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PATH a sensible, high-tech solution critical to region

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Let's assume it's a hot sunny day in July. The demand on our region's electric transmission grid is at its peak — it's operating at full capacity. Something happens to cause a piece of the grid to fail somewhere in our region. The system is designed so if a section fails, the one nearest to it picks up the increased load. This section is at full capacity and can't handle the increased load. It also fails. A domino effect results in a major blackout that impacts thousands of homes and businesses.

Today, our region could be faced with a similar scenario. Our section of the grid cannot handle additional strain. We have been forced to search out the most viable solution that will reinforce our entire region's reliability to ensure our regional power supply can handle future demands.

I know many residents have questions and concerns about the Potomac-Appalachian Transmission Highline, or PATH — a project of Allegheny Energy and American Electric Power to construct a new, 765-kV transmission line that will begin near Charleston, W.Va., and end in western Maryland. But, the purpose of PATH is to reinforce our entire region's grid system because our section of the grid can't handle the additional demands. It's something that cannot be delayed any longer.

Benefit of a 765-kV line —

The 765-kV technology of PATH offers the greatest load-carrying capacity in operation in the country today. It will minimize land use impacts and greatly reduce line losses that can occur over long distances. At this voltage, several times the power of lower voltage lines can be transmitted over long distances with only 200 feet of right of way. Transmission at 765-kV also offers greater reliability due to its line design. With only one line outage per 100-mile year, 765-kV reliability surpasses all other voltage classes.

Underground lines are not an option —

The use of HVDC technology (underground lines) is not an option for PATH. First, there are only a few short lengths of HVDC cable underground — all significant lengths are underwater cables where future interconnections aren't a factor. Secondly, large, complex and expensive multi-story AC/DC conversion stations would be required at the line ends and any point along the line where it would connect to other utility substations. This would significantly increase the size of the project's substations. Thirdly, the AC/DC conversion process consumes significant amounts of energy. There are no transmission lines of this length, voltage or capacity that have ever been placed underground, nor has the technology been commercially developed at this voltage level.

But most importantly, even if only a portion of the line was underground, the cost would be 10 to 20 times more than the current system and those costs could be allocated to the locale requiring the use. I'm sure Maryland residents wouldn't be amiable to these kinds of costs.

Past, present and future —

We've come a long way in electricity generation with nuclear, hydroelectric, wind and other renewables, but we must have a reliable transmission system to get this power to where it's needed, regardless of how or where it is generated.

The filing applications for regulatory approvals in Maryland, Virginia and West Virginia took place earlier this month. The approval process is expected to take about a year.

PATH is the sensible solution to preventing future reliability concerns, while ensuring our regional power supply can handle the demands of a growing society. I am confident in my belief as not only a former chairman of the Maryland Public Service Commission and a 30-year industry veteran, but also as a resident of Maryland and businessman in the District of Columbia.

I support PATH and hope you will too. I would encourage you to learn more about PATH at the project Web site at www.pathtransmission.com.

H. Russell Frisby Jr. is a former chairman of the Maryland Public Service Commission. He is a lawyer and partner in the Washington-based law firm of Fleischman and Harding LLC, one of whose clients is the PATH Education and Awareness Team.

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