NORTH CAROLINA ENERGY POLICY COUNCIL
MEETING MINUTES
10:00 a.m., Wednesday, February 15, 2023
Department of Environmental Quality
Green Square Training Room
217 West Jones Street Raleigh, NC 27603

Energy Policy Council Members Present

Brian LiVecchi, Lt. Governor Mark Robinson's designee
John Hardin
John Szoka
John White
Gus Simmons
Mark McIntire (Kendal Bowman)
Paul Worley
Scott Tew
Susan Munroe
Sushma Masemore

Energy Policy Council Members Not Present

Paolo Carollo

CALL TO ORDER

Mr. Brian LiVecchi, Lt. Governor Mark Robinson's designee, called the Energy Policy Council (EPC) meeting to order at 10:00 a.m. on Wednesday, February 15, 2023. He opened the meeting and welcomed the members and participants. He reminded everyone of the State Ethics Act and to ensure awareness of any conflict of interest. Being the first meeting of the year, Mr. LiVecchi had each council introduce themselves, with three new members, Mr. John Szoka, Mr. John White, and Ms. Susan Munroe. State Energy Office staff and new Interim Director Julie Woosley introduced themselves. After establishing the purpose of the meeting, Mr. LiVecchi asked for a motion to approve the EPC's November 16, 2022, meeting minutes. Mr. Scott Tew moved to approve the minutes, and Mr. Paul Worley seconded the motion. The motion was unanimously approved. Mr. Brian LiVecchi then stated that the presenters speaking on behalf of Duke Energy and NC Electric Cooperatives would begin their presentations concerning Electric Grid Safety and Security. Any questions the council has would be after the speakers present.

Electric Grid Safety and Security: Mark Aysta

After introducing himself and his work experience with law enforcement, working as a special agent in the FBI, and now serving as the Fiscal Security Program Lead for Duke Energy, Mr. Mark Aysta began his briefing on the Electric Grid Safety and Security concerns that have recently taken place. In agreeance with Mr. LiVecchi, Mr. Aysta stated that the case is an ongoing law enforcement investigation from the state of North Carolina and the FBI. Mr. Aysta reminded everyone that he would be limited in the details he could provide. He encouraged anyone to ask questions but was candid in letting the council and public know that some questions cannot be answered to prevent any mishaps in identifying, arresting, and prosecuting the subject(s) responsible for this act of sabotage.

Mr. Aysta stated that on December 3, shortly before 8:00 p.m., the Energy Control Center in Raleigh, NC received alarms from the cartage substation. Following protocol, the cruise was

dispatched to the location, and strategically placed gunshots were found upon arrival. Approximately 40 minutes later, 10 miles away at the West End substation (18 minutes from Carthage to West End), alarms were received by the Raleigh Electricity Control Center stating the same as above. Upon dispatched teams' arrival, similarly, placed shots and equipment were discovered. Mr. Aysta noted that it was clear that bad actor(s) had taken malicious activity towards the substations. A security response meeting was immediately assembled alongside the FBI due to having built relationships with the local, federal, state, law enforcement, and emergency management groups. He mentioned that they could feed real-time information to the North Carolina Fusion Center, which he explained has an official name known as the North Carolina Information Sharing and Analysis Center. After providing background information on the enforcement's working relationship with the North Carolina Fusion Center, Mr. Aysta continued briefing on the investigation.

From coordinating and conducting plans of action with local law enforcement, the teams began constructing their case. Mr. Aysta mentioned how they thought about who could be the potential subject(s) and the motivational purpose behind the act. He explained the difference between motivation for the FBI and Duke Energy. The FBI determines the motivation to collect evidence, arrest the subject, and prosecute them. However, Mr. Aysta explains that for Duke Energy, the motivation is to protect their assets and people, but most importantly, power their communities to ensure reliable energy is provided (take proactive security measures). Multiple different investigative streams looked at by law enforcement were identified, allowing Duke Energy to deploy surge security resources to assets across the state that could be in jeopardy. Mr. Aysta discussed their surveillance tactics to help identify threat actors that could be in the preoperational phase to prevent other attacks from happening while trying to restore power in Moore County.

Mr. Aysta wraps up his presentation by explaining the maturity of the tactics, techniques, and procedures his team has in place to ensure another attack doesn't happen. He also discussed their plans in which his team will speak at the sheriff's Association meeting in April to encourage them to communicate effectively with the North Carolina Fusion Center so that any essential details/findings do not go unnoticed. Mr. Aysta adds that an internal analysis is being conducted. While security is critical, he also believes that resiliency and redundancy are just as important. To exemplify, Mr. Aysta notes that if they have a substation that can have power rerouted and it is taken out, whether due to a weather event or a malicious actor, the team can quickly reroute power and still have the necessary supplies to repair that substation so that it is back online. Mr. Aysta closed by mentioning that as a company, they are reevaluating their security posture, resiliency, and redundancy standards and determining how to improve from this problem. With that, Mr. Aysta opened the floor for any questions or comments.

