BOARD OF SUPERVISORS
STAFFORD COUNTY, VIRGINIA
JOINT MEETING WITH PLANNING COMMISSION
MINUTES
SEPTEMBER 27, 2022

CALL TO ORDER – A joint work session of the Stafford County Board of Supervisors and the Planning Commission was called to order by Crystal Vanuch, Chairman, at 6:06 p.m. on Tuesday, September 27, 2022, in the Courthouse Community Center, 29 Stafford Avenue, Stafford, Virginia.

ROLL CALL – The following Board of Supervisors were present: Crystal Vanuch, Chairman; Tinesha O. Allen (arrived at 6:09 p.m.); Meg Bohmke; Thomas C. Coen; Darrell E. English; Monica L. Gary.

Also in attendance were Randal Vosburg, County Administrator; Rysheda McClendon, County Attorney; Cheryl Giles, Deputy Clerk; Julia Homes, Assistant Deputy Clerk; various staff members; and other interested parties.

Ms. Barnes called the Planning Commission to order and asked Mr. Cummings to call the roll.

Planning Commission members present were Kristen Barnes, Albert Bain, Dexter Cummings, Steven Apicella, Martin Martinez, Laura Sellers, and Wille Shelton, Jr.

Ms. Barnes stated that the Commission would need to vote to allow Ms. Sellers to participate remotely. Mr. Bain motioned, seconded by Mr. Shelton, to allow Ms. Sellers' to participate remotely. The motion passed 6-0, with Ms. Sellers abstaining.

DISCUSS SOLAR FACILITIES AND ENERGY STORAGE FACILITIES

Director of Planning and Zoning Jeff Harvey stated that the goal of this meeting was to learn more about solar energy storage and the next steps to make it the best situation for the County. Mr. Harvey introduced Mike Zuraf, Kathy Baker, Amy Taylor, and Ellen Keith—the team that gathered and compiled the information. He commented that in general, solar is just like any other land use in the County, and they would have to look to the comprehensive plan for guidance as to where they wanted to have solar facilities. He said they also would look to their zoning scheme in terms of what districts to allow them in, as well as performance standards. He noted that they would look to the planning and zoning ordinance for direction but would also consider additional changes they need to make.

Mr. Harvey presented a video and said that the Communications Division assisted in the production and presentation.

He stated that they would next discuss an outline of the staff presentation and topics, particularly the background regarding the difference in scale of solar projects and facilities, the pros and cons of solar projects, and more information on battery storage projects. He said that regarding planning for solar, the state code has numerous provisions that address it directly, which is different from most land uses that rely on broad authority. He said that "net authority" speaks to sighting agreements between the locality and developer as to how the site would be developed and maintained, as well as some financial considerations that are not normally part of the zoning process. He added that a site agreement may also allow them to deal with issues related to land use that typically cannot be addressed through the process. He said they would also discuss decommissioning of the projects, taxation, how to process an application, comprehensive plan and zoning ordinance parameters, and recommendations that they may have moving forward. He stated that staff has developed a "straw man" of basic member-level changes, and depending upon what the Board and Commission want to do, they may need to do a deeper dive in the future.

Mr. Harvey stated that the County has received two applications for solar facilities in the County—one in the Falmouth District and one in the Hartwood District—and they would also highlight those two projects.

Principal Planner Mike Zuraf stated that he would review the background summary, with the next two slides providing information on solar energy and energy storage. He stated that community scale and utility scale are how small and large projects are defined and separated, and this follows along with the state code and how that addresses solar. He said that 5 megawatts (MW) is the amount of energy generation that determines whether a project is considered a community-scale or utility-scale project. He explained that the area of the facility corresponds with the amount of power that can be generated; typically six acres of land would be required for every 1 MW of energy that's generated, so that equates to 30 acres as a "dividing line" of the area needed for solar panels.

Mr. Zuraf stated that utility projects are over 30 acres but can be much larger and can cover hundreds or thousands of acres. He said the project in Spotsylvania is on land that covers over 6,000 acres of land, and the actual area of the solar panels covers 3,500 acres; as part of that project, the developer has set aside 2,000 acres for conservation. He noted that this project alone generated 500 MW of power. He noted that utility scale can be much larger, and with Stafford's growth patterns and generally smaller lot sizes, the number of utility-scale projects would probably be minimal compared to other jurisdictions to the south. He said the method of connection to the grid is another determining factor, and community-scale projects can connect directly into local distribution lines that run along a lot of main roads. He stated that utility-scale projects typically require connection to higher-voltage transmission lines.

Mr. Zuraf reported that staff compiled a list of pros and cons with solar facilities to make it clear that staff is not taking a position for or against solar but is just putting the information out there, and it would ultimately be the Board and Commission's decision on whether a project is appropriate for the community based on the specific situation.

