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**Public Comments of Michelle Bloodworth**
**President and CEO**
**America's Power**
**Before the West Virginia Public Service Commission**
**June 2, 2021**

***Case No. 20-1040-E-CN – Appalachian Power Company and Wheeling Power Company***

Good morning Chairman Lane, Commissioner McCabe, and Commissioner Larrick. My name is Michelle Bloodworth. I am President of America's Power, a national trade association representing coal-fueled electric power generation. America's Power membership includes mining companies, mining equipment and service providers, rail and barge transportation, and owners and operators of power plants. We support an all-of-the-above energy policy that includes coal, natural gas, renewables, nuclear power, and other resources that can provide reliable, resilient, and affordable electricity.

I thank you for the opportunity to comment on the *Application for Certificate of Public Convenience and Necessity* filed by Appalachian Power Company and Wheeling Power Company, both of which are subsidiaries of American Electric Power, or "AEP." AEP has asked the Commission to decide whether its Mitchell power plant in Marshall County should take steps that will allow it to comply with EPA regulations and continue operating to the end of its useful life in 2040.

AEP's financial modeling and analysis suggest the company is indifferent to whether Mitchell operates or retires. It is not my intent here to second guess AEP's financial modeling. Instead, I want to explain why AEP's indifference about the fate of the Mitchell power plant should not be shared by the State of West Virginia and the Commission. I believe the Commission should approve the investments required for Mitchell to comply with EPA rules and continue operating to the end of its useful life, and I want to briefly highlight the reasons why. I cover each of these in more detail in my filed comments.

First and perhaps most importantly, Mitchell is overwhelmingly supplied by West Virginia coal. Between 2016 and 2020, almost 94 percent of Mitchell's coal came from West

Virginia mines. Annually, this averaged 2.6 million tons of West Virginia coal, generating revenues of $124 million for the state's coal industry. This production and its associated mining jobs will likely be permanently lost with the closure of Mitchell. That will be a significant blow to a major sector of West Virginia's economy.

My second point is to note that West Virginia is part of the PJM electricity grid, one of the few independent system operators in the country that has not experienced emergency conditions and rolling blackouts over the past several months. It is certainly in West Virginia's interest to make sure it continues to have a reliable and resilient supply of electricity. The California Independent System Operator has famously moved away from conventional dispatchable generation in favor of renewables, and suffered rolling blackouts for five days last August with two million people losing power. ERCOT, MISO, and SPP—electricity regions in the center of the country—each experienced blackouts during severe winter weather this past February. The ERCOT region of Texas was hit the hardest, with over four million customers losing power.

Each of these regions has seen a significant shift away from dispatchable generation in general and coal generation in particular, most notably by significantly increasing the amount of wind and solar power. While fuel diversity is important, coal-fueled power plants are unique in their ability to support reliability and resilience because they are fuel-secure, maintaining an average of four months of fuel on-site. In contrast, natural gas generation typically relies on just-in-time deliveries from pipelines, and wind and solar generation rely on favorable weather. Coal generation is dispatchable, meaning it can generate when it is needed and ramp down when it is not. Nuclear generation, while also fuel-secure, has difficulty varying its output; and wind and solar generation cannot be scheduled to meet demand on the system.

Pipelines serving natural gas generators have their own set of risks, as was clearly demonstrated by the recent cyberattack on the Colonial Pipeline that caused gasoline shortages in several eastern states. As NERC President Jim Robb stated, "If this had happened to a major natural gas line serving electricity generators under extreme cold weather conditions, the results could have been catastrophic."

It is not West Virginia's responsibility to export reliability and resilience to the rest of PJM, but that will be of little solace if the grid—and thus West Virginia—becomes susceptible to the blackouts that have plagued other regions. Retiring the Mitchell plant could be an incremental step in that direction.

My next point is to address the decarbonization of power generation, most notably the call of the Biden Administration to achieve a carbon-free grid by 2035. This ambitious goal will meet the harsh realities of the task. The Electric Power Research Institute—or "EPRI"—estimated the cost of such a project to be over $1.7 trillion, requiring astronomical amounts of new generation and transmission investment that would nearly double electricity prices nationwide. The planning, permitting, and construction of all this infrastructure would be hard-pressed to meet this deadline. For example, the Transwest Express Transmission Line, a 700-mile, 3,000-MW capacity line intended to deliver wind power from Wyoming to Nevada and California, began development in earnest in 2005 but final permits were not received until 2020. Construction has finally been scheduled to run from 2022 to 2024, nearly 20 years after the project began.

A technology-focused strategy that promotes innovation is the best way to reduce carbon emissions from the power sector while maintaining affordable electricity prices and a reliable and resilient grid. To be successful, such a strategy must be based on sustained investments and reasonable policies, and it must allow adequate time to develop and deploy those technologies. Development of CCUS is making great strides but is not currently cost-effective for widespread deployment.

Even though the grid is in transition, the transition cannot happen as quickly as some might wish. Dispatchable and reliable fossil-fueled power generators like the Mitchell facility will be needed to maintain affordable and reliable electricity generation during transition.

The final point I would like to make involves the cost of electricity. In recent years, the prices of both coal and natural gas have been generally low, leading to similarly low power prices. However, this is not the case during periods of extreme demand. Since coal generators maintain on-site fuel that they have procured in advance, coal generation does not cost any more when peak output is required than on a normal day.

Since natural gas generators must procure gas in real time, market forces can drive prices to astonishing levels due to competition for limited fuel supplies among power generators (and with industrial and home heating customers who also rely on the fuel). These high natural gas prices translate into very high power prices. Such volatile prices may last for only a few hours or a few days, but that can be sufficient to cause significant economic harm. When more coal generation is removed from the market in favor of natural gas, the risk to West Virginia consumers from gas and power price spikes increases.

This effect is well-illustrated by research from the federal government's National Energy Technology Laboratory, or "NETL." They looked at the bomb cyclone winter storm of 2018 and found that increased demand raised natural gas prices in the PJM region by an astounding 2,200 percent, with electricity prices increasing by a corresponding 500 percent. During a two-week period that spanned the bomb cyclone, total electricity cost to the eastern US power regions (PJM, MISO, NYISO, and ISO-NE) was $6.78 billion higher than the two weeks before. At the time, NETL estimated that natural gas price excursions during winter storms had cost these regions $25 billion since 2014. NETL also concluded that these extreme natural gas and power prices were driven in large part by the retirement of coal generators and a resulting increase in reliance on natural gas for power generation.

In conclusion, although AEP neither supports nor opposes the continued operation of the Mitchell plant at this time, it would be wise for West Virginia to keep it open. Fuel consumed by Mitchell is purchased from coal mines within the state, benefitting the state's economy. The reliability and resilience it provides to the state and region are needed and will be available in increasingly shorter supply if states in PJM embark on a path to decarbonize their power generation, a task that will take longer than proponents claim. This can be seen in the cautionary tales provided by other power regions that have increased their reliance on wind and solar power only to be faced with grid emergencies and blackouts during periods of extreme weather and power demand. The Mitchell plant, and coal generation in general, offer a hedge against the extreme natural gas and power prices that are caused by these circumstances.

I want to thank you again for allowing me the opportunity to address you this morning, and I am more than happy to answer any questions you may have.