

100PercentCT

A Plan for 100% Renewable Energy in CT

Version 1.1

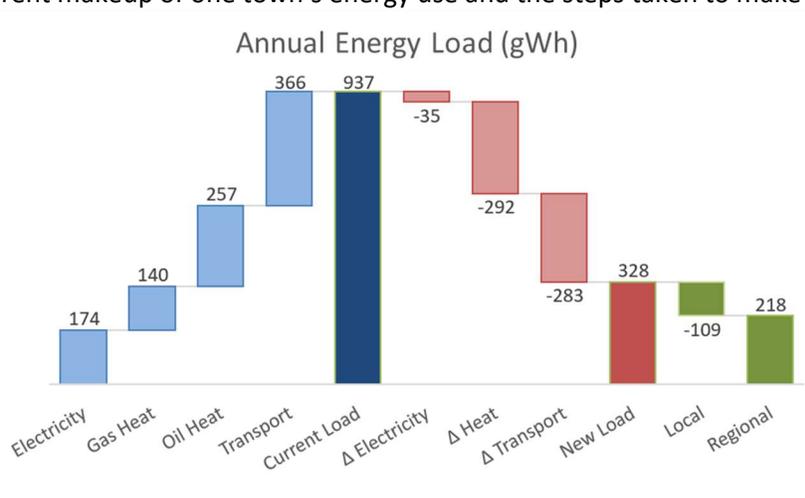
12 November 2016

Connecticut faces critical decisions regarding our energy future, including whether to fund a natural gas pipeline expansion and whether to extend the licenses of nuclear power plants. The PACE **100PercentCT** Project presents an alternative to fossil fuel and nuclear energy by facilitating the transition to a clean energy economy. The project develops local, viable plans that move individual towns—and the State of Connecticut—to 100% renewable energy. In its initial stages, the project has focused on plans for two Connecticut towns: Simsbury and West Hartford. We are already working with other towns to expand the project across the state. This project provides clean, carbon free energy and makes our towns both sustainable and resilient.

Our 100% renewable energy plan goes beyond generating, procuring or offsetting energy needs with renewables. It represents a holistic, comprehensive approach to managing the supply and demand for energy, including:

- deep efficiency and conservation,
- generation of renewable energy,
- energy storage,
- electrification of transportation, heating, and cooling,
- active load management (i.e., “demand response”),
- a modern community microgrid and
- a new utility rate structure and business model.

Figure 1 Illustrates the current makeup of one town’s energy use and the steps taken to make it renewable:



The blue bars on the left side of this chart represent the current annual energy usage of a town from electricity, heating and transport (in common units, here gigawatt-hours). The red bars show the potential reduction in energy usage from conservation and switching to electric heating, cooling and vehicles. Finally, the green bars represent the amount of renewable energy needed to meet the resulting reduced energy load, from local and regional sources.

100PercentCT is developing a standardized, replicable plan for individual towns in Connecticut to assess their energy usage and renewable energy potential. Together, these individual town plans will create grassroots movement, showing the way forward to an economy free of fossil fuel or nuclear energy.

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The individual town plans seek to answer the following key questions:

- How much energy do we currently use, including electricity, heating, cooling and transportation?
- How much could we reduce this energy usage through conservation, efficiency and electrification of all heating, cooling (i.e., heat pumps) and transportation (i.e., electric vehicles)?
- How much renewable energy could we produce in town?
- How do we re-think and redesign the electric grid using community microgrids to accommodate a higher level of distributed energy resources (DERs)?
- How do we constructively engage with the electric utility to develop new technical, business, and financial models?

Our project partners include:

- Acadia Center (www.acadiacenter.org) is assisting us with the technical analysis and policy implications;
- Clean Coalition (www.cleancoalition.org) is providing essential expertise on Community Microgrid;
- Clean Water Action (www.cleanwateraction.org) is helping to disseminate the project across the state and
- Yale School of Forestry and Management has assisted with the renewable siting analysis.

If you have a passion for sustainable energy and would like your town to be a part of 100PercentCT, contact:

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or

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About PACE

People's Action for Clean Energy (PACE) is an all-volunteer public health and environmental organization formed in 1973 by a group of concerned Connecticut citizens to:

- promote the development of clean energy;
- encourage energy efficiency and conservation and
- challenge Connecticut's commitment to nuclear power.

Over many years, PACE has engaged in education, outreach and advocacy on clean energy issues. PACE is committed to developing a pathway to a 100% renewable future, free of fossil and nuclear fuels.

PACE is the largest all-volunteer organization in CT working on these issues, and is a non-profit 501(c)3 organization.

To learn more about PACE, and become a member to support this project, go to www.pace-cleanenergy.org.