Mr. Szoka first thanked Mr. Aysta for his briefing of the investigation and then asked, if whatever portion was hit, can it be shielded or is everything in the substation of equal vulnerability of making the whole thing go down. Mr. Aysta respond by saying that there are key components in the substation that if attacked, the whole transformer will fail. However, it is not the case with the entire transformer, but there are vulnerabilities with the substation in question. He further explains the potential problems that can arise when trying to place fielding around the substations. For instance, in areas where you have hurricanes, the wind can blow it right into the

transformer and defeat what is actually trying to be done which is to keep the transformer up. It is something that is still being evaluated and looked at. Mr. Szoka then asked why type of gunshot was the attack, but Mr. Aysta is unauthorized to provide that information. Based off a comment made earlier by Mr. Aysta in his briefing concerning critical assets, Mr. Szoka asked if he can assume that not all substations are not equal in importance. Mr. Aysta stated that it is correct in which they have a tiering system for substations based off load, connections to the eastern interconnect, the entire grid, the critical customers that they serve, and the ability to have redundancy. The tiering system is based off of priority and risk, which protects substations according to their tier. Mr. Szoka wanted to verify that advanced measures in place to protect things at what Duke Energy defines as critical installations. Lastly, Mr. Szoka asked was the delay in the damaged parts caused because there is not many of the specific equipment. Mr. Aysta noted that some of the parts are unique, including voltages, creating unique challenges.

To that point, Mr. Tew asked what the plan surrounding redundancy and resiliency as it relates to what was mentioned such as the unique parts. Mr. Aysta stated that they are currently moving rapidly in evaluating where redundancy can be added, what additional parts need to be warehoused/stockpiled. Mr. Aysta noted that although they have internal dates for timeline purposes, it is not a topic they are able to provide the answer for publicly at the moment. Mr. Gus Simmons then asked how much of the response to the equipment require onsite presence versus how much Duke Energy's system was able to respond with some degree of automation to protect other parts of the system. Mr. Aysta noted that this is part of the self-healing grid they have which is at the end of a radial line where redundancy was not present. While he noted that there is no way to move electricity at that point, other aspects of their Duke grid and the larger interconnect has that case. Mr. Worley, then asked if the substations have some form of surveillance to monitor. The answer was not in which Mr. Aysta explained that while cameras would be beneficial, it does not prevent an attack from happening. Nevertheless, Duke Energy has baseline security for the lowest level tier. Mr. Worley then asked about potential plans that will provide coverage, which Mr. Aysta mentioned that is something the telecommunications providers are working on. Mr. LiVecchi noted that is important to consider what Mr. Aysta discussed concerning the substations being in rural areas and the disadvantages having cameras would have on them in the long run. Ms. Sushma Masemore then asked a question concerning Duke Energy's vulnerability assessment as it pertains to security threat and then to what extent do they combine physical threats with cyber threat when both are present. Mr. Aysta responded mentioning that they have an interdisciplinary team made up of transmission that have ensured the substations are appropriately tiered, and if not, where it should be. It is additionally important when considering the intersection of physical and cyber security, and Duke Energy has practices in place in case of an interconnected attack.

Ms. Munroe asked about the status of the motive, whether it was orchestrated. He mentioned that while they know the gun shots were strategically placed, there are number of investigative avenues that enforcement is pursuing. Mr. LiVecchi commented that previous events similar have been able to identify the motivations and actors and asked if the information to disable a substation available on the Internet, which Mr. Aysta answered yes. With Mr. Tew's comment concerning the difference in outages from attacks in North Carolina versus California, Mr. Szoka asked if only one of the substations were targeted, would the outage be as widespread as it was. Mr. Aysta stated that the attack on the West End, because it also feeds into other substations, is

what generate the widespread in outages, because if it was just Carthage, only a few thousand customers would have outages. Mr. LiVecchi made aware that there is a bill that has been introduced in the legislature that requires utilities to provide 24/7 physical human security boots on the ground and wanted to know if Mr. Aysta could elaborate on that as it pertains to efficacy. While he has yet to review or knows if he can speak on the bill, Mr. Aysta reiterates that regardless of why the substation went offline, they must be able to reroute power and repair the substation (redundancy and resiliency). Mr. LiVecchi asked about the cost to replace the damaged equipment. While the numbers are not cheap and have been roughly estimated, Mr. Aysta stated that he is not authorized to talk about the cost. In closing to the questions for Mr. Aysta, Mr. Worley as about the baseline of frequency regarding the damage to the substations. Mr. Aysta closed by saying that the FBI is looking from a national perspective and looking for trends but are noting that there has been a significant increase in sabotage against electrical assets in the country less expensive. With no further questions or comments, Mr. LiVecchi thanked Mr. Aysta for his time speaking with the council and introduced the next speaker, Mr. Lee Ragsdale.

