



**Prince Edward County Planning Commission
Meeting Minutes
August 20, 2019
7:00 pm**

Members Present:	John Pregelman, Chair	John “Jack” W. Peery, Jr., Vice Chairman
	Donald Gilliam	Preston L. Hunt
	Mark Jenkins	Clifford Jack Leatherwood
	Whitfield M. Paige	Teresa Sandlin
Absent:	Robert “Bobby” Jones	Cannon Watson
Staff Present:	Wade Bartlett, County Administrator	

Chairman Pregelman called the August 20, 2019 meeting to order at 7:00 p.m.

Approval of Minutes: June 18, 2019

Commissioner Peery made a motion, seconded by Commissioner Jenkins, to approve the meeting minutes from June 18, 2019 as presented; the motion carried:

Aye:	Donald Gilliam	Nay:	(None)
	Preston Hunt		
	Mark Jenkins		
	Clifford Jack Leatherwood		
	Whitfield M. Paige		
	John “Jack” W. Peery, Jr.		
	John Pregelman		

Absent:	Robert M. Jones	Cannon Watson
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In Re: Review of Board of Supervisors Actions

Mr. Bartlett reported the Board of Supervisors approved the Special Use Permit application of Mr. Byler for the wood processing facility; he said Mr. Byler is currently constructing the building to house the operation.

Mr. Bartlett then said the Bonds for the renovation sold at a cost of a half million dollars less than originally thought.

Mr. Bartlett stated Social Services will be moving from the Courthouse to their new building on August 28; paving was done there earlier in the day, and furniture will be delivered to the new building tomorrow.

Mr. Bartlett said that Dominion Energy will be building a path-line; they have a fallback, but the main problem is when it goes under the Appalachian Trail or into the National Forest. He said they have a backup plan but it will not

affect from Buckingham [County] south and will not change. He said permits will be obtained this fall to clean and clear a swath of land about 100 feet wide. He said they will hopefully take care of the trees this fall.

Chairman Prengaman questioned the progress on the Courthouse renovation. Mr. Bartlett said work is on schedule; when Social Services moves out on the 28th, that area will be demolished and work will begin to complete the J&D Court, which has to be complete by December 31. Mr. Bartlett said some work has been done in the Board of Supervisors Room but it is not yet complete.

In Re: Amendment to the County's Zoning Ordinance

Mr. Bartlett said the County, and the entire nation, has seen an explosion in the applications to build large utility-scale solar generation facilities. The County's Zoning ordinance was adopted before this technology had developed to where it is effective. There is no mention of solar generating facilities in our current zoning ordinance. The closest use mentioned in our Zoning Ordinance is **Utility Services, Major**. The definition is:

***Utility Services, Major** -- Services of a regional nature which normally entail the construction of new buildings or structures such as generating plants and sources, electrical switching facilities and stations or substations, water towers and tanks, community waste water treatment plants, and similar facilities. Included in this definition are also electric, gas, and other utility transmission lines of a regional nature which are not otherwise reviewed and approved by the Virginia State Corporation Commission.*

Currently this use is allowed in the A1, A2, R1, R2, R3 and C1 zones by a special use permit. Large solar generation facilities are not compatible with the residential and commercial zones. It is allowed in the I1 zone by right. Prince Edward County has very limited land zoned industrial. To allow a solar facility to locate in that zone BY RIGHT could easily mean one solar project could occupy a very large percentage of the County's industrial zoned land. This would greatly hinder, if not outright stop, any future industrial development in the County without the expenditure of millions of dollars of taxpayer funds to build or expand industrial parks.

These projects often utilize hundreds of acres of land and just a few such projects could cover thousands of acres. These projects are long-term, at least 25 years. Left unchecked, these projects can have a profound impact on the land use in the County. These utility-scale facilities are rather new on the scene and as with any new technology or land use, unknown and unintentional consequences are bound to happen. County staff recommends the Planning Commission direct County staff to research utility-scale solar and wind generation facilities and draft a proposed amendment to the Zoning Ordinance to minimize the negative impact of such facilities on land use and the citizens of the County.

