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Comments of Theresa Ghiorzi in opposition to the Designation of the National Interest Electric Transmission Corridor for the Mid-Atlantic Region.

Please confirm receipt of these comments by email to theresag@ccone.com

**I am requesting interested party status in accordance with DOE's NIETC Guidance at Pages 41-42 to preserve my right to request rehearing or appeal a corridor designation.**

**I object to the process by which the DOE has designated the Mid-Atlantic corridor.**

Section 16 U.S. Code § 824p (a)(2) instructs the DOE to study transmission congestion and then issue a report designating NIETC's that benefit customers. Instead the DOE solicited projects (of which MARL was one) then built a corridors around it.

Additionally, in its process consideration DOE claimed, "DOE is considering this process for designating NIETCs in recognition of the fact ….[it] would unlock new financing and regulatory tools to spur investment in those areas" - this was not a valid reason per 16 U.S. Code § 824p (a)(4)(A-H)

Now , in DOE's Initiation of Phase 2 of the National Interest Corridor Interest Electric Transmission Corridor (NIETC) Designation Process: Preliminary List of Potential NIETCs , DOE states : "It is important to emphasize that this is a preliminary step: a more in-depth evaluation of transmission capacity constraints or congestion and adverse effects on consumers will follow for those potential NIETCs that proceed to Phase 3 after DOE's review of information gathered during Phase 2".

Again, this is backwards, an in-depth evaluation of transmission capacity constraints or congestion and adverse effects on consumers is supposed to precede the designation of the corridor.

The DOE should have done an in-depth evaluation of transmission capacity constraints or congestion and adverse effects on consumers**,** then designated a "narrow geographic area" to locate one or more transmission lines , then solicited projects.

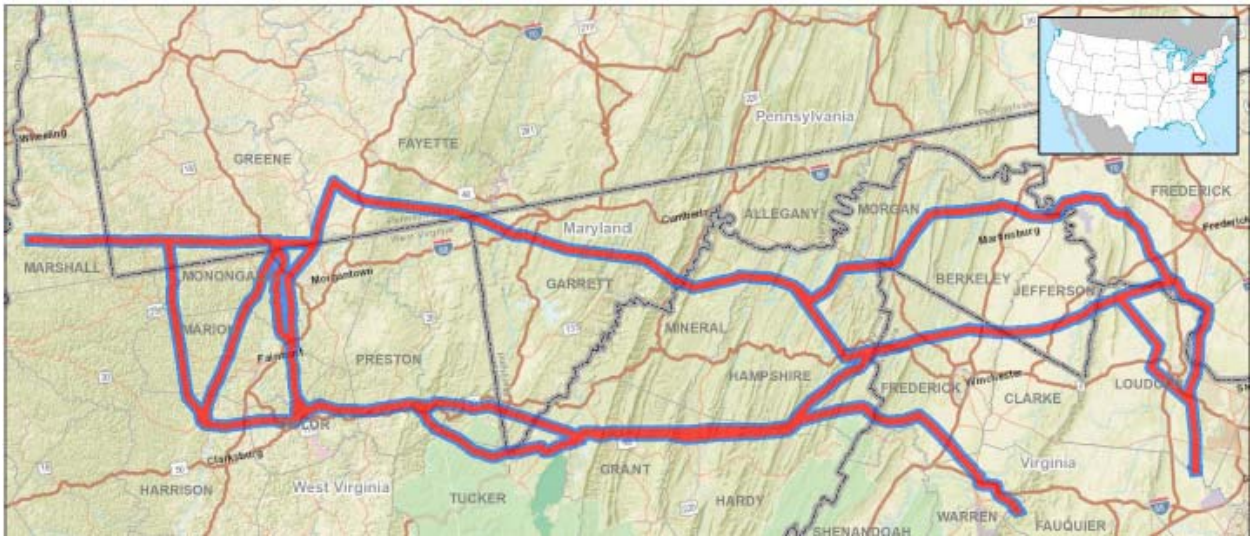
In its guidance, DOE stated: *"Early, meaningful engagement with interested parties should reduce opposition to NIETC designation and to eventual transmission project siting and permitting within NIETCs, meaning more timely deployment of essential transmission investments."*

***Private property owners are interested parties.***

**Prior to the selection of the proposed corridors to move forward to Phase 3, the DOE must directly notify each private landowner within the corridor as well as providing public notification** - including posted notices in all local newspapers servicing the area of each proposed corridor, public in-person

meetings as well as webinars, and publicly available information on each corridor including descriptive text identifying boundaries as well as maps plus all transmission line(s) proposed in the corridor, along with proposed routes.

**For the Mid-Atlantic corridor, DOE created an additional set of alternative routes along existing transmission lines for the MARL transmission line, for which NextERA has already received a 9% incentive rate from FERC.**




The only piece from PJM's "PJM Reliability Analysis Update, December 5, 2023" that has been left off is the 500kv line originating near the Peach Bottom Nuclear plant in Pennsylvania that is cutting down from Pennsylvania , through Maryland to Doubs then into the Aspen substation . Three 500kv lines, all to support data center expansion in Virginia's Data Center Alley.

DOE has re-hashed MARL and plunked it into a federal document . DOE is not a grid planner, transmission regulator or transmission router . DOE took an existing proposal and a "fat highlighter" and drew "corridors along existing infrastructure. There doesn't appear to be much actual analysis or though put into this proposal.

I **do not support a NIETC designation for the Mid-Atlantic region** for the reasons detailed below.

## 1) The area of the Mid-Atlantic NIETC is not large enough for alternatives or route changes

The Mid-Atlantic corridor(s) identified do not contain sufficient area to route the transmission line along existing easements for state Highways and/or federal highways or both existing and retired or disused railroads(passenger and freight) easements.

The assumption that expanding existing transmission easements is somehow less destructive is absolutely false. "Expanding" a transmission easement is taking an additional 150' to 200' of private property it destroys everything in that space - existing buildings, swimming pools , decks, sheds, barns, fences, gardens, orchards, berry patches, playgrounds, septic systems and wells - absolutely everything this seriously damages "host" properties and may make them un-inhabitable.

Where does "Energy Justice" fit into this scheme? Energy justice means that you cannot force more and more energy infrastructure on the same people. The only corridors DOE drew are along existing transmission lines - once again proposing subjecting the same homes and communities to further destruction of their properties and view shed.

Lets also note the repeated disparate impact on those same rural communities as well as the systemic bias that results in them being selected in the first place.

