

2013 Greenhouse Gas Emissions Inventory Report

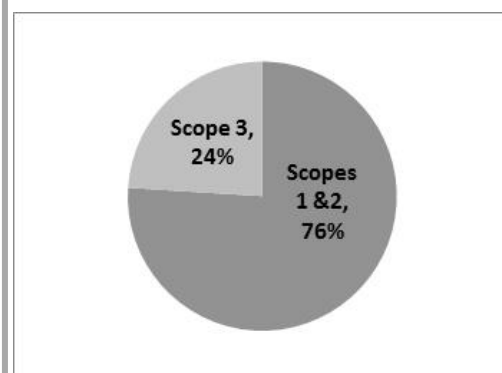
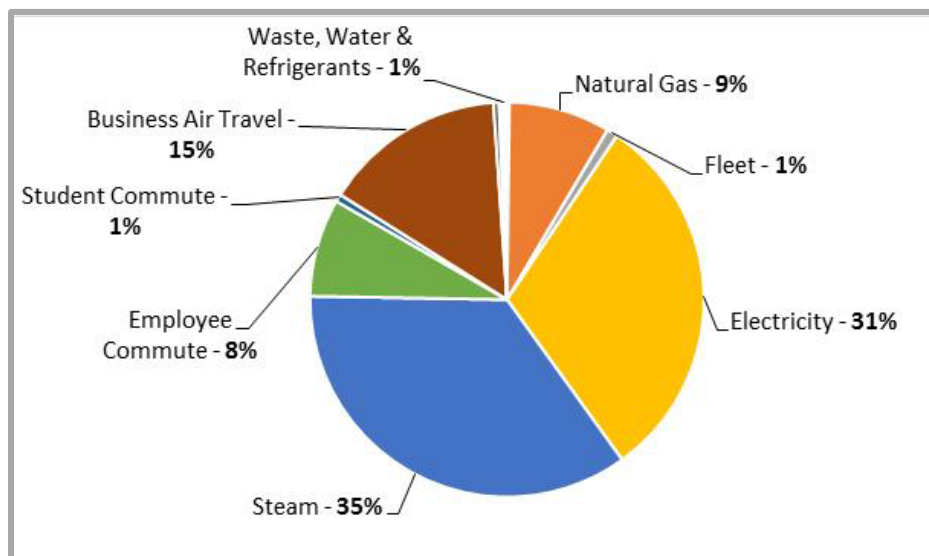
In 2013 greenhouse gas emissions for the Berkeley campus totaled 142,900 metric tons CO₂e. This represents an increase in emissions of 3% or 4,100 metric tons CO₂e relative to the previous year. Even with this increase campus emissions are still 4% below 1990 levels. Scope 1 and 2 emissions represent about 76% of Berkeley's profile – reducing these emissions to net-zero by the year 2025 is the next reduction target the campus is striving for, as called for by UC President Napolitano.

2013 Emissions Inventory - UC Berkeley

Emissions Sources	1990 Metric Tons CO ₂ e	2012 Metric Tons CO ₂ e	2013 Metric Tons CO ₂ e	Growth- Metric Tons CO ₂ e from 2012 to 2013	% Growth from 1990 to 2013	% Growth from 2012 to 2013	2013 Inventory Percentage Contribution
Steam	49,033	52,460	50,339	-2,121	2.7%	-4.0%	35.2%
Electricity	40,296	40,032	43,777	3,745	8.6%	9.4%	30.6%
Air Travel	19,980	21,100	21,394	294	7.1%	1.4%	15.0%
Natural Gas	8,148	11,217	12,190	973	49.6%	8.7%	8.5%
Faculty & Staff Commute	23,142	10,386	11,477	1,091	-50.4%	10.5%	8.0%
Student Commute	4,100	829	882	53	-78.5%	6.4%	0.6%
Campus Fleet	1,968	1,252	1,289	37	-34.5%	3.0%	0.9%
Fugitive-Refrigeration	237	25	108	83	-54.4%	332.0%	0.1%
Water	773	510	536	26	-30.7%	5.1%	0.4%
Solid Waste	996	698	656	-42	-34.1%	-6.0%	0.5%
De Minimis	281	281	281	0	0.0%	0.0%	0.2%
Total Emissions	148,954	138,790	142,929	4,139	-4.0%	3.0%	100%
Scope 1	10,634	12,775	13,868	1,093	30.4%	8.6%	9.7%
Scope 2	89,329	92,492	94,116	1,624	5.4%	1.8%	65.8%
Scope 3	48,991	33,523	34,945	1,422	-28.7%	4.2%	24.4%

The 2013 inventory will be third-party verified during the 2015 year.

2013 Emissions Profile



2013 Inventory Highlights

The primary changes to the 2013 inventory relative to the previous year are related to the following:

- **Steam** emissions were down 4% (-2,100 metric tons CO₂e) in 2013 relative to 2012, and lower than they have been since 2005. Some of this reduction is due to three campus buildings being off-line during construction. The reduction is in part, though, the result of energy saving measures instituted in buildings and at the cogeneration plant.
- **Electricity** usage was down in 2013 but emissions were up 9.5% (+3,750 metric tons CO₂e) relative to 2012 due to higher carbon content in the PG&E power mix – which may have been the result of less hydro power available due to California drought conditions. As PG&E continues to ramp up renewable energy use as part of the state mandated RPS, it is anticipated that the power mix will return to lower carbon levels in the coming years. The decrease in electricity use on the main campus in 2013 may be related to three campus buildings being off-line during construction; some of the reduced use is likely more permanent and the result the campus energy efficiency efforts.
- **Natural gas** emissions in 2013 were up 9% (+1,000 metric tons CO₂e) relative to 2012. This increase is mostly related to the availability of better usage data than in previous years.
- **Faculty/staff commute** emissions in 2013 were up 10.5% (+1,100 metric tons CO₂e) relative to 2012. This increase is related to a 3% growth in the campus employee population commuting to and from campus.