Mr. Zuraf stated that the positive aspects include that solar is a renewable source of energy, it operates with low carbon emissions, it is produced onsite and thereby avoids expensive transportation costs with non-renewable sources, and the project can be built quicker than typical conventional development that requires streets, roads, and utilities. He added that it also provides a source of revenue that other types of development may not.

Mr. Zuraf reported that negative factors include that it only provides a fraction of the energy needs a utility may have, would compete with other rural land uses such as agriculture, may fragment forested areas, and places a more industrial-type use in areas where that may not have been envisioned. He stated that construction impacts may create a nuisance in the near term, and it is not as visually appealing as undeveloped open spaces. He added that there is uncertainty with the lifespan of these projects, and staff understands that the typical lifespan of solar panels is 25 years—which could extend beyond that in the future, although that is unknown.

Mr. Zuraf stated that solar would be a long-term use that provides some certainty to the community and can offer reduced utility rates, with Dominion Power offering a utility rate program linked to the power specifically generated by these solar projects. He said it can contribute to agriculture within the project with certain types of vegetation; it also provides increased tax revenue and allows the community to reinforce the growth management strategies, thereby reducing the potential for residential development on certain properties.

Mr. Zuraf said that in terms of other negative aspects, it may enhance the need for energy-storage facilities to offset peak-hour demands and may require more land than a fossil-fuel power facility would, to generate the same amount of electricity.

He stated that another new use becoming more common is energy-storage facilities, which store energy to be used during times of higher demand. He said the method of storing energy in this manner varies, with the vast majority of these facilities today utilizing lithium-ion battery banks—either within larger buildings or individual cabinets, as seen in the photo presented. He noted that these are commonly associated with renewable energy facilities (solar farms), and they can also be used to store energy from non-renewable sources and be sited next to utility transfer stations.

Mr. Zuraf stated that there are land use issues to be considered with this use; noise concerns; the need to keep the batteries cool, with HVAC equipment required; fire hazards and documented cases of the facilities catching on fire, causing harm to first responders; and release of harmful fumes and emissions. He said the facilities can be remotely monitored and controlled to address these potential issues; multiple cabinets may be a better method to isolate these issues, rather than within larger buildings. He noted that visual impacts should also be considered since the use is more industrial in nature.

Mr. Harvey explained that where they get current authority to regulate these in the zoning ordinance is through a conditional use permit, and codes define what a "public facility" and "public utility" are; a public utility is classified as a "utility provided by the County government" or, in this case, "an electricity-generating facility." He stated that public utilities are allowed in most—but not all—zoning categories in the County; energy-storage facilities are not specifically defined in the zoning ordinance and would be permitted by a conditional use permit as a use not listed. He said that through that "use not listed" process, there is no specific zoning district in which these could be prohibited, if the Board was inclined to approve them.

Mr. Harvey stated that with a conditional use permit, the County imposes conditions on the operation of the business, and they are site-specific conditions. He noted that they are also reflected on the site plan, which is reviewed for compliance with all the other zoning requirements, such as setbacks, floor-area ratio, lot coverage, and other factors. He added that state code does give the locality expanded authority through a conditional use permit to impose different kinds of conditions—almost similar to a proffer. He said a conditional use permit can get land or cash for construction of public improvements in that nearby area. He cited an example of a site that was building a solar facility and/or energy-storage facility; through a condition, the County required them to dedicate right-of-way along the road frontage so the road can be widened in the future and/or contribute money toward a future road-widening project, if one were envisioned in the CIP. He added that it did not necessarily have to be directly related to roads or the impact of the project, but it had to be in a nearby vicinity.

Mr. Harvey said that siting agreements only apply to utility-scale facilities, and currently the two applications in process are community-scale projects that would not have a siting agreement. He stated that the intent of the agreement is with the County and owner of the project to work out details regarding how it would be constructed, which could include phasing of the project. He said that the community is often concerned about construction traffic—where it's going in and going out, what hours of the day it would take place, etc.—as well as concerns about security, maintenance, and potentially things like profit-sharing once it's built.

Mr. Harvey stated that they would also have to deal with decommissioning, and the siting agreement would address those details. He said that the code deals with the disposal, and the County would need to work with the owner for them to provide a bond or letter of credit to the County, which is a code requirement. He emphasized that this is typically what they see with land development projects: The developer provides a bond until the County inspects it and says it meets County standards, then they release the bond. He said this would be a different situation, and they would have to amend their current practices for performance agreements, as this would be a perpetual bond or letter of credit until such time the facility is decommissioned or torn down. He noted that the idea is to remove the solar panels, the majority of the electric infrastructure, and the stands the hold the panels, and they would regrade or restabilize the property so it could be returned back to agricultural or industrial use, depending on what the prior use was and what the zoning allows.

