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### **Potomac Riverkeeper Network**

## **Summary of Beneficial Reuse of Coal Ash from Dominion Energy Coal Ash Sites Feasibility Assessment and Rebuttal of Assessment by Dominion Energy**

### **Background**

In 2017, the Virginia legislature passed SB1398, which required Dominion to prepare an assessment of options for permanently disposing or recycling the 30 million tons of toxic coal ash currently stored at four of its power plant sites. For decades, coal ash has been stored at these sites in unlined “ponds” that leaked toxic coal ash metals into nearby groundwater, rivers and streams and contaminated drinking water wells. Coal ash contains arsenic, lead, hexavalent chromium, selenium and other metals that pose a health risk to people and the environment at high levels.

Potomac Riverkeeper Network (PRKN) and Southern Environmental Law Center (SELC) released an independent consultant’s [report](#) in November 2017 which concluded that recycling much of the ash at these sites was feasible and cost effective, and would eliminate the risk of future contamination posed by capping the ash in place at the Possum Point, Chesterfield, Bremo and Chesapeake sites.

Dominion released its Assessment in December 2017, which concluded that capping the coal ash in place at its four sites would be the cheapest, quickest way to dispose of this toxic waste product.

Coal ash has a long history of use in concrete applications because it increases the durability and strength of the final product. Today, the recycling of impounded ash at Dominion’s power plants will supply a critical construction material to the industry that builds and maintains transportation infrastructure in Virginia and the southeast region. The Virginia Department of Transportation estimates that fly ash is used in 60 to 70% of all concrete used in transportation projects in the state, all of which, to the best of our knowledge, is currently fully sourced outside of the state due to the lack of beneficiation facilities operating in Virginia.

Demand for processed, impounded ash is expected to increase as coal fired power plants are shuttered or switched to other fuels. The overall demand for coal fly ash in Virginia is estimated to be 16 million tons from 2015-2030 and 46 million tons for Virginia, North Carolina, and South Carolina collectively during this period.

### **Benefits of Recycling Coal Ash**

- First, it will eliminate the long-term risk of groundwater and surface water contamination and eliminate the utility's liability for that contamination. Given the record of contamination from the Dominion sites and their location adjacent to waterways, these unlined legacy coal ash impoundments may continue to contaminate state waters with coal ash constituents even when capped with an impermeable cover.
- Second, beneficial use will create jobs to support an industry that is not currently operating in Virginia, and also generate tax revenue.
- And third, beneficial use will provide increased competition for a high value product, lowering state funded construction costs and limiting the import of foreign ash into the state.

### **PRKN Rebuttal of Dominion's Assessment**

The Assessment failed to accurately examine disposal and recycling options in the following ways:

- Used assumptions that are spurious, unsubstantiated, biased, and contrary to evidence included in other places in the report. These assumptions have a major influence on the conclusions of the report and the assessment of the feasibility of beneficial use as part of the closure plan for Dominion's ash ponds. For example, Dominion asserts that the beneficial reuse of ash is not economically viable if it is transported more than 50 miles, but this is contrary to evidence included elsewhere in the Report where Dominion identified ash imports to Virginia from multiple locations more than 50 miles away, including India, South Carolina, and many other states of the Union. Further, it ignores using rail transport to connect Dominion facilities, all of which are connected by rail, to a regional ash beneficiation plant or that rail transport could be used to transport processed ash.
- Selectively used certain data and information while ignoring other data and information contained in their analysis. The selective use of information is unsubstantiated, and it affects the conclusions reached in the report. For instance, the Report does not acknowledge that the control of leaching into groundwater and surface water is necessary for all possible closure options for the Dominion coal ash ponds regardless of whether beneficial reuse of ash is included in the closure plan. Hydrologists engaged by PRKN and SELC confirmed that at three coal ash pond sites, including Possum Point, ash is in contact with and contaminating the groundwater, which then flows directly into the surrounding rivers.
- Selectively relied on a single, unsupported data point to minimize the demand for ash in the region, while ignoring other contrary data and information, including the data from Dominion's own survey of market participants, as well as a credible, independent report from the Carolinas Ready Mixed Concrete Association with its own market analysis of ash demand for the region.
- Incorrectly added together cost and revenue associated with beneficial reuse, significantly inflating the cost of closure using this option.

In light of these serious deficiencies, Dominion's assessment of the beneficial reuse of ash as a closure option for its ash ponds is not a credible, objective evaluation of whether the beneficial reuse of ash, such as recycling for use in concrete or cement production, is a feasible option for the closure of coal ash ponds at the Possum Point, Bremono, Chesterfield, and Chesapeake power plants.