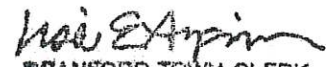


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BRANFORD TOWN CLERK**Revised-See Pg. 3**

Date: August 25, 2023

To: Joseph Mooney  
Board of Finance

From: Clean Energy Ad Hoc Committee

Re: Committee Efforts and High Performance Buildings

Thank you for recently meeting with members of our Clean Energy Ad Hoc Committee (Committee) along with the First Selectman and Finance Director. As you will recall, we discussed the Committee's goals and efforts concluding with the suggestion that we appear at a future Board of Finance meeting.

Our goal is to provide your board with background information on our efforts with the hope that you will incorporate these elements into future appropriations and recommendations. To assist you in the discussion, the core of this memo is organized in a frequently asked questions format supplemented by attachments and a brief presentation on the economic benefits of the draft energy plan as it relates to buildings.

**When was the Committee Established?**

The Committee was established by the Board of Selectman in 2019. The creation of the Committee reflects the sentiments of concerned citizens coupled with the aspirations outlined in the Plan of Conservation and Development (POCD), namely to reduce greenhouse gas emissions and energy use by the Town, Board of Education as well as Branford's residents and businesses.

**What Shared Recommendations are provided by the Committee and the POCD?**

- Reduce energy use through increased efficiencies.
- Reduce reliance on fossil fuels.
- Encourage use of renewable energy.
- Promote greener buildings.
- Provide for alternative energy approaches.
- Install electric car charging stations.

**Has the Committee Developed an Energy Plan?**

Yes, the Committee presented a draft plan (Attached) to the Board of Selectman in the summer of 2020. The plan includes a variety of specific goals, actions and benefits as well as items already completed or in progress. The plan, which also includes residents and business, focuses on the following key areas:

- Energy Efficiency and Building Performance with an emphasis on heating and cooling.
- Renewable Energy
- Transportation
- Microgrids

The committee believes that by focusing on these areas the community can forge a path toward achieving the goal of 100% renewable energy by 2040 while reducing energy costs, improving air quality and increased resiliency through local energy generation.

**Why is the Committee Focusing Tonight’s Presentation on Buildings?**

The Committee acknowledges the Town and Board of Education spend considerable dollars on buildings through heating, cooling, new construction, upgrades, renovations and normal operations and maintenance. Buildings also represent a large percentage of energy usage in our community. Green buildings are better for the health of students, employees and visitors to our facilities.

**Are Building Improvements that Focus on Green Initiatives Cost Effective?**

Yes, we believe that these improvements are cost effective. I have provided an example below using the recent upgrades to the animal shelter. This example demonstrates that energy saving measures, coupled with grants and town funds, can yield benefits moving forward in terms of cost savings.

**Projected Cost Benefit Analysis Animal Shelter**

<b>Added costs of energy saving measures</b>	<b>\$44,000</b>
<i>Less (Grants, Incentives)</i>	<i>(20,000)</i>
<i>Net Costs to Town</i>	<i>\$24,000</i>
<i>Annual Debt Service on Net Costs ( Level Principal 4%)</i>	<i>\$2,112</i>
<i>Annual Energy Savings (reduced gas and electric costs) Source: Slipstream Energy Model 5/21</i>	<i>(10,491)</i>
<i>Additional Savings with Solar Array</i>	<i>(4,330)</i>
<i>Gross Annual Savings</i>	<i>(14,821)</i>

<i>Net Estimated Annual Savings (savings less debt service)</i>	<b>(12,709)</b>
<i>Savings over 15 years</i>	<b>(\$190,635)</b>

As you will note from the above numbers the concept is compelling. Other key takeaways to consider are:

- While the project expanded the building to 6,000 sf it will only use only as much energy as the original 2,600 sf building.
- Energy measures will produce an annual cash flow savings after debt service.
- All clean electricity - no fossil fuel, no carbon emissions.
- Future solar energy systems will make it a net zero building, using less energy than it produces.

**How can the Board of Finance Assist the Committee’s Efforts?**

The Board of Finance can assist the Committee by taking into consideration the various elements of the energy plan when considering future appropriations related to building improvements, new construction or HVAC upgrades. The Board may also consider components of the plan when allocating future budget dollars.

Finally, the Board of Finance can work with the administration to develop a logical and budget sensitive funding plan that if adopted by the RTM will put the town on a course toward achieving many of the goals outlined in the draft plan.

Thank you for letting us present to your board and we encourage you to consider us as a resource as it relates to funding future construction and energy projects.

Cc J. Cosgrove  
 J. Finch  
 L. Arpin

Attachments  
 Clean Energy Draft Plan  
 Branford POCD (excerpt)