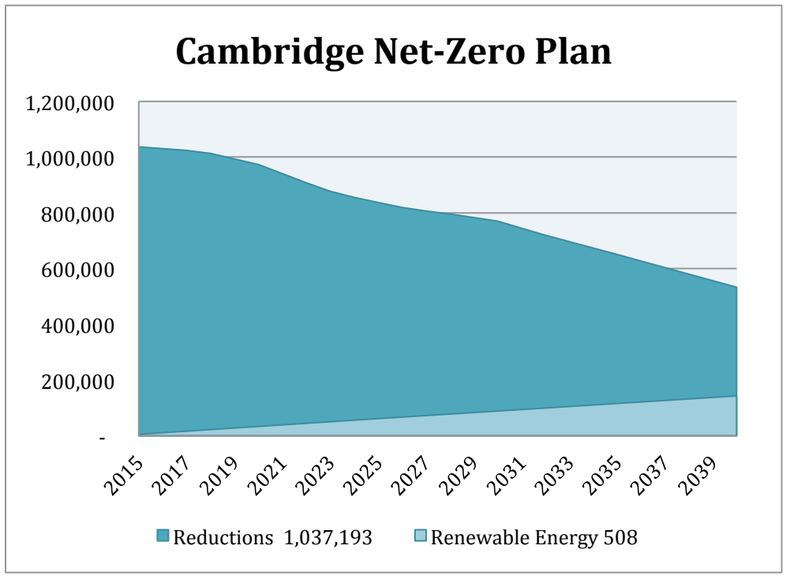
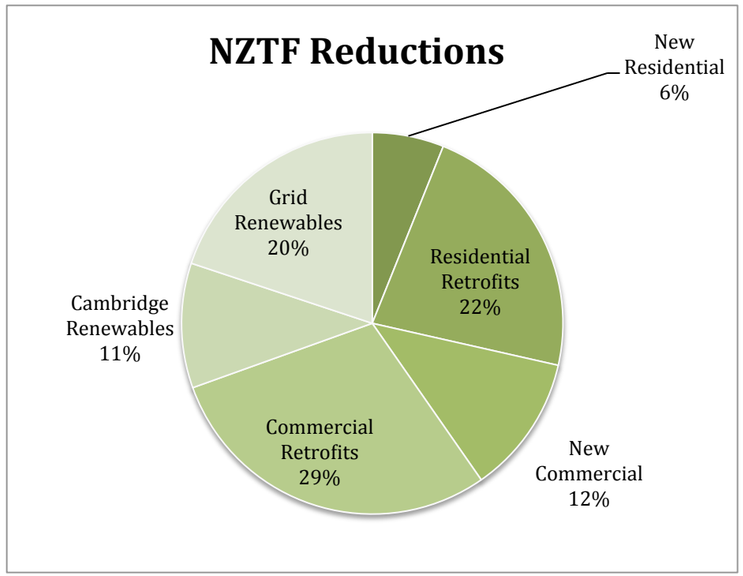
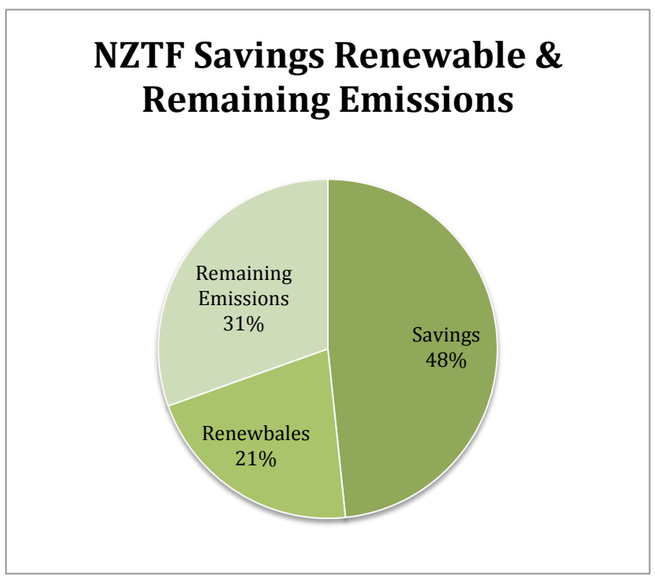
CAMBRIDGE GREENHOUSE GAS REDUCTION MODEL

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE
1	**Cambridge NZE GHG Model**																														
2	**Residential**																												GHG's in Tonnes		
3	**NEW**	**Strategies**	**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**Total Savings**		
4	1-Family	Incentives leading to NZE by 2025	48	48	120	120	120	120	240	240	240	240	479	479	479	479	479	479	479	479	479	479	479	479	479	479	479	479	9,200		
5	2-3 Family		87	48	217	217	217	217	434	434	434	434	867	867	867	867	867	867	867	867	867	867	867	867	867	867	867	867	16,609		
6	4-8 Units		27	48	68	68	68	68	137	137	137	137	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	274	5,278		
7	8-51 Units		23	48	57	57	57	57	114	114	114	114	228	228	228	228	228	228	228	228	228	228	228	228	228	228	228	228	4,406		
8	51 + Units		43	48	108	108	108	108	217	217	217	217	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	434	8,329	43,822	
9	**Existing**																		2282												
10	1-Family	Incentives for retrofits	0	0	359	359	359	359	1,581	1,581	1,581	158	158	158	158	158	158	158	2,396	2,396	2,396	2,396	2,396	2,396	2,396	2,396	2,396	2,396	31,248		
11	2-3 Family		0	0	1,301	1,301	1,301	1,301	2,861	2,861	2,861	286	286	286	286	286	286	286	4,335	4,335	4,335	4,335	4,335	4,335	4,335	4,335	4,335	4,335	59,144		
12	4-8 Units		0	0	904	904	904	904	904	904	904	90	90	90	90	90	90	90	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	1,369	20,649		
13	8-51 Units		0	0	0	228	228	228	228	228	228	685	685	685	685	685	685	685	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	1,141	17,570		
14	51 + Units		0	0	0	434	434	434	434	434	434	1301	1301	1301	1301	1301	1301	1301	2,168	2,168	2,168	2,168	2,168	2,168	2,168	2,168	2,168	2,168	33,383	161,994	
15		total	228	240	3134	3796	3796	3796	7149	7149	7149	3661	4802	4802	4802	4802	4802	4802	15973	13691	13691	13691	13691	13691	13691	13691	13691	13691			
16	**Commercial**																														
17	**NEW**			**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**				
