

**Annex 2E. Semiconductor Manufacturing (IPCC 2E)
to the Technical Support Document for California's 2000-2014 Greenhouse Gas
Emission Inventory**

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Variables Used in the Emissions Estimation Equations

Values last updated on Wednesday, March 30, 2016

IPCC category = 2E — Electronics Industry

► Sector = Manufacturing : Electric & Electronic Equip. : Semiconductors & Related Products >

Activity = Semiconductor manufacture - C2F6

- Variable Name -	- Year -	- Value and Units -	- Reference -
Semiconductor manufacture	2000	Not used in estimates	None, see text
Semiconductor manufacture	2001	Not used in estimates	None, see text
Semiconductor manufacture	2002	Not used in estimates	None, see text
Semiconductor manufacture	2003	Not used in estimates	None, see text
Semiconductor manufacture	2004	Not used in estimates	None, see text
Semiconductor manufacture	2005	Not used in estimates	None, see text
Semiconductor manufacture	2006	Not used in estimates	None, see text
Semiconductor manufacture	2007	Not used in estimates	None, see text
Semiconductor manufacture	2008	Not used in estimates	None, see text
Semiconductor manufacture	2009	Not used in estimates	None, see text
Semiconductor manufacture	2010	Not used in estimates	None, see text
Semiconductor manufacture	2011	Not used in estimates	None, see text
Semiconductor manufacture	2012	Not used in estimates	None, see text
Semiconductor manufacture	2013	Not used in estimates	None, see text
Semiconductor manufacture	2014	Not used in estimates	None, see text
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Ratio of 2006 California survey to US emissions	2000	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2001	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2002	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2003	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2004	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2005	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2007	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2008	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2009	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2010	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2011	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2012	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2013	0.0678	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2014	0.0678	TSD Semiconductor
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US emissions from semiconductor manufacture	2000	300 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2001	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2002	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2003	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2004	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2005	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2006	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2007	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2008	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2009	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2010	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2011	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2012	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2013	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2014	100 Mg (tonnes)	Assume equal to subsequent year

Activity = Semiconductor manufacture - C3F8

- Variable Name -	- Year -	- Value and Units -	- Reference -
Semiconductor manufacture	2000	Not used in estimates	None, see text
Semiconductor manufacture	2001	Not used in estimates	None, see text
Semiconductor manufacture	2002	Not used in estimates	None, see text
Semiconductor manufacture	2003	Not used in estimates	None, see text
Semiconductor manufacture	2004	Not used in estimates	None, see text
Semiconductor manufacture	2005	Not used in estimates	None, see text
Semiconductor manufacture	2006	Not used in estimates	None, see text
Semiconductor manufacture	2007	Not used in estimates	None, see text
Semiconductor manufacture	2008	Not used in estimates	None, see text
Semiconductor manufacture	2009	Not used in estimates	None, see text
Semiconductor manufacture	2010	Not used in estimates	None, see text
Semiconductor manufacture	2011	Not used in estimates	None, see text
Semiconductor manufacture	2012	Not used in estimates	None, see text
Semiconductor manufacture	2013	Not used in estimates	None, see text
Semiconductor manufacture	2014	Not used in estimates	None, see text
Ratio of 2006 California survey to US emissions	2000	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2001	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2002	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2003	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2004	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2005	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2007	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2008	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2009	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2010	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2011	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2012	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2013	0.239	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2014	0.239	TSD Semiconductor
US emissions from semiconductor manufacture	2000	22.65 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2001	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2002	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2003	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2004	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2005	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2006	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2007	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2008	22.65 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2009	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2010	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2011	22.65 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2012	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2013	11.33 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2014	11.33 Mg (tonnes)	Assume equal to subsequent year

Activity = Semiconductor manufacture - C4F8

- Variable Name -	- Year -	- Value and Units -	- Reference -
Semiconductor manufacture	2000	Not used in estimates	None, see text
Semiconductor manufacture	2001	Not used in estimates	None, see text
Semiconductor manufacture	2002	Not used in estimates	None, see text
Semiconductor manufacture	2003	Not used in estimates	None, see text
Semiconductor manufacture	2004	Not used in estimates	None, see text
Semiconductor manufacture	2005	Not used in estimates	None, see text
Semiconductor manufacture	2006	Not used in estimates	None, see text

