

The Honorable James M. Hoops
Chair
Select Committee on Energy Policy and Oversight
77 S. High St., 11th Floor
Columbus, OH 43215
(614) 466-3760
<http://www.ohiohouse.gov/james-m-hoops>

RE: Testimony Regarding HB 798

12-9-2020

Dear Chairman Hoops:

My name is Dr. Daniel L. Van Epps, and I reside in Dover, OH (Tuscarawas County). Please permit me to offer to the Committee a potential compromise to House Bill 6's issues.

The electric utilities' unwanted nuclear power plants in the State of Ohio are increasingly inefficient compared to emerging power technologies and should be closed. However instead of those plants usually being liquidated and their locales completely losing those jobs and taxes, the State, existing or new port authorities created by multiple political subdivisions, and/or other parties should acquire them essentially at their scrap values if not for free as part of future HB 6 fraud penalties against FirstEnergy.

The new plant owners should then repurpose their cooling systems and certain facilities as massive datacenters. Datacenters are a significant growth industry, especially considering the number of new \$B+ facilities being built from scratch around Columbus. Repurposing quite hardened nuclear power plants would save many \$Ms vs. all new datacenter construction costs, plus would save \$Ms more in liquidation costs and related issues.

These new datacenters could host multiple users and uses including wholesale and retail Internet service providers, Content Distribution Networks (i.e., Google, Netflix, Amazon, Microsoft, Apple), organizations and businesses conducting research and development (particularly to address COVID-19 and any mutations), supercomputers, artificial intelligence, machine learning, crypto technologies, in addition to regular datacenter data storage/backup, website hosting, colocation, and related functions.

Choice datacenters feature industrial strength cooling systems to keep the computers and servers cool. Nuclear power plants have high capacity water and cooling systems to produce steam and to keep the fuel rods cool. Once the power plants are taken off-line and the fuel rods are relocated, the water and cooling systems could easily serve the datacenters' needs. Both plants being next to Lake Erie ensure a vast water supply pending any federal and state use regulations.

Large datacenters are also served by multiple wholesale ISPs' high speed/high capacity fiber optic lines. Those plants along the Lake Erie shoreline are close to the NYC-Chicago segments of buried transnational wholesale fiber lines and to private quasi-covert financial wireless systems connecting Wall St. to the Chicago trading markets. NYC and Chicago are also major Internet nodes. The proposed datacenters could connect to those fiber and wireless networks via new and/or existing branch fiber lines.

For example, Attachment p.1 shows the Perry Nuclear Power Plant already being directly served by a number of local and regional ISPs' retail and retail/wholesale fiber networks as indicated by the thin colored lines. The NYC-Chicago wholesale fiber lines indicated by the thick orange, red, and green lines are about 3 miles south of the plant (note those three wholesale lines may each be comprised of multiple wholesale ISPs' own lines). Attachment p.2 shows regional ISP Everstream's network generally sharing the same routes as the p.1 local and regional networks but not directly serving the plant.

Attachment p.3 shows the Davis-Besse Power Plant currently being served by one local/regional ISP with another in the near vicinity. The red and green NYC-Chicago wholesale fiber lines are about 7.75 miles south of the plant in Oak Harbor. Attachment p.4 shows Everstream's network in the region near Port Clinton.

Not only could ISPs and CDNs serve the new datacenters with high speed and high capacity telecommunications (Sidebar - ISPs Windstream and Everstream are partnering on new 400 Gigabit/second service using Windstream's wholesale fiber lines between datacenters in Cleveland and Chicago, with part of that route shown in the Attachment p.3 map), but new and existing local and regional private and public telecommunications networks could then be rolled out from the datacenters to offer area users a choice of ISPs, vastly improved Gigabit+ speeds, decreased service prices, increased Quality of Services, redundancy (say in case one ISP's network goes down), and direct access to the CDNs present at the datacenters.

