CHRISTIAN | BARTON, LLP
Attorneys At Law

(804) 697-4140 CLIONA MARY ROBB crobb@cblaw.com

November 30, 2005

BY HAND

Mr. Joel H. Peck, Clerk
State Corporation Commission
Document Control Center
Tyler Building, First Floor
1300 East Main Street
Richmond, VA 23219

Re: Application of Virginia Electric and Power Company
For a certificate of public convenience and necessity
for facilities in Loudoun County: Pleasant View – Hamilton
230 kV Transmission Line and 230 kV-34 .5 kV
Case No. PUE-2005-00018

Dear Mr. Peck:

Enclosed for filing are an original and fifteen copies of the Northern Virginia Regional Park Authority's *Pre-filed Direct Testimony of Mr. Hafner, Mr. McCray and Mr. Simmons* in the above matter.

I also am enclosing an additional copy of this cover letter. I would appreciate it if you would have it date-stamped and returned to me with my courier.

Thank you for your assistance.

Sincerely,

Cliona M. Robb

Cliona M. Robb

Enclosures
cc: Service list
Office of Hearing Examiners

739042.1

909 East Main Street, Suite 1200 | Richmond, Virginia 23219-3095
804.697.4100 tel | 804.697.4112 fax

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the Pre-filed Direct Testimony of Mr. Hafner, Mr. McCray, and Mr. Simmons was hand-delivered or mailed, first-class postage prepaid, this 30th day of November, 2005, to the parties listed below.

Cliona Mary Robb

James C. Dimitri, Esquire
Stephen H. Watts, II, Esquire
McGuire Woods, LLP
One James Center
901 East Cary Street
Richmond, Virginia 23219

Wayne N. Smith, Esquire
Office of General Counsel
State Corporation Commission
1300 East Main Street
Richmond, Virginia 23219

Charles W. Hundley, Esquire*
Jonathan B. Macdonald, Esquire
Cherry, Seymour & Hundley, P.C.
Eighth & Main Building, Suite 475
707 East Main Street
Richmond, Virginia 23219

Matthew D. Pethybridge, Esquire
Mark A. Stallings, Esquire
Carr & Porter LLC
355 Crawford Parkway, Suite 520
Portsmouth, Virginia 23704

C. Meade Browder, Jr.
Senior Assistant Attorney General
Division of Consumer Counsel
Office of Attorney General
900 East Main Street, 2nd Floor
Richmond, Virginia 23219

John W. Montgomery, Jr. Esquire
Montgomery & Simpson, LLLP
2116 Dabney Road, Suite A1
Richmond, Virginia 23230

David H. Moyes, Esquire
Moyes & Levay, PLLC
21 N. King Street
Leesburg, VA 20176

Richard R. Saunders, Jr., Esquire
Sevila, Saunders, Huddleston & White PC
30 N. King Street
Leesburg, VA 20176

John H. Rust, Jr., Esquire
Rust & Rust, P.C.
10370 Main Street
P.O. Box 460
Fairfax, Virginia 22038

Michael C. Gartner
Whiteford Taylor & Preston, LLP
1025 Connecticut Avenue, N.W.
Washington, DC 20036

Anthony J. Gambardella
Woods Rogers, PLC
823 East Main Street, Suite 1200
Richmond, Virginia 23219

Ben R. Lacy, IV, Esquire
Sands Anderson Marks & Miller
801 East Main Street, Suite 1800
P.O. Box 1998
Richmond, VA 23218

Sally V. Gillette
J. R. Minchew
John E. Rinaldi
Walsh Colucci Lubeley
Emrich & Terpac, PC
1 E Market Street, 3rd Floor
Leesburg, VA 20176-3014

Catherine T. Slater, Esquire
9005 John Mosby Highway
Post Office Box 238
Upperville, Virginia 209185

Thomas B. Nicholson
James M. Snyder
Macaulay & Burtch, PC
1015 East Main Street, 4th Floor
Richmond, Virginia 23223

739042.1

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Application of	)	
	)	
VIRGINIA ELECTRIC AND POWER COMPANY	)	
	)	
D/B/A DOMINION VIRGINIA POWER	)	
	)	Case No. PUE-2005-00018
For a certificate of public convenience and	)	
necessity for facilities in Loudoun County:	)	
Pleasant View-Hamilton 230 kV Transmission Line	)	
and 230 kV-34.5 kV Hamilton Substation	)	

Pre-filed Direct Testimony
of

Thaddeus Edward Hafner

on behalf of

Northern Virginia Regional Park Authority

November 30, 2005

PRE-FILED DIRECT TESTIMONY
OF
THADDEUS EDWARD HAFNER

Q. *Please state your name and position.*

A. My name is Thaddeus Edward Hafner and I am Director of Planning and Development for the Northern Virginia Regional Park Authority.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the Northern Virginia Regional Park Authority (the "Park Authority") regarding the proposed upgrade of transmission facilities by Virginia Electric and Power Company ("Virginia Power") as described in Case No. PUE-2005-00018 (the "Application") and related materials.

Q. What is the purpose of your testimony?

A. My testimony provides an overview of the Park Authority testimony in this proceeding and then specifically address issues related to the route selection process.

Q. What is your educational and professional background?

A. I have a Bachelor of Science in Economics from Virginia Tech. I have been employed by the Park Authority since 1990 as follows: Construction Manager (1990-1994), Development Coordinator (1994 – 1996), Director of Planning and Development (1996 – present). Prior to working for the Park Authority, I spent four years as a Construction Superintendent for a homebuilder in northern Virginia.

Q. What are your responsibilities in your current position?

A. I oversee a staff of eight employees and a wide variety of functions at the Park Authority, an independent government agency that manages 20 Regional Parks and more than

10,000 acres of land. My areas of responsibility include park planning, creating annual and long-range capital budgets, permitting and licensing of non-park uses on Park Authority lands, land and easement acquisition, development project design, construction oversight, retirement plan management and information technology. During my 15 years at the Park Authority I have worked on numerous W&OD Trail projects and am extremely familiar with the entire 45-mile long park.

Q. Please provide an overview of the Park Authority testimony in this proceeding.

A. The Park Authority's testimony will address five main topics. First, I will address the route selection process. Second, Paul McCray will provide a general description of the W&OD Railroad Regional Park ("W&OD Park"). Third, Paul McCray will discuss the portion of the W&OD Park that would be most directly impacted by the construction of transmission lines within the W&OD Park pursuant to the Hearing Examiner's October 28, 2005 ruling in this proceeding that "[i]t is evident that the W&OD Trail should, and will be, considered as a potential route for the proposed transmission line." Fourth, Charles Simmons will discuss the impact of the construction and maintenance on the W&OD Park.

Q. Are you familiar with the requirements governing the selection of routes for transmission lines in Virginia?

A. Yes, I am generally familiar with these requirements based on the Park Authority's participation in this proceeding and in previous transmission line proceedings.

Q. What are these requirements?

A. As I understand it, Virginia law requires the State Corporation Commission to make sure the route selected will reasonably minimize the adverse impact of transmission lines on

scenic assets, historic districts, and the environment of the area concerned, which includes consideration of the effects of the line on the health and safety of the person in the area concerned. Also, the State Corporation Commission has guidelines that address the minimum requirements for transmission line applications, and these guidelines say that, where practical, transmission line routes should avoid national historic places as well as parks, scenic, wildlife and recreational lands that are officially designated by public authorities.

Q. Are you familiar with the process used by Virginia Power in its route selection for the routes included in its Application in this proceeding?

A. Yes, I'm very familiar with that process. When Virginia Power first addressed where the proposed route should be located, back in April of 2004, the only route Virginia Power was considering was a route within the W&OD Park. The Park Authority was very concerned that Virginia Power was not even considering alternative routes. The section of the park that Virginia Power would use is the last pristine section of the park. I know that everyone refers to the W&OD as a "trail," but I'm using the term "park" very deliberately here. The W&OD Park really is a lot more than a bike trail, and I think the extraordinary outpouring of public protest over routing this line within the park shows that there is a lot more at stake here than simply running some transmission lines along a bike trail.

Q. Could you describe generally how routing a transmission line within the park complies with the requirements for routing transmission lines in Virginia?

A. Yes: it does not comply with the requirements at all, and that is precisely why the route was not included in Virginia Power's application even though, prior to receiving public input, the W&OD Park was the only route Virginia Power proposed.

Q. Why does a route within the W&OD Park not comply with requirements for routing transmission lines in Virginia?

A. The unique nature of the W&OD Park as a whole, and especially the unique nature of that section of the park where the transmission lines would be constructed, means that constructing and maintaining transmission lines with the park will exacerbate rather than minimize the adverse impact of these lines. As shown in Appendix A, Virginia Power has indicated that constructing the lines will require clearing the entire 100 foot width of the park. This means 26,000 trees will be destroyed and replaced with towering transmission lines, completely devastating a precious scenic asset in the midst of increasing development in Loudoun County. This means the setting for historic railroad sites will drastically altered. This means wildlife habitats and recreational use of the Park will be shut down for months during construction and significantly altered once the Park reopens. This means over 800 hundred residents living along the Park will be negatively impacted by the loss of a pristine, wooded setting right outside their backyards. Unlike any other route under consideration, the benefits of the W&OD Park's scenic assets and historic districts are enjoyed by millions of users, by hundreds of near-by homeowners, by local wildlife, and by the region as a whole. In essence, routing transmission lines within the W&OD Park is the perfect formula for maximizing the adverse impact on scenic assets, historic district, and environment of the area. There simply is no route that comes close to having the same amount of adverse impacts.

Q. Do you think the W&OD Park should not be considered as a potential route?

A. That's not what I'm saying at all. I'm saying, based on the extensive participation of the Park Authority in the route selection process, that the W&OD Park was extensively considered as a route and, indeed, was the only route that Virginia Power initially proposed. Other routes were only considered after an extraordinary outpouring of public opposition to routing the line in the W&OD Park. My point is that the W&OD Park has already been extensively considered and, for the reasons I have already noted, Virginia Power correctly removed W&OD Park route as a viable alternative from its application.

