

Appendix A

Fossil and Biomass Fuels

Table A-1 Calculation of 1990 Utah Residential Carbon Dioxide Emissions by County (Tons CO2)

County	Asphalt & Road Oil	Aviation Gasoline	Distillate Fuel Oil	Jet Fuel Kerosene	Kerosene	LPG	Lubricants	Motor Gasoline	Residual Fuel Oil	Bituminous Coal	Coke	Natural Gas	Wood	Other
Beaver	0	0	177	0	6	65	0	0	0	627	0	7,155	20	0
Box Elder	0	0	1,345	0	47	493	0	0	0	4,767	0	54,404	149	0
Cache	0	0	2,598	0	91	951	0	0	0	9,207	0	105,082	288	0
Carbon	0	0	745	0	26	273	0	0	0	2,638	0	30,109	82	0
Daggett	0	0	26	0	1	9	0	0	0	91	0	1,043	3	0
Davis	0	0	6,929	0	243	2,537	0	0	0	24,553	0	280,220	767	0
Duchesne	0	0	464	0	16	170	0	0	0	1,646	0	18,781	51	0
Emery	0	0	380	0	13	139	0	0	0	1,345	0	15,352	42	0
Garfield	0	0	146	0	5	53	0	0	0	516	0	5,888	16	0
Grand	0	0	243	0	9	89	0	0	0	862	0	9,837	27	0
Iron	0	0	770	0	27	282	0	0	0	2,730	0	31,152	85	0
Juab	0	0	214	0	8	78	0	0	0	757	0	8,645	24	0
Kane	0	0	190	0	7	70	0	0	0	673	0	7,676	21	0
Millard	0	0	416	0	15	153	0	0	0	1,476	0	16,843	46	0
Morgan	0	0	205	0	7	75	0	0	0	725	0	8,272	23	0
Piute	0	0	46	0	2	17	0	0	0	163	0	1,863	5	0
Rich	0	0	65	0	2	24	0	0	0	229	0	2,608	7	0
Salt Lake	0	0	26,832	0	942	9,825	0	0	0	95,077	0	1,085,106	2,970	0
San Juan	0	0	464	0	16	170	0	0	0	1,646	0	18,781	51	0
Sanpete	0	0	601	0	21	220	0	0	0	2,129	0	24,296	66	0
Sevier	0	0	568	0	20	208	0	0	0	2,011	0	22,954	63	0
Summit	0	0	579	0	20	212	0	0	0	2,050	0	23,401	64	0
Tooele	0	0	984	0	35	360	0	0	0	3,487	0	39,797	109	0
Utah	0	0	818	0	29	300	0	0	0	2,899	0	33,090	91	0
Utah	0	0	9,804	0	344	3,590	0	0	0	34,740	0	396,481	1,085	0
Wasatch	0	0	372	0	13	136	0	0	0	1,319	0	15,054	41	0
Washington	0	0	1,810	0	64	663	0	0	0	6,412	0	73,185	200	0
Wayne	0	0	79	0	3	29	0	0	0	281	0	3,205	9	0
Weber	0	0	5,860	0	206	2,146	0	0	0	20,765	0	236,994	649	0
Total	0	0	63,730	0	2,238	23,335	0	0	0	225,821	0	2,577,276	7,054	0
Statewide	0	0	63,730	0	2,238	23,335	0	0	0	225,821	0	2,577,276	7,054	0

Table A-2 Calculation of 1990 Utah Commercial Carbon Dioxide Emissions by County (Tons CO2)

