16 March 2021

Alex Graziani, Borough Manager,
Churchill Borough
Churchill PA 15235

Dear Alex,

This note is just to give you a general idea of what I was referring to as the kind of "Plan B" that the Borough might want to have in mind, in case Hillwood doesn't follow through with its plan for the old Westinghouse Research site. In my remarks at a recent meeting, I had made the point that the property is actually potentially very valuable to the community, rather than necessarily being a burden, as a 100+ acre site presents rare opportunities to build something that provides special quality of life benefits to the borough, rather than necessarily requiring a compromise in quality of life in return for additional tax revenue. In a recent email, you had asked me for more detail.

One example of the kind of project that could provide special benefits to the borough is something called a "microgrid." A microgrid can be designed so that it can be "islanded" from the main electricity grid, providing resiliency for the community in the event of a severe weather event that impacts the ability of the grid to provide power to residents. The damages to a home that can occur from frozen pipes that result from loss of power we saw happened in Texas recently, and the inconvenience (even loss of life) that have occurred due to lack of electrical power in both freezing temperatures and heat waves, can be prevented by such a microgrid. But there can also be benefits all year round. During normal times, community microgrids can sometimes provide lower cost power to a community, either directly or via connection to the main grid, and provide income from the sale of excess power to the utility that operates the main grid. Even when the profits from the sale of power are realized by a third party, the kind of security such a community microgrid project provides members of a community is valuable to everyone, and priceless to many. Perhaps the project could even include space for a few businesses or facilities that depend upon power being available in emergencies.

The famous case of a microgrid that saved the day is the Blue Lake Rancheria microgrid, which used solar panels. In that event, the tragedy causing power outages was wildfire. Quoting from the attached article in the Washington Post:

> " The Blue Lake Rancheria tribe has constructed a microgrid on its 100-acre reservation, a complex of solar panels, storage batteries and distribution lines that operates as part of the broader utility network or completely independent of it. It is a state-of-the-art system — and an indicator of what might be in California's future.
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> In early October, Pacific Gas & Electric cut power to more than 2 million people across Northern California, including all those who live here in rural Humboldt County, where redwood forests fringe the wild edge of the continent. The shut-off aimed to reduce the risk of wildfire, and as the region sat in darkness, the tribe's multimillion-dollar investment in its power system glowed.
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> Responding to public needs, the tribe transformed a hotel conference room into a newsroom so the local paper could publish. It used hotel guest rooms to take in eight critically ill patients from the county's Health and Human Services Department. The reservation's gas station and mini mart were among the only ones open, drawing a nearly mile-long line of cars." ("Amid shut-off woes, a beacon of energy", Washington Post, January 1st, 2020)

Blue Lake Rancheria was in California, but regulations now permit such microgrids in Pennsylvania. The regulations and financing possibilities are changing (in favor of microgrids) almost by the month, and such microgrids are now being built in Pennsylvania. There is a microgrid near the Pittsburgh International Airport, providing resiliency to airport operations. That one uses both natural gas and solar panels, because there is a gas well in the vicinity. Quoting from an article in the *Pittsburgh Business Times* in early 2021 ("Pittsburgh International Airport's microgrid project installs first set of solar panels"):

> " The first of 9,390 solar panels have been installed as part of Pittsburgh International Airport's (PIT) microgrid project, an endeavor that will serve as the facility's primary power source once it is completed this summer.
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> "It's a major milestone," Tom Woodrow, vice president of engineering at PIT, said . . .
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> [. . .]
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> When finished, the microgrid of natural gas and solar panels will be capable of producing more than 20 megawatts of electricity, or enough to power more than 13,000 residential homes, the airport said.

> . . . PIT CEO Christina Cassotis said in Blue Sky News. “This project will bring power resiliency and redundancy to enhance safety and ensure continued operations for the traveling public.”

The borough might want a smaller version. The goal should be to site the solar panels and equipment on the site to ecological advantage, i.e., so that trees and landscape stabilizing features are at least preserved, and maybe even enhanced. This should not be difficult, as solar panels can be placed to accommodate site features. I've attached an info sheet of the Blue Lake Rancheria facility with an aerial shot that gives some idea of how it was implemented there. ("Schatz Energy - Blue Lake Rancheria microgrid")

Now, as for funding, there are developers who are willing to take on microgrid projects. Or, perhaps the Borough would want to partner with a developer (and/or NAI) in order to have the benefit of setting some of the parameters and features of the project. Also of relevance is the fact that there are federal funds to compete for that might be able to be used for such a microgrid project: one competition already open is for funds for resilient communities. The other is a competition for funds to cope with climate change: that bill has passed the U.S. House and is currently before the U.S. Senate (the "Climate Bill.") It includes funds that can be used for community microgrids. So it might be worthwhile for the Borough to be planning now to be ready to compete for the funds should the opportunity arise. A good source of up-to-date information on microgrids is the website microgridknowledge.com

I am only sketching one possibility in this letter. I hope that it conveys to you the kind of thing I meant in suggesting the Borough Council think about a "Plan B" that would increase quality of life, and which it ought to consider developing so as to be in a position to take advantage of the opportunity the site presents to increase resiliency and security of the Borough, its residents (including Woodland Hills School), and possibly the surrounding community. As you and I discussed on an earlier occasion, including a historical interpretation feature discussing the cultural significance of the site (e.g., Raystown Path) might also be considered.

Susan G Sterrett, 1903 Hampstead Drive, Churchill PA 15235

Attachments:

1. "Amid shut-off woes, a beacon of energy", Washington Post, January 1st, 2020.

2. "Schatz Energy - Blue Lake Rancheria Microgrid" Information sheet