

**TOWN OF CHESTER
PLANNING COMMISSION
May 7, 2018
Minutes**

Commission Members Present: Naomi Johnson, Tim Roper, Barre Pinske and Cheryl Joy Lipton.

Staff Present: Michael Normyle, Zoning Administrator, Cathy Hasbrouck, Recording Secretary.

Citizens Present: Jason Rasmussen

Agenda Item 1, Review minutes from April 16, 2018 meeting

Tim Roper moved to review and discuss the meeting minutes from April 16, 2018. Barre Pinske seconded the motion. Naomi Johnson noted a word on the second page that was misspelled. “tow” should have been “to”. A vote was taken and the minutes were accepted with the change specified.

Agenda Item 2, Citizen Comments

There being no citizen present, there were no citizen comments.

Agenda Item 3, Review Energy Plan with Jason Rasmussen of the Regional Planning Commission.

As there were no motions made during the discussion or other actions taken, the following is a discussion of the points considered at the meeting, though not always in the order they were addressed.

Naomi Johnson opened the floor to Jason Rasmussen from the Southern Windsor County Regional Planning Commission.

The discussion focused in part on the draft Southern Windsor County Regional Energy Plan which was published on April 19, 2018 and had been sent to the Commission members for review. It is available online at <http://swcrpc.org/energy/> under the Regional Energy Planning button. Appendices to the document are there as well. The Commission discussed Appendix A extensively, as it listed Chester’s present and future energy needs and resources.

As Tim Roper pointed out, the Planning Commission is accepting the task of revising the energy chapter for the Town Plan to address the goal of having 90% of Chester’s energy needs met by renewable energy sources by the year 2050. The revised chapter will oblige the Public Utilities Board to give the Town of Chester substantial deference in the placement of renewable energy generation projects. In more direct terms, substantial deference means that if a developer wants to place a wind generator the Pinnacle, and the residents of Chester oppose it, the Public Utilities Board would have to consider the wishes of the residents. The revised energy chapter, also called an enhanced energy plan, would have outlined other ways to produce renewable energy which would fulfill the town’s needs without the wind generator on the Pinnacle. At present the energy chapter in the Chester Town Plan does not address the 90% renewable by 2050 goal.

The Southern Windsor County Regional Planning Commission (SWCRPC) has been working hard on gathering information and resources to help towns write their enhanced energy plans. The state has chosen software to model energy use trends and renewable generation potential. It is the Long-Range Energy Alternative Planning System, or LEAP.

Appendix A of the SWCRPC Regional Energy Plan shows LEAP calculations for Chester. Chester will need 24,015 megawatt hours of energy in 2050. Chester has 3,802 megawatt hours of potential energy from rooftop solar, 634,306 megawatt hours from ground mounted solar, 2,620,326 megawatt hours from wind and 56 megawatt hours from hydro available to meet those needs. There is no shortage of potential renewable energy.

Another output from LEAP is a graph on page 7 of the SWCRPC Energy Plan which shows annual energy use by sector (Transportation, Commercial, Industry and Residential) from 1960 to the baseline year of 2015. The Commission members noted a spike in 2004 on the graph and wondered what could have caused it. Michael Normyle said it was a very good snow year. He noted that non-skiing winter sports bring more money into the Vermont economy than skiing. Snowmobiles in particular are a significant source of revenue.

Looking at a graph on page 16 of the SWCRPC Energy Plan that shows projected statewide consumption from 2010 to 2050, Cheryl Joy Lipton noted that the commercial and industrial sectors did not show much projected reduction. Jason Rasmussen confirmed her observation. While there are opportunities for efficiencies in those sectors, the focus for the state's goals are on larger portions of energy use, such as transportation and residential. Cheryl Joy and others were concerned that this was a missed opportunity.

The SWCRPC Energy Plan has targets for energy efficiency and renewable energy production and discusses resources available to meet those goals. Several Commission members questioned some of the shorter-term goals and asked if they were being met. Jason Rasmussen said some were overly optimistic and would not be met. Transportation in particular was seen as a difficult goal to meet. Tim Roper said single occupancy vehicle travel was often the only way to manage life in a rural setting and he was startled by the number of miles people drive. Jason Rasmussen said a state such as Illinois, for example, would have its rural areas offset by urban areas such as Chicago, where mass transit would be feasible. He mentioned actions such as changing bylaws to encourage denser village center residential and commercial development as ways a rural community could reduce its dependence on single occupant vehicle use.