County	Asphalt & Aviation		Distillate		Jet Fuel		Kerosene	LPG	Lubricants	Motor		Residual	Bituminous		Coke	Natural	Wood	Other
	Road Oil	Gasoline	Fuel Oil	Fuel Oil	Kerosene	Gasoline				Gasoline	Fuel Oil		Coal	Gas				
Beaver	0	0	329	0	0	0	4	8	0	76	0	0	830	0	0	1,885	0	0
Box Elder	0	0	2,052	0	0	0	27	51	0	475	0	0	5,177	0	0	11,749	0	0
Cache	0	0	5,749	0	0	0	77	142	0	1,331	0	0	14,505	0	0	32,924	0	0
Carbon	0	0	1,676	0	0	0	22	41	0	388	0	0	4,229	0	0	9,599	0	0
Daggett	0	0	89	0	0	0	1	2	0	21	0	0	224	0	0	509	0	0
Davis	0	0	14,802	0	0	0	198	365	0	3,427	0	0	37,345	0	0	84,765	0	0
Duchesne	0	0	848	0	0	0	11	21	0	196	0	0	2,139	0	0	4,856	0	0
Emery	0	0	531	0	0	0	7	13	0	123	0	0	1,341	0	0	3,043	0	0
Garfield	0	0	376	0	0	0	5	9	0	87	0	0	948	0	0	2,151	0	0
Grand	0	0	661	0	0	0	9	16	0	153	0	0	1,667	0	0	3,785	0	0
Iron	0	0	1,913	0	0	0	26	47	0	443	0	0	4,827	0	0	10,955	0	0
Juab	0	0	404	0	0	0	5	10	0	94	0	0	1,019	0	0	2,313	0	0
Kane	0	0	460	0	0	0	6	11	0	107	0	0	1,161	0	0	2,636	0	0
Millard	0	0	718	0	0	0	10	18	0	166	0	0	1,811	0	0	4,111	0	0
Morgan	0	0	249	0	0	0	3	6	0	58	0	0	627	0	0	1,424	0	0
Piute	0	0	50	0	0	0	1	1	0	12	0	0	127	0	0	289	0	0
Rich	0	0	114	0	0	0	2	3	0	26	0	0	288	0	0	655	0	0
Salt Lake	0	0	83,684	0	0	0	1,118	2,063	0	19,372	0	0	211,127	0	0	479,211	0	0
San Juan	0	0	786	0	0	0	10	19	0	182	0	0	1,982	0	0	4,498	0	0
Sanpete	0	0	981	0	0	0	13	24	0	227	0	0	2,475	0	0	5,617	0	0
Sevier	0	0	1,182	0	0	0	16	29	0	274	0	0	2,981	0	0	6,767	0	0
Summit	0	0	2,196	0	0	0	29	54	0	508	0	0	5,541	0	0	12,576	0	0
Tooele	0	0	2,600	0	0	0	35	64	0	602	0	0	6,561	0	0	14,891	0	0
Uintah	0	0	1,487	0	0	0	20	37	0	344	0	0	3,751	0	0	8,514	0	0
Utah	0	0	23,419	0	0	0	313	577	0	5,421	0	0	59,085	0	0	134,109	0	0
Wasatch	0	0	683	0	0	0	9	17	0	158	0	0	1,724	0	0	3,913	0	0
Washington	0	0	3,758	0	0	0	50	93	0	870	0	0	9,482	0	0	21,522	0	0
Wayne	0	0	136	0	0	0	2	3	0	32	0	0	343	0	0	779	0	0
Weber	0	0	15,531	0	0	0	208	383	0	3,595	0	0	39,184	0	0	88,940	0	0
Total	0	0	167,466	0	0	0	2,238	4,128	0	38,766	0	0	422,503	0	0	958,986	0	0
Statewide	0	0	167,466	0	0	0	2,238	4,128	0	38,766	0	0	422,503	0	0	958,986	0	0

Table A-3 Calculation of 1990 Industrial Carbon Dioxide Emissions by County (Tons CO₂)

