

Total Emissions Summary Report

University of California, Santa Barbara

(Emissions from California operations)



Report Generated On: 09/15/2008 02:46 pm PT

Report Revision #: 1

Santa Barbara, CA 93106 United States

sustainability.ucsb.edu

805-893-8367

jill.richardson@vcadmin.ucsb.edu

Contact: Jill Richardson

Industry Type: Education - University

NAIC Code:

SIC Code:

Description: University of California Santa Barbara is a 1,055 acre campus with many types of buildings such as administration, light and heavy research, as well as campus housing, residence halls, and off-campus reserves.

Primary Calculation

Methodologies:

Organizational structure disclosure:

Legend	
Blue	= required
Orange	= optional

VERIFIED EMISSIONS INFORMATION

Reporting Year: **2007**
 Reporting Scope: **CA**
 Reporting Protocol: General Reporting Protocol, Version 3.0, (April 2008)
 Reporting Boundaries: Management Control - Operational Criteria

Direct Baseline Year
 Indirect Baseline Year

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	1,359.26	1,350.36	0.20	0.02	0.00	0.00	0.00	metric ton
Stationary Combustion	19,858.05	19,799.99	2.20	0.04	0.00	0.00	0.00	metric ton
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	21,217.31	21,150.35	2.40	0.05	0.00	0.00	0.00	metric ton

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Indirect Emissions	CO2e	CO2	CH4	N2O	Unit
Purchased Electricity	37,454.18	37,399.37	0.29	0.16	metric ton
Purchased Steam	0.00	0.00	0.00	0.00	-
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-
TOTAL INDIRECT	37,454.18	37,399.37	0.29	0.16	metric ton

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De Minimis Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Bio II Chiller in Basement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
Fleet Vehicles A/C	7.37	0.00	0.00	0.00	0.01	0.00	0.00	metric ton
Gas Cylinders	0.94	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
MSRB Chiller (Bldg 520)	3.70	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
Ortega Dining Commons Chiller	0.17	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
TOTAL DEMINIMIS	12.18	0.00	0.00	0.00	0.01	0.00	0.00	metric ton
Percentage of Total Inventory:	0.02 %							

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Movement Report*

Factor	Details	Amount (CO2e)	Unit
Other	Brought 4 new buildings on-line: Student Resources Building (SRB) 70,981 gsf Theater and Dance 36,459 gsf Parking Structure 3 29,117 gsf Mosher Alumni House 24,013 gsf	0.00	metric ton
Other	Emissions from the generators were not captured separately in 2004, 2005, and 2006.	83.32	metric ton
Other	Marine vessel fuel usage was not captured in 2004, 2005, and 2006 (was de minimus). Included the actual usage in 2007.	118.94	metric ton

*The Movement Report documents changes in the members inventory. This data is not verified but must be completed by the member to help track changes in emissions over time.

VERIFICATION INFORMATION

Verification Company: Ryerson, Master & Associates, Inc.
 Verifier Name: Shannon Vitale
 Lead Verifier Name: Rachel Pelc
 Basis of Verification Opinion: University of California, Santa Barbara (UCSB) submitted their Year 2007 Greenhouse Gas Emission Inventory Report to Ryerson, Master and Associates, Inc. (RMA) for review and verification against the Registry's General Reporting Protocol, Version 3.0. RMA followed the procedures outlined in the Registry's General Verification Protocol, Version 3.0 to complete the verification process. The verification activities were conducted during the period July through September 2008.

On September 11, 2008, RMA issued a Verification Report to UCSB documenting the verification activities and the material and immaterial misstatements in the UCSB inventory. UCSB revised the emission inventory in CARROT, and RMA re-verified the inventory in September, 2008. A Verification Opinion was provided to UCSB, and RMA completed the verification in CARROT on September 15, 2007.

