

Wilton Plan of Conservation and Development Update

Date: January 19, 2018

To: Lynne Vanderslice, Chris Burney, and Persons Responsible for the Wilton POCD update

From: Debra Thompson-Van on behalf of the Wilton Energy Commission (WEC)

Re: WEC input to Wilton Plan of Conservation and Development Update

The Wilton Energy Commission supports the Town's Value of being a Leading, Sustainable, Clean Energy community.

Much has been accomplished since the time when the 2019 POCD was published leading to reduced energy consumption, the addition of alternative energy sources (solar and natural gas), lower CO₂ emissions and lower fuel bills.

This document begins the process of laying out key considerations from the WEC's point of view. Please feel free to reach out with questions on this material as needed.

See you at the meeting,

Debra Thompson-Van, Chair, Wilton Energy Commission

On behalf of the Wilton Energy Commission members present for the January 17, 2018 meeting:

Peter Wrampe, Vice Chairman

Kevin Gardiner, Secretary

AnnaMarie Bilella

Patrice Gillespie

Glenn Hemmerle

Jim Jarvie

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Name of Board or Commission: Wilton Energy Commission

1.) Generally, and in brief, what are the three to five most important planning, conservation and/or development issues facing Wilton from your board/commission's specific perspective, area of expertise and/or governance?

According to the 2014 National Climate Assessment report, storms affecting the Northeast are projected to accelerate, intensify, and have higher impacts.

Heat waves, coastal flooding, and river flooding will pose a growing challenge to the region's environmental, social, and economic systems. This will increase the vulnerability of the region's residents, especially its most disadvantaged populations.

Infrastructure will be increasingly compromised by climate-related hazards, including sea level rise, coastal flooding, and intense precipitation events.

According to a study conducted after the storms Sandy and Irene, both storms flooded areas in CT where energy assets reside, including 7 electric power plants, 13 substations, 16 petroleum terminals.

Petroleum supply chain disruptions and power outages caused by Hurricane Sandy led to widespread fuel outages at retail fueling stations in western Connecticut.

All of these factors contributed to greater disruptions and longer restoration times for electric power service and petroleum supply chains in CT.

In fact, following Irene, CT declared 6 days of Emergency Disaster; and following Sandy, CT declared 12 days of Emergency Disaster.

Following are just some examples of potential community concerns:

- 1) Reliable and resilient electrical grid
- 2) Water strategies for homes (for watershed and well supplied systems)
- 3) Longer term backup generation solutions
- 4) Availability of heated, internet connected, Emergency Shelters
- 5) Emergency transportation in advent of road/train closures
- 6) Lower energy costs

On a positive note, towns have an opportunity to distinguish themselves and offer the community an improved quality of life by ensuring key services are climate and grid resilient in an eco-friendly way.

Businesses and homeowners want sustainable and resilient living and working conditions. In today's Technology infused society, issues driven by outages is more than just a Health and Safety issue, it's an Economic and Equity issue. When the next storm hits, people value being able to continue to work and live productively in their homes and at their offices.

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- 2.) Please review the current Wilton POCD and identify action items and strategies that align with the mission of your Board or Commission. The current POCD can be viewed or downloaded at: https://wilton2029.files.wordpress.com/2017/12/2010-wilton_pocd.pdf Goals and strategies are explained throughout the text; however, the implementation chapter provides a compilation of all strategies.**

The Energy Commission has a section within the Town POCD. The status against those objectives and input on achievements are contained within Q3.

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3.) What strategies from the current Wilton POCD has your board or commission implemented over the past decade? What other strategies has your board or commission implemented in support of a goal identified in the current POCD? Are there any action items and strategies identified in the current POCD relevant to your group that were not implemented? If so, why not?

Since the creation of the 2010 POCD, the Wilton Energy Commission led these major accomplishments:

- 1.) Developed in 2012, the first comprehensive Wilton Energy Management Plan and benchmarked the energy use in all schools and most Town buildings.
- 2.) Designated by State of CT as Gold Standard Clean Energy Community having achieved the 20% energy reduction objective. Achieved Energy Star rating on 2 buildings. Improved residential participation in programs to 26%; and businesses to 19%. In February 2018, the TOW expects to receive it's 3rd Bright Idea Grant worth \$10,000 bringing the total award value to \$30,000.
- 3.) Teamed with Wilton Go Green on first of a kind Town Festival, Green leaf programs in the schools, and No Idling programs.
- 4.) Introduced Natural Gas Lines to portions of the TOW main commercial and school areas.
- 5.) Installing Solar on all 4 schools and the town library building. Conducted Solarize Wilton program for town residents.
- 6.) Justified the requirement for the TOW Director of Energy and Facilities Management.

More details about those contributions can be found here:

For School and Municipal Buildings:

Town of Wilton has achieved its 20% energy reduction objective for School and Municipal buildings by successfully completing the following projects: 1) LED lighting has been completed in all schools, Comstock, Town Hall; 2) energy efficient Boilers/Heating units have been completed in all schools, Comstock, Town Hall; 3) Insulation and Window replacements occurred when new construction occurred.

Across the 4 schools, the total kbtu in 2010 was 55,758,323 and was reduced to 40,085,885 in 2016, representing a 28% reduction in energy consumption.

