

TOWN OF BEDFORD
May 23, 2019
ENERGY COMMISSION MINUTES

A meeting of the Bedford Energy Commission was held on Thursday, May 23, 2019 at the Bedford Meeting Room, 10 Meetinghouse Road, Bedford, NH.

Present: Jeff Kerr (Chair), John Russell (Vice Chair), Chris Bandazian (Town Council Liaison), Bing Lu, Andrew Gillis, Sarah Braese, Tim Paradis

Absent: Catherine Rombeau (Town Council Liaison Alternate), John Schneller (School Board Liaison), Bill Foote (School Board Liaison Alternate)

Sally Kellar, Town Clerk, swore in new member Tim Paradis, and swore in Andrew Gillis for a second term.

I. Call to Order

Chairman Kerr called the meeting to order at 7:00 PM. He welcomed Tim Paradis, the newest member of the Energy Commission. Mr. Paradis grew up in Goffstown and has lived in Bedford for 15 years. He lives in a multigenerational home in Bedford and joined the Energy Commission because he wanted to be more involved in the community.

II. Quorum Count: 6

III. Approval of Minutes – April 25, 2019

MOTION by Chairman Kerr to approve the minutes of April 25, 2019. The motion was seconded by Mr. Gillis. Vote taken – all in favor.

IV. Reports of Members and Committees

a. Legislative update

1. Group net metering 1MW → 5MW – Affects the ability to lease out landfill for PV

Mr. Bandazian reported that we have been watching 4 bills of major consequence to the Energy Commission as they go through the Senate:

1) Net metering cap bill has successful through House and Senate and is waiting for the leadership to officially enroll the bill so it can then go to the Governor between now and end of June.

2) SB 122 to increase the renewable energy grant money available to school districts and municipalities from \$2M to \$5M has been retained in committee and probably won't be seen again until January 2020. The consequence is that all school district projects that have been studied and are lined up to be done cannot be addressed in the 2020 budget. It's possible it could come out of committee before then, but historically that doesn't usually happen. The timing also wouldn't work because the grant cycle has a deadline for new grants in September. Anything the school district was thinking of getting done in this way would get pushed out until September 2020.

3) Updating of the State Building and Energy codes from 2009 to 2015 through House and Senate as of May 15th and should pass. Waiting for legislature to get it to Governor's by end of June.

4) House Bill 582 -The Systems Benefits Charge is sitting along party lines, fate is unknown, but has gone through both the House and Senate favorably. What has changed is the language which allocates 20% of the funds for low income energy efficiency programs. The new language states "20% of the portion collected for energy efficiency shall be expended on low income energy efficiency programs. Energy efficiency programs should include the development of relationships with third party lending institutions to provide opportunities for low cost financing of energy efficiency measures to leverage available funds to the maximum extent." If bill goes through, the Energy Commission could look to get information out to low income and elderly residents who own homes that would benefit. We will continue to watch this bill, because it has passed both houses more along party lines, it is at higher risk for veto.

b. School projects – No report given in Mr. Schneller and Mr. Foote's absence.

V. Special Orders – None / No reports.

VI. Old Business

a. Green Business Award

1. Social media promotion update

Ms. Braese reported on some strategy ideas she has. She suggests creating a more attractive 1-page marketing piece that we can leave at local business to solicit nominations for the Green Business Award; use on social media; and place in the Bedford newspaper to collectively reach a broad audience. The text in the application and nomination is not clearly represented currently on the front page for The Green Business Award, so this should be clarified. Being able to see any formal nominations that have come in before would also be helpful in that marketing development.

Mr. Russell shared that at Hannaford Supermarket on Jenkins Road there is a blackboard (located right after the self-checkout area) that illustrates all of the green initiatives Hannaford has done. Mr. Gillis noted that Hannaford is one of the greenest businesses in town and it is remarkable to see how much they have done. They even compost their employees' lunches. Chairman Kerr feels it would be interesting to find out what they are doing with their plastic recyclables given the current situation with recycling plastic. Mr. Gillis said that they have their own baler to compress the plastics to be sent out where it originally came from.

2. Kevin Doherty and net zero development & The Harbor Group

Mr. Bandazian sent out information about potential Green Business Award candidates including Kevin Doherty who is the developer of the first net-zero ready house in Bedford and The Harbor Group which has a very large solar array (both rooftop and ground mounted). Chairman Kerr contacted Mr. Doherty and learned he is not interested in applying for The Green Business Award, but he will contact the president at The Harvard Group to see if they have any interest.

