Chester Karwatowski

111 High Point Mountain Road

West Shokan, NY 12494

April 8, 2021

RE: FERC Docket # P-15056 – Ashokan Pumped Storage Project

Dear Ms. Bose,

I am writing to voice strong opposition to Docket P-15056, the Ashokan Pumped Storage Project submitted by Premium Energy Holding, LLC. I request that you deny this preliminary permit application immediately.

As a resident and small business owner in West Shokan for over 30 years, I will be directly impacted by the proposed project throughout the proposal and development phases as well as during ongoing operations. Our B&B, Ashokan Dreams, overlooks the west basin of the Ashokan Reservoir. We start and end each day looking out over the entire length of the upper basin of this reservoir from the Esopus Creek to the dividing weir. Our B&B is housed in a barn built by the Eckert Brothers in 1820. The Eckerts built 2 barns, this one survived, the other one was destroyed for the building of the Ashokan Reservoir. We have a fishing boat on the Ashokan Reservoir in West Shokan as do hundreds of other residents who frequently and safely use the Reservoir for fishing. The proposed infrastructure development and power lines will be visible and impact and harm not only our business and community, but all visitors to the new Ashokan Rail Trail (ART) which runs directly along the north eastern shore of the Ashokan Reservoir. There were over 200,000 visitors to the ART in 2020.

I understand that FERC does not normally deny a preliminary permit, but this applicant has not met a minimum standard to achieve legal and regulatory approvals, nor to deal with environmental issues their proposal will create, nor have they presented a design that is realistic nor that meets modern design best practices for a closed loop pump storage system. I also understand that the impact to my property value, to my personal quality of life and experiences or my safety or the safety of the community, as well as the disruptions to my business, visitors and the community that has been disrupted for over 100 years by the building and operations of the current Ashokan Reservoir, does not warrant stopping this proposal at this phase but I appreciate your consideration of these issues.   
  
In addition to being a resident of this community for over 40 years, I am also a board member of the Ashokan-Pepacton Watershed Chapter of Trout Unlimited, an Intervenor in this process along with the NY State Council of Trout Unlimited (TU). TU is committed to conserving, protecting, and restoring cold water fisheries and their ecosystems. I am also an Executive Committee member of the Ashokan Watershed Stream Management Plan (AWSMP) Stakeholder Council. This organization delivers stream management programs in the Ashokan Reservoir watershed in accordance with the Watershed Memorandum of Agreement and the Filtration Avoidance Determination for the NYC Water Supply. These activities and experiences inform my understanding of the environmental and regulatory issues this project proposal presents and therefore I offer my comments.

A legal review of this proposal, a proposal that depends upon the taking of NYS Forest Preserve Lands that are protected by the NYS Constitution and the use and taking of NYC Watershed lands that are also protected and regulated, appears to present insurmountable legal hurdles. Adding the need for DEC permitting of operations that will disrupt the already fragile geological structures of this region and the known issues with glacial clays, and thereby disrupt and harm the wild fisheries and the water supply for 9 million people demonstrates that that this is a poorly conceived proposal that should not be allowed to proceed at this phase by the precedents established by FERC. A review of the failed Prattsville Pumped Storage Project, No. 2729 on the NYC Schoharie Reservoir in the Catskills illuminates the issues and the probabilities of receiving needed permits within a critical water supply ecosystem.   
  
One of the most significant ecological and health risks in this Water Supply is turbidity. Turbidity is a product of the geology of the Catskills. It is insurmountable and has been a product of the erosive formation of the Catskills over the last 10,000 years. Introducing more turbidity or disrupting the natural cycles of turbidity will affect not only the environment and fisheries, but also the NYC water supply and potentially the water supplies of communities dependent upon the Hudson River. The management of this unfiltered water supply is guided by the NYC Memorandum of Agreement with the EPA, NYS and watershed communities and now monitored by the NYS DOH. That MOA created a set of Filtration Avoidance Determination obligations, and the most significant management issue for water quality is turbidity. The applicant has not considered any of this in their Project Proposal. A review of the National Academies of Sciences, Engineering and Medicine reports from 2000, 2010 and 2020 highlight the challenges and requirements for the watershed wide management of this critical water supply ecosystem to avoid water supply filtration and its costs.

