City of Essex Junction
Planning Commission
Meeting Agenda

THURSDAY, JULY 2, 2026 • 6:30 PM
Online & 2 Lincoln Street, Essex Junction, VT 05452

www.essexjunction.org • P: 802-878-6944 x 1607
E: cyuen@essexjunction.org

This meeting will be in-person and available remotely. Options to watch or join the meeting remotely:
JOIN ONLINE: Click here to join the meeting; or visit essexjunction.org for meeting connection information
JOIN CALLING: (toll free audio only) 888-788-0099 | Meeting ID: 953 1240 7791; Passcode: 040339

1.	**CALL TO ORDER**		**[6:30 PM]**
2.	**AGENDA ADDITIONS/CHANGES**		
3.	**PUBLIC TO BE HEARD**		
	a.	Comments from Public	
4.	**MINUTES**		
	a.	June 4, 2026	
5.	**BUSINESS ITEMS**		
	a.	Committee Reorganization	[6:35 PM]
	b.	Introduction to Economic Mobility & Opportunity Initiative*	[6:40 PM]
	c.	Comprehensive Plan Update - Draft Sections (Natural Environmental Resources, Energy, Enhanced Energy Plan)*	[6:50 PM]
	d.	2026 Land Development Code (LDC) Amendments – Updated Draft*	[8:20 PM]
	e.	Reschedule August Meeting	[8:30 PM]
6.	**MEMBER UPDATES**		
7.	**STAFF UPDATES**		
8.	**ADJOURNMENT**		

*attachments included in the packet

Agenda item timestamps are estimates of the starting time of each topic and are subject to change.

This agenda is available in alternative formats upon request. Meetings of the Planning Commission, like all programs and activities of the City of Essex Junction, are accessible to people with disabilities. For information on accessibility or this agenda, call the City Manager's office at 802-878-6944 TTY: 7-1-1 or (800) 253-0191.

CITY OF ESSEX JUNCTION
PLANNING COMMISSION REGULAR MEETING
MINUTES OF MEETING
JUNE 4, 2026
DRAFT

PLANNING COMMISSIONERS PRESENT: Elijah Massey, Chair; Finn Hamilton (non-voting) Elena Juodisius, Scott McCormick; Kirstie Paschall
PLANNING COMMISSIONERS ABSENT: None
ADMINISTRATION: Chris Yuen, Community Development Director;
OTHERS PRESENT: Darren Schibler

1. CALL TO ORDER

Mr. Massey called the meeting to order at 6:30 PM.

2. AGENDA ADDITIONS/CHANGES

None.

3. PUBLIC TO BE HEARD

a. Comments from Public on Items Not on Agenda
None.

4. MINUTES

a. May 7th, 2026
SCOTT MCCORMICK made a motion, seconded by ELENA JUODISIUS, to approve the minutes of May 7th, 20206, as presented. Motion passed 4-0.

5. BUSINESS ITEMS

a. Discussion of the 2027 Comprehensive Plan Update
Mr. Schibler, of the Chittenden County Regional Planning Commission (CCRPC), presented an overview of the CCRPC's recent work on the Comprehensive Plan and outstanding topics to be addressed. Public engagement is still in process, but significant work has been completed. A focus group relating to housing was held on April 21st, 2026. Key themes from the focus group included support for housing development opportunities, improving rental housing quality, enhancing the village feel, affordability and diversity of housing types, and the importance of integrating green spaces in housing developments. The energy & climate focus group, consisting mostly of residents with professional experience, discussed the balance between regulatory and incentive approaches for implementing energy codes. Also discussed was the need for more oversight of large building construction and better enforcement and education regarding energy codes. The creation of a revolving loan fund for energy upgrades in rental properties was discussed with Mr. McCormick suggesting that local options tax revenue could be utilized to fund this. The discussion also touched on the City's role as a potential connector and educator between state incentives and community members, and the potential for multi-municipality collaboration on loan funds.

Mr. Schibler discussed business outreach efforts, noting that there is support from business owners of the City's efforts. He discussed the themes around balancing walkability and parking needs, business visibility challenges related to signage, support for the police department, an interest in better City

communication and a desire for business owner collaboration groups. Mr. Schibler said some businesses on Pearl Street feel they cannot expand due to space or zoning concerns. He said a business owner focus group will occur at Boxcar Bakery on June 15th, 2026, at 3:30 PM. Ms. Mahoney, City Manager, will be present at this focus group. Mr. Schibler will be meeting with Jeetan Khadka, of PeopleFirst Workfoce Solutions to discuss the City's role in assisting minority businesses owners.

Mr. Schibler introduced future land use mapping, explaining its purpose in promoting community health, safety, and welfare while supporting plan implementation through zoning regulations and compatibility with state and regional planning, particularly regarding Tier 1A and 1B designations. He outlined several approaches for creating future land use maps, including grouping existing areas together, starting with the regional plan, or developing a new neighborhood-by-neighborhood approach. The discussion also touched on maintaining, transforming, or evolving specific areas. Mr. Massey expressed preference for grouping existing areas together rather than a neighborhood-by-neighborhood approach. Mr. Hamilton expressed a desire to make maps more user-friendly by potentially displaying them publicly with interactive elements like sticky notes for community feedback. Answering a question from Mr. Massey, Mr. Yuen said changing the future land use map does not necessarily impact the zoning map, so long as existing areas are grouped together. It would simply create broader categories that could still allow for adjustments within those groupings. Mr. McCormick said a bottom-up approach that would allow for flexibility and community input on potential changes. He also identified several areas, such as CVE, which could be identified for future housing development. Ms. Paschall encouraged regular check-ins during the process.

Mr. Schibler reviewed zoning plans from Essex Town, Winooski and Williston with particular attention to how to handle transitions between different zones and maintain consistency at community boundaries. Mr. Yuen said transit mapping can be helpful for building cities around public transport. Mr. Schibler described Winooski as having "use-agnostic zoning" where a larger number of uses are allowed in specific areas. Unlike Winooski, Mr. Yuen said parts of Essex Junction lacks walkable commercial areas, especially in residential neighborhoods. The PC discussed challenges and opportunities related to land use categories, particularly around integrating small-scale commercial and retail development with residential neighborhoods. Walkability and maintaining the family-friendly nature of residential neighborhoods was discussed. Mr. Schibler will identify specific areas, such as the Residential 1 and 2 districts, which could be consolidated.

All agreed to name future land use categories such that the Village Center area can be renamed as the City Center or downtown area in the future for consistent nomenclature. Mr. Yuen discussed how to map agricultural zones, with the PC deciding to separate existing residential developments from agricultural land. Mr. Schibler discussed mapping and categorization approaches for future land use planning, focusing on how to, and if it is necessary to, differentiate between parks, conserved land, open spaces, and residential areas. The PC decided to consider combining multi-family residential areas with regular residential zones since the distinction may diminish over time. Mr. McCormick said that floodplain designations should be included in mapping. Mr. Schibler suggested creating an interactive map viewer to help visualize the proposed zoning categories. He displayed the South Burlington Future Land Use Map and the Westford Future Zoning Transects & Designation Map for comparison purposes. Mr. Schibler discussed the plan for reviewing and consolidating zoning districts, starting with existing purpose statements and language.

The PC will discuss several chapters for the Comprehensive Plan at each monthly meeting, with the goal of finalizing the plan by the end of the year. The adoption deadline by the City Council is August 11, 2027. Prior to approval by the City Council, the CCRPC must also approve the document.

b. Discussion and consideration of Land Development Code amendments, including Form-Based Code Proposal

Mr. Yuen provided an update on the LDC draft, noting that it remains a living document with ongoing revisions expected within the next month ahead of the July PC meeting. At this time, the PC could request additional changes or consider warning a public hearing. The draft includes a new exemption for design review if pre-approved 802 Homes templates are used. Mr. Yuen requested all PC members send feedback on the draft. Mr. McCormick encouraged less technical jargon to be included in the document to make it more accessible. Ms. Juodisius brought up regulations around mobile tiny homes used as accessory dwelling units, with Mr. Yuen agreeing to review existing regulations to ensure they allow for appropriate sewer hookups and compliance with zoning requirements.

6. MEMBERS UPDATES

Mr. Massey discussed a recent housing workshop. Mr. Yuen discussed an infill housing workshop on June 22nd in South Burlington. The City received the Notable Project Award for the Connect the Junction Plan at the 2026 Vermont Walk/Bike Summit.

7. STAFF UPDATES

Mr. Yuen said the Vermont League of Cities and Towns Spring Planning and Zoning Forum will be held on June 10th.

8. ADJOURNMENT

SCOTT MCCORMICK made a motion, seconded by ELENA JUOSIDIUS, to adjourn. Motion passed 4-0. Meeting adjourned 8:35 PM.

Respectfully submitted,
Darby Mayville

An Introduction to the EMO Initiative

ECONOMIC MOBILITY & OPPORTUNITY

BACKGROUND

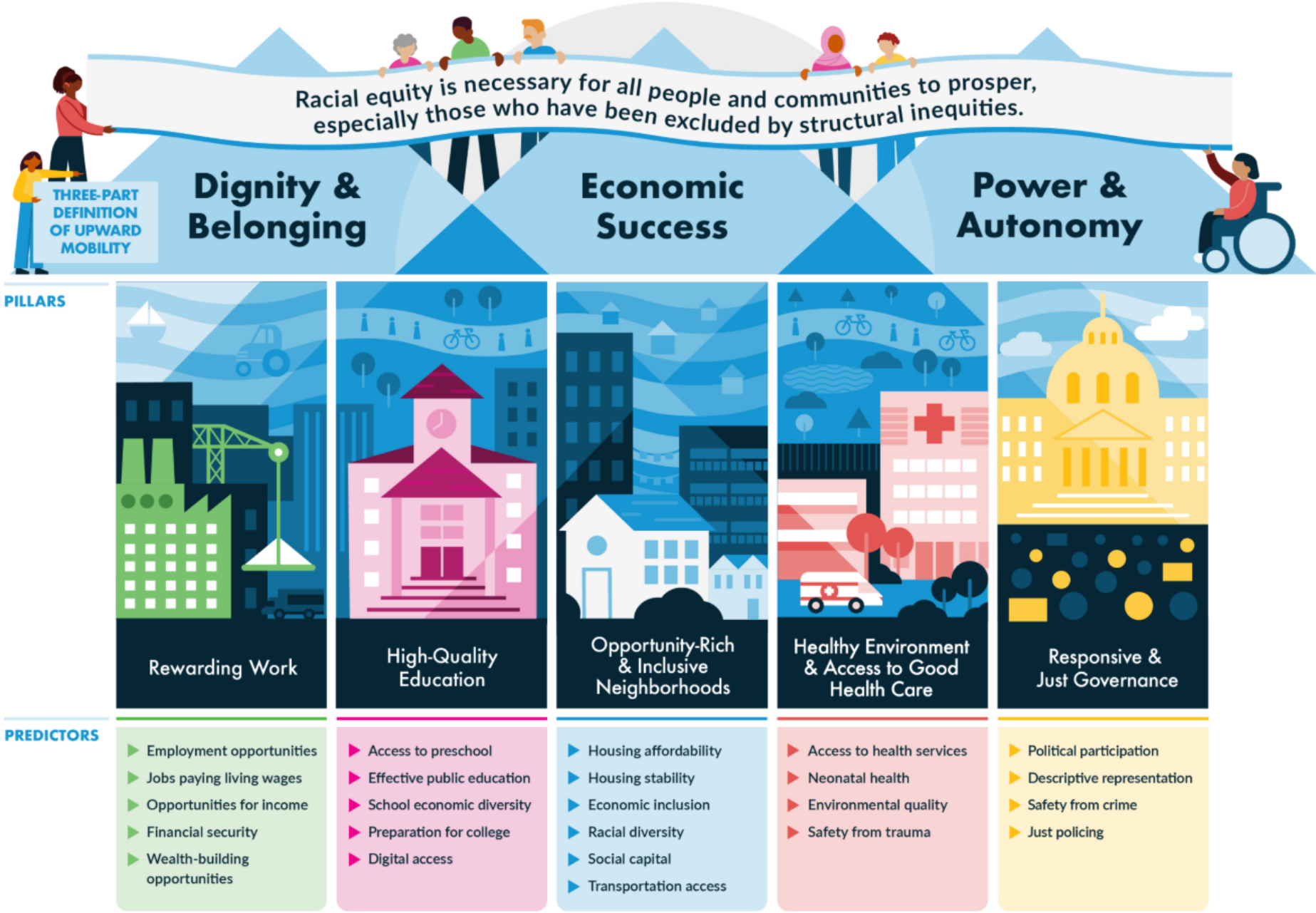
A brief overview of the framework used for this work, our Vision, and Program Goals.

ICMA ECONOMIC MOBILITY AND OPPORTUNITY PROGRAM

The EMO Initiative is national and sponsored by the International City Managers Association.

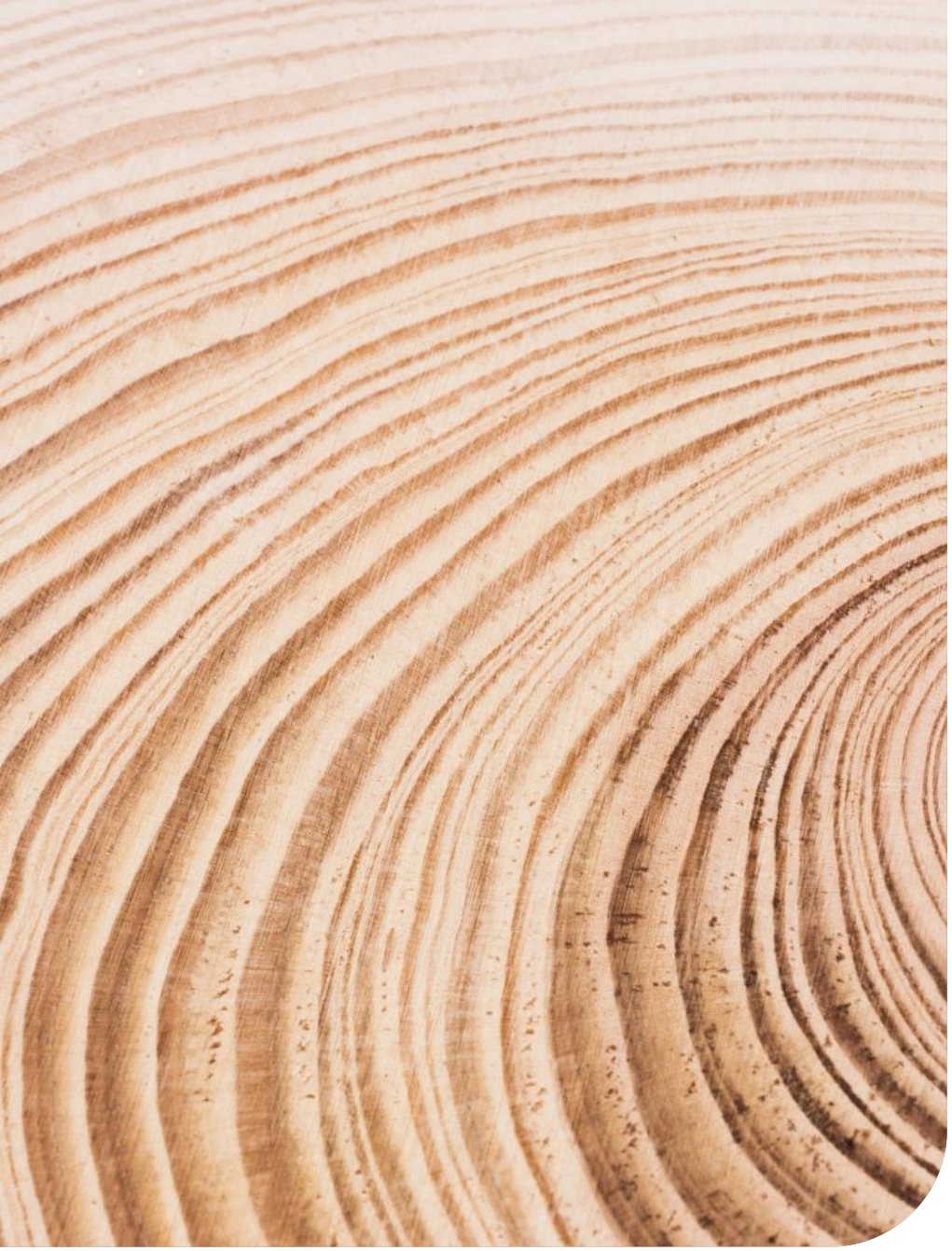
Participating municipalities are: Winooski, Shelburne, South Burlington, Essex Junction

We will be working across departments and external partners to identify strategic priorities and develop a tailored implementation plan informed by a community-engaged co-design process.


Racial equity is necessary for all people and communities to prosper, especially those who have been excluded by structural inequities.
THREE-PART DEFINITION OF UPWARD MOBILITY
Dignity & Belonging
Economic Success
Power & Autonomy
PILLARS
Rewarding Work
High-Quality Education
Opportunity-Rich & Inclusive Neighborhoods
Healthy Environment & Access to Good Health Care
Responsive & Just Governance
PREDICTORS
Employment opportunities
Jobs paying living wages
Opportunities for income
Financial security
Wealth-building opportunities
Access to preschool
Effective public education
School economic diversity
Preparation for college
Digital access
Housing affordability
Housing stability
Economic inclusion
Racial diversity
Social capital
Transportation access
Access to health services
Neonatal health
Environmental quality
Safety from trauma
Political participation
Descriptive representation
Safety from crime
Just policing

Vision Statement

“We aim to be a region where everyone has access to civic participation, entrepreneurship, and attainable housing.”



PROGRAM GOALS

Entrepreneurship

- Expand access to business resources and capital, including traditional financing, microfinance, and innovative funding sources
- Create peer learning opportunities through networking and business education

Attainable Housing

- Improve awareness of and access to existing housing programs
- Explore and utilize policy tools such as inclusionary zoning and housing trust funds

Civic Participation

- Identify gaps in municipal service delivery
- Recruit and train new government volunteers
- Strengthen meaningful community engagement in local decision-making

- # Updates:

  First Business Meet and Greet Event planned for **August 25th at South Burlington Public Library 8:30-10:30am** in partnership with the Vermont Professionals of Color Network

  Also, we will be doing a Community Academy Program (8-10week training series) for emerging leaders with a multi-lingual access component, so please stay tuned!

Q & A

Thank you. Feel free to ask any questions.

TO: Essex Junction Planning Commission
FROM: Chris Yuen, Community Development Director
DATE: Darren Schibler, Senior Planner & Project Manager; Maya Balassa, Planner
RE: July 2, 2026 Meeting on Draft Sections (Natural Environmental Resources, Energy, Enhanced Energy Plan)

Project Scope of Work Review

To level-set where we are in this project, below is a summary of the contract tasks with the status of each:

Task	Description	Start	End	Status
1	Project Management	Jan-26	Apr-27	Ongoing
2	Review Existing Plans	Jan-26	Jan-26	Complete
3	Mapping and Analysis	Feb-26	Jun-26	In progress
4	Public Engagement	Feb-26	Oct-26	In progress
5	Policy Updates / Plan Drafting	Apr-26	Nov-26	Started in background
6	PC Work Sessions	May-26	Dec-26	Not yet started
7	Plan Adoption	Dec-26	Apr-27	Not yet started

Engagement Update

Since the June 4th Planning Commission meeting, CCRPC hosted a Business Owners Focus Group at Boxcar Bakery on June 15th, which was attended by 5 business owners. In addition, 7 businesses completed the online survey, and staff conducted 9 in-person interviews through door-to-door outreach. A summary of this outreach, including suggested actions for the City will be presented at a future PC meeting.

Chapter Review: Natural Environmental Resources, Energy, and Enhanced Energy Plan (Appendix D)

Edits to the Natural Environmental Resources chapter, Energy chapter and Enhanced Energy Plan appendix have been drafted for the Planning Commission to review. Questions for the Planning Commission have been added to the draft chapters and additional questions listed below for discussion.

Questions for the Planning Commission

- Are there important themes or concerns missing?
- Does anything feel inconsistent with the community's priorities?
- Are the action realistic and complete?
- What actions should be the highest priority?