Chairman Prengaman said the County must be proactive and put together a policy, whether it be a committee or sub-committee to research and understand what should be considered, what controls should be in place, and possibly even soliciting and targeting companies to come to Prince Edward County. He recommended the Planning Commission request the Board of Supervisors set up a committee to research this issue. Discussion followed.

Mr. Bartlett said where they can be located is limited to the proximity of transmission lines because they have to feed back onto the transmission lines. He said the one that was approved about two years ago still hasn't started; when the County approves a special use permit, it never expires. He said in other counties, the policy is that if no action is taken within a certain time, the permit expires. He said Prince Edward County may want to consider that option.

Chairman Prengaman said he will discuss with the other Commission members for appointments to the committee and a timeline.

In Re: Special Use Permit – Holocene Clean Energy

Chairman Prengaman announced this was the date and time scheduled for a Public Hearing on a Special Use Permit application to permit the operation of a solar generation facility, on Tax Map Parcels 69-4-B and 69-A-14, owned by Ana Sawyer, located in the vicinity of 1827 Piney Grove Road (SR606). Notice of this hearing was advertised according to law in the Friday, August 2, 2019 and Friday, August 9, 2019 editions of THE FARMVILLE HERALD, a newspaper published in the County of Prince Edward.

Chairman Prengaman reviewed the public hearing process.

Mr. Bartlett said the County has received a Special Use Permit application to permit the construction and operation of a solar generation facility, on Tax Map Parcels 69-4-B and 69-A-14, owned by Ana Sawyer, located in the vicinity of 1827 Piney Grove Road (SR606).

Mr. Bartlett stated Holocene provided a summary of the project, which provides a good overview of the project that is accurate, located on 20 acres, will be surrounded by a security fence and will be buffered, and provided a site plan. He stated that while doing research on solar farms and solar panels, he found information that contradicts some of the information contained in the materials provided by Holocene. Mr. Bartlett said Holocene contacted adjoining landowners and also property owners “once removed,” approximately 40 citizens. Mr. Bartlett reported he received one telephone call from an adjacent owner asking about the project and several calls from people not adjacent questioning the signs noticing the public hearing.

Mr. Bartlett said that first, lithium-ion batteries do contain toxic materials, namely, Cobalt and contain 10%-13% of cobalt by weight. When used in lithium-ion batteries, cobalt provides the risk of thermal runaway, a chemical reaction internal to the battery, regardless of ambient temperature. When a battery containing cobalt degenerates and goes into a state of thermal runaway, it becomes an unmitigated fire that is toxic and cannot be extinguished by water or flame retardants, or contained within its housing. Instead, the fire must be allowed to burn, releasing toxic fumes. Holocene acknowledges the potential of such thermal runaways in their summary and the steps they will take to mitigate such risks.

Mr. Bartlett said that it appears the panels and the racking system themselves contain hazardous material. He reviewed various articles found online that discuss the potential problems with solar panels during installation, operation and disposal. He said that of particular concern is the statement in one article is “the fact that cadmium can be washed out of solar modules by rainwater...”

Mr. Bartlett said the microclimate impacts that solar farms have on areas where they are located can be detrimental. He said his research found that solar farms create islands of heat the can have detrimental impacts on vegetation, animals and insects. Determining the exact impact of solar farms on the climate was beyond the scope of the letter. Additional research needs to be completed before full comprehension on this topic.

Mr. Bartlett then said Section 15.2-22411.2 of the *Code of Virginia* requires a written agreement to decommission the facility prior to being approved. The County has not received such a plan.

Mr. Bartlett said staff has not had enough time to study the impact solar farms will have on property values, or impacts on long-term land use. Mr. Bartlett stated that because of questions raised by staff research concerning the possible long-term environmental impacts, the lack of decommissioning plan and the lack of a County policy regarding solar farms, Staff recommends this request be tabled until additional research can be completed.

Davis Plunkett, Holocene Energy Development Project Manager, reviewed a presentation covering a project overview, environmental considerations, equipment, battery storage, site maintenance and decommissioning. He also presented economic development benefits for the County. He said the inclusion in the Ordinance is a very prudent thing to do; he said there is a great interest in solar farms in Virginia, and stated that the creation of an ordinance is a smart thing to do. In context, he said the proposed farm is small, and a relatively agreeable land use.