Mr. Harvey emphasized that performance agreements would run with the operation of the business and would require a lot of detail because typically those agreements, once the project is done, release the developer from the bond—but in this case, they would need to consider escalators over time for the cost of offsite transportation to remove the materials. He noted that there would also be potential consideration for any recycling value to come from the materials.

Mr. Harvey reported that the state treats solar facilities differently for taxation; similar to other utilities, the State Corporation Commission deals with any facility greater than 25 MW. He said that typically this would be tied directly into Dominion-tied tension lines. For facilities under 25 MW, it's under local taxation, and panels and supporting equipment are typically taxed as business property, and the land is taxed as real estate. He noted that there are different methods the Commissioner of Revenue can use to determine the value of the real estate assessment.

Mr. Zuraf stated that the next section would review application processing and how Stafford would approach this type of project, including how the comp plan and zoning ordinance address solar and possible amendments. He said that the application for approval of the solar facility would be very similar to a new telecommunications tower, whereby there is an applicant and the project must go through a comprehensive plan compliance review and a conditional use permit. He stated that the review goes through the Planning Commission, with the conditional use permit carrying onto the Board of Supervisors for the ultimate decision on a use permit. He said that with siting agreements for utility-scale projects, the agreements would go through a public hearing process as well and go through the Commission and Board in concurrent processes. He stated that assuming approval, the usual administrative site plan review and approval would be required after zoning approval.

Mr. Zuraf stated that the County's comp plan addresses solar facilities, and the comp plan amendment approved last year was the first time the plan included any direct recommendations regarding solar facilities. He said the guidelines that were established in the comp plan specifically reference utility-scale solar facilities and do not differentiate community-scale facilities. He noted that the land use plan does recommend solar facilities within two of the land use designations on the future land use map—the first being within the business and industry land use district, with several guidelines that recommend proximity to high-voltage power lines, suggestions on where to avoid location, and site design standards.

Mr. Zuraf said the plan also recommends solar in the ag-rural areas, with several siting and design criteria such as recommending avoidance of prime agricultural soils and large forest tracks, screening to protect viewsheds, buffering from residential uses, use of native vegetation to support pollinators, allowing for grazing, and consideration of future land use after decommissioning.

Mr. Zuraf presented a map with highlighting in purple to show which parcels would be suitable for solar facilities, based on the recommendations of the current comp plan and policies and land use. He said the limiting factor is that sites be within 1,000 feet of major transmission lines. He reiterated that the plan focuses on utility-scale solar and those needs, and not necessarily community-scale projects that do not need nor rely on proximity to major transmission lines or larger land areas. He noted that this was just a rough estimate that did not factor in the viability of each parcel highlighted within these areas.

Ms. Vanuch asked Mr. Zuraf to orient the Board and Commission as to locations on the map.

Mr. Zuraf explained that starting in the west, through the Hartwood area, there is a major transmission line that cuts north and south from Spotsylvania into Fauquier County; that is all designated ag-rural there. He stated that in the central part of the County, there are major transmission lines that cut through some of the growth area, and he pointed out the location of I-95 and US-17, stating that the major transmission lines don't include designated properties because this is within an urban services area and the comp plan doesn't currently support solar within areas designated suburban. He pointed out locations heading to the north, areas to the east of Route 1 and the airport in the central part of the County, stating that it joins up with another transmission line and bisects with the Aquia District in the area within the urban services area. He noted that the east-west underground transmission line corridor that cuts through Garrisonville is in the urban services area and is not designated. He stated that heading to the south and east to the White Oak area and into the George Washington District, the major transmission lines were highlighted.

Ms. Vanuch asked that the Supervisors and Commissioners get a zoomed-in copy of this as a follow-up so they can get an idea of what their districts look like.

Mr. Zuraf pointed out the location of two specific projects, which were both along Truslow Road. He said that if the Board and Commission were inclined to support amendments to the comp plan to fine tune locations and/or design guidelines, staff has provided some recommendations and suggestions in the report. He stated that this included consideration of expanding siting criteria to also address these community-scale projects that require less land and don't require the connection to the major transmission lines; several site design criteria; environmental considerations such as avoiding RPA, floodplains, wetlands, and other drainage channels; consideration of wildlife impacts by avoiding entirely fencing the facility to maintain wildlife corridors; maintaining stream channels throughout the site; and preserving existing tree cover.

Mr. Zuraf said for Fire and Rescue, considerations would include maintaining adequate emergency access, providing clearance between solar panels and vegetation; for construction, limiting construction hours, considering preferred truck routes, requiring post-construction road repair, and requiring decommissioning as previously discussed. He noted that these are just ideas to consider if the Commission and Board were considering any amendments to the comp plan.

Planner Amy Taylor stated that she and Ms. Baker would finish out the presentation. Ms. Taylor said that she would begin on the current zoning ordinance requirements for solar facilities and energy-storage facilities. She explained that the ordinance currently does permit solar facilities by conditional use permit in most agricultural, residential, commercial, and industrial zoning districts. She said these are classified as public facilities or utilities for generating facilities—and at this time, there are no regulations or development standards specific to solar or energy-storage facilities.