CONTACT:
Darren Schibler (802) 540-2508
Senior Planner & Project Manager, CFM
dschibler@ccrpcvt.org

Maya Balassa
Planner

mbalassa@ccrpcvt.org
(802) 846-4490 ext.122

4.5. Natural Environmental Resources

The natural resources base within, and adjacent to a community, are important factors to consider for several reasons. First, they may limit, or direct the type of development which will occur. Second, they contribute to the quality of life within the community. Third, they provide opportunities to preserve important environmental areas. Finally, they provide important recreational opportunities for residents. The safe, attractive, and efficient utilization of land is largely dependent upon these important natural resources. These resources all contribute to the identity of the ~~Village~~ City as a desirable place to live and work. Residents value these resources as reflected in the ~~Heart and Soul values, particularly Health & Recreation and Thoughtful Growth~~Environmental Stewardship pillar of the 2024 Community Vision and Strategic Action Plan. Map 1 and Map 11 identify several important natural resources within the Village, briefly described below. Protection of these resources are listed here and in several other sections throughout the Plan.

Watersheds and Rivers

~~It is useful to start a natural resources discussion with watersheds, as a~~An integrated watershed approach to the protection of land and water resources is key to ensuring fresh, clean water, habitats, and healthy natural resources. There are two basin~~-~~level watersheds in Essex Junction: ~~-~~the Winooski River and direct ~~discharges~~ drainages to Lake Champlain ~~(Indian Brook discharges in Mallets Bay)~~. In addition to the Winooski River itself, which serves as the southern boundary of the City, ~~T~~the two waterways passing through the ~~Village~~City~~, Indian Brook and Sunderland Brook,~~ feed these larger basins – Indian Brook drains into Malletts Bay of Lake Champlain, and Sunderland Brook drains into the Winooski. These rivers serve as habitat for fish and wildlife, as natural flood control features, and as an attractive scenic feature.

The Resiliency and Utility sections of this plan describes the City's programs for e~~E~~rosion control and stormwater management ~~are important measures~~ to restore and protect these resources. ~~The Resiliency and Utility sections of this plan describes the measures that the Village is taking on this front~~. In addition, the Vermont Department of Environmental Conservation's ~~Winooski's River and Northern Lake Champlain Direct~~ Tactical Basin Plans for the Winooski River and Northern Lake Champlain provide more detailed information on the health of these watersheds as well as strategies to protect high quality water and to improve degraded water resources. The discussion on floodplains and river corridors in the Resiliency Section of this plan contains further details on the mechanisms to protect river systems and property/infrastructure from flooding and erosion.

Wetlands

The dDevelopment on or near wetlands is strictly regulated. Wetlands provide a natural habitat for animals and preserve natural areas (described in more detail in the following section). They also serve important ecological functions including flood attenuation, storm water runoff purification, and ground-water recharge. The wetland areas identified by the Vermont Significant Wetlands Inventory are indicated on Map 1. It should be noted that there may be additional wetlands that are not currently mapped and may be subject to regulation by the Vermont Wetland Rules.

Wildlife Habitat, /Connectivity & Forest Integrity

Considering Essex Junction is a growth area, this plan calls for promotion of vegetative landscaping in new development projects and municipal improvement projects to manage storm-water, protect water quality and air quality, increase carbon sequestration, establish enhance urban place-making spaces and provide wildlife habitat. Secondarily, this plan calls for protection of forest blocks, wildlife connectivity resources and crossings/corridors, surface waters, riparian areas, and other significant habitats (e.g. wetlands) from development and fragmentation, especially along the undeveloped parts of the Winooski River and the Indian Brook. These resources are further described below in the context of the Agency of Natural Resource's Vermont Conservation Design (VCD) Project.

The Essex Junction landscape is mostly a developed urban core which, for wildlife, presents highly fragmented and isolated backyard, woodlot, wetland, and streamside environments marked by a strong human presence. This type of habitat is home to wildlife species that can live near roads, houses, industry, people, and their pets.

Much of the land that was forested has been developed within the Village. The State of Vermont abandoned its tree nursery operation on Old Colchester Road and has sold the property to the Village City and Town for recreational use. Other heavily forested areas are located on the Whitcomb Farm. Maintaining the forested areas on the Whitcomb Farm along the Winooski River is particularly critical for wildlife habitat and flood protection.

Vermont's Act 171 calls for the protection of "forest blocks" to maintain current biological diversity by and allowings for wildlife to move throughout their natural habitat, and to maintain connectivity so wildlife can migrate in the face of both natural and human disruptions. The Village City relies on the components (described below) of VCD ranked as project's "highest priority" and priority landscape, species, and community components to identify areas of important ecological function. Use of VCD will inform decision making regarding identification of locations most suitable for development and those on which to

Commented [DS3]: Point of discussion for the PC: Does the City want to include both "highest priority" and "priority" elements? The former is required for enhanced energy plans. "Priority" is optional, though you must explicitly state whether it is considered a constraint. Both are important ecologically, but the distinction provides a mechanism to balance conservation with other goals.

focus conservation efforts through regulation in the Land Development Code and in how the City manages its parks and open spaces. Considering some of these areas are in developed neighborhoods of the ~~Village~~City, the community will work to ascertain local choices for protecting the functional forest network identified in the VCD project to support species and to connect habitats. Areas of ecological significance, ~~mapped~~ shown on Map 1, include highest priority and priority components found at both the landscape and species/community scale. These areas are described below.

Commented [DS4]: Same as above

- **Landscape Scale Components** are identified at a larger scale than species specific habitats. Landscape scale components are areas of land that need to remain healthy and intact to provide plants, animals, and natural resources the best chance of survival over time. These landscape scale components consist of interior forest blocks, connectivity blocks, riparian ~~wildlife~~ connectivity areas, surface water and riparian areas, and ~~various physical landscapes~~geological diversity blocks. Because a fully functional landscape includes all components, all areas are amassed and given a ranked status being either priority or high priority. The ranking and location of the landscape components found in Essex Junction are mapped on Map 1 and the State's BioFinder.

Field Code Changed

- **Species and Community Scale** represents lands and waters highly important for maintaining individual species or groups of species that contribute to Vermont's biodiversity. Similar to landscape-scale priorities, the dataset was created by assigning a priority status to numerous components, then amassing these components so that a location appearing as "highest priority" on any component appears as "highest priority" on the map. Highest priority components in Essex Junction include: rare, threatened, or endangered species~~,~~; uncommon species; rare natural communities~~,~~; ~~wildlife,~~ wildlife road crossings~~;~~ ~~,~~ vernal pools; and class 2 wetlands. Priority components include uncommon species.

As Map 1 shows, there are a number of these habitat locations in the City – most, but not all, are associated with the Winooski River, Indian Brook, Sunderland Brook, and the tributaries that feed them. The intact floodplain forest in the Winooski Valley Park District's Woodside Natural Area is significant because this type of forest is uncommon in Vermont as most have been cleared for agriculture. Efforts to protect these habitats and species are critical to protecting and preserving Vermont's heritage and can include conservation, restoration, and management plans. In summary, significant wildlife habitat includes those natural features that contribute to the survival and/or reproduction of the native wildlife of Essex Junction.

Scenic Views

Although there are many outstanding view sheds within the ~~Village~~City, three areas have been particularly identified. First, in the northeasterly section of the ~~Village~~City, between Upper Main Street and the Countryside development, is the highest point within the Village. Spectacular views of Mount Mansfield and the Adirondack Mountains are visible from this location. Second, the river crossing on Park Street provides views of the Winooski River and serves as a scenic entrance to the ~~Village~~City. Third, along the westerly end of Pearl Street there are spectacular views of the Winooski River Valley.

Agricultural Areas

The Village is fortunate to have an active farm still in existence. The Whitcomb Farm is in the southwest sector of the ~~Village~~ City and has been actively farmed by the Whitcombs since 1879. The Vermont Land Trust, with funding assistance from the ~~Village~~City, purchased development rights on 414 acres of the Whitcomb Farm in March 2014. See the Agriculture section for more details.

Primary ~~A~~agricultural soil classifications are another important natural characteristic within the ~~Village~~City, particularly as they pertain to ~~prime ag soils~~development review. While the State of Vermont considers primary agricultural soils in its review of proposed developments under Act 250 and ~~/~~Section 248, ~~and~~ which may limit development potential on~~may be may limited,~~ or require mitigation of these soils, it is not the intent of Village to protect primary agricultural soils from development. Mitigation and protection of primary agricultural soils in the Village does not seem appropriate in an urban environment because commercial agriculture is not feasible on small parcels isolated from more intact agricultural areas. However, the Village is supportive of its community garden plots, gardening on private land, and existing agricultural activities at the Whitcomb Farm.

Commented [DS5]: Should this plan address regulation of livestock (i.e., chickens, ducks, etc.) within the City?

Sand & Gravel

Most of the City of Essex Junction rests on a deposit of delta river sand several hundred feet deep, which was formed about 12,500 years ago as glaciers drained into Lake Vermont (the precursor to Lake Champlain) and stratified sediment along the banks of rivers much larger even than the Winooski.[2] This made Essex Junction a very suitable place for development due to a generally low water table and high capacity for septic disposal before a municipal sewer system was established. Because all of the land potentially viable for mineral resource

[2] Champlain Valley Natural Heritage Partnership (2020). *Geology of the Champlain Valley.* https://champlainvalleynhp.org/wp-content/uploads/2020/09/Geology-Guide-2020.pdf

extraction is now developed, Tthere are no sand and gravel operations or resources mapped in the VillageCity.

Thrust Faults

As noted in the 2016 2024 Essex Town Plan, there are two thrust faults running southeast to northwest through the southwest quadrant of the Town, near Lost Nation Road and VT Route 2A. (and therefore, in the Village). These are described in the 2016 2024 Essex Town Plan as follows: " No record of movement along the faults exists, so seismic danger seems minimal. A deep layer of porous carbonate sits beneath the fault, allowing ready movement of water and facilitating the aquifer recharge process." Analysis of these areas should be considered in order to determine how properties along the thrust faults should be managed.

Landslide

The Vermont Geological Survey conducted an inventory of instability features that could result in a landslide. There were no mapped instability features in Essex Junction.

Air Quality

Outdoor air pollution in significant concentrations can raise aesthetic and nuisance issues such as impairment of scenic visibility and; unpleasant smoke or odors.; and More importantly, outdoor air pollution in the form of particulate matter and ozone can also pose human health problems, especially for more sensitive populations like children, asthma sufferers, and the elderly. As reported in the 2026 ECOS Regional Plan for Chittenden County: "While Chittenden County's air quality meets current National Ambient Air Quality Standards (NAAQS), we are it is close to the limits for ground-level ozone. (The non attainment level for ozone is .070 (ppm).; Ozone levels should not exceed this amount. In 2018, Chittenden County's level of zone was .06 (ppm). As of 2018, Chittenden County's particulate matter measured 5.8 micrograms per cubic meter; while the non-attainment level is 12.0 micrograms per cubic meter. Ozone levels in Chittenden County have continuously decreased for the last twenty years. The 2021 ozone level measured 0.057 ppm. [2.5 microgram particulate matter (PM2.5)] is well below the attainment level of 12.0 ppm. Chittenden County's level in 2021 measured 6.7 ppm.We are also subject to pollution from the mid-west that we cannot control. The county is also subject to pollution from other areas and regions beyond local jurisdiction. If the NAAQS are revised to be more stringent, – or if air pollutant levels increase – so that we and the county exceeds the NMQSNAAQS, additional and costly environmental regulations will apply to our region (Source: Chittenden County ECOS Plan and the Agency of Natural Resources).

Commented [DS6]: Add link to final plan once approved by the LURB

Climate Change

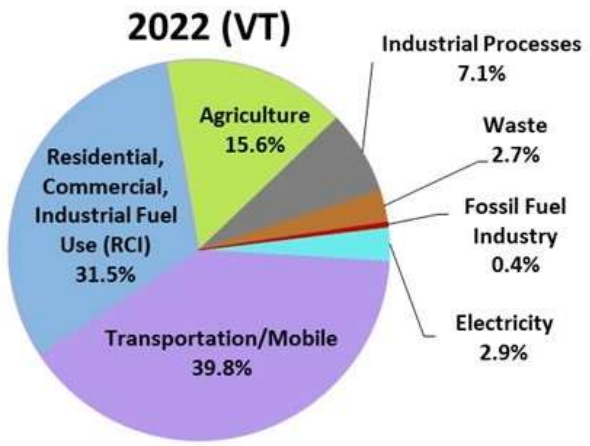
Temperature and precipitation records for the latter half of the 20th century show that Chittenden County's climate has changed: winters became warmer and summers became hotter. Lake Champlain freezes over later and less frequently, and the growing season lasts longer. While it is unknown exactly how future climate trends will specifically affect Chittenden County, precipitation throughout the northeast is projected to increase as much as 10 percent over the century. Climate model forecasts for the Northeast US predict that during this century temperatures will continue to increase, as will extreme heat days and heat waves. ~~Scientists overwhelmingly agree~~ As captured in the Global Warming Solutions Act (GSWA), there is consensus in Vermont that that changes in climate worldwide are a result of human activities, mainly the burning of fossil fuels. Current and predicted changes in climate will have broad implications for environmental quality, natural communities, public health, built environment, and local economy. The ~~regional~~ 1990-2022 Vermont gGreenhouse gGas eEmissions iInventory and Forecast determined that ~~1,193,000~~8.09 metric million tons of carbon dioxide equivalents ($MMTCO_2e$) were generated in ~~Chittenden County~~ the state in ~~2010~~2022. ~~This amount is approximately 16% of the state's 2011 greenhouse gas emissions.~~ The GSWA set goals to reducing greenhouse gas emissions to 26% of 2005 levels (7.26 $MMTCO_2e$) by 2025; 40% of 1990 levels (5.23 $MMTCO_2e$) by 2030, and 80% of 1990 levels (1.74 $MMTCO_2e$) by 2050. As shown in Figure X, there are two main sectors that generate most of these emissions: ~~T~~transportation accounts for ~~48%~~39.8 of ~~county~~ state's emissions,; and heating fuels account for ~~38%~~31.5%.

Formatted: Subscript

Formatted: Subscript

Figure 3. Vermont's Emissions by Sector in 2022

Formatted: Caption 1



Source: 1990-2022 Vermont Greenhouse Gas Emissions Inventory and Forecast.

Formatted: Font: Italic

As noted in the Vermont Climate Action Plan, cClimate change mitigation and adaptation measures are varied and include many strategies the Village City is already undertaking for other reasons. fFor example, the Village's City's efforts to increase sidewalks and bike paths will provide residents with an alternative mode of transportation that does not produce greenhouse gas emissions. The Chittenden County Regional Planning Commission's The Climate Action Plan identifies priority regional strategies and actions, and provides guidance on actions for interested municipalities, employers, and individuals. The Guide Plan includes actions for both reducing the ways we contribute to climate change (climate mitigation) and to adapt in ways that make us more resilient to a changing climate (climate adaptation).

Commented [DS7]: Still need to beef up this section using the Municipal Climate Planning Toolkit

Natural Environmental Resource Goals

Goal 1: Preserve the natural beauty indigenous to of Vermont within the Village City of Essex Junction.

Objective 1.1: Maintain regulations which encourage the preservation of trees in new development.

Objective 1.2: Implement a program of selective planting of trees on private property adjacent to existing road right-of-ways.

Objective 1.3: Promote and actively participate in an annual tree planting program.

Commented [DS8]: Consider moving to / consolidating with Agriculture and Community Forestry chapter

Objective 1.4: Consider protection of the outstanding view sheds identified in this Plan through amendments to the Land Development Code.

Goal 2: Continue protection of existing natural resources identified in this section.

Objective 2.1: Continue to enforce stormwater treatment standards in the Land Development Code to improve water quality in impaired waters and to minimize non-point source water pollution from new development.

Objective 2.2: Continue to require retention of vegetation or effective re-vegetation of areas vulnerable to erosion.

Objective 2.3: Continue to work with the Center for Technology Essex to develop a nursery to raise street trees for the Village and Town.

Objective 2.4: Continue incentivizing growth in the areas planned for growth, so that development pressures on natural resources and open spaces are lessened.

Objective 2.5: Ensure protection of the Village's significant wildlife habitat as identified by the Vermont Conservation Design's highest priority and priority landscape and species/community components identified on Map 1 by inventorying the resources, determining their current level of protection, and if necessary, define them and establish standards for protection of them in the Land Development Code.

Objective 2.6: Analyze the thrust faults to determine how properties in these areas should be managed for protection of aquifer recharge and minimizing undue property damage.

Commented [DS9]: While this is potentially important, is this actually a priority for the City? If not, I'd suggest deleting as a discrete action (the plan text still discusses the importance of thrust faults).

Goal 3: Reduce greenhouse gas emissions contributing to climate change and adapt to become more resilient to a changing climate.

Objective 3.1: Engage in climate mitigation strategies to reduce the region's contribution of greenhouse gases. For example, continue to implement policies that promote investment in transportation options that reduce emissions - such as sidewalks and bike lanes; and implement programs to increase urban forest canopy.

Objective 3.2: Engage in climate adaptation strategies to help individuals, businesses and communities be able to withstand and bounce back from - or even take advantage of- the impacts of climate change. For example, prepare and maintain plans for emergency operations, emergency response, business continuity and business recovery.

Commented [DS10]: Add more specific actions based on the Vermont Climate Action Plan and Municipal Climate Planning Guide.

4.1. Energy

To align this plan with the State of Vermont's Comprehensive Energy Plan and Climate Action Plan goals, the City of Essex Junction ~~the Village and the Town of Essex~~ developed an ~~joint~~ enhanced energy plan~~. The enhanced energy plan~~, found in Appendix D~~. , is the Essex Community's plan~~ This documents the City's goals and actions ~~for~~ to shift~~ing~~ away from fossil fuels to renewable sources of energy in the transportation and heating sectors, to increase energy efficiency in all sectors, and to site additional renewable energy generators within the community.

Commented [DS2]: Update to be EJ only

~~The Comprehensive Energy Plan aims to reduce total energy consumption per capita by 15% by 2025, and by more than 33% by 2050; to weatherize 25% of all homes by 2020; and to reduce greenhouse gas emissions from within the state to 50% of 1990 levels by 2028, and to 75% of those same levels by 2050. The challenges set forth in the Comprehensive Energy Plan are not easily met.~~

The State's energy and climate goals are:

- To obtain 90% of all energy across all sectors (transportation, heating and electricity) from renewable sources by 2050, with the interim goals of 25% renewable by 2025 and 45% renewable by 2035.
- In the transportation sector, 10% of energy needs will be from renewable energy by 2025, and 45% by 2040.
- In the thermal sector, 30% of energy needs from renewable energy by 2025, and 70% by 2042.
- In the electric sector, 100% of energy needs will be from carbon-free resources by 2032, with at least 75% from renewable energy.
- Reductions in greenhouse gas emissions: 26% reduction from 2005 levels by 2025; 40% reduction from 1990 levels by 2030, and 80% reduction from 1990 levels by 2050.

The energy plan describes how the ~~Essex Community~~ City intends to act to implement the state energy goals outlined above. Meeting these goals will require ambitious action to transform the way the ~~Essex Community~~ City uses, stores, and produces energy.

The following transformations are needed for the Essex Community as the most likely pathway to meet these goals by 2050, given current technologies:

- Establish enough renewable energy generation sites to generate ~~between 211,386 to 353,629~~ 65,992 MWh of electricity, which is 40,937 MWh more than the present.[1]
- Increase electric vehicles to ~~89%~~98% of passenger vehicles registered in ~~the Essex Community~~ Essex Junction.
- ~~Fuel 96% of heavy-duty vehicles with biodiesel or other renewable carbon free fuel sources.~~
- Weatherize ~~100%~~50% of homes and ~~38% of~~ commercial and industrial establishments.
- Heat ~~60%~~93% of homes with electric heat pumps and ~~14%~~3.4% of homes with wood.
- Reduce Heat 38% of businesses with electric heat pumps and 11% with wood.

4.2. Agriculture and Community Forestry

Agriculture is alive and strong in Essex Junction as evidenced by conservation of the Whitcomb Farm, a waitlist for community garden plots, restaurant participation in the Vermont Fresh Network, and Farm to School.

The Whitcomb Farm provides many valuable resources to the Village, including productive agricultural land. The Whitcomb Farm also promotes agriculture education, open space, recreation and wildlife habitat. The Whitcombs and the Village also benefit from the farm's utilization of treated biosolids from the Waste Water Treatment Plant as fertilizer. Additionally, a 2.2 MW solar project was installed on the Whitcomb Farm in 2014 which contributes to the Village's renewable energy generation target. See the Essex Community Energy Plan for more information regarding energy.

