

Hillsboro Energy Commission Minutes
January 28th, 2021; **Bolded items are things to-do**

Meeting opened at 6:11 PM; online via Jitsi <https://meet.jit.si/HillsboroughNHEnergyCommission>
No in-person option to attend.

Online attendance: Brett Cherrington, Chairman – no others present; Sue Durling – no others present;
Jon Daley – no others present;

NH Emergency Order #12 authorization for electronic meetings was read by Chairman Cherrington.

Secretary's report:

January 14th minutes. Sue Durling made a motion to accept, Jon Daley seconded. Roll call vote:
Daley - aye, Durling - aye, Cherrington - aye

Energy Star Portfolio Manager Software

Sue is working on getting data from the town and will visit with Lauralee soon.

Electric vehicle charge station

Brett: email contact with Becky Ohler. She will make a presentation on February 25th. We should think about some questions to give her next meeting.

Police hybrid vehicles: Ford Interceptor has a V8 engine, with barely 30MPG, and so while it might be better than the regular gas model, and possibly worth pursuing, it isn't as good as he hoped.

The all-electric Tesla claims to have a 2 year payback on their hybrid police vehicle.

Jon talked with Mike Borden, the Hillsboro building inspector who recently went to a training on electric vehicle chargers, and also has a personal interest in electric vehicles.

There are 3 different types of chargers:

- Level 1 120v: "takes days to fully charge from empty"
- Level 2: 240v 40a chargers
 - 4-6 hours for full charge (though they can get to 80% of charge very quickly, and then there is a long tail to top it off)
 - Estimated \$2 to \$20k installation
 - Example for a 4 head unit
 - 200A panel
 - \$10k for electrical conduit
 - \$3000 in hardware costs
 - 1.5% of total costs to be borne by the town, the rest by grants (Mike second guessed himself and wants to double-check on those numbers, since it seems so small)
- Level 3: 480v chargers
 - 20 minute full charge

There are also three different brands of connectors: SAE, Tesla, and Chademo. We think Tesla does their own charging stations, so there are two for us to choose from. We will need advice about which connector is more universally used.

There are currently 13 480V chargers installed in NH, 4000 nationally. There is an estimated 1.6 million EV on the road nationally. By 2030 the estimates will be that the US will need 9 million stations.

Electric vs gas vehicles: electric vehicles use 77% of electric energy to actually powering the wheels. Gas powered vehicles average 12-13% energy to wheels (burning efficiency, alternator, transmission, braking). Estimated 1/2 operating cost for EV vs gas.

Eversource has incentives: If pay for 1 or 2 stations, they will give us the wiring/stubouts for up to 10 stations. Brian Morris is the contact at Eversource for EV charging stations. Typically, there are a couple of charging spaces per installation. Vehicles use around ~\$1/hour to charge [though that must be quite different between Level 1 and Level 3 chargers]

EV goals: Every 50 miles along traveling corridors, within 5 miles of a highway.

There is \$4 million of the VW settlement to NH [we're not sure if that was the initial amount, or if that is the amount remaining, Jon suspects it was the initial amount]. DES has additional grants.

Brainstorming possible site locations: Dunkin donuts on route 9? Shaws? Sylvania? Library parking lot?

Revision energy is one active contractor, and the one who sponsored the training. barryw@revisionenergy.com is a good contact for more information from them.

Zoning and permitting is easy – one of the EV goals is to make sure that zoning and permitting stays simple to not hinder installations.

Building Efficiency

Jon left a message with Shakes to Shingles, but hasn't heard back. **He'll continue to follow-up;** he expects it will take a while for the legislature to vote on the new year's budget.

Brainstorming projects for the year

Solar power at landfill? Still not powered up after all these years. Is there anything we can do to get that moving? **Brett will ask Laura.**

Town budget is just about completed – they probably know what vehicles they are planning on purchasing this year. **Brett will ask Laura if there is anything for us to look into.**

Next meeting: February 11th, 6:00PM.

Meeting adjourned at 7:01 PM, motion to adjourn by Sue Durling, seconded by Jon Daley. Roll call vote: Daley – aye, Durling – aye, Cherrington – aye;

Respectfully submitted,
Jon Daley