

**Town of Boscawen
ENERGY COMMITTEE
Boscawen Municipal Complex
DRAFT MEETING MINUTES
Monday, February 14th, 2022, 5:30 P.M.**

Members Present: Edward J. Cherian Jr— Chair.; Charles Niebling— Vice Chair; Scott Maltzie PHD; Gary Tillman, Nate Preisendorfer

Excused: Ex-Officio- Paul Dickey

Guest Speaker: Fergus Cullen- Bright Spot Solar

Staff: Kellee Jo Easler— Planning and Community Development Director; Kearsten O’Brien- Deputy Planning, Community Development Director & PCD Clerk Kara Gallagher

Chair Edward Cherian opened the meeting at 5:30 P.M.

Mr. Gary Tillman motioned to accept the draft minutes as amended. Seconded by Dr. Scott Maltzie. All in favor. None opposed.

Mr. Gary Tillman requested one change on line 67, change the last ‘as’ to ‘are’.

Deputy PCD Director Kearsten O’Brien requested one change on line 8, change ‘HCS’ to ‘ACS’.

Old Business: PCD Director Kellee Easler said the Planning Board talked about the Master Plan in the beginning of the month but haven’t made any changes. Deputy PCD Director O’Brien said Stephanie Alexander was reviewing it first before sending it back to the Energy Committee. Mr. Tillman asked if Mr. Matt Monahan would be reviewing it. PCD Director Easler will check with him. Chair Cherian said once Planning Board is ready to discuss the Master Plan, then they will attend a meeting.

There is no Briar Hydro Net Metering update thus far.

Mr. Cherian said Energy Facility Tours Planning will start in the Spring.

New Business: Mr. Fergus Cullen from Bright Spot Solar came to talk about how their household energy works and specifically, how it works with municipalities. Mr. Cullen asked to get to know a little bit more about the Town of Boscawen and what makes the Energy Committee interested. Mr. Cherian explained the Energy Committee was established a couple months ago. They are at the beginning of the process, interested to see what opportunities may be for the town. Mr. Cherian said both as a host in terms of net metering and actual installations as a buyer or off taker. Two people on the committee work in the solar business. Mr. Cullen said there are three types of Solar Arrays (rooftop, fixed ground nonexistence & pole mounted trackers). Roof based systems are limited by the size of the roof. They take into consideration the shaping and angles of roofs. They are the cheapest systems because they take advantage of the

existing infrastructure. Ground mounts is when you build a racking system and clip panels into the rack. They normally are set up at 35-degree angles. It is set up for ideal southern orientation and avoid shading. They don't move and are usually optimal once a day. The pole mounted trackers track and follow the sun all year round. They are always pointing at the sun and at the best angle. They are the most productive in terms of energy. They have a smaller footprint. Technology has been increasingly getting better which increases a lot of change in solar. Panels produce more energy and the costs have come down. The next technological breakthrough is assumed to be in battery storage. Mr. Cullen said in his opinion, we aren't quite there yet to make it economical. Mr. Cullen said as a municipality, they would still be tied to the grid. The Town would have their own clean energy power plant that is part of the grid. The Town would always have the power needed, no matter what time of day, sunny or cloudy. When the first solar panel produces power, the power goes wherever the immediate demand is at that location. If it isn't demanded at that location, at that minute, it flows out to the grid and is used by your neighbors. Typically, these systems produce more hours during daylight hours and they're consuming. The net difference is what you would be charged for. Solar is not a solution to a power outage. If the power goes out so does solar. Mr. Cullen said Boscawen would want to have free phase power. The Town would need some transformer upgrades depending on the size of the system. Solar can stand alone specifically for school buildings and municipalities where they have a long-time horizon. Solar is exploding because there are significant financial tax incentives. Municipalities don't pay income taxes so they can't take the federal tax credits. They also can't take the depreciation, so most municipalities enter a Power Purchase Agreement. It is no cost to the Town. Mr. Cullen estimated that the town's annual savings would be a third to a half, probably around \$10,000. A PPA would be a 20-year contract, most likely a fixed price per kilowatt (10-12 cents/kw). The Town may have an option to buy the system for it to remain residual value after 5 to 6-years. The Town would also avoid all future rate increases. Energy power costs are going up and when they produce their own power, they can save and have sustainable equipment of 20 to 30 -years. Mr. Cullen said he estimated the Town having around 13 meters. The Police Station has the most energy use following with Briar Hydro and Transfer Station.

Mr. Nate Preisendorfer asked if the system with a PPA could be installed anywhere in the community with the municipality as the beneficiary. Mr. Cullen said it is easier co-located with the municipal facilities. The regulatory environment in NH is challenging. It is possible to have community net metering in NH. It becomes easier when it's tied directly behind a meter at an existing facility. One benefit of a tracker is you can put multiple of them in different locations that are municipal property tied to different meters. Mr. Cullen asked if they were looking into megawatt-sized facility for the community. Chair Cheria said they potentially would investigate it. The committee is still in the early stages of gathering information about what role the town can play and facilitating the development to the benefit of the community and residents. Chair Cheria asked if the gage deed restricts putting tracking panels up. PCD Director Easler said they would be restricted because it is supposed to be recreational. Chair Cheria asked if the Historic Preservation restrictions on the building preclude doing a roof mount. Deputy PCD Director O'Brien said not at the Elementary School. It isn't a good roof for structural purposes. Dr. Maltzie asked for clarification on whether it is a grid-connected system not strictly behind the meter. It is always going to be connected to the grid with the solar array, but it is easier to have all the power tied behind the meter. The PPA helps size the system to 90% to 100% of their

