

TOWN OF BEDFORD
December 17, 2020
ENERGY COMMISSION MINUTES

A meeting of the Bedford Energy Commission was held on Thursday, December 17, 2020 via the Zoom Meeting Platform.

Present: Tim Paradis (Chair), John Russell (Vice Chair), Bill Foote (SB Liaison Alternate), Bing Lu, Bart Fromuth, Chris Bandazian, John Schneller (SB Liaison).

Absent: Denise Ricciardi (TC Liaison), Lori Radke (TC Alternate), Andrew Gillis, Tom Elwood

Chairman Paradis read the following statement:

Due to the state of emergency declared by the Governor as a result of the COVID-19 pandemic in accordance with the Governor's Emergency Order #12 pursuant to Executive Order 2020-04, this public body is authorized to meet electronically.

Please note that there is no physical location to observe this meeting which was authorized pursuant to the Governor's emergency order; however, in accordance with the emergency order I am confirming that: A) We are providing public access to the meeting by telephone, with additional access live on BCTV Comcast Channel 22, or streaming online by going to the town website and choosing "BCTV" under "Departments" and clicking on "Channel 22". We are utilizing an online platform called Zoom for this electronic meeting. All members of the Commission have the ability to communicate contemporaneously during this meeting through this platform. The public can call into this meeting via the instructions that are being shown on the BCTV broadcast. B) We previously gave notice to the public of the necessary information for accessing the meeting, including how to access the meeting using the telephone which is listed at the top of the agenda on the town website; C) If anybody has a problem accessing the meeting via the phone, please email us at bctv@bedfordtv.com. In the event the public is unable to access the meeting, the meeting will be adjourned and rescheduled.

Please note that all votes that are taken during this meeting shall be done by roll call vote. Let's start the meeting by taking roll call attendance. When each member states their presence please also state whether there's also anyone in the room with you during this meeting which is required under The Right to Know Law:

John Russell (alone); Chris Bandazian (alone); Bing Lu (alone); Bill Foote (alone); Bart Fromuth (alone); Tim Paradis (alone). Guest from CPOWER, Phil Ciulla (alone).

I. Call to Order: Chairman Paradis opened the meeting at 7:00 PM

II. Quorum Count: (5)

III. Approval of Minutes – November 19, 2020

MOTION by Mr. Bandazian to approve the November 19, 2020 minutes. Seconded by Mr. Russell. Roll call vote taken – All in favor – Motion Passed 5-0.

IV. Reports of Members and Committees

a. Legislative update – No report was given

1. Clean Energy NH Bill Synopsis and 2020 Summary Webinar
 - A. <https://www.cleanenergynh.org/copy-of-energy-bills-1>
 - B. <https://www.cleanenergynh.org/policyupdates>

Chairman Paradis reminded everyone they can review the links above for synopsis, energy bills, and policy updates. He also shared that Henry Herndon has retired from Clean Energy NH, and Chairman Paradis will be reaching out to his replacement in order to keep the relationship going.

b. School projects

1. Review potential Demand Response program from CPOWER with Phil from CPOWER joining to review and answer questions

Mr. Fromuth introduced Phil Ciulla of CPOWER. He explained that members of the Energy Commission looked at some of the data for Bedford High School to see what opportunities there may be for demand management programs there. We were interested in finding a solution for the summer incident peak. He has worked in the same industry with Mr. Ciulla of CPOWER who works with ISO New England in terms of the utilities and putting together demand management programs. An Eversource program was launched last year or the year before which could alert the high school when to shave their usage for the potential summer peak to save money on the commodity portion of that. Eversource now has a program where they will pay you to curtail because curtailment during those same hours reduces costs. Mr. Fromuth feels this may be an excellent opportunity to present to Town Council because there is no capital expenditure required.

Mr. Ciulla introduced himself. He works for a company called CPOWER. He pays large power users to use less energy when the grid is stressed. He is a market connector who learns about various facilities and schools and connects them with revenues on the grid through curtailing usage. He works with about 10 school districts in Connecticut, 15 in Massachusetts, and 3-4 in New Hampshire. The 2 largest loads in a school district are the high school and the middle school. He has a lot of experience working with schools and understands that Bedford High School is the town's largest power user for SAU 25. He would need to talk to Bedford's Facilities Manager and ask questions, but he will make some assumptions based on looking at the load at the high school. Demand response is culled from the summer months in July. He looked at the July load at the high school to what is going on from 1:00 – 6:00 pm. The school usage ramps up and then closes down around 4:00 – 6:00 pm each day. It looks like the school does have BMS controls. On the weekends the school goes into a reset weekend schedule, which is something he could explore deeper with the facilities manager. He looked at the low profile and reviewed the basis of the load with it. Many schools are able to curtail using existing BMS controls and get to a weekend schedule. When summer school occurs there are not full student levels, so in summer schools may be able to get more aggressive on what they can curtail because the full student body is not there.