The Village Trustees provided the Whitcomb Farm with a three-year tax break in 2011, securing public recreation on the property and supporting the Whitcomb's efforts to conserve the land. In addition, the Village voted to use $20,000 of the land acquisition fund toward the Vermont Land Trust's purchase of development rights from the Whitcomb Farm. This resulted in 414 acres being protected from development and will keep it as a working farming in perpetuity.

[1] The renewable energy target is expressed in MWh because the target is intended to be technology neutral. The Essex Community's target takes into account both electricity used in the commercial, industrial, and residential sectors. The target is modeled based on population and electricity usage. The Essex Community makes up 43% of electricity used in Chittenden County; therefore, the community's target is among the highest in the County.

~~Approved by the Town of Essex June 17, 2019~~

Adopted by the Village of Essex Junction Trustees August 13, 2019

Readopted by the Essex Junction City Council August 11, 2027

Table of Contents

Purpose

This energy plan is a vision for ~~the Essex Community~~ Essex Junction to align its local land use and municipal policies to help advance the State of Vermont's Comprehensive Energy Plan ~~and to align energy planning with local land use policies~~. This plan is incorporated by reference in the ~~2019~~ 2026 Essex Junction Comprehensive Plan ~~and will be incorporated by reference in the next update of the Essex Town Plan. This plan~~ and was developed according to the Department of Public Service's energy planning standards for municipal plans. When this plan is given a determination of energy compliance from the Chittenden County Regional Planning Commission it will have substantial deference in the Public Utility Commission's (PUC) review of whether an energy project meets the orderly development criterion in the Section 248 process. The Energy Compliance section of this plan contains ~~The Section 248 process is not easily summarized.~~ further discussion of the Section 248 process and Municipal Enhanced Energy Planning in Vermont.

~~Introduction~~Statewide Context

Since releasing a *Comprehensive Energy Plan* (CEP) in 2011, Vermont has been working toward a goal of obtaining ~~90 percent~~most of its energy from renewable resources by 2050. Renewable energy, as defined by 24 V.S.A. §4303(24), "means energy available for collection or conversion from direct sunlight, wind, running water, organically derived fuels, including wood and agricultural sources, waste heat, and geothermal sources." The 2022 CEP sets the following statewide goals for renewable energy:

- To obtain 90% of all energy across all sectors (transportation, heating and electricity) from renewable sources by 2050, with the interim goals of 25% renewable by 2025 and 45% renewable by 2035.
  - In the electric sector, 100% of energy needs will be from carbon-free resources by 2032, with at least 75% from renewable energy.
  - In the thermal sector, 30% of energy needs from renewable energy by 2025, and 70% by 2042.
  - In the transportation sector, 10% of energy needs will be from renewable energy by 2025, and 45% by 2040.

The CEP goals are consistent with the goals set in 10 V.S.A. § 578 by the 2020 Global Warming Solutions Act:

- Reduce statewide greenhouse gas (GHG) emissions to 26% below 2005 levels by 2025;
- Reduce GHG emissions to 40% below 1990 levels by 2030;
- Reduce GHG emissions to 80% below 1990 levels by 2050.

~~As of 2017, Vermont only obtains 20% of its overall energy from renewable resources. The electricity sector is the most renewable at 43% source energy or 53% site energy[i]. The thermal sector is 20% renewable and the transportation sector is the least renewable sector at 5% renewable[ii]. As of October 2018, the Essex Community generates 27,799 MWh annually of renewable electricity, which is 3.4% of the electricity consumed in 2017.~~

The state's ~~2016~~ 2022 ~~*Comprehensive Energy Plan*~~ CEP makes many policy recommendations to move toward these goals ~~of 90 percent renewable~~. The recommendations aim to foster economic security and independence, safeguard environmental legacy, drive in-state innovation and job creation, and increase community involvement and investment as well as ensure equitable energy burden and access to renewable energy opportunities. The plan prioritizes

Commented [DS1]: No need to keep this here, but in case it's needed for later in the doc:

As of January 2022, Essex Junction generates 25,055 MWh annually of renewable electricity, which is 70.4% of the electricity consumed on average by residential customers between 2021-2023 and 58.6% of total electricity consumption.

[i] ~~Source energy includes all energy generated, transmitted, and consumed. Site energy is the energy directly consumed in buildings and vehicles.~~ Renewable Energy Credits are marketable property rights to renewable attributes of power generation that can be claimed by Vermont electric utilities to meet their requirements under the Renewable Energy Standard Law (30 V.S.A. Chapter 89).

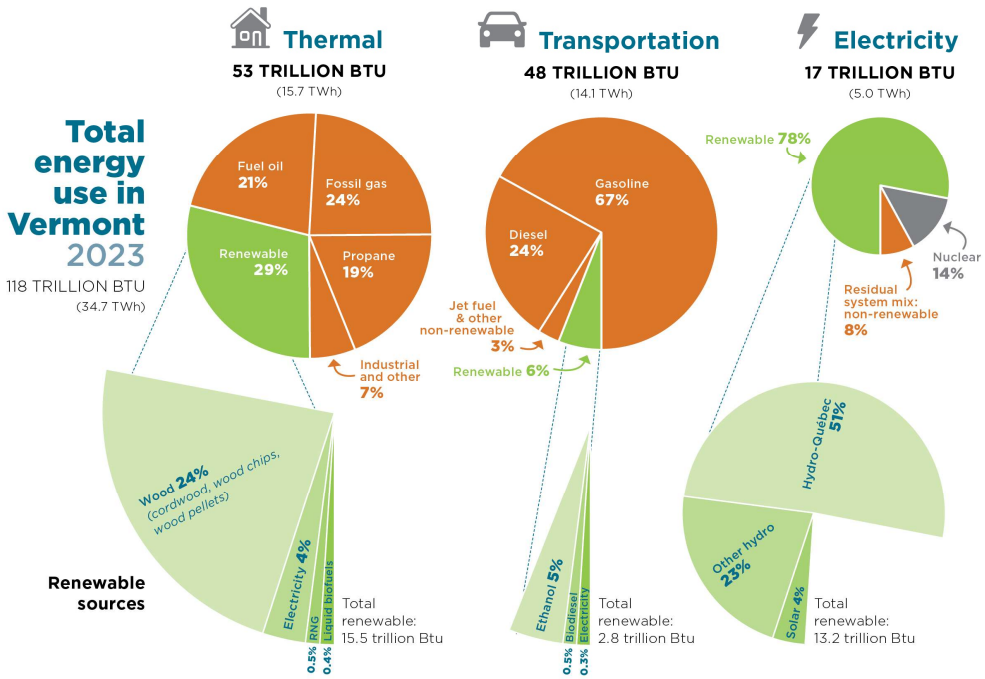
[ii] ~~2017~~ Vermont Energy Action Network. (2025). *~~Annual Progress Report for Vermont on Energy, Affordability, and Emissions~~*. https://eanvt.org/2025-annual-report/ ~~Annual Report~~

improvements in energy conservation and efficiency and the development of renewable, local sources of energy. ~~The *Comprehensive Energy Plan* also aims to reduce total energy consumption per capita by 15% by 2025, and by more than 33% by 2050; to weatherize 25% of all homes by 2020; and to reduce greenhouse gas emissions from within the state to 50% of 1990 levels by 2028, and to 75% of those same levels by 2050. The challenges set forth in the Comprehensive Energy Plan are not easily met~~ The CEP acknowledges that these goals are ambitious and will require transformational changes to our built environment and utility infrastructure, how we produce and distribute energy, and individual choices to consume less and invest in alternatives that may not be the most convenient or the lowest cost. ~~Data showing the current trend of total energy consumption is not available. The status of housing weatherization as of 2017 statewide is about 7.6% of the state's housing stock. Greenhouse gas (GHG) emissions estimates in Vermont continued to rise for calendar year 2015, increasing from 9.45 million metric tons CO2 equivalent (MMTCO2e) in 2014 to 9.99 MMTCO2e in 2015. This increase puts Vermont approximately 16% above the 1990 baseline value of 8.59 MMTCO2e and adds to the difficulty of reaching the statewide goal of 50% below 1990 emissions levels by 2028. Without greater participation and mobilization at a local level, these goals are unlikely to be achieved.~~As of 2023:

- Vermont only obtains 27% of its overall energy from renewable resources.
    - The electricity sector is the most renewable at 78% (after accounting for Renewable Energy Credits).[i]
    - The thermal sector is 29% renewable.
    - The transportation sector is most dependent on fossil fuels at 6% renewable.[1]

Commented [DS2]: Review to confirm these statements are accurate.

[i] Renewable Energy Credits are marketable property rights to renewable attributes of power generation that can be claimed by Vermont electric utilities to meet their requirements under the Renewable Energy Standard Law (30 V.S.A. Chapter 89).

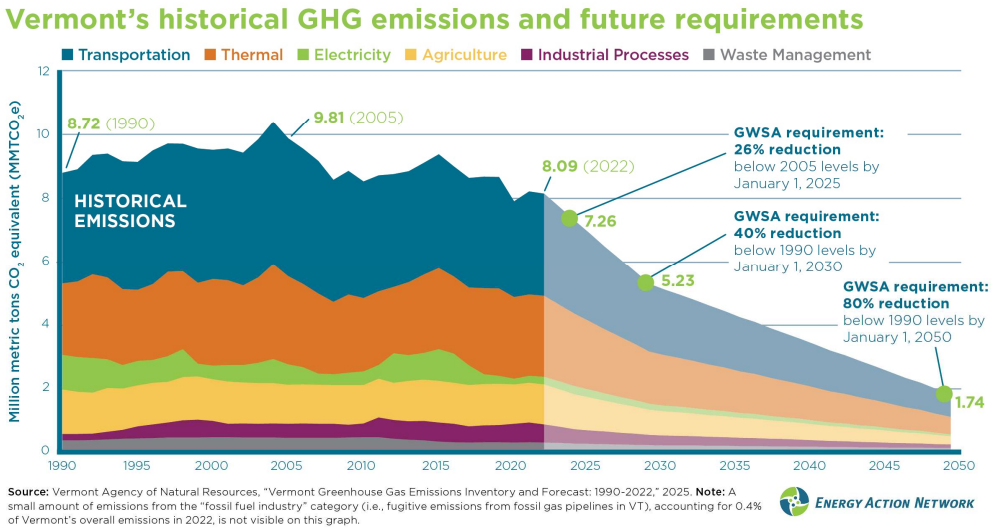


Sources: EIA State Energy Data System, 2025; Efficiency Vermont, 2025; Vermont Department of Public Service, 2025; Vermont Department of Taxes, 2025; EAN, 2025. **Notes:** The electricity pie chart does not include electricity used for thermal and transportation purposes, as that electricity usage is shown in the respective thermal and transportation pie charts. Percentages may not sum exactly to 100% due to independent rounding. Electricity used for thermal purposes is estimated based on the number of cold-climate heat pumps and heat pump water heaters installed in VT, as well as the estimated number of homes with electric resistance heat/hot water. Electricity used for transportation is estimated based on the number of electric vehicles registered in VT. The electricity pie chart shows Vermont's electricity portfolio after accounting for Renewable Energy Credits (RECs). One result of this is that wind and biomass generation in Vermont do not show up as electricity resources, since RECs from those resources are primarily sold out of state. Fuel oil includes a small amount of kerosene, which accounts for 0.7% of total thermal energy use. "Industrial and other" includes residual fuel oil, asphalt and road oil, lubricants, and special naphthas.

ENERGY ACTION NETWORK

Commented [DS3]: Change page layout to landscape

While the state has made some progress on meeting its greenhouse gas emissions reduction targets, particularly in the electricity sector, much more aggressive measures would be needed to meet the Global Warming Solutions Act (GWSA) targets for 2025, 2030, and 2050.



Source: Vermont Agency of Natural Resources, "Vermont Greenhouse Gas Emissions Inventory and Forecast: 1990-2022," 2025. **Note:** A small amount of emissions from the "fossil fuel industry" category (i.e., fugitive emissions from fossil gas pipelines in VT), accounting for 0.4% of Vermont's overall emissions in 2022, is not visible on this graph.

ENERGY ACTION NETWORK

Achieving these goals for renewable energy use and GHG emissions will certainly require action on a state (and even national) scale to shift the choices available to consumers. For example:

~~combined with local support and consumer choices.~~

- ~~,~~Individuals will not be willing to make the switch from gasoline to electric vehicles until the national automotive industry scales up production of electric vehicles while providing a network of charging infrastructure similar to the gasoline fueling station system of the last century.
- Switching building heating systems to more efficient electric options will not be cost-effective until substantial investments in weatherization are made, all of which will require expansion of the skilled trades workforce.
- Transitioning our electric grid to 100% carbon-free and 75% renewable (whether generated locally or regionally) while accommodating the increased demand and reliability to meet transportation and heating needs will require upgrades in electric grid infrastructure at the transmission, distribution, and domestic service levels.
-

Local Context

Formatted: Heading 2, Space Before: 12 pt

While these challenges may seem daunting for a small city, understanding this context can help local leaders anticipate how these large-scale changes will affect our own community. It is also important because ~~W~~without greater participation and mobilization at a local level, these goals are unlikely to be achieved. Finally, placing Essex Junction in this larger context will help the City focus on the most impactful actions we can take locally, regardless of whether and when these larger trends occur.

This plan describes how ~~the Essex Community~~ Essex Junction intends to act to implement the state energy goals outlined above. Meeting these goals will require ambitious action to transform the way the ~~Essex Community~~ City uses, stores, and produces energy.

The following are transformations needed for ~~the Essex Community~~Essex Junction, as the most likely pathway to meet these goals by 2050, given current technologies:

- Establish enough renewable energy generation sites to generate ~~between 211,386 to 353,629~~ 40,937 MWh of electricity~~[i]~~.
- ~~Increase~~ Transition ~~electric vehicles to 89% of~~ passenger vehicles registered in ~~the Essex Community~~Essex Junction to 98% electric or hybrid
- ~~Fuel 96% of heavy-duty vehicles with biodiesel or other renewable carbon free fuel.~~
- Weatherize ~~10~~50% of homes and ~~38% of~~ commercial and industrial establishments
- Heat ~~60~~93% of homes with electric heat pumps and ~~14~~3.4% of homes with wood
- Heat 38% of businesses with electric heat pumps and ~~11~~12% with wood

~~Led by its Energy Committee, the Essex Community is striving to match the state's 90 percent goal. The Essex Energy Committee has taken the position that, "For the Essex Community to achieve the 90 percent renewables level of success for the overall betterment of our community, we must develop and implement plans which aggressively change the way in which we view energy from the standpoint of cost, use and conservation." The Town of Essex Selectboard also adopted the Vermont Climate Pledge Coalition by virtue of a resolution voted on November 2, 2017, recognizing the goal of reducing greenhouse gas emissions by 26 to 28 percent from 2005 levels by 2025 in addition the 90 percent goal. The Village of Essex Junction Trustees have not adopted the Vermont Climate Pledge Coalition.~~

To meet these goals, ~~the Essex Community~~ Essex Junction has prioritized multiple actions under the following general categories: (i) Land Use ~~Implementation~~; (ii) Transportation~~;~~, (iii) Thermal and Electric Energy Conservation and Efficiency; and (iv) Renewable Energy Generation and Storage. See the implementation section for additional information.

Energy Compliance

In 2016, Act 174 established a process for "enhanced energy planning" for municipalities. Enhanced energy planning sets up the framework for municipalities to update their ~~M~~municipal ~~P~~plans according to a set of energy standards developed by the Vermont Department of Public Service (PSD). If a ~~M~~municipal ~~P~~plan meets these standards, the ~~Municipal P~~plan is given a determination of energy compliance from the regional planning commission. The detailed standards and guidance for ~~M~~municipal enhanced energy ~~P~~plans are available on PSD's ~~here~~Act 174 webpage.

A determination of energy compliance, which was granted to Essex Junction's plan by CCRPC on September 18, 2019, means that the PUC will give the ~~M~~municipal ~~P~~plan *substantial deference*. This means that a land conservation measure

Commented [DS4]: Consider removing this footnote if what it says is explained elsewhere

Commented [DS5]: Figure out a way to say this given the heat pump # target

~~[i] The renewable energy target is expressed in MWh because the target is intended to be technology neutral. The Essex Community's target takes into account electricity used in the commercial, industrial, and residential sectors. The target is modeled based on population and electricity usage. The Essex Community makes up 43% of electricity used in Chittenden County; therefore, the community's target is among the highest in the County.~~

or specific policy shall be applied by the PUC in determining whether a jurisdictional energy siting project meets the orderly development criterion in the Section 248 process, unless there is a clear and convincing demonstration that other factors affecting the general good of the State outweigh the application of the measure or policy. This is a higher standard of review than a ~~M~~municipal ~~P~~plan would otherwise receive in the Section 248 siting process.

~~At present, the Essex Community municipalities will seek their own affirmative determination from CCRPC to amend or supplement an existing Municipal Plan. This is being done with the understanding that the two plans may eventually be combined for the Essex Community in the future.~~

Siting

~~The Essex Community~~ Essex Junction can have input over the siting of renewable generation facilities in a few ways through the policies contained in this plan. The community can define preferred sites for ~~net-metering~~ generation facilities and include policies to identify the scale and type of ~~renewable energy~~ generation facilities to occur in specific areas within the community. Also, the ~~Essex Community~~ City can restrict renewable generation facilities where appropriate.

Vermont's Net Metering Rules (Rule 5.100, effective 7/1/2017, revised 11/12/2024) define~~s~~ preferred sites for renewable energy development (any renewable technology besides hydroelectric). Compared to non-preferred sites, net metering on preferred sites can be larger (up to 500 kW instead of 150 kW) and such projects receive financial benefits in the net metering rates. ~~See the latest Vermont Public Utility Commission Rule Pertaining to Construction and Operation of Net Metering Systems for details on the financial and scale benefits of preferred sites.~~ Systems up to 15kW and rooftop solar systems up to 500kW go through a registration process rather than the full Public Utilities Commission process. However, all other projects do not have an expedited review process and must meet the same requirements as any other system. Preferred sites as defined under the PUC rule include:

- On a ~~pre-existing~~ structure not dedicated for electricity generation
- Parking lot canopies over permitted paved areas
- Previously developed land
- Brownfields
- Landfills
- Gravel pits
- Superfund sites
- Municipal-designated sites
- On the same parcel or directly adjacent parcel as a customer taking 50% or more of the output

~~The Essex Community strongly encourages the siting of net-metered systems on parking lots.~~ Municipally designated preferred sites ~~can be identified in a duly adopted municipal plan or~~ must be identified through a joint letter of support by the Town and/or Village planning commissions, Town and Village legislative bodies and regional planning

ACT 174 AND SUBSTANTIAL DEFERENCE

In 2016, Act 174 established a process for "enhanced energy planning," which encourages municipalities to write plans that are "energy compliant." This plan meets the standards for energy planning established by Act 174 and outlined in 24 V.S.A. §4352. Therefore, the policies of this plan will receive substantial deference in §248 proceedings. The Public Utility Commission shall apply the land conservation measures or specific policies in accordance with their terms unless there is a clear and convincing demonstration that other factors affecting the general good of the State outweigh the application of the measure or policy. This is a higher standard of review than "due consideration," which the municipal plan's policies would otherwise receive.

Commented [DS6]: Deleted because this is stated later

commission. Project developers are encouraged to reach out to ~~the Energy Committee,~~ the Planning Commission(s)~~,~~ and ~~the Essex~~ Community Development staff to discuss projects in advance of submitting a petition.

Constraints

Some areas are not appropriate for any type of development, including types of renewable energy generation facilities existing as of the date of this plan. The State of Vermont has defined certain resources as known and possible constraints, which are protected by the ECOS Regional Plan and state agency review during the Public Utility Commission review process. ~~The Essex Community have added additional~~ Municipalities can add local constraints based on ~~local~~ their own land use policy~~ies~~; Essex Junction has not identified any local constraints to development beyond those identified by the State. In determining whether known or possible constraints are present, on-site field verification should be conducted.

