

ENERGY COMMITTEE 2018

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The Plainfield Energy Committee focus in 2018 was to work on the approval of the Ready for 100 goal and on the implementation of this goal. As in previous years the Plainfield Energy Committee joined forces with the Cornish Energy Committee. Specifically, the committee worked on the following during 2018: the plan to achieve 100% Renewable Energy, the Weatherize campaign, and the Renewable Energy Educational Series.

A. 100% Renewable Energy Goal

At the Plainfield 2018 town meeting the town passed ARTICLE 8 which states: "To see if the Town of Plainfield will vote to commit to a goal of 100% reliance on renewable sources of electricity by 2030 and renewable sources for all other energy needs, including for heating and transportation, by 2050."

With this vote Plainfield joined towns and cities nationwide that have committed to a goal of 100% renewable energy. There are now 103 towns and cities in the United States that have committed to this goal. Four of those towns are in New Hampshire, namely Concord, Cornish, Hanover and Plainfield.

Having gained the support of the town the focus of the Energy Committee is to work towards the implementation of this goal.

The Energy Committee sees the implementation of the 100% renewable energy as having the following components:

- developing a **Plan to achieve the 100% Renewable Energy Goal**
- providing **Specific Programs** to help the town, its businesses and its residents achieve this goal.
- Continuing the **Renewable Energy Educational Series** consisting of presentations, movies and workshops to help residents understand the costs and benefits of this goal.

B. Plan to achieve the 100% Renewable Energy Goal

The Energy Committee is discussing a plan to achieve our 100% renewable energy goal, with the main point being how to reduce our use of fossil fuels. We have set an ambitious target of April 2019 for the first draft of the plan. In general there are the following aspects to the plan:

1. Generate electricity from renewable sources in Plainfield.

2. Buy electricity generated from renewable sources from suppliers outside of Plainfield.
3. Reduce our use of electricity and fossil fuels by improving the efficiency of our buildings, vehicles and appliances.
4. Reduce our use of fossil fuels by switching from equipment that burns fossil fuels (furnaces, boilers, gas powered vehicles) to electrical equipment (cold climate heat pumps, battery electric vehicles).
5. Educate the people of the town in ways to move to a renewable energy future. The Energy Committee will continue its Renewable Energy Educational Series and will continue to organize Weatherize and Solarize campaigns to help people understand their options.

The Energy Committee considers that its mandate is to develop the renewable energy plan and to propose and manage projects that will be identified in the plan. However, we believe that it is important to have a review committee, which we have called the Stakeholder Committee, to review the plans and projects proposed by the Energy Committee and provide feedback to the Energy Committee. This Stakeholder Committee ideally will have people who represent interests of the residents, businesses, schools and churches in Plainfield. The Select Board is currently reviewing this proposal for a Stakeholder Committee.

Of course as with any plan we need to be able to measure what energy the town uses in order to understand where we can make changes. We have a rough estimate of 25 MW for the total electricity generation that the town (municipal, residential, and business) requires. We are tracking the use of electricity, oil and propane by the municipal functions of the town, but we are still debating the best way to obtain the energy usage by the residents and businesses of the town.

During our planning discussions we identified several small actions that we thought Plainfield could take immediately:

1. Change our street lights to LED street lights. It seemed that this would save the town both money and electricity, but in discussions with Liberty Utilities we discovered that their current rate plan for replacing the existing street lights with LED lights would save us neither electricity nor money. We have placed this action on hold pending a change to a more favorable rate plan.
2. Buy our municipal renewable electricity from a third party vendor. This is in progress. We have received a proposal from Standard Power of America and are evaluating the proposal.
3. Replace the incandescent light bulbs in the Parrish Stage Set located in the Plainfield Town Hall with LED light bulbs. We estimate that this would significantly reduce the electricity used by the stage and reduce the demand

charges incurred by the Plainfield Town Hall. We are working with Brad Atwater on this proposal.

C. Weatherize Campaign

The Weatherize Campaign in 2018 was a program to help the town meet its goal by improving the efficiency of residential buildings in Plainfield. Weatherization is the most effective way to increase your comfort and reduce your energy usage so that you have lower home heating bills. Weatherize launched in January 2018, with Plainfield joining Cornish and working with Vital Communities. We were one of seven town groups in New Hampshire and Vermont that participated in this campaign. In Plainfield 39 families signed on at the start. Of those, 23 decided to proceed with an energy audit and 12 of those weatherized their homes. So just over 50% of families completing an audit proceeded with weatherization. This percentage compares favorably with other towns who participated in Upper Valley Weatherize campaign, where 42% of energy audits lead to home weatherization. We will monitor and track the effectiveness of this program.

D. Renewable Energy Educational Series

The Energy Committee continued its presentations in the Renewable Energy Educational Series. The series featured technologies that could be used to meet the 100% renewable energy goal.

a. General Renewable Energy Education

Renewable Energy and Energy Efficiency Education Expo - The Cornish and Plainfield Energy Committees staffed at table at this expo highlighting the work that we were doing. The expo presented sessions on: weatherization, LED lighting, living off the grid, high efficiency heating systems, batteries for power backup and cutting peak demand, solar PV systems, and net-zero energy building construction.

b. Renewable Energy Transportation

Clean Disruption ~ a film & discussion - this event showcased a film in which Tony Seba argues that electric vehicle, battery storage, and solar power, along with autonomous vehicles, are a perfect example of a 10x exponential process which will wipe fossil fuels off the market in about a decade. Tony Seba is a Stanford University futurist who spent the last decades studying technological disruptions. The film was followed by a lively discussion debating the validity of his thesis.

Electric Bike Workshop - this very successful event demonstrated how to convert a standard bicycle to an electric bicycle. Attendees

were able to watch the conversion and then test ride the completed electric bicycle. Riders were impressed at how easily they were able to ride up hills with the electric motor assist.

National Drive Electric Vehicle Event. Members of the Plainfield Energy Committee showed their electric vehicles at the third annual Electric Vehicle Expo in New London. It was probably the best-attended Drive Electric Week event in New England, with 42 electric vehicles and 400 participants. Vehicles present included Tesla Model 3, S and X; Chevy Bolt and Volt; Ford Fusion Energi; Honda Clarity; Nissan Leaf; Porsche Cayenne; Toyota Prius Prime and Zero Motorcycle. Attendees were able to inspect the vehicles and take test drives.

Respectfully submitted,
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Plainfield Energy Committee