

AVON CLEAN ENERGY COMMISSION
SPECIAL MEETING MINUTES
May 18, 2022

I. CALL TO ORDER

The special meeting was called to order at 7:04 p.m. by Chairperson Firestone via GoToMeeting. Members present: Bernie Zahren, Christine Winter, Kim Stevenson, Carrie Firestone, Michael Dawson and Michael Guerrera. Staff member present: Grace Tiezzi, Assistant Town Manager.

II. APPROVAL OF THE PRECEDING MINUTES – March 16, 2022; April 20, 2022; May 10, 2022

Ms. Winter made a motion to approve the March 16, 2022 as written. Mr. Zahren seconded the motion, which was unanimously approved.

Ms. Winter made a motion to approve the April 20, 2022 minutes as written. Mr. Guerrera seconded the motion.

Mr. Dawson made an edit to the minutes.

The motion was unanimously approved.

Ms. Winter made a motion to approve the May 10, 2022 minutes as written. Mr. Dawson seconded the motion, which was unanimously approved.

III. COMMUNICATION FROM AUDIENCE – None

IV. COMMUNICATION FROM COMMISSION

Chairperson Firestone thanked the Commission members for all of their help with the festival on May 14th. Everyone really stepped up in order to build connections and to build a coalition of people who also want to work towards a cleaner Avon. She stated that it was also great to catch up with old friends.

Mr. Zahren congratulated Chairperson Firestone on a wonderful festival; a first of many endeavors.

Chairperson Firestone questioned if the Clean Energy Commission would be getting another member soon. Ms. Tiezzi stated that the Town Council accepted Melissa Firestone's resignation at their May meeting. They will hopefully put forth the name of a new member at their June meeting.

V. OLD BUSINESS

Connecticut Green Bank Solar Marketplace Assistance Program – Status Update

Ms. Tiezzi stated that at this time, the PPAs have been executed and the Green Bank is onboarding its construction partner. They anticipate having a kick off meeting with the Green Bank and Town and Board of Education staff during the month of July.

Development of Vision, Goal Setting & Possible Revision of Charge – Discussion with People's Action for Clean Energy (PACE)

Chairperson Firestone thanked Bernie Pelletier and Mark Scully for being at their meeting and for their contributions to this work. As this Commission moves forward, they are trying to put together a

comprehensive plan to make Avon as energy efficient as possible as a community and what that would look like.

Mr. Scully and Mr. Pelletier introduced themselves. Mr. Scully stated that he is President of PACE as well as a member of the Clean Energy Task Force in his hometown of Simsbury. Mr. Pelletier stated that he is on his town's energy commission as well and a member of PACE.

Mr. Scully presented "Baseline Energy Analysis of Avon" to the Commission members. He stated that they are trying to help Towns understand how much energy they are using; what types of energy it is; where it comes from; what that could look like in a real clean energy economy as they electrify everything and switch to renewables; and most importantly, what steps the Town can take to get there.

Mr. Scully showed a graph envisioning a path the Town can be on. It showed Avon's current energy usage, how much it can be reduced by, and where they can end up in a clean energy economy. They also do a rough estimate in terms of how much they think Avon could realistically have within the Town's borders, which is a place holder for a project that the Town might want to do.

Mr. Pelletier stated that they are talking about the entire Town including residential, commercial as well as the municipal operations. The electricity and natural gas uses are actual figures in the presentation; delivered fuels and transportation are estimated in a scientific way. He showed a spreadsheet of current energy usage for commercial and residential; the municipal operations are included in the commercial section.

Ms. Stevenson questioned when the numbers are calculated for the electricity kilowatt hours, if this was done from the point of generation or the point of use. Mr. Pelletier stated that these are all plug load numbers. This is energy delivered to Avon. In order to deliver kilowatt hours to Avon, Eversource and the generators have to produce more than that because they have to consume more energy to deliver that kilowatt because there are line losses.

