

Wareham Solar By-Law Study Committee  
MINUTES OF THE MEETING  
Wednesday, December 8, 2021  
Place: **Room 320 Multi-Service Center**  
48 Marion Road  
Wareham, MA 02571

**1. CALL MEETING TO ORDER**

The meeting was called to order by Chairperson McHale at 3:00 P.M.

**2. ROLL CALL**

Members Present: Nancy McHale (Chairperson)  
Jacqui Nichols  
Carl Schulz (Clerk)  
Linda Rinta  
Christopher Conti  
Denise Wolk

Members Absent: Ronald Besse

Also present: Ken Buckland, Director of Planning  
Jim Munise, Select Board Liason

**3. MINUTES TO APPROVE**

No minutes were presented for review and approval.

Pending: Minutes of the December 1, 2021 meeting

**4. WELCOME STATEMENT**

Chairperson McHale welcomed all attendees and thanked them for participating. An overview was presented of how the meeting was going to be conducted.

Chairperson McHale provided an update on the status of the June 12, 2021 Amendment to Section 590 and noted that this was still under review by the Massachusetts Attorney General. She noted that this was a complicating factor in our process.

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Ms. McHale noted that the committee was still working on the by-law and that nothing was finalized. The input from this meeting was an important data collection step towards preparing the final recommendation.

Ms. McHale noted that this was not a Public Hearing on any current or pending project and was solely focused on collecting input for the new by-law to be presented to the Town.

**5. PRESENTATION-SOLAR BY-LAW UPDATE**

Reference: Power Point Slide Presentation dated December 8<sup>th</sup>.

Mr. Buckland introduced the presentation by noting that it contained the same material that was presented to the Committee at the beginning. I was prepared to provide background and guidance on the issues to be addressed and constraints to be considered. The presentation has been updated to include information on ideas being considered by the Committee.

Mr. Buckland provided a map of the US and noted that the Southwest seems best positioned to benefit from Solar power. However, he noted that the state was offering incentives for Solar power and those necessitate our consideration and planning. He further noted that our region seems best positioned to benefit from wind energy but that was beyond the scope of the current remit for the Committee.

Mr. Buckland provided an overview of the legal basis for the Town to regulate solar projects. He particularly noted the clause preventing unreasonable regulation. He noted that on-site solar siting on residences is allowed by right. The focus of the by-law will be large-scale (250 KW) ground mounted arrays. Large-scale ground mounted arrays in R-60 and R-130 are subject to site plan with special permit review by the Planning Board and in the Commercial and industrial districts with ZBA review.

Mr. Buckland summarized some of the issues being considered by the Committee:

- Tree clearing amount and timing
- Battery Storage Systems (focus on accessory structures not stand-alone battery storage)
- Access roads
- Fencing
- Allow agricultural use; shared use, multi use
- Ground cover – native pollinator mix

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- Set backs from residential neighborhoods
- Screening with native species; maintenance of screening for life of project
- Prohibit herbicides and pesticides
- Limiting amount of solar by putting a cap on total acreage

Mr. Buckland provided data on the land use in Town and current solar usage and discussed how limiting total acreage could be applied.

Mr. Buckland provided an overview of the Committee Schedule:

- January 15 complete draft
- Late January / Early February for Public Hearing

**The meeting was opened to questions on Mr. Buckland's presentation.**

Mr. Thomas Bicki addressed the committee:

Mr. Bicki questioned using total acreage as a criteria for managing total solar deployment in Town. He suggested that a more appropriate criteria might be using the total energy consumption of the town and then scaling solar projects to provide some percentage (100%) of that usage. That would allow the town to quantify its commitment to use of alternative energy sources.

Mr. Bicki noted that a new nuclear plant was being considered in Plymouth and noted that use of solar should be considered preferable.

Mr. David Pichette addressed the committee:

Mr. Pichette asked whether the amount of total "current" acreage for solar included all current and pending projects.

Mr. Buckland noted that the amount includes all projects of record at this time.