At their Oct. 3 TEAC, PJM staff indicated that they had not recommended certain projects due to "entrenched opposition". In the Mid-Atlantic NIETC section, DOE states it "largely parallels existing 500kV transmission facilities, attempting to avoid areas where transmission is less likely to be built". Transmission line routing and NIETC designation both result in the taking of private property by eminent domain - allegedly all property can be subjected to this taking. However, both PJM and DOE have 'exempted' certain areas from being subject to eminent domain taking of their properties. Does the DOE have the requisite reports to show that these "areas" have substantiated reasons that transmission is less likely to be built or has DOE avoided the more affluent and politically connected areas?

In both instances , I believe the areas have been selected because PJM and the DOE think they have a better chance of steamrolling the locals in these rural areas.

**NIETC designation for the Mid-Atlantic region will severely impact natural and historic resources, local tourism and agriculture, state and national parks and residential and rural communities .**

One of the proposed corridors specifically, the existing Mt. Storm - Doubs corridor followed by the Doubs - Aspen Corridor runs through rural areas in multiple counties in three states - through Garrett County and Allegheny County in Maryland, Jefferson County ,West Virginia , Frederick County and

Loudoun County , Virginia across the Potomac River, through Frederick County and Montgomery County Maryland back across the Potomac River into Loudoun County.

The existing Mt. Storm - Doubs corridor runs past / through numerous conservation easements and parks along the Potomac River. It is two 200' easements - 1 owned by First Energy and 1 owned by Dominion Energy . There is a 500kv and a 230kv line . It crosses the Potomac River and the C&O Canal once to get into Maryland and over to Doubs and then crosses each a second time to get from Doubs to Aspen. Both segments are already have multiple transmission lines. There is no room for another line without expanding the easement .

**<u>No one living beside two 500kv lines wants to be living beside three or more 500kv lines!</u>**

The shortest route from the energy source - West Virginia's coal fired plants - specifically the Fort Martin Power Station, Harrison Power and the Mitchell Power Station - into the 'heart' of data center alley in Northern Virginia and Maryland to data center alley does not run through Jefferson County , West Virginia and four counties in Maryland. The entire line can be contained within West Virginia and Virginia along existing highways without taking private property.

The corridors identified encompass only one of the two existing Appalachian Trail transmission line crossings in Virginia. It also does not include the existing three highway crossings between West Virginia and Virginia at Route 7, Route 9 and Route 50 .


The Route 7 highway easement that crosses the Appalachian Trail would be ideal as Data Center Alley is along Route 7. That portion of the Appalachian Trail follows Route 7 for a bit then there is a hazardous pedestrian crossing, a transmission line in that easement is not likely to be a severe impediment to the view shed , if the transmission company added a better trail and pedestrian bridge across Route 7 it

would actually be an improvement. Route 9 and Route 50 also provide easements to cross the Appalachian Trail as well as highway routes into Data Center Alley.

Additionally , the use of High Voltage Direct Current (HVDC) transmission lines would minimize visual impacts as it can be buried.

A recent study (2022) done by NextGen, for the Minnesota DOT, [1] indicates that the cost of the converter stations and cable costs have fallen substantially. HVDC can be buried underground in a ROW that is only 5ft deep x 5ft wide as compared to the 200ft wide overhead HVAC transmission line, minimal ongoing maintenance, minimal impact to the environment and local communities , can be situated in existing transmission easements, or along hi-way and interstate rows. Note that the Federal Highway Administration (FHWA) is encouraging state DOTs to allow co-location of electrical transmission and distribution projects, broadband projects renewable energy in the highway and interstate ROW[2]

NextGen's study for Minnesota states “Buried HVDC transmission is comparable in cost to overhead AC transmission while providing additional reliability and resilience benefits.", and that "DOT ROW and buried HVDC transmission can deliver billions of dollars in societal benefits" [3]. The study is a through 81 page document including societal benefits, permitting costs, carbon emissions reduction capacity and links to references supporting their assertions.

High Voltage Direct Current (HVDC) transmission lines should be used as HVDC does not have the line losses as HVAC does and it can carry more electricity on fewer lines, the HVDC towers are smaller, and HVDC lines can be buried underground in existing rights of way and underwater as has been done for the **Champlain Hudson Power Express, The Hudson Project, NeptuneTransmission, New England Clean Power Link** and others.

***Prior to selecting a Mid-Atlantic corridor a study similar to the NextGen Highways study for Minnesota DOT MUST be done in the Mid-Atlantic Region to identify feasible routes along state and federal highways and railway easements.***

***The Mid-Atlantic NIETC corridors need to be moved or expanded to take advantage of existing highway and railway corridors.***

***Transmission proposals in Mid-Atlantic NIETC corridors must include an HVDC option including an underground HVDC option that can be analyzed for cost vs benefits as well as environmental and sociological impacts.***

[1] "NextGen Highways Feasibility Study for the Minnesota Department of Transportation, Buried High-Voltage Direct Current Transmission ", Available at: https://nextgenhighways.org/wp-content/uploads/2024/02/NexGen-ighways-Analysis-Report-2.1.24.pdf

[2] US Department of Transportation, " State DOTs Leveraging Alternative Uses of the Highway Right-of-Way Guidance " Available at: https://www.fhwa.dot.gov/real_estate/right-of-way/corridor_management/alternative_uses_guidance.cfm

[3] "NextGen Highways Feasibility Study for the Minnesota Department of Transportation, Buried High-Voltage Direct Current Transmission ", Page 13 Available at: https://nextgenhighways.org/wp-content/uploads/2024/02/NexGen-Highways-Analysis-Report-2.1.24.pdf

## 2) Lack of transmission is not the problem - lack of energy generation is

Pennsylvania and West Virginia are the only two states in the Mid-Atlantic region that export electricity to other states. Pennsylvania's electricity is mainly created from natural gas, with coal and nuclear making up the remainder. West Virginia's energy mix is 91% of coal with natural gas making up the remainder.

Couple this with the multiple states (Virginia, Maryland and Washington DC, Delaware and New Jersey) in the PJM region that are shutting down functioning base load power station without building sufficient energy generation facilities to replace them.