Known constraints ~~are~~ indicate areas in which development, including renewable energy generation, is not ~~appropriate~~suitable. See Map 2 for the location of known constraints within the community. Possible constraints ~~are~~ indicate areas in which the effects of development, including current types of renewable energy generation facilities, may need to be mitigated, or where development may prove unsuitable after site investigation. See Map 3 for the location of possible constraints in the community. ~~Possible constraints are: Known constraints are:~~

State Known Constraints

- FEMA Designated Floodway
- VT DEC mapped River Corridors
- National Wilderness Areas
- State-significant Natural Communities
- Vernal Pools (confirmed ~~and unconfirmed~~)
- Class 1 and 2 wetlands (VSWI and advisory layers)
-
-

~~Local Known Constraints~~State Possible Constraints

- Agricultural Soils*
- Hydric Soils
- Act 250 Agricultural Soil Mitigation Areas
- FEMA Special Flood Hazard Areas
- Protected Lands (State-owned and private conservation lands)
- Deer Wintering Areas
- The following features from Vermont Conservation Design:
  - Highest Priority Interior Forest Blocks
  - Highest Priority Connectivity Blocks
  - Highest Priority Physical Landscape Blocks
- Highest Priority Surface Water and Riparian Areas~~Slopes of 20% and steeper~~
- ~~Recreation/Conservation areas within the Resource Preservation-Industrial District~~

*While the State will consider the impacts of development on agricultural soils, it is not the intent of the City of Essex Junction to protect primary agricultural soils from development considering agricultural operations (outside of community gardens) are not feasible on small parcels isolated from more intact open agricultural areas. Further, mitigation of these soils through state development approval processes does not seem appropriate in such an urban environment.~~Possible constraints are areas in which the effects of development, including current types of renewable energy generation facilities, may need to be mitigated. See Map 3 for the location of possible constraints in the community. Possible constraints are:~~

~~State Possible Constraints~~

- ~~Agricultural Soils (While the State will review agricultural soils, it is not the intent of the Village of Essex Junction to protect primary agricultural soils from development considering agricultural operations (outside of community~~

~~Local Possible Constraints~~

- ~~Industrial designated areas of the Resource Preservation-Industrial District (see siting policy 8)~~
- ~~Designated Village Center Historic District in the Village, Town Center and Design Control Districts in the Town~~

Formatted Table

Formatted: Bulleted + Level: 1 + Aligned at: 0" + Indent at: 0.25"

Formatted: Indent: Left: 0.24", Bulleted + Level: 1 + Aligned at: 0" + Indent at: 0.25"

Formatted: Indent: Left: 0.24", Bulleted + Level: 1 + Aligned at: 0" + Indent at: 0.25"

Formatted: Space Before: 10 pt

Commented [DS7]: Consider deleting. Municipalities do not have jurisdiction over this issue, so stating an opinion about State rules doesn't really make sense in a municipal plan.

gardens) are not feasible on small parcels isolated from more intact open agricultural areas. Further, mitigation of these soils through state development approval processes does not seem appropriate in such an urban environment).

- Hydric Soils
- Act 250 Agricultural Soil Mitigation Areas
- FEMA Special Flood Hazard Areas
- Protected Lands
- Deer Wintering Areas
- Vermont Conservation Design Highest Priority Landscape Scale Components. These include highest priority interior forest blocks, surface water and riparian areas, and connectivity blocks, and wildlife crossings.
- Scenic Resource Protection Overlay District (including portions of Bixby Hill Road, Browns River Road, Chapin Road, Colonel Page Road, Jericho Road/VT Route 15, Naylor Road, North Williston Road, Old Stage Road, Pettingill Road, River Road/VT Route 117, Towers Road, Upper Main Street/VT Route 15, Weed Road, and Woodside Drive
- 15 % or steeper and less than 20%
- Vermont Conservation Design Priority Landscape Scale Components. These include priority forest blocks, connectivity blocks, surface water and riparian areas, and physical landscapes).
  - Forest blocks are areas of contiguous forest and other natural communities and habitats, such as wetlands, ponds, and cliffs that are unfragmented by roads, development, or agriculture (Sorenson and Osborne 2014).
  - Connectivity Blocks are the network of forest blocks that together provide terrestrial connectivity at the regional scale.
  - Physical landscapes (often referred to as enduring features) are the parts of the landscape that resist change. They are the hills and valleys, the underlying bedrock, and the deposits left behind by glaciers.
  - Surface Waters and Riparian Areas

Siting Polices

The policies in this section are the land conservation measures to be applied in the Section 248 decision-making process with respect to the PUC's review of a petition for a renewable generation facility. The Essex Community City of Essex Junction will use the following siting policies to determine support for identifying a municipally designated preferred site and in the review of Section 248 applications.

1. The Essex Community City of Essex Junction strongly encourages development of renewable energy generation facilities on rooftops, parking lots, on parcels or directly adjacent parcels to a customer that has been allocated more than fifty percent of the net-metered system's electrical output, previously-developed sites, brownfields, landfills, former mineral resource extraction areas, and municipally designated sites.

1.2. In the state-designated Village Center in the Village of Essex Junction, the Essex Town Center, and the Historic Preservation and Business Design Control Districts design control best practices must be applied to integrate development into the built environment to the extent feasible. For sites and buildings in the state-designated City Center that are listed or eligible for the State or Federal Register of Historic Places, redevelopment (including adding rooftop solar or wind generators) shall follow the U.S. Secretary of the Interior's Standards for the Rehabilitation of Historic Structures (36 CFR § 67.7). (See Appendix A for additional guidance on integrating renewable energy generation facilities into historic buildingsthese standards).

Commented [DS8]: If ground-mounted solar / wind are prohibited under other policies, the only likely projects are rooftop solar or wind. Unless there is a historic preservation concern, nothing in the LDC's design control practices really applies here, so this was rewritten to focus on historic preservation.

However, keep in mind that most rooftop solar will not go through a PUC hearing process - instead, there is a registration process under the Net-Metering Rule. There is limited ability for the City to ensure these standards are enforced; the City Attorney should be consulted on whether this policy could be used in the aesthetic standards of the Rule. Furthermore, this policy must apply to all types of development.

~~2.~~3. Locate ground-mounted solar larger than 15 kW AC (except for parking lot canopy solar installations) and wind turbines with a hub height larger than 30 meters (98 ft.) outside of the state designated ~~Village~~ Center and historic districts on the state or national register ~~in the Village of Essex Junction, the Essex Town Center, and the Business and Historic Preservation Design Control Districts~~.

~~3.~~4. Development, which includes ~~of~~ renewable energy generation facilities, shall not take place in areas with known constraints. Development ~~and~~ shall first explore alternatives to creating adverse impacts on possible constraints; if adverse impacts cannot be avoided, they shall be minimized and mitigated where possible~~and then mitigate adverse impacts in areas with possible constraints, as identified in the constraints section of this plan~~. In determining whether known or possible constraints are present, on-site field verification ~~should~~ shall be conducted.

~~4.~~5. With the exception of preferred sites listed in policy 1, development of large-scale renewable energy generation facilities (capacity greater than 500kW) shall be located only within industrial zones~~, including the industrial zoned portion of the Resource Preservation District, in the Town of Essex~~.

~~5.~~6. Locate energy generation proximate to existing distribution and transmission infrastructure with adequate capacity and near areas with high electric load (See Green Mountain Power's Solar Map) to reduce the need for new distribution and transmission extensions.

~~6. Avoid or minimize the adverse impacts of development (including renewable energy development and associated transmission and distribution infrastructure) on identified scenic resources, viewsheds and roadscape corridors in the Town of Essex Scenic Resource protection overlay district (See Map 3) through appropriate site planning and design practices. See Appendix A for appropriate planning guidance on siting or site development design standards~~

~~7. Apply the Design Control Best Practices (see Appendix A) when locating roof-mounted photovoltaic net metering systems in the Village Center, Town Center, and the Town's Historic Preservation and Business Design Control Districts~~

~~8. Within the Resource Preservation Industrial District the following policies apply:~~

- ~~200-foot vegetative buffer shall be maintained along adjacent residential areas and streets, including VT Route 15, Sand Hill Road and Saxon Hill Road and where development abuts a residential property not located in a residential district.~~
- ~~A 100-foot vegetative buffer shall be maintained along Allen Martin Drive. Parking areas, components of stormwater management systems may not be located within the 100- or 200-foot buffer in this district.~~
- ~~Underground utility easement crossings are permitted only within the 200 ft. and 100 ft. buffer. Utility easements are permitted if ledge, underground water or other conditions make underground installation infeasible. Areas cleared for utility crossings shall be re-vegetated.~~

~~12. Development (including renewable energy generation facilities and associated transmission and distribution infrastructure) is discouraged on slopes of 15 % or steeper and less than 20% due to the likelihood of erosion and stormwater runoff problems. Development shall be prohibited on slopes of 20 percent and steeper due to the likelihood of environmental damage.~~

~~13. Development (including renewable energy generation and associated transmission and distribution infrastructure) will not destroy or significantly imperil wildlife habitat identified on Map 3 as highest priority and priority landscape scale components) or all reasonable means of minimizing the destruction or imperilment of such habitat or species will be utilized.~~

Commented [DS9]: Revised to be consistent with the ECOS Plan siting policy on centers and historic districts.

Commented [DS10]: All these policies were specific to the Town of Essex.

~~14.~~7. Where feasible, pair renewable energy generation with electrical energy storage to ensure energy is utilized to the fullest potential, to increase resiliency/reliability of electricity during outages and decrease fossil fuel usage during peak periods. Renewable energy generation projects that can accommodate energy storage are strongly encouraged.

Implementation

Land Use and Development Policies

The relationship between transportation, land use and energy consumption is extremely important and is an area in which the community can have a large impact through development regulations and infrastructure. According to the Vermont Energy Action Network's 2025 Progress Report[2], about 40% ~~Vermont Total Energy Study, "more than one third~~ of the state's energy consumption~~,~~ and ~~nearly half of its~~ greenhouse gas emissions~~,~~ are tied to the transportation sector.~~"~~ Therefore, a reduction in vehicle miles traveled by passenger vehicles can have a big impact on energy consumption.

In recent years communities are realizing the important connection between transportation and land use, which impacts energy use. Certain land use patterns can reduce dependency on the automobile by providing greater transportation options through compact mixed-use developments where people can choose to walk, bike, use public transportation or drive an automobile.

~~For new construction and building renovations, the State of Vermont has an energy building code, the Vermont Residential and Commercial Building Energy Standard. Compliance with the energy code is necessary to ensure that new development and alterations to existing buildings are using all types of energy efficiently. To meet the code, the zoning administrator is responsible for providing the energy code to land use permit applicants and must see a completed energy certificate that certifies that the applicant has complied with the code before issuing a certificate of occupancy. Even though a certificate of occupancy may not be needed for all types of buildings, all buildings must comply with the State energy code. Additionally, the Community should consider incorporating language into zoning ordinances requiring new homes and commercial buildings to be built to higher levels of efficiency.~~

~~To improve the thermal efficiency of existing commercial and residential buildings, a municipality could implement a time of sale energy retrofit ordinance for rental housing. Time of sale retrofits target older buildings, particularly multi-family housing, that aren't being reached by voluntary incentive programs. Building energy retrofits offer multiple benefits that include saving money on utility bills, improved safety and maintenance, and comfort. Additionally, the money saved from doing energy improvements gets recirculated into the community instead of being exported out of the region. As an example, the City of Burlington has a time of sale energy retrofit ordinance.~~

Goal: ~~The Essex community~~ Essex Junction is committed to development patterns and building energy use that result in the efficient use of energy.

General Policy: ~~The Town Center in the Town is a focus of concentrated growth and community life intended to encourage energy efficient development and travel. (See the Land Use and Development section of the Essex Town Plan for more detail).~~ Higher density infill and redevelopment is supported in the core areas of the ~~Village~~ City to reduce demand on energy. (See the Land Use section of the Essex Junction Comprehensive Plan for more detail).

Actions

1. Consider ~~including~~ requiring the Vermont Building Energy Stretch Code ~~to cover~~ for all development in the ~~Zoning Regulations for the Town (including the ETC Next Plan) and in the Village of~~ Essex Junction Land Development Code.

Commented [DS11]: Currently the Implementation section (including goals, policies, and actions) comes before the sections containing important context. Should these be reorganized, either to put the context first, or to interweave goals, policies, and actions within the context for each topic (thermal, transportation, and electricity)?

Commented [DS12]: These paragraphs are really about thermal and should be moved to that section.

Commented [DS13]: Thoughts on the structure of "Goal / General Policy / Action?" Does this make sense, and is it consistent with the rest of the plan?

Commented [DS14]: CCRPC staff generally have not yet "SMARTened" actions in this plan. The PC should consider how it wants to prioritize actions in the plan for all chapters - as we work through them, or at the end of the Comp Plan update once all actions have been reviewed?

~~1.~~2. In 3 years, complete a policy review of clean heat ordinances enacted by the Cities of Burlington and South Burlington, which require new construction and renovation to use heating and ventilation systems that reduce or eliminate greenhouse gas emissions. If the review is favorable, implement an ordinance within 2 years.

~~2.~~3. Within the next 8 years, s~~Consider t~~udy whether to ~~implementing~~ establish a municipal building code enforcement program similar to Burlington and Winooski. This could include implementing a time of sale policy to ensure existing buildings, especially older rental housing, are in compliance with the State of Vermont Building Energy Code.

4. ~~Review~~ Within 1 year, revise the ~~zoning regulations~~ Land Development Code ~~and associated parking standards and sign regulations~~ to ~~encourage~~ require installation of electric vehicle charging ~~stations~~infrastructure in all new and significantly renovated development.

~~3.~~5. Continue to require and incentivize commercial and mixed-use buildings in the Land Development Code, and work specifically to bring basic needs like grocery stores to the community.

~~4. Adopt a municipal screening requirement for solar generation facilities in accordance with 30 V.S.A. §248(b)(l)(B).~~

~~5. Consider reviewing the process for LEED density bonuses to increase utilization, in the Town.~~

- ~~Evaluate a process for incentivizing the creation of energy efficient buildings in the Essex Community.~~

6. Explore the idea of an energy fee or revolving loan fund that would fund ~~public~~ weatherization improvements ~~to~~ and renewable energy infrastructure~~,~~ such as rooftop solar and electric vehicle charging stations.~~,~~

"Stretch code" means a building energy code that achieves greater energy savings than the base code. All development subject to Act 250 must follow the energy stretch code. Efficiency Vermont offers an incentive-based program to improve insulation/air-sealing and heating systems to support energy projects.

7. Consider ~~with~~ waivers and fee reductions for development that meets energy goals, such as installing electric vehicle charging infrastructure and providing ride-sharing options.

8. Continue to require energy efficient street lighting for new developments and when replacing existing lamps.

9. Refer to the land use section~~s of both~~ the ~~2019 Village of~~ Essex Junction Comprehensive Plan ~~and the 2016 Essex Town Plan~~ for more information related to land use in the ~~Community~~City.

Commented [DS15]: Move to thermal section

Commented [DS16]: Move to transportation section

Commented [DS17]: Move to thermal section

Commented [DS18]: Move to electricity section

Transportation

~~The Community~~ Essex Junction has a ~~relatively~~ unique opportunity within the county to support greater transportation choice and reduce automobile dependency since it is a relatively compact community with an extensive sidewalk network~~, especially in the Village,~~ where local services are within walking distance to residences. The ~~Community~~ City is also served by public ~~transportation~~ bus and rail. Residents have more transportation choices than many neighboring communities that have a more suburban/rural land use pattern. Further support of higher density infill and redevelopment in core areas of the ~~Village may~~ City will steer people towards choices that reduce energy demand ~~on energy~~.

Goal: ~~The community~~ Essex Junction should be served by varied modes of transportation with automobile use balanced by increased availability of public transit, sidewalks, and multi-use trails to reduce transportation energy demand and reduce costs for all users.

General Policy: Transportation systems shall be integrated with land use policy in such a way that improvements are compatible with the overarching settlement pattern of compact settlement surrounded by a productive rural countryside.

Actions

~~1. Design and construct pedestrian/bike paths on VT Route 2A, Pinecrest Drive, and Towers Road.~~

~~2. Construct a new multi-use path from Susie Wilson Road to the City of Winooski.~~

~~3.~~1. Reduce single-occupancy vehicle trips by establishing strategic park-and-ride locations, and by partnering with ridesharing, car-sharing, and public transit organizations.

~~4.~~2. Partner with Drive Electric Vermont, nonprofit organizations, vehicle dealers, and/or state agencies to organize high-visibility events where people can see and test drive EVs, such as energy fairs and summer festivals. Particular attention should be made to electric pickup trucks and motorcycles~~, since these represent nearly ½ the existing non-electric vehicle stock in the community~~. Events should also leverage local newspaper and public access coverage to showcase residents and organizations that are helping to propel the transition to EVs.

~~5.~~3. Promote the Drive Electric Vermont webpage, which connects users to financial incentives, dealers, and recharging stations for EVs. Promote the Go Vermont webpage, which provides ride share, vanpool, public transit, and park and-ride options.

~~6.~~4. Support employer programs to encourage transit use, telecommuting, carpooling, vanpooling, walking, and biking for employees' commute trips. Encourage employers to offer such programs and provide information on tax benefits that may be available for doing so.

~~7.~~5. Assess current access to public and workplace charging (to the extent known) and identify strategic locations in busy areas (large employers or areas of high visitation in the ~~Village and Town~~ City Center~~s~~) where charging stations should be added or expanded.

~~8.~~6. Provide charging stations at prominent publicly owned locations such as municipal or school parking lots, as well as parking areas near public transportation and park and rides. Municipalities may develop their own charging stations, or work with private companies.

~~9.~~7. Lead by example by replacing the ~~Town's~~ City's vehicle fleet with electric or biodiesel fuel vehicles as fossil fuel-burning vehicles reach the end of their useful life.

~~10.~~8. Assess the number of park-and-ride spaces and explore opportunities to expand the number of spaces and provide greater connectivity between public transit and park and ride locations.

~~11.~~9. Work with the school district to maximize ridership for public school bu~~s~~ses and minimize use of private vehicles for student transport. Explore working with a bus company who is converting its bus fleet to electric.

~~12.~~10. Invite Green Mountain Transit to ~~P~~present annually to the public, staff, and municipal officials ~~an overview of~~ about public transit services available, funding status, and opportunities for improvement~~available in the Town and the Village including information about Green Mountain Transit and the major routes they offer~~.

~~13.~~11. Continue to work with Local Motion to make the Essex Community safe and welcoming for bicycling.

12. Continue to identify issues and opportunities for walk-bike improvements and connections, including gaps and barriers in the sidewalk network to ensure better walkability particularly for those with limited mobility.

~~14.~~13. Ensure that sidewalks and paths are well lit to provide a sense of safety for users at night.

~~15.~~14. Refer to the transportation section~~s~~ of ~~both~~ the ~~2019 Village of~~ Essex Junction Comprehensive Plan ~~and the 2016 Essex Town Plan~~ for more information related to transportation in the community.

Thermal ~~and Electric~~ Energy Conservation and Efficiency

Because heating of buildings accounts for 45% of energy use and 40% of greenhouse gas emissions,[3] achieving building energy efficiency is an important pathway to meeting local, regional, and state energy goals. High-efficiency buildings (both new construction or retrofits) offer multiple benefits: saving money on utility bills, improved safety and

Commented [DS19]: All Town actions, but all completed!

Commented [DS20]: Does Essex Junction need a park-and-ride? Or is the Amtrak station serving that purpose? Should something be said about that here?

Commented [DS21]: Should these be adapted into actions about Bicycle-Friendly Community status?

maintenance, and comfort. Additionally, the money saved from doing energy improvements gets recirculated into the community instead of being exported out of the region as purchased energy.

Building weatherization, which includes air sealing, insulation, and upgrading heating systems, is the most cost-effective way ~~of modifying a building~~ to reduce ~~electricity and heating fuel consumption~~heating energy consumption and heating bills~~, as well as greenhouse gas (ghg) emissions. Weatherization includes air sealing, insulation, and upgrading heating system and can dramatically reduce a home's heating bills~~. However, the initial ~~upfront~~ capital investment ~~to make~~ for weatherization improvements on a home can be ~~difficult~~ unaffordable for some households and businesses. Various organizations like Efficiency Vermont and financial institutions provide incentives and low financing to make thermal and electric efficiency retrofits possible~~. A critical step to ensuring thermal and electric efficiency in all buildings is implemented is educating residents and businesses about the programs and technologies available~~. The actions in this section provide a plan for how the ~~community~~ City can work with ~~energy vendors~~ these organizations to educate residents and businesses about the programs and technologies available~~and the public to raise awareness about these issues~~.

Another approach to ensuring efficient buildings is regulation. ~~For new construction and building renovations, t~~The State of Vermont has ~~an energy building code,~~ adopted the Vermont Residential and Commercial Building Energy Standards (RBES and CBES)~~. Compliance with the energy code is necessary~~ to ~~ensure~~ require that new development and alterations to existing buildings are using all types of energy efficiently. ~~To meet the code, the~~The municipal zoning administrator is responsible for providing the energy code to land use permit applicants, who must certify that they have complied with the code~~ and must see a completed energy certificate that certifies that the applicant has complied with the code before issuing a certificate of occupancy. Even though a certificate of occupancy may not be needed for all types of buildings, all buildings must comply with the State energy code~~. Before occupancy, the Vermont Division of Fire Safety inspects commercial and large residential buildings for compliance with building codes.