Jason Rasmussen said there were 4 questions the Commission needed to answer in order to move forward with the enhanced energy plan for Chester.

1. How can the Town of Chester conserve energy and promote energy conservation?
2. How can Chester reduce energy spent on transportation?
3. How can Chester set up land use patterns that promote energy efficiency?
4. What kinds of renewable energy generation facilities does Chester want to allow or encourage? Where would they be sited?

Jason said he had lists of possible actions Chester could take in response to the first 3 questions and information about different types of renewable energy generation which the Commission would want to consider when choosing energy generation facilities to allow or encourage. The Commission members asked Jason to send them the lists in time for the next meeting on energy.

The Commission discussed several economic aspects of the change from fossil fuel to renewable sources of energy. There is a clear expense in weatherizing homes and installing equipment to generate power from renewable sources. The strongest financial incentive for installing renewable energy equipment is a federal income tax credit of 30%. If a lower income household does not pay much in taxes, the tax credit is only worth the amount of taxes they pay. It will not offset much of the cost of the equipment.

Solar installations on preferred sites in Vermont can sell electricity to utility companies and are given a higher price than the going market rate for electricity. The difference in price is called the solar adder. The solar adder is paid by utility companies. There is no state contribution. In 2014, the solar adder was six cents per kilowatt hour. It has been dropping over time and will be three cents in July 2018 and two cents in July 2019.

Michael Normyle asked whether there was still interest among developers in solar or wind projects. Tim Roper said solar arrays are still being planned, but he believes that the drop in the solar adder will reduce the number of projects.

Tim Roper explained that the utility companies did not anticipate the surge in commercial solar energy production. It has made them uncomfortable. The reduction in the solar adder is part of the reaction to that surge. He also said that distributed solar generation saves the utility companies money in several ways, though this does not seem to be a significant motivation to set up more solar sites. By generating power closer to where it is consumed, the amount of power lost over distance is reduced. Local generation also reduces the load on the existing distribution system which is outdated and needs to be upgraded. The distribution system was created for a different pattern of use and is not working well for current conditions. Replacing a mile of three-phase power line costs hundreds of thousands of dollars. If new distribution lines are not needed, the utility companies save on construction costs.

Michael Normyle said that Efficiency Vermont, a corporation which helped consumers reduce their energy consumption, has experienced a similar fate. It has been so successful in reducing energy use, that the pool of money available for weatherization and other services has shrunk considerably. This discussion illuminated the complexity of meeting the energy goals. How can a public utility survive if, in 30 years, up to 90% of its current generating capacity will not be required?

The Commission also discussed what it could do encourage weatherization of existing homes and businesses. Jason Rasmussen said that as a regional planning commission, the SWCRPC has no way to enforce anything. At the town level, bylaws can require energy efficient buildings. Naomi Johnson said that Springfield has an active Efficiency Vermont program which gives advice on measures that can be taken to make a building energy efficient. Jason Rasmussen said that, although the SWCRPC cannot do much directly, it can educate people to possibilities and services available.

The Commission discussed various types of renewable energy generation. Cheryl Joy Lipton said she felt solar installations on rooftops should be encouraged, as opposed to installing them on the ground and using up arable land and wildlife habitat. She asked if rooftop installation had been considered in the SWCRPC study. Jason Rasmussen said the state of Vermont had calculated that southern Windsor County would need 194 megawatt hours of capacity to meet the 2050 goal. The models calculated that rooftops could produce 24 megawatt hours of electricity, which was only about 12% of the total needed.

Barre Pinske was particularly interested in biomass generation. Naomi Johnson pointed out strong language in the draft Energy chapter (Chapter 6) which discouraged biomass production over 10 megawatts. Truck traffic to bring the fuel, issues with wood supply, pests and contributions toward climate change are listed as concerns. It was decided that the strong language needed to be thought over before being adopted.