Contamination and asbestos within reusable plant facilities could be remediated with OEPA and other brownfield funds, but the utilities must be held responsible for cleaning up radiation, fuel rods, and related contamination around the rest of the sites. The cleaned-up facilities, grounds, and adjacent real properties could then be developed as "IT Parks" - like tech parks but pursuing Information Technology-based clients benefiting from direct access to ISPs and CDNs within the datacenters or remote access from other facilities next to the datacenters. The plants' facilities and clusters of new facilities adjacent to those plants could host multiple types of datacenters (i.e., open to the public, sole corporation user, university, military, etc.).

Local governments and schools might not experience the equivalent job numbers and tax revenues the former power plants provided if their facilities are converted to datacenters, but the IT parks would much

better position them as significant players in the emerging Information Economy and encourage secondary and tertiary businesses to cluster around the sites. Improved area telecommunications would increase political subdivisions' property values - ask the Cities of Fairlawn and Hudson about their public telecommunications systems significantly increasing their tax revenues (and Fairlawn will soon have access to that 400Gb/s wholesale service in Cleveland).

The datacenters could use alternative energy sources, microgrids, CHP (Combined Heat and Power technologies that convert waste heat into energy), large storage battery arrays, etc., too to attract increasingly green-minded high tech clients and to promote green energy development efforts.

Media reports say the General Assembly and/or the Committee may require FirstEnergy to prove it needs financial subsidies to remain in business, and an audit might be conducted. May I suggest that as part of FirstEnergy's and possibly other involved parties' penalties for their fraudulent HB 6 actions that they also be required to finance independent analyses of restructuring their plants into datacenters.

For full disclosure I have no financial interests in any of the utilities, ISPs, CDNs, or datacenter providers. On 3-9-2020 I did contact aides for Rep. Larry Householder and Sen. Jay Hottinger with a version of this proposal to acquire AEP's unwanted 2 GigaWatt Conesville (Coshocton County) coal-burning power plant located in their districts and repurpose it as a datacenter. AEP declined the proposal and instead sold the plant and surrounding strip-mined grounds to a NY-state scrapper for \$6,475,000 that plans to tear most of it down (like they've done to the blast furnace steel mills in the Steubenville-Weirton area) in favor of a spec industrial park.