Mr. Pelletier stated that they took the energy and the native units and turned them into gigawatt hours. Once that is done, calculations can be made of the greenhouse gas emissions from the energy consumed in Avon. Avon produces approximately 11 tons per resident per year, which is \$3,600 spent annually, pre-Ukraine, for every man, woman and child. Chairperson Firestone questioned how this compared to other Towns. Mr. Pelletier stated that the wealthier the town, the higher the energy consumption usually is. Avon's numbers are not "out of the ballpark". Ms. Stevenson stated that the internet says that the average carbon footprint per person in the United States is 16 tons, one of the highest rates in the world; globally, the average is 4 tons. She stated that these numbers probably include the carbon footprint of food as well.

Mr. Pelletier stated that the Commission might want to be focusing on home heating and transportation because this is where they can influence what people are doing and how energy is delivered. Ms. Winter stated that there is a tremendous amount of discretionary, far distant travel that occurs among Town residents, which has a consequential impact on the globe.

Regarding the impacts of electrification and efficiency, Mr. Pelletier stated that even more powerful than insulating your home or changing to LED lightbulbs, is to electrify transportation and heating, which gets a much greater reduction.

Ms. Winter questioned how old the numbers in the presentation were. She stated that she does have a heat pump in her house, although the slide reflects that there are zero heat pumps in Avon. Mr. Pelletier stated that the numbers are older, but that some municipalities do not even record/track heat pumps as a heating modality. This is something that they would like to change. Ms. Tiezzi stated that she is unsure if the Assessing Department tracks this; this is important information. Mr. Pelletier stated that this Commission could meet with Ms. Tiezzi and the Assessor to explain what data they want to keep track of moving forward.

Mr. Pelletier stated that significant energy reduction is possible. He stated that they believe Avon could take 20% off of electricity use just by having new appliances. Bigger drops are really when people adopt heat pump technology for heating and electrifying with even just a hybrid vehicle; a lot of savings could be done with transportation.

Chairperson Firestone questioned if either Mr. Pelletier or Mr. Scully are doing any marketing initiatives in their towns and if they are having any success. Mr. Pelletier stated that they have a heat smart campaign in West Hartford. So far, there are approximately 150 people in the program out of 25,000 households; it is slow going.

State efficiency programs can have a big impact over time. Mr. Scully stated that the Town of Avon has a higher percentage of households participating in these types of programs, as well as getting rebates, than the State's average. Ms. Stevenson questioned what the demographics and characteristics were of the people who tend to participate in these types of programs. Mr. Pelletier stated that homeowners are most likely to participate; the most difficult group to reach would be renters and low income. He stated that it would be great for this Commission to start to engage in and promote these types of campaigns, whether they be multi-family or residential units. There is also Community Partnership Initiative, which is a grant program that gives money to groups and Commissions like the Avon Clean Energy Commission. The second phase of this program will begin soon.

In terms of getting to 100% renewable, Mr. Scully stated that they were curious about how much solar could be produced in a town. They have not yet found a town where they could really produce everything they need within their borders. They recommend doing a solar siting analysis that this Commission might want to arrange. Chairperson Firestone stated that Mr. Dawson has started this process. She questioned if this is something they can do as a Commission or if they would need to hire a consultant. Mr. Scully suggested doing this as a Commission while engaging the community as well through a hearing or charrette. Mr. Pelletier stated the Commission can also go to businesses in Town letting them know about solar opportunities that are out there. Mr. Scully stated that a recent law passed for businesses that have a bigger rooftop with some parking lots. They used to be limited to how much solar they could produce. This limitation is now gone.

Chairperson Firestone questioned what the percentage of energy could be reduced by if they put solar everywhere in Town. Mr. Scully stated that Avon has 13,300 homes and condominiums. They estimate that 20% of these are suitable for solar. A 7-kilowatt array can be placed on each one, which is 18.6 megawatts. They could do a similar calculation for commercial. He stated that the Commissioners could go to Google Project Sunroof for help with this. Mr. Scully apologized for the incorrect number in this presentation in terms of carports.

Mr. Scully discussed the work that PACE is doing with solar canopies. Their intern from Yale got a database of parking lots and impervious surfaces from across the State and did some modeling. This was done with parking lots greater than 100 parking spaces and modeled how much solar could fit on them. They have now modeled a number of sites in each town that are potential sites for solar canopies. There are 58 potential sites for canopies in Avon for a total capacity of 41 megawatts or 50-53 gigawatt hours per year. This could produce 36% of the amount of electricity that Avon currently uses. He stated that another project for this Commission to do as a team would be to look at these 58 sites to determine several potentially interesting solar canopy projects.

