

Sustainable Marblehead offers a framework for becoming carbon free

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Climate Action Plan follows last year's Green House Gas Inventory

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A year ago, Sustainable Marblehead completed the town's first Green House Gas Inventory and now they have a framework to get to the next step, a carbon free Marblehead by 2040.

"It sounds pretty daunting, but it can be done," said John Livermore, of Sustainable Marblehead.

Livermore told town officials in January 2018 they were at a threshold and that choices regarding how town departments, businesses and residents operate had to be made in order to reduce carbon emissions and impact climate change.

He recently issued a similar warning and introduced a Climate Action Plan Framework on how to address the situation.

"We don't want to cross that tipping point," Livermore said. "That's our goal now."

A Climate Action Plan includes the Green House Gas report, which was done last year. Livermore said it offers a baseline against which future progress in reducing emissions could be measured.

It also includes GHG reduction targets, GHG reduction measures and implementation and monitoring. The plan should be ambitious, inclusive, fair, relevant, realistic and transparent and verifiable, which is to say setting goals that can actually be measured, verified and evaluated, Livermore explained in a presentation to the Board of Selectmen.

The Path

Such a plan would include a big effort on the part of the Marblehead Municipal Light Department (MMLD). It would have to eliminate carbon power, which is currently 50 percent of its portfolio, but “If we do this right, we can power all homes and businesses with carbon free electricity by 2040.”

Building energy efficient new homes and making older homes and buildings as energy efficient as possible would be a must as would transitioning vehicles from gas/diesel to electric, Livermore said.

According to Livermore, of the nearly 15,000 vehicles registered in Marblehead in 2016, only 77 were electric.

While daunting, the switch to a carbon free lifestyle can be done, Livermore assured.

“All this is possible. I know from personal experience,” he said.

Livermore owns two homes. He said he was able to zero out his family’s carbon footprint with a renovation of his Gloucester home and drastically reduced the carbon footprint of his Marblehead home.

“So I know it can be done,” he said.

Livermore also suggested, in his report, that the town could lead by example. While the town’s municipal functions only make up a small 2 percent piece of overall town-wide emissions, it could take the lead in dramatically reducing building and transportation emissions. A good example would be by making the new elementary school, which is in the final design phase, a “Zero Net Energy” building, he noted. That essentially means creating a building where the total amount of energy used on an annual basis is equal to the amount of renewable energy created on the site.

Baby Steps

The School Building Committee is working to make the new school a LEED, Leadership in Energy and Environmental Design, building. Renovations on Abbot Hall include the installation of a geothermal heating system, which uses and electric pump and the earth to heat and cool a building. And Town Administrator Jason Silva said the town has purchased, in partnership with MMLD its first electric vehicle, which will be used by the Inspection Department.

Why worry

Livermore said he feels stretching towards 100 percent carbon free footprint is not only an obligation, it's also the best economic route for the town.

According to Marblehead's Municipal Vulnerability Preparedness report, high wind events over the period of 2004-2013 caused up to \$1.1 million in damage. In 2019 alone, there were two microbursts that swept through Marblehead, bringing down dozens of trees and wires, in many cases on top of cars and homes.

Livermore's report states that significant climate changes are predicted to have a major impact on coastal communities like Marblehead over the next 50 years.

On the flip side of that, solar "brings real money into our community: 30 percent federal investment tax credit, state tax credits, accelerated depreciation," reads Livermore's report. It could also bring jobs when it comes to making homes energy efficient, he added.

"The real and significant cost is inaction," he said.

Next Steps

Livermore said working towards this goal isn't about saving the planet, it's more about "preserving it as an inhabitable place to live, a healthy and sustainable place for ourselves and future generation."

He also said he hopes the framework Sustainable Marblehead has provided the town will be helpful to the newly formed Green Marblehead Committee.

“And we’ll be here as a resource,” he added.