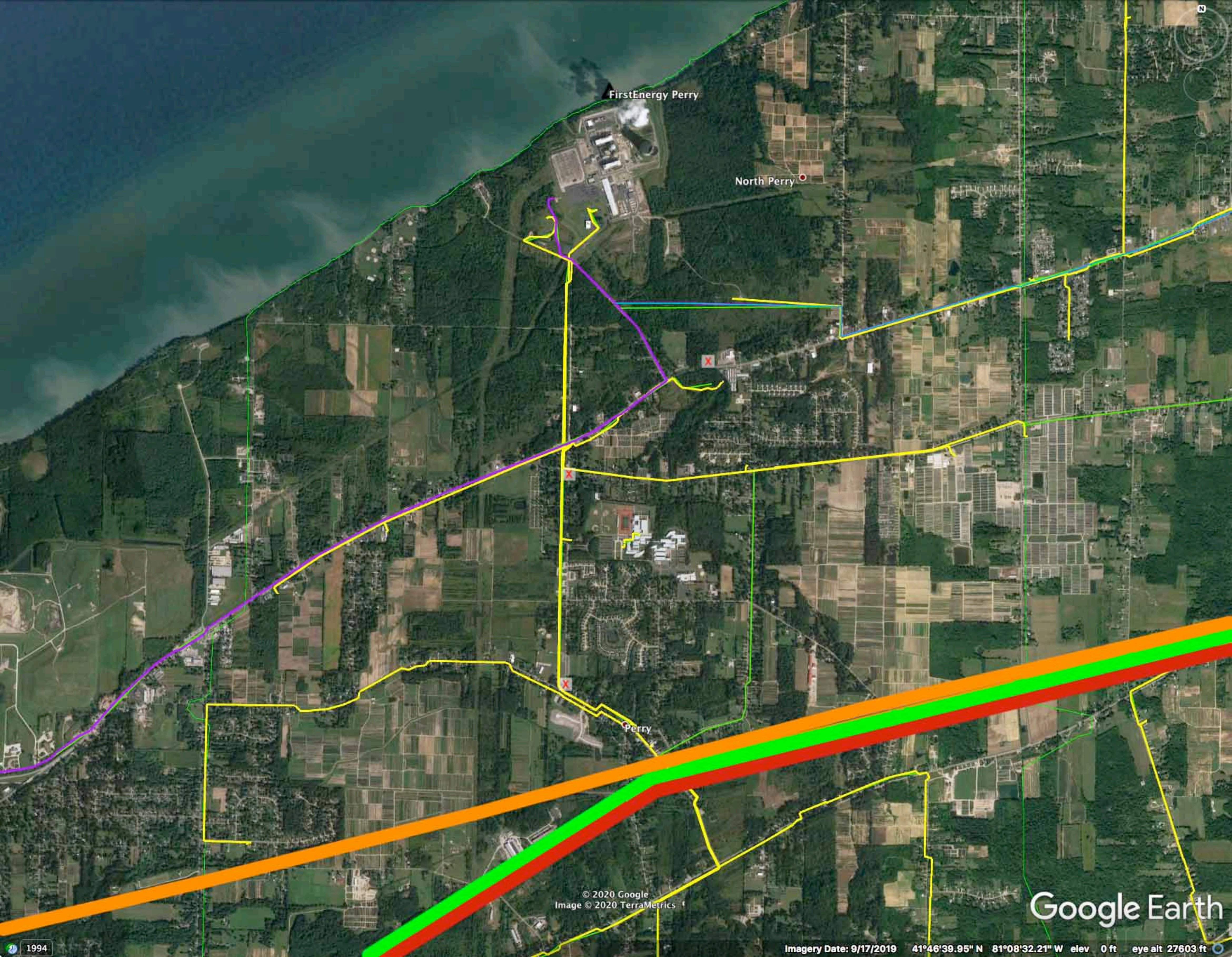
The General Assembly's potential interest in this proposal, intervening in the Conesville plant situation, and repurposing Ohio's other closed and to-be closed coal-burning power plants into datacenters vs. being liquidated and decimating the socioeconomies of those locales would be appreciated.

Thank you for your time, and I am available for any questions at the following address.

