UCI Emissions Report Card December 2007

Date	Description	Status	CO_2 (tons per fiscal year)	NO_x (tons per fiscal year)	Comments
06/30/03	Total Campus Emissions	Baseline	94,500	64.5	UC Regents adopted sustainability policy July 2003.
07/01/03	Convert to 20% biodiesel for shuttles & other diesel vehicles	Complete	-130	+0.1	Assumes that 20% of fuel consumed is carbon-neutral. Amounts increased to reflect increased usage since 2003. See note 4.
07/18/03	Croul Hall	Complete	+1500	+1	
11/15/04	Cal(IT)2	Complete	+2010	+1.4	
09/01/05	Natural Sciences 2	Complete	+3130	+2.0	Biological Sciences and Physical Sciences share this new, energy intensive building. Emissions data based on CY2006 measured usage.
10/15/05	Portable Buildings Programmable T'stats	Complete	-30	-0.02	Installed programmable thermostats and tuned up operational programming for 73 trailer-mounted HVAC units (Bard units).
10/15/05	Elevator Lighting	Complete	-80	-0.065	Replaced lighting in numerous campus elevators.
11/01/05	Zone Presence Sensors	Complete	-90	-0.04	Installed zone presence sensors on Sprague Hall fume hoods.
12/01/05	2005 Utilities Deficit Reduction Plan	Complete	-2000	-1.0	Variety of measures including thermal comfort setting adjustments.
12/01/05	Lighting Retrofit	Complete	-230	-0.18	Funded by the UC/CSU Energy Partnership. Five buildings.
12/20/05	Engineering Parking Structure	Complete	+470	0.38	This is the lighting for the structure and the other electrical loads within it.
03/01/06	Commissioning Phase 1	Complete	-820	-0.51	Funded by the UC/CSU Energy Partnership. See Note 4 below.
12/31/06	Tree Planting	Complete	-103	0	4124 trees planted in calendar 2006.
01/15/07	Bren Hall	Complete	+1000	+0.5	Estimated. See note 8.
02/01/07	Window Film Project	Complete	-62.5	-0.05	GSM and Berkeley Place
04/23/07	AIRB	Complete	+1000	+1	Campus Surge adjacent to Engineering Parking Structure. See note 5.
06/01/07	Lighting Retrofit	Complete	-1840	-1.47	Funded by deferred maintenance bonds.
09/01/07	Cogeneration	Complete	-24,000	-58	Substantial displacement of campus electrical load. NOx reduction due to much cleaner technology compared to marginal grid plants
07/01/07	Bi-level stairwell lighting	Complete	-100	-0.08	Twenty-eight buildings retrofitted.
11/12/07	Low Pressure Drop Air Filters	Projected	-1670	-1.3	New design of air filters will allow reduced pressure drop for the same filtration efficacy. Project rolled out in 30 buildings with VAV.
12/07/07	**Subtotal**		**74,125**	**9.5**	
Summer 08	Occupancy Sensors 2	Projected	-135	-0.11	Occupancy sensors for lighting and HVAC in lecture halls and other areas.

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Date	Description	Status	CO_2 (tons per fiscal year)	NO_x (tons per fiscal year)	Comments
	Convert to 100% biodiesel in shuttles and other diesel vehicles	Projected	-480	-0.25	Assumes that 100% of fuel consumed is carbon-neutral. This represents the additional effect compared to 20% fuel above. See note 5, below.
February 08	Commissioning Phase 2	Projected	-990	-0.67	Gillespie, Natural Sciences 1, Sprague Hall
Spring 08	Low Pressure Drop Air Filters	Projected	-110	-0.1	Steinhaus Hall and Rowland Hall delayed due to construction activities.
May 08	Reines Hall	Projected	-590	-0.5	Phoenix controls retrofit
January 08	McGaugh Hall	Projected	-890	-0.7	Retrofit handlers with VAV controls
February 08	Steinhaus Hall	Projected	-270	-0.2	Teaching lab occupancy HVAC controls

Notes:

1. Figures in this list are rounded to reflect the confidence level of the input data. They do not include emissions attributable to Campus Housing where that housing is not served by the 66-kV system. They also do not include emissions attributable to housing for their consumption of natural gas.
2. CO2 and NOx numbers do not always match because some projects save natural gas burned at the Central Plant and others only save electricity. The emissions factors are different.
3. The CO2 and NOx numbers are consistent with those for marginal electricity and do not necessarily reflect the SCE source mix.
4. Emissions factors for the 100% biodiesel conversion assume that 10 of the 15 buses are converted with the KleenAir system. Compared to usage in the buses, other vehicular usage of biodiesel is minimal. Data based on a national study of effects of biodiesel usage in buses. Life cycle emissions reductions for CO2 from the use of biodiesel are 78% for B-100 and 15.7% for B-20.
5. The Surge Building has stand-alone heating and cooling systems. These are significantly less efficient than the central systems, hence, its emissions are estimated to be greater than a corresponding building connected to the Central Plant. Once we have data for a full year of occupancy, we can update the data. As we move forward with construction of new buildings connection to efficient central systems will be an essential component of the campus emissions reduction strategy.