Mr. Ciulla discussed the different programs. The high school has good BMS control technology and from there, there are curtailment programs that can pay you to use less energy during opportune times. There are a menu of programs in New England:

- **Active Demand Capacity Resource (ADCR)** – This program is run by ISO New England out of Holyoke, MA and their job is to keep the lights on every single hour, every single day of the year. During certain times of the year there is potential stress from something like a high demand issue or a power plant issue. The ADCR program was created as the first line of defense for a potential blackout. They have a 30-minute notice program that goes into action if we are getting

close to a blackout and they will call everyone to have them curtail a portion of their load within 30-minutes. A school might put a portion of their school where there are no staff or students into unoccupied mode upon receiving a 30-minute notice, and essential stay down until we get over the hump and thus avoid a blackout situation. The minimum requirements for this program are a 1-hour test in the summer and a 1-hour test in the winter. If you sign up for this program your exposure is a couple hours a year, and then you are on-call for real events for blackouts. There have only been 2 real events in the past 6 years. This program is usually 2-5 hours per year and is pretty unobtrusive. You just have to make sure there is somebody there on staff who can press the BMS button to raise the set points when something is called. Payment for this program comes via a check in the mail.

Mr. Lu asked if the school must have a plan ready for what they would need to shut down and if it must happen within the school, or if it could be done remotely. Mr. Ciulla said that signals would be sent via text message, email and phone calls that an event will be happening in 30-minutes. The school would decide what they should shut down because they know their own school best. ISO New England could provide information on what other schools do in a shut down. Mr. Foote thinks the high school is new enough and has the capability to do this at the Facilities Director's fingertips.

- **Connected Resource** – This program is run by Eversource to manage system peaks. The top 7% usage hours account for 25% of energy costs, so if you shave down usage for that top 7% for all of Eversource's constituents it will save money for everybody. This program is a "day ahead" notice program and you would find out a day ahead to curtail your usage between June – September either from 2 – 5pm; 3 – 6pm, or 4 – 7pm. It will always be a 3-hour window. If this happens in a school during summer school you can plan ahead to move students around in the building. Payment for this program comes via a check in the mail.

- **Peak Demand Management (Cap Tag)** – The advantage to this program run by CPOWER is the capacity tag is one hour during the summer when the entire NE Grid is peaking and whatever you do within that hour is potentially 30% of your energy costs for the next year. The Eversource Connected Resource program predicts the one hour for you and then you can lower your usage during that one hour. If Eversource is peaking it is half of the energy grid of NE, so it becomes a predictor to help you lower your cap tag for power bill avoidance. Eversource will call the day before asking for a curtailment of usage from 4:00 – 7:00 pm. No check is received in the mail for this program because it is a power bill avoidance piece.

- **On Peak Hours Resources** – This is a passive demand response program run by ISO New England. If you have solar, cogent, or fuel cell that is behind the meter and less than 3-years old you can get paid capacity earnings on that. There are additional revenues he can unlock for you if you have these things in place.

Mr. Ciulla said a typical question is, "How do you know how much to curtail?" They real-time monitor the load at the school and build a baseline and look at the last 10 business days and calculate where they expect you to be based on the last 10 business days. When a curtailment is called your actual usage drops and a delta of your performance and how much you actually dropped can be determined and the school can be put in unoccupied mode. CPOWER monitors your school in real time with a real time meter that takes readings every 5-minutes and you also have access to a website to monitor it as well. This provides you with a more granular view of your facility than the utility would. There are no out-of-pocket costs for the meter.

Mr. Ciulla explained that all programs he mentioned are not “either-or” propositions. They are stackable and they all can work in unison. He reviewed examples of potential dollars for each program: The ADCR program with a \$21,322 revenue stream over 5 years assuming 160-180KW; the Connected Resource program with an \$18,200 revenue stream over 5 years assuming an average curtailment of 160 KW; the Capacity Tag Management program with a \$35,147 savings in power costs over 4 years assuming you lower your cap tag 160 KW one hour during the summer. If you stack all 3 of these programs the “Year 5 Total Energy Benefit” you could unlock would be \$74,669 in earnings and savings. He is often asked, “What if you don’t perform? Are there any penalties to these programs?” – If you don’t perform basically you just don’t get paid. “What if there are no real events? Do I still get paid?” – Yes, the ISO New England’s 2 tests will set your earnings for the year. “How Does CPOWER make money?” – by sharing the revenues with you. You earn the lion’s share and CPOWER gets a portion of the earnings. The better you do, the better CPOWER does, so you work in alignment. It behooves CPOWER to set you up and guide you to be successful. These are also green, sustainable programs and you would be helping to sustain the grid and helping to avoid blackouts. This can help you financially, but also can help you achieve sustainability goals you may have.