18	Commerical Lab	LEED Gold Policy Updated and NZE by 2025	0	0	425	425	425	425	1133	1133	1133	1133	1133	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	2124	39,217		
19	Commercial Office	Energy Positive by 20% in 2035	0	0	405	405	405	405	809	809	809	809	809	1618	1618	1618	1618	1618	1618	1618	1618	1618	1942	1942	1942	1942	1942	1942	31,875		
20	Hotel	Energy Positive by 20% in 2035	0	0	121	121	121	121	243	243	243	243	243	485	485	485	485	485	485	485	485	485	582	582	582	582	582	582	9,563		
21	Retail	Energy Positive by 20% in 2035	0	0	55	55	55	55	109	109	109	109	109	219	219	219	219	219	219	219	219	219	262	262	262	262	262	262	4,307	84,962	
22	**Existing**																														
23	Commerical Lab	Retrofit programs start at 22% savings and move to 50%	0	1416	1416	1416	5663	8495	5663	5663	2832	2832	849	849	849	849	849	849	1416	1416	1416	1416	1416	1416	1416	1416	1416	1416	54,649		
24	Commercial Office		0	809	809	809	3236	4854	4854	4854	1618	1618	485	485	485	485	485	485	809	809	809	809	809	809	809	809	809	809	34,464		
25	Hotel		0	243	243	243	971	1456	1456	1456	485	485	146	146	146	146	146	146	243	243	243	243	243	243	243	243	243	243	10,339		
26	Retail		0	109	109	109	437	656	656	656	656	656	66	66	66	66	66	66	109	109	109	109	109	109	109	109	109	109	5,532		
27	Hospital			142	142	142	566	849	849	849	849	849	85	85	85	85	85	85	142	142	142	142	142	142	142	142	142	142	7,164		
28	Warehouse		0	40	40	40	162	243	243	243	243	243	24	24	24	24	24	24	40	40	40	40	40	40	40	40	40	40	2,047		
29	University Lab		0	1517	1517	1517	2023	2023	2023	2023	2023	2023	2023	607	607	607	607	607	1011	1011	1011	1011	1011	1011	1011	1011	1011	1011	31,855		
30	Acedemic/Admin		0	713	713	713	951	2852	2852	2852	2852	2852	2852	285	285	285	285	285	475	475	475	475	475	475	475	475	475	475	26,379		
31	Univeristy Residential		0	485	485	485	647	1942	1942	1942	1942	1942	1942	194	194	194	194	194	324	324	324	324	324	324	324	324	324	324	17,960		
32	Athletics/Museums/Support		0	212	212	212	283	849	849	849	849	849	849	85	85	85	85	85	142	142	142	142	142	142	142	142	142	142	7,858		
33	Government		0	212	212	212	283	849	849	849	849	849	849	85	85	85	85	85	142	142	142	142	142	142	142	142	142	142	7,858		
34	Other		0	121	121	121	162	485	485	485	485	485	485	49	49	49	49	49	81	81	81	81	81	81	81	81	81	81	4,490	210,593	