"*The Commonwealth of Virginia's 2022 Energy Plan*" unambiguously states :

> "To meet Virginians' round-the-clock energy needs, full compliance with VCEA will necessitate a reliance on other PJM states to produce the baseload generation capacity for the Commonwealth absent incorporation of currently unavailable grid storage, nuclear, or hydrogen technologies. In short, VCEA depends on Virginia outsourcing reliable baseload capacity to other states, many of which have a high percentage of coal and natural gas generation, and increasing Virginia's dependence on electricity imports."[4]

Additionally , "*The Commonwealth of Virginia's 2022 Energy Plan*" concedes:

1) "If Virginia increases its reliance on intermittent generation, the level of electricity imports from other states will increase and expose Virginia to future changes that may occur in net exporting states, such as Illinois, Ohio, Michigan, Pennsylvania and West Virginia."[5]
2) "[T]his transition results in a significant supply shortage because [the] VCEA results in a 58% reduction in baseload energy generation without planning for replacement sources"[6]

**Virginia's stated energy policy <u>is</u> to reduce baseload generation <u>without</u> planning for replacement sources. It <u>depends on</u> neighboring states for baseload generation <u>while acknowledging</u>, if neighboring states go green, Virginia's lights may go out.**

**Maryland is in the same boat - shutting down energy generation without planning for replacement sources!**

The PJM Market Monitor has been recommending for the past 10 years that PJM create "…a mechanism to permit a direct comparison, or competition, between transmission and generation alternatives, including which alternative is less costly and who bears the risks associated with each alternative." (2023 Quarterly State of the Market Report for PJM: January through September, Pg. 719).

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[4] "*Commonwealth of Virginia 2022 Energy Plan*", Virginia Department of Energy, October 2022, Page 10; Available at https://energy.virginia.gov/energy-efficiency/documents/2022_Virginia_Energy_Plan.pdf

[5] *Ibid*., Page 14

[6] *Ibid*., Page 10

The most efficient means to meet the projected energy load is to build energy generation in Virginia close to the energy need. Importing electricity stifles the building of in state generation facilities.

The reason for the congestion is that Dominion Energy has promised energy to more data centers than it has power to supply. Dominion Energy has already connected more data center load to the grid than there is energy available locally as a result there is 'congestion' during peak usage as the energy is drawn from power sources further away.

> "Approximately 150 data centers in Prince William, Fairfax and Loudoun counties could be eligible for the variance, according to Proctor.
> That region, particularly the part of Loudoun known as Data Center Alley, is home to almost 300 facilities that contain the servers carrying roughly 70% of global internet traffic. It is the largest concentration of data centers in the world, followed distantly by Silicon Valley.
> While Virginia has actively courted further data center development through tax credits, accelerating growth of the industry in Northern Virginia has strained the ability of existing transmission power lines to carry the massive amounts of electricity these facilities require to operate into the areas where they are concentrated.
> Today, **Dominion says data centers account for roughly 20% of its total electric sales in Virginia. Much of the increase has occurred rapidly: Since 2019, the utility has connected nearly 70 new data centers in the area with over 2,600 megawatts of capacity — an amount equal to what's needed to power roughly 650,000 homes.**
> The expansion was flagged by grid operator PJM last January in its five-year forecast of the demand utilities should expect, which noted PJM had had to adjust its Dominion forecast "to account for substantial ongoing growth in data center construction."
> **In July, Dominion warned data centers in Ashburn it might not be able to meet power demands. After temporarily pausing connections for new data centers in Data Center Alley to analyze the area's transmission system, the utility then began rolling out plans for a slate of improvements, including substation expansions and the construction of two new major transmission lines**.
> While the impacts of potential electricity shortfalls will be limited to data centers in Loudoun, Fairfax and Prince William, **costs of new transmission projects are borne by all customers**. " [7]

Dominion's Virginia Integrated Resource Plan which calls for increasing generation imports from other states in the region to more than 10,000 MW.[8] Assuming one fossil fuel or nuclear power generator produces around 1,000 MW, that's at least 10 electric plants in surrounding states that would exclusively serve Virginia's data center's power needs.

Both states are providing massive economic incentives to data centers which is fuelling the explosive energy demand projections.

**Transmission is not the problem - insufficient energy production close to the data center load is the problem.**

[7] Virginia Mercury, "VA Regulators propose easing emission limits for data centers over power transmission concerns." ;Available at: https://virginiamercury.com/2023/01/31/va-regulators-propose-easing-emission-limits-for-data-centers-over-power-transmission-concerns/

[8] "*Virginia Electric and Power Company - 2023 Integrated Resource Plan*", Virginia State Corporation Commission, Case No. PUR-2023-00066, 2023

Importing coal-fired electricity from West Virginia will only make matters worse , it will incentivize additional data center construction which will again cause congestion which will result in more transmission lines to coal - fired energy plants in West Virginia.

*First Energy's website states: "We've identified several challenges to our ability to meet that interim goal, including* ***resource adequacy concerns in the PJM region and state energy policy initiatives.*** *Given these challenges, we have decided to remove our 2030 interim goal. Through regulatory filings in West Virginia, we have forecast the end of the useful life of Fort Martin in 2035 and for Harrison in 2040."*

There would not be resource adequacy concerns if there were enough resources - the resource is energy and we do not have enough of it to power the data centers.

Neither the DOE nor PJM can compel generation to be built.

***There is no point in PJM's planning process nor the DOE's NIETC Designation process where a generation solution can be proposed or analyzed for cost vs benefits let alone community and environmental impacts.***

As the DOE is aware coal fired electric generation plants are being shutdown and natural gas is soon to follow - per federal rules.

**Building transmission lines to energy generation plants that are being shutdown is the energy policy equivalent of rearranging deck chairs on the Titanic!**

We need more base load generation in Virginia and Maryland !

***What is the economic trade and environmental off of building in-state natural gas generation co-located with the power demand vs the community and environmental impacts of multiple transmission lines?***

Every single project recommended by PJM is a transmission project and every single transmission project is described as being critical to resolve reliability criteria violations. That is all PJM does resolve reliability criteria violations with transmission lines - they are doing the only thing under their control. When all you have is a hammer everything looks like a nail. The incentives granted to transmission projects do not help - it incentivizes transmission over generation.

An argument can be made that generation facilities located in close proximity to power loads, especially massive power loads such as data centers and large cities, produces a more reliable, resilient and efficient grid than massive power lines crossing multiple states to serve those loads.

Other solutions include on-site generation at the data centers, in addition to solar which can be built on-site on warehouses and data centers, there are natural gas power generation and advanced small nuclear reactors . DOW chemical in Houston Texas, is working on deploying on-site advanced small nuclear reactors to support their manufacturing.

> **"MIDLAND, Mich. and ROCKVILLE, Md., May 11, 2023 --** (NYSE: DOW), the world's leading materials science company, and X-Energy Reactor Company, LLC ("X-energy"), a leading

developer of advanced nuclear reactors and fuel technology for clean energy generation, announced today that Dow has selected its UCC[1] Seadrift Operations manufacturing site ("Seadrift or the "site") in Texas for its proposed advanced small modular reactor ("SMR") nuclear project. The project is focused on providing the Seadrift site with safe, reliable, zero carbon emissions power and steam as existing energy and steam assets near their end-of-life."[9]

In Virginia, Green Energy Partners (GEP), LLC , has plans to use four to six 250MW small modular nuclear reactors to power its data centers [10]

There are existing energy generation facilities /locations in both Virginia and Maryland where coal generation has been shutdown that could be re-purposed for cleaner energy generation - natural gas , biomass, waste-to-energy, nuclear, small modular nuclear . These sites are already grid connected and have many of the requisite environmental reviews already.

