APPENDIX X, ENERGY TARGETS & CONSERVATION GOALS

1C. Current Municipal Commercial Energy Use

Commercial Establishments in Municipality (VT DOL) Estimated Thermal Energy BTUs per Commercial Establishment (in Billions) (VDPS) Estimated Thermal
Energy BTUs
by Commercial
Establishments in
Municipality (in Billions)

Municipal Commercial Energy Use

111

(% of municipal households to be weatherized)

0.725

80

The table uses data available from the Vermont Department of Labor (VT DOL) and the Vermont Department of Public Service (DPS) to estimate current municipal commercial establishment energy use in the municipality.

1D. Current Electricity Use *

Use Sector	Current Electricity Use
Residential (kWh)	11,075,308
Commercial and Industrial (kWh)	12,927,092
Total (kWh)	24,002,400

^{*}This table displays current electricity use within the municipality with data from the ACS, DPS, and VT DOL. More accurate data will be available soon from Efficiency Vermont (EVT)

1E. Residential Thermal Efficiency Targets 2025 2035 Residential - Increased Efficiency and Conservation 33% 67% 100%

This table displays targets for thermal efficiency for residential structures based on a methodology developed by DPS using data available from the regional Long-range Energy Alternatives Planning (LEAP) analysis and ACS. The data in this table represents the percentage of municipal households that will need to be weatherized in the target years.

TF. Commercial Thermal Efficiency Targets 2025 2035 2050 Commercial - Increased Efficiency and Conservation (% of commercial establishments to be weatherized) 6% 9% 18%

This table shows the same information as Table 1E, but sets a target for commercial thermal efficiency. Information from the VT DOL is required to complete this target.

1G. Thermal Fuel Switching Targets (Residential and Commercial) - Wood Systems

	2025	2035	2050
New Efficient Wood Heat Systems (in units)	0	0	0

This target was calculated using data from LEAP and ACS. This table provides a target for new wood heating systems for residential and commercial structures in the municipality for each target year. Due to the LEAP model forecasting a large decrease in wood use resulting in a negative number of targets we have put zero in for this section. Towns are encouraged to use efficient wood heat.

1H. Thermal Fuel Switching Targets (Residential and Commercial) - Heat Pumps

	2025	2035	2050
New Heat Pumps (in units)	137	363	761

This table provides a target for new heat pump systems for residential and commercial structures in the municipality for each target year. This target was calculated using data from LEAP and ACS.

11. Electricity Efficiency Targets

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	2025	2035	2050
Increase Efficiency and Conservation	-0.6%	5.7%	9.9%

Data in this table displays a target for increased electricity efficiency and conservation during the target years. These targets were developed using regional LEAP analysis. Towns are encouraged to consider increased efficiency targets.

1J. Use of Renewables - Transportation

13. Use of kenewables - Iranspondition			
	2025	2035	2050
Renewable Energy Use - Transportation	9.6%	23.1%	90.3%

This data displays targets for the percentage of transportation energy use coming from renewable sources during each target year. This data was developed using the LEAP analysis.

1K. Use of Renewable	es - Heating		
	2025	2035	2050
Renewable Energy Use - Heating	51.3%	63.4%	92.2%

This data displays targets for the percentage of heating energy use coming from renewable sources during each target year. This data was developed using information from the LEAP analysis.

1L. Use of Renewables - Electricity	
	2050
Renewable Energy Use - Electricity (MWh)	19,167- 23,426

This data displays the target for electricity generation coming from renewable sources within the municipality for 2050. This data was developed using information from the regional planning commission and DPS. This data is the same as the data in Table 1Q.

1M. Transportation Fuel Switching Target - Electric Vehicles			
	2025	2035	2050
Electric Vehicles	209	1482	3083

This tables displays a target for switching from fossil fuel based vehicles (gasoline and diesel) to electric vehicles. This target is calculated on Worksheet 2 by using LEAP and ACS data.

1N. Transportation Fuel S	witching Target - Biodies	el Vehicle:	
	2025	2035	2050
Biodiesel Vehicles	368	692	1168

This tables displays a target for switching from fossil fuel based vehicles to biodieselpowered vehicles. This target is calculated on Worksheet 2. by using LEAP and ACS data.

10. Existing Renewable Generation			
Renewable Type	MW	MWh	
Solar	0.50	613	
Wind	0.00	0	
Hydro	0.00	0	
Biomass	0.00	0	
Other	0.00	0	
Total Existing Generation 0.50 613			

Table 10 shows existing renewable generation in the municipality as of 2015, in MW and MWh, based on information available from the Vermont Department of Public Service.

1P. Renewable Generation Potential			
Renewable Type	MW	MWh	
Rooftop Solar	2	2,335	
Ground-mounted Solar	793	972,075	
Wind	250	766,500	
Hydro	0	151	
Biomass and Methane	0	0	
Other	0	0	
Total Renewable Generation Potential	1,045	1,741,061	

Renewable generation potential is based on mapping completed by the regional planning commission that is based on the Municipal Determination Standards and associated guidance documents developed by DPS. The renewable generation potential is expressed in MW and MWh by the type of renewable resource (solar, commercial wind, hydro, etc.).

1Q. Renewable Generation Target		
	2050	
Total Renewable Generation Target (in MWh)	19,167- 23,426	
Renewable generation	on target for eveloped by the town's	

population percentage within the region.

1R. Sufficient Land	
	Y/N
Renewable Sources	Υ
Surplus of Generation	8075%

This table shows whether or not there is sufficient land in the municipality to meet the renewable generation targets based on the renewable generation potential in the municipality.