Tim Roper said there are grass and willow crop species that can supply fuel for a biomass plant. Barre Pinske said it would be helpful to understand how much electricity certain town functions, such as the wastewater plant needed and if a small biomass plant could produce that amount of energy. The question of how clean the exhaust from a biomass plant is was raised. Jason Rasmussen said that there were several opinions voiced on this in the discussion about the proposed North Springfield plant. He was sure that the plant was planned to meet state air quality standards. Cheryl Joy said in Europe smoke is not a problem in trash to energy plants. She wondered if that technology could be used here. Naomi Johnson asked Jason if he could help the Commission get more information on biomass generation. He said he didn't think he could answer all the questions being asked but he would see what he could come up with. Tim Roper said Renewable Energy Vermont had information on biomass. Jason summarized the discussion by saying it appears the Commission is interested in biomass generation. Barre Pinske said that his business generates quite a bit of waste wood and he often receives calls from other people who are looking for a place for their scrap wood. He would like to create a way to recycle that waste.

The Commission discussed wind generation potential. Jason Rasmussen provided a sense of scale by saying Residential applications had towers up to 30 meters (about 100 feet) tall. Commercial applications had towers from 50 – 70 meters (165 – 230 feet) tall. Utility applications had towers over 70 meters. These would not be seen in Vermont. Looking at the energy survey, 31% of respondents said they strongly supported wind power and another 24% said they somewhat supported it. Cheryl Joy Lipton said she visited a wind generator on Cape Cod and felt it created a constant hum that would give her a headache. It was noted that Grafton residents had rejected a wind installation recently. Naomi Johnson said that it was not appropriate for Commission members to let personal opinions about various options influence the energy chapter. Cheryl Joy said she felt it was important that the Commission gather information for citizens to consider. She thought people had not had enough contact with these installations to fully understand the impact it could have on neighbors. Jason pointed out places on the wind map that have the most potential for wind. He asked about the scale the Commission would be interested in supporting. Large, utility scale towers yield 1 megawatt each. Smaller towers provide 10 kilowatts. Jason said the impact of a large tower, aside from the effects of the large blades creating air pressure and sound, are the need for an access road and connection to a three-phase line to distribute the power. If an installation is over a mile from an existing three-phase line, the installation may not be economically feasible. The road can impact wildlife habitat.

The Commission discussed the two maps Jason Rasmussen provided showing solar and wind resources for the Town of Chester. Cheryl Joy asked if the maps had taken wildlife habitat connectivity into account. Jason said that the maps did consider biomass production, which implied the presence of trees. There was also consideration of forest land, habitat, recreation, steep slopes, water quality and supporting a local wood economy when making the maps. Jason Rasmussen said overlays could be added to the maps to show wetlands, flood zones, agricultural

soil, and wildlife habitat. Michael Normyle said he could help Cheryl Joy find the maps and overlays online.

The Commission confirmed its commitment to protecting iconic Vermont features in the Chester area such as forests and forestry industries, wildlife habitat, hunting, fishing and snow sports.

Finally, the Commission frequently considered what the Town of Chester itself could do to support these goals. Michael Normyle suggested that the Town of Chester could reasonably look at installing solar panels on the roof of the town schools. This would make sense from a logistical standpoint. The roofs are large and flat and have good solar exposure. The Commission realized that there are few financial incentives available to municipalities for switching to renewable sources of energy, since the primary financial incentive is an income tax credit and the town does not pay income tax.

Michael Normyle suggested it would be useful to know what the Town of Chester spends on energy by building. Naomi Johnson pointed to a graph in Chapter 6 of the Town Plan, the energy chapter, which gave energy costs by building from 2010. In the graph the Sewer Plant uses the most, the Water Department is second and the Town Hall is third.

The Commission looked at the solar and wind maps with a view of using town-owned land for more projects. They will investigate this further.

Agenda Item 4, Set date for next meeting.

The Commission will next meet on Thursday May 17, 2018 to discuss the zoning audit with Brandy Saxton. Naomi Johnson asked the Commission to read the current draft of the energy chapter before the next meeting that discusses the energy plan.

Barre Pinske moved to adjourn the meeting. Cheryl Joy Lipton seconded the motion. A vote was taken and the meeting was adjourned.