

# Memorandum

TO: Selectboard

FROM: G Miller, Planning Commission member; Chapin Kaynor, Chair of Planning Commission; Emily Heymann, Planner; and Matt Boulanger, Planning Director

DATE: July 22, 2020

**SUBJECT: Initial Responses to Questions Posed at the June 16<sup>th</sup> Informational Session**

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## **1. Public Health Amendments**

The town's role in public health is to create an environment that allows and encourages individuals to make healthy choices. The Town Plan lays out a vision for how the citizens of Williston would like their town to evolve over the next 20 years. These changes to the Town Plan do not call for spending money or hiring people—they set a desired direction to be carried out during normal business (like zoning bylaw updates, town policies, or actions by community partners).

Designing our communities with public health in mind still allows people the autonomy to make their own choices and ensures the built environment has a positive impact on both individual and community health. For example, transportation design that supplies a variety of options allows people to use a healthier mode of transportation safely.

### **Form-Based Codes and Health**

The Selectboard asked about the connection between a form-based code and public health. A form-based code, as Williston is considering in its Growth Center, can be a tool for enhancing public health. By enacting land development standards that focus on the creation of a diverse and robust public realm with a human focus and scale, Williston will enhance the health of its residents and visitors. When buildings and streets relate to one another, destinations are walkable, and modes of transportation other than driving are supported by design, an environment is created where daily activities like running errands and traveling to work become opportunities for exercise, social interaction, entertainment, and relaxation. The strip mall, accessible only by car, is replaced by a streetscape that is pleasant to travel along on foot or by bike, where vehicles are slowed, and large parking areas are deemphasized. Form-based codes are a powerful tool to create places where people “bump into each other” in their daily lives, combatting social isolation. A form-based code that guides new development in this way will help the Growth Center evolve into a place that enhances public health.

### **Food Policy Council**

The creation of a Food Policy Council was one of the suggested amendments. The Selectboard asked for a definition of a Food Policy Council. The following definition could be added to the plan amendments, as-is or with modification:

*“Food Policy Council” Definition:* A Food Policy Council (FPC) consists of a group of representatives and stakeholders from many sectors of the food system (production, consumption, processing, distribution and waste recycling). The central aim is to identify and propose innovative solutions to improve local or state food systems, spurring local economic development and making food systems more environmentally sustainable and socially just. They often include anti-hunger and food justice advocates, educators, nonprofit organizations, concerned citizens, government officials, farmers, grocers, chefs, workers, food processors and food distributors.

## **2. Energy and Greenhouse Gas (GHG) Emissions**

The Selectboard asked if the proposed plan is an energy plan or a GHG emission plan. The proposed plan is required by state statute to be both. Act 146 gives towns substantial deference (authority over renewable energy siting), but only when the town demonstrates how state Energy/GHG emission reductions will be achieved at the local level and adequate renewable energy generation will be accommodated. In this draft plan:

- The siting policies as drafted will accommodate the necessary renewable energy production.
- The required emission reductions will be achieved by reduced use of energy as well as by the transition from fossil fuels to renewably generated electricity.
- Carbon will be removed from the atmosphere and sequestered through the planting of trees and by minimizing developed surfaces.

Chapter 11 in the Town Plan has broader energy goals and visions for Williston. The Energy Plan appendix is far more specific and geared towards GHG emission reduction to satisfy that Act 146 requirements. When the next Town Plan is written, the Energy Plan appendix will be updated and merged into the other relevant chapters of the plan (3. Land Use; 6. Transportation; 11. Energy; etc.)

### **Defining Renewable Energy**

The Planning Commission is receptive to edits on “*Renewable Energy*” definition. On one extreme, anything extracted from fossils that was formed millions of years ago is clearly not renewable on the timescale of a human life. On the other extreme, capturing energy from wind, sun, and water is entirely renewable—there is new energy available seasonally if not daily. In the middle is wood heat. When wood is grown and harvested responsibly, the carbon will again be sequestered in their biomass over a period of decades. Even the very renewable and non-renewable sources have other factors such as the carbon footprint of manufacturing solar cells and electric vehicle batteries or the carbon footprint of cutting and transporting wood or even pelletizing it. Each choice in the plan tries to move the needle away from non-renewable sources toward more renewable sources. For example, moving from oil heat to wood heat is a huge step toward the state’s goals while going to efficiency and heat pumps can advance us even further. Current technology requires use of a combination in much of our existing housing stock (e.g. wood or oil plus heat pumps).