In Southern Virginia, Dominion has started construction on the Costal Virginia Offshore Wind Project at completion (scheduled for 2026) it will provide 2.6 GW of emission free energy.

There is also the North Anna Nuclear Generating Station, in 2017 Dominion obtained regulatory permission from the NRC to build and operate an additional 1535 MW unit at the site. However, Dominion paused the project due to market conditions.

Building in-state energy in Virginia and Maryland is constrained by energy policies - which can be changed .

Energy Demand is a direct result of economic policies incentivizing data center development - which can also be changed.

Data centers are also not subject to demand response or energy efficiency requirements - which can be implemented through legislation.

## 3) The sources of energy for the Mid-Atlantic NIETC conflict with National energy policy

The proposed Mid-Atlantic NIETC would enhance the ability of coal-fired generators to connect additional capacity to the grid and increase emissions and make Virginia critically dependent on them for the foreseeable future.

[9]DOW Corporate site press release: "Dow's Seadrift, Texas location selected for X-energy advanced SMR nuclear project to deliver safe, reliable, zero carbon emissions power and steam production" Available at: https://corporate.dow.com/en-us/news/press-releases/dow-s-seadrift--texas-location-selected-for-x-energy-advanced-sm.html

[10] Data Center Frontier, " Virginia Data Center Project Plans to Transition to Small Modular Reactors" Available at: https://www.datacenterfrontier.com/data-center-site-selection/article/33003477/virginia-data-center-project-plans-to-transition-to-small-modular-reactors

The MARL transmission line starts at the 502 Junction and is a  giant extension cord from West Virginia's coal fired plants - specifically the Fort Martin Power Station, Harrison Power and the Mitchell Power Station - into the 'heart' of data center alley in Northern Virginia.

All three of these generators are coal-fired and together total nearly 5,000 MW of capacity. Subsequent to PJM's board meeting approving the lines, both generation facilities owned by First Energy (Fort Martin and Harrison) announced they will not meet their climate goals for 2030.

> "*After careful consideration and evaluation, in late 2023 we made the decision to remove our interim target to achieve a 30% reduction in GHG emissions by 2030 from a 2019 baseline since achieving it is not entirely within our control.* "
>
> "***Achieving the 2030 interim goal was predicated on meaningful emissions reductions at our Fort Martin and Harrison power plants in West Virginia, which account for approximately 99% of our greenhouse gas emissions.***
>
> *We've identified several challenges to our ability to meet that interim goal, including resource adequacy concerns in the PJM region and state energy policy initiatives. Given these challenges, we have decided to remove our 2030 interim goal. Through regulatory filings in West Virginia, we have forecast the end of the useful life of Fort Martin in 2035 and for Harrison in 2040." (source First Energy)*

***This does not align with federal priorities to reduce greenhouse gas emissions!***

The EPA has recently created a "good neighbor" rule that will effectively restrict smokestack emissions from power plant that burden downwind areas with smog-causing pollution.

Maryland has filed lawsuits to force the shutdown of dirty generation in other states.

> "The petition asks the EPA to issue a finding that 36 electric generating units located in Indiana, Kentucky, Ohio, Pennsylvania, and West Virginia are in violation of the prohibition of 42 U.S.C. § 7410(a)(2)(D)(i), commonly referred to as the "good neighbor provision." The petition alleges that nitrogen oxides emitted by these units significantly contribute to Maryland's nonattainment, or interfere with its maintenance of certain National Ambient Air Quality Standards ("NAAQS")".[11]

The EPA followed the "good neighbor" rule with a suite of standards to reduce pollution from fossil fuel fired power plants.

"The final suite of rules include:

- A final rule for existing coal-fired and new natural gas-fired power plants that would ensure that all coal-fired plants that plan to run in the long-term and all new baseload gas-fired plants control 90 percent of their carbon pollution.

[11] US District Court State of Maryland VS EPA available at: https://mde.maryland.gov/programs/air/Documents/Maryland_v_Pruitt-FILED_ECF.pdf

- A final rule strengthening and updating the Mercury and Air Toxics Standards (MATS) for coal-fired power plants, tightening the emissions standard for toxic metals by 67 percent and finalizing a 70 percent reduction in the emissions standard for mercury from existing lignite-fired sources.
- A final rule to reduce pollutants discharged through wastewater from coal-fired power plants by more than 660 million pounds per year, ensuring cleaner water for affected communities, including communities with environmental justice concerns that are disproportionately impacted.
- A final rule that will require the safe management of coal ash that is placed in areas that were unregulated at the federal level until now, including at previously used disposal areas that may leak and contaminate groundwater."[12]

Both of the First Energy of power plants are reaching the end of their useful life within the next 10 to 15 years as are many other coal-fired plants in West Virginia. In fact these plants may be forced to close sooner - due to lawsuits - as has just happened with the Brandon Shores Coal fired plant in Baltimore, Maryland. It is not likely to be cost effective to retro fit plants with 10 - 15 years of life left with carbon capture technology.

## 4) The Mid-Atlantic NIETC will increase costs to residential consumers

This is a build out of transmission that solely benefits the data centers - these are "new" customers. The infrastructure costs are being spread across all existing customers. The infrastructure costs will undoubtedly increase residential power bills in all 13 states of the PJM region - none of whom reap any benefit.

> "The potential NIETCs included in the preliminary list, depicted on the map below and described within this issuance, focus on geographic areas where present or expected transmission capacity constraints or **congestion that adversely affects consumers could be alleviated by the construction of new or upgraded transmission lines**."
>
> The potential NIETCs included here each address key findings in the 2023 Needs Study, ...to maintain and **improve reliability and resilience in response to events like extreme weather, to lower consumer costs**, and to help meet future generation and demand changes. In addition, the potential NIETCs would address transmission needs identified by regional transmission planning entities in some instances, and in all cases, reflect multiple drivers of present and expected transmission capacity constraints and congestion.
>
> DOE preliminarily finds that the geographic areas contained within these potential NIETCs constitute targeted, high-priority areas where NIETC designation is likely to catalyze transmission development to **alleviate transmission capacity constraints or congestion and the associated adverse effects on consumers**, thereby making the most efficient and effective use of DOE's resources. DOE intends to employ NIETC designation in one or more of these geographic areas to further the timely build out of a reliable, resilient, and efficient transmission

[12]EPA News letter available at: https://www.epa.gov/newsreleases/biden-harris-administration-finalizes-suite-standards-reduce-pollution-fossil-fuel

system that **facilitates the achievement of national energy policy goals while reducing consumer energy costs."**

What entity / who is the "consumer" that DOE is reducing the cost for?