County	Asphalt Road Oil	Aviation Gasoline	Distillate Fuel Oil	Jet Fuel Kerosene	Kerosene	LPG	Lubricants	Motor Gasoline	Residual Fuel Oil	Bituminous Coal	Coke	Natural Gas	Wood	Other
Beaver	0	0	1,875	0	5	77	71	215	0	12,411	0	8,836	0	3,835
Box Elder	0	0	42,872	0	110	1,764	1,625	4,926	0	283,749	0	202,003	0	87,675
Cache	0	0	48,515	0	124	1,996	1,838	5,574	0	321,095	0	228,590	0	99,215
Carbon	0	0	8,634	0	22	355	327	992	0	57,143	0	40,680	0	17,656
Daggett	0	0	199	0	1	8	8	23	0	1,320	0	940	0	408
Davis	0	0	48,027	0	123	1,976	1,820	5,518	0	317,866	0	226,291	0	98,217
Duchesne	0	0	6,856	0	18	282	260	788	0	45,377	0	32,304	0	14,021
Emery	0	0	7,560	0	19	311	286	869	0	50,039	0	35,623	0	15,461
Garfield	0	0	2,232	0	6	92	85	256	0	14,770	0	10,515	0	4,564
Grand	0	0	1,667	0	4	69	63	192	0	11,035	0	7,856	0	3,410
Iron	0	0	7,119	0	18	293	270	818	0	47,118	0	33,544	0	14,559
Juab	0	0	3,237	0	8	133	123	372	0	21,425	0	15,253	0	6,620
Kane	0	0	1,099	0	3	45	42	126	0	7,273	0	5,178	0	2,247
Millard	0	0	6,449	0	17	265	244	741	0	42,682	0	30,385	0	13,188
Morgan	0	0	2,944	0	8	121	112	338	0	19,488	0	13,873	0	6,021
Piute	0	0	781	0	2	32	30	90	0	5,167	0	3,678	0	1,596
Rich	0	0	1,107	0	3	46	42	127	0	7,329	0	5,217	0	2,265
Salt Lake	0	0	299,168	0	766	12,308	11,336	34,374	0	1,980,036	0	1,409,602	0	611,808
San Juan	0	0	4,171	0	11	172	158	479	0	27,603	0	19,651	0	8,529
Sanpete	0	0	8,808	0	23	362	334	1,012	0	58,294	0	41,500	0	18,012
Sevier	0	0	6,474	0	17	266	245	744	0	42,850	0	30,505	0	13,240
Summit	0	0	6,546	0	17	269	248	752	0	43,327	0	30,845	0	13,388
Tooele	0	0	8,570	0	22	353	325	985	0	56,722	0	40,381	0	17,526
Uintah	0	0	9,915	0	25	408	376	1,139	0	65,623	0	46,718	0	20,277
Utah	0	0	83,763	0	214	3,446	3,174	9,624	0	554,384	0	394,670	0	171,298
Wasatch	0	0	3,534	0	9	145	134	406	0	23,391	0	16,652	0	7,227
Washington	0	0	13,581	0	35	559	515	1,560	0	89,884	0	63,989	0	27,773
Wayne	0	0	1,549	0	4	64	59	178	0	10,249	0	7,296	0	3,167
Weber	0	0	62,384	0	160	2,567	2,364	7,168	0	412,889	0	293,939	0	127,578
Total	0	0	699,637	0	1,791	28,784	26,512	80,389	0	4,630,538	0	3,296,515	0	1,430,783
Statewide	0	0	699,637	0	1,791	28,784	26,512	80,389	0	4,630,538	0	3,296,515	0	1,430,783

Table A-4 Calculation of 1990 Utah Transportation Carbon Dioxide Emissions by County (Tons CO2)

County	Asphalt & Aviation Road Oil	Distillate Fuel Oil	Jet Fuel Kerosene	Kerosene	LPG	Lubricants	Motor Gasoline	Residual Fuel Oil	Bituminous Coal	Coke	Natural Gas	Wood	Other
Beaver	0	6,785	6,380	0	8	135	18,504	0	0	0	166	0	0
Box Elder	0	51,593	48,514	0	59	1,026	140,708	0	0	0	1,265	0	0
Cache	0	99,652	93,704	0	114	1,982	271,779	0	0	0	2,444	0	0
Carbon	0	28,553	26,849	0	33	568	77,871	0	0	0	700	0	0
Daggett	0	989	930	0	1	20	2,699	0	0	0	24	0	0
Davis	0	265,738	249,879	0	305	5,285	724,744	0	0	0	6,517	0	0
Duchesne	0	17,810	16,747	0	20	354	48,573	0	0	0	437	0	0
Emery	0	14,559	13,690	0	17	290	39,707	0	0	0	357	0	0
Garfield	0	5,583	5,250	0	6	111	15,227	0	0	0	137	0	0
Grand	0	9,329	8,772	0	11	186	25,443	0	0	0	229	0	0
Iron	0	29,542	27,779	0	34	587	80,570	0	0	0	724	0	0
Juab	0	8,198	7,709	0	9	163	22,359	0	0	0	201	0	0
Kane	0	7,280	6,845	0	8	145	19,853	0	0	0	179	0	0
Millard	0	15,973	15,019	0	18	318	43,562	0	0	0	392	0	0
Morgan	0	7,845	7,377	0	9	156	21,395	0	0	0	192	0	0
Piute	0	1,767	1,661	0	2	35	4,819	0	0	0	43	0	0
Rich	0	2,474	2,326	0	3	49	6,746	0	0	0	61	0	0
Salt Lake	0	1,029,027	967,615	0	1,182	20,464	2,806,456	0	0	0	25,235	0	0
San Juan	0	17,810	16,747	0	20	354	48,573	0	0	0	437	0	0
Sanpete	0	23,040	21,665	0	26	458	62,837	0	0	0	565	0	0
Sevier	0	21,768	20,469	0	25	433	59,367	0	0	0	534	0	0
Summit	0	22,192	20,868	0	25	441	60,524	0	0	0	544	0	0
Tooele	0	37,740	35,488	0	43	751	102,929	0	0	0	926	0	0
Uintah	0	31,380	29,507	0	36	624	85,581	0	0	0	770	0	0
Utah	0	375,990	353,552	0	432	7,477	1,025,436	0	0	0	9,220	0	0
Wasatch	0	14,276	13,424	0	16	284	38,936	0	0	0	350	0	0
Washington	0	69,403	65,261	0	80	1,380	189,282	0	0	0	1,702	0	0
Wayne	0	3,039	2,858	0	3	60	8,288	0	0	0	75	0	0
Weber	0	224,746	211,333	0	258	4,469	612,948	0	0	0	5,511	0	0
Total	0	2,444,079	2,298,218	0	2,807	48,605	6,665,718	0	0	0	59,937	0	0
Statewide	0	40,401	2,444,079	0	2,807	48,605	6,665,718	0	0	0	59,937	0	0