Ms. Taylor stated that staff had recommendations for zoning ordinance amendments and has gathered best practices and conducted a code comparison for solar facilities from surrounding localities, with the specific localities used in the code comparison and their requirements shown in Attachment 5. She noted that staff also consulted state code regulations and agencies such as the International City-County Management Association and the American Planning Association. She said that current recommendations include establishing definitions of specific terms to define "solar energy facilities," including community- and utility-scale projects; establishing design standards for solar energy and energy-storage facilities; and identifying specific zoning districts to locate solar energy and energy-storage facilities. She said that staff has also established a rough draft of various code amendments and comp plan amendments for consideration, which are all included in the materials posted online.

Assistant Director of Planning and Zoning Kathy Baker said that she would discuss the solar applications received, which will include the conditional use permit and comp plan compliance reviews. She said that staff review is underway, and they conducted their development review meeting in September; once they get to a point of it being ready to move forward, it would go to the Commission and ultimately the Board for public hearing. She stated that more details on the applications can be found on the Planning & Zoning website, under the September 22 development review meeting.

Ms. Baker pointed out Enon Road and a community-scale project that is located on 36 acres at the intersection of Enon and Truslow roads, zoned A-1, with the area of disturbance being approximately 16 acres. She said that the property is currently farmed, and this would be a 3-megawatt facility as proposed that could provide service for up to 600 homes through Dominion's Energy Share solar program. She noted that she did not know a lot about the program, but it generally allows Dominion customers to subscribe and receive credits on their energy bills up to about 10%; this program was established through state code in 2020 and requires 30% of participants to be low income.

Ms. Baker explained that the connection to this property would be Dominion distribution lines on Truslow Road, pointing out an overview with the rows of panels that are about 20 feet in height. She said the plan includes buffers along the perimeter as well as fencing around the perimeter of the project, with 75-foot setbacks from the right-of-way in general and buildings on adjacent properties, with the applicant proposing that native grasses be planted under the panels themselves.

Ms. Baker reported that the Kinglet project was another community-scale project, on a larger parcel of 183 acres on the north side of Truslow Road just east of I-95. She said that it is also zoned A-1, and the area of disturbance is estimated to be only 44 acres. She stated that this is a 5-megawatt facility, so it is still community-scale; it can provide service for up to 660 homes through Dominion's Shared Solar program, with connection to the distribution lines along Truslow Road. She noted that the farm is currently wooded, and the majority of the buffer will be retained around the project on the actual site—with about 100 feet of buffer between the actual location of the panels and I-95, with a 180–300-foot range to the property lines for the rest of the project. She said that this applicant would also look to plant native grasses and wildflowers around the site.

Ms. Baker summarized that solar and energy-storage facilities are currently permitted by conditional use permit; the two submitted applications would be processed under the current guidelines—state and County regulations—unless the Board were to adopt new regulations in advance of those being approved. She said that staff is looking for direction as to whether the new comp plan and code amendments should be considered for future applications. She stated that the next steps would be, if desired, that the Board request that the staff and Planning Commission develop new standards for consideration for the comp plan and code amendments, and at that time, staff would work with the Commission to draft language based on some of the information already in their packets. She said it would then come back to the Board for referral to the Planning Commission and eventual public hearing.

Ms. Vanuch stated that she had received feedback from her colleagues that they were incredibly impressed with the prework staff had done on this, which made coming into the work session much easier. She expressed appreciation to staff and also thanked the Commission and the public for joining the meeting today. She said that the reason they asked for the joint meeting is that they have heard of challenges and issues with the solar facilities and wanted to understand the benefits and downsides to be addressed, so they can be proactive in updating the comp plan and associated ordinances. She commented that she hoped this meeting would generate input from the Board and Commission as to what they wanted to move toward over the coming months.

Mr. Coen said that he had many questions but would likely email most of them. He asked what was used for fire suppression in the event of a fire, stating that the George Washington District did not have much water. He asked if that was something the applicant would proffer.

Mr. Zuraf responded that this was something they would want to talk to the Fire Marshal's Office about more, as access to adequate water will be a definite need for this type of facility.

Mr. Coen asked whether the same land could be used for new panels once the old ones were no longer usable, as the conversation seemed to be about "decommissioning" them.

Mr. Harvey clarified that "decommissioning" referred to when they would no longer be using the property for a solar facility—but they could certainly swap out panels, change equipment, and do regular maintenance. He said the future for energy generation is somewhat unknown right now, as is the longevity of these facilities, but they would need to look at this as they would any other land use: Once they approved it, it would permanently be there.

Ms. Allen asked if staff had identified plats that would meet some of the requirements in terms of water issues, abatement factors, etc., as the process would be easier if they knew that the applications had already been vetted.