By pursuing State and Federal grants; Wilton Energy commission secured \$32,855 from CL&P to install Power Management systems in all schools; \$212K from CL&P for energy efficiency upgrades, and \$76K from American Recovery and Reinvestment Act (ARRA) for other energy efficiency upgrades. \$202,000 in EverSource rebates relating to the school boiler renovations had been received. These funds offset the town investments in energy efficiency projects and reduced the Payback period to 3 years or less on most projects.

The town has been certified for 2 of the Municipal buildings as LEED Energy Star. The next steps are to ensure LEED Silver specifications construction for the Police/Fire departments to include energy efficient boilers/heaters/ lighting, insulation.

Most recently, the Wilton Energy Commission started an initiative to bring Solar to all of Wilton schools, WHS, Middlebrook, Miller-Driscoll, and Cider Mill. The Wilton Energy Commission submitted applications to the Zero Renewable Energy Credit program, saving the town between \$1-2.5M over the next 20 years, starting in year 1. It is anticipated that 25-30% of the electric consumption of these

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schools will be provided by Solar energy with a total installation of over 1Megawatts of energy. Installation on all the schools is expected to be completed during 2018. As more “roof” space becomes available, exploration for additional solar will be investigated. Additionally, through community outreach programs, the Town of Wilton Library is also installing Solar.

For Local Businesses:

19% of Wilton business owners (up from 6%) have participated in various energy reduction/rebate programs since 2014 to date. To ensure maximum impact, in 2015, a large Commercial Property Assessment (C-PACE) program was offered and targeted to 12 commercial property owners, representing 26 properties and 93% of the square footage opportunity. The WEC, in conjunction with CT State energy organizations, hosted an education and networking session to provide information on the program. Eligible upgrades included high efficiency lighting, chillers, boilers, furnaces and water heating systems; HVAC, building enclosures and energy management systems.

For Town Residences:

Home Energy Solutions (HES) has been an ongoing program offered to TOW residents since 2014. Through 2017, 1,500 town homes, representing 26% of homeowners (up from 5% in 2010) have completed Home Energy assessments and implemented some form of energy reduction solution. In 2018, a renewed focus on this program is being jointed sponsored between Wilton Go Green and the WEC. The first communication will include a Free offering for Income Eligible households.

2016 Residential Solar program offered and accepted by 50+ TOW homes. This program will be relaunched in 2018 for the next round of interested home owners.

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4. What are the three highest priority initiatives or objectives that your board or commission is currently pursuing, or think should be pursued, that would be relevant to a comprehensive plan for the next ten years?

The Wilton Energy Commission would encourage the exploration of the following topics as consideration for the development of the POCD.

1. Updating the Town Energy plan to incorporate best emerging solutions based on emerging and new technologies and Sustainable CT Actions.

The Sustainable CT program encompasses 9 categories of Sustainability. The WEC mission aligns most closely to 3 Action Areas (underscored). Other commissions and departments are invited to review Sustainable CT for relevance to their missions.

- a. **Thriving Local Economies**- which includes community education and participation in modeling sustainability, green open space management principles, smart development, and membership in various CT Energy programs to provide municipal, business and residential benefits.
 - b. **Well Stewarded Land and Natural Resources**- which includes Watershed mgmt., Green land management principles, Open Space, Woodlands and Forest protection
 - c. **Vibrant and Creative Cultural Ecosystems**- Which includes Arts & Culture
 - d. **Dynamic Resilient Planning**- which includes assessing climate vulnerability along rivers/power lines/transportation routes; and adapting town planning and permitting processes that enables Eco Friendly solutions.
 - e. **Clean and Diverse Transportation Systems and Choices**- which includes Smart Commuting, Zero emission vehicle deployment (EV), public/other mobility strategies
 - f. **Efficient Physical Infrastructure and Operations**- which includes Energy Management: tracking, planning, reduction; implementing renewable technologies; achieving LEED certified buildings, Municipal Fleets; Community Energy Campaign.
 - g. **Strategic and inclusive Public Services**- Which includes Sustainability Education, Community engagement, Food management principles, and Health impacts actions.
 - h. **Healthy, efficient and diverse housing** –which includes energy and water benchmarking
 - i. **Inclusive and Equitable Community Impacts**- Optimize for Equity
2. Evaluate Energy Resiliency at key town (public and private) buildings.
 - a. Designate an emergency housing shelter and upgrade facility to have resilient energy capability. Consider one of the schools that have gas line, solar, and generator capability along easy access to mass transportation routes.
 - b. Inspect Local gas stations and other key service businesses (pharmacy/food/water) and municipal services readiness to sustain long term energy outage (and thereby have gas for home generators, and emergency services and vehicles)
 - c. Promote energy resiliency strategies to other key facilities that might suffer greatly from long term outages (Elder Care and medical facilities).

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3. Working with town department to establish new building guidelines and processes to further enable Green development practices.
 - a. Promote Energy Efficiency and Solar Array (and other Renewable) as part of the Town's Building application process;
 - b. Inform builder/owner of C-PACE program as part of the building application process.
 - c. Streamline the application and permitting processes.
 - d. Promote with building owner the building's energy efficiency and energy independence as part of town's Business Development plan.
 - e. Leveraging CT and Federal energy programs to improve ROI and savings

4. Evaluate Town Landfills and/or open space for utilization as a revenue generating CT State Distributed Solar Array or Cost savings Municipal Virtual Net Meeting Solar Array.