Q. Testimony by Mr. and Ms. Saunders in this case claims that if the Commission *eliminates the W&OD Park as a route for the transmission line, it will be doing so* because it is "swayed by political pressure or protest" by Respondents like Save the Trail, whose officers and directors "have a personal stake in opposing and preventing the installation of transmission lines with Dominion's existing right of way." What is your assessment of this claim?

A. I'm puzzled by the Saunders' position. They state that Virginia Power's preferred route affects the rear of their property and 38 other homeowners. It makes no sense for the Saunders to claim that opposition to a route entirely along the W&OD Park, which would clearly affect many more adjacent property owners and park users, is merely "political pressure or protest." Virginia Power had every incentive to include the W&OD Park as one of the routes for its transmission line: that was the least expensive option and involved acquiring the least amount of additional right of way. The shortest and cheapest solution is not always the best solution, and that is certainly the case here. The routing requirements do not mandate use of existing rights of way. They simply mandate

consideration of existing rights of way. That consideration was duly given by Virginia Power, as was thoroughly explained in the Application.

Q. What is your assessment of the claim in the Saunders' testimony that any signatures on a "Save the Trail" petition should be discounted because the question was not framed as "should Dominion place its transmission lines within its existing rights-of-way along the W&OD Trail or should it place them in another location, which might be across your property and/or your neighbor's property"?

A. The Saunders provided no evidence to support this claim. They say that they doubt that anyone who signed the petition, other than those living along or near the trail, considered the fact that a vote in support of saving the trail might be a vote to place the transmission lines across or near their own properties. If so many misguided people signed the petition, I would think the Saunders could provide the names of several such people, but they failed to provide one name, much less show that a significant number signed the petition under false pretenses.

Q. What is your assessment of the claim in the Saunders' testimony that "it has long been public knowledge that Dominion retained and continues to own a right-of-way *along the W&OD Trail of the installation of transmission lines, if necessary*"?

A. I would be surprised if that is the case. I am familiar with a lot of literature describing the W&OD Park, and I know many people that actively support the park. There may certainly be some literature, and there may certainly be some members of the general public, that were aware that Virginia Power retained a right of way among sections of the Trail that had no transmission lines, but I would not agree that this fact was general public knowledge.

Q. What is your assessment of the claim in the Saunders' testimony that "those who owned land or have built houses along or near the W&OD Trail should not now be heard to complain about the possibility of transmission lines being placed along that existing easement"?

A. My general reply is that land uses change, and a land use that was appropriate decades ago when the easement was granted may not be appropriate now. That is why Virginia law gives the State Corporation Commission oversight over the routing of transmission lines. If simply owning an easement were all that was required, there would be no need for Commission oversight. I've seen public comments opposing a route in the W&OD Park that address this issue far better than I could. Here is an example from an email that Robin O'Malley of Vienna, Virginia sent on June 6, 2004 to Fairfax County Board of Supervisors Chairman Connolly and Supervisor Smyth:

> As you well know, publicly available open space is a precious and dwindling resource in northern Virginia and indeed the entire metropolitan region. The W&OD Trail is heavily used and highly valued by residents of northern Virginia. This applies both to sections that are close to where we live and work (I live within ¼ mile of the trail and use it several times a week in the Vienna area), but also to those sections we visit less frequently.
>
> In particular, the section of the trail near the terminus in Purcellville (and especially the area around Paeonian Springs) is one of the most beautiful places to ride a bicycle I have ever seen. It is shaded, quiet, cool, and damp in the heat of the summer, and the views and scenery are pure heaven —Loudoun County and northern Virginia at its best.
>
> Dominion Power proposes to locate a high tension line along this beautiful stretch of our public parkland. ***I am a planner, and understand fully that many rails-to-trails projects were funded with the condition that they may be re-converted to transportation or power line use, and I understand that Dominion owns rights of way on the section they propose to use.*** And, working in the environmental field, I know all too well that NIMBY-ism is, and how it can be used to stop important

projects—like new power access for the region.

That is all well and good, but those decisions were made 30 years or so ago, and things have changed. It is simply not acceptable to ask the residents of northern Virginia to trade off an irreplaceable resources in order to meet the important public need for power. There simply MUST be alternative that—although they may cost more (and as a Dominion Power customers, I am willing to pay a bit extra)—do not result in the destruction of something that cannot be rebuilt. We would not run the lines through a cemetery, or a church, nor would we run it through someone's property without compensating them. The public cannot be compensated for the loss of this resource, and Dominion should not be able to use this location simply because it is a less-costly route."

Q. What is your assessment of the claim in the Saunders' testimony that "[p]lacing transmission lines along the trail will not damage the trail or in any way interfere with the use of the trail"?

A. The mere fact that the W&OD Park is not the preferred route in the Application, and only accounts for a small portion of one of the alternate routes, is proof that placing the lines within the W&OD Park will fundamentally change the character of the park. Contrary to the Saunders' assertion, there are thousands of people who oppose routing in the park because it will ruin the park, not because it will lower their property values. To understand the depth of feeling that these folks have about this particular stretch of the Park, you really have to visit the Park yourself, and I hope that the Hearing Examiner will take an opportunity between now and the start of the hearing to view the route along the Park. One of the public comments I've seen that best captures what makes folks so passionate about this section of the Park is an email that Dennis Roth of Reston, Virginia sent on July 2, 2004 to Savethebiketrail@aol.com. This is somewhat lengthy, but it really gives you a good feel for what makes this section of the park so special:

> From 1994 to 1997, I was a biker who spent most of his time on the W&OD Trail. Although I lived in Reston (and still do), rode a slow bike, and was in my early 50s, I would occasionally make the long roundtrip from Reston to Purcellville, the highlight of which was always the final 11 miles from Leesburg to Purcellville. I gave up biking in 1997 for a variety of reasons but would often think of the joy I had experienced on that stretch of trail. I retired in January 2004, and thanks to a relative who reconditioned my old bike, I began riding again in May. For several weeks I stayed close to home, but when I learned of the transmission line threat to the W&OD from trail-side flyers and the www.savethetrail.com website, I pushed up my timetable to Purcellville. I set off on the morning of June 30. I had expected to see many changes because of the population growth and development in Loudoun County, but I was pleasantly surprised to find the trail looked mostly as I remembered it. After passing through Herndon and Sterling and crossing the Rt. 28 bridge, the spaces and scenery open and so does the mind. Approaching Leesburg, more trees are encountered on the sides of the trail, a refreshing harbinger of things to come. Soon after leaving Leesburg, one's eyes are filled with picturesque horse farms, switch-backs, a stone underpass and bank, and foothill vistas, but best of all are the tunnels and cathedrals of embowering trees through which one rides in shade and bliss. (I had forgotten about the extraordinary quarter mile of trail where very tall overarching trees give the traveler the feeling of being in a Gothic Cathedral.) Then as one approaches Purcellville, one's cyclical exertions are rewarded most gloriously. Breaking out of the closed canopy, one suddenly rides into a large rolling field of light. For those with eyes to see it, this is the best possible experience. My earthly eyes will never see a better heaven. But any diminution of the tree cover will impair it because it is the contrast between the tree darkened path and the big and open field that makes it possible. Others can talk quite rightly about the loss of tourist dollars and of a regional recreational treasure if the trees are cut, but for me and many others it will be about the loss of these sights. This is an enchanted trail. I cannot imagine it without all its trees.

Mr. Roth is exactly right: clear cutting trees and running transmission lines through the Park will hurt tourism and will scar a regional recreational treasure, but what folks are most passionate about are the trees. Even those like Mr. Roth, who use and enjoy the sections of the Park that have always had transmission lines, know that the far western

end of the trail is a special place. Matt Procter of Purcellville expressed a similar sentiment in his May 27, 2004 email to Pamela Gottfried and John Bailey:

> I respectfully ask that Dominion Power seek an alternative route to get needed power to this region.
>
> I know you own the easement. And I certainly understand your rights in this issue. And I think we all agree that more power is needed in this fast-growing region. But to take a recreational trail—and one of the most unspoiled and beautiful segments of it—and deforest it to put power lines overhead?? Certainly your company has to see that whatever cost savings this approach will provide will never cover the costs in terms of public relations and community good-will.
>
> ...Power lines have to go somewhere and someone will not be happy about it. But it is as clear to me as daylight that this is easily the worst of many bad alternatives.

Mr. Procter has it exactly right: power lines have to go somewhere and someone will not be happy about it. The Park Authority does not know what routing is best for the new transmission lines, but it does know that routing the lines within the W&OD Park is the worst possible alternative.

Q: Is the opposition to a route within the W&OD Park in this proceeding different than the opposition to such routes in other transmission line proceedings?

A: Yes, the opposition is much greater here. In the Phase II proceeding in Loudoun County, Virginia Power had proposed early in its routing process a route along another stretch of the W&OD Park, but public opposition to that route was so extensive, and the impact on residential property was so great, that Virginia Power did not include the W&OD Park in its preferred or alternate routes. The Park Authority participated in the route selection process in both cases, and both the depth and the breadth of the opposition is much greater in this proceeding.

Q. *Can you provide examples of how the opposition to routing in the W&OD Park is much greater in this case?*

A. First, the level of public participation has been extraordinary in this route selection process, and this is all at the grass roots level. Save the Trail is entirely separate from the Park Authority and was formed for the purpose of opposing any routing of the transmission lines along the W&OD Park. I understand that their pre-filed testimony will include the petition that has reportedly been signed by over 5000 people opposing a route within the W&OD Park, and I've never seen that kind of grass roots support in a relatively small transmission proceeding like this before. Second, the level of local government support has also been extraordinary. I've attached as Appendix B letters of support and resolutions passed by the Town of Herndon, Loudoun County, Fairfax County, Arlington County, the City of Falls Church, the Town of Leesburg, the Town of Purcellville, the Town of Hillsboro, the Northern Virginia Regional Commission, and the Great Falls Citizens Association. Some of these local governments—Loudoun County and the Town of Leesburg-- felt so strongly about preserving the W&OD Park that they are also actively participating as respondents in this proceeding. Third, members of the General Assembly, particularly Delegate May, have been quite active in seeking a solution that avoids overhead lines along the W&OD Park, and I've attached as Appendix C communications from members of the General Assembly in support of keeping transmission lines off the W&OD Park. Fourth, groups that have never before participated in transmission line proceedings involving the W&OD Park, such as the Sierra Club and the Virginia Association of Parks, have deemed this issue significant

enough to express their support, as shown in Appendix D, for keeping transmission lines off the W&OD Park.