However, there are challenges to achieving compliance. State inspectors do not specifically check for CBES compliance. This reflects feedback gathered from Essex Junction business owners in 2026 that heating, cooling, and ventilation systems in newer buildings were not performing adequately. For small residential buildings regulated under RBES, there is no inspection nor enforcement mechanism, and a 2025 study noted that only 54% of new builds complied with the current RBES; this number has likely declined as the standards have become more stringent.[4] Because renters typically pay for utilities, including heat, inefficient buildings create higher energy burden among those who do not have the authority or possibly the financial resources to complete upgrades that would reduce their utility costs.

In focus groups for the 2026 Comprehensive Plan, community members suggested that the City take a more active role in building safety and energy code enforcement to improve energy equity, which could involve greater coordination with the state or establishing its own building code enforcement program. ~~Additionally, the Community should consider incorporating language into zoning ordinances requiring new homes and commercial buildings to be built to higher levels of efficiency.~~

~~To improve the thermal efficiency of existing commercial and residential buildings, a municipality~~ Another approach could be to implement a time of sale energy retrofit ordinance for rental housing like the City of Burlington has done. Time of sale retrofits target older buildings, particularly multi-family housing, that aren't being reached by voluntary incentive programs. ~~Building energy retrofits offer multiple benefits that include saving money on utility bills, improved safety and maintenance, and comfort. Additionally, the money saved from doing energy improvements gets recirculated~~

~~into the community instead of being exported out of the region. As an example, the City of Burlington has a time of sale energy retrofit ordinance.~~

In addition to heating efficiency, some Vermont municipalities have begun requiring that heating systems use renewable energy sources through clean heat ordinances for new construction and alterations; it is still unclear whether such ordinances will be successful or face legal challenges.

Community feedback also acknowledged the need to balance regulatory and incentive-based approaches to achieving building energy efficiency. When upgrades are required, there is no basis for incentive programs (though need-based assistance may still be available). Therefore, people are less likely to meet standards unless there are significant consequences to not doing so. Regulatory approaches may be more appropriate for new, larger-scale buildings, while education and incentives may be more effective for small, existing buildings that need upgrades.

~~Building weatherization is the most cost-effective way of modifying a building to reduce electricity and heating fuel consumption, as well as greenhouse gas (ghg) emissions. Weatherization includes air sealing, insulation, and upgrading heating system and can dramatically reduce a home's heating bills. However, the initial upfront capital to make weatherization improvements on a home can be difficult for some households and businesses. Various organizations like Efficiency Vermont and financial institutions provide incentives and low financing to make thermal and electric efficiency retrofits possible. A critical step to ensuring thermal and electric efficiency in all buildings is implemented is educating residents and businesses about the programs and technologies available. The actions in this section provide a plan for how the community can work with energy vendors and the public to raise awareness about these issues.~~

Goal: ~~The Essex Community's~~ Essex Junction's ~~energy~~ goals and targets for thermal energy use shall be met equitably, and primarily through energy conservation, efficiency, and fuel switching while transitioning away from fossil fuels.

General Policy: ~~The Essex Community~~ Essex Junction shall support regulatory and non-regulatory initiatives that result in decreased greenhouse gas emissions, reduced energy consumption, and increased renewable energy generation.

Actions

1. Establish an Energy Committee to help promote existing weatherization and energy efficiency programs to the community and guide the City's efforts to improve its own buildings.
2. ~~1.~~ Fund ~~an Energy~~ a Buildings Coordinator position to develop energy implementation plans, coordinate municipal efforts ~~for both the Town and the Village~~ and encourage residential and commercial energy conservation. As an initial step, make this goal a priority for the ~~new Building Manager~~Public Works Director.
3. ~~2.~~ Continue to explore energy efficiency and renewable energy options for all ~~Town and Village~~ municipally owned and ~~Town/Village~~ sponsored facilities, from buildings to street lighting. Findings and recommendations should be based on an audit of all municipally owned and ~~municipally~~ sponsored facilities and a subsequent cost-benefit analysis for upgrading or replacing those facilities
4. ~~3.~~ Host education programs and collaborate with Efficiency Vermont, utilities, and energy vendors to encourage energy efficiency in existing residential and commercial buildings and to educate residents and businesses about heating pumps, advanced wood heating, geothermal heating, renewable natural gas, and other renewable technologies. Provide residents with information on heating assistance programs on an annual basis to make those in need aware of the programs.

Commented [DS22]: This used to be Harlan Smith, but now falls to Ricky Jones or whichever department owns the building. Interest in a more comprehensive study / coordination

Commented [DS23]: @Ann Janda Can we incorporate the findings and recommendations of Essex Junction's MERP assessment here? Would it make sense to have an action to continue funding energy audits and assessments of municipal buildings?

Commented [AJ23R2]: Sure. Some of the measures were completed in the Town Hall project. Here is the link to the spreadsheet with all the measures: MERP Chittenden Municipal Assessment Reports Summary-2024.xlsx

Commented [DS23R3]: Added to the heating section intro under Existing & Future Estimates of Energy Consumption, may need to reorganize later

4.5. Promote wood stove change-out programs that take older non-EPA certified stoves out of service and replace them with more efficient and lower emitting cord and pellet stoves.

5.6. Facilitate a workshop and/or conduct building walk-throughs for owners of rental housing to encourage implementation of energy efficiency measures.

6.7. Through the Building ManagerPublic Works Director, monitor energy used by the Town and Village City buildings annually to describe progress towards energy goals, working closely with the Energy Committee

7.8. Work towards a plan to replace existing municipally owned-streetlamps with solar-generating lamps, provided that these can be harmonized to the extent feasible with design constraints.

Renewable Energy

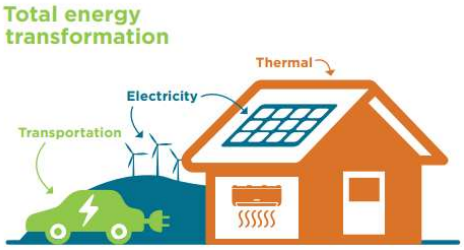
Goal: Generate 183,587–325,830an additional 6,265 MWh of new renewable energy by 2032; 29,972 MWh by 2040; and 40,937 MWh by 2050.

Commented [DS24]: This is really more of a policy; the goal should be generating enough renewable electricity to meet state / regional goals (and maybe talk about why)

General Policy: The Essex Community City of Essex Junction shall support regulatory and non-regulatory initiatives that result in decreased greenhouse gas emissions, reduced energy consumption, and increased renewable energy generation.

Actions

1. Identify and map specific preferred sites for renewable energy generation to send a message to potential developers that these are the locations where the Town and Village City would like to see renewable energy generation development.
2. Promote community solar net metering through public education and outreach.
3. Encourage and support renewable energy projects consistent with the siting policies of this plan through letters of support to the Public Utilities Commission.
4. Explore possible municipally owned sites for renewable energy generation, such as the Town landfill, rooftop solar on municipal buildings, and parking lot canopies on public lots.
5. Study the capabilities of existing buildings to support roof-mounted solar PV systems in zoning districts where it is deemed appropriate for a better estimate of this potential.



Existing + and Future Estimates of Energy Consumption

The data in this section are intended to provide an overview of current energy use and a sense of the trajectories and pace of change needed to meet the State's energy goals. Note that these data are a starting point for considering a renewable energy future. The data included in this section It also shows one pathway the Essex CommunityEssex Junction could take to contribute to meeting the State's of Vermont's energy goals. Targets for each sector (transportation, heating, and electricity) are also provided to demonstrate milestones along the way toward meeting 90% of total energy needs with renewable energy. However, . The targets are intended to be a demonstration of one possible scenario to reach 90% renewable by 2050 and are this is not intended to prescribe a single future path. However, tThe actions or technology changes that the Essex Community will take will very likely change between now and 2050, as new and improved technologies become available.

~~To meet the goals, the Essex Community~~ Regardless, Essex Junction must plan for a major shift away from fossil fuels in the transportation and heating sectors to renewable sources of energy~~,~~. ~~as well as~~ In addition, the community must increase efficiency in transportation, heating and electric~~ity~~ energy use. Finally, ~~and an increase in~~ the City must accommodate new renewable energy generators ~~sited in the Essex Community~~. ~~Please note that these data are a starting point for considering a renewable energy future. This information should provide the framework for a discussion about changes that will need to occur within the Essex Community to ensure that State energy goals are met. However, the actions or technology changes that the Essex Community will take will very likely change between now and 2050, as new and improved technologies become available.~~

~~The analysis in this section estimates current energy use and provides targets for future energy use across all sectors (transportation, heating, and electricity). These targets represent the amount of renewable energy that the community should aspire to produce to meet the 90% by 2050 goal. The Essex Community's targets represent the amount of renewable energy generation that the community should aspire to achieving to advance the amount of local renewable energy generation. Please note that these data are a starting point for considering a renewable energy future. This information should provide the framework for a discussion about changes that will need to occur within the Essex Community to ensure that State energy goals are met.~~

~~The data in this section are intended to provide an overview of current energy use and a sense of the trajectories and pace of change needed to meet the State's energy goals. Targets for each sector are also provided to demonstrate milestones along the way toward meeting 90% of total energy needs with renewable energy.~~

Targets for future energy use are drawn from the Long-Range Energy Alternatives Planning (LEAP) analysis for Chittenden County, completed by the ~~Vermont Energy Investment Corporation (VEIC)~~Stockholm Environment Institute and the Northeast States for Coordinated Air Use Management. The LEAP model is an accounting framework that shows one possible path for Chittenden County and its municipalities to meet the state energy goals. See the ~~2018~~ 2026 Chittenden County ECOS Plan Supplement 6 for information about the methodology.

Commented [DS25]: Update link

To achieve these targets a concerted effort in ~~the Essex Community~~ Essex Junction is needed, including residents, businesses, community groups, and government, to conserve energy and transition to renewable sources. The ~~Energy Committee~~ Planning Commission has recommended multiple projects in each area based on community feedback and discussions with City staff. Completing the projects will lead to energy savings and an improved quality of life for all residents of the ~~Essex Community~~ City through financial savings, improved air quality, and reduced greenhouse gas emissions.

~~Total Energy Use Per Capita~~

Commented [DS26]: A stand-alone analysis of energy use per capita is not part of the updated LEAP model, but energy efficiency is accounted for in targets for each sector.

~~The LEAP model indicates that total energy use will continue to grow over the next 30 years, even as energy savings increase. This is partly due to overall population increase, but also due to fuel switching from fossil fuels to renewably sourced electricity, including uses within the transportation and heating sectors. As shown in Table 1, total energy use increases but total energy use per capita will decrease because of transformations in the heating and transportation sectors needed to reach the state's energy goals. Although the state goal is to reduce per capita energy by 1/3, modeling was unable to demonstrate this reduction. The uncertainty lies in the model at the local level. The reduction is achievable at the County and state level.~~

Table 1 Estimated Future Total Energy Use per Capita (excluding industrial electricity use), 2015-2050

	2015	2025	2035	2050
Total energy use (MMBtu)	4,136,978	4,240,447	4,240,447	4,669,525
Population	20,946	22,137	22,895	24,020
Total energy use per capita (MMBtu)	198	192	192	194
Reduction in total energy use per capita since 2015	N/A	-3%	-3%	-2%
*Source: CCRPC LEAP model *, CCRPC Demographic Forecast (2017)*				

Heating

The building inventory in the Essex Community includes government buildings, /commercial buildings, and homes. Municipally owned structures range from the recently remodeled and new, more energy efficient Town Municipal BuildingCity Offices, to historic inefficient buildings such as Memorial Hallthe public works depot. With a goal of saving tax dollars by improving energy efficiency of Municipalmunicipally- owned structures, the Essex Energy Committee City has conducted an overall energy assessment and is developing a retrofit plan for all several municipally- owned properties. Examples of these include the Village Wastewater Treatment Facility's combined heat and electric power system, which uses methane captured from anaerobic digestion to feed the water treatment process and provide service to the facility's buildings. The Town City offices at 81 Main 2 Lincoln Street were significantly renovated in 2016 2025 to seal air leaks, provide better insulation, optimize heating with a modern HVAC systems and transition to heat pumps, as well as motion-sensitive lightingand upgrade lighting to LEDs, all of which have reduced heating and electricity use. These renovations also included installing a Level 2 electric vehicle charger. Improvements to other municipal buildings, such as Lincoln and Memorial Hallsthe public works depot and the fire station, face financial, design, and permitting challenges that will require more resources than other improvements due to their age. However, these investments will save energy and money in the long run and showcase energy efficiency renovations for historic buildings.

Commented [DS27]: Confirm these details

Residential Heating

Formatted: Heading 3, Space Before: 0 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

According to the American Community Survey, in 2022 about 72% percent of homes in the Essex Community used natural gas for heating, and an additional 1210.7% used some other form of fossil fuel (see Table 2). This does not account for the fossil fuels in the electricity supply mix (typically about 10%) for homes heating with electricity. The remaining portion of homes heat with renewable sources of either electricity or wood.

It is difficult to know the type of electrical equipment used in homes heated with electricity. Homes heated with electricity could be using electric resistance heat or cold climate heat pumps. Historically, electric heating (through

electric resistance) has been expensive and inefficient, but new technology such as heat pumps (which heat and cool air using a refrigerant process) and weatherization of homes will make heating with electricity viable from both a financial and energy planning perspective. The efficiency of wood heating has also improved with the advent of wood pellets and high-efficiency stoves. Further improvements in home heating, such as combined air and water heating with energy storage systems, will also benefit new construction.

Table 12 Home Heating Fuel Type

Type	Estimate (# of homes)	Percentage Percent of Total	Margin of Error
Total	**8,4534,761**	**100%**	**+/-252225**
Utility gas	5,4353,311	6472.0%	+/-375272
Propane	203184	43.9%	+/-140103
Electricity	609831	1317.5%	+/-180203
Fuel oil, kerosene	345322	76.8%	+/-140150
Coal or coke	0	0.0%	+/-16
Wood	4145	10.9%	+/-4139
Solar energy	0	0%	+/-16
Other fuel	60	10%	+/-4716
No fuel used	1556	01.2%	+/-2458

Source: 2024 American Community Survey 5-Year Estimates, Table B25040.

~~Source: 2012-2016 American Community Survey 5-Year Estimates.~~

~~Residential energy costs are often overlooked due to the current low cost of natural gas and the stable cost of electricity. Residential incentives, improvements in zoning regulations, and energy education should be at the forefront of residential energy planning in the Essex Community. Through regulations and incentives, the Essex Community should also encourage landlords to invest in energy conservation measures, rather than letting heating, cooling, and lighting costs fall to tenants. The state has Residential Building Energy Standards and Commercial Building Energy Standards that establish a minimum level of energy efficiency in new and renovated buildings. The community should investigate incentives. For example, a time sale ordinance would encourage builders and property owners to meet or exceed the basic energy standards by leveraging additional funding for energy efficiency so that housing affordability is not reduced by passing those additional costs to renters or homeowners.~~

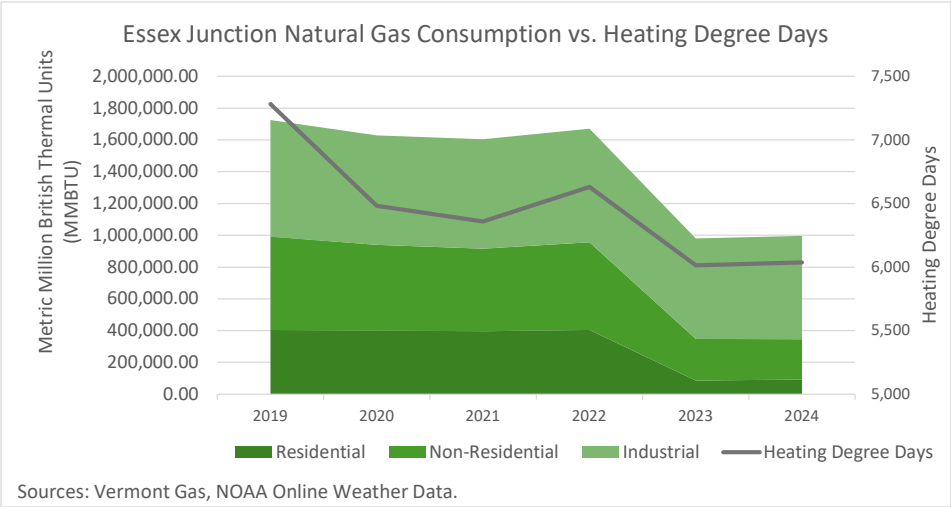
Commented [DS28]: Deleted here because it is repetitive of the policy discussion in the Implementation section

~~The costs and long-term savings of heating efficiency improvements and switching from equipment dependent on fossil fuels to those using renewable energy will largely be borne by building owners. Efficiency Vermont provides technical assistance, rebates, and referrals to ENERGY STAR® certified contractors and low-interest energy efficiency loans for homeowners, landlords, and business owners. The Essex Energy Committee also conducts outreach and collects information for the community on such improvements.~~

~~Weatherizing buildings (sealing air leaks and improving insulation), using more efficient heating and cooling systems such as heat pumps, and installing smart thermostat systems to avoid peaks and troughs in heat output are all important steps building owners should take to help reduce heating energy use between now and 2050 (see Table 3 and Table 4).~~ ~~As seen in~~ Figure 1 shows that~~,~~ natural gas consumption ~~has declined~~ for ~~both~~ residential~~,~~ ~~and~~ commercial~~,~~ ~~/~~and industrial users continues to track closely with variations in heating degree days (HDD)[i] in the year. Note that data on usage of delivered fuels (propane, fuel oil, and kerosene) is not readily available, and efforts to establish a reporting system for Vermont have stalled with the repeal of the Clean Heat Act. ~~Additionally, there has been a steady trend of residential projects undertaking energy efficiency measures which include improvements to the thermal shell, installed efficient appliances and heating equipment (see Figure 2). Keep in mind that data on building weatherization is difficult to track and the data below is not a complete measure of the homes weatherized to date.~~

Figure 1: Natural Gas Consumption and Heating Degree Days ~~(2015-2017)~~

[i] Heating Degree Days is a measure of building heating demand; for a single day, it is the difference between the average air temperature and 65 degrees Fahrenheit (the air temperature above which buildings generally don't require heating).



Sources: Vermont Gas, NOAA Online Weather Data.

~~Source: Vermont Gas~~

~~Figure 2 Residential Energy Retrofits (2015-2017)~~

Efficiency Vermont and Vermont Gas report data on ~~Additionally, there has been a steady trend of~~ residential projects undertaking energy efficiency measures in Essex Junction ~~which include improvements to the thermal shell, installed efficient appliances and heating equipment~~ (see Figure 2). These measures include weatherizing buildings (sealing air leaks and improving insulation), using more efficient heating and cooling systems such as heat pumps, and installing smart thermostat systems to avoid peaks and troughs in heat output are all important steps building owners should take to help reduce heating energy use. The data indicate a steady, but slow trend in residential weatherization projects; ~~K~~keep in mind that data on building weatherization is difficult to track and the data below is not a complete measure of the homes weatherized to date. A more significant trend is that, according to Efficiency Vermont, about 18.5% of Essex Junction homes have installed heat pumps in the last three years.

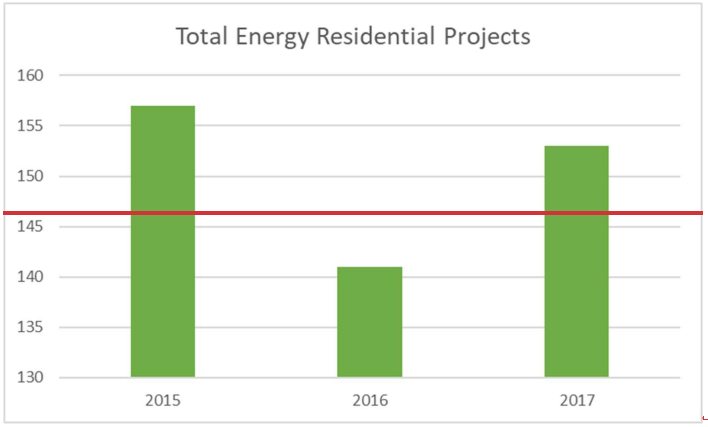
Commented [DS30]: Might be worth looking back at old Efficiency VT reports to better quantify what % of residences have been weatherized.