Ms. Stevenson stated that there is a large cost associated with solar canopies. She questioned if there was any thought in doing a solarized type approach to canopies in order to pull a large number of projects together in order to get prices down. Also, are there any new technologies to help bring these costs down. Mr. Zahren agreed with Ms. Stevenson. He stated that one of the biggest problems with canopies, in one sense, is that they are very expensive to build and in order to get a return, most of these solar developers rely heavily on monetizing the tax credits. At this point in time, the federal tax credits are not on the structure itself, but only on the solar panels. Mr. Pelletier stated that solar canopies are expensive and the investment tax credit does not cover the cost of steel. He stated that they look at the benefits,

some which include the electricity produced, shade and keeping the snow off of parking lots, and preserving farmland and forests.

Mr. Scully stated that promoting solar by doing a campaign is important for residential as are business campaigns to promote not just efficiency but solar. Campaigns to promote heat pumps is another worthy cause. He stated that all of these are potentially fruitful projects. Chairperson Firestone stated that as discussed in the past, if they were to have a campaign on heat pumps, they would need to be ready with reliable installers; they would need to be organized.

Regarding heat pump technology, Ms. Stevenson stated that some of the fluids in the heat pump are 10,000 times higher for greenhouse gas emissions and if they leaked, over time, it would defeat the purpose of installing the heat pump. She questioned how the State was dealing with this issue. Mr. Zahren stated that there is a company that collects the waste liquids from old air conditioning units, etc., but there is still a struggle for an economical replacement for them. If they leak and the fluids are evaporated into the atmosphere, it is far worse than almost any other greenhouse gas emission that is in the world today. Mr. Scully stated that the industry is very attentive to this. There is a group called Northeast Energy Efficiency Partnership. They do all kinds of testing and sizing requirements as well as studies of heat pump technology. There are working groups that are dealing with this issue.

Mr. Scully stated that the grid was built early on and utilities were created. With a more modern grid design they will be able to deploy a lot more renewables. But the question is what does this mean to the Clean Energy Commission in Avon. He stated that one of the building blocks of the grid is microgrids. The Commission could start to look in Town to see where a microgrid could be built in the future. Microgrids, just like canopies, are expensive. The State DEEP had funding for microgrids in the past and Avon should be ready if they bring that funding back. Mr. Pelletier stated that the CT Greenbank has an energy storage program on both the commercial and the residential sides. In order to make a microgrid, they need energy storage and renewable energy. He stated that it would be entirely appropriate for the Avon Clean Energy Commission to have at least an educational session along with solar and energy storage.

Mr. Scully stated that since the last time he presented to the Avon Clean Energy Commission, they built out a model to project the gradual adoption of electric vehicles, the adoption of heat pumps, etc. He stated that if Avon was to transition to electric vehicles and heat pumps at the rate shown on the slide, using actual Avon figures, they can project the rate at which they would be transitioning off of fossil fuels and deploying renewables. Although there were some assumptions made, it shows the projection of Avon getting to a clean energy economy. Avon is currently spending \$65 million or more per year on energy. If some of that \$65 million was spent on initial investments to start to electrify things and by starting to build this renewable grid, fuel costs would diminish so that over time, future annual costs would be far below that \$65 million because they would be building energy sources that have zero marginal costs. In the end, approximately 20% less will be spent by actually transitioning to this economy. The economics work, although the hard part is spending more money up front.

Ms. Stevenson questioned if this takes into account the maintenance of these systems and the replacement of them at the end of their useful life through this extended time period that has been mapped out. Mr. Scully stated that he has not factored in the degradation of the panels. Ms. Stevenson stated that a solution to the higher upfront costs might be subsidy and financing programs that help over time so there are no upfront costs and so it can be financed over its useful life. From day one, there would be savings.

Mr. Pelletier suggest that this Commission should first start on an energy plan because that is going to bring the members of the Commission together. It is not only about the outcome of the document, but the process of planning as well. Mr. Scully stated that PACE's website is PACECleanEnergy.org. They have a great deal of resources in terms of energy plans including an energy plan template, which has already been used by several other towns.