Mr. Richard Swenson addressed the committee:

Mr. Swenson noted that siting of projects is key and asked the Committee to focus on controlling where these projects get deployed.

Mr. Swenson asked if we could get more granular than R-130

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**6. COMMITTEE COMMENT**

Ms. Linda Rinta addressed the committee:

Ms. Rinta noted that Mr. Bicki's suggestion was a good idea. She noted that tying in our use of renewables to our actual use could help generate awareness of the impact of that use.

Ms. Rinta noted that the Town of Wareham lacks a Tree Warden, Arborist or a Tree committee. As a result, we do not know the health of the forested (treed) land within the town. Without understanding the health of the trees it is difficult to formulate regulations around tree cutting.

Ms. Rinta noted some concerns with tying tree cutting ahead of time to solar projects. Permitting and planning for these projects takes years. Being able to forecast / plan and cutting trees ahead of this is not always practical. The land would lie fallow for years, subject to erosion, and the trees grow back.

Ms. Rinta noted that habitat mitigation as currently drafted is "arbitrary" and not based on any criteria. She argued that in many cases the solar project might actually improve the habitat (note earlier comments about knowing the health of the trees and the habitat).

**7. PUBLIC COMMENT**

Chairperson McHale asked for Public Comment.

Ms. Linda Scharf addressed the committee:

Ms. Scharf noted that the Cape Cod Commission had a solar siting tool that provides some good criteria for consideration.

Mr. Scharf noted that the Cape Cod Commission had proposed a model solar by-law. They also provided insight into legal cases and considerations.

Ms. Scharf asked about the PILOT agreements and was concerned about allowing projects to avoid paying taxes.

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Ms. Nichols responded and provided background. PILOTS written prior to this year were to prevent projects from becoming exempt. We only have a couple of exempt projects – but they are exempt for different reasons. Going forward we will use different approach.

Ms. Scharf noted that siting should consider GLARE.

Ms. Scharf closed by noting that we should not consider a tree in isolation. We need to consider the ground and root networks and the soil.

Mr. Thomas Bicki addressed the committee:

Mr. Bicki suggested some criteria for siting. Given the requirement that solar arrays need to be located near transmission lines he suggested mapping the transmission corridors and identifying non-productive land within those corridors. Solar arrays could be encouraged within those corridors.

Ms. Rinta supported this idea.

Mr. Bicki built on earlier comments about forest health and understanding it when trying to develop tree cutting criteria. He noted that the Pine Barrens in the Miles Standish Forrest have been identified as some of the worst managed forests in the Nation. He further noted that the health of Minot forest is bad.

Mr. Mike Mercier addressed the committee:

Mr. Mercier noted the importance of end-of-life management of the solar arrays. He wanted to know who was responsible.

Ms. McHale noted that all projects must include an operations and decommissioning plan and that the companies must provide a bond for decommissioning.

Ms. Tricia Wurts addressed the committee:

Ms. Wurts noted that she was also speaking on behalf of Ms. Annie Hayes who could not attend.

Ms. Wurts noted an effort in Shrewsbury to develop an energy production plan. She thought that this would be a good source of information for the Committee.

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Ms. Wurts made reference to a letter from the Wareham Fire Department and their requirement for training. Ms. Wurts contended that emergency responder training has not been provided. She provided a copy of the letter to Chairperson McHale.

Ms. Wurts recommended that the Committee take into account product maturity and project obsolescence into consideration. She noted concerns about not having a full understanding of impacts and consequences of deployment early in a product's life cycle.

Ms. Wurts recommended that the Committee look to the issues being faced in Carver. Consideration about impact to the aquifer. Impact of industrial sites going into residential areas. Consideration should be given to the definitions of residential.

Ms. Wurts felt that the process for review and approval must be revised and improved. This included ongoing operations.

Ms. Wurts introduced a concern about the batteries being added to these projects.

Mr. David Heard addressed the committee:

Mr. Heard supported Mr. Swenson's admonition to focus on WHERE.

Mr. Heard voiced a concern that the Town was not siting solar on Town properties. He asked for an explanation.