Q. Is there anything else about the route selection process you would like to comment on?

A. There are two things. First, I'd like to commend Virginia Power for taking the public participation process so seriously that, for the most part, it eliminated its initial routing choice from the Application. It is impossible to select a route that has no public opposition, but it is possible to eliminate the worst routing alternatives. That's exactly what Virginia Power did even though that meant selecting alternative routes that involved greater construction costs. Second, I'd like to point out that what originally got the W&OD Park largely excluded from the Application was a grass roots effort based upon the attributes of the park. There was no glitzy PR campaign or special studies. The Park Authority's testimony continues that approach. We believe that the Park speaks for itself: we've included our standard trail guide, our standard volume on the history of the Park, our usual studies of user demographics, and our typical video showing how the Park gets used. All of these are "off the shelf" products that we use everyday in the operation and management of the Park. None of these were specifically prepared for this litigation. In fact, the only item we prepared especially for this litigation is a hand-held video taken from the back of a pick-up truck, and you can tell from the production values that this is a home-spun product.

Q. Does this conclude your pre-filed direct testimony?

A. Yes.

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COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Application of	)	
	)	
VIRGINIA ELECTRIC AND POWER COMPANY	)	
	)	
D/B/A DOMINION VIRGINIA POWER	)	
	)	**Case No. PUE-2005-00018**
For a certificate of public convenience and	)	
necessity for facilities in Loudoun County:	)	
Pleasant View-Hamilton 230 kV Transmission Line	)	
and 230 kV-34.5 kV Hamilton Substation	)	

Pre-filed Direct Testimony

of

Charles Simmons

on behalf of

Northern Virginia Regional Park Authority

November 30, 2005

738889

PRE-FILED DIRECT TESTIMONY
OF
CHARLES SIMMONS

Q. Please state your name and position.

A. My name is Charles Simmons and I have been retained to provide assistance to the Northern Virginia Regional Park Authority (Park Authority) in regard to the application of Virginia Electric and Power Company (VEPCO) to construct a 230kV transmission line from Pleasant View Station to the proposed Hamilton Station.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the Park Authority.

Q. What is the purpose of your testimony?

A. The NVRPA has requested that I review the Application of VEPCO in Case No. PUE-2005-00018 and materials related to these proceedings, address the potential impacts of VEPCO's proposed project on the property of the Park Authority (Washington & Old Dominion Railroad Regional Park or W&OD Park) and make recommendations as to how the impact of the project can be minimized or mitigated.

Q. What is your educational and professional background?

A. I have a Bachelor of Science Degree in Electrical Engineering from West Virginia Institute of Technology and have participated in postgraduate Management training programs at the University of Michigan as well as the Massachusetts Institute of Technology Senior Executive Program. I am a Registered Professional Engineer in the Commonwealth of Virginia and in the State of West

Virginia. I was employed by Appalachian Power Company (APCO) from 1956 until my retirement in 1996. Following my retirement, I have remained active with a variety of consulting assignments. Most pertinent to these proceedings is my background as the executive responsible for the design, construction, maintenance and operation of the transmission lines of APCO. The last seventeen (17) years of my employment at APCO were as the Vice President – Construction and Maintenance.

Q. Have you testified before this Commission in the past?

A. Yes. I have testified before this Commission on a number of occasions in regard to line siting cases, rate cases and various other matters.

Q. In your opinion should the W&OD Park be considered as a route for the proposed transmission line?

A. No. The adverse impacts of such a line on the W&OD Park are simply too great to accept when viable alternatives exist.

Q. Can you describe some of the adverse impacts that are of concern?

A. Yes. The greatest impact, and one that would continue to exist for the life of the transmission line, would be the removal of vegetation. Approximately 75% of the W&OD Park in this area is currently forested and would require clearing for a transmission line to be constructed. The removal of the vegetation and the buffer it supplies would completely change the character of this portion of the Park. The large trees in the Park currently provide a screen for users of the Park's trails, including walkers, runners, horseback riders and bicyclists establishing a sense of being on a quiet, rural lane away from the crowds. The W&OD Park experience

would be greatly diminished by the removal or any significant reduction in the vegetative screen that currently exists.

Q. Why is it more important to protect the trees and other vegetation in the W&OD Park than along other available alternative routes?

A. First, the very purpose of a park is to preserve a natural setting for the general public. In addition, the Commission should keep in mind that every tree that is saved in the W&OD Park because the transmission line is not routed there will be preserved forever. Unlike private property on which the line might be routed, the W&OD Park will not be subject to private development or other intrusions which might change the natural setting notwithstanding the Commission's preservation efforts in this case.

Q. Are there other long- term impacts in addition to the removal of vegetation?

A. The visual impact of the structures themselves (approximately 85 steel poles 4 ft. in diameter and over 100 ft. tall) would be extremely disruptive to the W&OD Park. The limited width of the Park would preclude any meaningful screening of the structures from the paved portion of the Park's trails used by walkers, runners and bicyclists, as well as the graveled portion used by the horseback riders. To visualize the impact, consider that such each structure would be the width of a full sheet of plywood and would extend upward the equivalent of the height of 15 full sheets of plywood. The 6 conductors along with the insulators and hardware would also add to the visual impact, and there would be little or no opportunity for mitigation.

Q. Are there long-term impacts due to maintenance and operation?

A. Yes. These are primarily related to the periodic vegetation control practices. The structures and conductors should not require frequent maintenance. Vegetation control, however, would have to be done with the frequency determined by the extent of the removal of vegetation in each maintenance cycle. Although there is a Memorandum of Understanding in place between the Park Authority and VEPCO establishing Vegetation Management Guidelines, that document relates to the maintenance of existing rights-of-way, not the construction of additional lines. Even if new lines are maintained in accordance with the guidelines, the net loss of vegetation - and especially of the vegetative canopy over the Park's trails – will be devastating to the Park and can not be restored so long as the transmission line is in place. Any replacement plantings would have to be much shorter height at maturity in order to avoid interference with the lines, so the existing mature forest would become a shrub habitat, forever changing the character of this section of the Park.

Q. Can you give us an idea of the impacts that would occur during construction?

A. Yes. While it is clear that the vegetation removal and the presence of the structures would have a tremendous long-term negative impact on the W&OD Park experience, the actual construction would also impose shorter term but very significant negative impacts. The presence of equipment and workers involved in the clearing and removal of vegetation (including tree trunks and large limbs), drilling, excavation, delivery and placing of concrete for foundations as well the barriers involved would preclude safe utilization of the Park for significant periods of time. Similarly, the use of large cranes and tractor trailers for delivery

and erection of structures, as well as the equipment required for installation of the conductors would require closing of the Park for all practical purposes.

Q. Please provide examples of the construction steps and some of the equipment that would be involved.

A. The following list is not comprehensive, but identifies some of the principal pieces of equipment expected to be used during the different phases of construction:

Clearing of rights-of-way

- Shear Dozers --The Erosion and Sedimentation Control Specifications included in VEPCO's Application state that the clearing of right-of ways is to be performed by shear cutting with a shear dozer and by hand cutting with power saws.
- Logging Equipment --The clearing of well over 8 miles of right of way will require the use of log skidders as well as large logging trucks for removal of the logs.

Installation of Foundations

- Large Auger Trucks--It is anticipated that the foundations for the structures will be at least 6 ft. in diameter and 15 to 20 ft. deep. A truck capable of driving an auger of this size will weigh in excess of 15 tons.
- Concrete Trucks--Assuming a foundation size of 6 ft. in diameter and 16 ft. in depth, approximately 18 cubic yards of concrete will be required for each foundation. This will require multiple truckloads for each of the 85 foundations required according to VEPCO's estimate of 700 ft. spans.

While the actual loaded weight of the concrete trucks will vary to some degree, the gross vehicle weight can easily exceed 35 tons with a minimum of 2 trucks required per foundation for a total of 170 truck loads.

Installation of Structures

- Tractor-Trailers--The delivery of the steel pole structures will require the use of extended trailers to accommodate the 100 ft. plus length of the proposed structures.
- Cranes--The height of the structures will require a large crane with a boom length of 75 to 80 ft. minimum.

Installation of Conductor

- Dozer or Helicopter -- Prior to pulling the conductor into position it is necessary to place a pulling line (normally rope) between the structures at each end of the section to be installed. The older method is to use a dozer while the more environmentally friendly method is to use the helicopter. I am recommending, as a mitigation measure, that the pulling lines be installed by helicopter in order to reduce the adverse impacts of construction on the vegetation.
- Tensioning and Pulling Equipment--Conductor reels are placed on the tensioner (6 required with weights varying from 3.5 tons each to 5.5 tons each depending on reel length chosen) and pulled under tension by a self powered puller. This equipment will need to be set up on or near the right-of-way. The stringing of the six 636 MCM conductors and the 1

ground wire will require multiple set-ups to accommodate the reel sizes chosen (approximately 8000 ft. or 13,000).

Support Operations

- Smaller Vehicles--Numerous additional vehicles would be expected to be utilized for surveys, engineering, staking of structures, delivery of insulators and hardware, inspections, transportation of workers, etc.

Q. Can you summarize the impact you would expect on the W&OD Park as a result of construction?

A. Given the limited number of suitable access points to the W&OD Park from existing roadways, and the narrow limited flat space within the Park, it is clear that much of the vehicular traffic discussed above would have to use significant portions of the Park's trails for construction access. The extent of the travel (literally hundreds of trips) and the weight and size of the equipment involved will undoubtedly seriously damage if not destroy the existing paved and graveled trails, and would necessarily require removal of and cause incidental damage to vegetation in addition to the clearing required for right-of-way.