Electric Grid Safety Lee Ragsdale

After introducing himself and current role as the Senior Vice President for Energy Delivery for North Carolina Electric Cooperative in which he focuses on green infrastructure and planning, Mr. Ragsdale began by giving a brief background on North Carolina's Electric Cooperatives locations throughout the state along with their mission. He began his discussion by mentioning how the company has been impacted by three incidents in the past four months and has been diligently working with local, state, and federal law enforcement and other Energy partners to investigate these issues. The first incident occurred in the early morning of November 11, 2022, at Carter at Craven Winter Cooperative reported damaged at the Maysville substation. Local law enforcement was called to investigate and the transformer protection deenergized the transformers at the site to prevent further damage. Outage disrupted a few thousand customers in the service territory. Mr. Ragsdale noted that over the course services were restored within several hours. The next incident took place December 3, as previously mentioned during the first presentation by Mr. Aysta which was gunfire damage to two Duke Energy substations. Most recently, in the early morning (8:00 a.m.) of January 17, 2023, Energy United received a notification from a rural substation in Thomasville, NC, cruise discovered ballistic damage to multiple pieces of equipment. With the appropriate measures being done int eh transferring of loads, no actual outages were reported. Mr. Ragsdale did mention that since, Energy United has installed a spare transformer and has reenergized the station and brought it back to service. He mentioned that securing/protecting the grid is a top priority for North Carolina Electric Cooperatives. Mr. Ragsdale gave a summary of some of the tasks they are currently working on to ensure they prevent any further damage from happening. He additionally thanked the legislature for continuing to increase the criminal deterrent for the acts of vandalism and impacts it created for many people in North Carolina. He concludes his briefing by stating the importance of the grid and noting that their focus is to maintain resiliency, the ability to back feed respond, and redundancy. While they share information amongst each other, they also share information and insight among the industry peers. With that, Mr. Ragsdale opened the floor for any questions or comments.

Mr. LiVecchi had a question in correspondence to bother presentations. He mentioned that the first indication that something was wrong was the alarm going off/transformers were tripping off. However, he wants to know how in the third attack, did Energy United catch it before the transformers tripped off. Mr. Ragsdale explained stating that the Energy United Control Center received the alarm of an issue concerning the transformer and though not yet reenergized, an issue concerning the alarm caused them to go out and investigate. From the investigation, they discovered the damage and from there made the necessary changes to prevent the transformation from deenergizing. Mr. LiVecchi then asked Mr. Aysta if that is something Duke Energy has looked at and he responded by saying that based on the forensic evidence the gunshots were in different places as in the original case. Mr. Tew then asked, how is the offense treated currently (i.e., vandalism offense). In summary, Mr. Ragsdale mentioned that it is differentiated based on the motivation of the threat actor. He provides the definition of terrorism in which it is the use or threatened use of force to effect political or social change. To exemplify, Mr. Ragsdale stated that if the person was upset with the company, for whatever reason, and shot it, it would be a criminal offense. However, if it is a violent domestic or extremist group that wanted to bring the grid down, that is affecting political or social change, forming a terrorist attack. Mr. LiVecchi asks a question concerning guidance and federal oversight as it concerns the last 6 months. Mr. Ragsdale believes that while these recent acts are being investigated, it is still too early for guidance.

Ms. Masemore asked if both incidents (Nov 11 & Jan 17) were firearm related. However, Mr. Ragsdale noted that other than them both being deemed as vandalism, they are not speaking publicly about how. Mr. Szoka had a suggestion in terms of resiliency concerning the incidents in which he mentioned that for the next meeting they can hear more on the rolling blackouts and the policy issues that may/may not have affected that and what could be recommended to help energy companies avoid situations like this in the future. Mr. LiVecchi then asked if there were any thoughts to physical security on the generation side or any activity underway and identifying threats to generation infrastructure. Mr. Aysta mentioned that they have an intelligence program that looks for any threats to Duke Energies assets whether their generation, distribution, or transmission. Although fewer of them, physical security controls are present at the power plants manned by people. Mr. Szoka also added that every solar facility in the state is linked and if one were to go offline, they would know immediately. Mr. Worley asked a question concerning the security thread and Mr. Mark McIntire answered saying in summary that from an interconnection perspective, as Duke is taking that energy, the status of the facilities would need to be known to them. With a few more discussions concerning the panels, Ms. Masemore closed the discussion wanting to explore the topic of redundancy as it concerns the combination of having alternative equipment versus the terms of additional generation capacity. Mr. Aysta responded stating that it is more about how they move electricity to their customers and that redundancy is really focused on transmission and distribution. Mr. LiVecchi asked if any council had further questions for the presenters, and with no other questions offered, he thanked the gentlemen for their time and providing any information that they could.