Mr. Paradis asked for clarification on Green Business award. Chairman Kerr explained that it's an award that recognizes green businesses in Town and provides them with something they can display at their business to honor their achievements. Businesses are required to complete an application form in order to be considered for the award. Thus far, 3 Green Business awards have been awarded to Hannaford, Sullivan Construction, and Beales Insurance. We do not usually get

enough applicants to be able to award more, so the Energy Commission has been telling businesses about it and encouraging them to apply. There has been at least a 2-year hiatus in awarding any Green Business Awards. In the past, winning businesses were informally invited in to receive their awards and make a presentation. Ms. Braese suggests hyping the awarding of these more going forward.

Mr. Lu asked if no one applies, could the Energy Commission randomly select a business themselves. Mr. Bandazian confirmed that a business can be nominated by the Energy Commission or any third party. Mr. Lu feels they should announce that they are giving this award out every year. If they never give out the awards, there is not enough awareness to attract applicants. Rather than have no applicants, it would be better to nominate businesses regularly until more start applying on their own for the award. An article and photo could then be placed in The Bedford Journal. Mr. Paradis felt the Bedford Journal and Bedford Bulletin were well-read and any business would enjoy the free marketing and welcome the recognition. Energy Commission members should keep their eyes peeled for businesses to nominate, so that we can begin awarding The Green Business Award regularly which will in turn breed a critical mass for this award in the future.

b. EV Charging Station Encouragement Project

Ms. Braese felt that they need to incentivize businesses for having Electric Vehicle (EV) charging stations and asked if Eversource offers some kind of credit for commercial sites that have an EV charging station for public use given that Eversource would benefit by having more people using electricity at these stations. Chairman Kerr explained that this project came about in an effort to guide the State in using funds it will received due to the Volkswagen scandal. Mr. Gillis noted that EV charging stations at Whole Foods require people to pay to use them, so the company that installed them is making money from them. There are other models where businesses provide EV charging stations free of charge.

Ms. Braese suggests asking Eversource if they have an incentive program and approaching businesses and letting them know that if they install an EV charging station at their business they will receive a credit on their electric bill. If not, they could approach installers with sites in Town that would be willing to host an EV charging station. Mr. Bandazian will email her a contact at Eversource. This could also become part of the criteria that would qualify a business for the Green Business Award since they would be encouraging the use of less fuel by providing EV charging stations; or it could become a second standalone recognition that could be awarded to businesses. Mr. Bandazian indicated that Tesla will pay for a charging station if a business would like to have one. Tesla has a destination charger program where they will supply the charger and installation if the business agrees to pay for the electricity in the long term.

Mr. Paradis shared that in the Town of Bedford, Massachusetts, Eversource did \$55,000 worth of improvements and upgrades to 6 EV Charging Stations. If Eversource did this for Bedford, MA perhaps they will do it for other towns like Bedford, NH.

c. Tour of recycling and incineration facilities

1. Transfer station article

Mr. Russell reported that the tour of the recycling and incineration facilities in Billerica, MA will take place tomorrow (Friday, May 24, 2019) and provided meetup details for the visit.

d. Landfill Solar – Waiting on HB 365 and SB 159

Mr. Bandazian stated that they are still waiting for the legislature to move on HB 365 and SB 159. Chairman Kerr asked if the responses we received for our RFP will expire. Mr. Bandazian indicated they would not, but everything is contingent on the legislature. Chairman Kerr also asked if we would want to do an RFP and open it up to more businesses if this gets passed in the legislature. Mr. Bandazian indicated that if the Energy Commission feels it would be better to go out for RFP again, we certainly could.

e. Solsmart – www.thesolarfoundation.org

1. (Placeholder) Recognition after landfill PV is complete

Ms. Braese looked at this and feels we could apply for the Bronze level now without waiting for the solar landfill to go through. It's not impossible to get the bronze designation because all it entails is a commitment to having solar goals and zoning. Thereafter it may take some help from the Town, but for now we could start the process and get the bronze designation. Our designation could be improved to silver or gold if we were to get the landfill solar or any other major projects completed. Mr. Bandazian anticipates that we will have an answer to our landfill solar RFP by July, but there is no reason not to get a running start now toward receiving the bronze designation.

Ms. Braese printed out the application and will research what the deliverables are and share we can get organized and apply for this. There will be several pieces needed to be completed and more than one person's help will be required.

f. New Solar Up Campaign – Was the survey sent out?