Table A-5 Calculation of 1990 Utah Electric Utility Carbon Dioxide Emmissions by County (Tons CO2)

County	Asphalt & Road Oil	Aviation Gasoline	Distillate Fuel Oil	Jet Fuel Kerosene	Kerosene	LPG	Lubricants	Motor Gasoline	Residual Fuel Oil	Bituminous Coal	Coke	Natural Gas	Wood	Other
Beaver	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Box Elder	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cache	0	0	103	0	0	0	0	0	0	0	0	0	0	0
Carbon	0	0	259	0	0	0	0	0	0	609,288	0	0	0	0
Daggett	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Davis	0	0	318	0	0	0	0	0	0	0	0	143	0	0
Duchesne	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Emery	0	0	15,071	0	0	0	0	0	0	16,704,433	0	0	0	0
Garfield	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Grand	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Iron	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Juab	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Kane	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Millard	0	0	19,449	0	0	0	0	0	0	12,428,333	0	0	0	0
Morgan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Morgantown	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Piute	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rich	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Salt Lake	0	0	1,186	0	0	0	0	0	0	4,994	0	54,103	0	0
San Juan	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sanpete	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sevier	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Summit	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tooele	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Uintah	0	0	0	0	0	0	0	0	0	3,112,397	0	0	0	0
Utah	0	0	377	0	0	0	0	0	0	73,955	0	563	0	0
Wasatch	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Washington	0	0	0	0	0	0	0	0	0	0	0	5,128	0	0
Wayne	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Weber	0	0	2,312	0	0	0	0	0	0	0	0	0	0	0
Total	0	0	39,075	0	0	0	0	0	0	32,933,400	0	59,937	0	0
Statewide	0	0	39,075	0	0	0	0	0	0	32,933,400	0	59,937	0	0

Table A-6 Calculation of 1993 Utah Residential Carbon Dioxide Emissions by County (Tons CO2)

County	Asphalt & Road Oil	Aviation Gasoline	Distillate Fuel Oil	Jet Fuel Kerosene	Kerosene	LPG	Lubricants	Motor Gasoline	Residual Fuel Oil	Bituminous Coal	Coke	Natural Gas	Wood	Other
Beaver	0	0	184	0	4	30	0	0	0	273	0	8,349	19	0
Box Elder	0	0	1,405	0	27	227	0	0	0	2,082	0	63,622	144	0
Cache	0	0	2,807	0	55	453	0	0	0	4,158	0	127,074	288	0
Carbon	0	0	764	0	15	123	0	0	0	1,131	0	34,566	78	0
Daggett	0	0	26	0	1	4	0	0	0	38	0	1,169	3	0
Davis	0	0	7,599	0	148	1,227	0	0	0	11,256	0	343,992	779	0
Duchesne	0	0	487	0	9	79	0	0	0	721	0	22,042	50	0
Emery	0	0	384	0	7	62	0	0	0	568	0	17,366	39	0
Garfield	0	0	155	0	3	25	0	0	0	229	0	7,013	16	0
Grand	0	0	277	0	5	45	0	0	0	410	0	12,522	28	0
Iron	0	0	878	0	17	142	0	0	0	1,300	0	39,743	90	0
Juab	0	0	229	0	4	37	0	0	0	339	0	10,353	23	0
Kane	0	0	201	0	4	32	0	0	0	298	0	9,101	21	0
Millard	0	0	432	0	8	70	0	0	0	639	0	19,537	44	0
Morgan	0	0	227	0	4	37	0	0	0	336	0	10,270	23	0
Piute	0	0	50	0	1	8	0	0	0	74	0	2,254	5	0
Rich	0	0	66	0	1	11	0	0	0	98	0	3,006	7	0
Salt Lake	0	0	28,661	0	559	4,628	0	0	0	42,456	0	1,297,480	2,936	0
San Juan	0	0	483	0	9	78	0	0	0	716	0	21,875	50	0
Sanpete	0	0	668	0	13	108	0	0	0	989	0	30,224	68	0
Sevier	0	0	605	0	12	98	0	0	0	896	0	27,384	62	0
Summit	0	0	727	0	14	117	0	0	0	1,076	0	32,896	74	0
Tooele	0	0	1,037	0	20	167	0	0	0	1,535	0	46,923	106	0
Uintah	0	0	871	0	17	141	0	0	0	1,290	0	39,409	89	0
Utah	0	0	10,734	0	209	1,733	0	0	0	15,900	0	485,930	1,100	0
Wasatch	0	0	413	0	8	67	0	0	0	612	0	18,702	42	0
Washington	0	0	2,165	0	42	350	0	0	0	3,207	0	98,022	222	0
Wayne	0	0	81	0	2	13	0	0	0	120	0	3,674	8	0
Weber	0	0	6,234	0	122	1,007	0	0	0	9,234	0	282,207	639	0
Total	0	0	68,847	0	1,343	11,117	0	0	0	101,984	0	3,116,705	7,054	0
Statewide	0	0	68,847	0	1,343	11,117	0	0	0	101,984	0	3,116,705	7,054	0

