The tracked portions in this document show changes made to the document since June 23, 2016 and that the Energy Committee requests be reinstated or corrected.

5.10 Energy (Tomorrow)

The Town Plan seeks to guide local policy as it relates to energy demand and potential generation. Charlotte seeks to minimize energy use and greenhouse gas emissions within the Town while ensuring a secure energy future through conservation, improvements in efficiency and an increase in renewable energy use and production.

Key Planning Considerations:

1. The State of Vermont has promulgated a Comprehensive Energy Plan (CEP) that has set a statewide goal to reduce total energy consumption per capita by 15% by 2025, and virtually eliminate reliance on fossil fuels by 2050 by meeting 90% of the state's energy needs from renewable sources. This same plan has a goal of substantially improving the energy fitness of 25% of the state's housing stock by 2020.

2. Climate change and more frequent intense weather events have increased our focus on the link between energy planning and a secure future.

3. The average cost of energy inputs continues to rise with price fluctuations that are often volatile. Energy efficiency and conservation efforts such as improved insulation and weatherization of new and existing structures often have a dramatic impact on reducing fuel consumption and household bills.

4. There is a growing awareness of the complementary relationship between energy independence and a strong economy. Energy efficiency investments in Vermont continue to provide significant positive net impacts to the state's economy and the renewable energy sector continues to grow.

5. Siting renewable energy projects requires a careful balance between the local and regional public benefit of local generation, the appropriate use of land and the impacts on individuals and communities directly impacted by siting. Early communications and outreach can help to achieve an appropriate balance for new renewable energy projects.

6. According to the CEP, transportation fuel accounts for the largest portion (33.7%) of Vermont's total energy consumption and almost half (47%) of the state's greenhouse gas emissions.

Energy Policies

1. Energy planning will be incorporated into all planning efforts, most notably those related to healthy communities, sustainability, transportation and land use.

Rebecca Foster 9/23/16 9:30 PM
Comment: Why take "fossil fuel" out? Was approved at 6/23/16 mtg

Rebecca Foster 9/23/16 7:33 PM
Deleted: fossil fuel

Rebecca Foster 9/23/16 9:22 PM
Comment: From 8.1 (page 135) of current CEP: "Transportation fuels account for the largest portion of Vermont's total energy consumption, and they include more fossil fuels than any other energy source. Gasoline and diesel account for more than 35% of all energy consumed, across all sectors. Petroleum combustion in the transportation sector is also the *state's largest contributor* — at 47% — to GHG emissions.

Rebecca Foster 9/23/16 7:36 PM
Deleted: 35

Rebecca Foster 9/28/16 12:50 PM
Comment: Why take 7 and 8 out? Approved at 6/23/16 mtg

Rebecca Foster 9/28/16 2:04 PM
Deleted: 7. Residential average electric (kWh) usage in Charlotte is 24% higher than the state average,[1] indicating opportunities for energy conservation and home weatherization measures.

2. The Town, through its Energy Committee, will educate citizens (including other volunteer Boards and Committees) regarding energy related matters. This will include information on emerging technologies and policy discussions.

3. In keeping with the state energy plan, the Town will seek to minimize energy use in private, public and commercial buildings and work toward 'zero net energy' use[2] in all sectors by 2050.

4. The Town will support the siting of appropriately scaled renewable energy resources in Charlotte that avoid or minimize impacts to Areas of High Public Value. To this end, the Town will seek opportunities for early involvement in the planning / permitting process and will encourage outreach to and among neighbors. The Town will actively encourage and support the development of renewable energy that complements the working landscape and avoids dramatic impacts to the view sheds of the neighboring properties. Developers should practice a "good neighbor policy." *The siting of projects should be done in such a manner that the project* creates no greater burden on neighboring property owners or public infrastructure than it does on the property on which it is sited.

5. The Town will support efforts to reduce the use of greenhouse gas emitting transportation fuels and create opportunities for the increased use of high occupancy vehicles.

6. The town will support state legislation and regulations aimed at improving energy efficiency in buildings.

Energy Strategies

Renewable Energy

1. The Town Selectboard and Planning Commission will assess impacts to Areas of High Public Value from proposed energy projects and will participate in PSB proceedings if warranted.

2. The Town will review new projects using Site Plan Review Standards as identified in the Charlotte Land Use Regulations.

3. The Planning Commission and the Energy Committee will analyze town-owned lands for potential renewable energy generation projects. This analysis will include factors related to environmental constraints and aesthetic concerns as well as resource potential.

4. Charlotte will strive to generate 10% of its total electrical energy needs through locally-produced renewable energy sources in Charlotte by 2020.

5. Sites planned for or intended to accommodate planned energy facility development, including the location of existing and planned commercial and net-metered generation facilities and utility corridors, are to be shown on site development and subdivision plans reviewed by the town.

Rebecca Foster 9/28/16 5:09 PM
Comment: EV's email clearly states that this figure is 45%

Rebecca Foster 9/28/16 5:09 PM
Comment: Must be usage not needs; "usage" was approved at 6/23/16 PC mtg

Rebecca Foster 9/23/16 7:45 PM
Deleted: usage

Rebecca Foster 9/23/16 7:45 PM
Deleted: (16,000,000 kWh[3])

Rebecca Foster 9/23/16 9:24 PM
Comment: Should read: "24,000,000 projected kWh usage through"

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[2] A building that uses only as much energy as it produces through on-site renewable energy in a single year. Source: Efficiency Vermont.

6. Charlotte will support increased use of renewable energy by encouraging greater use of renewables among municipal buildings and by supporting local production of biofuels, small-scale wind, solar, and other renewable electric generation by local residents and businesses.

Energy Efficiency in Structures

8. *The Planning Commission will stress the importance of energy efficient design in the context* of Subdivision and Site Plan design. Where applicable, the Zoning Board of Adjustment will do the same.

11. The Planning Commission will update the Outdoor Lighting Section of the Land Use Regulations to include specific energy efficiency standards for outdoor lighting.

12. The Town will support the Energy Committee's efforts to encourage greater energy efficiency among existing residences and businesses and the use of energy audits and building performance certification where appropriate, so that at least 25% of existing homes and 50% of new homes shall meet the minimum energy star requirements and 25% of existing businesses and 50% of new businesses meet the minimum requirements for the Efficiency Vermont Building Performance program by 2020.

Transportation

13. The Town will work with the Chittenden County Regional Planning Organization, the Chittenden County Transportation Authority and the Vermont Agency of Transportation in exploring opportunities for ridesharing, park-n-ride facilities, bus stops, bike and pedestrian amenities, and other measures to reduce energy consumption and greenhouse gas emissions in transportation.

14. The Energy Committee will work with the elementary school to improve bus ridership and carpooling percentages and analyze the potential for use of biofuels or other means to reduce the environmental impact of school transportation.

15. The Town will support the implementation of bike lanes to accommodate bicycle commuters, where feasible.

Incentives and Partnerships

16. The Energy Committee will review and where appropriate recommend the implementation of financial incentives such as a modified permit fee structure to encourage residents and businesses to undertake more weatherization renovations and energy efficient building.

17. The Town will support local organizations in their efforts to implement efforts to meet the Town's energy efficiency, conservation, sustainability and production goals.