loss suffered by all Virginians,"20 and public witnesses' opinions, as represented by an artist requesting that the Commission not allow "this magnificent river scape to be blighted by the proposed gargantuan towers,"21 as providing a more "meaningful assessment" of the impact of the proposed overhead transmission line on the aesthetics of the area. The Report questions the accuracy and value of the Truscape renditions of views of the subject area but relies on them, finding that certain views show merely incremental impact while others illustrate "visual clutter."22 Ultimately, while agreeing that the Rappahannock River, as viewed from the Norris Bridge, is not a pristine or untouched landscape, the Report goes on to find that the proposed 115 kV Overhead route "will significantly and negatively impact the currently uninterrupted views of the Rappahannock River and Chesapeake Bay from the Norris Bridge."23

One of the most striking aspects of the Report's findings is this final statement. It is almost as if the Norris Bridge and its old transmission line, with its seven 83-foot-tall wooden H-frame towers, do not exist or have somehow disappeared from the viewshed. In truth, any statement that refers to the current view as providing uninterrupted views of the Rappahannock River and Chesapeake Bay from the Norris Bridge is demonstrably inaccurate. The bridge itself presents a significant interruption of the view. In addition, such a statement simply and completely disregards the fact that an overhead power line already parallels the Norris Bridge, compromises the viewshed, and interferes with any view from the bridge. Plus, the bridge is a narrow, two-lane structure with no pull-offs. No one can safely stop on the Norris Bridge to

20 Id. at 104 (emphasis in original).
21 Id. at 105 (emphasis added).
22 Id. at 104.
23 Id. at 105-06 (emphasis added).
observe the view of the Rappahannock River or the Chesapeake Bay. It is not safe; it is essentially impossible.

While much is made of preserving the “natural beauty” of the area near the site of the proposed construction, the visual environment of the area already is compromised and adversely affected, by the bridge itself and its adjoining transmission line. Simply stated, there is no current, uninterrupted, pristine, natural view of the Rappahannock River and Chesapeake Bay anywhere on or near the Norris Bridge. Anyone crossing the Norris Bridge sees the existing transmission line, along with the superstructure of the bridge and walls of concrete or Jersey barrier, which serve to interrupt the view from the Norris Bridge along its entire length. Stopping on the bridge to observe the viewshed is out of the question. Rebuilding the transmission line’s overhead crossing of the Rappahannock River 100 feet downstream from the Norris Bridge will have a negligible adverse impact on the already disturbed viewshed.24

3. Economic Development

According to the Report, Dominion’s position is that the proposed 115 kV Overhead route benefits the local economy and economic development because it “provides the most reliable, long-term, and least cost electrical solution.”25 In Dominion’s view, the addition of new capacity will benefit the local economy, as “new projects, upgrades, or rebuilds will not be

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24 Equally striking is Report’s inclusion of the personal statement of the Hearing Examiner with regard to the view from the bridge. It appears, based on the Hearing Examiner’s statement in the Report, that he had formed an opinion about the view from the Norris Bridge well in advance of completing the process of building the record in this proceeding. The Report states that based on his personal experience in crossing the Norris Bridge to preside over a local hearing, the Hearing Examiner found “the view of the Rappahannock River and Chesapeake Bay is a unique and memorable view that creates a positive first impression of the Northern Neck; and that construction of the Proposed 115 kV Overhead Route will have a significant and negative impact on that view.” Report at 105. In arriving at his conclusions the Hearing Examiner appears to have been influenced by his personal experience, which led to the attribution of inordinate weight to the impact of the proposed overhead line on the view from the bridge. The Hearing Examiner’s personal thoughts about the view are not part of the record, were not subject to cross-examination, and must be disregarded by the Commission.

25 Report at 106, quoting Dominion Brief at 69.
required to reliably accommodate . . . new load.” Dominion maintained that “the Respondents have not produced any objective evidence or analysis supporting the claim that an overhead line will harm the local economy.” The Report, however, gives no recognition to the potential economic harm that a lack of reliable service or lack of capacity for new load could have on the area.

Based on the testimony of local citizens, civic leaders and a few elected leaders, in whose opinion “the wisest course for developing the economy starts with preserving the area’s natural beauty – particularly the Rappahannock River,” and the alleged importance of first impressions created by the crossing of the Rappahannock River on the Norris Bridge, the Report concludes that the viewshed is vital to a local economy dependent on tourism and retirees moving to the area. The Report finds that that economy is dependent on tourism and retirees and further finds that the Opposing Respondents have provided “convincing evidence” that the impressions developed during the crossing of the Rappahannock River on the Norris Bridge likely have an impact on attracting tourist and retirees.