Table A-7 Calculation of 1993 Utah Commercial Carbon Dioxide Emissions by County (Tons CO2)

County	Asphalt & Road Oil	Aviation Gasoline	Distillate Fuel Oil	Jet Fuel Kerosene	Kerosene	LPG	Lubricants	Motor Gasoline	Residual Fuel Oil	Bituminous Coal	Coke	Natural Gas	Wood	Other
Beaver	0	0	347	0	3	4	0	17	0	391	0	2,807	0	0
Box Elder	0	0	1,936	0	15	23	0	93	0	2,182	0	15,679	0	0
Cache	0	0	6,010	0	47	70	0	288	0	6,771	0	48,659	0	0
Carbon	0	0	1,586	0	13	18	0	76	0	1,787	0	12,845	0	0
Daggett	0	0	91	0	1	1	0	4	0	102	0	736	0	0
Davis	0	0	14,280	0	113	166	0	685	0	16,089	0	115,624	0	0
Duchesne	0	0	833	0	7	10	0	40	0	938	0	6,744	0	0
Emery	0	0	484	0	4	6	0	23	0	545	0	3,917	0	0
Garfield	0	0	403	0	3	5	0	19	0	454	0	3,265	0	0
Grand	0	0	807	0	6	9	0	39	0	909	0	6,531	0	0
Iron	0	0	2,134	0	17	25	0	102	0	2,404	0	17,276	0	0
Juab	0	0	434	0	3	5	0	21	0	489	0	3,513	0	0
Kane	0	0	493	0	4	6	0	24	0	555	0	3,990	0	0
Millard	0	0	702	0	6	8	0	34	0	791	0	5,685	0	0
Morgan	0	0	245	0	2	3	0	12	0	276	0	1,983	0	0
Piute	0	0	48	0	0	1	0	2	0	54	0	389	0	0
Rich	0	0	113	0	1	1	0	5	0	127	0	913	0	0
Salt Lake	0	0	85,510	0	675	995	0	4,099	0	96,343	0	692,360	0	0
San Juan	0	0	838	0	7	10	0	40	0	944	0	6,782	0	0
Sanpete	0	0	1,102	0	9	13	0	53	0	1,242	0	8,922	0	0
Sevier	0	0	1,163	0	9	14	0	56	0	1,311	0	9,420	0	0
Summit	0	0	2,452	0	19	29	0	118	0	2,763	0	19,857	0	0
Tooele	0	0	2,063	0	16	24	0	99	0	2,324	0	16,701	0	0
Uintah	0	0	1,502	0	12	17	0	72	0	1,692	0	12,157	0	0
Utah	0	0	24,376	0	192	284	0	1,168	0	27,464	0	197,370	0	0
Wasatch	0	0	687	0	5	8	0	33	0	774	0	5,561	0	0
Washington	0	0	4,376	0	35	51	0	210	0	4,930	0	35,429	0	0
Wayne	0	0	157	0	1	2	0	8	0	177	0	1,271	0	0
Weber	0	0	15,087	0	119	176	0	723	0	16,998	0	122,156	0	0
Total	0	0	170,258	0	1,343	1,981	0	8,161	0	191,826	0	1,378,543	0	0
Statewide	0	0	170,258	0	1,343	1,981	0	8,161	0	191,826	0	1,378,543	0	0