Mr. Zahren thanked Mr. Pelletier and Mr. Scully for their outstanding presentation. He stated that both men have taken over a non-profit organization that was started back in the 1960's by Judy Friedman. They are doing this to save the planet for future generations. He asked that Commission members consider making a donation to their organization.

Mr. Scully stated that there should be conversations by this Commission regarding Avon's lack of data for heat pumps; the other is the commercial since there was no square footage data. He would be happy to work with this Commission to draft a memo to the Avon Assessor to try and get some of this data, which would allow them to really do some targeting and modeling. Ms. Tiezzi stated that there is going to be a revaluation in 2023.

Chairperson Firestone thanked Mr. Pelletier and Mr. Scully for taking the time to attend their meeting tonight. Not only was their presentation interesting and enlightening, they made it understandable for laypeople. She also stated that she would like to get together with surrounding towns to build a relationship with and to ultimately help each other plan more strategically. They are all doing the same things; they should be working together.

Ms. Winter stated that the presentation was well done, although there is a lot of work to be done, which will require a lot of sustained effort. This Commission has had discussions in the past regarding having an outside consultant to help them develop an energy plan. She stated that she would like to involve PACE in that process since they have done a lot of the work. She would also like to be able to use some of the ARPA funding for some of the projects that they discussed tonight. Ms. Tiezzi stated that there is updated ARPA funding information on the Town's website. On May 5th, the Town Council appropriated another \$1 million worth of funding, which will soon move forward to the Board of Finance. There are four more projects that will be brought forward in June, totaling \$950,000. Assuming all of the projects are approved, the Council will have appropriated \$4.4 million of the \$5.4 million in ARPA funds. She stated that there is a list of projects outlined for the remainder of those funds, including funding for a plan for the Clean Energy Commission. She stated that if anything is identified as a true priority for the Town, there are other ways to fund it.

Ms. Stevenson stated that the energy plan is listed, although there is not a budgeted amount for it. She suggested putting in \$75,000 as a placeholder. Ms. Tiezzi stated that Chairperson Firestone is working on this, although without a scope, they cannot get a quote, which would drive the appropriation.

Mr. Zahren stated that when it comes to the Board of Finance and there is money available, the problem is that they will pave the roads before they fund renewable energy. He stated that they may get funding to do a small study, but projects proposed by Mr. Pelletier and Mr. Scully is a far stretch. Funding actual projects needs to happen, but this will take a lot of patience.

Chairperson Firestone stated that this Commission is setting the stage to get to work and map out the plan with Dan. At the same time, they should go back to the low hanging fruit as well as looking at how to change the culture of how people see what is important. One way is to build connections with people with regard to that low hanging fruit. As they build relationships, they are building a consensus around the importance of energy efficiency. The natural beginning is to start there because it can make an impact and at the same time making human connections. They can then work on bigger projects while bring in other people from the community to help.

Chairperson Firestone stated that she will call Commission members individually to talk about their thoughts and brainstorming on what should happen over the next few months.

Chairperson Firestone suggested postponing Craig Peters and have him come to their July meeting instead. This will allow the Commission members to brainstorm and have some planning time at their June meeting.

Impact of Global Events on Local Energy Markets – Status Update

Chairperson Firestone stated that she had put this on hold until after they figured out their initiative plan as well as having the festival behind them. She stated that the Library staff is fully supportive and ready for them to start their forum series.

Farmington Valley Green Festival Planning Session / Communications Strategy

Chairperson Firestone stated that most Commission members were at the festival. This was a great start and opportunity for them as mostly new Commission members. They now need to go through the contacts that were made at the festival. Overall, it was a great event.

VI. NEW BUSINESS

Green Up Avon Sustainability Initiative – Planning Session

Chairperson Firestone stated that she is very excited to be learning about Bedford 2030 and potentially heading to Bedford, NY to talk to the people to learn about how they got started and how they got to where they are now.

VII. ADJOURN

Mr. Zahren made a motion to adjourn the meeting at 9:40. Ms. Stevenson seconded the motion, which was unanimously approved.

Respectfully submitted:
Chairperson Carrie Firestone.

Attest: Alison Sturgeon, Clerk