From the National Academies of Sciences, Engineering and Medicine report "Watershed Management for Potable Water Supply: Assessing the New York City Strategy" (2000), p.88.   
"The Watershed Rules and Regulations of the New York City Memorandum of Agreement (MOA) are among the most comprehensive and detailed regulations regarding watershed activities found in this country. However, they cannot be considered in isolation given the large number of federal, state, and local statutes and regulations with which New York City must comply. This chapter briefly describes the initial impetus for the creation of environmental regulations relating to drinking water, it outlines certain federal regulations that pertain to the New York City drinking water supply, and it describes how the MOA attempts to fill gaps between federal, state, and local environmental regulations." ….  
"Although watershed management is important for any surface water supply, it is critical for an unfiltered supply. The MOA is a remarkable document and a significant milestone in the City’s water supply and the region’s development. Successful implementation of the MOA is the most important challenge facing the City’s water supply managers. " There was no analysis by the applicant of how this pump storage proposal will affect the current predictive models for water supply operations which will impact water supply quality or quantity and potentially impact community safety by disrupting the flood control component of water supply management. This will affect communities downstream of the Ashokan Reservoir, all the way to the Hudson River, and potentially affect the communities the use the Hudson River for their water supplies.   
  
The alternative sites for an upper reservoir will dam streams that carry high loads of coarse sediment (bed load) through steep mountain valleys. As proposed, the upper reservoir dams will interrupt 100% of the coarse sediment supply. Bed load is needed to re-form stream riffles and other channel stabilizing features downstream of the reservoir dam. Stream riffles and other natural channel features armor stream beds against erosion. Streams located downstream of newly constructed dams are highly likely to become unstable and erode downward and laterally following dam construction during a period of adjustment. This adjustment period or channel evolution is critical to the stream returning to an equilibrium state following the disruption to hydrology and sediment supply caused by dam construction and would likely occur over a period of decades. In addition to downward adjustment of channels, a reduction in stream flow downstream of a dam can lead to sediment accumulation in the channel bed triggering stream bank erosion. In accordance with modern understandings of stream physics confirmed through scientific study, it can be expected that streams below a newly constructed dam will undergo erosion and adjustment before a new channel configuration achieves hydraulic stability (Williams and Wolman, 1984; Church, 1995; Grant, 2003). The Ashokan Watershed’s geology is such that coarse bed load transported by streams is frequently deposited over relatively deep deposits of clay sediments that historically formed under glacial lakes. Channels starved of bed load below a dam would likely erode into glacial lake clays and substantially increase fine sediment loading to downstream water bodies, including the Esopus Creek and Ashokan Reservoir. Adjustments to the channel bed and stream bank erosion raise the following concerns:

1. Banks in this watershed include large hillslopes that are layered with the glacial lake clays that threaten water quality.
2. Extensive bank erosion could undermine existing public culverts and bridges located on affected streams.
3. Public roads by necessity are located near or adjacent to streams in steep mountain valleys and could be undermined.
4. In this heavily forested watershed, bank erosion would likely increase the supply of large wood to channels, further contributing to channel instability and threatening public infrastructure.
5. Private septic systems, buildings, and stream crossings could similarly be undermined.

The Upper Esopus Creek and minor tributaries between the Ashokan Reservoir and Allaben are included on the NYS Section 303(d) List of Impaired Waters. The NYC water supply, aquatic invertebrates, and fishes, as well as recreational uses will be impaired by this increased turbidity, silt and sediment. The upper pumped storage reservoir will also disconnect spawning trout from upstream habitat and interrupt the cold water wild trout needed to survive downstream of the new upper storage reservoir.   
  
