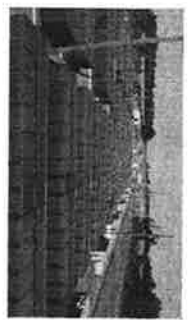


Nichols Exh #3

Permit request could prompt public meeting over controversial Bloom Energy power

Karl Baker, Delaware News Journal Published 3:31 p.m. ET Nov. 21, 2018 | Updated 3:58 p.m. ET Nov. 21, 2018



(Photo: Courtesy, Bloom Energy, Joe Swartley)

Bloom Energy's plan to swap out old fuel cells near Newark and Red Lion has spooked global investors and reinvigorated Delaware critics, who for years have been skeptical of the Silicon Valley company's lucrative incentive package from the state.

Last week, Bloom requested a construction permit that would allow it to replace its banks of fuel cells, called Bloom Boxes, which produce expensive electricity for Delaware households.

Bloom did not publicly state the cost of the project, though after its announcement a subsequent report said it could be between \$100 million and \$150 million. (<https://www.axios.com/bloom-energy-investors-dark-costly-delaware-boxes-7d1c5bdd-4782-4011-9cb9-9fed3b177f5b.html>)

Bloom's share price plummeted after the announcement, ultimately landing more than 60 percent below a September high.

In Delaware, the response came from David Stevenson, an energy analyst at the conservative Caesar Rodney Institute, who sent a letter to state regulators questioning whether Bloom has been properly disposing of the hazardous waste that forms within its natural gas-powered fuel cells.

In what is the latest challenge to the Silicon Valley (story/money/business/2018/09/26/bloom-critic-petitions-state-review-fuel-cell-surcharge-today-topping-200-million/1381971002) company's controversial existence in Delaware, Stevenson said he wants environmental regulators to explain to the public how the old fuel cells will be disposed of and whether new ones will bring any environmental concerns.

In the letter, he requested the state hold a public hearing on the issue.

"This hearing is an opportunity to try and answer some of those questions, to find out just how big this problem is and why DNREC continues to ignore it," Stevenson said.

Asked about the characterizations, Shawn Garvin, secretary of the Department of Natural Resources and Environmental Control, said, without directly naming Stevenson, that there are some "intellectually dishonest" people who oppose alternative sources of electricity, in principle.

Stevenson said he is motivated because "there's really no one else paying attention to this."

"Somebody's gotta point out the general population from the considerable amount of hazardous waste here," he said.



David Stevenson (Photo: CAESAR RODNEY INSTITUTE)

Bloom's plan to replace its fuel cells does not raise a concern from DNREC, Garvin said. Only the desulfurization filters within the old Bloom Boxes are hazardous, he said, but those regularly are replaced and then shipped out of state.

DNREC officials review the hazardous waste manifests of those shipments to ensure a compliance with the law, Garvin said.

David McCulloch, spokesman for Bloom, declined to set up an interview with a company executive for this story. In a statement, he said, the replacement fuel cells in Delaware will be more efficient and will reduce the amount of natural gas required to produce electricity.