In short, based simply on the subjective claims and opinions of local residents, some of whom were community leaders or local officials, the Report finds that the local economy is based on tourism and senior citizens electing to retire there and that that the viewshed is vital to that local economy. However, even allowing that the local economy depends largely on tourism and retirees, which Dominion did not dispute, the evidence of record that either of these revenue sources would be adversely affected by construction of the proposed overhead transmission facilities is non-existent.

26 Id.
27 Id., quoting Dominion Brief at 70.
28 Id., quoting Coalition Brief at 38.
29 Id. at 107.
Dominion's claim that no objective evidence or analysis of record supports the claim that an overhead line will adversely affect the local economy or economic development is accurate. No studies were performed, no surveys were taken, and no empirical evidence was collected. In short, there is no evidence in the hearing record to support the speculative notion that the proposed overhead transmission facilities would hamper tourism or deter retirees from coming to Lancaster County. There has been an overhead line along the Norris Bridge since the 1960s. Replacing the existing overhead line with a new overhead line essentially maintains the status quo. There will likely be no impact on tourism or retirees. The Report makes reference to local opinion, and perhaps these views are heartfelt beliefs, but there is simply no hard evidence that so much as one tourist or one retiree has indicated that the decision whether or not to come to Lancaster County would be different in the event the old overhead transmission line crossing the Rappahannock River was replaced by a new overhead line.

The Report in essence concludes that construction of an overhead line will deter tourists from visiting and retirees from electing to spend their golden years on the Northern Neck. However, no empirical support was provided for the conclusion that altering the view of or from the Norris Bridge will have a substantial adverse impact on development of the local economy. There is simply no evidence of record to support this conclusion. In light of the existing overhead line, a new, rebuilt overhead line should be expected to have no impact on tourists or retirees, current or future.

4. Public Safety

Two aspects of the "public safety" issue were discussed in the Report: one is Bridge Rescues; the other is Boating Impacts. The Bridge Rescues factor was given very little weight in the Report because the probability or likelihood of the occurrence or need for such rescues was
thought to be "extremely low."\textsuperscript{30} Also, once again, the existing transmission line apparently was simply overlooked. The current transmission line, cheek by jowl to the bridge, is already a substantial hindrance to a helicopter rescue of a person entering the water anywhere near the Norris Bridge. Moving the line 100 feet downstream may even benefit the situation.

Boating Impacts made up the bulk of the "public safety" issue identified in the Report. The Report concluded that "[c]losely tied to an economy dependent on tourism and retirees moving to the area is the negative impact of the added towers and fenders may have on boating."\textsuperscript{31} Again, however, there was nothing more than the suggestion of possibilities and expressions of opinion as to the impact of the proposed new overhead transmission line on boating. One witness averred that the addition of new towers and fenders will "dramatically increase the probability of boating accidents,"\textsuperscript{32} and the Coalition claimed that the probability of boating accidents will be increased by the introduction of fixed objects (\textit{i.e.}, the additional three towers, two with fenders).\textsuperscript{33}

The Report found, with little evidentiary support, that the introduction of the three added towers, with fenders on two near the center span of the Norris Bridge, will introduce new fixed objects where currently none exist and suggest "a de facto channel" that may draw more boat traffic to the center span of the Norris Bridge.\textsuperscript{34} While acknowledging that it is difficult to determine the significance or extent of the increased risk for boating accidents associated with the proposed construction of towers and fenders, the Report nonetheless found that the alleged

\textsuperscript{30} \textit{Id.}
\textsuperscript{31} \textit{Id.} at 113-14.
\textsuperscript{32} \textit{Id.} at 108, quoting Coalition witness W. Bruce Sanders, Tr. at 762.
\textsuperscript{33} \textit{Id.} at 108.
\textsuperscript{34} \textit{Id.}
The negative impact of the proposed 115 kV Overhead route on the safety of the boating public ought to be afforded "some weight."\(^{35}\)

There was, once again, a dearth of facts relative to the risks to the safety of the boating public. Dominion Witness Smith noted that that approximately 30 barges that traverse the Rappahannock River channel per year with about a 0.04% probability of striking one of the two transmission towers crossing the channel, or about a 2% chance of a collision occurring over a 50-year period.\(^{36}\) Beyond that, there was little real evidence of boating safety risk. In addition, there is a significant question of how much weight should be given this factor, which affects a very limited number of citizens of the Commonwealth. Added costs are being absorbed by all ratepayers subject to Dominion's rates; the percentage of those ratepayers considered part of the boating public, especially the elite "sailboat set," also calls in to question the degree to which the boating safety factor is a real issue to the people of Virginia.