Additionally, any waters pumped from the Ashokan Reservoir into the upper pumped storage reservoir could significantly impact the existing fragile ecosystems of the headwater tributaries:

1. The pump water in the upper reservoir could introduce two significant pollutant into the fragile ecosystem and especially the downstream stream: warm water, and turbid water. Water pumped up to the new reservoir from the Ashokan will be significantly warmer than the ambient water temperatures and will be significantly more turbid. Any release into the downstream reaches would require SPEDES Permit from the DEC.
2. Pumping water from the Ashokan Reservoir into the upper pumped storage reservoir can also introduce non-native species of fishes and organisms into the upstream and downstream ecosystem of that upper reservoir.
3. Unique heritage strains of wild brook trout populations that have been compromised and reduced until they can only be found in isolated headwater streams, will be at risk due to these pumping operations into headwater areas.

A review of the alternative sites for pumping and discharge infrastructure in the Ashokan Reservoir as proposed indicate a poor understanding of the Ashokan Reservoir upper basin water levels, topography, and existing land use. The elevation of the upper basin historically ranges from 594.84 feet above sea level to 530.56 feet above sea level. Although the highest reservoir level is managed for dam and community safety, and operated to provide a continuous water supply, the lowest levels in the reservoir are dictated by natural precipitation. Climate change will also have a significant impact on these reservoir levels in the future. In 5 of the last 6 years the upper basin of the Ashokan Reservoir has fallen below an elevation of 570 feet above sea level. Based upon the proposal for a western bank pump operation, it appears that the terminus of that operation would have to be hundreds of yards away from the western shoreline. Having pump and discharge operations below 570 feet will have a dramatic impact on sediment movement in the reservoir and affect the delicate balance of the thermocline in summer months. These operations could also create other nonlinear disruptions that would result in seiches waves and would further disrupt turbidity in the reservoir. A constant turbid state in the Ashokan from operation of this project will adversely impact both zooplankton and therefore affect the wild rainbow trout population. The interconnection of the Ashokan Reservoir and Esopus Creek fisheries has long been recognized. Recently the NYS Department of Environmental Conservation reclassified the Esopus Creek as a Wild-Quality stream, under their newly approved Trout Management Plan. Locating the pumping and discharge infrastructure on the North Eastern side of the Upper Basin of the Ashokan Reservoir pose other unique issues. The Ashokan Rail Trail, a linear park on Ulster County lands that pass-through NYC Lands, runs along the entire shoreline where this alternative pump infrastructure is proposed. With over 200,000 visitors in 2020, any construction in this area will pose both another legal challenge and significantly impact regional tourism.

Residents of Ulster County depend upon NYC DEP to provide Dam Safety and Flood mitigation services. The applicant would need significant coordination with NYC DEP and Reservoir Operations to continue to ensure flood mitigation and safety to downstream residents of their upper reservoir, but also as a part of the Ashokan Reservoir flood control processes. The applicant must be responsible to ensure Dam Safety as guided by FERC. The applicant would also have to provide Security and Safety to the 9 million water supply customer against any terrorist threats to the water supply commensurate to the efforts provided by the NYC Water Supply Police and the NYC DEP.

As argued by the NYC DEP and based upon analysis of many environmental experts, this application should be denied at this point in the process. There are many fatal flaws in the Project Proposal including a lack of site-specific considerations for very significant regulatory, legal, environmental, safety and water supply requirements. Coordination of system wide operational management, predictive modeling and planning, Flood control and other environmental and regulatory requirements are critical to operate within a water supply ecosystem.

Therefore, for all these reasons, I urge you to reject Premium Energy Holding’s proposed preliminary application for Docket P-15056 for the Ashokan Pumped Storage Project.

Respectfully,

Chester Karwatowski  
  
References:

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National Academies of Sciences, Engineering and Medicine reports dated 2000, 2010, 2020. "Watershed Management for Potable Water Supply: Assessing the New York City Strategy"