



SECTOR	UNIT	2010 BASELINE	2016 ACHIEVED*	2020 MILESTONE	2030 MILESTONE	2040 MILESTONE	2050 MILESTONE	EAN TARGET DESCRIPTION
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TRANSPORT

Electric Vehicles & Plug-In Hybrids	# of Vehicles	100	1,396	17,160	114,400	228,800	400,400	
			0.24%	3%	20%	40%	70%	% of light vehicle fleet (LVF)
Light Vehicle Fleet Efficiency (combustion engine only)	Fleet MPG	20.3	21.7	22.3	25.9	30.2	32.4	
		0%	7%	10%	20%	40%	50%	% Fuel efficiency increase of LVF combustion engine fuel (over 2010)
Commerical-Industrial Fleet Efficiency	Fleet MPG	6	N/A	6.6	7.2	8.4	9	
		0%	N/A	10%	20%	40%	50%	% Fuel efficiency increase for commerical/industrial fleet (over 2010)
Biofuels**	Million Gallons	1.2	N/A	12.5	68	122	211	
			N/A	3%	20%	50%	100%	% of total fuel use for combustion engine fleet (LVF, commercial, industrial)

THERMAL

Building Efficiency	Trillion BTU (TBTU)	38	37.2	36.1	32.3	28.5	26.6	Residential & Commercial (R + C) Heating Load
		0%	-2%	-5%	-15%	-25%	-30%	% of reduction in R + C building heat energy (over 2010)
Biomass	Trillion BTU (TBTU)	4.9	5.4	6.6	7.4	8.2	8.2	
		13%	15%	18%	23%	29%	31%	% of R + C heating demand met by biomass
Biofuels	Trillion BTU (TBTU)	0	N/A	0.3	3.3	5.0	8.3	
		0%	N/A	1%	10%	17%	31%	% R + C heating demand met by liquid biofuels
Heat Pumps	Cumulative # of retrofits	0	13,550	20,000	80,000	160,000	200,000	
			0.1%	3%	15%	34%	38%	% of VT R + C heating demand met by heat pumps

ELECTRIC

Wind	Megawatts	7.4	211	300	350	550	650	Cumulative MW capacity from in-state and regional wind plants
		0.3%	11%	14%	18%	21%	21%	% of total electric power generation
Solar	Megawatts	11	250***	300	600	1,000	1,500	Cumulative MW capacity from solar
		0.2%	5.5%	7%	14%	18%	24%	% of total electric power generation
Hydro (VT small)	Megawatts	190	200	205	215	225	225	Cumulative MW capacity from small-scale hydro
		10%	12%	12%	13%	11%	9%	% of total electric power generation
HydroQuebec (Import)	Megawatts	400	218	218	400	550	550	Existing HQ contract (2012) remains unchanged until 2030
		31%	22%	22%	40%	42%	37%	% of total electric power generation
Methane (Farm and Landfill Methane)	Megawatts	15.1	17.2	20	30	40	45	Cumulative MW capacity from farm and landfill digesters
		0.7%		2%	3%	3%	4%	% of total electric power generation
Total Renewable Electric Generation	Megawatts	624	646	1043	1595	2365	2970	Cumulative MW renewable capacity
Total Electric Demand	Gigawatt Hours	5,555	5,517	5,793	6,345	6,896	7,338	Cumulative MW electric demand
Renewable Share	%	51%	56%	70%	90%	95%	99%	Cumulative renewable % of electric demand

Note: All data are drawn from State Reports and EIA data. Projections are those of EAN, building upon Vermont's 2016 Comprehensive Energy Plan. The analysis is not meant to be a "roadmap" but rather a means to identify known technology pathways, key policy drivers and important questions for policymakers to consider.

Source Energy: EAN's analysis measures source energy which includes all the energy inputs required to deliver the energy we consume in all sectors. This includes energy associated with extracting, processing, and delivering primary fuels. For electricity, source energy also includes conversion inefficiencies at power plants as well as transmission and distribution losses

*2016 data is most recent public information: Transportation data from The Vermont Transportation Energy Profile (VTRANS, Oct 2015) and Drive Electric Vermont (Oct 2016); Thermal data from Efficiency Vermont (Oct 2015), The Heat Pump Report (PSD, Dec 2016) and the 2016 Comprehensive Energy Plan (PSD, Jan 2016); Electric data from the 2016 Comprehensive Energy Plan (PSD, Jan 2016) and Certificates of Public Good (PSB Nov 2016). Electric generation includes Net Metering, Standard Offer, and SPEED Projects reported through November 2016. NA indicates incomplete data.

** includes Light Vehicle Fleet (LVF) and Commercial-Industrial Fleet (CIF). Excludes aviation and corn ethanol.

*** Permitted as of Nov 2016