The data centers have not all been built yet they will be the beneficiaries of the imported electricity.

But for the massive projected data center load ,we would not be incurring the cost of transmission lines to out-of state power generation. Residential power use has in fact been decreasing in this region.

Additionally in the energy policy area, the data center operators are opposed to all fossil-fuel based generation including natural gas and have made net-zero carbon commitments. As early as 2019, data center companies in Virginia, spoke out to oppose the construction of in-state natural gas fired generation and to request Dominion Energy build renewable energy sources.

> "**Amazon Web Services, Apple, Microsoft, LinkedIn, Salesforce, Equinix, Akamai, Iron Mountain, and QTS signed a joint letter submitted to Dominion Wednesday opposing its plan to build more gas-fueled power plants to meet growing energy demand – growth these companies and their peers have been largely responsible for**. Instead, they want the utility to meet the demand with the combination of renewable energy generation and energy storage.
> "As data center providers, customers, and colocation service providers with operations in Virginia, we prefer electricity that is generated by clean, renewable energy," the letter read. "**Given the significance of our growing and energy-intensive industry in relation to total energy demand in Virginia, companies' data center energy interests should be taken into account in decisions regarding the future of the region's energy infrastructure**."
> Speaking with Data Center Knowledge Wednesday, Gary Cook, a Greenpeace campaigner who's spent many years advocating for an internet powered by renewable energy, summarized **the data center operators' position as, "Dominion is using our demand to justify a supply of energy we do not want. We should not be investing billions of dollars in more natural-gas generation and pipeline capacity and slow-walking renewables.**" ."[13]

Why are "we" investing billions of dollars in a transmission line to import fossil-fuel based power, that data centers are actively opposing, from the three coal-fired power plants, Fort Martin Power Station, Harrison Power Station and Mitchell Power Station, specifically to power their businesses?

This is a bad investment for rate payers based on their aforementioned criteria.

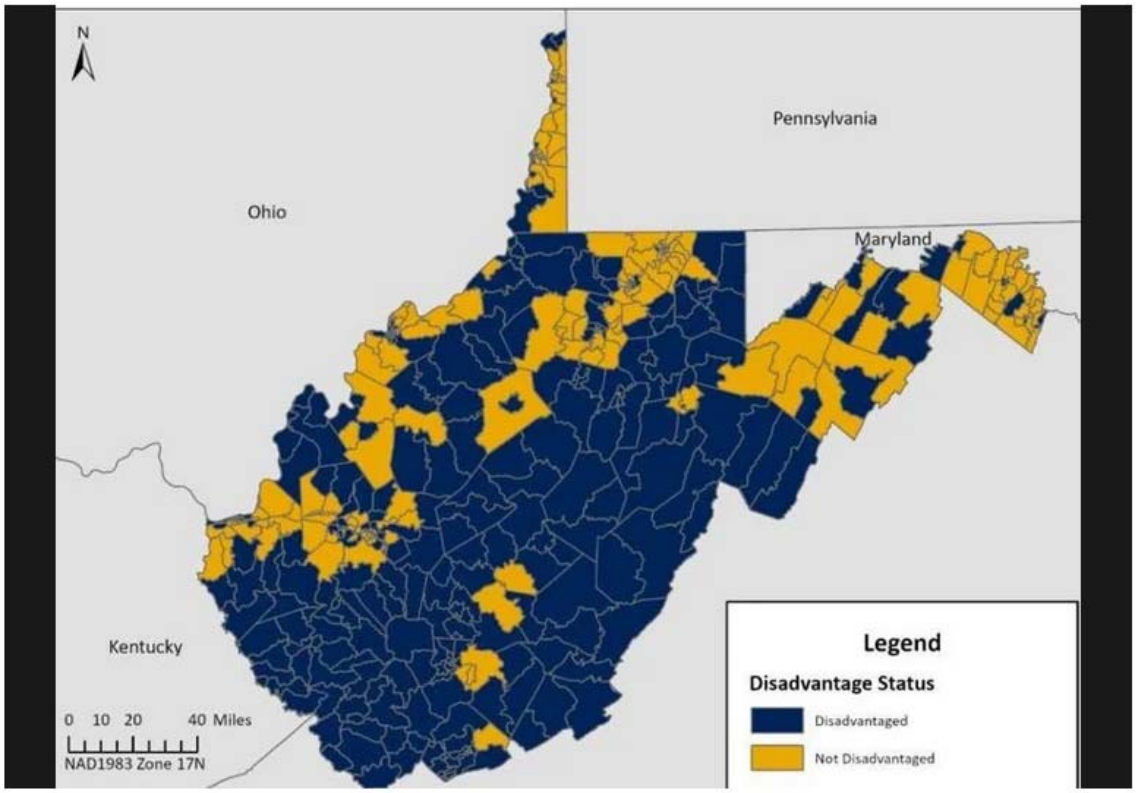
It is even worse for West Virginia. West Virginia's energy market is still vertically integrated, its energy market is subsidized by the state and the maintenance costs for its generation plants are born by the residents of West Virginia. Any upgrades to the coal - fired generation plants needed to

[13] Data Center Knowledge, "*Largest Data Center Operators Pressure Virginia Utility on Renewables*" Available at: https://www.datacenterknowledge.com/energy/largest-data-center-operators-pressure-virginia-utility-renewables#close-modal

conform to environmental rules in order to keep them in service will be charged back to West Virginia residents .

Forcing West Virginia to extend the life of its coal fired plants in order to support Virginia's massive data center build out for companies purporting to be "Net-Zero" is a travesty !

***As a point of fact over 60% of West Virginia census tracts are disadvantaged as defined by the Federal Climate and Economic Justice Screening Tool based on demographic and environmental data, compared to 37% nationwide.***




This map shows most census tracts in West Virginia that are considered disadvantaged by the federal Climate and Economic Justice Screening Tool, factoring in demographic and environmental data.

West Virginia Office of Energy Priority Energy Action Plan courtesy illustration

## 5) The Mid-Atlantic NIETC will have a devastating effect on the environment along the Potomac River

There is not enough space in the existing Mt. Storm - Doubs corridor nor the Doubs - Aspen corridor to contain additional 500kv transmission lines. A expansion of these easements and the clear cutting that goes with it would cause erosion that would drain into the Potomac. Fish, wildlife and vegetation will be impacted by the run-off during construction as well as the row vegetation management that includes the use or herbicides, weed killers or other substances toxic to humans, animals or cultivated planting.

