

TO: Comprehensive Long-Range Plan Committee

FROM: The Comprehensive Sustainable Energy Committee: Bradley Hubbard-Nelson (Chair), Bill Lehr (Clerk), Alan Whitney, Gilda Gussin, Janet Miller, Douglas Sharpe, Sam Lines, Julie Kleyn

DATE: October 10, 2017

This letter provides comments to the CLRP Committee from Concord's Comprehensive Sustainable Energy Committee (CSEC) for its *Envision Concord* plan.

The Comprehensive Long-Range Plan (CLRP) Committee is soliciting comments for its *Envision Concord – Bridge to 2030* report, Concord's 2018 Long Range Plan. The plan will identify guiding principles and make specific actionable recommendations for how best to achieve the goals of the plan. To help guide commenters, the CLRP Committee provided a SWOT analysis that was prepared following the American Planning Association guidelines. Threaded throughout this analysis and the principles included therein is a strong commitment to a *Livable Built Environment* and *Harmony with Nature*.

To a large extent, these principles echo the mission statement of the Comprehensive Sustainable Energy Committee's (CSEC) mission statement which is to "assist the Town in identifying, designing, and implementing programs for fostering energy conservation, energy efficiency, and renewable energy generation in the Town and in all segments of the community." The membership of CSEC strongly endorse the efforts of the CLRP to embrace these goals as core guiding principles for Concord's long-range planning efforts. CSEC's intention and hope is to support the Town's efforts to promote greater energy efficiency by municipal, commercial, and especially, residential users in Concord. The success of these efforts should move Concord toward a lower carbon footprint future, as the Town's citizens supported by an overwhelming vote for Article 51 at the 2017 Town Meeting, committing to 80% reduction of greenhouse gases (GHG) by the year 2050.

The Town of Concord should be a leader in regional and national efforts to aggressively address energy conservation and green development planning, leading by example. It is especially important that the Town address the challenge of its built environment to ensure that residential, commercial and municipal buildings are as energy efficient and low-carbon footprint as possible, and take advantage of opportunities to make use of renewable energy resources such as solar, wind, and geothermal wherever possible.

Because Concord owns its own municipal electric utility, we have a unique opportunity and added responsibility to pursue energy efficiency and green development goals more aggressively and with more innovative planning than many of our neighbors that are dependent on investor-owned utilities for electricity. This is an opportunity that should be reflected in Concord's long-range planning efforts. In addition to promoting renewable energy supply deployments by Concord citizens and commercial establishments, the Town should promote utility-scale renewable energy supply and complementary utility-scale storage solutions. Creative tax

policies, stronger building codes, and innovative incentive-based utility pricing can all contribute to promoting greater investment in sustainable energy solutions.

As pointed out in the SWOT analysis, the Town of Concord also needs to address transportation issues to reduce our dependence on automobiles and reduce carbon emissions from internal combustion engines, which now account for 28% of household CO₂ emissions in the USA. Reducing this will be a vital reduction towards the Article 51 Goal. Much more needs to be done to incentivize the adoptions of more efficient vehicles, to improve infrastructure for electric cars and bicycles, and to provide local public transportation opportunities such as might be provided by Cross-Town Connect.

We are concerned with our perception that new buildings are being built to a code-minimum standard (the Stretch code) which is not sufficiently energy efficient to meet the requirements of Article 51 (80% emissions reduction by 2050). We understand that this is a complicated issue, though recognize that other communities are pursuing net-zero goals which may be a good model for Concord. The key consideration is that the planning committee needs to be accountable with the towns decision to reduce emissions through Article 51, and recommend that a process be developed by the Planning Board in conjunction with the Sustainability Director.

The CLRPC letter expressly requested that each Committee consider the following three questions, included below with our answers immediately following:

1. What are the pressing issues for your board/commission

CSEC is the single voluntary committee in Concord with energy efficiency as its central focus and CSEC stands ready to work with the new Sustainability Manager for the Town and other Town boards and committees, including the CLRP Committee to promote green energy efficiency in the Town. As noted above, CSEC's mission is to promote a more efficient and greener energy future for Concord. The SWOT analysis highlights that the CLRPC already includes a commitment to green energy development principles. CSEC agrees that these should be a priority in all aspects of Town planning. For every major development project (new schools, transport planning, CMLP planning, commercial zone planning, building codes, municipal renovations, etc.), a key question should be how to ensure the project or plan is as green and energy efficient as possible.

2. Where are the tensions in your work? Conflicts?

The efforts of CSEC to promote energy improvement projects in the Town, including rebate programs to incentivize greater efficiency are limited by budget constraints. In past years, CSEC benefited from the Sawyer Trust funding, but those funds are nearly expended. If the Town is to do what needs to be done, additional sustainability funding sources will be needed. Building a greener future for Concord will require resources and that means continuing budget allocations to finance energy efficiency projects.

In many cases there will be conflicting needs, for example between making a project cost-effective and net-zero energy, a goal which our committee views as consistent with Article 51.

An example taking place in the near future is Junction Village, a facility that is constrained by cost to be affordable, and the preliminary design of which has been stated to be "as energy efficient as possible". In that case, the definition of what was "possible" was to fit within a budget; it would in fact be possible to build such a facility to be net-zero energy, saving residents money in the long term. One possible suggestion we might make is that when cost-benefit calculations are done for such projects, an appropriate "social cost of carbon" (in some estimates \$50/Ton) should be included over the life of the project, as someone does pay that cost even if it is not us.

Another potential conflict or tension is between the use of undeveloped space for renewable energy production vs other purposes. In 2010 (?) the Town adopted a goal of installing up to 25 MW of Solar PV capacity, which is only partly realized. An example here is 2229 Main St (former Nuclear Metals site) once remediated, which may present an excellent opportunity for a sizable solar array. The SWOT document mentions this site for different purposes – a new town center, housing development and conservation land, but not energy production. Developing this as a renewable energy site coupled with storage would have likely benefits of reasonable cost and enhancing our energy security in the long term. It may be claimed that letting such a site return to nature, as conservation land, would sequester significant amounts of carbon in the soil as trees grow; in fact a standard analysis shows that the value in CO2 emission reduction would be 10 to 20 times higher with a large solar PV array. We recognize that there are other benefits to preserving open space, and the comparable value should be decided on a case by case basis, keeping the Article 51 goals in mind.

3. Is there a particular project, program or goal that your board is proud to have accomplished in the past year or so?

Last February 2017, CSEC was proud to take the lead in organizing the Cooler Concord Fair that helped educate citizens on practical steps they can take toward greener energy efficient living. This event provided an opportunity to launch a range of rebate programs with support from the Town and CMLP, and helped provide the initial content with which to launch the CSEC-sponsored Cooler Concord website (<http://coolerconcord.org/>) to provide an ongoing resource for the Town and community to learn and share information about ways to promote greener, more efficient energy living in Concord, and by so doing, help us collectively reduce our carbon footprint.

Reviewed and submitted with committee approval, October 10, 2017



Bradley Hubbard-Nelson, CSEC Chair