Sincerely,



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FirstEnergy Perry

North Perry

Perry

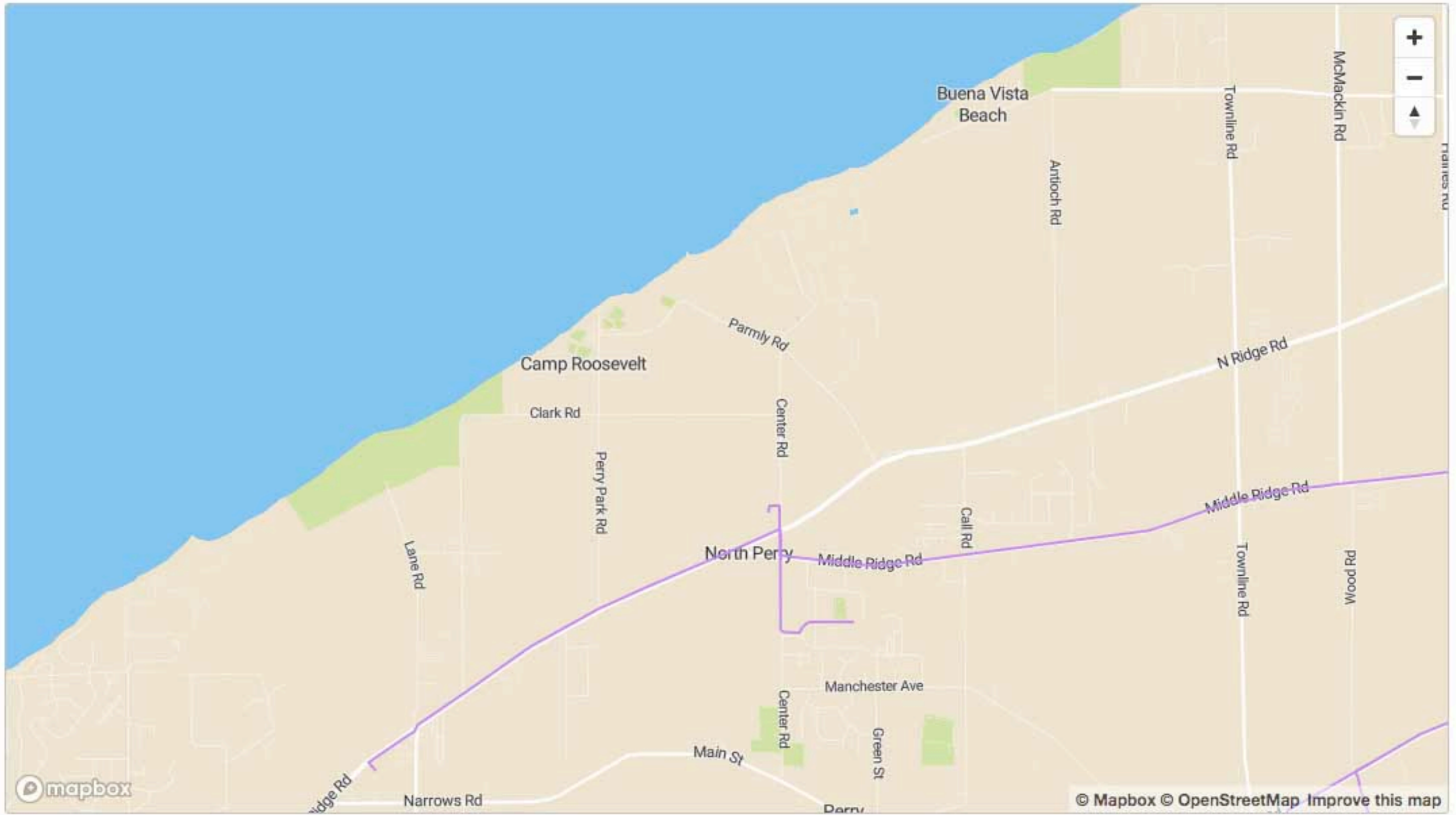