Date Submitted:
09/15/08 02:34 pm

Verifier Comments:

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OPTIONAL INFORMATION

Information in this section is voluntarily provided by the participant for public information, but is not required and thus, not verified under California Registry protocols.

Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Emissions Efficiency metric: Laboratory Cylinders

Emissions Management Programs: Various laboratories around campus use cylinders of compressed gas for experiments, etc. The gases found in the cylinders are: CO2, CH4, N2O, and SF6. The use of these gases can vary on a daily, weekly, monthly basis, so there is no real way to collect accurate information on the fugitive emissions for the cylinders. It could be zero to the entire amount for any given year. In addition, these gases are measured by volume (cubic feet), not weight, which is not an option on the fugitive gas section of CARROT. Thus, we are reporting the gases in the optional section.

The amount of each gas cylinder is:
 CO2 = 29,501 cf
 CH4 = 2,707 cf
 N2O = 1,244 cf
 SF6 = 6,550 gallons (closed system - no emissions)

All the cylinders on campus are monitored on a regular basis by our Environmental Health & Safety department for gas amounts and integrity of the cylinders.

Emissions Reduction Projects: EH&S requires laboratory safety training for all individuals who work in labs covering proper use of the cylinders to decrease the amount of unintentional releases into the atmosphere.

Emissions Reduction Goals: Since these gas cylinders are used in faculty research, there is no way, at this point in time, to reduce the amount of gas they purchase/use in their laboratories.

REFERENCE DOCUMENTS

Title	Author	Document Status	Publish Date
Verification Activity Log	Ryerson, Master and Associates, Inc.	Private	09/15/2008 12:00:00AM

Total Emissions Summary Report

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FACILITY INFORMATION

Facility Name: **Diesel Emergency Generators**
 Facility ID:
 ReportingYear: 2007
 Facility Address: Santa Barbara, CA 93106, United States
 Facility PO Box:
 Facility Contact Person: Jill Richardson
 Facility Contact Phone: 805-893-8367
 Facility Contact Email: jill.richardson@vcdadmin.ucsb.edu
 Facility Description:
 SIC Code:
 NAIC Code:
 Industry Type:

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Stationary Combustion	83.82	83.32	0.01	0.00	0.00	0.00	0.00	metric ton
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	83.82	83.32	0.01	0.00	0.00	0.00	0.00	metric ton

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Indirect Emissions	CO2e	CO2	CH4	N2O	Unit
Purchased Electricity	0.00	0.00	0.00	0.00	-
Purchased Steam	0.00	0.00	0.00	0.00	-
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-
TOTAL INDIRECT	0.00	0.00	0.00	0.00	-

De Minimis Detail	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
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Percentage of Total Inventory:

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

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Facility Emission Reduction Goals:
Environmental Programs/Policies:
Other Public Information:
Primary Calculation Methodologies:
Equity Share: 100.00

Source	Emission Category	Calc Method	Fuel Name	Fuel/Mileage	Emission Factor	Fract. Oxid.	GHG	Amount	Unit	Methodol./Source	General Info
Diesel Emergency Generators	Stationary Combustion	CARROT	Distillate Fuel Oil (#1, 2 & 4)	8209 gallon	10.15 kg/gallon	100	CO2	83.32	metric ton		
Diesel Emergency Generators	Stationary Combustion	CARROT	Distillate Fuel	8209 gallon	0.00 kg/gallon		CH4	0.01	metric ton		
Diesel Emergency Generators	Stationary Combustion	CARROT	Distillate Fuel	8209 gallon	0.00 kg/gallon		N2O	0.00	metric ton		

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FACILITY INFORMATION

Facility Name: **Gas Cylinders - Laboratories**

Facility ID:

ReportingYear: 2007

Facility Address: Santa Barbara, CA 93106, United States

Facility PO Box:

Facility Contact Person: Jill Richardson

Facility Contact Phone: 805-893-8367

Facility Contact Email: jill.richardson@vcadmin.ucsb.edu

Facility Description: Laboratories across campus use gas cylinders for experiments, etc. The department of Environmental Health & Safety monitor their use and replacement.