Mr. Plunkett said Holocene is a small company in North Carolina, operating in Virginia, New Jersey and looking for more markets in Pennsylvania, specializing in 2-5 megawatt solar farms. He said the proposed site would house a 3-megawatt site, focusing on local distribution interconnection. He said it is different from a transmission interconnected

project which would be much larger by design and would require a substation and transmission lines to transmit the energy to a large number of users. The project of this size is for energy to be used in the local community; the amount of energy needed at that location, which will be used at the Moran substation has been “kicked off” by interest from Southside Electric Cooperative (SEC). He said the site is a good fit for this type of solar farm; there is a long-term lease agreement and they have been working on this project for approximately a year. Mr. Plunkett reviewed the site plan; he said the site is about 20 acres and they have proactively put vegetative screening on the road frontage to shield the view of the solar farm from neighbors and people on the road. He said the two fields are separated by a driveway for the renter in the back; fifty feet was allowed for the driveway, giving plenty of room. He said the project follows all setbacks and other requirements set forth by the County. He then stated letters were sent to all adjacent landowners; three people were in contact seeking clarification but had no particular concerns.

Mr. Plunkett said this project is in compliance with the County’s Comprehensive Plan. He said this will protect the land from other involved or disruptive land uses; there will be no degrading or earth-moving. He said after clearing the property and stumping it, the facility will be built and they will plant grass underneath. He added that screening vegetation will consist of local species of pollinators. He said the energy generated will be distributed back to the community.

Mr. Plunkett spoke about the environmental concerns; he said North Carolina State [University] does a large amount of research in the public interest around clean energy. He said solar farms are a good alternative with zero emission energy source which is better for the environment and human health than coal or natural gas. He said there are decades-long studies of PV and environmental effects, and while the growth of solar has been fairly new, PV is not new and has been around since the 1950s. He said the main components are made of glass, aluminum, steel, copper, and silicone. He then said silicone makes up almost 100% of the module itself, the part that produces the energy; he clarified that the panels used are not cadmium-based but are silicon-based. He said this is due to toxicity concerns and there are no hazardous elements in the modules. The racking is steel and driven into the ground, and then panels are bolted on top and the tracking system allows them to rotate to catch the sun. He added they can stack them to use less land and the transformer will convert energy from the panels to what is used in the grid. He said the battery storage unit will hold the battery, which is actually small cells stacked together. He then discussed the battery storage; he said the batteries are lithium ion and what is most used in electric vehicles.

Mr. Plunkett said the batteries do not include toxic materials; the cadmium is in some and in the form of nickel oxide and is chemically bound to other elements. He said combustion is a concern for the industry; and there are a number of things that would have to go wrong for chemical runaway to occur, but there is a great deal of control to prevent thermal runaway. He said the plastic casing would burn, not the lithium ion solution. He added that there is a fire suppression system that is installed in and primarily used to ensure the runaway doesn’t happen; and is National Fire Code Compliant and would allow people to get out of the danger zone. It would not explode but vent off gasses and fumes are vented upwards. In the event it would happen, the manufacturer would come to do an investigation and a full environmental clean-up would take place.

The site maintenance is low-key; sometimes sheep are brought in but more often it is done by a landscaping crew which will use a mower and weed eater to ensure that vegetation is kept down and away from the panels. He said there is also a remote monitoring system in place to ensure the farm is producing and if there are any issues, a technician can dispatch crew to check on it.

Mr. Plunkett stated the decommissioning plan is already being worked on; they received a cost-estimate earlier in the day. He said as of July, law mandates the creation of a decommissioning plan, and he will provide that estimate to the County. When the site is disassembled, they recycle everything that is possible, regrade and stabilize the site if needed and return it to its condition prior to installing the solar farm. This is also mandated in the lease agreement with the landowner.