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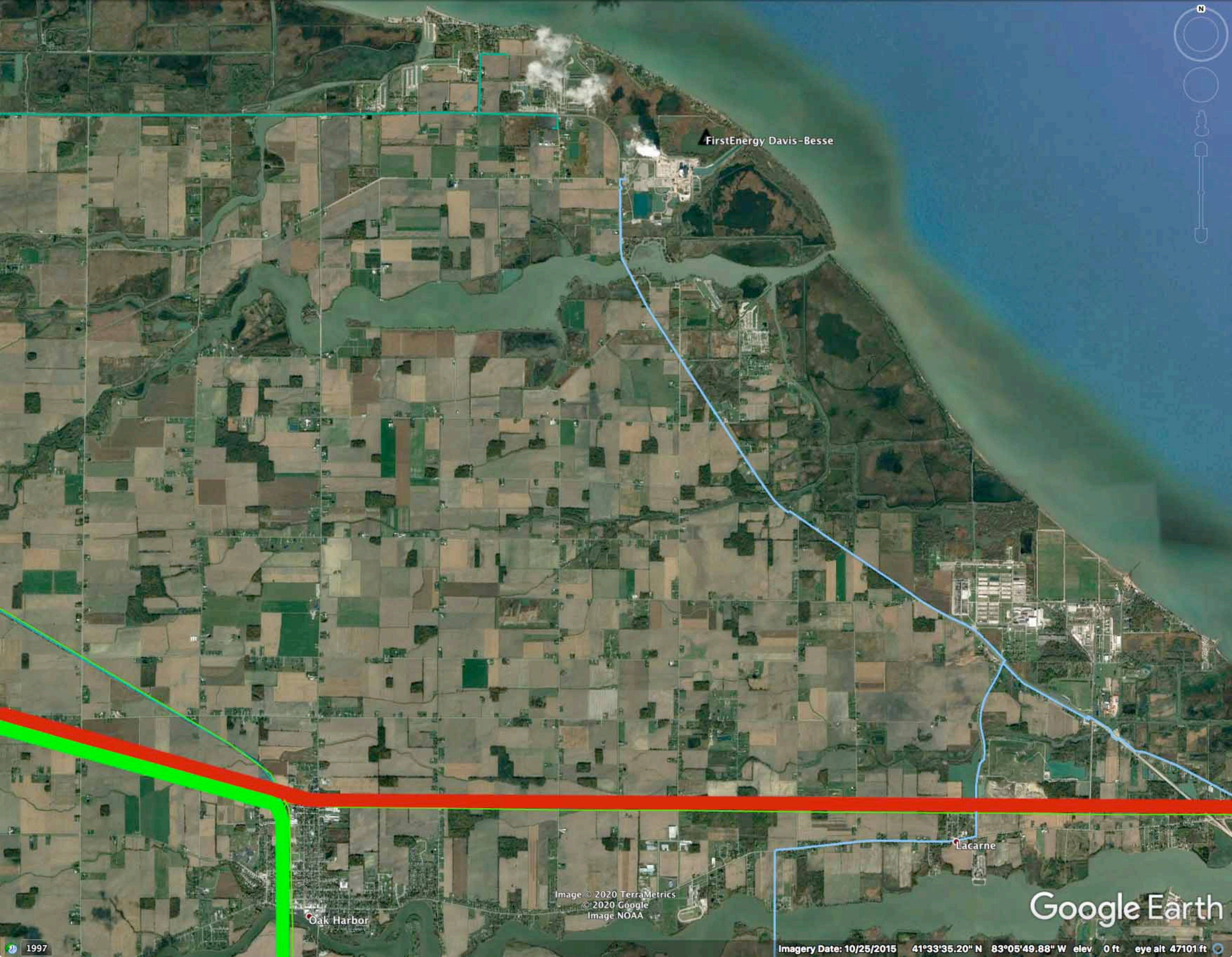
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FirstEnergy Davis-Besse