needs but not more. If there was excess, they would sell it to the grid. A group of investors would end up owning the system and they won't get a lot of return by selling excess power to the grid. There wouldn't be a benefit to the community to have excess power. Mr. Tillman asked if one tracker could handle all the panels to cover a two story 3-bedroom home. Mr. Cullen said they would, the trackers come in 24-panel 48-panel size. The 48-panel is 6-panels long and 8-panels tall. They are about 42ft long and sit about 12ft off the ground. A tractor trailer or truck could fit underneath them. The trackers turn 270 degrees, the angle going vertical to flat. They have a sensor that helps track the wind and exact location of the sun. The PPA provides a lease to own option. The tax incentives exhaust after a 5-year holding period so typically there could be a buy back period after 5 to 6-years. The foundation requirements on the 48-panel trackers are 9x9x3 concrete slab underground. There would be another concrete slab used as a pillar with rebar in it. The trackers are made of steel and will attach to the base. Chair Cherian asked how they alter the structural design to account for 75 PSF snow load and wind loads. If it is windy, the trackers would lie flat. They have devices on it which measure the wind and it's stored even if it's a sunny day. The sensors check the presence of snow. Chair Cherian said they must be a base design for certain snow load and wind loads or it would affect the foundation. Mr. Cullen said he would be happy to share the engineering side with the committee. The trackers have electric motors, and they would be connected, they are not self-powered. Mr. Cullen said they could show the committee examples of trackers and how they work. Chair Cherian asked if they would access the town and then make a proposal. Mr. Cullen said they could, and it would depend on what the town is interested in. The Police Station may take 4 trackers to uphold all their power. Mr. Cullen suggested they do a pilot project at one location to see how it goes. It is a significant barrier to get people to sign up for solar. Mr. Preisendorfer asked if Bright Spot Solar currently manages other PPA's and if so, how many. Mr. Cullen said Webster School District will most likely be their first and the Town of Pittsfield is possibly moving forward with a project. Mr. Preisendorfer asked what type of O&M they have set up in terms of service and maintenance. Mr. Cullen said they don't want to be in a maintenance contract with the town. If there is an issue, it is all remotely noted and typically adjusts can be made in 24 to 48 hours. Maintenance will be on Bright Spot Solar to make sure everything is working and maintained properly. Mr. Charlie Niebling asked who is responsible for the expense of removal at the end of a tracker's life including the concrete pads. Mr. Cullen said it is written into the contract on what the removal process would be. It says to restore the area to what it was before. The Police Station uses roughly 128,000 kw/hr. of power. Mr. Cullen suggested the town thinking of what they anticipate their needs will be in 10 years. Mr. Niebling said he remembered the discussion about the transfer of ownership from the school district in the town and how restrictive the deed was and how far back they had to go to get consent of the gauge errors to do anything that departed from the restrictions of the deeds. The committee discussed that the transfer station and public works could be a potential for spots. Deputy PCD Director O'Brien said PWD Dean Hollins is concerned about what he would have to do to cap the landfill because it will cost more money. Chair Cherian said they could not put it on a landfill.

Mr. Niebling asked if Mr. Cullen has responded to an RFP or participated in a competitive solicitation. He also asked if towns felt comfortable working with them. Mr. Cullen said if the town were interested in moving forward, they would issue an RFP.

Dr. Maltzie asked what the town pays for power now. He feels like 10-12 cents wasn't a great price. It might be better with a behind the meter system with low deduction. A behind the meter system doesn't have a transformer that is connected to the grid. You're using solar or a tracker to power the buildings nearby. For the purposes of utility, it looks like you're using less power. It is efficient way to cut power bill. Dr. Maltzie doesn't feel like they got full clarification on the snow load effect. Mr. Niebling thinks they would have a hard time getting support for covenants for 42-foot-long panels. Dr. Maltzie thinks it would have to be the landfill, public works, or the school district. Dr. Maltzie said the drive-in theater has flat land and hasn't been open in years. Mr. Niebling asked if there is load data for each major municipal location. PCD Director Easler said she can send the load data to the committee. The committee discussed which locations in town could be possible projects. They also want to start educating residents. Deputy PCD Director O'Brien said they are trying to have a job/volunteer fair at the school on a weekend day. They could try to incorporate the vendors and have them speak to residences. Mr. Niebling explained that a solarize campaign is when the town will sponsor an opportunity for vendors to bid on the exclusive opportunity to do installations in the community and then sponsor and support educational outreach campaigns to mostly homeowners in the community, with the understanding that they agree to engage this vendor in installing their system. The vendor has bid competitively for that exclusive right of access, offering a certain per watt price.

Another guy is coming in March to discuss their proposal to solar. Eventually they will have to communicate to the Select Board what they recommend and get with PWD Hollins to find locations that would work.

Other Business:

Next meeting is March 14th, 2022, at 5:30 PM.

Mr. Tillman motioned to adjourn. Mr. Preisendorfer seconded. All in favor. None opposed.

Respectfully submitted by Hannah Gardner.