B. Insufficiently Weighted Factors

1. Overview

In addition to examining the factors and weighting on which the conclusions and recommendations of the Report are based, it is important to review some of the other factors that were considered and either dismissed or disregarded for purposes of the final analysis or of which the evaluation was lacking. The Report rather blithely overlooks notable impacts that are inconsistent with its overriding focus on impacts to the viewshed. Among the factors that appear to have received short shrift were Other Environmental Considerations, Baylor Grounds Legislation, and Reliability.

\(^{35}\) *Id.* at 109.

\(^{36}\) *Id.* at 70, citing Rebuttal Testimony of Robert B. Smith at 2-3.
2. Other Environmental Considerations

While finding that environmental considerations (other than viewshed) favored the Overhead Alternatives, the Report writes them off as temporary and of relatively minor impact and decides that they should not be given substantial weight.37 The Report acknowledged, however, that the election to place the transmission facilities under the river would disturb more of the river bottom and would require additional right of way as compared to the Overhead Alternatives.38

There are certain other environmental disturbances caused by undergrounding which appear to have received no attention in the Report. The most notable is the noise and dust disturbances that would accompany the construction efforts associated with drilling down under the river. As noted in the rebuttal testimony of Dominion Witnesses Koonce and Berkin, there would be "significant noise disturbance" associated with the drilling and the large "shakers" which vibrate to separate spoils from drilling mud.39 This drilling and operation of the shakers normally would continue on a 24-hour basis. In addition, there are significant noise and dust impacts from excavation activities in the areas on land involved in duct bank construction, along with trucks for offsite disposal of excess dirt.40 This is a notable increase in environmental impacts associated with undergrounding that went unmentioned in the Report.

The Report also remarks that Staff noted that the either horizontal drilling or the trenching alternatives would disturb more river bottom and require additional right-of-way as compared to the Overhead Alternatives. According to the chart provided by Dominion Witness

37 Id. at 113.
38 Id. at 113, citing Staff Brief at 24.
39 Id. at 76, citing Rebuttal Testimony of Donald E. Koonce at 10. See also Rebuttal Testimony of Jon M. Berkin at 8-9.
40 Id. at 76.
Berkin and included in the Report, the Overhead Alternatives would cause only minimal disturbance of the river bottom and resuspension of an estimated 10.7 cubic yards of sediment, while the underground and trenching options could disturb an additional 3 to 6 acres of river bottom and cause resuspension of from 2,677 to 17,686 cubic yards of sediment. These are substantial differences in other environmental impacts that the Report simply ignores.

Finally, the Report takes little notice of the disparate impact on the Baylor Grounds. The Overhead Alternatives would require no additional vacating of the Baylor Grounds while, according to the Report, the underground and trenching options would require that from 5.4 to 72.79 acres of additional area in the Baylor Grounds be vacated. Once again, the Report attaches little significance to this additional disturbance in the river environment dedicated to the propagation of oysters.

In the rush to condemn the Overhead Alternatives based on the perceived impacts on the viewshed (while ignoring the existence of the current overhead line and the bridge in the viewshed), the Report fails to give adequate consideration or attach sufficient weight to these other environmental impacts caused by the underground and trenching options. The Commission should recognize these added impacts and consider them as part of its review of the Report and its recommendations and conclusions.

3. Baylor Grounds Legislation

The Report did dedicate a brief sub-section to the Baylor Grounds Legislation, recognizing that "obtaining legislation to vacate additional public oyster grounds and further regulatory approvals weigh against the Underground Option and the Trenching Options." The Report went on to conclude that "there is nothing in the record to suggest that such actions and

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41 Id. at 84.
42 Id. at 109.
43 Id.
approvals may represent a barrier, or are otherwise unlikely to be obtained," and attached little weight to this factor.\textsuperscript{44}

In Staff’s testimony, the Baylor Grounds are described as “state-owned subaqueous bottom areas that are managed for the propagation of oysters.”\textsuperscript{45} Legislative approval was required in order to authorize the VMRC to grant and convey to Dominion a right-of-way for an overhead transmission line through the Baylor Grounds. Legislative approval by the Virginia General Assembly was sought and received to permit approximately 8.27 acres of the Baylor Grounds to be vacated for the Overhead Alternatives. No additional area of the Baylor Grounds would be required to be vacated for the Overhead Alternatives. However, the underground and trenching options would require additional legislation vacating between an additional 5.19 acres to 72.79 acres of the Baylor Grounds.\textsuperscript{46}

According to the Report, nothing in the record suggests that there would be any barrier to obtaining legislative approval. On its face, this conclusion seems a bit naïve. Judicial notice could be taken of the fact that the Virginia General Assembly meets only part of any given year, alternating between short and long sessions, and the Commission could recognize that obtaining legislative approval of any proposal presents a significant hurdle to be overcome. If the underground or trenching options are chosen, the need for additional legislation should be recognized as a possibly significant barrier to the completion of the proposed infrastructure improvement at issue here. While it may not be an insurmountable barrier, it certainly creates a degree of uncertainty, and certainly presents an issue regarding the additional time and project

\textsuperscript{44} Id.