The schedule included in the Application indicates an estimate of one year from the start of right-of-way clearing until the line is placed in service. When this time period is coupled with the time necessary for restoration, utilization of the W&OD Park would entail the closing of all or major portions of its trails for well over a year.

Q. Would there be any impact outside of the W&OD Park which would result from the placement of a transmission line within the Park?

A. Yes. The removal of the vegetation in the W&OD Park, as stated previously, will greatly diminish the Park experience by the users of the Park's trails. We cannot, however, lose sight of the fact that this same vegetation removal will eliminate the buffer between the Park and adjacent properties (including the historic areas of Leesburg and Paeonian Springs) and create a significant adverse visual impact on the hundreds of dwellings within 500 ft., and possibly beyond.

Q. What other comments do you have in regard to any consideration of placing the line in the W&OD Park?

A. Placing the proposed line in the W&OD Park is contrary to both the intent of the SCC's own Guidelines and the accepted position of the SCC Staff in a previous case with essentially the same factual circumstances.

Q. What specific portions of the SCC Guidelines for Transmission Line Applications are you referring to in this regard?

A. Section III. A. This section requires the utility to provide the number of dwellings within 500 ft. for all routes that were considered. This specific requirement indicates to me recognition by the SCC that dwellings within 500 ft. are impacted by the presence of a transmission line and, therefore, this number should be a major factor in determining line location. The number of dwellings within 500 ft. of a route in the W&OD Park is 841 or 22 times the 38 dwellings within 500 ft. of VEPCo's proposed route. In Case No. PUE-2002-00702, the SCC Staff concurred with VEPCO's decision to not propose a route utilizing the W&OD Park due to there being approximately 600 dwellings within 500 ft. of the Park.

The Hearing Examiner, while noting that such a route was considered and rejected prior to filing, also concurred with the decision in issuing the Final Order.

Q. Are there other portions of the SCC Guidelines that are relevant to this Application?

A. Yes. Section 2 of the Federal Energy Regulatory Commission (FERC) Guidelines, which are appended to and considered to be a part of the SCC Guidelines, states: "Where practical, rights-of-way should avoid the national historic places listed in the National Register of Historic Places and . . . and parks, scenic, wildlife and recreational lands, officially designated by duly constituted public authorities." The W&OD Park certainly meets the test of being a park as well as a recreational area and it is officially designated as such, and certainly this section is the most scenic portion of the entire Park. Additionally, it is my understanding that the W&OD Park is eligible for listing in the National Register of Historic Places.

Q. Is it possible that the adverse impacts of placing the proposed project in the W&OD Park could be effectively mitigated?

A. No. Although there are a number of possible mitigation measures that might be employed to reduce the adverse impacts of the project, the impacts on the Park would be so devastating that, even if these measures are employed, the impacts on the Park would still be unreasonable. Of course, if the line is going to be routed through the Park notwithstanding the terrible impacts it would have, all available mitigation measures ought to be used just as they should be on any other route. It would be much more reasonable, however, to use such mitigation measures to

lessen impacts on other available routes where mitigation can be employed more effectively.

Q. What steps are you recommending that VEPCO take to minimize the impact of any routes that may ultimately be certificated?

A. While the impact of vegetation removal would be particularly damaging to the W&OD Park experience, the removal of vegetation on any route chosen should be minimized to the greatest extent possible compatible with reasonable reliability concerns. The Commission should require this as a condition of granting any certificate. Toward that end, I also recommend VEPCO be required to perform a vegetation inventory on any certified route and prepare a detailed right-of-way clearing plan. The inventory and the resultant clearing plan should identify the existing low growth species to be left undisturbed, the trees proposed to be removed and the trees to be pruned. The use of such vegetation inventories and clearing plans was required by the SCC in Case No. PUE970766 granting Appalachian Power authority to construct transmission facilities. The careful consideration and planning that they require would help ensure that removal of vegetation will be minimized. The parties affected by the certified route should have the right to review the clearing plan and submit any objections to VEPCO and the SCC Staff prior to any vegetation disturbance. Another mitigation measure that should be required by the Commission is the use of a helicopter to install the necessary pulling lines and the use of tension stringing of conductor during construction in order to minimize such removal and/or pruning. This will permit development of a clearing plan that will require the removal of

substantially less vegetation. Additionally, the use of a shear dozer for clearing rights-of-way should be explicitly prohibited on any route as such use is not compatible with retention of desirable vegetation to the extent possible.

Q. Are there further steps you would recommend be taken by VEPCO to minimize the impact of the project?

A. Yes. Any overhead line routes, on or off the W&OD Park, should be constructed by VEPCO utilizing nonreflecting conductors and subdued colors for structures. Structure locations should be selected by VEPCO subject to review and approval by SCC Staff to assure that views are preserved to the extent practicable. Again, these are mitigation steps previously found to be appropriate by the SCC in PUE970766.

Q. Would these mitigation measures be equally effective on routes on or off the W&OD Park?

A. The mitigation measures proposed including a vegetation inventory, development of a clearing plan that minimizes vegetation removal, utilization of non reflecting conductor and subdued colors for structures represent known "best practices" and should be required by this Commission as a base line for any transmission line. The effectiveness of these measures, however, will vary on the site-specific circumstances. In the case of the W&OD Park, the relatively narrow corridor created by the Park's boundaries limits the opportunity for mitigation. To illustrate, the use of non-reflecting conductors and subdued colors for structures can significantly reduce the visual impact when the point of observation is even a few hundred ft. away from the line. The degree of mitigation will depend in large part on the background and what screening may exist to assist the blending of the structure into its surroundings. In

the case of the Park, the structures would be within a very few feet of the users of the Park's trails. The sheer size of the structures along with their proximity would create a visual impact to the Park users that cannot be mitigated by changing the surface characteristics.

Q. In the event an underground route is proposed, what steps would you recommend be taken by VEPCO to minimize adverse impacts?

A. I would strongly recommend the use of extruded insulation conductors (for example: cross linked polyethylene commonly referred to as XLPE) installed in a concrete duct bank, as opposed to pipe type conductors, for any underground route. While this would be my preference for any underground route, the impact of a pipe type installation would be particularly harmful to the W&OD Park.

Q. Why do you recommend the XLPE installation for any underground proposals?

A. The use of the XLPE type conductors in a duct bank installation minimizes access requirements with manholes at 2000 ft. to 2500 ft. intervals while continuous access is required for pipe type installations. The use of a duct bank with spare conduits and a spare conductor or conductors provides the opportunity to return a transmission line to service following an outage in less time than a pipe type installation and in many cases in less time than an overhead facility. To illustrate, in responding to an interrogatory from the Town of Leesburg, VEPCO cited an example of the repair of a pipe type cable failure. The total time out of service was 35 days of which 27 days or 77% were spent containing, controlling, obtaining and refilling the di-electric fluid used in the pipe type cable. The solid material insulation

also eliminates the environmental concerns present with the insulating fluid used in pipe type installations.

COMMONWEALTH OF VIRGINIA
STATE CORPORATION COMMISSION

Application of	)	
	)	
VIRGINIA ELECTRIC AND POWER COMPANY	)	
	)	
D/B/A DOMINION VIRGINIA POWER	)	
	)	Case No. PUE2005-00018
For a certificate of public convenience and	)	
necessity for facilities in Loudoun County:	)	
Pleasant View to Hamilton 230 kV Transmission Line	)	

Pre-Filed Direct Testimony

of

Paul E. McCray

on behalf of

Northern Virginia Regional Park Authority

November 30, 2005

DIRECT TESTIMONY
OF
PAUL E. MCCRAY

Q. Please state your name and position.

A. My name is Paul McCray and I am Director of Park Operations for the Northern Virginia Regional Park Authority.

Q. On whose behalf are you testifying in this proceeding?

A. I am testifying on behalf of the Northern Virginia Regional Park Authority (the "Park Authority") regarding the proposed upgrade of transmission facilities by Virginia Electric and Power Company ("Virginia Power") as described in Case No. PUE2005-00018 (the "Application") and related materials.

Q. What is the purpose of your testimony?

A. I will describe the purpose of the Park Authority. I will also describe the scenic, wildlife, recreational, and historic aspects of the W&OD Railroad Regional Park ("W&OD Park" or "Park"). Finally, I will describe what negative impacts additional transmission facilities would have on the W&OD Park.

Q. What is your educational and professional background?

A. I am a graduate of George Mason University with Bachelor of Individualized Studies degree in Park Management. I was promoted to Park Operations Director in March 2005. Prior to that, I served as Park Manager of the W&OD Park for nineteen years. Prior to that, I worked in management positions with the Park Authority for nine years.

Q. What are your responsibilities in your current and previous positions?

A. As Director, I oversee the operations of 20 parks in the NVRPA system, and oversee 92 full-time and approximately 500 seasonal employees. As W&OD Park Manager, I was responsible for the operation of the Park and in doing so, provided for the safety, convenience and enjoyment of the trail users. I supervised maintenance including mowing, trimming, asphalt repair, sign placement, litter control, and I supervised a staff of nine seasonal and full-time employees. I also interpreted the human and natural history of the Park, protected its resources, and helped coordinate the non-park activities, such as utility impacts, on the property. I worked with the 700-member Friends of the W&OD, a non-profit citizens organization dedicated to the preservation, enhancement and promotion of the Park.

Q. Please explain the purpose of the Park Authority.

A. The Park Authority is a multi-jurisdictional, special purpose agency established to provide a system of parks of regional significance within the Northern Virginia area. The Park Authority strives to preserve open space amid the continuing development of the region, and offers recreation opportunities and facilities not characteristically provided by local parks and recreation departments. The Park Authority places special emphasis on the preservation of resources that are significant from an environmental, historical, cultural, recreational or aesthetic perspective.