Mr. Plunkett reviewed economic development benefits; he said the project is tax exempt from M & T (Machinery and Tools) taxes but it is a benefit to the county due to an increased property tax due to the property being reassessed at a higher value. He said it does provide an economic stimulus while building the site, the site also generates energy, and they seek out opportunities to engage with the students and the communities.

Chairman Prengaman asked what the time frame is for this project to be active. Mr. Plunkett said it is expected to be in place for 30 years; the lease is 20 years with a potential for two 10-year extensions.

Chairman Prengaman then asked if they are partnering with Southside [Electric Cooperative]; Mr. Plunkett said this is not a prospective project and they would like to build as soon as possible.

Chairman Prengaman asked how long it would take to complete before it becomes operational; Mr. Plunkett said that after all permits and requirements are met, it would take 22 weeks to construct.

Commissioner Sandlin asked if the proposal includes possible storage onsite; Mr. Plunkett said this farm includes a storage outlet.

Mr. Bartlett asked how much energy it could hold. Mr. Plunkett said the battery is a one-megawatt, four-megawatt hour battery. It has the ability to dispatch one megawatt for four hours.

Chairman Prengaman asked about staffing of the construction crew. Mr. Plunkett stated they will bring in a manager but otherwise hire in the community and do not bring in Holocene staff.

Commissioner Peery asked what percentage of the materials are recycled, and if the panels would need to be replaced if they wished to continue beyond the 30 years. Mr. Plunkett stated most can be recycled and it is mostly commodity steel, copper and aluminum and have significant value. The modules themselves are expected to be recycled; if anything comes to the site broken, it is sent back to the manufacturer. They make use of the components in further manufacturing. He said almost everything can be recycled or salvaged in some fashion. Mr. Plunkett added that the site could be “repowered.”

Commissioner Hunt asked for clarification on the life span of the panels; Mr. Plunkett said the modules last about 30 years.

Commissioner Gilliam asked what lightning would do to the solar farm. Mr. Plunkett said all of the fencing and equipment is grounded and is low to the ground; he wasn’t sure what could happen but he would look into it and get back to the Commission.

Commissioner Peery asked if there is an automatic shut-off in the event of catastrophic events; Mr. Plunkett said there are two “kill-switches” for the facility, one is owned and operated by the facility and one by the utility. Either side could shut if off. If certain line voltage characteristics occur, it will be automatically triggered to shut off.

Chairman Prengaman opened the public hearing.

Charles Nunnally stated he lives across from this proposed project. He asked how many people in this area have been notified to see what they think. Chairman Prengaman stated that is what they spoke on before regarding the creation of a committee to determine if the County needs a special ordinance to recognize how to look at solar farms, going forward. Chairman Prengaman said an application was presented and approved, but it was a speculation permit and no action has been taken.

Mr. Nunnally asked where others are located. Mr. Bartlett said there are solar farms in Buckingham County, there is one in Charlotte County, Powhatan County, and Mecklenburg County has several.

A citizen asked to see the site map of the project and asked if the solar farm could be seen from the street. Mr. Plunkett presented the map and said that the buffer will not allow the solar panels to be seen from the road.

The citizen then asked about truck access to the site; Mr. Plunkett said there is one access near the substation.

There being no one further wishing to speak, Chairman Prengaman closed the public hearing.

Chairman Prengaman stated it is incumbent upon the Commission to put together a committee to research. He thanked Mr. Plunkett for the presentation but recommended tabling the issue to allow time for research and understanding how to move forward with solar farms in the County. Discussion followed.

Commissioner Jenkins made a motion, seconded by Commissioner Hunt, to table this and recommend to the Board of Supervisors that the Board appoint a Task Force to do research what the Planning Commission needs to do to put something in the Zoning Ordinance specific to solar and wind farms; the motion carried:

Aye: Donald Gilliam
Preston Hunt
Mark Jenkins
Clifford Jack Leatherwood
Whitfield M. Paige
John "Jack" W. Peery, Jr.
John Prengaman

Nay: (None)

Absent: Robert M. Jones

Cannon Watson

In Re: Old Business

(None)

New Business

(None)

Chairman Prengaman declared the meeting adjourned at 8:01 p.m.

Next Meeting: September 17, 2019