Mr. Harvey replied that when they did the comp plan update last year, they didn't know or consider the idea of energy-storage facilities, as it was a totally unknown concept to staff at that point in time. He said if they were to address that, it would be something that staff would need to map out. He stated that in terms of energy-storage facilities and the need for fire suppression, they would probably want to focus on the urban services area because the water is available there to fight a fire if there is one.

Ms. Allen stated that her other question was related to low-income areas, and she asked if some of the panels would be placed there.

Ms. Baker stated that this was part of Dominion's Energy Share program, as they have a program set up whereby customers for Dominion could pay a subscription fee and in return get credits for their utility bills. She said that state code was written in a way that states that 30% of participants would be low- to moderate-income residents.

Mr. Zuraf pointed out that it doesn't have to do with siting, and his understanding is that the coverage area for potential residents is a fairly wide area.

Mr. English asked how long solar farms had been around.

Ms. Allen responded that California has had them for quite some time.

Mr. Zuraf stated that staff had not researched that aspect.

Ms. Baker commented that there were numerous projects in Virginia that have already been approved, and a good portion of those were already up and running.

Mr. English asked what the primary issues were that other localities had with solar farms.

Mr. Harvey responded that Caroline County has said that erosion control issues were a specific concern; in looking at a facility in Louisa County, there were hillsides that created some erosion problems that needed to be resolved. He said that since that time, the state has come up with some new guidance, and the DEQ from a stormwater management perspective has said that calculating the impervious area for stormwater, the entire solar panel surface is now considered impervious—and that guidance didn't exist when the Louisa facility was built. He noted that Paul Santay was present tonight, and his team would be scrutinizing the plans to ensure there would be no erosion or stormwater problems that impacted other properties. He emphasized that the Board could add additional regulations through the conditional use permit process, as necessary.

Mr. English stated that the other issue he had concerns about was the disposal of the panels, noting that there was a bond required. He asked what would happen if the company went bankrupt and whether it fell back on the County to take care of this and dispose of them. He asked if they could include some kind of safety net to address this, as the panels were hazardous and expensive to dispose of.

Mr. Harvey clarified that the County would be working with the legal team on the performance agreements that accompany the posting of the bonds, and those typically have a timeline for which the cost estimates must be renewed and updated, based on current conditions. He said that they would need to focus on whether the timelines and dollar values were still current, and he asked Mr. Santay if it was every two years under land development, as they could use a different metric for these types of solar facilities.

Development Services Director Paul Santay explained that they do the same thing for cell tower sites, as they are similar to bond projects and are decommissioned eventually—so the County collects a bond for the cost of demolition, excavation, grading, landfill costs, etc. He stated that every year the performance agreement is renewed by either the original or new cell tower company, based on the bond the County is holding from the financial institution. He said that the performance agreement is renewed annually, and the County requires that the company hire a professional engineer in Virginia to ensure the unit costs for the site are applicable to today's costs, especially in light of market volatility. He emphasized that just like any other developer default, if the property owner doesn't meet their performance agreement obligations, the County can opt to issue a certificate of default and can go through the process of collecting those funds and decommissioning the site, if necessary.

Mr. English asked if people would have to be evacuated if the facility exploded or got hot.

Mr. Shelton stated that that's normally not a problem with the lithium-ion battery storage, and on the community-scale projects of less than 5 MW, there is no battery storage onsite—it directly feeds into the transmission line, so the lithium-ion is not a problem from that standpoint. He said that the maintenance of fire lanes should be considered because of vegetation growth.

Mr. English noted that Musselman Park was right by the proposed location for the facility on Enon Road, and they needed to discuss that in detail because of the potential for vandalism and other factors with those being located next to each other.

Ms. Allen commented that there could be sensors and cameras installed.

Ms. Gary stated that she also has concerns about the fire issue, and it seems that there are certain components that are very likely to cause the fires, and maintenance of them was very important. She said that she did not know what ability the County would have to enforce what was happening once the facilities were constructed, and she asked if there would be a way to ensure that maintenance was being done properly by a third party to help reduce the risk of fire.

Mr. Zuraf responded that they could look into whether that could be part of the siting agreements for the overall operation and regular inspections.

Ms. Bohmke stated that the former governor established a committee at the state level with numerous stakeholders, and their last meeting would be the following day (September 28). She said that Kathy Bender, a Supervisor in King George, had been keeping her informed—and they would be producing a report, with some of the items being discussed here to be included in that report. She noted that it would be fairly current in terms of solar facilities. She stated that her biggest concern besides the decommissioning was the stormwater issue, and she had actually seen a picture of the massive damage caused by the Louisa facility.