Variables Used in the Emissions Estimation Equations

Values last updated on Wednesday, March 30, 2016

Semiconductor manufacture	2007	Not used in estimates	None, see text
Semiconductor manufacture	2008	Not used in estimates	None, see text
Semiconductor manufacture	2009	Not used in estimates	None, see text
Semiconductor manufacture	2010	Not used in estimates	None, see text
Semiconductor manufacture	2011	Not used in estimates	None, see text
Semiconductor manufacture	2012	Not used in estimates	None, see text
Semiconductor manufacture	2013	Not used in estimates	None, see text
Semiconductor manufacture	2014	Not used in estimates	None, see text
Ratio of 2006 California survey to US emissions	2000	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2001	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2002	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2003	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2004	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2005	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2007	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2008	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2009	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2010	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2011	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2012	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2013	0.0533	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2014	0.0533	TSD Semiconductor
US emissions from semiconductor manufacture	2000	4.85 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2001	4.85 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2002	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2003	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2004	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2005	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2006	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2007	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2008	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2009	4.85 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2010	4.85 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2011	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2012	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2013	9.71 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2014	9.71 Mg (tonnes)	Assume equal to subsequent year

Activity = Semiconductor manufacture - CF4

- Variable Name -	- Year -	- Value and Units -	- Reference -
Semiconductor manufacture	2000	Not used in estimates	None, see text
Semiconductor manufacture	2001	Not used in estimates	None, see text
Semiconductor manufacture	2002	Not used in estimates	None, see text
Semiconductor manufacture	2003	Not used in estimates	None, see text
Semiconductor manufacture	2004	Not used in estimates	None, see text
Semiconductor manufacture	2005	Not used in estimates	None, see text
Semiconductor manufacture	2006	Not used in estimates	None, see text
Semiconductor manufacture	2007	Not used in estimates	None, see text
Semiconductor manufacture	2008	Not used in estimates	None, see text
Semiconductor manufacture	2009	Not used in estimates	None, see text
Semiconductor manufacture	2010	Not used in estimates	None, see text
Semiconductor manufacture	2011	Not used in estimates	None, see text
Semiconductor manufacture	2012	Not used in estimates	None, see text
Semiconductor manufacture	2013	Not used in estimates	None, see text
Semiconductor manufacture	2014	Not used in estimates	None, see text
Ratio of 2006 California survey to US emissions	2000	0.0661	TSD Semiconductor

Ratio of 2006 California survey to US emissions	2001	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2002	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2003	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2004	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2005	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2007	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2008	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2009	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2010	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2011	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2012	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2013	0.0661	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2014	0.0661	TSD Semiconductor

US emissions from semiconductor manufacture	2000	300 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2001	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2002	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2003	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2004	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2005	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2006	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2007	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2008	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2009	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2010	100 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2011	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2012	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2013	200 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2014	200 Mg (tonnes)	Assume equal to subsequent year

Activity = Semiconductor manufacture - HFC-23

- Variable Name -	- Year -	- Value and Units -	- Reference -
Semiconductor manufacture	2000	Not used in estimates	None, see text
Semiconductor manufacture	2001	Not used in estimates	None, see text
Semiconductor manufacture	2002	Not used in estimates	None, see text
Semiconductor manufacture	2003	Not used in estimates	None, see text
Semiconductor manufacture	2004	Not used in estimates	None, see text
Semiconductor manufacture	2005	Not used in estimates	None, see text
Semiconductor manufacture	2006	Not used in estimates	None, see text
Semiconductor manufacture	2007	Not used in estimates	None, see text
Semiconductor manufacture	2008	Not used in estimates	None, see text
Semiconductor manufacture	2009	Not used in estimates	None, see text
Semiconductor manufacture	2010	Not used in estimates	None, see text
Semiconductor manufacture	2011	Not used in estimates	None, see text
Semiconductor manufacture	2012	Not used in estimates	None, see text
Semiconductor manufacture	2013	Not used in estimates	None, see text
Semiconductor manufacture	2014	Not used in estimates	None, see text
Ratio of 2006 California survey to US emissions	2000	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2001	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2002	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2003	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2004	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2005	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2007	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2008	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2009	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2010	0.0879	TSD Semiconductor