SIC Code:

NAIC Code:

Industry Type:

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Stationary Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Indirect Emissions	CO2e	CO2	CH4	N2O	Unit		
Purchased Electricity	0.00	0.00	0.00	0.00	-		
Purchased Steam	0.00	0.00	0.00	0.00	-		
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-		
TOTAL INDIRECT	0.00	0.00	0.00	0.00	-		

De Minimis Detail	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Gas Cylinders	0.94	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
TOTAL DEMINIMIS	0.94	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
Percentage of Total Inventory:	100.00%							

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Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

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Facility Emission Reduction Goals:
Environmental Programs/Policies:
Other Public Information:
Primary Calculation Methodologies:
Equity Share: 100.00

Source	Emission Category	Calc Method	Fuel Name	Fuel/Mileage	Emission Factor	Fract. Oxid.	GHG	Amount	Unit	Methodol./Source	General Info
Gas Cylinders	Fugitive Emissions	Pre-Calc					CO2	0.00	metric ton	Annual fugitive emissions are so minimal for CO2 cylinders, we considered their emissions amount to be zero.	Also reported in "optional section."
Gas Cylinders	Fugitive Emissions	Pre-Calc					CH4	0.00	metric ton	Annual fugitive emissions are so minimal for CH4 cylinders, we considered their emissions amount to be zero.	Also reported in "optional section."
Gas Cylinders	Fugitive Emissions	Pre-Calc					N2O	0.00	metric ton	Estimated emission amounts based on a small survey of cylinder users across campus. Fugitive emissions are very minimal for cylinders.	Also reported in "optional section."

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FACILITY INFORMATION

Facility Name **Main Campus and Auxiliary Electricity Usage**
 Facility ID
 ReportingYear 2007
 Facility Address Santa Barbara, CA 93106, United States
 Facility PO Box
 Facility Contact Person Jill Richardson
 Facility Contact Phone 805-893-8367
 Facility Contact Email jill.richardson@vcdadmin.ucsb.edu
 Facility Description
 SIC Code
 NAIC Code
 Industry Type

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Stationary Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Indirect Emissions	CO2e	CO2	CH4	N2O	Unit
Purchased Electricity	36,070.69	36,017.90	0.27	0.15	metric ton
Purchased Steam	0.00	0.00	0.00	0.00	-
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-
TOTAL INDIRECT	36,070.69	36,017.90	0.27	0.15	metric ton

De Minimis Detail	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
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Percentage of Total Inventory:

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

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Facility Emission Reduction Goals:
Environmental Programs/Policies:
Other Public Information:
Primary Calculation Methodologies:
Equity Share: 100.00

Source	Emission Category	Calc Method	Fuel Name	Fuel/ Mileage	Emission Factor	Fract. GHG Oxid.	GHG	Amount	Unit	Methodol./ Source	General Info
Main Campus Electrical	Purchased Electricity	CARROT		89230 MWh	0.01 lb/MWh		CH4	0.27	metric ton		
Main Campus Electrical	Purchased Electricity	CARROT		89230 MWh	0.00 lb/MWh		N2O	0.15	metric ton		
Main Campus Electrical(12 & 16 kV service combine)	Purchased Electricity	CARROT		89230446 KWh	0.88 lb/KWh		CO2	35,565.32	metric ton		
Off-Campus and Reserves Electrical	Purchased Electricity	CARROT		1135489 KWh	0.88 lb/KWh		CO2	452.58	metric ton		
Off-Campus and Reserves Electrical	Purchased Electricity	CARROT		1135 MWh	0.01 lb/MWh		CH4	0.00	metric ton		
Off-Campus and Reserves Electrical	Purchased Electricity	CARROT		1135 MWh	0.00 lb/MWh		N2O	0.00	metric ton		

