

Notes from the Firsts Public Input Session on Concord 100% Renewable Energy Draft Strategic Plan - April 24, 2019

Welcome and introduction. Presentation by Chuck Willing and Kelsey Sullivan (Concord Energy & Environment Advisory Committee).

Questions and comments in bold, Committee (or other) answers and responses in regular type:

Would moving to all renewable energy and pursuing “municipal aggregation” make electric companies like Eversource/Unitil obsolete?

No. Pursuing 100% renewable energy will change the energy landscape but will not make utilities obsolete. If the City Council decides that the City will pursue municipal aggregation (not likely to be considered or decided anytime soon), it would mean the City would decide in the first instance where electric power delivered to Concord via the electric grid comes from and would select renewable energy from sources of its choosing. Unitil would still own the poles and wires and would be able to charge for delivering the power. The City's choices would only affect the energy charge. Note that a change in state law may be needed to make municipal aggregation practically viable as an option. Utilities will have to adjust to a new business landscape with new energy sources and perhaps new ways being compensated and receiving a return, but that is a matter for the legislature, the Public Utilities Commission and the utilities.

What about the hydroelectric dams in Concord? Will those plants continue to operate?

Yes, we think those plants could potentially help Concord achieve the 100% renewable energy goal. You might be referring to the projects' hydropower licenses, which are issued by the Federal Energy Regulatory Commission. There are three small hydroelectric facilities on the Contoocook River in Penacook that have FERC licenses that are up for renewal in the 2020s. There is also a somewhat larger hydroelectric project on the Merrimack River at Concord's southern border - its current FERC license has longer to run. Hydroelectric power is renewable power for purposes of Concord's goal.

Does it make sense to rebuild the dam at Sewalls Falls for hydroelectric?

It is very difficult to get a license to build a new dam on a river. For practical purposes, hydroelectric projects are limited to sites where a dam already exists, and most dams

on rivers with good flows already have hydroelectric projects. It might be possible to put micro hydro projects on small existing dams that don't already have projects.

Why was the year 2050 chosen as the end point for the goal? Why not sooner given the dangers posed by climate change?

Mainly because the climate scientists are telling us that we need to completely decarbonize our economies by the middle of the century (i.e., around 2050). This will be a very, very large challenge for our community, our country and the world. We can make early progress in some areas, but to accomplish a complete transition will take time. There are no mandates in our plan, so we will be counting on people, businesses and individuals to make decisions to transition to renewable energy as and when it makes economic and practical sense for them to do so, especially with regard to the thermal energy and transportation parts of the goal. People can choose to replace a combustion vehicle with an electric vehicle when it makes sense for them to do so. People can choose to replace an oil furnace or boiler with a renewable option when it makes sense to do so - e.g., when it's time to replace the boiler. We think we can make the transition sooner for electricity (hence the 2030 electricity goal) but we might need most or all of the 2050 timeframe to meet the thermal energy and transportation goals. Technology is improving rapidly, and more time will enable us to take advantage of better technological options.

What about biomass? Nashua is tapping methane gas from landfills. Wastewater treatment plants are a source of methane gas. This seems like low hanging fruit. What about our landfill and the Concord and Penacook wastewater treatment plants?

Methane gas is generated at a landfill as the waste decays and reaches its highest level within a couple of years after the waste is deposited there. Our landfill on old Turnpike Road has been closed for a while, it no longer produces much gas and the waste mass has settled. The fact that the waste mass has settled makes it a good candidate for a solar project site. Meanwhile, Liberty has talked about developing a project that uses the gas that is generated at the WWTP. We would like to explore that possibility.

The Granite Bridge Pipeline project is being proposed in the State. That seems to contradict a renewable energy goal like Concord has. How much coordination and communication is happening between Concord in its 100% renewable energy goal and the state?

The Concord Energy and Environment Advisory Committee is focused on the City of Concord. We can look at what's going on at the state level, regionally, and nationally and see some developments that seem to go against our goal. We realize that not all levels of government are pulling in the same direction yet and it will take a while to get there. The change we are talking about, here and elsewhere, will move in the manner of an ocean liner - slowly and gradually, not suddenly.

What about district heating networks? We could use these to pool resources to develop new energy sources. The energy sources could be designed in a way that network participants could take and/or contribute heat/thermal energy from/to the network.

District heating networks could be an important way to make the transition to thermal renewable energy. District heating could use various sources of energy - biomass, solar, geothermal, synthetic natural gas and other fuels.

Do you have a position on Northern Pass?

No, the Concord Energy and Environment Advisory Committee does not have a position on Northern Pass. Being an advisory committee we don't take positions other than to make recommendations to the City Council.

Councilor Candace Bouchard commented: The City Council, representing the City, has taken the position that it does not support Northern Pass above ground as proposed but would support Northern Pass if the portions sited in the City were buried underground.

Has anyone discussed the possibility of pooling people together to get more leverage community wide, more purchasing power, so that solar panels and other equipment could be bought more cheaply?

Great point. Our committee has talked about this idea, and it probably deserves more prominence in the draft strategic plan than it currently has. We have been talking to Hanover and other communities that are pursuing goals similar to Concord's. One specific idea that we have talked about with them is pooling our communities together to achieve greater purchasing power - buying in bulk can bring us better prices. Aggregating demand for renewable energy equipment - solar panels and more - could help lower prices for all of us. The City and other communities or private groups could serve as aggregators within communities and across communities.