\textsuperscript{45} Id. at 62, quoting Direct Testimony of Neil Joshipura at 40.

\textsuperscript{46} Id., quoting the Direct Testimony of Neil Joshipura at 41. The economic impact of the loss of these oyster grounds was not reflected in the record.
costs that would be needed to obtain the needed legislative approval and complete the project. The conclusions of the Report on this issue should be rejected.

4. Reliability

The Report states that Dominion maintained that "the reliability factor that the Commission is required to consider . . . strongly favors . . . the selection of an overhead — as opposed to an underground — transmission option."\(^47\) Dominion's transmission system comprises approximately 6,490 miles of lines operating at voltages of 69 kV and above, and 98.72% is overhead construction.\(^48\) Dominion's experience operating these 6,500 miles of transmission lines demonstrates that overhead transmission lines are more reliable than underground lines.\(^49\) Staff agreed with Dominion that the Overhead Alternatives are the most reliable options for addressing the identified system need.\(^50\)

Dominion witness Dennis D. Kaminsky provided evidence of Dominion's experience concerning unplanned sustained outage rates and repair times for both overhead and underground transmission lines. Underground lines experience more than 1.5x as many sustained outages compared to overhead lines. According to Kaminsky's testimony, the rate of sustained outages per mile per year for overhead transmission lines is 0.00803, as compared to 0.01300 for underground transmission lines.\(^51\) In addition, underground lines generally experience significantly longer outages due to lengthy repair times. Locating a failure on an underground transmission line can be difficult and time-consuming. Each cable must be tested to identify the failed cable, then complex fault location equipment is used to calculate a distance to the fault. Depending on the location and nature of the damage, the cables must either be repaired

\(^{47}\) Report at 110, quoting the Dominion Brief at 31.
\(^{48}\) Exh. 104, Koonce Rebuttal at 2-3.
\(^{49}\) Exh. 93, Kaminsky Rebuttal at 5-6.
\(^{50}\) Report at 110.
\(^{51}\) Id.
with a splice or the entire section between existing splices must be removed from its protective pipe casing and replaced.\textsuperscript{52} The average repair time for overhead transmission lines is 1,113.0 minutes (approximately 18.5 hours), as compared to 35 days for underground transmission lines.\textsuperscript{53}

The Report concluded that "these broad averages tend to support Dominion Energy's claim that overhead transmission lines are more reliable than underground transmission lines."\textsuperscript{54}

In spite of this evidence and these findings, the Report failed to include a finding that overhead transmission lines have proven more reliable than underground transmission lines.

C. Statutory Requirements and Commission Precedents

In a section titled "Statutory Requirements," the Report reviews the provisions of the Code generally applicable to transmission line proceedings. Reference is made to the Utility Facilities Act,\textsuperscript{55} particularly focusing on § 56-265.2.A.2 of the Code, under which it is unlawful for any public utility to construct facilities, except ordinary extensions or improvements in the usual course of business, without first obtaining a certificate of public convenience and necessity from the Commission. While noting that all of the alternatives considered in the proceeding will be operated at 115 kV, the Report also notes that for overhead transmission lines of 138 kV or more, § 56-265.2.A.2 of the Code requires compliance with the provisions of § 56-46.1 of the Code. In spite of the apparent question regarding the applicability of § 56-46.1, the Report remarks that "[n]onetheless, Staff and all of the parties utilized the analysis outlined in § 56-46.1 B for this case"\textsuperscript{56} and proceeds to discuss that Code section at length. This section of the Report

\textsuperscript{52} \textit{Id.}
\textsuperscript{53} \textit{Id.}
\textsuperscript{54} \textit{Id.}
\textsuperscript{55} Chapter 10.1 of Title 56, §§ 56-265.1 to 56-265.9 of the Code.
\textsuperscript{56} Report at 90.
concludes with some brief remarks regarding certain Virginia Supreme Court interpretations of these statutory provisions.

