

Growing Economy, Shrinking Emissions: A Transit-Oriented Future for Connecticut's Capital Region
March 2010



Development scenario modeling: Three corridors within Connecticut's capital region

		Existing Conditions	Future Conditions							
			Trend (Capacity Under Current Zoning)			Transit-supportive				
				Change from Current	Compared to Existing		Change from Current	Change from Trend	Compared to Existing	Compared to Trend
North	Housing Units	13,600	18,080	4,480	33%	20,850	7,250	2,770	53%	15%
	Annual VMT per Household	15,012	14,660	-351	-2%	11,224	-3,787	-3,436	-25%	-23%
	Annual Emissions per Household	6.9	6.7	0	-2%	5.1	-2	-2	-25%	-23%
	Annual Emissions per Corridor	93,505	121,397	27,892	30%	107,186	13,680	-14,212	15%	-12%
Active Transit: New Haven/Springfield Commuter Rail, Griffin Line Extension, Windsor Shuttle										
East	Housing Units	18,910	23,760	4,850	26%	24,650	5,740	890	30%	4%
	Annual VMT per Household	16,409	16,148	-262	-2%	12,835	-3,574	-3,312	-22%	-21%
	Annual Emissions per Household	7.5	7.4	0	-2%	5.9	-2	-2	-22%	-21%
	Annual Emissions per Corridor	142,117	175,721	33,603	24%	144,907	2,789	-30,814	2%	-18%
Active Transit: New Britain/Hartford Busway, New Haven/Springfield Commuter Rail, Farmington Avenue Light Rail										
South	Housing Units	32,770	36,920	4,150	13%	40,370	7,600	3,450	23%	9%
	Annual VMT per Household	11,336	11,617	281	2%	10,165	-1,172	-1,453	-10%	-13%
	Annual Emissions per Household	5.2	5.3	0	2%	4.7	-1	-1	-10%	-13%
	Annual Emissions per Corridor	170,142	196,441	26,298	15%	187,940	17,798	-8,500	10%	-4%
Active Transit: Busway East (Hartford/East Hartford/Manchester/Vernon)										
Total-3 Corridors	Housing Units	65,280	78,760	13,480	21%	85,870	20,590	7,110	32%	9%
	Total Annual VMT	885,950,000	1,077,640,000	191,690,000	22%	960,770,000	74,820,000	-116,870,000	8%	-11%
	Annual VMT per Household	13,572	13,683	111	1%	11,189	-2,383	-2,494	-18%	-18%
	Annual Emissions per Household	5.9	5.6	0	-6%	4.3	-2	-1	-27%	-22%
	Annual Emissions	405,765	493,559	87,794	22%	440,033	34,268	-53,526	8%	-11%

Emissions are measured in metric tons CO2 equivalent.

VMT and emissions were estimated using a model developed for Canada Mortgage and Housing Corporation in partnership with Natural Resource Canada, which models VMT using a two-stage model that predicts vehicle ownership and then vehicle use. Factors predicting the change in VMT between existing conditions and the scenarios include population density, street configuration including total street length and the number of intersections, distance to transit and hours of transit service. Base factors in the model include neighborhood income and employment, these were held constant in all scenarios.