Subcommittee Reports

Mr. LiVecchi asked for the chairs to provide their committee reports. Mr. Worley, Chair of the Energy Assurance Committee, went first. He mentioned that during the meeting that took place

on February 10, 2023, the committee discussed topics and questions of interest concerning the subject discussed earlier in the meeting that could be presented. Mr. Worley additionally added that the upcoming plan for the committee consists of review of the grid workshops that need to be scheduled as it concerns Emergency Management. When asked about the status of the tabletop exercises, Mr. Matthew Davis noted that SEO will be meeting with Emergency Management in March to have a discussion with the utilities and then will schedule the exercise upon gathering the necessary contact information.

Chair, Mr. Tew then shared the Energy Efficiency Committee report from their meeting February 13, 2023. He shared that they had a presentation concerning the Energy Efficiency Apprenticeship Program that has been rolled out as a pilot which will later be expanded. Offers the discussion to potentially be a discussion for the full EPC meeting. Mr. Tew mentioned that they also discussed other potential topics to cover for the year. Ms. Star Hodge clarified that for the apprenticeship program, there were 150 interns this year and then it is planned to expand to 1500 over the next three years. Mr. Gus Simmons, Chair of the Energy Infrastructure Committee shared the report from the meeting on February 8, 2023. With new members joining, the committee had a quick introduction discussion and then had a presentation from Suzy Baker who provided an overview of the efforts of the new program, Office of Clean Energy Demonstration. The committee recommended having a presentation on the discussion of hydrogen energy as it relates to North Carolina. Chair, Mr. Hardin provided an update for the Energy Innovation Committee which took place February 8, 2023. Mr. Hardin stated that if any council wishes to join the new committee, they are welcome. They had a productive discussion, defining the terms associated with the committee. Mr. Hardin provided the definitions discussed during the committee meeting to the full EPC and shared that they are in the process of conducting a mission statement similar to those of other committees. By the next meeting, they will have a drafted charter. Mr. Simmons additionally offered that the innovation committee consider providing an understanding of differentiating innovation from invention. Mr. LiVecchi closed the subcommittee reports and asked if any other comments or updates needed to be shared prior to public comments being made. Mr. Worley stated that he is in conversation with someone willing to present concerning hydrogen. Mr. Tew also mentioned that a few energy companies are partnering on a hydrogen hub and the council can offer resources to contribute to the conversation. With no further comments, public comments were opened.

Public Comments

Mr. LiVecchi opened the floor to public comments. The first question/comment came from Mr. Donald Haley, who works for Representative Reeves' office. From hearing about resiliency and redundancy, Mr. Haley wanted to know in terms of weighing the pros and cons and finding a middle ground, what a ballpark cost would be and by what magnitude redundancy is cheaper than resiliency. Mr. Aysta clarified that he didn't say redundancy was cheaper than resiliency, but that the equipment that they would stockpile for resiliency is expensive. He further explains that a cost-benefit analysis is currently being constructed. In agreeance, Mr. Ragsdale stated that they are also in the process of determining how resiliency can be improved along with improving response time when threats occur. While there is currently no specific number, they are working on that. The next public comment came from Ms. Bridget Wilson of the State Energy Office who asked how is the tiering system information protected since it seems like the public has access to

the information. Mr. Ragsdale stated the North American Electric Reliability Council has their tiering methodology for critical infrastructure that is protected information and not shared externally but only between the companies. Within an organization, there are classifications of employees that have access to certain information that is tightly controlled. With no further public comments, Mr. LiVecchi closed the period for the public comments and began any closing remarks.

CLOSING COMMENTS

Following the public comments, Mr. LiVecchi stated that over the next several months, he wants to hear from the committee chairs concerning proposals that they have for topics for future presenters. He reminded everyone that the next meeting would be held on May 17 ,2023, at 10:00 a.m. in the training room at Green Square. He thanked the presenters and council for their discussion today and asked if anyone had any additional comments. With no other comments, a motion to adjourn was made by Mr. Worley and seconded by Mr. Tew. The meeting was adjourned at 11:15 a.m.

Approved by Energy Policy Council Member **02-21-2024.**