Ms. Bohmke said that Phil Hathcock, the Executive Director of the landfill, was present; she had discussed the landfill with him earlier, and there were inquiries about putting solar panels there, so they would want to include that in their discussion and analysis. Ms. Bohmke said she was concerned about the forested or agricultural land that grew crops—then you put solar panels on for 25 years. She stated that she wondered what would happen to the topsoil and whether it could be refurbished with new vegetation, and there was information out about C1 and C2 core samples and their impact on future vegetation. She said there was also something out about noxious weeds that could grow under the solar facilities, and she wanted to ensure that these weeds were not allowed to take over. She also asked if the East Coast grid for power runs under Route 3.

Ms. Vanuch stated that in the presentation, staff talked about the need for HVAC units and whether it was the battery storage that necessitated this; she asked if facilities under 5 MW did not keep the batteries onsite.

Mr. Zuraf responded that staff would need to check to confirm this, but neither of the two facilities presented has those batteries onsite.

Ms. Vanuch mentioned that her questions were related to the ordinance in general and not these particular applications, and what would or wouldn't be allowed onsite based on the MW. She said she would also like to know more about the risk of the parts that were likely to catch on fire, as that would play a direct role in how close they needed to be to a water source or a fire station, as all the sites she had seen were far away from a fire station. She also asked staff to clarify the details of a fire in Arlington or Fairfax where an electric car battery caught on fire in someone's garage, and the fire department couldn't put it out because of the type of battery. She stated that she wanted to understand the resources required to put out a fire to one of the solar facility batteries, as well as the process and length of time it would take to put it out.

Ms. Vanuch stated that staff had mentioned the impact to the energy grid, and that is specifically important to her district because the power will blink and flicker if there is too much charge. She said that the ordinance they would create would perhaps only allow these facilities in the areas that

Dominion was planning to invest additional infrastructure in to ensure that there were offsets to energy grid impacts.

Ms. Vanuch said that Slide 18 regarding encouraging grazing of livestock on A-1 properties, if there are stormwater and erosion control issues, that would not be conducive to livestock grazing because it won't grow grass and it creates crevices where animals can break their legs. She stated that if they were to allow it in A-1, they needed to be aware of what they were allowing.

Ms. Vanuch commented that there were certain areas these were allowed to happen through conditional use permit, and if the Commission starts working on this, she would like to know whether this could be limited only to certain zoning categories. She said they would do this for above and below the 5-megawatt requirements, then put in the specific requirements and offsets under each of those.

Ms. Gary noted that she was concerned about the prospect of trees in a conservation area surrounding one of these facilities, and perhaps they could mitigate the dangers with firewalls or other measures.

Ms. Allen suggested considering something like retention walls to address erosion and runoff, as well as specific grading requirements, to avoid long-term effects.

Ms. Barnes stated that one thing that caught her attention in the information provided was, "Battery fires involving small electric transport devices to large-scale energy-storage facility incidents, like the one in Arizona in 2019 that injured multiple first responders…energy-storage units usually involve thermal runaway of battery cells and units; the byproducts of this thermal runaway include toxic and flammable gasses and ultimately risk of explosion or deflagration." She said that the information further indicates that the incidents are essentially hazardous materials incidents that require a long-duration response with specialized resources, and currently those specialized resources come from the City of Fredericksburg—meaning that Stafford does not currently have anything that can handle that. She asked if that meant there was nothing locally available to address these incidents, and they would have to rely on Fredericksburg.

Mr. Harvey explained that this was the commentary received from the Fire Marshal's Office.

Mr. Apicella asked if it would be worth having the Fire/Rescue officials tell them what it would take to build that capacity, and how it would be funded.

Mr. Shelton stated that Fredericksburg is a regional hazmat team out of the Virginia Department of Emergency Management, and they are funded by the state and have a cadre of folks who are proficient in different levels of hazardous materials. He said if they stay under the scale of the community-scale project, they don't have the battery storage issue because there is a solar panel receiving radiation, with an inverter that changes it to energy. He noted that the inverter is like a big circuit-breaker, and if something goes wrong, it shuts itself off—so from a fire protection standpoint, as long as they stay small, they shouldn't have issues other than a vegetation fire.

Mr. Apicella pointed out that if they were doing larger facilities, they would want to know what they might encounter and what it might take to mitigate impacts.

Mr. Shelton said it would probably be a couple million dollars to outfit a hazmat team.

Mr. Harvey stated that an energy-storage facility does not have to be dependent upon or located with a solar facility; it can be located anywhere along the major transmission lines and typically right beside the substation.

Mr. Apicella responded that if you had a fire incident, you would still need someone to respond, and if they were relying on Fredericksburg, there would be a lag time in their arrival.

Ms. Baker commented that the Fire Marshal would be doing more research, and they have just started to work with them.

Ms. Barnes said that she wasn't expecting immediate answers tonight and just wanted to open up the discussion. She stated that another aspect that caught her eye was under "Mode 4," which stated that some local zoning codes had established use-specific permitting for impact fees for community- or utility-scale solar energies. She said that whenever she sees the term "impact fees," it raises some possibilities, and she'd like to know their capabilities in enacting those. She commented that the proffer/conditional use permit overlap was unclear to her, and she wanted to also add in the impact fee—but that was a lot of moving parts, which piqued her interest.