Chairman Paradis asked what type of concerns arise when people bring these programs to the attention of the school boards for a deeper look? Mr. Foote felt that Mr. Ciulla should pitch Mr. Zollman at the School Board and let him decide if he sees value in it. Mr. Foote feels it makes sense, and these programs seem more organized than one’s we’ve seen before in the past as we’ve been looking at this from an amateur perspective. He noted that even the recommendations we received from ConEd as a result of the study didn’t mention these programs at all. It appears to him to be an untapped resource even though it is not a lot of money, but on the other hand, the effort it takes to put it in place is minimal. Chairman Paradis would like to get this information to the right people without overstepping our boundaries. Councilors Ricciardi and charged the Energy Commission to “reduce cost, and cost avoidance or driving revenue for the town, facilities and schools”, so this seems to match those metrics. He would like the Energy Commission to be the liaison to introduce Mr. Fournier and Mr. Zollman at the school district to Mr. Ciulla and then step back from there. Mr. Foote feels this would be more in Mr. Fournier’s purview and that he would then work with Mr. Zollman to execute it if they see value in it. Mr. Schneller volunteered to make the introduction of Mr. Ciulla to Mr. Fournier and Mr. Zollman via email.

V. Old Business

- a. Solsmart – www.thesolarfoundation.org – No report was given
 - A. Start with Bronze level
 - B. Get on Town Council agenda for application

Chairman Paradis asked about getting the application filled out and talking to Town Council. Mr. Russell stated they are moving things forward in January with a goal of the Bronze level.

- b. Electricity Usage
 1. EV charging stations from Bart, Andrew John
 - A. Updates from Tesla where they will build the station and we can bolt on non-Tesla charging stations – <https://www.tesla.com/charging-partners>
 - B. <https://evcharging.enelx.com/juicestand-pro-ev-charging-station>

Mr. Fromuth said we shifted gears on the demand/response since there were some potential timeframes with Eversource technical solutions program and getting signed up for December. He hopes to connect with Mr. Russell and Mr. Gillis on this before our January meeting and get some movement going. He would like to learn more from Mr. Gillis about the Tesla closed source platforms and chargers and whether Tesla's chargers are unique to Tesla cars. He recalls discussion at last month's meeting that Tesla is willing to install free charging stations which would be something to look at. He started looking around while driving on Route 101 and noticed that 4 out of 5 cars were electric vehicles, so you can really see that electric vehicles are starting to take off.

Mr. Bandazian said that the State is using money from Volkswagen to build out an infrastructure network and Route 101 was on their list of places. When he was on the Town Council he reached out to the Town Manager and Planning Director via email suggesting that the Bedford Village Shops area and the Market and Main area would be prime locations and they were not being served by the State infrastructure. He is unsure what became of it, but we could look into it again. Mr. Fromuth noted that Whole Foods has a few EV vehicle charging stations in front of it. Chairman Paradis feels the Bedford Village Shops would be a really attractive space.

Chairman Paradis said that he talked with Mr. Sawyer about using VW money for other things and Mr. Bandazian said he would be happy to reach out to him again to see if there has been any movement and to get status on it. He thinks Bedford Village Shops or the center of Town would be great to attract east-west travelers and have them plug in for a few hours and patronize our businesses. Mr. Fromuth feels we should also look at the high school and town offices and that we should start discussions about what our infrastructure plan is, especially for town vehicles should they become an electric fleet in the future. He thinks it may make sense to have someone with experience in modeling out these plans for communities come in and speak with us about how they do that and getting an idea of where we see the community going over the next 10-years. Chairman Paradis agreed noting that it is not specifically mentioned in the most recent 10-year plan, but only alluded to in going to more clean, efficient solutions for the town in general.

c. Solar Farm at the Transfer Station

1. John info from other towns that able to do with <1MW net metering

Mr. Bandazian said there were some back of the envelope calculations that look attractive, but the real uncertainty that he needs to get his hands around is the long-term stability of the renewable energy credits; what's the value, what's the prognosis for continuation, because offsetting town electricity use for all of our facilities is an easy number to get ahold of on the supply side, but RECS are a big revenue, but you've got to look out for these projects over their useful life and how long they will be there.

d. Town Pool PV Shade/Shelter

1. Update from Chris meeting with Dave Gilbert and Jeff Foote

No meeting was held due to a snow day, but Mr. Bandazian reported there is interest and things are moving forward. He will do a site visit with Jeff Foote and others from DPW and Councilor Gilbert. He doesn't think they will have to look too hard at the property, but it has changed so it will be good to get some insight on the infrastructure and priorities.

e. Public Works Highway Garage PV Vehicle Port/Shelter(s) – No updates

f. Municipal Aggregation Cost Analysis and Presentation (Tim, Andrew, Bing, Tom)

Chairman Paradis has not put together a presentation yet but noted that Mr. Fromuth was working on some of the CPOWER stuff and had discussed bringing in some speakers who have used municipal aggregated power. Mr. Fromuth is looking to get in touch with someone at the MA Department of Public Utilities (DPU) or someone from one of the communities in MA who have done municipal aggregation over the last few years who could share their experience with us so we can get a feel for how their program is run and what “the good, the bad, and the ugly” has been.

VI. New Business – None

VII. Reminders: Next upcoming meeting is January 28, 2021.

VIII. Adjournment

MOTION to adjourn by Mr. Foote at 7:50 P.M. Seconded by Mr. Russell. Roll call vote taken- Motion Passed 6-0.

Respectfully submitted by,
Tiffany Lewis