

RENEWABLE SOURCES OF ENERGY

ARTICLE 22. To see if the Town of Lyme will vote to commit to a goal of 100% reliance on clean, renewable sources of electricity by 2030 and clean, renewable sources for all other energy needs, including for heating and transportation, by 2050.

The impetus for this goal is to reduce energy costs to the community and to keep energy dollars in the local economy; to reduce the risks to the community of escalation and volatility in energy costs; and to address the threat of global climate change.

The intent of this article is to influence policy at the local level in a fiscally responsible manner that will support and encourage individual action to shift towards 100% clean, renewable energy.

This article is recommended by the Energy Committee, 7-0; recommended by the Select Board by a vote of 3-0.

Note: This article is a non-binding, advisory article to give a “sense of the Town” in moving in the direction of a non-fossil fuel energy future. As such it does not mandate any actions by either town officials or residents, nor does it impose any fiscal commitments.

The Context

50 years ago we celebrated the first Earth Day. The subsequent focus was on cleaning up our air and water. Scientists were just beginning to explore the complexity of the global climate, and their computer models were not able to predict with any certainty the future of climate change. But in 1988, the NASA scientist James Hansen testified to Congress that our planet was warming due to increasing levels of carbon dioxide (CO₂) in the atmosphere, leading to the “greenhouse effect.”

Since 1988, our nation and the international community have not taken significant action on reducing CO₂ emissions. More than half of all the global CO₂ emissions since the Industrial Revolution have been emitted since 1988. In 1988, fossil fuels provided 79% of world’s energy; now, despite increases in solar and wind and geothermal, that percentage has risen to 81%. Every decade since the 1960 has been clearly warmer than the one preceding it. 2015-2019 was the warmest 5-year period in recorded history.

The 2018 federal 4th National Climate Assessment Report states that we are now facing a *climate emergency* – one that has arrived quicker, that is accelerating faster, and that carries more severe consequences than had been predicted – including the severe storms, wildfires, rising sea levels, disappearance of coral reefs, and changing weather patterns that the globe is witnessing today. Their conclusion, endorsed by 11,000 scientists, is that “future risks from climate change depend primarily on decisions made today.”

The current administration’s decision to withdraw the United States from the Paris Climate Accord and to roll back many of the environmental regulations of the previous administration has spurred individuals across small and large towns, states and corporations, to take action at a local level. In 2017, Hanover became the first municipality in the country to commit to a goal of 100% reliance on renewable sources of electricity by 2030 and renewable sources of fuel for

heating and transportation by 2050. Over 150 cities, more than ten counties, seven states, and two territories have adopted ambitious 100% clean energy goals.

The Warrant Article

The Lyme Energy Committee sees this Article 22 as the start of a town-wide conversation about how Lyme will make the transition to a non-fossil fuel, sustainable future.

1. Fossil fuels are finite in supply. Even as advances in technology make it possible to extract the remaining supplies, i.e. fracking, the economic cost of that extraction will continue to increase. We are just now seeing the environmental degradation caused by these new extraction methods. Renewable energy sources have the potential for reducing the dollars spent on energy for both the town and its residents, and keeping those dollars in the local area – “home-grown” resources to make our town more resilient to energy costs in the future.
2. Perhaps the most important reason to move away from fossil fuels is the need to mitigate the rapidly intensifying climate change. Scientists now predict that unless we make major reductions in the amount of greenhouse gasses, primarily CO₂ and methane (CH₄), we will pass the point of being able to minimize its most harmful effects on the. The goal, scientists state, must be to cut current carbon emissions in half by 2030 and then to achieve net zero global CO₂ emissions by 2050.

The Transition

What might this transition look like? If, as we expect, most Lyme voters support this article, it will give the Select Board and town committees a clear sense that this is the direction the town wishes to go in.

1. It will guide Town committees in updating the Town Master Plan. It might mean a review and reshaping of municipal energy guidelines for new municipal construction or retrofitting existing buildings in town with the goal of net zero carbon emissions. It might mean the creation of new zoning ordinances to make it more conducive to build community solar arrays.
2. It will mean more community-wide initiatives like Weatherize and Solarize Lyme.
3. It may lead to partnerships with area towns to aggregate electricity purchases in an attempt to both secure the most economical rate as well as guarantee its purchase from renewable sources of electricity.
4. It may mean seeking state and federal grants for renewable energy projects.
5. It will mean making sure that those residents who cannot afford to move to renewable energy technology are included in community projects that provide them with affordable access to those energies, i.e. community solar array.

Finally, we should recognize that this transition will not be easy or straightforward. The town and its residents should approach this transition thoughtfully and prudently. There may be times

when a "better" alternative is chosen over the "best" alternative given financial or logistical limitations. But the sooner we start, the farther along we will be.

The goals to achieve independence from fossil fuels in electricity by 2030 and in heating and transportation by 2050 are aspirational. But we cannot afford to wait any longer. There is too much at stake. Please vote in favor of Article 22 next Tuesday.