Mr. Gillis stated he needs to go through the list and organize it in order to do the mail merge.

g. Eversource bills to calculate demand charges

1. Bing looking at demand charges
2. Adding the pool and library to see if PV will work
 - A. May need to consider energy storage for pumps/motors
3. Pool PV array size would be roughly 67' x 60'

Mr. Lu asked Mr. Bandazian to send him the pool and library bills. Chairman Kerr indicated that if we are able to land a landfill PV array and gain \$26K per year, rather than having those funds go to some unrelated project like road paving or what not, he would like to earmark those funds to continue to do more PV projects. The smallest project that could initially be targeted is putting a PV array at the pool and the largest project that could be targeted is putting a PV array at the library when the parking lot is expanded and it might be easier to install the infrastructure in a phased manner. We are trying to find out if the demand charges at pool would override the having a PV array that we would be able to support, as well as at the library due to the pumps and geothermal.

Mr. Gillis reported that home net metering has just been re-done. The way it used to work was that the source would receive a big check from Eversource which they were entrusted to provide to the person receiving the power from the group net metering in order to offset their bill. Because of this, there were large tax implications that have now been fixed. Now it is automatically being subtracted from the bill of the person receiving the power. There are no longer large checks changing hands, and there are no longer big tax liabilities.

Chairman Kerr indicated that they are not thinking about group net metering the pool. It would all be behind the meter. Mr. Gillis thinks that they may be able to store up the money and use it during the summer months at the pool. The thought at the pool is to forget about putting any solar panels on the roof, and put in a ground mounted structure (pergola) so that the panels are raised off the ground it doubles as PV collection and also creates shade on the pool deck and picnic tables. If placed next to the building, it could be tied in through the attic to the building's electrical. Chairman Kerr visited the pool, looked at the bills, and calculated that in order to do 100% of the power, the pergola would need to be 67' x 60'. The panel cost would be about the same as the income we would get for about a year with the solar PV. About 60% of the cost of installing solar is the labor, so Mr. Gillis pondered if we could have a "solar raising" much in the way the town playground was installed through volunteer town residents.

- h. Change transfer station policy to put recyclables in solid waste
 - 1. Proposal to change resident sorting to reduce costs and be ready for any future changes in recycling policy – No report was given.
 - 2. Maybe look at an outdoor screen again as part of the public education effort

Chairman Kerr indicated that we were trying to get a grant for an outdoor screen at the transfer station, and if we do end up changing the way we collect recyclables it would be important to indicate it on the grant application. Mr. Gillis suggested that perhaps we could build a \$2K outdoor screen into the \$500K project to reconfigure the entryway to the transfer station. Chairman Kerr noted that the high school boosters paid for a sign to be installed in front of Bedford High School to publicize things that are going on and perhaps we could ask them how much it cost. Mr. Gillis looked it up and said that high visibility screens cost about \$2K but you have to run the power and the trick is having something to feed it and update it. When he originally put one at the dump he put a raspberry pie behind it and tied it to their WIFI network. He is unsure if it is still working - the issue is assigning someone to work to update the content on it. This should be discussed with Jeff Foote, Director of Public Works during the tour of the recycling and incineration facilities tomorrow. Mr. Russell asked if it was allowed to solicit funds for something like this from friendly businesses. Mr. Bandazian indicated it is allowed; however, if the business is interested in getting a tax deduction, the money must be handled through the trustees of the trust funds. If the business doesn't care about the deduction they would have to use the town's taxpayer i.d. number.

- i. Plastic to diesel

Mr. Gillis filled out a form and emailed the Iowa company that converted plastic to diesel fuel and used 20% of the byproduct to run the plant, but he hasn't heard back from them. They have probably received thousands of inquiries from all around the country and are inundated.

Ms. Braese asked if any local schools and universities were doing anything similar. Mr. Foote had previously reported that the technology is fairly basic but requires a lot of pipeline (almost like a mini refinery). It would need to be about the size of a tennis court. Chairman Kerr asked if it is worth it to keep pursuing this given that it may be years before the business has enough understanding to export their business model from one prototype plant to several regional ones. Mr. Bandazian indicated that they are not the only ones in that space, and there are other companies out there using the technology focusing on #3-#7 plastics. It is viable, but Bedford is too small to do it on its own, it would have to be done at the county or regional level. It would make economic sense and would see payback in 3-4 years and after that it would be pure profit. Any bank would

invest in that kind of enterprise. There is probably lots of spare landfill space of land at the Manchester landfill on Dunbarton Road where something like this could be built.