35		total	0	6020	7025	7025	16389	26559	25015	25015	17977	17977	12949	7406	7406	7406	7406	7406	9379	9379	9379	9379	9843	9843	9843	9843	9843	9843			
36	**Energy Supply**			**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**	**Total Savings**			
37	**Cambridge Solar**																														
38	Solar Roof Top	60 MW by 2020 & 160 MW installed by 2040	4,261	4,261	4,261	4,261	4,261	4,261	2,991.06	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	5,000	7,000	7,000	7,000	7,000	7,000	7,000	7,000	62,812		
39	Community Solary Projects	12.56 MW Community Solar	0	0	0	0	0	1,071	1,071	1,071	1,071	1,071	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5,355		
40	Cogen system grows at 5% per year		0	0	0	0	0	0	150	200	200	350	350	350	350	350	350	500	500	500	500	500	500	500	500	500	500	500	8,150	76,318	
41			4,261	4,261	4,261	4,261	4,261	5,332	4,212	6,271	6,271	6,421	5,350	5,350	5,350	5,350	5,350	5,500	5,500	5,500	5,500	7,500	7,500	7,500	7,500	7,500	7,500	7,500			
42	Grid Supplied Green Power (RPS)	RPS growing at 1%/year through 2040	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	5520	143,520	143,520	
43			5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520	5,520			
44																															
45				**2015**	**2016**	**2017**	**2018**	**2019**	**2020**	**2021**	**2022**	**2023**	**2024**	**2025**	**2026**	**2027**	**2028**	**2029**	**2030**	**2031**	**2032**	**2033**	**2034**	**2035**	**2036**	**2037**	**2038**	**2039**	**2040**			
47	Reductions	1,037,193	1,036,965	1,030,705	1,024,445	1,013,624	993,439	973,254	941,090	908,926	876,761	855,124	837,373	819,622	807,415	795,208	783,000	770,793	745,442	720,090	697,020	673,951	650,881	627,347	603,813	580,278	556,744	533,210			
48	Renewable Energy	508	5,520	11,040	16,560	22,080	27,600	33,120	38,640	44,160	49,680	55,200	60,720	66,240	71,760	77,280	82,800	88,320	93,840	99,360	104,880	110,400	115,920	121,440	126,960	132,480	138,000	143,520	721,209	**Total Emissions**	**1,037,193**
49																														Savings	**501,371**
50																														Renewbales	**219,838**
51																														Remaining Emissions	315,984
52	Participation Rates																														
53	Grant	5%