## 6) The Mid-Atlantic NIETC will have **massive socioeconomic impacts to the property owners and communities effected**

Private property on rural farms and homesteads - gardens, vineyards, berry patches and orchards will be adversely impacted - some to the point it will no longer be viable to remain on their property. Homes, farms , small family agricultural business represent the investment of substantial private resources - in some cases for generations . Many of these represent the investment of a lifetime. Property values for each effected lot will be decimated and quality of life for hundreds of private property owners will be taken from them by eminent domain.

These rural communities are disparately impacted and in fact targeted due to the systemic bias perpetuated through PJM and the DOE's avoidance of more affluent and politically connected communities. Energy justice means that you cannot force more and more energy infrastructure on the same people.

This transmission construction will have a major impact economic impact on agricultural businesses. Clear cutting leads to soil erosion, loss of topsoil, loss of vegetation and drainage issues. Blasting introduces rock and subsoil impacting farming yields. The row vegetation management that includes the use or herbicides, weed killers or other substances toxic to humans, animals or cultivated plantings.

**I do not support any expansion of the existing transmission corridors.** Any new transmission along these routes must be underground HVDC so as not to inflict and additional damage or devaluation of private property. Additional "parallel easements" are not acceptable. These communities should not bear the burden of losing property through eminent domain to provide fossil -fuel fired energy to "net-zero" data centers. Nor should they have the burden of facing the additional encroachment for additional lines in subsequent years. **This is the very definition of energy in-justice!**

An NIETC designation is essentially a land use designation : any property owner in these areas will lose the use and marketability of that property - in perpetuity. Why would anyone buy or build a home in an NIETC designated area. Why would businesses invest in or farmers plan improvements on their property if at some future time it could be subject to federal eminent domain and destroyed ? There is no compensation offered by DOE for property taken by an NIETC. **This is private property taken for future public use and it is taken without eminent domain proceedings at the time of designation and without just compensation.**

***The Fifth Amendment to the Constitution prohibits such a taking. It also prohibits depriving citizens of life, liberty, or property, without due process of law, and DOE is shutting down all due process for citizens impacted by its corridor proposal.***

Any additional transmission in this corridor must be designed so as not to adversely impact these communities - the only technology acceptable is HVDC and it must be buried.

NextGen's study for Minnesota states:

> "Notably, buried HVDC cables would require a small fraction of the width of the interstate ROW (<5 percent in rural areas). Interstate highway ROW in rural areas is typically 300 feet wide, and buried HVDC transmission cables require a corridor that is 5 feet wide and 5 feet deep."

"Buried HVDC transmission costs have declined and become competitive with traditional overhead AC transmission. The technology for buried HVDC transmission has matured, and the industry has gained experience designing and building projects across the world. Figure 8 compares transmission cost on a capacity-normalized basis (dollars per gigawatt-mile of transmission capacity) for a few representative transmission projects in the United States. The figure shows that buried HVDC projects are cost-competitive with overhead AC transmission projects"[14]

**Figure 8. Transmission cost comparison: overhead AC and buried HVDC**

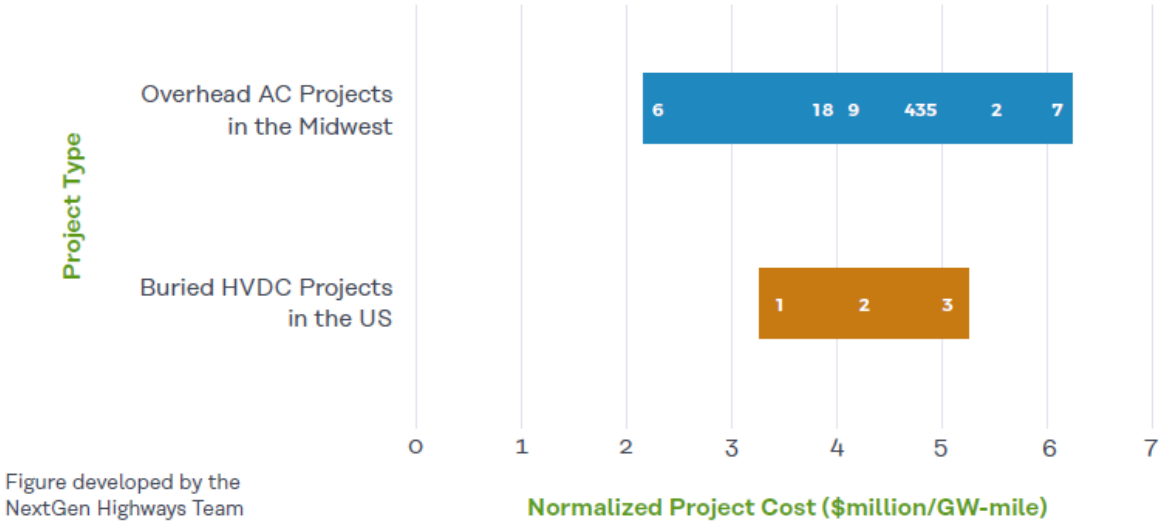



Figure developed by the NextGen Highways Team

[15]

In addition to the socioeconomic benefits of buried HVDC, HVDC technology providsvoltage support, frequency regulation, and can survive major weather events. HVDC can improve the grid's overall operational resiliency, efficiency and stability.

***There is no point in PJM's planning process where a different transmission solution (HVDC) can be proposed or analyzed for cost vs benefits let alone community and environmental impacts.***

The Mid-Atlantic NIETC is derived from the MARL transmission line proposal, pulled from PJM's , "PJM Reliability Analysis Update, December 5, 2023" did not include bids / proposals from companies proficient in HVDC . It was a mash-up of 72 project proposals by multiple energy companies comiled and analyzed inside of approximately 6 months. This is not a long term plan, its a temporary "transmission" patch to cover a generation shortfall directly caused by one industry and multiple state energy and economic policies.