Ratio of 2006 California survey to US emissions	2011	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2012	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2013	0.0879	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2014	0.0879	TSD Semiconductor
US emissions from semiconductor manufacture	2000	20.27 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2001	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2002	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2003	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2004	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2005	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2006	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2007	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2008	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2009	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2010	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2011	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2012	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2013	13.51 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2014	13.51 Mg (tonnes)	Assume equal to subsequent year

Activity = Semiconductor manufacture - NF3

- Variable Name -	- Year -	- Value and Units -	- Reference -
Semiconductor manufacture	2000	Not used in estimates	None, see text
Semiconductor manufacture	2001	Not used in estimates	None, see text
Semiconductor manufacture	2002	Not used in estimates	None, see text
Semiconductor manufacture	2003	Not used in estimates	None, see text
Semiconductor manufacture	2004	Not used in estimates	None, see text
Semiconductor manufacture	2005	Not used in estimates	None, see text
Semiconductor manufacture	2006	Not used in estimates	None, see text
Semiconductor manufacture	2007	Not used in estimates	None, see text
Semiconductor manufacture	2008	Not used in estimates	None, see text
Semiconductor manufacture	2009	Not used in estimates	None, see text
Semiconductor manufacture	2010	Not used in estimates	None, see text
Semiconductor manufacture	2011	Not used in estimates	None, see text
Semiconductor manufacture	2012	Not used in estimates	None, see text
Semiconductor manufacture	2013	Not used in estimates	None, see text
Semiconductor manufacture	2014	Not used in estimates	None, see text
Ratio of 2006 California survey to US emissions	2000	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2001	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2002	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2003	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2004	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2005	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2007	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2008	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2009	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2010	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2011	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2012	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2013	0.0179	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2014	0.0179	TSD Semiconductor
US emissions from semiconductor manufacture	2000	11.63 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2001	11.63 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2002	34.88 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2003	29.07 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2004	29.07 Mg (tonnes)	USEPA, 2015a

US emissions from semiconductor manufacture	2005	29.07 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2006	40.7 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2007	34.88 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2008	34.88 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2009	23.26 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2010	29.07 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2011	40.7 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2012	34.88 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2013	34.88 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2014	34.88 Mg (tonnes)	Assume equal to subsequent year

Activity = Semiconductor manufacture - SF6

- Variable Name -	- Year -	- Value and Units -	- Reference -
Semiconductor manufacture	2000	Not used in estimates	None, see text
Semiconductor manufacture	2001	Not used in estimates	None, see text
Semiconductor manufacture	2002	Not used in estimates	None, see text
Semiconductor manufacture	2003	Not used in estimates	None, see text
Semiconductor manufacture	2004	Not used in estimates	None, see text
Semiconductor manufacture	2005	Not used in estimates	None, see text
Semiconductor manufacture	2006	Not used in estimates	None, see text
Semiconductor manufacture	2007	Not used in estimates	None, see text
Semiconductor manufacture	2008	Not used in estimates	None, see text
Semiconductor manufacture	2009	Not used in estimates	None, see text
Semiconductor manufacture	2010	Not used in estimates	None, see text
Semiconductor manufacture	2011	Not used in estimates	None, see text
Semiconductor manufacture	2012	Not used in estimates	None, see text
Semiconductor manufacture	2013	Not used in estimates	None, see text
Semiconductor manufacture	2014	Not used in estimates	None, see text
Ratio of 2006 California survey to US emissions	2000	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2001	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2002	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2003	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2004	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2005	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2007	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2008	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2009	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2010	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2011	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2012	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2013	0.049	TSD Semiconductor
Ratio of 2006 California survey to US emissions	2014	0.049	TSD Semiconductor
US emissions from semiconductor manufacture	2000	43.86 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2001	30.7 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2002	26.32 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2003	30.7 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2004	26.32 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2005	30.7 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2006	30.7 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2007	21.93 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2008	17.54 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2009	13.16 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2010	17.54 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2011	17.54 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2012	17.54 Mg (tonnes)	USEPA, 2015a
US emissions from semiconductor manufacture	2013	17.54 Mg (tonnes)	USEPA, 2015a

Variables Used in the Emissions Estimation Equations

Values last updated on Wednesday, March 30, 2016

US emissions from semiconductor manufacture

2014

17.54 Mg (tonnes) Assume equal to subsequent year