Mr. Harvey stated that the impact fees were referring to the conditional use permit conditions where they can ask for or require a developer to provide land or funding to offsite capital facility needs. He added that it can also go back to the siting agreement and a fee that can be negotiated with the applicant for them to physically locate a facility in the County.

Ms. Barnes asked if this meant they could collect impact fees with these.

Ms. McClendon explained that the site referred to does not allow for impact fees, but the County does have the ability to impose fees for public facilities and with conditional use permits—but they wouldn't call them "impact fees."

Ms. Barnes said she also noted something regarding having inspections for these, and some localities have had to enhance their inspection teams because it creates a whole new category of things that need to be inspected. She asked if they had the staff or capacity for these inspections or whether they would need to add those kinds of inspectors.

Mr. Zuraf replied that staff is limited with these types of inspections currently, but with the building code, a third party would possibly be involved.

Ms. Barnes commented that based on what she read, she thought that might be the case.

Ms. Vanuch noted that there would be a cost associated with that.

Mr. Bain asked to revisit the siting agreement slide and referenced the first bullet that stated this excludes projects of 5 MW or less, and he asked if that meant they couldn't get a siting agreement with them.

Mr. Harvey confirmed that this was correct, and the County is prohibited from having a siting agreement for the two applications in process.

Mr. Bain asked why that was the case and why they couldn't have one for a smaller project.

Mr. Harvey replied that if he had to guess, part of it was the state legislature looking at the scale of the community impact and whether or not there needed to be additional review at the local level, along with other considerations to offset the impacts.

Ms. Barnes asked if they could make up for that lack through a conditional use permit.

Mr. Bain reiterated her question, asking if they could use a typical siting agreement as conditional use permit guidance.

Ms. McClendon stated that when you have a conditional use permit, there are parameters imposed by the Board, but they are limited to the conditions of the project—and this gives additional authority to address other issues and pursue funding for infrastructure. She said the code gave the Board some ability to negotiate in ways they are not typically able to with a conditional use permit; however, the actual siting agreement itself is not really on the table. She stated the only time this would be an issue would be when there is something the Board wants but the applicant doesn't want to do it, so they would enact their authority to impose conditions.

Mr. Bain commented that there were many objections in Spotsylvania County, and the biggest one as he recalled was the potential impact on groundwater, as they thought the required cooling systems would draw the water table down, and a lot of people had shallow wells. He asked if either of the two facilities applied for were near County water systems and would be required to connect to them.

Mr. Zuraf responded that the Enon Road facility was next to the brand-new water tank, and he believed there was a waterline along Truslow.

Mr. Bain said they may want to consider that as a condition, so they can only be sited or would have to connect to the County water system of adequate capacity. He noted that the other questions can wait.

Mr. Shelton noted that the County's Fire/Rescue Department does have the capability of dealing with hazardous materials, but they are not officially designated as a hazmat facility. He said that the responders can go Level-A protection, which means they are cocooned and can go into an operation. He added that with EVs in the future, there will be a number of automobile fires—including some that will destroy houses. He said that with batteries in the trunks of cars that are being charged every night, there would be problems with EVs, and there would also be issues with solar stations unless there was adequate maintenance, vegetation control, fire lanes, and water supply. He said that as long as they stay small in scale, he doesn't think they will have a major problem.

Mr. Martinez thanked staff for all of their work on this, and he said he wanted to know what the composition of the solar panels was in terms of toxic chemicals. He said he had been reading some information on materials, such as cadmium, celanide, hexyl-fluothane, etc., which he found questionable. He said that he was affiliated with the toxic chemical exposure legislation that went through Congress, and when they talk about putting in infrastructure with the possibility of erosion issues and runoff, it was important for the community to understand what goes into the waterways, as well as the need for additional testing.

Planner Evelyn Keith commented that as they look further into these types of panels, they can look into safer options for materials.

Mr. Martinez agreed that standards would be very important.

Mr. Apicella asked if there were any other neighboring facilities that had the same type of solar facilities, in addition to Spotsylvania and Louisa.

Mr. Shelton stated that Remington was one location.

Mr. Bain said that Fauquier did.

Mr. Apicella asked if staff could set up a site visit to look at a solar facility. He also asked if they could set up a special taxing district associated with these facilities to help mitigate the costs and issues that might arise.

Ms. McClendon stated that she was not certain there was the authority for a taxing district, and there would need to be specific state enabling authority for that, so she would check into that.