Lacarne

Oak Harbor

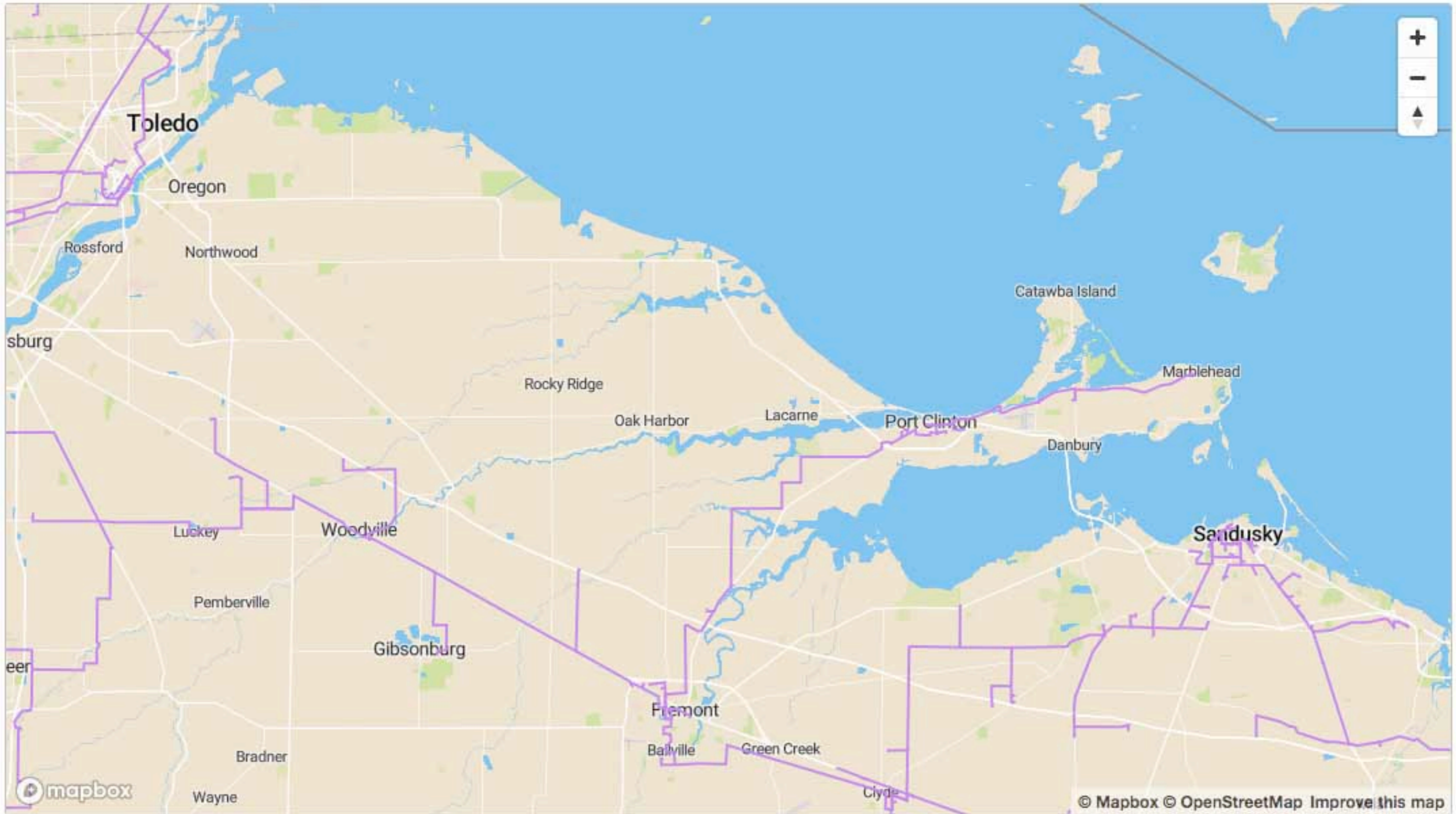
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PROFILE

Daniel L. Van Epps, Ed.D.
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12-24-2019

Daniel Lee Van Epps, 54, of Dover, is a 2013 graduate of West Virginia University having obtained a Doctorate of Education in Technology Education with an emphasis of Systems Analysis. His 774-page dissertation was entitled "Emulation of Equal Open Access and Competition Creation in the Wireline Telecommunications Local and Last Mile Market Segments". He also completed a graduate assistantship at WVU's National Alternative Fuels Training Consortium, collaborating with industry experts to design curriculum and provide instructional technology support.

Dr. Van Epps was born in Detroit (MI), graduated from Dover High School (OH) in 1984, completed B.A. and M.A. degrees in Telecommunications/Information Systems and Technology from Michigan State University, a certificate in Fiber Optics Technology from Lansing (MI) Community College, a Master's Certificate in Intelligent Transportation Systems from the University of Michigan, CDPs in Renewable Energy from Ohio State University @ Wooster, and a railroad business class at Carnegie Mellon University (PA) is pending.

He is currently executive director of the Stillwater Valley Community Improvement Corporation located in the Dennison-Uhrichsville, OH area, and is executive director of the Conotton-Sandy-Tuscarawas Valley Community Improvement Corporation (<http://www.cstvcic.org>) located in the Mineral City, OH area.

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