

## San Francisco Community-Wide Carbon Emissions by Category

	1990	2000	2005	2010	Change from 1990
<b>Consumption</b>					
<b>Electricity</b>	<b>5,373,674</b>	<b>6,173,681</b>	<b>5,892,999</b>	<b>6,090,392</b>	<b>13.3%</b>
MWh - Residential	1,174,168	1,458,761	1,362,559	1,418,110	20.8%
MWh - Commercial	3,174,768	2,965,106	2,846,818	3,053,806	-3.8%
MWh - Municipal	765,328	938,133	828,601	849,805	11.0%
MWh - Bart	206,254	268,130	281,022	304,121	47.5%
MWh - MUNI	53,156	95,047	95,047	100,659	89.4%
MWH - Other (Direct Access)	0	448,503	478,952	363,892	
<b>Natural Gas</b>	<b>292,818,411</b>	<b>299,394,981</b>	<b>281,166,055</b>	<b>285,042,135</b>	<b>-2.7%</b>
Therms - Residential	176,580,538	155,025,499	143,120,463	147,570,333	-16.4%
Therms - Commercial	98,130,284	120,256,450	115,470,958	114,880,962	17.1%
Therms - Municipal	18,107,589	24,113,033	22,574,634	22,590,840	24.8%
<b>Fuel</b>	<b>5,216,833</b>	<b>5,267,362</b>	<b>5,111,293</b>	<b>4,292,751</b>	<b>-17.7%</b>
Diesel - MUNI (gal)	5,216,833	5,267,362	5,111,293	4,292,751	-17.7%
Diesel - Caltrain + Ferry (gal)	4,725,835	10,690,071	9,987,776	4,545,532	-3.8%
<b>VMT</b>	<b>3,648,000,000</b>	<b>3,880,000,000</b>	<b>3,777,853,741</b>	<b>3,910,784,576</b>	<b>7.2%</b>
<b>Waste (MT)</b>	<b>667,000</b>	<b>872,731</b>	<b>664,033</b>	<b>444,398</b>	<b>-33.4%</b>
<b>Biofuel (B100) Consumption (gal)</b>				<b>420,708</b>	
<b>Emission Factors</b>					
Community Electricity (PG&E and Power Plants) (lbs/MWh)	957.40	874.50	675.20	521.10	-45.6%
Natural Gas* (lbs/therm)	11.7	11.7	11.7	11.7	-0.3%
VMT (g/VMT)	558.59	568.53	543.65	541.80	-3.0%
Diesel - Caltrain & Ferry (lbs/gal)	22.38	22.38	22.38	22.38	0.0%
Diesel - MUNI (lbs/gal)	22.51	22.51	22.51	22.51	0.0%
Waste** (lbs/MT)	1,562.23	1,213.56	1,213.56	1,213.56	-22.3%
Hetch Hetchy Power (lbs/MWh)	145.19	149.57	151.30	32.40	-77.7%
Direct Access - Other	957.40	748.50	1,284.76	1,253.89	31.0%
Direct Access - BART	957.40	748.50	444.48	406.04	-57.6%
<b>Emissions</b>					
<b>Electricity</b>	<b>2,032,085</b>	<b>2,068,204</b>	<b>1,688,349</b>	<b>1,333,959</b>	<b>-34.4%</b>
MWh - Residential	509,906	578,642	417,305	335,195	-34.3%
MWh - Commercial	1,378,706	1,176,160	871,883	721,820	-47.6%
MWh - Municipal	50,402	63,647	56,866	12,489	-75.2%
MWh - Bart	89,570	91,034	56,658	56,012	-37.5%
MWh - MUNI	3,501	6,448	6,523	1,479	-57.7%
MWH - Other (Direct Access)	-	152,273	279,114	206,965	
<b>Natural Gas</b>	<b>1,558,248</b>	<b>1,593,246</b>	<b>1,496,240</b>	<b>1,512,341</b>	<b>-2.9%</b>
Therms - Residential	939,683	824,976	761,623	782,960	-16.7%
Therms - Commercial	522,205	639,951	614,485	609,521	16.7%
Therms - Municipal	96,360	128,319	120,132	119,860	24.4%
<b>Fuel</b>	<b>101,233</b>	<b>162,286</b>	<b>153,565</b>	<b>89,968</b>	<b>-11.1%</b>
Diesel - MUNI	53,266	53,782	52,188	43,831	-17.7%
Caltrain + Ferry	47,967	108,505	101,376	46,137	-3.8%
<b>VMT</b>	<b>2,037,736</b>	<b>2,205,904</b>	<b>2,053,823</b>	<b>2,118,863</b>	<b>4.0%</b>
<b>Waste</b>	<b>472,646</b>	<b>480,407</b>	<b>365,526</b>	<b>244,625</b>	<b>-48.2%</b>
<b>Total Emissionis (MT CO<sub>2</sub>)</b>	<b>6,201,949</b>	<b>6,510,048</b>	<b>5,757,502</b>	<b>5,299,757</b>	<b>-14.5%</b>

Biogenic Emissions (not included in total)

3,975

\*Natural Gas emissions factor changed from 11.732 to 11.697 lbs CO<sub>2</sub>/therm for 2008 emissions calculations

\*\*Weighted average emissions by waste type.