Could you answer the question about how the transition to renewable power would be hard for utilities? Utilities still need to be able to make money in order to operate.

There are opportunities and challenges for utilities in a renewable energy transition. Utilities lose volumetric energy sales with energy efficiency and self-generation. But an electric utility might lose sales that way and then gain them back (and then some?) as we transition to electric vehicles, and also if we electrify thermal energy. Some states are looking hard at changing the way utilities are compensated so that they aren't compensated so much on energy sales and penalized if energy consumption is reduced, but rather can make a fair return in a world where we are reducing our energy consumption. New Hampshire is also moving in that direction, albeit slowly. Utilities will adapt to a renewable energy world, whether by selling new energy products or getting compensated in a different way.

Is the 100% renewable energy plan for the city government or the 42,000 people (residents) of Concord?

The plan is for the entire city and including residential, not just the city government. It needs to be on a community-wide scale in order to make a difference on the issue of climate change

But the city government is part of the city-wide plan. Is the city government part easier?

Yes - because the city government's energy consumption is just a small fraction of the entire community's energy consumption, and because the city controls its own energy decisions. We are not contemplating mandates on residents and businesses. We want to encourage the private sector to make the transition but not require anyone to do it.

How will the City encourage the private sector to act?

By example. By setting up local programs that encourage and incentivize renewable energy (e.g., property tax exemption for on-site solar that the City Council has already adopted). By serving as an information conduit for the community to make businesses and individuals aware of purchasing and financing opportunities. By encouraging or supporting bulk purchasing as discussed earlier. We will mainly be relying on market forces (i.e., renewable energy and electric vehicles becoming the least-cost option) as a driver of private sector action, but encouragement by the City can help move up private sector decisions. The City Council is the ultimate decision maker on exactly how the

City chooses to encourage private sector action. The Concord Energy and Environment Advisory Committee will make recommendations to City Council.

Do you have good numbers on total electricity consumption now so that we can compare current consumption to future consumption?

Yes - Unitil has given us community-wide electricity consumption numbers for 2018. Those numbers are broken down by category - commercial, residential, municipal (municipal may include state government and school district too). They are not broken down further than that.

State Rep. Kris Schultz: How do you account for the fact that the state government is a large energy consumer in Concord? How do you picture the state government changing its energy consumption patterns? The state government as a whole can be hard to move.

Good question. The state is indeed a big consumer of energy in Concord. The state has procurement officers that make energy decisions for state facilities, consistent with state law and policy. We have had some initial conversations with those officials. We expect that the state will continue to make energy decisions for itself - it probably won't defer to the City if the City Council elects to pursue municipal aggregation. But we hope to influence the decisions that the state government makes as to state facilities. Keep in mind that the City has just recently adopted its goal. Four other communities in New Hampshire have adopted similar goals. Other N.H. communities are renewable energy-minded and may adopt goals in the future. Together, we can make a case to state decision-makers and work together to move the state government forward on renewable energy consumption.

Now that you have Unitil data, can you get data from Liberty? What about from local propane and oil companies?

We will try to get community-wide natural gas consumption numbers from Liberty. We have City government consumption information for electricity and natural gas. Regulated utilities are responsive to these kinds of requests, and Unitil and Liberty both have been cooperative with our efforts. We haven't talked to local oil and propane companies but can reach out.

Suggestion - People shouldn't wait until the boiler quits to research the options, they should do the research now and get the renewable equipment now.

Hopefully some do.

I doubt that oil and propane companies will share information if they don't have to (proprietary).

You're right - we might not be able to obtain the same information from unregulated propane and oil companies but there is state or regional information on oil and propane consumption available in government databases that we can review and apply to Concord to get rough numbers for oil and propane consumption in our community.

What will happen to oil and propane companies if we transition to 100% renewable energy?

There will be no immediate change for them. The thermal energy goal targets a transition by 2050, 31 years away. Over time, companies will adjust to a changing marketplace, and would have to do so regardless of this goal.

Are there any electric vehicle charging stations in Concord?

We think there are at least 3-4 in the City right now, not counting chargers installed at residences. One is at the Grappone Conference Center, and another is at the Centennial Inn.

You might consider wireless charging like on Martha's Vineyard.

There are a lot of exciting new technologies out there, and more on the way that we can't even anticipate.

I appreciate that our City is pursuing the 100% renewable energy goal. This is the right time!

Thank you. We agree.

The biggest consumers of power in town are businesses. Business owners need to be involved.

We have been talking to the Chamber of Commerce and some of its key members. These conversations have allowed us to explain to them what we are trying to do and allowed us to hear their concerns. We have also had conversations with major institutions in town like Concord Hospital and St. Paul's School.

There are some businesses in town that are not Chamber members and wouldn't be part of those conversations. For example, big box stores and other chains that are large energy consumers. You should talk to them directly.

Good point - we will do that. There is a bill pending in the legislature to raise the net metering cap in the state from 1 megawatt to 5 megawatts. If that bill passes, solar power will be easier to access in the state and will more attractive financially.

Thank you for your time, questions, and comments. Remember that you may enter more responses online, and/or come to one of the next 2 input sessions, on May 4 and May 6.

Members of Public Present (not including Committee representatives): 20 to 25

Representing the Committee: Zach Jonas, Chuck Willing, Kelsey Sullivan, Dot Currier, Richard Maher, Donna Reardon, Ridge Mauck, Jennifer Galbraith, Sam Durfee (planning staff).

Notes taken by Donna Reardon