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FACILITY INFORMATION

Facility Name **Main Campus and Auxiliary Natural Gas Usage**
 Facility ID
 ReportingYear 2007
 Facility Address Santa Barbara, CA 93106, United States
 Facility PO Box
 Facility Contact Person Jill Richardson
 Facility Contact Phone 805.893.8367
 Facility Contact Email jill.richardson@vcdadmin.ucsb.edu
 Facility Description
 SIC Code
 NAIC Code
 Industry Type

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Stationary Combustion	18,085.74	18,033.10	2.01	0.03	0.00	0.00	0.00	metric ton
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	18,085.74	18,033.10	2.01	0.03	0.00	0.00	0.00	metric ton

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Indirect Emissions	CO2e	CO2	CH4	N2O	Unit
Purchased Electricity	0.00	0.00	0.00	0.00	-
Purchased Steam	0.00	0.00	0.00	0.00	-
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-
TOTAL INDIRECT	0.00	0.00	0.00	0.00	-

De Minimis Detail	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
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Percentage of Total Inventory:

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

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Facility Emission Reduction Goals:
Environmental Programs/Policies:
Other Public Information:
Primary Calculation Methodologies:
Equity Share: 100.00

Source	Emission Category	Calc Method	Fuel Name	Fuel/ Mileage	Emission Factor	Fract. GHG Oxid.	GHG	Amount	Unit	Methodol./ Source	General Info
Main Campus Natural Gas	Stationary Combustion	CARROT	Natural Gas	3374276 therm	5.31 kg/therm	100	CO2	17,903.91	metric ton		
Main Campus Natural Gas	Stationary Combustion	CARROT	Natural Gas	3374276 therm	0.00 kg/therm		CH4	1.99	metric ton		
Main Campus Natural Gas	Stationary Combustion	CARROT	Natural Gas	3374276 therm	0.00 kg/therm		N2O	0.03	metric ton		
Off-Campus and Reserve Natural Gas	Stationary Combustion	CARROT	Natural Gas	24348 therm	5.31 kg/therm	100	CO2	129.19	metric ton		
Off-Campus and Reserves Natural Gas	Stationary Combustion	CARROT	Natural Gas	24348 therm	0.00 kg/therm		CH4	0.01	metric ton		
Off-Campus and Reserves Natural Gas	Stationary Combustion	CARROT	Natural Gas	24348 therm	0.00 kg/therm		N2O	0.00	metric ton		

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FACILITY INFORMATION

Facility Name: **Marine Vessels**
 Facility ID:
 ReportingYear: 2007
 Facility Address: Santa Barbara, CA 93106, United States
 Facility PO Box:
 Facility Contact Person: Jill Richardson
 Facility Contact Phone: (805) 893-8367
 Facility Contact Email: jill.richardson@vadmin.ucsb.edu
 Facility Description:
 SIC Code:
 NAIC Code:
 Industry Type:

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	119.72	118.94	0.02	0.00	0.00	0.00	0.00	metric ton
Stationary Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	119.72	118.94	0.02	0.00	0.00	0.00	0.00	metric ton

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Indirect Emissions	CO2e	CO2	CH4	N2O	Unit
Purchased Electricity	0.00	0.00	0.00	0.00	-
Purchased Steam	0.00	0.00	0.00	0.00	-
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-
TOTAL INDIRECT	0.00	0.00	0.00	0.00	-

De Minimis Detail	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
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* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

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Facility Emission Reduction Goals:
Environmental Programs/Policies:
Other Public Information:
Primary Calculation Methodologies:
Equity Share: 100.00