The Report does not include any analysis of prior Commission decisions that provided guidance for situations in which transmission facilities were placed underground. This in spite of such an analysis having been undertaken, in considerable depth, in a fairly recent, highly contested transmission line proceeding. Undergrounding was considered in the Haymarket proceeding. The Hearing Examiner’s Report therein laid out the “exceptional and limited circumstances” in which underground transmission lines have been approved. Undergrounding has been selected in situations where:

1. No overhead [right-of-way] is available and an overhead transmission line is not feasible;
2. The cost of undergrounding a transmission line is comparable to or less than the cost of overhead construction;
3. An underground transmission line is approved as a pilot project under House Bill 1319, as amended and reenacted;
4. An underground transmission line is approved on an experimental basis to allow experience to be gained with extruded dielectric cross-linked polyethylene (“XLPE”) cable;
5. Where a third part agrees to pay for the costs of underground construction; and
6. Where a special tax district is created under § 15.2-2404 F of the Code to impose a tax or assessment on electric utility customers to pay the additional incremental cost to underground a transmission line.

None of these six criteria are applicable in the circumstances under consideration in this proceeding.

58 Id. at 66-67 (extensive internal citations omitted).
In Haymarket, the Hearing Examiner’s Report found that “any recommendation to underground the [subject] transmission line would be contrary to an extensive body of past Commission precedent holding that a public utility’s general body of ratepayers should not be required to subsidize underground construction to mitigate local impacts and concerns.”\textsuperscript{59} Such a contrary recommendation has been made here. Had the Report undertaken a comparable analysis of Commission precedent or considered the analysis in the Haymarket Hearing Examiner’s Report, a very different set of conclusions and recommendations likely would have been offered. Judging by prior Commission determinations, the facts and circumstances under consideration in this proceeding do not support a recommendation of undergrounding.

V. CONCLUSION

The Report in this proceeding places extraordinary emphasis on the viewshed of, and from, the Norris Bridge. While identifying three primary areas of focus – the viewshed, economic development, and public safety – against which to weigh the substantial (triple to quadruple) cost increase involved in placing the proposed transmission line under the Rappahannock River, it is clear that the viewshed is the Report’s principle interest, focus, and concern. The discussion of economic development is derivative of the viewshed issue, focusing on the impact alleged adverse effects to the viewshed would have on tourism and retirees’ decisions to settle in Lancaster County. Public safety is a somewhat contrived concern, relating to boating safety, which is in turn related to the local economy, which ties back to the alleged concern for protecting the viewshed. The multifactorial balance boils down to only two factors: concern for the viewshed versus the substantial cost increase involved in undergrounding.

ODEC maintains that the purported concern for the viewshed is contrived, artificial and demonstrably unrealistic. The proposed overhead route does not cross or impact any formally

\textsuperscript{59} Id. at 68.
designated scenic rivers or visually sensitive areas, scenic byways, scenic viewpoints, recreational sites or facilities, or historic resources either listed or eligible for listing in the National Register of Historic Places. Contrary to the fantasy entertained by the Opposing Respondents and many of the public witnesses, and adopted by the Report, the viewshed under consideration is not natural, pristine, or currently unaffected by development, particularly considering the existing Norris Bridge and overhead transmission line, horizontal infrastructure long serving the best interests of Virginia in general and Lancaster County in particular. When considering the viewshed and the impact of the proposed overhead transmission line rebuild, the existing Norris Bridge and existing overhead transmission line simply cannot be ignored. It is not a blank slate. The proposed overhead transmission line is not a new construction intruding on a previously unspoiled scene of natural beauty. It is, as Dominion maintains, the least expensive, most robust, and most reliable long-term solution, which adopts the most common construction approach (overhead), which can be accomplished most easily and safely in the shortest time frame.

Prior Commission precedent is clear, holding that the general body of ratepayers of a public utility should not be required to subsidize underground construction to mitigate local concerns and alleged adverse impacts. A similar conclusion should be reached in this proceeding. None of the Commission’s criteria for electing underground construction, as established by the Commission in previous cases, is applicable here. The recommendation that the proposed transmission line be placed under the Rappahannock River should be flatly rejected. The Commission should approve construction of a 115 kV Overhead transmission line across the Rappahannock River as proposed by Dominion.
Respectfully submitted,

OLD DOMINION ELECTRIC COOPERATIVE

[Signature]

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September 18, 2017
CERTIFICATE OF SERVICE

This is to certify that copies of the foregoing Response to the Hearing Examiner’s Report of Old Dominion Electric Cooperative were served this 18th day of September 2017, either electronically, by hand, or by first-class mail, postage prepaid, on the following:

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