The Park Authority operates twenty major regional parks and manages various historic and conservation-oriented facilities, lands and trails throughout Northern Virginia, including the W&OD Park. These assets encompass more than 10,000 acres. In 1959, the Park Authority was organized pursuant to state statute to plan, acquire, develop,

operate, and maintain a system of regional parks in Northern Virginia. The mission of the Northern Virginia Regional Park Authority is to enhance the communities of Northern Virginia and enrich the lives of their citizens through the conservation of regional, natural, and cultural resources. NVRPA provides diverse regional recreational and educational opportunities, and fosters an understanding of the relationships between people and their environment.

The local governments participating in the Park Authority are the City of Alexandria, Arlington County, City of Fairfax, Fairfax County, City of Falls Church, and Loudoun County. The Park Authority's governing body consists of twelve members, two appointed by each supporting jurisdiction.

Q. Please describe the W&OD Park generally.

A. The W&OD Park is a 45-mile long, 100-foot wide linear park that runs east to west and traverses Northern Virginia from the City of Alexandria line in Shirlington (mile zero) through Arlington and Fairfax Counties to the Town of Purcellville in Loudoun County (mile 44.5). The Park serves as a scenic recreational corridor of historical significance running through the urban heartland of Northern Virginia. Built on the railroad bed of the former Washington & Old Dominion Railroad, it connects a series of wayside parks and provides access to the rural countryside beyond the beltway. Attached as Appendix E is a trail guide containing a map of the Park. Along its route, the Park offers a variety of viewsheds and experiences for trail users. The Arlington County end of the Park is close to Washington, D.C. and as such is fairly urban, with dense residential, commercial and industrial development adjacent to the Park. As the trail heads west, the surrounding land becomes more suburban through Fairfax County, with increased development densities in

the City of Falls Church and the Towns of Vienna, Herndon and Leesburg. The western portion of the Park in Loudoun County is rural, with agricultural lands and low-density development near the park.

Q. Please describe recreational aspects of the W&OD Park.

A. The Park features paved and unpaved multi-use trails, wayside facilities, natural areas for wildlife viewing, history exhibits, and parking areas for trail users. Park users enjoy 45 miles of continuous asphalt paved surface, and 33 miles of gravel path. The trails are used by bicyclists, walkers, runners, hikers, skaters, wheel-chair users, equestrians, cross-country skiers, bird watchers, and commuters. Appendix G is a video showing Park uses. The unique design of the Park encourages frequent use. Visitors use it before, during, and after work hours, and as shown in the Assessment of User Demographics, Preferences, and Economics for the W&OD Park prepared by the Virginia Department of Conservation and Recreation attached as Appendix H ("DCR Study"), 26% of local users live directly adjacent to the trail and reported travel time of zero. Local residents use the Park year-round for recreational and fitness purposes, representing a significant health benefit to the community. As noted in Section IV of the Study of Trail Users attached as Appendix I, many people develop routines that bring them to the Park on a fairly regular basis.

Q. Please describe the Park users.

A. Approximately two million visitors use the Park annually. According to the Park's annual resident surveys attached as Appendix F, about 15% of Park visitors on weekends are from outside Northern Virginia, including Massachusetts, New York, Pennsylvania, District of Columbia and Maryland. 22% are from Loudoun County, and the remaining

63% are from other Northern Virginia locations. The extensive use of the Park by visitors from all across Northern Virginia and from locations outside Virginia show that the Park truly is a regional and national treasure which is heavily used and highly valued both inside and outside Virginia.

Q. Please describe community service uses.

A. The Park hosts more than three dozen fund-raising events (such as walk-a-thons) each year representing hundreds of thousands of dollars raised for charitable purposes.

Q. Please describe how the Park is utilized for commuting.

A. Another significant attribute of the W&OD is that it serves as the major non-motorized transportation route in Northern Virginia, providing reduced vehicular traffic volumes and associated air quality benefit. Many persons use the trail and its connector links as a means for commuting to jobs or Metro stations.

Q. Please describe historical aspects of the W&OD Park.

A. The W&OD Park is the former property of one of the earliest railroads in our nation's history. Authorized in 1847, the railroad that became the Washington and Old Dominion shaped the future of Northern Virginia as towns, communities and industry developed along the route the train followed. Until its abandonment in 1968, the W&OD Railroad hauled products from the richest farmland in Virginia, carried commuters into Washington, D.C. and brought in the materials that built Northern Virginia. The W&OD Park has been declared by the Commonwealth of Virginia to be National Register of Historic Places eligible and is in the process of being nominated to that register as shown in Appendix J, which contains the nominations form.

The Park Authority has an active program for interpreting the historical and cultural significance of the W&OD Railroad. Currently the Park Authority has over 50 exhibits and has more planned for 2006. These are combination exhibits concerning the general history of the W&OD Railroad, as well as site-specific exhibits about stations and bridges. Many of the railroad structures still exist within the W&OD Park and are maintained by the Park Authority and others. The Park Authority recently updated and published a book and video/dvd on railroad history as an interpretive tool, and these are attached as Appendix K and Appendix L. In my position as Park Manager, I gave on-site slide shows in Northern Virginia for historical societies and libraries.

Q. Please describe the W&OD Park's natural environment.

A. Most of the landscape along the W&OD Park is left in its natural state to preserve green space and provide wildlife habitat. Park interpreters, local teachers, private environmental groups and amateur naturalists use the Park as a resource for plant and animal study. These groups have identified approximately 450 wildflowers near the trail and more than 100 species of birds. Wildlife in the Park includes foxes, river otters, deer, native rodents, beaver, turtles, snakes, and other reptiles, a variety of hawks, and owls, resident and migratory birds both upland and aquatic.

Q. Please describe any distinctions or honors the W&OD Park has received.

A. The W&OD Park is a model of success nationwide for rails-to-trails projects. The innovative concept of using such a narrow strip of land for a park has attracted national attention. In 1987, the W&OD Park was designated a National Recreation Trail and given the distinction of being on the Department of Interior's national register of trails. As noted on its website (www.americantrails.org/nationalrecreationtrails), the National

Recreation Trails Program recognizes and promotes trails from across the country that exemplify an important part of America's landscape for recreation, conservation, health and transportation. National Recreation Trails are designated by the Secretary of the Interior or the Secretary of Agriculture in response to an application from the trail's managing agency or organization to recognize exemplary trails of local and regional significance. Managers of trails with state-of-the-art design are especially encouraged to apply for National Recreation Trails designation.

Q. Can you quantify the benefits provided by the Park?

A. Yes, to some extent. I know that users interviewed for the Study of Trail Users attached as Appendix H pointed to the Park as having a positive effect on the quality of life in Northern Virginia, and I know that easy access to the Park is an amenity that influences housing choices by those who enjoy using the Park or simply enjoy close proximity to a natural environment. The DCR Study found on page 21 that use of the W&OD Park contributes about $12 million of recreation expenditures annually, and it also found on page 24 that the net economic benefit to Park users—i.e. the amount of welfare that users would lose if the Park were unavailable—ranges from $14.4 million to $21.6 million annually, and that estimate was conservative because it excludes commuters and ancillary visitors.

Q. Would the recreational, historic, health, scenic, and other attributes you have described be adversely impacted by the new transmission facilities?

A. Yes, I think they would because it is a mistake to view the Park in isolated segments. What makes the Park special—what makes it a regional and national recreational treasure—is the variety of experiences it offers. The Park offers a breadth of experiences,

and irreparably changing the most unspoiled and beautiful segment of the Park by clear removing magnificent old trees would have devastating repercussions. Certainly locating overhead transmission lines anywhere in Loudoun County would impact those in the immediate vicinity of those lines. However, locating overhead transmission lines within the last forested stretch of the Park would have repercussions far beyond the Leesburg area because of the unique nature of the Park, which is enjoyed by users throughout Northern Virginia and even outside Virginia.

Q. Describe the existing electric facilities within the W&OD Park in relation to the *location of certain other facilities of the Park.*

A. The portion of the W&OD Park that is most likely to be affected by the new transmission facilities described in the Application is 100 feet wide from its northern edge to its southern edge. One of the most significant features of this Pleasant View to Hamilton section of the Park is that it has no transmission lines. This is in sharp contrast to the eastern section of the Park, which is encumbered by a 230 kV transmission line between Shirlington Road in Arlington and Pleasant View Substation east of Leesburg, generally running along the south side of the property several feet from the centerline of the old railroad track bed and the paved trail. The Park contains an eight- to ten-foot wide paved path generally located along the centerline of the Park and an eight-foot wide gravel path that generally meanders along the cut and fill sections of the Park.

Q. Do the existing transmission facilities in the eastern part of the Park have an adverse impact on the W&OD Park?

A. Yes. Vegetation within the Park is routinely cleared to protect the existing electric facilities. Although a Memorandum of Understanding was entered into relatively recently

regarding maintenance activities by Virginia Power , the impact on the Park is still great. Few trees are allowed to mature to full height. When I became Park manager of the W&OD Park in 1985 and began working with Virginia Power foresters, I was successful in getting Virginia Power to stop its practice of clear-cutting all vegetation and to instead perform selective clearing of tall trees, which permitted understory species and immature taller species to grow up to a height of 15 feet and taller. However, in 2004, Virginia Power reverted to its pre-1985 practices and performed major maintenance of the transmission lines that removed many of the trees that had previously been allowed to grow up to a height of 15 feet. I have attached as Appendix M photos showing the drastic impact of this clear cutting. These photos are in sharp contrast to the scenes pictured in the recreational use video attached as Appendix G that illustrate recreational use of the Park: when this video was taken, the clear cutting had not occurred and the Park was much "greener." Now, only tree species that will mature below 15 feet are allowed to grow. This cutting affects the view in the Park, reduces or eliminates shade for trail users, and makes utility lines and adjacent development much more visible. In addition, the undercutting affects diversity of plant species and therefore the animal variety that rely on the vegetation.