Source	Emission Category	Calc Method	Fuel Name	Fuel/Mileage	Emission Factor	Fract. GHG Oxid.	GHG	Amount	Unit	Methodol./Source	General Info
Marine Vessel Gas Consumption	Mobile Combustion	CARROT	Motor Gasoline	13500 gallon	8.81 kg/gallon		CO2	118.94	metric ton		
Marine Vessel Gas Consumption	Mobile Combustion	CARROT		13500 gallon	0.00 kg/gallon		CH4	0.02	metric ton		
Marine Vessel Gas Consumption	Mobile Combustion	CARROT		13500 gallon	0.00 kg/gallon		N2O	0.00	metric ton		

Total Emissions Summary Report

University of California, Santa Barbara

(Emissions from California operations)



Report Generated On: 09/15/2008 02:46 pm PT

Report Revision #: 1

FACILITY INFORMATION

Facility Name **Off-Campus Housing Electrical Usage**
 Facility ID
 ReportingYear 2007
 Facility Address Santa Barbara, CA 93106-1030, United States
 Facility PO Box
 Facility Contact Person Jill Richardson
 Facility Contact Phone 805-8938367
 Facility Contact Email jill.richardson@vcdadmin.ucsb.edu
 Facility Description
 SIC Code
 NAIC Code
 Industry Type

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Stationary Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Indirect Emissions	CO2e	CO2	CH4	N2O	Unit
Purchased Electricity	1,383.50	1,381.47	0.01	0.01	metric ton
Purchased Steam	0.00	0.00	0.00	0.00	-
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-
TOTAL INDIRECT	1,383.50	1,381.47	0.01	0.01	metric ton

De Minimis Detail	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
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Percentage of Total Inventory:

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Total Emissions Summary Report

University of California, Santa Barbara

(Emissions from California operations)



Report Generated On: 09/15/2008 02:46 pm PT

Report Revision #: 1

Facility Emission Reduction Goals:
Environmental Programs/Policies:
Other Public Information:
Primary Calculation Methodologies:
Equity Share: 100.00

Source	Emission Category	Calc Method	Fuel Name	Fuel/ Mileage	Emission Factor	Fract. GHG Oxid.	GHG	Amount	Unit	Methodol./ Source	General Info
Off-Campus Housing Electrical	Purchased Electricity	CARROT		3465998 KWh	0.88 lb/KWh		CO2	1,381.47	metric ton		
Off-Campus Housing Electrical	Purchased Electricity	CARROT		3466 MWh	0.01 lb/MWh		CH4	0.01	metric ton		
Off-Campus Housing Electrical	Purchased Electricity	CARROT		3466 MWh	0.00 lb/MWh		N2O	0.01	metric ton		

Total Emissions Summary Report

University of California, Santa Barbara

(Emissions from California operations)



Report Generated On: 09/15/2008 02:46 pm PT

Report Revision #: 1

FACILITY INFORMATION

Facility Name **Off-Campus Housing Natural Gas Usage**
 Facility ID
 ReportingYear 2007
 Facility Address Santa Barbara, CA 93106, United States
 Facility PO Box
 Facility Contact Person Jill Richardson
 Facility Contact Phone 805-893-8367
 Facility Contact Email jill.richardson@vcdadmin.ucsb.edu
 Facility Description
 SIC Code
 NAIC Code
 Industry Type

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Stationary Combustion	1,688.49	1,683.57	0.19	0.00	0.00	0.00	0.00	metric ton
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	1,688.49	1,683.57	0.19	0.00	0.00	0.00	0.00	metric ton

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Indirect Emissions	CO2e	CO2	CH4	N2O	Unit
Purchased Electricity	0.00	0.00	0.00	0.00	-
Purchased Steam	0.00	0.00	0.00	0.00	-
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-
TOTAL INDIRECT	0.00	0.00	0.00	0.00	-

De Minimis Detail	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
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Percentage of Total Inventory:

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Total Emissions Summary Report

University of California, Santa Barbara

(Emissions from California operations)



Report Generated On: 09/15/2008 02:46 pm PT

Report Revision #: 1

Facility Emission Reduction Goals:
Environmental Programs/Policies:
Other Public Information:
Primary Calculation Methodologies:
Equity Share: 100.00