Rather than just wishing and hoping about this, Chairman Kerr asked if there is anything the Energy Commission could do to move this along. Mr. Gillis feels it would be good to get businesspeople in touch with those who could provide the technology – but currently we don't have either of the two pieces (those with the money, and those with the technology to do it). Ms. Braese noted that what we do have is an entire region struggling with the same problem. A regional coalition between schools, students and the entrepreneurs wouldn't be a hard sell. Mr. Bandazian feels the Nashua-Rockingham and Southern New Hampshire Regional Planning Commission (<http://www.snhpc.org/>) would be the logical places to go. There are several people from the Town of Bedford on the commission and we could ask them to bring this topic up. They meet once a month, so it may move at a glacial pace. Nashua tends to be very progressive in terms of environmental things, so their planning commission may be more activist in nature. Ms. Braese feels it would make a big difference to have an actual proposal and plan to present to their most progressive commission explaining how it would work and then trying to build support in other regions. This coalition (along with investors and local schools) could explore if this is possible, and if there would be space for it and whether we have the design and financial capabilities.

Chairman Kerr asked for a volunteer to spearhead this. Mr. Paradis will bring himself to speed by googling “plastic to diesel” to find the video explaining how #3 - #7 plastics can be converted to diesel fuel, and look into it and see what is out there in regard to this business and if there are other businesses doing the same thing. He will determine how we come up with a plan and see if there is something The Energy Commission can do. Once we have a little information we could probably go to one of the regional planning commissions and see if anyone else has already gotten the ball rolling. Mr. Russell is interested on working on this too.

VII. New Business

a. #2 plastic to structural plastic wood replacement

1. Axion (www.axionsi.com) in Ohio takes #2 plastic bottles and uses them to create structural plastic beams. There is a 26' bridge in York, ME that is the first plastic bridge on a public roadway.

Chairman Kerr discussed the above-mentioned company, and wondered if the Town of Bedford could look into using these structural plastic beams for our road or trail projects and use recycled plastic for something useful. Axion has done projects all over the world, but there must be some limitation to this product (otherwise it would be available at Home Depot and everyone would be using it right now) and we should look into this and find out what the limitations may be.

Mr. Bandazian reported that the Town has already had a bad experience with plastic underground. Very recently the Town has had to spend a lot of money to replace a large plastic culvert on Lawes Avenue, so plastic may not get a warm reception as a leading-edge solution for roadways, but perhaps may be better received on a trail, as long as people like the aesthetics.

Chairman Kerr suggests they could check out the bridge in York, ME if we get serious about this. Mr. Schneller had indicated he was going to look into this; they will give him time to report back.

b. Guest speaker Kevin Doherty for the June meeting

Chairman Kerr reported that Kevin Doherty will attend the June meeting to talk about what he has done to develop the first net-zero house in Bedford. It is on Wheeler Farm Road (a street located off of North Amherst Street, just east of Hardy Road). There is one home built now, but it is plotted for 6-8 homes total. There will be an open house this Saturday & Sunday from 1:00 – 4:00 that Chairman Kerr plans to attend, and he will report back. The house was built way above the current building codes. If Doherty can do it and be successful, there should be no reason for voters to feel it is not possible. Building this home was not done at the bequest of any homeowner. Doherty did this on his own - bought the land, built the house, and now has to sell it.

- c. Survey of other NH towns' projects (on Google group under the heading "LES Solar Landfill Feedback)

Chairman Kerr's sent an email out to a lot of other New Hampshire towns looking for information on landfill solar and got back a lot of information on solar projects and other projects towns are doing and he put it on the Google Group under "LES Solar Landfill Feedback" for everyone to review. It will be good to get more irons in the fire and see what other towns have done for energy efficiency. One town put a solar array on their wastewater treatment plan because it was an area not being fully utilized. We should look at what other towns are doing and find out what is working for them and see if we can replicate anything. For example, the Town of Derry is hosting a solar summit on June 5th at Tupelo Music Hall (which has a large solar array).

VIII. Reminders: Next upcoming meeting is June 27, 2019.

IX. Adjournment

**MOTION to adjourn by Mr. Gillis at 7:58 P.M. Seconded by Mr. Russell.
Vote taken- Motion Passed**

Respectfully submitted by,

Tiffany Lewis