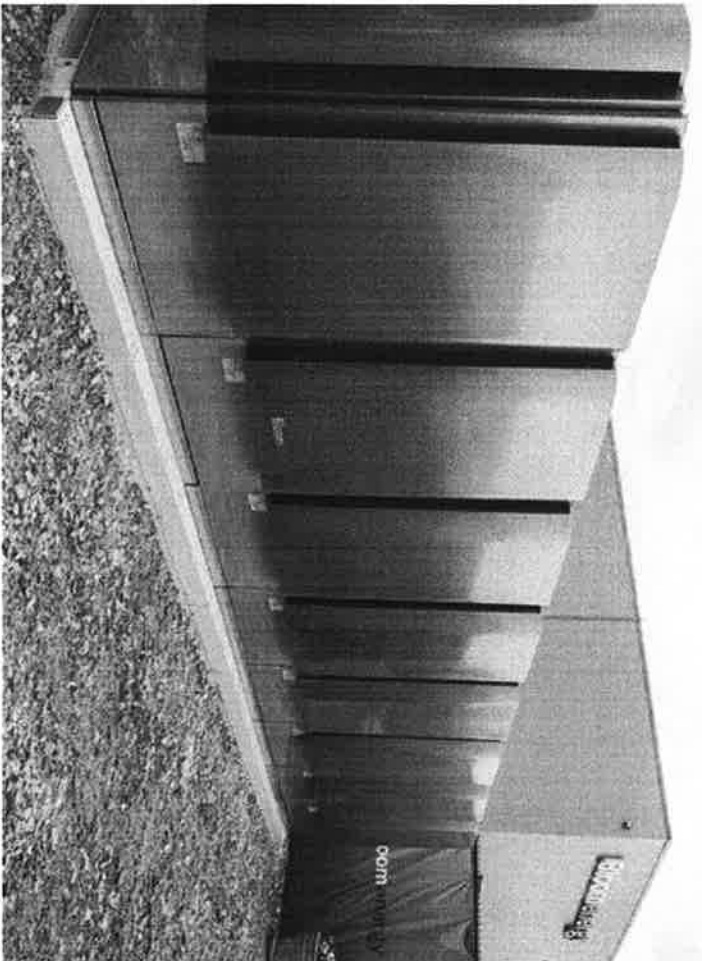
The fuel cells produce electricity through an electro-chemical reaction with natural gas.

"Higher efficiency brings environmental benefits with less gas consumed, McCulloch said. "Subject to the permit being granted, we intend to begin the replacements before the end of the year."

Michael Weinstein, an investment analyst who covers Bloom, said the fuel cell replacements in Delaware were "not a surprise."

They are in line with his expectations "to replace older generation systems with newer models that have a longer replacement cycle, lower heat rates, higher efficiency and smaller footprint," he said in a note.

Still, while perhaps routine, Garvin said DNREC does plan to hold a public hearing to discuss the permit, but not until Jan. 10, which presumably means Bloom's construction schedule will be pushed back.



Energy servers sit outside of the Bloom Energy factory in Newark. (Photo: KYLE GRANTHAM/THE NEWS JOURNAL)

A previous hazardous waste debate

It was March of 2012 when Bloom pledged that by 2017, it would employ 900 people at a soon-to-be-constructed, 178,000-square-foot facility in Newark.

In exchange for the commitment to Delaware, state officials showered the company with a generous benefits package.

Notably, there was an energy surcharge imposed on the electricity bills of every Delmarva ratepayer in Delaware. It was guaranteed by state lawmakers for 21 years under legislation approved in 2011 and enacted in the middle of 2012.

On its 2011 Coastal Zone permit application, Bloom was asked if the proposed project would "result in the generation of any hazardous waste as defined by the Delaware Regulations Governing Hazardous Waste."

The company responded, "No."

Then, two years ago, state and federal regulators found themselves at odds over Delaware's decision (story/news/2016/10/29/blooms-benzene-waste-energy-deferred-articles@000000) to exempt Bloom Energy from federal hazardous waste rules. At issue was benzene, a known human carcinogen linked to



Shawn Garvin, secretary of the Delaware Department of Natural Resources and Environmental Control, says his department plans to hold a public hearing to discuss Bloom Energy's construction permit submission. (Photo: Jason Minto, The News Journal)

In 2015, Garvin was a regional administrator for the U.S. Environmental Protection Agency. That's when he sent a letter to DNREC stating that Bloom's "desulfurization units" should be treated as hazardous waste when removed from the fuel cell box.

Ultimately, the state capitulated to the EPA and told Bloom that those units, which are used to capture sulfur waste after natural gas is converted to energy, must be treated as hazardous.

Civic activists and former DNREC manager David Carter at the time said he was outraged that state officials took the early position they did on the waste canisters.

When he learned that DNREC had reconsidered, Carter said, "That's positive. It would have been nice if he had done it from the beginning."

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