Surry-Skiffes Creek-Whealton 500 kV Project

Comparison of National Trust for Historic Preservation Animation Video and Dominion's Truescape's Photos/Simulations

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This document provides a bullet-point comparison of the National Trust for Historic Preservation (NTHP) animation video and Dominion Virginia Power's ("Dominion") Truescape photos/simulations of potential views of Dominion's proposed Surry-Skiffes Creek-Whealton 500 kV project ("Project"). Both are posted under View Shed Simulations on the U.S. Army Corps of Engineers' ("Corps") project website.[1]

- The Truescape photos depict the actual and existing landscape (*e.g.*, topography and vegetation), and the simulations of the proposed transmission line are made on photos that depict the actual and existing landscape; the NTHP animation contains simulated landscape (*e.g.*, topography and vegetation) on that does not appear to bear much, if any, relationship to the existing landscape. For example:

    - As the NTHP animation begins, it provides a sparse representation of what appears to be Black Point, the eastern tip of Jamestown Island. The type and lack of vegetation is not consistent with the actual, existing vegetation in that area, as seen on the National Park Service's ("NPS") website. *See* https://www.nps.gov/jame/island-loop-drive.htm (last visited Sept. 28, 2016). A similar problem exists with respect to the vegetation depicted near Kingsmill and at Carter's Grove, and to a lesser extent along the Colonial Parkway.

    - Record evidence demonstrates that due to the bend in the river and location of and dense vegetation on Hog's Island, two towers from the proposed line would be very distant, but visible from Black Point while small portions of other towers would be visible behind Hog Island. Yet, on the NTHP animation video, a view from Black Point shows Hog's Island as completely flat and apparently devoid of vegetation and nearly the entire line is depicted as visible. This same problem is carried throughout the animation video.

    - NTHP's failure to accurately depict the landscape (*e.g.*, topography and vegetation) results in the transmission line towers always being viewed against a background of light blue sky at and near the horizon. This fails to account for the fact, as shown the Truescape photos and simulations, that because of the relatively dense and mature vegetation on both sides of the river, from many viewpoints, the towers, to the extent visible, would be viewed against a darker background into which their visibility would diminish and fade, in many cases to point of a loss of any contrast.

[1] Corps, Dominion Power Surry-Skiffes Creek-Whealton Permit Application, *at* http://www.nao.usace.army.mil/Missions/Regulatory/SkiffesCreekPowerLine.aspx (last visited Sept. 28, 2016).

- Consistent with NPS Guidance developed with Argonne National Laboratories,[2] Truescape's photos and simulations are taken from key observation points ("KOPs") where viewers are most expected to be, and to depict worse case scenarios. As such, photos and simulations from the KOPs are taken near ground level at the average height of an individual. NTHP's animation video does not provide views from KOPs. Instead, it provides an aerial, soaring-like view of the landscape with a focus on the proposed transmission line that one might see from a helicopter flying from Black Point, over and along the Colonial Parkway, to Kingsmill marina and resort, to Carter's Grove, and finally near a tower. We note, however, that the NTHP animation video does appear to attempt a view from ground level from one spot along the Colonial Parkway and from the lawn on Carter's Grove.

    - The NTHP animation video fails to account for the effect of distance on how an object is perceived by the viewer. For example, in minute 1:31 of the video we see a view of the transmission line from over the top of the mansion at Carter's Grove. In that frame, the size of what would represent the nearest 8 transmission line tower is the essentially the same, despite the fact that the towers should appear much smaller to the viewer the farther away they are. The Truescape photos and simulations do not have this issue.

- Because the Truescape photos and simulations depict the actual and existing landscape (*e.g.*, topography and vegetation), they show the colors in the landscape as they currently and naturally exist. The NTHP's animation video provides vivid colors of landscape features that overly and unnaturally accentuate contrasts between and among landscape features.

    - The Truescape simulations use a dull gray color for the transmission line towers, which is consistent with the actual color of such towers; NTHP uses what appears to be black for the color of the towers, overly accentuating contrasts.

- Dominion provided an explanation of Truescape's methodology, how its simulations are consistent with federal guidance, and how it creates simulations that are accurate and reliable (available on the above noted website);[3] to our knowledge, NTHP did not provide any explanation of how the animation video was made, who made it, or why it is or is not accurate and reliable.

- The Corps confirmed the accuracy and reliability of the Truescape photos/simulations with personal, in-the-field observations; to our knowledge, it has not done so for the NTHP animation video.

The forgoing demonstrates that, unlike the Truescape photos and simulations, the NTHP animation video provides the Corps an unreliable and inaccurate estimation of what views of the

[2] NPS, Guide To Evaluating Visual Impact Assessments for Renewable Energy Projects, Natural Resource Report NPS/ARD/NRR—2014/836 (Aug. 2014).

[3] Dominion, Photo Simulation Overview (April 7, 2016, revised June 7, 2016 and August 12, 2016).

Project would look like from various vantage points and historic properties with the area of potential effects.