SUSTAINABLE STANFORD

Stanford Operational Sustainability Metrics 2000-2019

Sustainability Area	Metric	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Energy																					
Electricity	kwh	175,404,000	175,079,000	176,333,000	180,834,000	186,805,000	190,292,000	194,488,000	198,152,000	198,932,000	198,867,000	206,241,000	207,750,000	210,268,000	212,340,000	212,992,000	209,742,000	212,798,000	205,819,000	206,174,000	207,441,000
	kwh/gsf [9]	**14**	**14**	**14**	**14**	**14**	**14**	**15**	**15**	**15**	**15**	**15**	**14**	**14**	**15**	**14**	**14**	**14**	**13**	**13**	**13**
Utility Hot Water/Steam [7]	kBtu [1]	953,703,000	1,012,148,000	1,027,408,000	1,033,263,000	1,049,315,000	1,079,877,000	1,046,025,000	1,024,973,000	1,054,905,000	985,839,000	1,012,729,000	1,001,716,000	973,062,000	968,650,000	905,724,000	540,363,000	547,521,000	598,034,000	618,458,000	714,124,000
	kBtu/gsf	**86**	**91**	**92**	**93**	**93**	**95**	**91**	**88**	**90**	**83**	**82**	**78**	**76**	**75**	**69**	**45**	**45**	**43**	**44**	**41**
Chilled Water	ton-hr	47,976,000	47,955,000	49,823,000	54,322,000	59,936,000	55,380,000	53,522,000	53,625,000	56,303,000	56,227,000	52,775,000	55,135,000	55,326,000	57,574,000	61,712,000	60,127,000	59,698,000	62,342,000	56,341,000	68,061,000
	ton-hr/gsf	**5.0**	**5.0**	**5.1**	**5.6**	**6.0**	**5.4**	**5.2**	**5.1**	**5.3**	**5.3**	**4.7**	**4.7**	**4.8**	**4.9**	**5.2**	**4.8**	**4.8**	**4.0**	**3.7**	**4.1**
Greenhouse Gas Emissions																					
Publicly Reported Emissions [2,8]	Metric Tons of CO_2	n/a	n/a	n/a	n/a	n/a	n/a	168,431	182,892	180,657	182,414	200,337	202,689	191,930	186,453	183,088	128,690	105,030	65,520	57,626	65,778
Emissions Intensity	lbs CO_2/gsf	n/a	n/a	n/a	n/a	n/a	n/a	**26**	**27**	**26**	**27**	**29**	**28**	**26**	**26**	**24**	**17**	**14**	**8**	**7**	**8**
Waste Minimization																					
Waste Diverted	tons	11,276	11,300	11,587	11,047	13,629	12,668	14,732	13,193	14,686	15,251	14,261	12,814	15,039	15,718	15,607	16,177	15,740	13,774	14,912	17,410
Waste Landfilled	tons	11,495	10,194	10,429	9,533	9,262	9,094	9,558	8,820	8,180	8,384	8,104	7,995	7,867	8,739	8,343	8,582	8,945	8,190	8,509	8,970
Total Waste	tons	22,771	21,494	22,016	20,580	22,891	21,762	24,290	22,014	22,866	23,635	22,369	20,809	22,906	24,457	23,950	24,759	24,685	21,964	23,422	26,380
Diversion Rate		**50%**	**53%**	**53%**	**54%**	**60%**	**58%**	**61%**	**60%**	**64%**	**65%**	**64%**	**62%**	**66%**	**64%**	**65%**	**66%**	**64%**	**63%**	**64%**	**66%**
Transportation [3]																					
Commuter Drive-Alone Rate (employees only) [4]		n/a	n/a	**72%**	**72%**	**73%**	**69%**	**61%**	**58%**	**58%**	**53%**	**54%**	**52%**	**52%**	**49%**	**49%**	**50%**	**50%**	**50%**	**50%**	**47%**
Commuter Drive-Alone Rate (all off-campus commuters)		n/a	n/a	n/a	**70%**	**69%**	**66%**	**57%**	**55%**	**56%**	**50%**	**52%**	**53%**	**50%**	**46%**	**48%**	**47%**	**43%**	**42%**	**42%**	**41%**
Commuter Telecommute/Flex Schedule Rate (all off-campus commuters)		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**11%**
Food Purchasing																					
Sustainable Food Purchases [6]		n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	**42%**	**44%**	**42%**	**40%**	**48%**	**38%**	**31%**	n/a	n/a	n/a
Water [5]																					
Potable	gals	954,678,000	997,183,000	862,795,000	840,132,000	921,125,000	843,081,000	811,757,000	832,417,000	841,782,000	782,323,000	780,810,000	774,723,000	786,742,000	765,961,000	766,159,000	583,150,000	505,949,000	547,686,000	531,392,000	535,021,000
Non-potable Irrigation	gals	371,119,000	431,426,000	406,634,000	362,740,000	364,159,000	332,149,000	270,526,000	347,163,000	446,777,000	394,942,000	375,157,000	391,342,000	413,575,000	449,440,000	395,688,000	328,350,000	319,193,000	393,067,000	389,323,000	374 ,497,000

NOTES:

1. In 2015, Stanford converted to hot water as its primary building heating method rather than steam as part of Stanford Energy System Innovations (SESI). Heating figures reflect annual steam consumption through 2014 and hot water consumption in 2015, in addition to the small amount of process steam still consumed on campus.
2. Emissions for 2006 - 2009 verified per the California Climate Action Registry General Reporting Protocol, including de minimus emissions. Emissions for 2010 - 2018 verified per the Climate Registry General Reporting Protocol, including simplified estimation (de minimus equivalent) emissions.
3. In June 2014, the methodology for calculating commuter drive-alone rates was updated to reflect the differing commute survey response rates in various sub-populations. The updated numbers are used in this table starting in 2002.
4. Employee drive-alone rate tracks only benefits-eligible employees.
5. Calendar year water consumption is shown for 2015 onward, while the previous years show numbers representing the Bay Area Water Supply and Conservation Agency's fiscal year, July 1 – June 30. In 2018, these numbers were shifted one year forward to more closely align fiscal and calendar years.
6. Calculations for sustainable food purchasing by Stanford Dining correspond to the criteria defined by the Association for the Advancement of Sustainability in Higher Education's Sustainability Tracking, Assessment, and Rating System. In 2017, the framework was adjusted to become more strict, reducing the total number of Stanford's food purchases that now qualify as sustainable.
7. In 2017, figures for heating consumption in CY15 and CY16 were updated to include three new boilers that were added due to the SESI project in 2014/15, resulting in a more accurate comparison between figures used before and after the new CEF came online.
8. In 2018, Stanford began reporting its greenhouse gas emissions using the AR5 Global Warming Potential (GWP) standard, rather than the SAR standard that was used in all prior years. The AR5 standard is consistent with the Intergovernmental Panel on Climate Change (IPCC) Fifth Assessment Report.
9. In 2019, Stanford transitioned all prior year data to reflect service areas in GSF, which differs from 2010-2017 reports, which use USF. Service areas for all categories differ based on the respective boundary of each utility.