Q. Please describe issues concerning limiting access to the Park.

Even routine maintenance and reconstruction on the existing electric lines disrupts Park users because these activities involve use of vehicles and equipment that block the trail, and heavy equipment that damages trail surfaces as shown in Appendix N. In addition, overhead work can be a hazard from falling wires or other materials and tools, and often trail users are diverted to sub-standard temporary paths. The problems described above

are often exacerbated by lack of coordination by Virginia Power and its contractors during maintenance activities. This lack of coordination hampers the Park Authority's ability to provide guidance on public protection, such as proper detour routes, signage, surface and width of temporary paths, overhead protection, and notice of ingress/egress of vehicles in areas that are normally off-limits to cars. In addition, while major access points can be monitored, the unique nature of the Park makes it accessible to individual users from innumerable points along the Park, such as a backyard, and this makes it difficult to completely block access by individual users.

Q. *Please describe generally the section of the Park that is impacted by the Hearing Examiner's decision to notice the use of the W&OD Park.*

A. As I discussed above, the unique design of the Park means that drastically impacting the western end of the Park will degrade the overall Park experience. The impact of the new lines will be far more drastic than what the Park has had to cope with in the past because the western portion of the Park is "pristine" territory. Because there are no transmission lines, the Park vistas are unspoiled and there are no clear cutting or maintenance issues such as those that mar the natural beauty of other sections of the Park.

Q. What do you mean when you refer to the "western" end of the Park?

A. I am referring to the final section of the Park, which begins at mile marker 30.5 (Cochan Mill Road) adjacent to the Pleasant View substation and ends in Purcellville just beyond mile marker 44.5. Although the transmission facilities may end at mile marker 42.5, I view the Park from mile marker 30.5 to the end of the trail as being a singular experience directly impacted by the addition of transmission lines on this last section of the Park.

Q. Please describe the Park area where the transmission lines would first emerge from the existing Pleasant View substation.

A. From the existing Pleasant View substation to the Route 7/15 Bypass, the paved trail is built primarily on a fill section approximately 10' to 15' high, and the gravel trail either abuts the pavement on the fill or follows the natural grade at the bottom of the embankment. The north side of the Park, and where there is a median between the two trails, contain maples, oaks and other mature trees and shrubs, since this area has not been cleared in decades. Tuscarora Creek flows east along the north side of the park, with the creek running close to and in some areas, eroding the base of the railroad embankment. Undeveloped floodplain and industrial lands lie north of park, and the back yards of single family and townhouse residences (built in the last 10 years) abut the southern park boundary. In this section of the Park, the south side has mostly understory and fewer trees because of an existing electric distribution line paralleling the boundary, and because of clearing for the residential subdivision. Storm drainage passes under the railroad embankment via an original railroad stone box culvert. The trails cross Tuscarora Creek on a low-water ford adjacent to the original stone railroad bridge abutments and piers. Then Tuscarora Creek flows along the south side of the trails, which are abutting on top of an approximately 20' high narrow embankment. The gravel trail is considerably more narrow here because the top of the embankment is so narrow, and there is no room at the bottom of the slope due to the creek and floodplain.

Q. Please describe the section of the Park as you continue west along the trail into Leesburg.

A. Within the Town of Leesburg (inside the Route 7 bypass), the trails generally are on fill

sections up to about 15' high. The paved and gravel trails generally run on the same elevation, either abutting or separated by a narrow grass median. Surrounding land use throughout the town limits includes residential and commercial development. There are not as many tall trees due to existing distribution lines near the park boundaries, encroaching development, as well as Tuscarora Creek and its tributaries running along and within the park. Within the town are the original stone railroad bridge abutments across Tuscarora Creek, the ruins of a 125 year old lime kiln and the site of the former Leesburg passenger and freight rail stations. The station sites are marked with interpretive historical panels.

Q. Please describe the next section of the Park, as you leave Leesburg and continue west along the trail.

A. West of Leesburg, the park has some major fill areas about 50' high that actually cause the property to be more than 100' wide in order to contain the slopes. Conversely, there are steep cut sections about 20' deep. The paved trail is only 8' wide with narrow shoulders due to the significant cut and fill. The gravel trail often abuts the paved trail because the flat space at the top of the fill or the bottom of the cut is so confined. The slopes are steeper than 2:1 in both the cut and fill sections. In some areas, the gravel trail meanders along natural grade over the steep slopes. This section between Leesburg and Purcellville contains the most significant tree cover of the entire 45-mile park. This area has not been cleared since at least 1968, so it contains mature woods, with trees many feet in diameter towering over the trail and creating an arch-like canopy over the trails. There is minimal understory due to the heavy shade from the mature trees. There is virtually no shrub or small tree layer, and the ground cover is leaf litter, ferns and forbs rather than grasses. Surrounding land use is primarily agricultural and large-lot residential.

Q. What impact would new transmission facilities have on scenic assets of the W&OD Park?

A. New transmission facilities would be devastating to the Pleasantview to Hamilton section of the Park. As noted in Appendix A, Virginia Power is proposing to clear cut the entire 100 foot width of the Park during the construction process, and the cathedral-like bowers of trees would be replaced by transmission towers over 110 foot tall. Appendix O contains photos showing unique features of this western-most section of the Park. Appendix P is a 50 minute video documenting a ride through this portion of the Park. Appendix Q contains a "before" picture and an "after" picture I prepared to give some sense of what the permanent impact on vistas from the Park would be. Please note that the "after" picture does not capture the devastated landscape that will occur immediately following the clear cutting, which will be even worse than the scenes depicted on Appendix N, which dealt with maintenance rather than construction activities. Instead, the "after" picture assumes that the vegetation has fully grown back, which would certainly not be the case until years after the construction has commenced. Appendix R contains an American Forest report discussing the adverse impacts on air quality of removing 26,000 trees. I prepared a preliminary estimate that 26,000 trees would be destroyed by the new transmission facilities. This estimate was based upon counting the number of trees on each side of the trail up to existing fence lines (which were assumed for this purpose to be the approximate boundary of the W&OD Park) within 50-foot increments along the Park in half a dozen places between the west side of Leesburg and the proposed Hamilton substation site. Using these counts, I determined a rough estimate of the typical number of trees (2-inch diameter or greater) in wooded sections of the Park I then cut that rough estimate in half, to deduct for areas in

that section of the Park that are not fully wooded (for example, within downtown Leesburg) to come up with what I consider to be a conservative estimate of 26,000 trees. It is important to keep in mind that this section of the Park contains fewer lower-story trees than other sections of the Park because the forest has been largely undisturbed since 1968, permitting very tall trees like oak, maple, and locust to flourish and shade out lower-story trees. These tall trees would be removed forever, and when you couple that with the rugged terrain—rolling hills, the cut and fill sections for the railroad bed—the erosion created by the transmission line construction will be considerable, and it is quite likely that the construction will seriously degrade the railroad embankments as well.

Q. What impact would new transmission facilities have on the historic assets of the W&OD Park?

A. This portion of the Park contains some of the most well-preserved and striking historic assets. The more rural nature of this section has permitted historical assets to be preserved to a greater extent than other sections of the Park. In the map contained in Appendix J (the National Register of Historic Places nomination form), I have highlighted those features that are within this area. The interpretive environment for these features would irreparably changed, and the extensive construction may also damages these features.

Q. What impact would new transmission facilities have on recreational features of the W&OD Park and the overall environment of the Park?

A. The new 230kV line would create the adverse impact of the maintenance procedures discussed above. Because of the need to maintain vertical and horizontal clearances to electric structures, new utility lines also constrain the area available for future trails and other park uses. Routine clearing of existing vegetation in the Park for construction and

maintenance of new lines alters the view in the Park, eliminates any existing tree buffer between the Park and adjacent properties, and reduces wildlife habitat and green space. Additional power line maintenance operations and associated vehicular access disrupt the public's safe and convenient use of the trails. Actual or perceived health risks from additional electric lines may affect some persons desire to use and enjoy the Park. The existing location of the gravel path may also need to be eliminated, narrowed, or rerouted.

Q. *What impact would construction of new transmission facilities have on the W&OD Park?*

A. This topic is addressed more thoroughly in Mr. Simmons' testimony, but I can respond based upon my practical experience in dealing with transmission line construction and maintenance within the Park. The construction of new transmission facilities would also have a considerable adverse impact on the Park. First of all, the 11-mile long construction project would likely cause closure of this section of the W&OD Trail Park for more than a year. Because of the unlimited pedestrian access points, it is virtually impossible to keep the public from entering the park, and trail users still would be exposed to dangerous conditions. Major public protection measures would be necessary, since large equipment is required to deliver, assemble and erect new tower structures (18-wheelers, cranes), excavate and pour concrete for pole foundations (drill rigs and concrete trucks), and pull new wires, but access and work areas, as well as detour trail areas, are limited by the narrow width of the Park, and narrow cut and fill sections within the Park. Additional vegetation may be lost for construction access routes. Furthermore, limited area is available for material and equipment storage because of the narrow and steep topography of railroad cut/fill sections. Because the route is not along a road, there is potential for significant damage to the paved

and gravel trails and bridge structures from access along the Park. Latent damages that the Park Authority may end up using its funds to repair are another concern. The Park Authority's prior experience in working with Virginia Power on other construction projects within the Park is not encouraging. One of the most frustrating experiences involved a damage claim for the WMATA duct bank. It is important to keep in mind that the width and depth of the asphalt trail were designed for pedestrian traffic and are inadequate for heavy loads. In 1984, Virginia Power installed an underground electrical duct bank along the W&OD in Fairfax County, between Virginia Lane in Dunn Loring and Vienna substation in the Town of Vienna. Virginia Power's construction, in particular the heavy weight of trucks and equipment on the trail, caused significant trail pavement failures such as alligator cracking and broken edges. Over the course of several years, the Park Authority repeatedly requested that Virginia Power repair the damages, but Virginia Power refused responsibility. The Park Authority's estimate of the value of the damages was nearly $150,000. Since Virginia Power failed to restore the damage, the Park Authority had to assume the restoration costs, including trail pavement and sub-base replacement, re-grading grass and stone ditches, reseeding, engineering expense to prepare plans and bid documents, contract administration, and inspections. In 1989, the Park Authority eventually accepted a compromise and settlement of about $75,000. Our experience since the WMATA duct bank demonstrates that, although that was a larger project, there are similar frustrations involved with smaller projects as well. The Park Authority is often frustrated in its attempts to make sure the site is restored to its original condition so that use and enjoyment of the Park is not impaired.