[14] "NextGen Highways Feasibility Study for the Minnesota Department of Transportation, Buried High-Voltage Direct Current Transmission", Page 66, Available at: https://nextgenhighways.org/wp-content/uploads/2024/02/NexGen-ighways-Analysis-Report-2.1.24.pdf

[15] "NextGen Highways Feasibility Study for the Minnesota Department of Transportation, Buried High-Voltage Direct Current Transmission", Page 67, Available at: https://nextgenhighways.org/wp-content/uploads/2024/02/NexGen-ighways-Analysis-Report-2.1.24.pdf

As previously stated:

***Prior to selecting a Mid-Atlantic corridor a study similar to the NextGen Highways study for Minnesota DOT <u>MUST</u> be done in the Mid-Atlantic Region to identify feasible routes along state and federal highways and railway easements.***

***The Mid-Atlantic NIETC corridors need to be moved or expanded to take advantage of existing highway and railway corridors.***

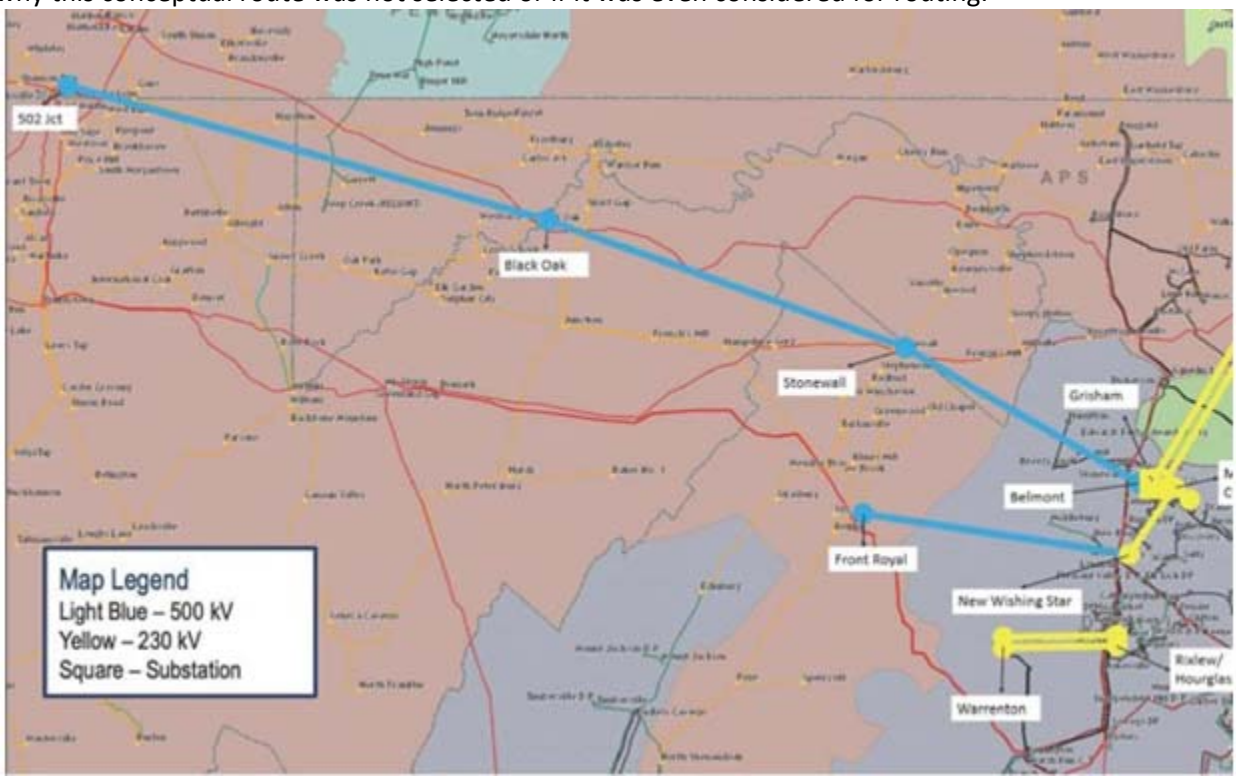
***Transmission proposals in Mid-Atlantic NIETC corridors must include an HVDC option including an underground HVDC option that can be analyzed for cost vs benefits as well as environmental and sociological impacts.***

## 8) Interaction with PJM and NextERA

I have sent multiple emails to both PJM and Next ERA with basic questions about the potential routing onto the Mt.Storm - Doubs corridor and have received canned responses.

I am not the only one whom has had this experience.

As an example, from PJM on slide 41 of PJMs October 3rd 2023 Reliability Analysis Update there is this conceptual point-to-point connection from coal-fired generators to data centers. PJM has not answered why this conceptual route was not selected or if it was even considered for routing.



In our area, PJM has a history of proposing unnecessary and over built transmission "solutions" an example would be the PATH line.

The PATH Transmission line and the MARL transmission line have many similarities, neither provided any benefit to the communities they passed through, both were/are being marketed as critical need/reliability projects and they are not, both applied for and received obscene monetary incentives to build. PJM's process is the same with respect to community, landowner and/or ratepayer , it is virtually non-existent.

Respondents and participants in the PATH case spent a considerable amount of their own resources as well as state resources providing alternate solutions to the reliability constraints . Ultimately, PJM rate payers paid for the abandoned PATH transmission line as well as the reliability upgrades recommended by the experts (Mr. Merrill, Mr. Fagan and Mr. Lohre) in PATH's Virginia SCC docket PUE-2009-000431. PATH is not the only abandoned transmission line rate payers in the PJM region have paid for. PJM stretched this out for years beyond the point where their own analysis contradicted the stated need for the project.

Most recently, the Transource Independence Energy Connection transmission project ordered by PJM in 2016 to run through York and Franklin Counties, Pennsylvania has been shown to cause uncontrolled congestion and reliability violations by PJM's own analysis[16] This project has already cost rate payers $107.96 Million and PJM has still not abandoned the project - its been suspended and is still costing ratepayers money. Transource gets a 10.4% rate of return. These unnecessary projects are a cash cow for the transmission companies and a drain on ratepayers.

It would be far more cost effective to pursue addition generation co-located with energy needs.

Additionally, the companies selected by PJM - NextERA and FirstEnergy are both involved in multiple lawsuits involving bribery schemes and corruption scandals. [17]

In the event that a corridor is selected for a Mid-Atlantic NIETC, alternate proposal from other more reputable companies , including companies specializing in underground HVDC must be solicited and evaluated.

Sincerely,

Theresa Ghiorzi

[16] PJM Update June 2024, page 19 available here: https://pjm.com/-/media/committees-groups/committees/teac/2024/20240604/20240604-item-04---market-efficiency-update.ashx

[17] Blue Ridge Leader article available at : https://blueridgeleader.com/company-to-build-transmission-lines-in-loudoun-has-history-of-legal-problems/ and included as an attachment

# Attachement 1


**Company to build transmission lines in Loudoun has history of legal problems**

**Second company under investigation**

By Audrey Carpenter

Sam Randazzo turned himself into authorities last month. He is the former chair of Ohio's Public Utilities Commission which regulates utility service providers, including companies that supply electricity to consumers.