Source	Emission Category	Calc Method	Fuel Name	Fuel/Mileage	Emission Factor	Fract. Oxid.	GHG	Amount	Unit	Methodol./Source	General Info
Off-Campus Housing Natural Gas	Stationary Combustion	CARROT	Natural Gas	317296 therm	5.31 kg/therm	100	CO2	1,683.57	metric ton		
Off-Campus Housing Natural Gas	Stationary Combustion	CARROT	Natural Gas	317296 therm	0.00 kg/therm		CH4	0.19	metric ton		
Off-Campus Housing Natural Gas	Stationary Combustion	CARROT	Natural Gas	317296 therm	0.00 kg/therm		N2O	0.00	metric ton		

Total Emissions Summary Report

University of California, Santa Barbara

(Emissions from California operations)



Report Generated On: 09/15/2008 02:46 pm PT

Report Revision #: 1

FACILITY INFORMATION

Facility Name	Refrigerants
Facility ID	
ReportingYear	2007
Facility Address	Santa Barbara, CA 93106, United States
Facility PO Box	
Facility Contact Person	Jill Richardson
Facility Contact Phone	805-893-8367
Facility Contact Email	jill.richardson@vcdadmin.ucsb.edu
Facility Description	
SIC Code	
NAIC Code	
Industry Type	

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Stationary Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Indirect Emissions	CO2e	CO2	CH4	N2O	Unit
Purchased Electricity	0.00	0.00	0.00	0.00	-
Purchased Steam	0.00	0.00	0.00	0.00	-
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-
TOTAL INDIRECT	0.00	0.00	0.00	0.00	-

De Minimis Detail	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Bio II Chiller in Basement	0.00	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
Fleet Vehicles A/C	7.37	0.00	0.00	0.00	0.01	0.00	0.00	metric ton
MSRB Chiller (Bldg 520)	3.70	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
Ortega Dining Commons Chiller	0.17	0.00	0.00	0.00	0.00	0.00	0.00	metric ton
TOTAL DEMINIMIS	11.23	0.00	0.00	0.00	0.01	0.00	0.00	metric ton

Percentage of Total Inventory: 100.00%

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Total Emissions Summary Report

University of California, Santa Barbara

(Emissions from California operations)



Report Generated On: 09/15/2008 02:46 pm PT

Report Revision #: 1

Facility Emission Reduction Goals:
Environmental Programs/Policies:
Other Public Information:
Primary Calculation Methodologies:
Equity Share: 100.00

Source	Emission Category	Calc Method	Fuel Name	Fuel/Mileage	Emission Factor	Fract. Oxid.	GHG	Amount	Unit	Methodol./Source	General Info
Bio II Chiller in Basement	Fugitive Emissions	Pre-Calc					HFC-134a	0.00	metric ton	This chiller is no longer in use and was not filled up/recharged in 2007, and will no longer be filled up in the future.	
Fleet Vehicles A/C	Fugitive Emissions	Pre-Calc					HFC-134a	0.01	metric ton		
MSRB Chiller (Bldg 520)	Fugitive Emissions	Pre-Calc					HFC-125	0.00	metric ton	The chiller is the Marine Science Research Building was recharged with 2.5 lbs of R-104a, which consists of 44% R-125, thus 1.1 lbs.	
MSRB Chiller (Bldg 520)	Fugitive Emissions	Pre-Calc					HFC-134a	0.00	metric ton	The chiller is the Marine Science Research Building was recharged with 2.5 lbs of R-104a, which consists of 4% R-134a, thus .1 lbs.	
MSRB Chiller (Bldg 520)	Fugitive Emissions	Pre-Calc					HFC-143a	0.00	metric ton	The chiller is the Marine Science Research Building was recharged with 2.5 lbs of R-104a, which consists of 52% R-143a, thus 1.3 lbs.	
Ortega Dining Commons Chiller	Fugitive Emissions	Pre-Calc					HFC-152a	0.00	metric ton	The chiller used 20 lbs of MP39, which contains 13% of R-152a. Thus, 13% of 20 lbs is 2.6 lbs of R-152a.	