Table 2: Essex Junction Residential Energy Efficiency Projects

Essex Junction Residential Energy Efficiency Projects	2014-2020 (est.)*	2021	2022	2023	2024	Total	% of Total Homes
Total Residential Projects (includes projects below and others)	895	307	300	327	**278**	**2,107**	**42.5%**
Home Performance with ENERGY STAR®	72	4	6	3	**4**	**89**	**1.8%**
Other Weatherization Projects	28	7	8	11	**6**	**60**	**1.2%**
Residential New Construction Projects	284	1	0	0	**0**	**285**	**5.7%**
Subtotal of weatherized homes	*384*	*12*	*14*	*14*	***10***	***434***	***8.8%***
Other Selected Measure and Engagement Counts							
Home Energy Visits	9	3	2	5	**6**	**25**	**0.5%**
Heat Pump Water Heater Installations	33	21	16	21	**25**	**116**	**2.3%**

Cold Climate Heat Pump Installations	259	285	120	252	**194**	**1,110**	**22.4%**
Wood Heating Installations	7	9	3	3	**5**	**27**	**0.5%**

Sources: Efficiency Vermont, RPC Report Produced 6/2024; CCRPC Housing Database (there were 4,955 total Essex Junction homes in 2023)
*Before 2020, data for Essex Junction was combined with Essex Town. This figure represents an estimate based on each municipality's share of total housing units (approximately 50%).



~~Source: Efficiency Vermont~~

Looking to the future, Tables 3 and 4 lay out goals for Essex Junction's use of thermal energy, which includes ~~both~~ reducing the amount heating needed through weatherization and transitioning to heating systems that do not use fossil fuels.

Table 3 Essex ~~Community~~ Junction ~~Future Estimated~~ Targets for Residential Thermal Energy Use (2025-2050)

Essex Junction Targets for Residential Thermal Energy Use	2025	2035	2050
Projected number of future residences*	5,017	5,957	7,708
Residential thermal energy use (MMBtu)	463,247	269,274	165,792
Energy saved by weatherization or other thermal efficiency measures (MMBtu)	55,647	142,399	189,355
Estimated number of Homes weatherized	1,081	2,336	3,780
Percent of residences weatherized	22%	40%	50%
Heat pump energy consumed by residences (MMBtu)	81,584	79,588	77,592
Estimated number of heat pumps in homes	1,527	4,410	7,188
Percent of residences using heat pumps	30%	74%	93%
Wood heat (cord wood + wood pellets) consumed by residences (MMBTU)	11,897	18,601	23,305
Estimated number of residences using wood heat	114	187	262
Residences using wood heat (%)	2.3%	3.1%	3.4%
Utility gas Heat Energy consumed by residences (MMBtu)	283,710	148,125	12,540
Estimated number of residences using utility gas	2,726	1,493	130
Percent of residences using utility gas	54%	25%	2%

Sources: LEAP Model, Department of Public Service

**Growth rate for future residences is based on municipal 10-year average annual change of new homes built between 2012-2022, annual rate is 1.73%. This may not align with growth rates anticipated for housing targets required under 24 V.S.A. § 4382(a)(10).*

Residential energy costs are often overlooked due to the current low cost of natural gas, the stable cost of electricity and the high cost of heating efficiency improvements and switching from equipment dependent on fossil fuels to those using renewable energy. Efficiency Vermont and Vermont Gas provide technical assistance, rebates, and referrals to ENERGY STAR®-certified contractors and low-interest energy efficiency loans for homeowners, landlords, and business owners, all of which can help reduce the up-front cost.

While the City has already come close to meeting its 2025 goals for electrification, this does not appear to have influenced residential consumption of fossil fuels for heating. This may indicate that residents are still relying primarily on fossil fuel heat, only using heat pumps when there is less overall heating demand. Residents may also have installed heat pumps primarily for cooling and may not use them for heating, and the incentives available have made heat pumps more appealing as a luxury, rather than a cost-saving investment.

One possible reason for the slow progress on weatherization is that the savings from these improvements may take 5 years, 10 years, or even longer to cover the initial cost, which may not be appealing to those who do not plan to occupy the property that long. In addition, unlike other improvements a homeowner can undertake, having high energy efficiency does not improve a home's value or make it more competitive on the real estate market, especially in Essex Junction's highly constrained housing market.

Even so, energy costs and potential savings are an important factor in home affordability, which ultimately determines who can live in the community. If Essex Junction hopes to remain affordable and welcoming to people of all income levels, the City (perhaps through a newly established Energy Committee) should provide education to potential home buyers and renters on how to evaluate a home's energy costs; the City could also educate realtors on why energy performance is an important factor for renters and buyers as well as sellers. These efforts may help increase demand for high-performing homes and therefore willingness to invest in improvements.

The City should also work with partners at Efficiency Vermont and Vermont Gas to understand whether residential efficiency and electrification incentives are having the intended impact, why residents are choosing electrification over weatherization, and why this has not changed consumption trends. This may lead to modifying the residential incentives available or improving marketing and education efforts. If incentives and education do not lead to progress, the City may need to consider regulatory approaches to achieving its residential thermal energy targets.

~~Table 4 Essex Community Future Estimated Commercial Thermal Energy Use (2025-2050)~~

	~~2025~~	~~2035~~	~~2050~~
~~**Total commercial / thermal energy use (MMBtu)**~~	~~393,515~~	~~374,823~~	~~331,537~~
~~**Percent of commercial establishments weatherized**~~	~~19%~~	~~22%~~	~~38%~~
~~**Commercial energy saved by weatherization (MMBtu)**~~	~~21,154~~	~~29,330~~	~~70,685~~

Formatted: Left, Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: Normal, Left, Space Before: 10 pt, Don't keep with next

Formatted: Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: Normal, Left, Space Before: 10 pt, Don't keep with next

Formatted: Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

Formatted: Left, Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers

~~Commercial establishments using heat pumps (%)~~	~~21%~~	~~34%~~	~~38%~~
~~Commercial thermal energy use from heat pumps (MMBtu)~~	~~31,909~~	~~63,078~~	~~94,247~~
~~Commercial establishments using wood heating (%)~~	~~9%~~	~~10%~~	~~11%~~
~~Commercial thermal energy use from wood heating (MMBtu)~~	~~47,615~~	~~65,583~~	~~96,017~~
~~*Source: CCRPC LEAP Model, Vermont Department of Public Service, Vermont Department of Labor*~~			

Commercial Heating

The LEAP model also sets targets for commercial thermal efficiency and electrification (see Table 4). Efficiency Vermont also reports on commercial and industrial establishments undertaking energy efficiency measures in Essex Junction (Table 5). Municipal-level data on weatherization is not available, but regional data shows that the vast majority of these measures are lighting upgrades (i.e., switching from incandescent or fluorescent to LED lighting) or related to electrical equipment efficiency, and weatherization or heating efficiency projects represent less than 2% of projects. Still, these data only include projects completed through Efficiency Vermont programs, so they likely undercount the number of projects, especially for commercial establishments where minimizing costs are a higher priority than for residences.

Table 4. Essex Junction Targets for Commercial Thermal Energy Use

Essex Junction Targets for Commercial Thermal Energy Use	2025	2035	2050
Projected Number of future commercial establishments*	869	944	1,067
Percent of Commercial Establishments Weatherized	22%	40%	50%
Energy Saved by Weatherization (MMBtu)	39,552	78,154	110,538
Number of Heat Pumps installed in Commercial Buildings**	1,622	4,906	6,275
Commercial Establishments Using Wood Heating (%)	9%	10%	12%
Commercial Thermal Energy Use Attributable to Wood Heating (MMBtu)	59,318	72,621	89,956

Sources: VT Department of Labor, ECOS Plan Forecasts, CCRPC Bottom-Up Approach for Commercial Sector
**Growth rate for future commercial establishments is based on the ECOS Plan employment forecast rate of 0.83%*
**** Contemplates multiple mini split heat pumps per commercial establishment. However, larger commercial establishments would likely use a centrally ducted system.

Table 5. Essex Junction Commercial & Industrial Energy Efficiency Projects

Essex Junction Commercial & Industrial Energy Efficiency Projects	2014-2020 (est.)*	2021	2022	2023	Total
Total Commercial & Industrial Customers Served	1,737	129	137	140	**2,143**
Total Commercial & Industrial Projects	984	95	94	95	**1,268**
Small & Medium Business Walkthroughs	0	0	0	40	**40**
Cold Climate Heat Pump Installations	100	42	9	8	**159**
Heat Pump Water Heater Installations	1	0	2	1	**4**

Formatted: Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers
Formatted: Normal, Left, Space Before: 10 pt, Don't keep with next
Formatted: Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers
Formatted: Left, Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers
Formatted: Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers
Formatted: Left, Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers
Formatted: Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers
Formatted: Left, Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers
Formatted: Space Before: 10 pt, Widow/Orphan control, Adjust space between Latin and Asian text, Adjust space between Asian text and numbers
Formatted: Heading 3, Space Before: 0 pt
Commented [DS31]: Check table numbering

Wood Heating Installations	0	0	0	0	0

Table 6. Chittenden County Commercial Energy Efficiency Measures

Commercial Measures Installed	Percent of Projects
Air Conditioning Efficiency	0.33%
Compressed Air	0.04%
Cooking and Laundry	0.03%
Design Assistance	0.09%
Flexible Load Management	0.02%
Hot Water	0.14%
Industrial Process Efficiency	0.03%
Lighting	96.78%
Motors and Motor Controls	0.14%
Refrigeration	0.80%
Space Heating	1.51%
Thermal Shell	0.02%
Ventilation	0.07%

Formatted Table

The costs and long-term savings of heating efficiency improvements and switching from equipment dependent on fossil fuels to those using renewable energy will largely be borne by tenants of commercial buildings, who may or may not be the building owners. Through outreach conducted in 2026, several Essex Junction business owners who lease commercial space reported that their landlord has neglected to address issues of energy efficiency or building code compliance. In some cases, tenants have been required to pay for repairs and upgrades, even though they do not have the resources to do so and may not benefit from them beyond the term of their lease. Not only does this dynamic prevent the City from meeting its energy and climate goals, it creates a less welcoming climate for businesses, which in turn makes the major commercial areas less attractive to customers. The City should conduct outreach to commercial landlords to better understand how they can better support their commercial tenants and work towards community goals for business support and energy use. Business owners and residents have also advocated for the City to take a stronger role in landlord-tenant relations and possibly code enforcement.~~Efficiency Vermont provides technical assistance, rebates, and referrals to ENERGY STAR® certified contractors and low-interest energy efficiency loans for homeowners, landlords, and business owners. The Essex Energy Committee also conducts outreach and collects information for the community on such improvements.~~

Electricity

Electricity usage has not been tracked for Essex Junction separately from the Town until 2024, and there is a gap in data reporting for 2025, but the best estimates for the City are reported in Table 7, and county-wide trends are reported in Table 8. These indicate that electrical usage has remained relatively steady around annual fluctuations due to winter and summer temperatures, even as there has been growth in the number of residential premises. However, in recent years there has been an upward trend in average residential usage, likely due to shift towards electric heating systems and vehicles. Therefore, it is even more important to continue promoting electrical efficiency in appliances and smart technologies that reduce demand during peak times, which often requires use of non-renewable electricity sources imported from the regional grid. ~~Total electrical energy use within the Essex Community has decreased since 2015, though the number of residential premises has increased. This is primarily due to energy efficiency appliances and smart technologies. Additionally, utilities are measuring savings from estimated reductions in electricity realized by installed efficiency measures in the commercial sector. The Essex Community has saved 7,644 MWh of electricity from 2015-2017 from commercial and industrial users. The Community should consider working with businesses to accelerate the pace of energy efficiency savings, given that the commercial/industrial sector makes up 90% of electricity consumption. Residential users make up 10% of electricity use in the community. Like the commercial/industrial sector, residential users saved nearly 50% of the electricity saved between 2015-2017.~~

Table 7. Essex Junction Annual Electricity Use

Sector	2021-2023 Average
Commercial & Industrial (kWH)	405,137,643
Residential (kWH)	35,589,609
Total (kWH)	440,727,251
Count of Residential Premises	5,722
Average Residential Usage (kWH)	6,220

Source: Efficiency Vermont, 2024 RPC Report Produced 6/21/2024. Data for Essex and Essex Junction were not separated prior to 2023, therefore an average usage by municipality was calculated for the most recently available data.

Though Essex Junction's average residential electricity consumption is lower than the county's, the City accounts for an outsized portion of regional commercial and industrial electricity use due to the presence of the GlobalFoundries plant for a semiconductor manufacturing. GlobalFoundries, which comprises over 90% of the electricity consumed within the City, now operates its own electric utility subject to state goals for electrical efficiency and use of renewable electricity sources. This includes implementing plans to build solar panels on hundreds of acres of parking lots across GlobalFoundries' campus that will produce dozens of megawatts of electricity once complete.

Table 8. Chittenden County Annual Electricity Use

Chittenden County Annual Electricity Use (kWH)			
Sector	2021	2022	2023
Commercial & Industrial	1,279,142,373	1,327,755,966	1,148,337,163
Residential	467,639,941	469,417,104	473,361,725
Total	1,746,782,314	1,797,173,070	1,621,698,888
Average Residential Usage	7,533	7,521	7,610
Count of Residential Premises	69,789	70,357	70,708

Source: Efficiency Vermont, 2024 RPC Report Produced 6/21/2024.

The LEAP model (see Table ~~7~~9) has estimated future electricity demands and intermediate targets for electricity savings and renewable generation in line with the Vermont CEP to demonstrate the importance of maintaining and accelerating this momentum.

Table 9. Essex Junction Electric Efficiency Targets

Formatted: Caption, Keep with next

Essex Junction Electric Efficiency Targets	2025	2035	2050
Total cumulative electric energy saved from improvements in area residential equipment efficiency, in kWh	833,048	4,632,597	8,375,878
Residences that have increased their Electric Efficiency	319	1,772	3,204
Total cumulative electric energy saved from improvements in area commercial equipment efficiency, in kWh	173,571	847,457	700,039
Commercial and Industrial Establishments that have Increased Their Electric Efficiency	82	400	400
Source: Energy Efficiency Utility Potential Study, CCRPC, and the Department of Public Service			

~~**Table 4 Electricity Consumption (2015-2017)**~~

~~Sector~~	~~2015~~	~~2016~~	~~2017~~

Commercial & Industrial (MWh)	491,868	485,004	480,218
Residential (MWh)	55,341	54,407	52,836
Total (MWh)	574,209	539,411	533,054
Count of Residential Premises	8,353	8,516	8,593
Average Residential Usage (KWh)	6,625	6,389	6,149

Source: Green Mountain Power, Efficiency VermontTable 5 Electricity Consumption (2015-2017)

Formatted: Left

	2015	2016	2017	Total
Total Electric Savings (MWh)	4,395	4,456	5,766	14,617
Residential	2,250	2,213	2,511	6,973
Commercial & Industrial	2,145	2,243	3,255	7,644

Source: Green Mountain Power, Efficiency Vermont

Table 6 Estimate Future Electricity Usage (2025-2050)

	2025	2035	2050
Total electrical energy use (MWh)	859,118	1,098,896	1,436,730
Total electrical energy savings (MWh)	14,092	28,447	53,207
Percent of Residences that should increase their electric efficiency	30%	58%	98%
Percent of Commercial and Industrial Establishments that should increase their electric efficiency	30%	58%	98%
Source: CCRPC LEAP Model, Vermont Department of Public Service			

Renewable Electricity Generation

~~Within the Essex Community there are currently 432 sites that generate 27,799MWh of electricity from renewable sources, with a total capacity of 12 megawatts (MW).~~ Table 10 shows the current inventory of renewable electricity generation sites within Essex Junction, both public and private. Green Mountain Power's Essex #19 hydroelectric dam on the Winooski River at VT-2A accounts for ~~18,300 MWh, or 66%~~ about 68% of this total. For the purposes of documenting existing generation, ~~T~~the energy generated from the hydro dam is ~~split~~ allocated equally between the ~~Essex Community~~ City and the Town of Williston because the jurisdictional boundaries split the centerline line of the Winooski River. The next largest producer is the wastewater treatment facility's combined heat and power system, which provides ~~760 MWh of~~ electricity to the facility (in addition to heat) as a by-product of methane digestion; this also reduces emissions of methane, one of the most potent greenhouse gases. The remaining ~~8 MW/8,739 MWh~~ generation within the City comes from ~~430~~ roof-mounted or ground-mounted photovoltaic ~~(~~(PV) solar systems scattered throughout the community. Though located physically outside its boundaries, the City has ~~By securing~~ secured a power purchase agreement with Green Lantern Solar, LLC, which supplies 80% of municipal buildings' electricity needs from a 500 kW PV facility on River Road~~, the Essex Community~~ This shows how the City has demonstrated leadership in deployment of renewable energy resources. ~~These~~ Combined, renewable electricity resources supply approximately ~~3.4%~~5.9% of the estimated current (~~2017~~2023) electric energy used within the community, and about 72.5% of its residential usage (which excludes GlobalFoundries' consumption).

Table ~~10~~11 Existing Renewable ~~Energy~~ Electricity Generation

~~Type~~	~~Number of~~ Sites	Power (MW)	Energy (MWh)
Solar	~~430~~292	~~8~~4.95	~~8,739~~6,505.63
Wind	0	0	0
Hydro	1	4.03	~~18,300~~17,629.50
WWTP*	1	0.15	760
Biomass	1	0.15	919.80
Total	~~432~~294	~~12~~9.13	~~27,799~~25,814.93

Source: Vermont Department of Public Service, Generation Scenarios Tool, Distributed Generation Survey + data as of 1/31/2023
*Wastewater Treatment Plant combined heat and power system

~~Renewable Energy Generation Targets~~

Regardless of ultimate use, the transformation to renewable sources of electricity will require increased generation from a variety of sources including biomass, hydro, solar, and wind. Table 11 outlines the targets for renewable generation set forth in the ECOS Regional Plan for Essex Junction, which were derived from an analysis of how the region could achieve its targets consistent with the state goals for energy use and the LEAP model. A total target (with milestones at 2032, 2040, and 2050) was allocated to each municipality based on population, current electricity demand, and land available for renewable electricity generation. The municipality's existing generation was subtracted from the total target to calculate the incremental target, which is the new capacity that must be created by the target year.

Table 11. Essex Junction Renewable Electricity Generation Targets

Essex Junction Renewable Electricity Generation Targets	2032	2040	2050
Total Target (MWh)	31,320	55,027	65,992
Incremental Generation Target – Any Technology (MWh)	6,265	29,972	40,937
Grid Distribution Capacity (MW)*	119.6	97.6	87.4
Sources: CCRPC and the Department of Public Service			

Formatted: Font: Bold
Formatted Table
Formatted Table
Formatted: Left, Position: Horizontal: Left, Relative to: Column, Vertical: 0", Relative to: Paragraph, Horizontal: 0.13", Wrap Around
Formatted: Caption, Keep with next

**Grid Distribution Capacity data includes both Essex and Essex Junction (data not available for Essex Junction separately)*

Grid distribution capacity is an important factor when it comes to creating new electricity generation within the community; Table 11 shows the anticipated remaining capacity assuming the targets for each milestone year have been met. Thankfully, Essex Junction has more than enough capacity to accommodate its targets. Additionally, electricity storage technologies such as batteries, fuel cells, pumped hydroelectric, and compressed air systems can store excess power generated by intermittent renewable sources. These will become more important as their technology develops and the proportion of generation from renewable sources increases. The community should work with electric utility companies to support these infrastructure needs.

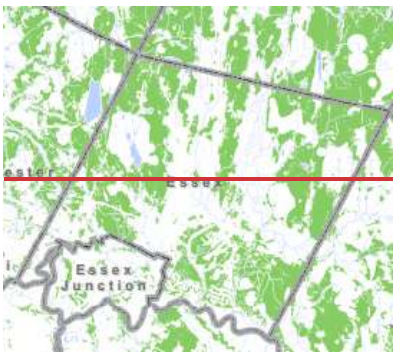
Supplying the community's electricity needs primarily through local PV solar systems and wind turbines will require a significant portion of land area. Map 4 and Map 5 show the areas in the community where conditions are appropriate for solar and wind energy generation, such as slope, aspect, elevation, and modeled wind speed. These are classified into prime areas (appropriate conditions and no known or possible development constraints) and base areas (appropriate conditions, but with possible constraints to avoid or mitigate). The Chittenden County Regional Planning Commission (CCRPC), in collaboration with the Vermont Department of Public Service (PSD) and the Vermont Center for Geographic Information (VCGI), has conducted a mapping analysis for the region that estimates renewable electricity generation capacity (see Table 12). This estimates the energy potential of various generation technologies based on models of the elevation, slope, and aspect of land or modeled wind speed. It removes areas of known constraints and applies a reduced capacity factor for areas of possible constraints where development density may be more limited. See the Constraints section of this plan for a full list of constraints; see Supplement 6 of the ECOS Regional Plan for more information on the mapping analysis conducted by CCRPC.