Mr. Buckland noted that there is nothing stopping developers from siting arrays on Town Property. However, these developers would require the Town to Purchase that Power – the Town cannot purchase additional power because we are already under contract.

Mr. Heard was not satisfied with this explanation and felt that this must be explained to the Town.

Mr. Jim Munise addressed the committee:

Mr. Munise asked for a clarification about agricultural zoning. He noted that all agricultural land is zoned residential.

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He noted that we have limited Industrial or Commercial zoning.

Mr. Munise recommended that the Committee clearly define the difference between residential neighborhoods vs. residential zoning.

Mr. Munise noted that forests are under a special chapter and must be managed. There is supposed to be a management plan.

Mr. Munise discussed the idea of overlay districts.

Members of the Committee noted that overlay districts were a possible alternative being considered. Mr. Buckland noted to concept of site performance standards which were included in the Cape Cod Commission report.

Ms. Nichols acknowledged that Mr. Munise echoed the belief in solar energy within the community. She acknowledged the importance of siting projects and balancing the need for solar energy with the least amount of disruption.

Ms. Rinta noted that solar projects are required to improve the transmission infrastructure and those improvements could benefit residents.

Mr. Eric Lintala addressed the committee:

Mr. Lintala restated the importance of siting. He felt this was the key consideration.

Mr. Lintala noted that it seemed that Wareham had given more to solar than surrounding towns.

Mr. Lintala called out tree cutting and noted he was not in favor of it.

Mr. Lintala also noted the efforts by Shuttesbury in this area. Mr. Lintala read excerpts from a report from that town. He noted that he had provided email input on this issue.

Mr. Schulz acknowledged receipt and noted that he had shared with members of the Committee.

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Mr. Lintala raised the issue of preservation of historical sites which he felt has not been given sufficient consideration. He suggested that the Committee invite the Historical Commission to comment.

Mr. Lintala encouraged the development of stronger by-laws that incorporate consideration of cultural and historical sites as well as the other concerns previously noted.

Mr. Iain Ward addressed the committee:

Mr. Ward highlight the opportunity for the agricultural component. He agreed that there are challenges but he wants to focus on the opportunity. He suggested that we have the opportunity to raise the bar on site impact. We can specify what we expect in return (ie improvements to the site).

Mr. Ward suggested that the by-law provide a framework that allows for innovations and technological advances while allowing innovations in land use we could have a positive impact. For example, solar on water was not a concept 5-years ago. He recommends that the by-law allow for changes and innovations that could not be anticipated.

Ms. Kathy Pappalardo addressed the committee:

Ms. Pappalardo asked a question about the State re-writing the Solar Laws.

Ms. McHale responded by noting that the State was struggling in reaction to the amount of concern, dialogue, issues that surround this topic. Ms. McHale noted the on-going legislative hearings and the volume of bills on the topic before the Legislature. She does not expect to hear any new guidance from the State in the near-term.

Ms. McHale did note the work done by the Cape Cod Commission has been reviewed by the Committee.

Ms. Pappalardo noted that the current by-law does not address battery storage. She noted a new project in Carver for a large battery storage system. She encouraged the Committee to take that into consideration and encouraged banning batteries.

The Committee discussed the differences between a battery as an accessory structure in a solar project, which is now required under state



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law, vs. a stand alone battery storage system which may not be related to solar but with a wind project.

Ms. Pappalardo was concerned that we do not have a by-law that addresses these stand alone battery storage systems.

Mr. Buckland noted that our current by-laws do provide governance over new projects and noted that because large scale battery storage systems are not specifically allowed that they are not an allowed use. This also applies to wind turbines.

Ms. Pappalardo noted that several projects before the Planning Board include batteries and was not clear why if they were not allowed as stated above.

Mr. Buckland noted that the battery systems that are included in the solar projects before the Planning Board were and accessory use and therefore allowed.

Ms. Pappalardo voiced concern about that.