Total Emissions Summary Report

University of California, Santa Barbara

(Emissions from California operations)



Report Generated On: 09/15/2008 02:46 pm PT

Report Revision #: 1

FACILITY INFORMATION

Facility Name **Transportation Fuel Usage**
 Facility ID
 ReportingYear 2007
 Facility Address Santa Barbara, CA 93106, United States
 Facility PO Box
 Facility Contact Person Jill Richardson
 Facility Contact Phone 805 893-8367
 Facility Contact Email jill.richardson@vcdadmin.ucsb.edu
 Facility Description
 SIC Code
 NAIC Code
 Industry Type

Direct Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
Mobile Combustion	1,239.54	1,231.42	0.18	0.01	0.00	0.00	0.00	metric ton
Stationary Combustion	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Process Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
Fugitive Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-
TOTAL DIRECT	1,239.54	1,231.42	0.18	0.01	0.00	0.00	0.00	metric ton

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Indirect Emissions	CO2e	CO2	CH4	N2O	Unit
Purchased Electricity	0.00	0.00	0.00	0.00	-
Purchased Steam	0.00	0.00	0.00	0.00	-
Purchased Heating and Cooling	0.00	0.00	0.00	0.00	-
TOTAL INDIRECT	0.00	0.00	0.00	0.00	-

De Minimis Detail	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
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Percentage of Total Inventory:

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Optional Emissions	CO2e	CO2	CH4	N2O	HFCs*	PFCs*	SF6	Unit
TOTAL OPTIONAL	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-

* HFCs and PFCs are classes of greenhouse gases that include many compounds. These columns may reflect the total emissions of multiple HFC and PFC compounds, each of which has a unique Global Warming Potential (GWP). Emissions of each gas are first multiplied by their respective GWP and then summed in the total CO2-equivalent column.

Total Emissions Summary Report

University of California, Santa Barbara

(Emissions from California operations)



Report Generated On: 09/15/2008 02:46 pm PT

Report Revision #: 1

Facility Emission Reduction Goals: Environmental Programs/Policies: Other Public Information: Primary Calculation Methodologies: Equity Share: 100.00											
Source	Emission Category	Calc Method	Fuel Name	Fuel/Mileage	Emission Factor	Fract. GHG Oxid.	GHG	Amount	Unit	Methodol./Source	General Info
Transportation Fuel	Mobile Combustion	CARROT	Diesel	4460 gallon	10.15 kg/gallon		CO2	45.27	metric ton		
Transportation Fuel	Mobile Combustion	CARROT		4460 gallon	0.00 kg/gallon		CH4	0.01	metric ton		
Transportation Fuel	Mobile Combustion	CARROT		4460 gallon	0.00 kg/gallon		N2O	0.00	metric ton		
Transportation Fuel	Mobile Combustion	CARROT	Motor Gasoline	1695 gallon	8.81 kg/gallon		CO2	14.93	metric ton		
Transportation Fuel	Mobile Combustion	CARROT		1695 gallon	0.00 kg/gallon		CH4	0.00	metric ton		
Transportation Fuel	Mobile Combustion	CARROT		1695 gallon	0.00 kg/gallon		N2O	0.00	metric ton		
Transportation Fuel	Mobile Combustion	CARROT	Motor Gasoline	132942 gallon	8.81 kg/gallon		CO2	1,171.22	metric ton		
Transportation Fuel	Mobile Combustion	CARROT		132941 gallon	0.00 kg/gallon		CH4	0.17	metric ton		
Transportation Fuel	Mobile Combustion	CARROT		132941 gallon	0.00 kg/gallon		N2O	0.01	metric ton		