Randazzo, 74, of Columbus, self-surrendered in the U.S. District Court in Cincinnati Dec. 4 to the FBI, which has been investigating a $60 million bribery scheme involving FirstEnergy related to a legislative bailout for two Ohio nuclear power plants. The investigation resulted in a 20-year prison sentence for former Ohio House Speaker Larry Householder, a five-year prison sentence for Republican Party Chair Matt Borges, the firing of FirstEnergy's CEO Chuck Jones and Vice President Michael Dowling, and a $230 million government fine assessed against FirstEnergy.

Most recently, Ohio Gov. Mike DeWine and Lt. Gov. Jon Husted received subpoenas for a civil lawsuit on Nov. 17 seeking any communications the politicians may have had with FirstEnergy, executives named in the lawsuit or Randazzo. Husted is scheduled to be deposed in that case between Feb. 28 and March 19, 2024.

Gov. DeWine appointed Randazzo to head the Public Utilities Commission on Feb. 4, 2019. Randazzo resigned in November 2020 after FBI agents searched his condominium and FirstEnergy publicly acknowledged as part of a settlement agreement to avoid prosecution that it had made a bribery payment of $4.3 million to Randazzo in December 2018.

The FirstEnergy scandal has been dubbed "the largest corruption scandal in Ohio history" and resulted in one individual charged in the case committing suicide.

FirstEnergy, headquartered in Akron, is comprised of 10 affiliate companies involved in the distribution, transmission, and generation of electricity, as well as energy management and other energy-related services affecting six million customers within Ohio, Pennsylvania, West Virginia, Virginia, Maryland, New Jersey, and New York.

See FirstEnergy's agreement to resolve the Justice Department's investigation here: https://firstenergycorp.com/newsroom/news_articles/firstenergy-reaches-agreement-to-

resolve-department-of-justice-i.html#:~:text=Under%20the%20three%2Dyear%20deferred,all%20terms%20of%20the%20agreement.

See Randazzo's indictment here: https://www.justice.gov/usao-sdoh/pr/grand-jury-indicts-former-state-public-utilities-chairman-federal-bribery-embezzlement#:~:text=CINCINNATI%20%E2%80%93%20A%20federal%20grand%20jury,Court%20in%20Cincinnati%20this%20morning.

**How is this connected to Loudoun County?**

The Ohio scandal and fallout is cause for concern in Loudoun County. FirstEnergy is one of two companies that was approved Dec. 11 by the PJM Interconnection Board of Managers, a regional transmission organization, to build the MidAtlantic Resiliency Link (MARL), referred to as Project 853.

MARL is a controversial electrical transmission project that would build 130-miles of 500-kilovolt (kV) transmission towers and lines from Southwestern Pennsylvania, through West Virginia and Maryland to Virginia, along with a new 500/138-kV substation.

MARL must get final approval from Virginia's State Corporation Commission, as well as other involved states, before construction can begin. If the SCC gives the green light, it's anticipated the project would begin emitting electricity by 2027 to satisfy increased regional demand.

The project has received wide scale criticism from homeowners, farmers and conservationists many of whom spoke at a December meeting of the Loudoun County Board of Supervisors intended to receive public comment on the zoning ordinance. However, the Board received feedback about the proposed transmission line construction in Western Loudoun and ongoing data center development throughout the county.

FirstEnergy was also an owner of the Potomac-Appalachian Transmission Highline (PATH) project, a proposed 290 mile 765 kilovolt electric power transmission line designed to supply power from the Amos Substation in Putnam County, W.Va. to a proposed electrical substation to be constructed in Frederick County, Md.

PATH was ultimately defeated in 2011 and never built, but the companies involved in the planning of the project were reimbursed a total of $250 million by consumers for pre-construction costs, land and easement purchases, legal fees, lobbying efforts, public relations, accumulated interest and the like, fees allowed by the Federal Energy Regulatory Commission, but vehemently criticized in a Dec.19 meeting by one of its own Commissioners as being "ridiculously generous" to utility companies with a call for revision of its "incentive policy" that accommodates energy contractors.

**Second company under investigation**

As if all that weren't enough, the second company involved in the MARL project, NextEra Energy, headquartered in Juno Beach, Fla., is now being sued.

On Nov. 8, the law firm of Bragar, Eagel & Squire P.C., based in New York City, said it is investigating potential claims against NextEra Energy on behalf of long-term stockholders following a class-action complaint that was filed against NextEra.

The lawsuit, filed by a group of investors who purchased securities in NextEra Energy, focuses on NextEra's subsidiary, Florida Power & Light Company. Former Florida Power & Light Company CEO Eric Silagy is alleged to have sold 62,480 shares of the utility's stock in December 2021 under suspicious circumstances, the largest number of shares he had bought or sold since becoming an officer for the company in 2012. Silagy made a profit of $5.4 million on the sale of his stock.

According to the suit filed in the federal Southern District of Florida, "The company made false and misleading statements to the market. NextEra's subsidiary, Florida Power & Light Company, engaged in misconduct aimed at politicians and journalists that opposed it. The company denied this misconduct despite the fact that the actions of its subsidiary put it at risk of legal and reputational damage. Based on these facts, the company's public statements were false and materially misleading throughout the class period. When the market learned the truth about NextEra, investors suffered damages."

The suit names NextEra Energy, former Florida Power & Light CEO Silagy, former NextEra Energy CEO James Robo and Chief Communications Officer David Reuter, as defendants.

The law firm is seeking long-term stockholders of NextEra Energy to come forward, share information and sign on as plaintiffs to the lawsuit. More information about the investigation/lawsuit can be read here: https://www.bespc.com/cases/NEE.

On Jan. 5, 2023 NextEra announced Silagy would retire with Armando Pimentel replacing him. Silagy's last day was May 15. The same day that NextEra Energy announced Silagy's departure, the company acknowledged political scandals in a notice sent to its investors which revealed alleged violations of federal campaign laws as the basis of a complaint filed against NextEra with the Federal Elections Commission.

NextEra Energy Transmission MidAtlantic, LLC, a subsidiary of NextEra Energy Transmission, LLC, will finance, develop, construct, own, operate and maintain the MidAtlantic Resiliency Link.

"It's scary to know the companies selected to move forward with the MARL project in Virginia are the same companies that have had serious bribery convictions, lawsuits and questionable political influence associated with them. The fact that PJM would continue to do business with FirstEnergy and NextEra by awarding them approval for transmission construction projects is a huge cause for concern. This is not good for Virginia and the Virginia State Corporation

Commission needs to evaluate the MARL project through this lens while reviewing any projects in our state," said a source who spoke on the condition of anonymity.