Table 12. Essex Junction Land Available for Renewable Electricity Generation

Essex Junction Land Available for Renewable Electricity Generation			
	Acres with Prime Potential	**Acres with Base Potential**	**Total Energy Potential (MWh)**
Solar	110	859	42,095
Wind	1	13	669
Solar Rooftop	105		61,399
Source: CCRPC and the Department of Public Service, Vermont Center for Geographic Information			

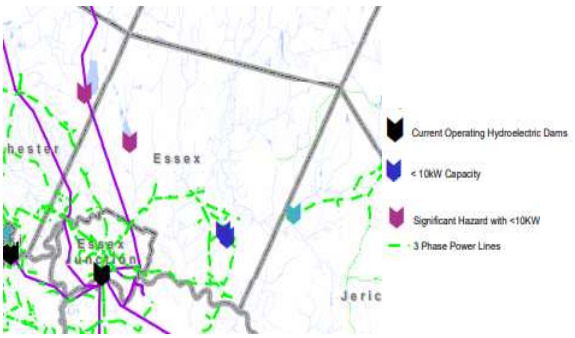
Electricity generation potential from woody biomass is difficult to model and therefore not included in the analysis~~, but woody biomass resource areas are shown in Figure 3~~. Areas that could supply woody biomass ~~These are areas~~ are generally privately-owned forest lands or City properties, most of which are intended for conservation, and those that may be used for silviculture will also have to consider ~~and~~ demand for saw timber and other forest products that will compete with uses of wood for energy~~firewood, wood chips, and wood pellets~~. Furthermore, electric generation efficiency from woody biomass is low—around 25% at most—compared to other sources (2016 ~~CEP~~Vermont Comprehensive Energy Plan, p. 339). Woody biomass would be better used for heating or combined heat and power.

~~Figure 3 Woody Biomass~~



Hydroelectric generation potential also is not modeled because it is unlikely to increase significantly in the community for several reasons. There are few additional sites for large facilities, and smaller facilities have limited generation potential. Furthermore, site design and permitting are extremely challenging due to the significant impacts on stream geomorphology and aquatic habitats. That said, ~~there are several potential sites for micro-hydro in Essex and Essex Junction, shown in Figure 4. The Energy Committee~~ the City of Essex Junction wholeheartedly supports development of micro-hydro and will seek to work with stakeholders to investigate the feasibility of such projects.

~~Figure 4 Potential Hydro Power~~



~~Supplying the community's electricity needs primarily through local PV solar systems and wind turbines will require a significant portion of land area.~~ According to CCRPC's mapping analysis, there is enough suitable land for development of renewable energy generation to meet the community's targets through rooftop solar alone. ~~Figure 5 indicates that there is about 13% of the community's land area capable of accommodating solar energy generation facilities to meet~~

~~the low target (see Table 10 for targets). However, the community only needs about 1,198 acres or 4.75% of the Community's land area to meet the low target for renewable electricity generation. Given that the Essex Community cannot meet its low target solely with 883 acres of prime solar the remaining 325 acres must be developed in areas of base solar. Because the actual development potential of base solar is uncertain, CCRPC's methodology assumes a generation density of 1 MW per 60 acres when calculating land are required to meet the community's overall generation targets. Therefore, once all constraints are accounted for, the actual area occupied by solar development would still be only 1,198 acres in total. Developing this amount of acreage is just one pathway for meeting the target.~~ However, while the mapping analysis attempts to accounts for factors like roof aspect, slope, and other reasons that a rooftop may not be suitable, it is ultimately an approximation. ~~-~~Because these sites are already developed, solar generation may be compatible with other land uses if developed in a way that is in harmony with existing development patterns and existing aesthetic norms especially in the Village Center District and the Town's Historic Preservation and Business Design Control Districts. Preferred sites should be the focus of renewable energy development over undeveloped land, or historic districts. The Essex Energy Committee has partnered with solar developers to promote adoption of rooftop solar in the community by hosting informational events for both residential and commercial building owners.

The community should plan for other forms of generation, including parking lot canopy solar (which are captured in the "prime" and "base" potential areas, since existing developed areas are not removed from the analysis). GlobalFoundries is already taking advantage of their large areas of parking lots to redevelop them for ground-mounted solar (not as canopies). Other preferred sites for net metering systems include brownfields, landfills, and former mineral resource extraction areas. ~~For instance, the Town strongly supported Green Mountain Power's 4.5-MW photovoltaic array and battery storage facility at River Road on the site of a reclaimed sand and gravel extraction area.~~ Wind turbines may also be located on previously-developed sites, but wind generation efficiency drops exponentially with turbine size, and only small-scale turbines should be sited near developed areas, so the generation potential for these sites would be limited. There are nevertheless good reasons to consider small-scale wind on municipal lands as a means of reducing electrical costs and setting an example of the small-but-important steps residents and businesses can take to work towards Essex Junction's goals.

There are also many other technologies (i.e. hydro, district heating, ~~and~~ biomass, and possibly networked geothermal) that could be used to offset the need to utilize ~~some of the 1,198 acres~~land for electricity generation. ~~Additionally, t~~The policies on siting renewable energy generation facilities should be reviewed and adjusted as steps are taken towards the goal of 90% renewable energy use by 2050. ~~The community should revisit the concept of a community net metering solar array by conducting an engineering study for the former town dump located near the intersection of VT Route 2A and VT Route 289.~~

~~Map 4 and Map 5 show the areas in the community where conditions are appropriate for solar and wind energy generation, such as slope, aspect, elevation, and modeled wind speed. These are classified into prime areas (appropriate conditions and no known or possible development constraints) and base areas (appropriate conditions, but with possible constraints to avoid or mitigate). Table 8 describes the land available for renewable energy generation based on the acreage of prime and base areas. Table 9 shows the generation potential (capacity or power in MW, total annual energy output in MWh) based on these prime and base resource areas.~~

~~Table 8 Land available for Renewable Energy Generation~~

Formatted: Normal, Left, Space Before: 12 pt, No widow/orphan control, Don't adjust space between Latin and Asian text, Don't adjust space between Asian text and numbers

	Prime Potential	Base Potential
Solar (acres)	883	7,716
Solar (% of land area)	9%	64%
Solar generation density (MWh/acre)	153	20
Wind (acres)	125	3,307
Wind (% of land area)	0.6%	15%
Wind generation density (MWh/acre)	122	123
Source: CCRPC, Vermont Department of Public Service, Vermont Center for Geographic Information		

Table 9 Potential Renewable Energy by Technology

	Power (MW)	Energy (MWh)
Rooftop Solar	15	18,262
Ground-Mounted Solar – Prime	110	135,323
Ground-Mounted Solar – Base	129	157,707
Wind – Prime	5	15,278
Wind – Base	132	405,570
Source: CCRPC, Vermont Department of Public Service		

Figure 5 Land Area Available to Reach Low Target

Table 10 Renewable Energy Generation Target

	Low	High
Additional Target (Mwh)	183,587	325,830
Existing (Mwh)	27,799	
Total (Mwh)	211,386	353,629
Additional Acres Needed to Meet Target	1,198 (5% of Community)	2,125 (8% of Community)

Of the total solar generation potential, 15 MW (18,262 MWh) could be located on existing impervious surfaces, such as rooftops and paved areas. Because these sites are already developed, solar generation may be compatible with other land uses if developed in a way that is in harmony with existing development patterns and existing aesthetic norms especially in the Village Center District and the Town's Historic Preservation and Business Design Control Districts.

~~Preferred sites should be the focus of renewable energy development over undeveloped land, or historic districts. The Essex Energy Committee has partnered with solar developers to promote adoption of rooftop solar in the community by hosting informational events for both residential and commercial building owners.~~

~~Other preferred sites for net metering systems include brownfields, landfills, and former mineral resource extraction areas. For instance, the Town strongly supported Green Mountain Power's 4.5-MW photovoltaic array and battery storage facility at River Road on the site of a reclaimed sand and gravel extraction area. Wind turbines may also be located on previously-developed sites, but wind generation efficiency drops exponentially with turbine size, and only small-scale turbines should be sited near developed areas, so the generation potential for these sites would be limited. There are nevertheless good reasons to consider small-scale wind on municipal lands as a means of reducing electrical costs and setting an example of the small-but-important steps residents and businesses can take to work towards Essex's goals.~~

Renewable energy generation facilities shall not take place in areas with known constraints; if impacts to possible constraints cannot be avoided, they shall be mitigated. Renewable energy installers should be encouraged to develop in tandem with other uses that could occur on a given site to add value in a way that speaks to holistic development patterns rather than a standalone facility. This type of development could also locate renewable energy installations on the same site as high energy users and reduce the need for distribution and transmission line upgrades.

Facilities with a generation capacity greater than 500kW are considered utility-scale and shall be located in designated industrial or commercial zones, where constraints are less numerous, impacts are more easily mitigated, and there is less competition for other land uses than in other areas. Other areas would have to be considered on a ~~case by case~~case-by-case basis, with developers encouraged to interact directly with ~~Essex's municipal planners~~ City staff and committees in advance of issuing an advance notice under Section 248.

Within the ~~Town of Essex's Scenic Resource Protection Overlay District, the~~ designated ~~Village~~ City Center District~~, the Town of Essex's Historic Preservation Design Control District, and the Business Design Control District,~~ all development (including renewable energy generation facilities) that impact sites and buildings that are listed or eligible for the State or Federal Register of Historic Places shall follow the U.S. Secretary of the Interior's Standards for the Rehabilitation of Historic Structures (36 CFR § 67.7) ~~siting, design, and screening standards/best practices as other forms of development~~ to avert or minimize undue adverse impact on ~~scenic~~ historic resources.

Transportation

As noted in the Transportation section of the Essex ~~Village~~ Junction Comprehensive Plan ~~and Essex Town~~, the ~~Essex Community~~ City has been and continues to be**,** a transportation hub. The only Amtrak station in Chittenden County exists in the ~~Village~~City~~;~~ an active bus terminal, and five state highways are also present. Promoting compact development, providing more options for walking, biking, and public transit, and reducing single-occupancy vehicle trips can reduce energy use in the transportation sector. ~~The park and ride on Landfill Lane provides one option to carpool and reduce single-occupancy vehicle use; the community should explore other strategic locations for park and ride lots.~~

~~The Essex Community~~ Essex Junction currently relies almost exclusively on fossil fuels for its transportation energy (Table 13). About 93% of light-duty vehicles (passenger cars and light trucks) used fossil fuels in 2022, and there are no

electric heavy-duty vehicles on the market (though some may be able to use biofuels). Locomotives (Amtrak passenger rail and freight rail) still rely on diesel, and there are no plans~~In 2015, there were 15,114 fossil-fuel burning light-duty vehicles registered in the community, in addition to heavy-duty vehicles and locomotives. Heavy-duty vehicles will still rely on internal combustion engines due to power demands, but these can transition to renewable biofuels with changes to vehicle design and fueling systems.~~ to transition to electric as is more common in urban areas.

The LEAP model indicates that, to reach 2050 targets, total transportation energy use in the community (including light-duty and heavy-duty vehicles) must decrease significantly and steadily (Table 14). In addition, light-duty vehicles will create a significant demand for electricity by transitioning from fossil fuels, while heavy-duty vehicles will likely transition to using biodiesel almost exclusively (though this is not modeled in the latest LEAP data).

Table 13. Essex Junction Current Household Transportation Energy Use

Essex Junction Current Household Transportation Energy Use	
Total Energy Consumption for Light Duty Vehicles (LDVs) (2022)	539,745 MMBTU
Total Energy Consumption for Fossil Fuel LDVs (2022)	535,461 MMBTU
Total Energy Consumption for Electric LDVs (2022)	4,284 MMBTU
Fossil Fuel Burning LDVs Registered to Households (2022)	12,926
All-Electric (Battery) LDVs (2023)	203
Plug-in Hybrid LDVs (2023)	155
Total Electric Light Duty Vehicles (2023)	358
Total Electric LDVs as % of Municipality's Total Vehicles	2.8%
Sources: Transportation Research Center, Drive Electric Vermont; MMBTU = Metric Million British Thermal Units	

Table 14. Essex Junction Projected Light Duty Vehicle (LDV) Transportation Energy Demand

Essex Junction Projected Light Duty Vehicle (LDV) Transportation Energy Demand	2025	2035	2050
Estimate of total light-duty vehicles*	13,426	14,787	17,090
Estimate for number of area battery electric and plug-in hybrid LDV	738	7,742	16,784
Light Duty Electric and Hybrid Electric Vehicles (% of Vehicle Fleet)	5.5%	52.4%	98%
Non-Electric Light Duty Energy Demand (MMBtu)**	797,706	378,402	50,519
Electricity Demand for Light Duty Transportation (MMBtu)	12,521	131,246	247,905
Biofuel share of biofuel-blended LDV transportation energy consumed	8%	10%	10%
Source: LEAP Model, UVM Transportation Research Center **Growth rate for LDV is based on the municipality's 10-year average annual change of new homes built between 2012-2022, annual rate is 1.73%* ***Non-Electric vehicles include those that use gasoline, diesel, ethanol, compressed natural gas, and biodiesel*			

~~**Table 11 Estimated Future Transportation Energy Use, 2025-2050**~~

	~~2025~~	~~2035~~	~~2050~~
~~**Total light duty transportation energy use (MMBtu)**~~	~~890,049~~	~~563,787~~	~~245,721~~

~~Electricity used for light duty transportation (MMBtu)~~	~~11,869~~	~~81,813~~	~~172,669~~
~~Light duty electric vehicles (% of vehicle fleet)~~	~~94%~~	~~59%~~	~~11%~~
~~Biofuel blended* energy used for light duty transportation (MMBtu)~~	~~878,180~~	~~481,974~~	~~73,052~~
~~Biofuel blend* light duty vehicles (% of vehicle fleet)~~	~~94%~~	~~59%~~	~~11%~~
~~Heavy-duty transportation energy use from biodiesel (% of total)~~	~~33%~~	~~58%~~	~~96%~~
~~Heavy-duty transportation energy use from fossil fuels (% of total)~~	~~67%~~	~~42%~~	~~4%~~
~~*This measures biofuels blended with fossil fuels. A common example is gasoline with ethanol mixed in.~~			
~~*Sources: VTRANS, CCRPC/VEIC LEAP model~~			

-The technological improvements and decreasing price of hybrid and all-electric vehicles ("EVs") will allow for a steady transition from fossil fuel to renewable sources for light-duty vehicles~~; in 2017, there were already 49 light-duty EVs registered in the community~~ . The community can become "electric vehicle ready" by requiring that buildings (including residences and places of work) are built and retrofitted with EV charging infrastructure, while also encouraging development of public charging stations. Drive Electric Vermont has information on the use of EVs.

Because of the urgent need to make progress towards these goals, ~~the Essex Community~~ Essex Junction should actively pursue both incentive-based and regulatory strategies to encourage conservation and efficiency~~,~~ ~~such as~~ This could include a revolving loan fund for ~~energy efficiency upgrades~~installing EV chargers and upgrading electrical service and panels to support them, or an energy fee that funds public energy improvements (such as EV charging stations and rooftop solar grants or loans), with waivers or reduced rates for those who make their own improvements.

It is important to note that even though EVs can save money in the long term because electricity can be a cheaper source of energy than gasoline, so far EV adoption has primarily occurred among the affluent who can afford the larger up-front cost. There has also been a limited market for used (and therefore cheaper) EVs since the technology is newer, which means that households with lower incomes may not be able to afford new or used EVs. From 2020-2025, the State of Vermont attempted to address this inequity under the Clean Transportation Incentive Programs, which offered financial assistance towards the purchase of used EVs, e-bikes, and high-efficiency used vehicles to low- and moderate-income households. However, the funding for that program expired and has not been recapitalized. However, there is now a larger market for used EVs, and e-bikes are more widely available than ever. The City should continue to promote adoption of these technologies through public outreach and education events (such as test ride / drive events) in partnership with DriveElectric Vermont and the Vermont Clean Cities Coalition, making sure to note the options available to households of different incomes.

Through some of these events, partners have heard hesitation to adopt these technologies from certain households for specific reasons. There are limited EV options for larger passenger vehicles needed by larger households. Residents who live in large multi-unit buildings have limited charging infrastructure available (making plug-in hybrids a better option).

And many households are dependent on public transit, which limits their options for meeting certain needs (e.g., bringing a large amount of groceries home, or traveling with a child in a stroller). To address these barriers, the City can:

- Set up a microtransit or carpool program for residents who need to reach specific destinations not accessible by public transit; this could be modeled on the Essex Senior Van program
- Require new multi-unit dwelling development to include electric vehicle charging infrastructure
- Continue to require and incentivize commercial and mixed-use buildings in the Land Development Code, and work specifically to bring basic needs like grocery stores to the community
- Continue to address gaps and barriers in the sidewalk network to ensure better walkability, particularly for those with limited mobility (e.g., people in wheelchairs, using strollers or carts, etc.) by installing ADA-compliant curb cuts and sidewalk ramps, installing benches, etc.
- Continue to ensure that sidewalks and paths are well-lit to provide a sense of safety for users at night

Formatted: List Paragraph, Bulleted + Level: 1 + Aligned at: 0.25" + Indent at: 0.5"

Government

As the primary source of regulation and enforcement in the community, as well as a source of guidance, the ~~Town and Village~~City government~~s~~ can champion energy reform and efficiency.

The community needs to prepare for energy-related issues beyond its control. As the community and state take steps to improve efficiency, reduce consumption, and incorporate more renewable ~~energy~~ electricity into the mix, large-scale renewable ~~energy~~ generation sites such as solar farms may wish to locate in ~~the Essex Community~~Essex Junction. Though the community ~~could~~ may take pride in locally-produced, renewable energy, other Vermont towns can attest to the controversy that can arise when wind turbines are placed atop ridgelines or solar arrays fill previously -undeveloped fields.

The Vermont Public Utilities Commission (PUC), rather than the community, issue~~s~~ permits for electric transmission and electric generation facilities. As a result, energy projects are not subject to direct municipal land use regulation, though the changes made by Act 174 of 2016, provide new means of local control through solar setbacks, site designation, and this plan. Moreover, the community can rely on this plan to engage in the Section 248 process to ensure that local land use policies are considered and enforced in the orderly development criterion of the permitting process conducted by the PUC.

Appendix A

The standards in this section shall apply to all development (including renewable energy generation) located in the specified areas identified.

Design Control Best Practices

This section outlines the best practices for locating net-metered roof-mounted solar facilities up to 500 kW in the ~~Village~~ City of Essex Junction's Designated ~~Village~~ City Center/historic district ~~and the Town of Essex's Business and Historic Preservation Design Control Districts~~. The best practices in this section are intended to preserve character-defining features of these areas while accommodating the need for renewable energy generation to the extent practical.

1. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.
2. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
3. Utilization of low-profile solar panels is recommended. Panels shall be within ten percent (10%) of the average height of existing adjacent buildings and not be visible from the public right of way. Solar shingles laminates, glazing, or similar materials should not replace original or historic materials. Use of solar systems in windows or on walls, siding, and shutters should be avoided.
4. Panels should be installed flat and not alter the slope of the roof. Installation of panels must be reversible and not damage to the historic integrity of the resource and district.
5. Solar panels should be positioned behind existing architectural features such as parapets, dormers, and chimneys so they are not visible from the public right of way.
6. Use solar panels and mounting systems that are compatible in color to established roof materials. Mechanical equipment associated with the photovoltaic system should be unobtrusive.
7. Solar panels should be installed on rear slopes or other locations that are not visible from the public right-of-way. Panels should be installed flat and not alter the slope of the roof. Installation of panels must be reversible and not damage the historic integrity of the resource and district.
8. Flat roof structures should have solar panels set back from the roof edge to minimize visibility. Pitch and elevation should be adjusted so they are not visible from public right-of-way.
9. Use of solar systems in non-historic windows or on walls, siding, or shutters should not be visible from the public right of way.