<https://www.eia.gov/energyexplained/renewable-sources/>

## **3. Energy Coordinator and Energy Committee**

General Pathways 1.1 and 1.2 call for the appointment of both a volunteer Energy Committee and hiring of a full-time Energy Coordinator. After adoption of the plan, the Energy Committee could be appointed first and starting work on the easier-to-implement pathways, as well as provide the Selectboard with options and recommendations for a hired Energy Coordinator position. Emily Heymann and Erik Wells met with CCRPC staff to learn about a variety of cost-sharing or employment mechanisms available to the town for the Energy Coordinator position. The capacity and expertise of a volunteer committee is limited. To this end, hiring a town Energy Coordinator would provide the needed attention and resources to achieve our energy plan goals.

As noted in the Energy Plan transmittal letter, climate change should be given the same or similar attention and resources as other Town public safety departments. This could be compared to the Stormwater Coordinator's actions to prioritize stormwater management in the town and to help find sources of funding. The Planning Commission envisions the Energy Coordinator prioritizing pathways and pursuing grants and other non-Town funding for them. The best documented Vermont Town-funded energy coordinator is in Hartford. In his first 7 months, the Energy Coordinator saved the town enough money to cover his first year's salary.

Time is of the essence. The State's Comprehensive Energy Plan was enacted in 2016. One of the goals identified at that time is to reduce GHG emissions from 1990 levels by 50% by 2028. For instance, we will have already lost 5 of the 12 years to meet that goal by the time an energy coordinator is hired. Therefore, we believe that salary and operating costs should be included in the FY2022 budget and the scoping process should begin prior to the start of the new fiscal year.

This work will not only advance Williston's progress to the plan goals but will minimize the Town's cost. We believe that more towns will want to tap into these resources and by hiring an energy coordinator as soon as possible will enhance Williston's ability to win grants and have resources available to assist us.

#### **4. Funding Mechanisms**

The table of potential costs attached to the transmittal is intended to highlight the magnitude of the task in front of us. It is not designed for detailed scrutiny on final cost or funding mechanisms. The plan calls for the town to invest in the process by hiring an Energy Coordinator, who will be charged with finding external sources of funding. The Energy Coordinator, with guidance from the Energy Committee and other municipal departments, will prioritize what to tackle, in what order, and how to fund each step. In short, this is a 30-year plan and preparing a budget to be approved by the Selectboard should be the first task of the Energy Coordinator.

We expect there will be multiple external sources of funding. For example, established Efficiency Vermont programs will continue, the Tier III Energy Transformation requirements of our utilities will be increasing to 12% of revenues by 2032, and there will need to be more state-wide incentives in order to meet Vermont's CEP goals. Specific information on Tier III from the PSB website:

*Tier III – Energy Transformation:* Tier III requires that DUs either procure additional renewable distributed generation eligible for Tier II or acquire fossil fuel savings from energy transformation projects. Energy transformation projects are those that reduce fossil fuel consumed by DU customers. For Tier III, the RES establishes a required amount of 2% of a DU's annual retail electric sales during the year beginning January 1, 2017, increasing by two-thirds of a percent each year until reaching 12% in 2032. Energy transformation projects implemented on or after January 1, 2015 are eligible to be counted towards a DU's Tier III obligation"

<https://publicservice.vermont.gov/content/tier-iii-renewable-energy-standard>

#### **5. Cost-Benefit Analysis for Residents and Businesses**

The Selectboard asked about the potential costs to residents and businesses. Although Williston cannot slow climate change on its own, we are already paying nature's climate change tax. The Shunpike Road culvert washout is an example. Doing our local part to curb carbon emissions is not only the right thing

to do but will serve the greater good, reducing costs in the future. Many Williston residents and businesses have already invested in solar installations, electric vehicles, cold climate heat pumps, more efficient heating & cooling systems, and weatherization. Some have reduced vehicle trips and increased biking, walking, and use of public transportation.