Q. What *impact would construction of the new facilities have on communities located* near the W&OD Park?

A. I can give you some sense of this impact, but I know that the communities themselves can address this far more adequately than I can, and I hope the Commission will give serious weight to their concerns as well. Page 105 of the appendix to the Application states that the "W&OD Trail has 828 existing homes within 500 feet, 53 of which are within 100 feet." This number of homes within 500 feet far exceeds the amounts on any route proposed in the Application, with the sole exception of Route D2, which has 874 existing homes within 500 feet. D2 is the only one of Virginia Power's routes that runs, for a portion of the route, along the W&OD Park. The number of existing homes within 500 feet provides even further justification for eliminating any route that places transmission lines within the W&OD Park. In addition, the route that encompasses an 11 mile portion of the W&OD Park contains over five times the number of houses within 100 feet than any of the routes proposed in the Application. It is also worth noting that Virginia Power documented the public ranking of routing considerations in Table 3-1 on page 3-5 of Cyril Welter's Direct Testimony. The top five factors in that public ranking were 1) maximize distance from residences, 2) minimize visibility of line, 3) minimize amount of tree clearing, 4) maximize distance from historic sites, and 5) maximize distance from public facilities (e.g. parks, schools, churches, W&OD Trail). Locating transmission lines facilities within the W&OD Park violates each one of these top five factors, which is not true of any of the Virginia Power routes with the sole exception of Route D2, a portion of which is located within the W&OD Park.

Q. Overall, what is the benefit of minimizing the impact of transmission facilities on the W&OD Park?

A. Avoiding a route located within the Park would enable the Commission to avoid selecting the only route that violates each one of the five most important factors cited by the public in siting this line. Avoiding a line located within the Park would also be consistent with statutory requirements governing the Commission's consideration of transmission line applications because this decision would permit the Commission to maintain, to the maximum extent possible, the scenic, wildlife, recreational, and historic aspects of the W&OD Park. With the ever-increasing development of Loudoun County, the Park may eventually be one of the few publicly accessible and historically significant recreational sites in a neighborhood of thousands of residents and office workers. Maintaining the magnificent tall growth trees in the Park will preserve these for generations to come and will ensure their enjoyment by the general public who use the Park year-round. Preserving these trees outside the Park would for now retain their natural beauty for the homeowners and drivers along rural roads, but in the face of ever increasing development, their preservation for generations to come would not be assured.

Q. Does this conclude your pre-filed direct testimony?

A. Yes.

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Appendices for Park Authority Testimony

Appendix A Communications regarding Virginia Power Clear Cutting

Appendix B Local Government Letters and/or Resolutions

Appendix C General Assembly communications

Appendix D Support from Other Organizations

Appendix E Trail Guide

Appendix F Annual Residency Surveys: 2001, 2002, 2003, and 2004

Appendix G Video Regarding Recreational Uses

Appendix H *The Washington & Old Dominion Trail: An Assessment of User Demographics, Preferences, and Economics* prepared for the Virginia Department of Conservation and Recreation (DCR Study)

Appendix I *Washington & Old Dominion Trail: A Study of Trail Users* (Trail Users Study)

Appendix J National Registry of Historic Places Nomination

Appendix K *Rails to the Blue Ridge: The Washington and Old Dominion Railroad, 1847 – 1968* (Book)

Appendix L *From Alexandria to the Blue Ridge: The Story of the Washington & Old Dominion Railroad* (DVD)

Appendix M Photos Showing Clear Cutting

Appendix N Photos Showing Construction Equipment in the Park

Appendix O Photos Showing Features of the Western End of the Park

Appendix P Video Showing Western End of the Park

Appendix Q Before and After Poster

Appendix R American Forests Report

Appendix S Communications from General Public

"If the power line goes down the W&OD Trail, we'll have to clear every tree from the park property."

Kathy McDaniel, Forester

Dominion Power

at the working group meeting on June 2, 2004

KATE RUDACILLE

From: wodtrail [wodtrail@erols.com]
Sent: Tuesday, May 11, 2004 3:53 PM
To: KATE RUDACILLE
Subject: [Fwd: Notes on the Working Group Meeting on the Western Loudoun 230KV Line, May 4, 2004]

-------- Original Message --------
Subject: Notes on the Working Group Meeting on the Western Loudoun
230KV Line, May 4, 2004
Date: Tue, 11 May 2004 15:39:05 -0400
From: John Herbert <jdherbert@mindspring.com>
To: Sally Kurtz <sallykurtz@aol.com>
CC: Nancy Doane <ndoane@loudoun.gov>, <Mvidaver@loudoun.gov>, <cyudd@loudoun.gov>, <Bdouglas@leesburgva.org>, <mmartin@scc.state.va.us>, <wodtrail@erols.com>, <Hamilton@adelphia.net>, <MRuddy@town.purcellvill.va.us>, <john_bailey@dom.com>, J. Winston Porter <jwp@winporter.com>, Betty Shiflet <Youbet33@aol.com>, <wjquill@aol.com>

Sorry I could not get this out sooner. The following are my notes on the meeting, structured chiefly according to the agenda for the meeting. I stress that they are my notes, not official minutes -- and a blend of things on which there was more or less a consensus and my views on the point discussed. I will welcome comments and corrections of factual errors..

1. Introductions : This was a formality, with participants introducing themselves. The participants present were from the State Corporation Commission (SCC) [Martin], NVRPA [McCray, Hafner], Loudoun County [Vidaver, Herbert], Leesburg [Douglas], Purcellville [Reddy], Hamilton [Mayor Reasoner], DVP [Bailey, Gottfried,Burnam, Moran,Allen, Koonce, Garrett]. Ms. Vidaver and Herbert, respectively, were representing Supervisor Burton and Supervisor Kurtz.
2. Project Overview: Dominion Virginia Power (DVP) is owned by Dominion Resources, a publicly-traded US Corporation headquartered in Richmond. DVP supplies much of NOVEC's power. The concern is to provide for future power needs for Purcellville, Middleburg and Lovettsville and areas west up to, but not including, West Virginia, (Allegheny Power has jurisdiction over the neighboring areas of West Virginia.) Presently there are 500KV and 230KV lines east of Leesburg. Transmission lines are to be provided from these lines to areas west. There will be step-down substations to lower the voltage (for example to 34KV) for distribution on short poles or underground. The immediate concern: To provide a radial transmission line (which does not provide for backup) from the Pleasant View Substation (east of Leesburg) to Purcellville -- almost 12 miles of line -- with backup from other suppliers including ConEdison in W. Virginia. The long-term aim: To have a looped line (which provides for backup) with 230KV from Loudoun

5. Engineering: For an overhead line poles would be tapered monopoles (not lattice construction) 100 feet to 110 feet high, 450 feet to 700 feet apart, with foundations 30 feet deep in concrete. Vegetation under a three-phase line (with three wires vertically above one another and 18 feet spacing between the wires) could be allowed up to maximum height of only 15 feet because the lowest line may sag to within 45 feet of the ground between poles (possibly as low as 25 feet).The alignment (e.g. alongside the W&OD Trail would have to be cleared for a minimum width of 80 feet, possibly 100 feet, for construction. If the three phase wires were placed horizontally at the top of the poles, with 16 feet spacing between them vegetation could be allowed to mature at up to 40 or 45 feet -- a considerable advantage visually. An underground line would require 20 feet of permanently cleared space at the ground surface; it may be possible to plant shallow-rooted vegetation on top of this. The top of the cable casing must be a minimum of 3.5 feet under the surface and the cable would be carried in an oil-filled conduit for cooling. With either an overhead or underground system on the W&OD Trail the Trail would have to be closed for extended periods during construction. It may be possible to co-locate transmission and distribution lines on the same poles to eliminate some existing wooden poles used for distribution.

6. Overhead vs. Underground Systems. Overhead Advantages: i)lower cost; ii) easier detection of and recovery from failures. Overhead Disadvantages: i) More frequent failures; ii) Negative environmental and visual impact. Underground Advantages: i)Less frequent failures; ii)Little negative environmental or visual impact. Underground Disadvantages: i) Higher cost; ii) more difficult detection of location of failures; iii) Longer time and higher cost for recovery from failures. Experience with Underground Systems: France, Australia, New Zealand and several other countries are believed to have substantial mileages of lines underground because of their concerns with the environment and/or where they are cost-effective in urban areas. DVP has underground lines in the vicinity of the Pentagon and in Alexandria; it uses them in urban areas where "there is no alternative". A more thorough inventory of areas in the USA and elsewhere using underground systems and the experience with these systems is needed to evaluate underground systems adequately and should be part of the analysis for the proposed DVP line.

7. Substation Overview. The substation site in Purcellville is east of 287 and north of the Route 7 bypass -- in the JLMA3 zoning district in the County. Mike Reddy, Director of Planning for Purcellville brought a map of the location to the meeting. It may be necessary to cross VDOT property to get from the W&OD line alignment to the substation site. DVP is anxious to initiate the substation permitting process, even before the alignment is finalized, to avoid delays in construction. As a County permit will be required the County may not be willing to make a decision on the substation until the alignment is finalized.

8. Route Alternatives and Selection Process: DVP presently is focused on overhead options because of concerns with initial costs, maintenance costs and the costs and time required for recovery from breakdowns. A series of criteria will need to be agreed upon in developing and evaluating alternatives. Somewhere between three and five alternatives may be a reasonable number for the SCC to consider. Alternatives which may be considered: i)

Entirely underground on the W&OD alignment; ii) Partially underground on the W&OD alignment (with underground installations along the most historically important and/or environmentally valuable). iii) Overhead along or near Route 7; iv) Another overhead alignment, with easements to be acquired and/or making use of existing easements for distribution lines. With any of the overhead alternatives there also are alternatives for pole design to be considered and evaluated. When DVP suggested that there may be "some parts" of the W&OD Trail deserving special protection several of the other participants pointed out that most of the W&OD Trail (with the possible exception of a few stretches where it passes through industrial or semi-industrial areas) is of very high environmental, visual and historic value -- as a continuous system -- and that it brings in tourists and tourist dollars as well as providing for a unique recreational experience enjoyed by people from many parts of the metropolitan area on weekdays as well as weekends.