~~Scenic Resource Protection Standards~~

~~The scenic resource protection standards should be applied to the Town of Essex's Scenic Resource Protection District. The purpose of these standards is to avert or minimize the adverse impacts of development (including renewable energy generation) on identified scenic resources, viewsheds and roadscape corridors through appropriate siting and design practices. A proposed development along any of the scenic road segments identified in this section shall address any impacts on scenic resources as seen from public roads using these standards.~~

SCENIC STREETS

Portions of the following streets are included in the Scenic Resource Protection Overlay District. To see which portions of the streets are in the district, refer to the SRPO map.

- Bixby Hill Road
- Browns River Road
- Chapin Road
- Colonel Page Road
- Jericho Road/VT Route 15
- Naylor Road
- North Williston Road
- Old Stage Road
- Pettingill Road
- River Road/VT Route 117
- Towers Road
- Upper Main Street/VT Route 15
- Weed Road
- Woodside Drive

~~1. To minimize the loss of scenic character renewable energy generation facilities shall be designed and located to minimize the intrusion of incompatible and unharmonious development into existing scenic vantage points as viewed from public vantage points identified in the list of scenic streets.~~

~~2. Renewable energy generation facilities shall be positioned so that views to distant mountains remain as natural as possible.~~

~~3. Renewable energy generation facilities should be arranged in a manner that protects a significant portion of open space.~~

~~4. The use of vegetation to screen renewable energy generation facilities and associated fencing in all seasons is strongly encouraged. Plantings shall be of sufficient height, density and maturity to serve as a visual barrier from buildings and the roadscapes identified in this section~~

~~5. Shorter structures may be more appropriate in certain spaces than taller structures to keep the project from obstructing public vantage points identified in this section. Avoid locating a renewable energy generation facility in a location which diminishes the visual impact of the array from the owner's property but places the array immediately within their neighbor's or the public's viewshed. Locate facilities in a manner designed to reduce impacts on neighbors or public viewsheds.~~

Formatted: No bullets or numbering

[1] Vermont Energy Action Network. (2025). *Annual Progress Report for Vermont on Energy, Affordability, and Emissions*. https://eanvt.org/2025-annual-report/

[2] Vermont Energy Action Network (2025). *Annual Progress Report for Vermont on Energy, Affordability, and Emissions*. https://eanvt.org/2025-annual-report/

[3] Ibid.

[4] Energy Futures Group (2025). *Vermont Residential Energy Code Administration Plan*. https://www.vapda.org/uploads/1/3/1/8/131894470/vt_energy_code_administration_plan_2025.06.30.pdf

MEMO

To: Planning Commission
From: Chris Yuen, Community Development Director
Meeting Date: July 2, 2026
Agenda Item: 2026 Land Development Code (LDC) Amendments – Updated Draft

ISSUE:

Staff have prepared an updated draft of the Land Development Code (LDC) amendments for Planning Commission review.

DISCUSSION:

Background

This memorandum summarizes the full set of proposed 2026 LDC amendments as they currently stand. It is written to be understandable on its own, including for readers who are seeing this work for the first time, and it reflects the changes integrated since the June 4th meeting, the consulting team's responses to outstanding questions, and ongoing technical review.

An updated draft of the amendments is provided separately by email in three formats: a Microsoft Word version with track changes, a PDF with markup, and a clean PDF without markup. The Word version allows commissioners to toggle the tracked changes on and off.

To help commissioners focus their time, items that are new or changed since the June 4th meeting are marked highlighted. Everything else is a recap of changes the Planning Commission has already seen.

Updated Schedule

The anticipated adoption timeline has shifted by approximately one month to allow additional time to finalize the technical amendments and complete legal review. The revised schedule is:

- August: Planning Commission reviews a refined ("good copy") draft
- September: Planning Commission Public Hearing, if the Commission is satisfied with the August draft
- October: City Council Public Hearing and potential adoption, if no major changes result from the Planning Commission hearing

Commissioners should anticipate that adjustments may still arise as the draft moves through public hearings and legal review, which could extend this timeline further.

Public Outreach Underway

Public-facing materials focused on the form-based code have been released, since the form-based code is the component of these amendments most likely to draw public interest. A utility bill insert introducing the form-based code has been mailed to residents, a news release has gone out, and dedicated web pages on

the City website are in development. These materials emphasize what the public is most likely to notice: building height, how buildings meet the street, and the overall look and feel of new development.

This memorandum is organized as follows: (1) the form-based code amendments to the Village Center and TOD districts, which are the most significant part of this package; (2) other code amendments by chapter; and (3) items still pending technical review.

FORM-BASED CODE AMENDMENTS (Sections 604 and 608)

1. Overview

   The centerpiece of this package is a form-based code for the Village Center (VC) and Transit-Oriented Development (TOD) districts, developed through the Connect the Junction project with the consulting team. A form-based code differs from conventional zoning in what it focuses on. Conventional zoning mainly regulates the use of a property; a form-based code focuses on the physical form of buildings and how they shape the public realm, including height, how a building sits on its lot and meets the sidewalk, and street-level activity.

   The central purpose is to replace today's subjective design review, which asks whether a building's design is "harmonious" with its surroundings, with clear, objective, measurable standards. This makes review more predictable for applicants and the City, applies consistently from project to project, and writes the community's design expectations into rules rather than leaving them to case-by-case judgment.

   The standards are organized below by topic. The Planning Commission reviewed earlier versions of these standards at prior meetings; this section incorporates the refinements made since.

2. Building Height and Its Relationship to the Street ("Street Room")

   The most prominent objective standard governs building height in relation to the width of the street. The code uses the concept of a "street room," the outdoor space framed by the buildings lining a street, and requires building height to stay in proportion to street width (a height-to-width ratio between 1:2 and 1:1) along the front of the building. Where a building would sit tall relative to its street, the upper floors must step back to bring the proportion back into range. This keeps the street-facing portion of buildings in human scale even where greater height is allowed behind it.

   Several refinements resolve practical questions about how the ratio applies (Section 604.E.1 / 608.E.1): the standard applies on each frontage of a corner or double-frontage lot rather than just one face; it applies only to the principal building closest to the street, so rear buildings on larger sites are not caught by it; on streets with a right-of-way narrower than 50 feet, a 50-foot width is assumed for the calculation (with a 10-foot frontage setback that the City may use as sidewalk or pedestrian space, and relief where strict application would block an otherwise-permitted low-scale building); and rail right-of-way may be counted toward street width where a frontage is directly adjacent to rail, which is relevant in parts of the TOD district.

3. Residential Adjacency

   To manage the transition between taller buildings and adjacent lower-scale residential neighborhoods, the code requires additional setbacks and landscaped buffers where a VC or TOD parcel directly abuts a residential district with a lower height limit (Section 604.D.3 / 608.D.3). A 10-foot minimum side and

rear setback applies in those locations. Where the height difference between the abutting districts is four or more stories, the required setback increases to 30 feet with a landscaped buffer along the shared property line, and any portion of a building within that 30-foot zone is held to the height permitted in the neighboring district. This is the primary tool, alongside the street room stepbacks, for keeping added height from being felt at the edges of established neighborhoods.

4. How Buildings Meet the Sidewalk (Frontage Types)

   The code regulates how a building meets the street through "frontage types," each with objective standards for setback, entrances, ground-floor transparency, weather protection, and pedestrian amenities (Section 604.E.2 / 608.E.2). An applicant selects an approved frontage type for each street-facing facade (for example, Linear, Plaza, Terrace, Landscape, or Stoop), matched to the building's ground-floor use and street context. The intent is to encourage storefronts, entrances, and windows along the sidewalk and to discourage blank walls and parking facing the street.

   A Parking Frontage Type, requested by the Planning Commission at the March 31st meeting, has been added to the TOD district and refined to allow a screened building option along 100 percent of the frontage, with landscaping and screening required. Soft-edge design principles, encouraging permeable, pedestrian-friendly transitions between buildings and the public realm, have been integrated across the frontage types and emphasized in the Linear Frontage. The Linear Frontage also clarifies that active commercial uses are intended and suggested rather than strictly required, providing flexibility if a space is repurposed or sits vacant over time.

5. Façade Composition, Articulation, and Materials

   For larger buildings, the code sets objective standards to prevent long, monotonous facades and to ensure a pedestrian-scaled rhythm (Section 604.F / 608.F). These address building materials (a minimum share of primary materials on each principal facade), vertical articulation at defined intervals for facades over a set length, visual differentiation of the building base from upper floors, limits on blank wall segments, upper-story window proportions, and screening of mechanical and service equipment. The Village Center standards are somewhat more detailed than the TOD standards, reflecting the historic character of the VC.

6. Parking

   In both districts the code regulates where parking goes and how it is screened, so that parking does not detract from the pedestrian environment (Section 604.G / 608.G, referencing Chapter 7). Surface parking is directed to the rear of the lot behind the principal building; structured parking at the ground floor must be wrapped by a liner building along street frontages; and shared parking and joint access are encouraged.

   New language in Section 604.F addresses a longstanding practical problem in the Village Center, where rental units often come without on-site parking and tenants have no clear way to lease nearby spaces. Where a residential development would provide less than 75 percent of the otherwise-required parking for its residential component, the DRB may require the applicant to demonstrate that reasonably accessible off-site parking is available and to take reasonable steps to help tenants access it (such as identifying specific facilities within 600 feet, providing evidence of the parking owner's willingness to lease, including parking information in leases, and designating a manager to assist tenants in the first year).

7. Landscaping (Points-Based Performance Score)

Rather than prescribing specific plantings, the code uses a Landscape Performance Score: a points-based system that assigns values to landscape elements based on environmental benefit, tree canopy contribution, and site quality, with a minimum score required for development in the VC and TOD districts (Section 604.H / 608.H). The minimum score is 30 points.

At the Planning Commission's request, the consulting team has further refined the scoring categories, adding line items aligned with best practices (for example, items related to bioretention, soil health, low-input species, and food cultivation). These are relatively minor additions; the principle and structure are the same as the version the Commission saw in the spring.

The code now defines how the score applies to retrofits and additions. For additions, alterations, and expansions to existing development, the Landscape Performance Score may be calculated based on the "impacted area," now expressly defined as the portion of the site directly subject to the proposed improvements (new or modified buildings, parking, circulation, grading, and landscaped areas in the project), rather than the entire parcel (Section 604.H.2(c) / 608.H.2(c), with a corresponding clarification in the Applicability section). This resolves the open question from the June 4th memo about how to define the "affected area" for the scoring denominator.

8. Unit Mix Requirements

   To encourage a broader diversity of unit sizes, the code requires that larger residential developments include a minimum share of multi-bedroom units (Section 604.D.2 / 608.D.2). At the June 4th meeting the Planning Commission asked whether the previously proposed 20 percent minimum could be strengthened. The consulting team advised that, given current market conditions and the local mix of household sizes, a requirement of up to 40 percent two-or-more-bedroom units is reasonable, but that going higher is not recommended. The draft now sets the minimum at 40 percent, with a DRB alternative-mix pathway where a different mix better supports the district's housing goals. The Planning Commission should confirm it is comfortable with the 40 percent figure.

9. Applicability, Retrofits, and Waivers

   The form-based standards are written to be scalable, so they work for small and large projects alike, and they include a Waivers and Exemptions provision giving the DRB flexibility to waive specific standards for good cause in unusual situations (Section 604.C / 608.C). Retrofits and additions that do not increase gross floor area by more than 30 percent may be permitted without full compliance, provided the degree of nonconformity is not increased and the intent of the standards is met. Site plan and landscaping plan submittals in these districts follow the existing Chapter 5 procedures (Section 502).

10. Single-Family Dwellings and the DRO Boundary

    Single-family dwellings remain a permitted use in the Village Center and are exempt from the street room and frontage type standards, with a separate setback standard, so the area's many existing single-family and historic homes are not made nonconforming. The Design Review Overlay (DRO) district is retained but its boundary is clipped to exclude the VC and TOD areas now covered by form-based standards; properties elsewhere in the DRO continue under design review as before.

11. Formula-Based Retail and Restaurants

    Formula-based ("chain format") retail and restaurant standards are retained in the Village Center, consistent with the Planning Commission's and DRB's interest in preventing generic chain-format

development from dominating the character of the VC. The language is carried over from the existing code.

12. Street Design and Infrastructure (TOD)

    For the redevelopment of large parcels in the TOD district, the code carries forward the substance of the prior transit and bicycle infrastructure standards: new streets must incorporate bus stops coordinated with Green Mountain Transit (GMT), with written GMT comments required, and must include five-foot bike lanes where needed for connectivity across the district.

13. Chapter 2 Definitions and Purpose Statement

    Definitions supporting the form-based code have been added to Chapter 2, completing the consulting team's cross-reference of the new standards against the existing definitions. The form-based code purpose statement has also been revised to read more clearly for a lay audience (primarily in Section 600, with minor updates in Sections 604 and 608). The Planning Commission should review the revised purpose statement and the new definitions.

OTHER CODE AMENDMENTS

The following amendments are unrelated to the above form-based regulations.

Chapter 2 – Definitions

14. "Steps" added to the definition of "structure" (201.C.212); definition of "802 Homes Catalogue" added (201.C.1).

Chapter 5 – Development Review Procedures

15. Zoning Permit Requirement (502.A): Clarified to include any increase in habitable living space (attics, bedrooms, basements, garages, enclosed/winterized porches), and to require a permit for soil disturbance over 400 square feet.

16. Zoning Permit Extensions (502.A.9): A second one-year extension is available for larger projects (up to three years total) where substantial improvement has occurred; not available for projects without a principal structure.

17. Access to Public Roads (509.B.2): The Zoning Administrator may approve walkway connections to a sidewalk or street in the City's right-of-way.

18. Application Response Timelines (504, 512, 513, 514, 516): Standardized to 10 days for completeness and 30 days to approve or deny.

19. Minor Site Plan Amendments – Change of Use (502.F.11(b)): Staff may administratively approve a change of use that increases the parking requirement where existing on-site spaces already meet the new requirement without a waiver and no other major-amendment criteria are triggered.

Chapter 6 – Zoning Districts (Non-Form-Based Provisions)

20. 802 Homes Catalogue Exemption from Design Review (620.B): New language exempts a new building that the Administrative Officer determines is selected from and conforms to the 802 Homes Catalogue from DRB design review, subject to three conditions: the parcel contains no structure listed or eligible for the State or National Register of Historic Places or identified on Map 2 of the Comprehensive Plan; the applicant submits the applicable catalogue plan set annotated to demonstrate conformance with all dimensional and use standards; and all other development review requirements remain in effect. The intent is that these catalogue designs are pre-vetted for design quality and do not need additional local design scrutiny. (Reviewed at the June 4th meeting; included here for completeness.)

21. Primary Pedestrian Entrance in R1 and R2 (618.H.1 / 619.H.1): The requirement that the principal building's primary pedestrian entrance face the street has been broadened, based on feedback from the 802 Homes team and PC member input, to accommodate certain catalogue home designs (including rotated layouts). The standard now offers three compliance paths: an entrance facing the street; an entrance accessed through a porch, deck, or stoop with an entry or defined access way facing the street; or an entrance on a side elevation within ten feet of the front building facade. Because these are independent alternatives, a design needs to satisfy only one. The Planning Commission should confirm it is comfortable with this revised standard.

Chapter 7 – Development Standards

22. Parking Waiver Criteria (703.L): Waiver and joint-parking provisions reorganized into a standalone Section 703.L, with the off-site distance increased from 200 to 600 feet, a condition preventing waiver-relied-upon spaces from being gated or reserved out of availability, and a new pathway for unbundled residential parking. (Confirmed acceptable by the Planning Commission on May 7th.)

23. Long-Term Bicycle Storage (703.M.2): Closes a gap by requiring that shared bicycle storage rooms actually contain racks (one per required space), meeting APBP guidance and excluding "Racks to Avoid." (Bicycle standards renumbered from 703.L to 703.M as part of the waiver reorganization.)

24. Window Wells (706.C.6): New language allows a window well within a setback no closer than three feet from the property line. (Confirmed acceptable by the Planning Commission on May 7th.)

25. Signs (Section 714): Erroneous Non-Essex Junction district references removed; Directional Sign definition (714.C.14) updated; projection standards adjusted for sloped surfaces.

26. Landscaping (719.E): Reorganized into numbered subsections (applicability, plan preparation, minimum cost) with no substantive change; new 719.E.1 confirms the minimum landscaping cost requirements do not apply in the VC and TOD districts (which use the Landscape Performance Score), while the percentage-of-construction-cost standard continues to apply elsewhere, including for primarily interior site plan amendments. (Reflects the Planning Commission's May 7th direction to leave the underlying applicability standard as written.)

27. Driveway Apron Surfacing (703.K.3): The driveway surfacing standard has been revised. The current code allows residential driveways serving up to five homes to be gravel but requires the apron to be paved 20 feet beyond the right-of-way, which forces most of a driveway to be paved on shallow lots even though the only purpose is to keep gravel off the sidewalk and road. The revised

standard requires a short paved apron, the greater of five feet from the nearest road surface, sidewalk, or shared-use path, or the right-of-way line, with an additional 10 feet of paving where the average grade just inside the right-of-way (measured over a 15-foot run) exceeds 5 percent, and preserves DRB waiver authority. This follows the regional norm among neighboring Vermont municipalities.

28. Minimum Driveway Width for Small Residential (705.B): A new provision allows residential uses up to a four-family dwelling to use a single-lane, two-way driveway with a minimum width of 10 feet, and clarifies that the parking-lot aisle width standards of Section 703.C.2 do not set the minimum width for these driveways. The de facto 24-foot requirement came from the aisle standards being applied by default in the absence of an express residential driveway minimum; this is most relevant where parking is at the side or rear of a home. A companion passing-area/turnout provision (705.B.5) addresses longer shared driveways, and a conforming note was added to Section 703.C.2. (These two driveway items were listed as "pending technical review" in the June 4th memo and have now been drafted and integrated.)

29. Section 724 – Farming, Agriculture, and Poultry: Section 724 has been substantially revised to comply with Vermont Act 166 (2026), which restores and expands the state farming exemption under 24 V.S.A. § 4413(d) and adds a poultry mandate under 24 V.S.A. § 4412(15). The revised section preserves as much municipal authority as the statute allows while meeting its requirements: it retains a general prohibition outside the agricultural districts, recognizes the state farming exemption (including the carve-out allowing municipal regulation of livestock on farms under one contiguous acre), expressly carves out plant cultivation as required by statute (while excluding cannabis and hemp and preserving generally applicable health and safety standards such as the visibility triangle), and addresses poultry by deferring to Municipal Code Chapter 17 and the statute. Conforming updates were made to the Section 201 definitions and the Section 622 use chart. The corresponding amendments to Municipal Code Chapter 17 (the backyard chicken ordinance) are still being drafted and are not part of this LDC package.

30. VTrans Town Road and Bridge Standards (Appendix A, Section 122): A reference to the VTrans Town Road and Bridge Standards has been added to Appendix A.

Chapter 14

31. Section 1414 updated to align with City policy and state statute.

Formatting and Technical Corrections

32. Various formatting and cross-reference corrections throughout, including the Food Truck definition italics (201.C.103); renaming Section 503 to "Approval of Subdivisions"; Table of Contents page numbering; the "HC"-to-"HA" reference in 704.D.10; cross-references in 714.C.10.a.ii and 714.C.10.d; a typo in 601.F; clarification in 502.F.8 that Chapter 6 waivers apply; parking waiver references in 703.K.1 and 703.K.3; a missing word in 502.A.2.c; and Chapter 9 subchapter numbering.

CHANGES PENDING TECHNICAL REVIEW

The following items are still under review and are not yet in the draft:

- Sewer Connection and Allocation (Chapter 11): updates to the sewer connection and allocation regulations, including possible addition of a typical sewer bypass detail, remain in progress.
- Stormwater: stormwater regulation changes remain in progress.

At the recommendation of the City Engineer, the previously contemplated change to allow CTE HDPE pipe for water service as an alternative to copper has been dropped; there is no change from existing regulations on that point.

The 802 Homes team, including the Agency of Commerce and Community Development (ACCD) and their consultant Utile, may provide additional suggestions on some items in the coming weeks.

COST:

There is no direct cost associated with the proposed LDC amendments.

RECOMMENDATION:

The Planning Commission should review the updated draft and provide comments. The Commission should give particular attention to highlighted items, including the 40 percent unit mix requirement, the revised R1/R2 primary entrance standard, and the state-compliance changes to Section 724.

ATTACHMENTS:

Draft LDC Amendments (provided separately by email in Microsoft Word with track changes, PDF with markup, and clean PDF)