Mr. Cummings said that for him, it was all about the target and where they're going—and Virginia's energy targets are fairly robust. He stated that he would like to keep those in mind and see how whatever they craft leads them in that direction. He said when they talk about soil erosion, there are solutions to address that. He stated that they have many tools at their disposal, and the tone they set for this will impact the ordinance and the planning for these. He commented that the erosion, panel composition, and battery storage were the primary issues for him, and they can demand specific aspects for those things from the developers.

Mr. Cummings stated that they are following Dominion on this, and he wanted to make sure they felt this was the best direction. He said they could find out what they needed with data and GIS, asking the overall questions that keep the target in mind.

Ms. Sellers said that Mr. Coen had brought up some examples, and at the CTB the previous week had a presentation on a national program for EV charging stations in Stafford County—as it has been identified as an area that needs more charging stations. She emphasized that there are federal dollars associated with this, although they may not be at the scale of community solar panel projects. She said that she didn't recall seeing guidance for facilities under the 5-megawatt facility, and she asked if there was consideration for a smaller site such as what you might see at a Wawa or Sheetz. She asked if they were considering a conditional use permit or conditions for something under the 5-megawatt capability.

Mr. Harvey responded that one of the recommendations that staff has is to look at the comp plan or zoning ordinance and have standards for both community-scale facilities that are below 5 MW and utility-scale facilities that are above that.

Ms. Sellers stated that she was thinking of ones that were for houses.

Mr. Harvey clarified that she was referring to vehicle-charging stations versus stations that are generating electricity.

Ms. Sellers said that they had reviewed both at the CTB.

Mr. Harvey stated that in those charging stations, they are not selling back to the grid—so they would be considered an accessory use to a business versus an energy-production facility classification. He said they would have to look into that to some degree, as the zoning definition currently speaks to vehicle fuel sales, and electricity is a form of fuel. He added that they are not equipped to require a conditional use permit process for a charging station, as people would have these at their houses or apartment complexes, or along the interstates at businesses.

Ms. Sellers asked if Dominion was the only provider in Stafford County.

Mr. Bain said that Rappahannock Electric Cooperative covered part of the area.

Mr. Harvey said that NOVEC was another.

County Administrator Randal Vosburg stated that there was a lot of discussion related to fire hazards of these facilities, and he has someone close to the industry who informed him that 80% of the smaller sites in Florida do not have battery storage, and many of the larger sites don't do battery storage either. He mentioned that his colleague also indicated that they put fire suppression systems in place for sites that have battery storage, so there isn't typically a major need for responders.

Ms. Vanuch said that regarding next steps, she had just been discussing with Ms. Barnes that the Planning Commission could set up a subcommittee to craft an ordinance and go through all of the different aspects of what they just talked about. She said there was a lot to contemplate, and it would take a lot of time to research it all. She stated that the Board could likely get this on the consent agenda for October 4 to send down to the Planning Commission, or they could wait until October 18. She emphasized the importance of getting this to them quickly and giving them broad latitude to look at all the zoning categories.

Ms. Allen asked if they would come back to the full Board with this, and how many vetting processes they wanted.

Ms. Vanuch suggested giving them a timeline, and perhaps in three months having staff come back and do a check-in and present on what they'd learned so far.

Board members agreed that October 18 would be better and that it could go on consent. She asked how long they wanted to allow to give them enough time for a near-complete ordinance.

Mr. Harvey stated that he would anticipate that the Commission would want some time, and he suggested maybe aiming for the second week in January.

Ms. Barnes asked when it was anticipated that the applications would come to them, because they would probably come to them before the long-term work was done.

Mr. Harvey clarified that staff would be working with some of the applicants, as some of the code amendments would benefit their projects, and they would need to discuss it with them.

Ms. Vanuch stated that there was consensus for the Planning Commission to come back the second meeting in January, with very wide latitude for the Commission to consider all zoning categories.

Mr. Apicella asked if they could form a subcommittee as soon as possible.

Ms. Vanuch responded that they can move forward with that at any time and did not need the Board to decide that.

Mr. Harvey asked if the intent was that the Commission would complete its work by the second meeting in January or report to the Board at that time.

Ms. Vanuch stated that she interpreted this to mean that the report would be nearly complete, with the Board noting anything glaring and redirecting them to go back and revisit it.

Ms. Barnes commented that she'd rather do it right than do it fast.

Ms. Bohmke said that solar is not something that people understand, and they might understand solar panels on their homes, but very few people have them in the County—and they need some kind of marketing campaign to educate people, as public hearing signs are not enough. She stated that the Chair and the County Administrator and County Attorney should discuss this, and social media will be very important. She noted that they don't have enough information yet to explain it, but they can at least say that they are starting the process.

Mr. Coen agreed, stating that they need to ensure that the public is aware of what they are doing.

ADJOURNMENT

At 7:36 p.m., Chairman Vanuch adjourned the joint Board of Supervisors and Planning Commission meeting.

Kristen Barnes
PC Chairman

Crystal Vanuch
Board Chairman