

# York Energy storage aims to build dam on 1000 acres in York County

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York Energy Storage LLC has applied with a federal agency to run a feasibility study for a dam and power turbine on the Susquehanna River in Chanceford Township, York County.

The project is not the first time that a dam has been proposed in the area. Similar projects were proposed in both 1990 and 2011 to large local pushback and both proposals were scrapped.

The company applied on Feb. 6 to the Federal Energy Regulatory Commission for approval to run a four-year feasibility study for a \$2.1 billion dam and power turbine that would be adjacent to Lake Clarke, which is formed by the Safe Harbor Dam on the Susquehanna River.

"It's very concerning, and it is sort of a bit of a deja vu," said Mark Platts, president of the Susquehanna National Heritage Area. The Susquehanna National Heritage Area is a non-profit that works to "enhance quality of life and economic vitality by promoting the preservation, conservation, and interpretation of the river's cultural and natural heritage," according to its website.

York Energy Storage LLC is being led by engineering partners William McMahon and Jan Sockel.

"We are as green as there is in the storage of electricity," McMahon said.

McMahon also pointed out that the dam is green renewable energy that is stable and matches where trends in the sourcing of energy are going to continue as compared to other sources that cause emissions into the air.

## The proposal

Power is generated by dams when water is released from a stored source in a manmade lake or reservoir behind the dam. The water then runs through the dam to turbines connected to a generator, which produces electricity, and the water is returned to the river downstream.

The proposed new construction would require 1,000 acres of land in York County. The proposal states that the new plant would produce up to 8,560 megawatt-hours in a 10-hour cycle.

The proposed project would displace about 30 properties, McMahon said.

“Those people aren't going to like it and I can't blame them,” McMahon said. “I wish there was a way to avoid that but there are very few locations where this kind of project is working well.”

McMahon said that the company would help those displaced and while realizing that they will not like it the project will benefit billions in his opinion of people having reliable electricity and eliminating blackouts and brownouts.

For the project there would be two surface water reservoirs required. Lake Clarke would be the lower reservoir, the proposal states. The second, new reservoir would require 600 acres of surface area to be flooded and require a 1.9-mile-long, 225-foot-high dam west of the river and two smaller dikes.

The dam will operate by taking water from the lower reservoir and pumping it up to the upper reservoir which then can be used to create power by traveling through turbines, McMahon explained. If the upper reservoir is completely empty it would take 12 hours at about 850 megawatts to fill up and the water could then run back down and generate electricity at full power for 10 hours making it 80% efficient.

The dam would be able to operate at variable speeds according to McMahon depending on the need of the power grid. They are hoping that it will eventually be run by PJM so it can be adjusted to pump up or down in real time to match the current power needs.

The project would take several years to complete. All turbine generators for the project would be new and are expected to last for 50 years, according to the proposal, which also states the dam is not to consume any water during the process or affect the quality of the water after it is pumped. However, it does have the potential of affecting fish populations in the lower reservoir of Lake Clarke, which the company states it will study with the intent of minimizing conflicts.

## Revisiting old plans

Similar projects have been proposed in the past but were dropped.

In November 2013, a Massachusetts energy company withdrew its federal application to build a \$1 billion hydroelectric reservoir at a Girl Scout camp in York County, [according to LNP | LancasterOnline archives](#). The 1,660-acre project would have created a 600-acre reservoir with a 2-mile-long earthen dam, flooding part of the Camp Echo Trails Girl Scout Camp in York County which is currently closed.

A 1990 proposal would have flooded 300 acres of the Girl Scout camp and displaced 25 homes. Lancaster County commissioners and Manor Township supervisors jointly hired an attorney in 1997 to oppose the project. That project was dropped in 2000.

McMahon said that he was a part of the 1990 proposal. According to McMahon the project then was not possible due to deregulation at the time and the price of electricity in the daytime and at night. McMahon said the company was unable to continue as they would have wound up losing its potential to cover their expenses.

The York Energy Storage LLC references the 1990 attempt to build a dam, stating that “it should be noted that the proposed project was previously studied under a FERC Preliminary Permit (Project No. 10868-000) filed on January 17, 1990, by MidAtlantic Energy Engineers, Ltd under the name Cuff’s Run Pumped Storage. Many of the studies performed at that time are available and will be considered for applicability and need for updating.”

Additionally, the proposal goes on to say that consultants call the region “the best pumped storage site in the Mid-Atlantic region” and that the timing of the project is consistent with the expected growth of renewable energy projects.

## Conservationists concerns and impact to community

The proposed project is creating a sense of deja vu for local conservationists.

“Along with our partners, we are gathering information about the proposed project and its possible impacts on the Susquehanna Riverlands, a conservation landscape that the Conservancy and PA DCNR (Pennsylvania Department of Conservation and Natural Resources) have invested heavily in to protect for the benefit of our community and nature,” Phil Wenger, president and CEO of Lancaster Conservancy, said in an email Friday, adding that the conservatory will study the issue further. Lancaster Conservancy is a nonprofit that protects and restores natural lands for future generations according to the organization's website. Included on lands that the organization owns, there are preserves in Lancaster County as well as along the Susquehanna River in York County.

“Enough is enough,” said Platts, of the Susquehanna National Heritage Site. “You know, a lot has changed in the 50 years or so since the last power plant was built.”

The area is now used for outdoor recreation including hiking and boating, Platts pointed out. That focus on outdoor recreation in the area has been an economic generator from heritage and outdoor tourism, he said. It is an effort that Platts said state and local

governments as well as nonprofits have invested time and money into to preserve the land.

Outdoor recreation contributes about \$12 billion to the Pennsylvania economy and supports about 150,000 jobs, according to the most recent data available from the U.S. Bureau of Economic Analysis, or about 1.5 percent of the state's total economic productivity.

Platts also expressed concern that the Federal Energy Regulatory Commission, based in Washington, D.C., is looking at big national issues and will not be as engaged in what happens in the local communities or those communities' priorities.

The next step for the Susquehanna National Heritage Area, Platts said, is for discussion among the board of directors and within the organization.

A representative with the Pennsylvania Department of Conservation and National Resources declined to comment at this time.

"We are completely aware that our 1000 acres is in an important area," McMahon said. "We are doing our work committed to enhancing it to the maximum extent to the benefit of the public."

McMahon said that the company is dedicated to keeping and producing trails and recreation in the space and "better opportunities for the public than exist right now."

Ultimately, McMahon said that the project when finished would look like a lake with forests around it.

Manor Township Manager, Ryan Strohecker, when reached for comment said he wasn't aware of the latest proposal.

The York Energy Storage plan includes at least \$8 million for proposed studies including animal populations, endangered species, nests, fish populations, and recreation opportunities.

The project would create 300 jobs during construction and 25 permanent jobs, the proposal stated. Additionally, the proposal says that the dam would create significant property and business taxes for the government and utilize local businesses.

The proposal also stated that the dam would create a green footprint “with no emissions, noise, visual impact, traffic concerns, crime or emergencies.”