In some cases, the payback is clear. “*Building Energy Usage*” pathways are expected to save residents and businesses money. Depending on the details this could be a short-term payback (like weatherizing) or a long-term payback (like heat pumps replacing or augmenting oil heat). The same goes for municipal buildings. Transformation pathways like electric vehicles could be a large ticket item until technology evolves further. In other cases, residents are motivated by helping us all be more sustainable in the long run. This Energy Plan--and the Energy Coordinator to facilitate its implementation, is a way for us to be more effective in pursuing these goals as a community.

In other cases, the payback is indirect. Some of the benefits of the pathways in the Energy Plan will be local job creation, improved electrical grid resiliency, and stabilizing the cost of energy consumption. There is also a collective psychological boost to approaching climate change proactively rather than reactively.

In summary, some pathways will directly save money for residents, businesses, and the town while others will have costs that don't have direct savings, though they contribute to meeting our GHG reduction goals, make our community more resilient, and helping to prepare Williston for the post-carbon era. Some of those costs will be borne by the town while others will be funded from external sources.

## Draft Timeline

### Expedited

### Standard

Sept 2020	- Adopt Energy Plan	Sept 2020	- Adopt Energy Plan
Fall 2020	- Establish Energy Committee	Fall 2020	- Establish Energy Committee
January 2021	- Selectboard funds Coordinator position in FY2022 Budget	Summer 2021	- Committee presents Energy Coordinator employment & funding options to Selectboard
<b>Summer 2022</b>	- <b>Hire Energy Coordinator</b>	Winter 2021/22	- Selectboard approves FY2023 budget
Winter 2022/23	- Energy Coordinator proposes an FY2024 implementation budget (taxes, grants, other sources, etc.)	<b>Summer 2023</b>	- <b>Hire Energy Coordinator</b>
		Winter 2023/24	- Energy Coordinator proposes an FY2025 implementation budget

### Table 1. Immediate Expenses

*Note: annual municipal funding sources are anticipated*

General Pathways		Cost / Year
1.1	Energy Coordinator (1.0 FTE)	90,000
	Operating Expenses	20,000
		110,000

### Table 2. Rough Cost Estimates to Achieve Energy Plan Pathways

*Note: multiple funding sources beyond tax revenues are anticipated*

General Pathways		Cost / Year
1.1	Assistant Energy Coord. (subsequent years)	65,000
		65,000
<b>Transportation</b>		
2.5	Local public vehicles	200,000
2.6	Charging Station	25,000
	<i>One station. One-time cost.</i>	
	<i>6605 cars in Williston/30 yrs. = 220 cars/yr. x</i>	
2.11	EV Rebates	550,000
	<i>\$2,500 = \$550,000.</i>	
		775,000
<b>Building Energy</b>		
	Municipal Energy Audit	
3.3	Review	5,000
	<i>One-time cost.</i>	
3.6	Municipal Energy Audits	20,000
	<i>One-time cost.</i>	
3.8	Residential Energy Survey	24,000
	<i>One-time cost.</i>	
3.9	Residential Energy Audits	35,600
	<i>2,674 homes/30 yrs. = 89 homes/yr. x</i>	
	<i>\$400/audit = \$35,600/yr. for 30 yrs.</i>	
3.9	Residential Weatherization	623,000
	<i>2,674 homes/30yrs. = 89 homes/yr. x</i>	
	<i>\$7,000/home = \$623,000/yr. for 30 yrs.</i>	
3.10	Residential Cold Climate Heat Pumps	1,280,000
	<i>3,825 homes/30 years = 128 homes/yr. x</i>	
	<i>\$10,000 = \$1,280,000/year for 30 years</i>	
3.11	Municipal Recommissioning	12,000
		1,999,600
<b>Agriculture</b>		
1	Tree Nursery Startup	50,000
	<i>100 trees x \$500/tree = \$50,000.</i>	
Total one-time costs		74,000
Total on-going costs		2,815,600