Ms. Linda Wurts addressed the committee:

Ms. Wurts echoed Ms. Pappalardo's concerns about the battery storage systems. Ms. Wurts recognized the difference between batteries as an accessory use vs. the large scale storage systems and acknowledged that addressing large scale systems was beyond the scope of the current effort. She did encourage the Committee to fully address batteries as an accessory use.

Mr. Peter Beaton addressed the committee:

Mr. Beaton noted that he was a cranberry grower with experience with small solar farms in Wareham and several other local towns.

Mr. Beaton stated that his goal is to protect his farms as do his neighbors. Solar projects offer a little extra protection against changes in market conditions.

Mr. Beaton stated that he has had positive experiences working with solar developers.

Mr. Beaton stated that when siting solar on his properties he is very concerned about keeping them out-of-site and has located them on "expensed" sand pits.

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Mr. David Fletcher addressed the committee:

Mr. Fletcher thanked the Committee and encouraged us to craft a by-law that considered all stake holders and constituents.

Mr. Fletcher has several solar projects and provided background on comments on battery storage as an accessory use on his projects. The original projects did not include battery storage as the technology was still in its infancy. He noted that solar projects generate most of the energy between 10 and 2 and then rapidly fall off. As experience with operating these farms and as battery technology improved the industry recognized that they could improve efficiency by capturing excess power generated during the day in a battery system and releasing it at night.

Mr. Fletcher expressed his opinion that improving the efficiency of solar systems through the use of batteries was important if as a community we want to move away from fossil fuels and nuclear power generation.

Mr. Fletcher spoke about the trade-offs to be considered regarding cutting of trees to support solar farms against the need to build a new nuclear plant. He noted that the site of the current Pilgrim Nuclear plant is lost forever whereas a solar site can be restored and reused.

Mr. Fletcher noted the positive economic impact that these solar farms have on the Town's revenue.

Mr. Fletcher spoke to why Wareham (and the Southeast in general) has seen a lot of solar projects. He noted that Eversource East, in order to meet its 10% renewable energy commitment established under the Obama Administration, needs to find projects. Open land in towns like Wareham is the only viable source for utility scale arrays to generate this energy in the region.

Ms. McHale responded by saying that destruction of habitat and cutting of trees affect the quality of life and must be prioritized. Siting on rooftops, canopies over parking lots, and over sand pits must be the first choice for siting.

Ms. McHale acknowledged that accessory use battery systems were important to improving the efficiency of the solar farm but more importantly were used to raise the profit of the solar developers.

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Ms. Nichols asked Mr. Fletcher if he was part of the Blue Wave Solar project. Mr. Fletcher said that he was. Ms. Nichols observed that the Blue Wave project was very nice.

Ms. Nichols asked Mr. Fletcher if battery systems were going to be deployed in existing solar farms that do not have them. Mr. Fletcher said no. Ms. Nichols asked Mr. Fletcher to confirm that the battery systems that would be deployed with any future project are not the large scale storage systems discussed earlier. Mr. Fletcher confirmed.

Ms. McHale closed the Public comment section of the meeting at 4:50.

**8. VOTE ON NEXT MEETING**

**MOTION:** made and seconded to schedule the next Committee meeting for Wednesday, December 15, 2021 at 3PM.

Motion passed 6-0-0

**9. ADJOURNMENT**

**MOTION:** Motion made and seconded to adjourn the meeting.

Motion passed (6-0-0)

**10. NEXT MEETING**

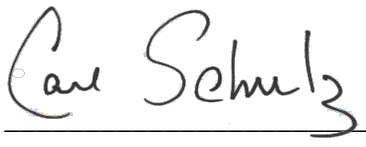
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***Date Signed***

***By Carl Schulz, Jan 24, 2022 at 09:22***

Date signed: \_\_\_\_\_

A handwritten signature in blue ink that reads "Carl Schulz". The signature is written in a cursive style. Below the signature is a horizontal line.

Attest: \_\_\_\_\_

Clerk Wareham Solar Study Committee

***Date Submitted***

***By Carl Schulz, Jan 24, 2022 at 09:21***

Date copy sent to Town Clerk: \_\_\_\_\_