9. Work Group Goals: To identify and evaluate alternatives for the alignment, with public input, as a basis for presenting alternatives to the SCC.
10. Meeting Dates: Future meetings are scheduled for June 2, July 6 (to be verified), August 3, September 14 (Final Meeting).

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Paul McCray, Manager
W&OD Railroad Regional Park
21293 Smiths Switch Road
Ashburn, VA 20147
Voice 703/729-0596
Fax 703/724-0898
Northern Virginia Regional Park Authority http://www.nvrpa.org
W&OD Trail & Friends of the W&OD Information http://www.wodfriends.org
&OD Railroad History http://www.geocities.com/pem20165

Discover the Nature of a Regional Park!

Working Group Meeting #2
Dominion Virginia Power Transmission Line from
Pleasant View Substation to Proposed Substation
June 2, 2004

Working Group Participants: *Keith Reasoner (Mayor of Hamilton), Bill Druhan* (Mayor of Purcellville), Todd Hafner, Kate Rudacille, Paul McCray (Northern Virginia Regional Park Authority), Mark Mozack (Loudoun County), Jon Herbert (Planning Commission member, Catoctin District), Nancy Doane (Supervisor Kurtz), Bruce Douglas (Town of Leesburg), Mike Ruddy (Town of Purcellville), Sam Allaire (VDOT), and John Bailey, Rich LaVigne, David Burnam, Kathy McDaniel, Don Koonce, Le-Ha Anderson, and Pam Gottfried (Dominion Virginia Power, or DVP).

Also in attendance were media representatives and 50-60 members of the public, including Kristin Umstadtt (Mayor of Leesburg), Bridget Bangert (Planning Commission member, Leesburg District, and staff aide to Supervisor Clem), Joan Rokus (Northern Virginia Regional Park Authority Board member), and Mark Herring (former Supervisor, Leesburg district).

Need for the Proposed Line
David Burnam explained the need for a new transmission line, based on 8 percent annual growth in electric demand in the Hamilton/Purcellville/Round Hill area ("load area"). Four distribution circuits currently serve the load area. Given current growth projections, if one of the circuits fails in 2007 under certain conditions, the other three circuits will be inadequate to serve the load area until the fault is repaired. By 2010, the four circuits are projected to be inadequate to serve the load area.

Todd Hafner, Nancy Doane, and Mark Mozack asked questions regarding the possibility of bringing power to the load area from DVP's Lovettsville or Middleburg substations, rather than from the Pleasant View substation just east of Leesburg. DVP representatives responded:

- Both lines feeding these substations are lower voltage than the proposed 230-kilovolt transmission line. Thus, the lines leading to these substations would have to be rebuilt.
- Because the line feeding the Lovettsville substation is part of Allegheny Power's system, any solution involving that line would require that company's approval and that of regulators in Maryland/West Virginia/Virginia.
- Serving the load area via the Middleburg substation would cause the transmission line leading to it to exceed the load it can serve as a radial line. It would have to be networked, i.e., both ends of the line would have to be connected to other transmission lines, thus leading back to the need for a Pleasant View – proposed substation line.

- Serving the load area via additional distribution circuits would be strictly a short-term solution.

Forestry Impact
Kathy McDaniel outlined DVP's tree trimming/removal requirements for transmission lines:

- Ten foot clearance on routine transmission line rights-of-way.
- DVP has an agreement with the Northern Virginia Regional Park Authority for 15 foot clearance.
- 25 foot maximum height for vegetation in the vicinity of the line.
- Construction of a transmission line would require a 100 foot swath to be cleared. "Danger trees" outside the 100 foot swath would have to be trimmed or removed as well. Paul McCray and Kate Rudacille clarified that the trail is 100 feet wide in most areas.
- Don Koonce clarified that if an underground transmission line were constructed, 25 to 45 feet still would have to be cleared of vegetation, although some trees could be preserved to one side of that swath where dirt would be stockpiled. The underground cable would be 42 inches deep.

Implications of an Underground Line
A member of the public inquired about DVP's ability to recover in rates the incremental cost of an underground line. Don Koonce responded that a State Corporation Commission staff representative was not able to attend this particular meeting. Historically, the SCC has approved rate cases allowing recovery of incremental costs for aesthetics. DVP is under a rate cap until 2010. After that, such a rate case could be filed. However, the SCC also has approved applications for viable overhead lines. If DVP files an application to that effect, it would be for the SCC to decide whether an overhead route along the W&OD is viable.

Later, Jon Herbert asked for a quantification of the costs. Don responded, $8-12 million for an overhead line along the trail vs. about $60 million for an underground line (engineering estimates will be provided later). In addition, the time needed to repair a fault on an underground line is typically weeks, rather than hours or days, leading to reliability concerns. If part of the line is undergrounded, a structure resembling a substation would have to be constructed at the point where the line goes underground and resurfaces. Don displayed a sample overhead conductor and section of underground cable. Nancy Doane and Mark Mozack requested that DVP develop a more detailed cost comparison, including life-cycle vs. initial costs.

Still later, Mayor Druhan asked if a tax district could be created to pay for the incremental cost of an underground line. Don Koonce said he thought another jurisdiction had unsuccessfully attempted that.

Possible Pole Configurations
Don Koonce showed sketches of possible pole configurations and discussed their implications:

- A distribution underbuild would eliminate the need for two sets of poles, have reliability implications, and raise the height of the transmission poles,
- A staggered arm configuration would reduce the pole height compared to same-side arms but require a slightly wider area to be cleared of vegetation,
- An H-frame configuration would further reduce the height but require a still wider area to be cleared.
- Higher transmission lines would allow the poles to be placed farther apart and allow more vegetation beneath the lines but be visible from farther away.

Impact on Homes within Right-of-Way
Bridget Bangert asked if there are any homes within the ROW of the proposed line if it is located along the trail. Don Koonce said he was not aware of any. He added that DVP could not accept liability for any houses located within the ROW; if any were found to be within the ROW, they would have to be moved, condemned, or have corners cut off. Paul McCray thought one house's porch is within the proposed trail ROW.

Potential Routes: Rt. 7 vs. W&OD
In response to an audience member, John Bailey said DVP has an interest in a route along the W&OD because it owns the easement. In contrast, it would have to pay for an easement along Rt. 7. However, "We're not decided until we file an application." John agreed with Todd Hafner's comment that money is not the sole factor. In answer to Todd, John said that DVP has not looked at routes other than Rt. 7 or the trail but is open to suggestions.

Sam Allaire said VDOT's available ROW is spotty, not suitable for a linear facility, for the following reasons:

- Sometimes, "landlocked" land adjacent to a VDOT ROW has been sold to an adjoining landowner or used for wetlands mitigation, thereby making it unavailable for DVP's use.
- VDOT has various classifications of ROW, depending on the volume of traffic. Transmission line poles cannot be placed "inside the fence" of a closed access road, such as the bypass around Leesburg.
- VDOT has to reserve land to plan for future needs, e.g., future "collector" roads paralleling Rt. 7 west of Leesburg when the volume of traffic eventually dictates that that stretch of road become closed access.
- Sam added that "there are always exceptions" to these restrictions. However, he noted there are reasons for the restrictions, e.g., ice could melt from a transmission pole arm overhanging a road and fall on the windshield of a car travelling beneath it.

- Sam concluded that a route along whole segments of Rt. 7 "does not look feasible at this time." He is not in a decision-making capacity for VDOT; however, he wanted to supply information on potential VDOT considerations.

Kate Rudacille asked if an SCC order approving a Rt. 7 route would supercede VDOT's objections. John Bailey answered that DVP has no experience where SCC and VDOT positions were opposed. Once DVP files any SCC application, VDOT will have the option to comment on it.

In answer to Bruce Douglas, John Bailey and Sam Alliere said that an overhead transmission line could cross from one side of Rt. 7 to the other, but not frequently.

Mayor Umstattd stated that the Town of Leesburg has approved a resolution that the transmission line route should not go along the trail, whether buried or overhead. She said the Town is "horrified" by the possibility of a line along the trail but appreciates DVP's outreach.

The working group agreed to meet again on July 7.

Preliminary

Appendix A (4)

PLEASANT VIEW – HAMILTON 230 kV OPTIONS

Option	Description	Estimated Cost	Issues 07/01/04
Option 1	Overhead route - *W&OD Trail*	$ 16M	- DVP has an existing easement - Trail route traverses 2 National Register eligible historic Districts (Leesburg and Paeonian Springs) - W&OD Trail is a National Trail - *Issues are visibility, EMF, property values & historic* - Clearing of Trail required - Impact to Trail users
Option 2	Overhead route – W&OD plus Rt. 15 bypass	$ 30M	Same as Option 1 above except: - Easements needed for Rt. 15 bypass - *Avoids Leesburg Historic district* - Impacts residents along Rt. 15 - VDOT must agree - *Impact to Trail users*
Option 3	Overhead off W&OD Rt. 7 + Rt. 15 bypass	$ 40M	Same as Option 1 above except: - Avoids impact to Leesburg & Historic districts - Easements need to be purchased - ~~Shifts impacts to other property owners~~ - VDOT must agree
Option 4	Overhead route – W&OD plus Underground through Leesburg Oil filled cable Solid dielectric	 $ 35M $ 35M	Same as Option 1 above except: - Terminal stations need to be added - Avoids impact to Leesburg & Historic district - DVP concerns with cost & reliability - Significant construction impact to *Trail users*
Option 5	Underground route on W&OD Oil filled cable Solid dielectric	 $ 100M $ 90M	- Avoids visibility, property values and Historic issues - Significant construction impact to Trail users - DVP concerns with cost & reliability - Clearing of Trail required - Significant technical construction issues