

University of California, San Diego

Detail Report - Control (Private)

Complete Inventory 2019

**Description:**

**Industry:** 61 - Educational Services

**Address:** 9500 Gilman Drive  
#0089  
La Jolla, California US

**Contact:** Sam Petersen  
sjpetersen@Ucsd.edu

**Website:**

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**Reporting Information**

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Reporting Protocol: General Reporting Protocol 3.0 and associated updates and clarifications

GWP Standard: AR5

Base Year:

Consolidation Methodology: Operational Control Only

Status: Verification in Progress

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**Verification Information**

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Verification Body: Cameron-Cole, LLC

Level of Assurance: Reasonable

**Entity Emissions | Total in metric tons of CO<sub>2</sub>e**

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t of CO <sub>2</sub> e)	N <sub>2</sub> O (t of CO <sub>2</sub> e)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t of CO <sub>2</sub> e)	SF <sub>6</sub> (t of CO <sub>2</sub> e)
Stationary Combustion	168,506.262613	167,470.832489	282.774547	752.655577	0	0	0	0
Mobile Combustion	4,656.918371	4,228.772978	373.441801	54.703591	0	0	0	0
Fugitive	2,699.121678	65.16536	22.3566	85.3406	2,500.676548	0	0	25.58257
<b>Total</b>	<b>175,862.302661</b>	<b>171,764.770827</b>	<b>678.572948</b>	<b>892.699768</b>	<b>2,500.676548</b>	<b>0</b>	<b>0</b>	<b>25.58257</b>
Applied Offsets	-12,783	-12,783	0	0	0	0	0	0
<b>NetTotal</b>	<b>163,079.302661</b>	<b>158,981.770827</b>	<b>678.572948</b>	<b>892.699768</b>	<b>2,500.676548</b>	<b>0</b>	<b>0</b>	<b>25.58257</b>

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t of CO <sub>2</sub> e)	N <sub>2</sub> O (t of CO <sub>2</sub> e)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t of CO <sub>2</sub> e)	SF <sub>6</sub> (t of CO <sub>2</sub> e)
Purchased Electricity - Location Based	30,922.873338	30,798.068276	59.052892	65.75217	0	0	0	0
Purchased Heating - Location Based	1,209.47822	1,205.88511	2.99085	0.602261	0	0	0	0
<b>Total</b>	<b>32,132.351558</b>	<b>32,003.953385</b>	<b>62.043742</b>	<b>66.354431</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>NetTotal</b>	<b>32,132.351558</b>	<b>32,003.953385</b>	<b>62.043742</b>	<b>66.354431</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t of CO <sub>2</sub> e)	N <sub>2</sub> O (t of CO <sub>2</sub> e)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t of CO <sub>2</sub> e)	SF <sub>6</sub> (t of CO <sub>2</sub> e)
Purchased Electricity - Market Based	14,374.49381	14,250.981742	57.759899	65.75217	0	0	0	0
Purchased Heating - Market Based	1,209.47822	1,205.88511	2.99085	0.602261	0	0	0	0
<b>Total</b>	<b>15,583.97203</b>	<b>15,456.866851</b>	<b>60.750748</b>	<b>66.354431</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>NetTotal</b>	<b>15,583.97203</b>	<b>15,456.866851</b>	<b>60.750748</b>	<b>66.354431</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Biogenic - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t of CO <sub>2</sub> e)	N <sub>2</sub> O (t of CO <sub>2</sub> e)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t of CO <sub>2</sub> e)	SF <sub>6</sub> (t of CO <sub>2</sub> e)
Mobile Biomass Combustion	104.218575	104.218575	0	0	0	0	0	0
<b>Total</b>	104.218575	104.218575	0	0	0	0	0	0
<b>NetTotal</b>	104.218575	104.218575	0	0	0	0	0	0

Optional - Optional Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t of CO <sub>2</sub> e)	N <sub>2</sub> O (t of CO <sub>2</sub> e)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t of CO <sub>2</sub> e)	SF <sub>6</sub> (t of CO <sub>2</sub> e)
Scope 3	80,575	80,575	0	0	0	0	0	0
<b>Total</b>	80,575	80,575	0	0	0	0	0	0
<b>NetTotal</b>	80,575	80,575	0	0	0	0	0	0

## Entity Emissions | Total in metric tons of gas

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	168,506.262613	167,470.832489	10.099091	2.84021	0	0	0	0
Mobile Combustion	4,656.918371	4,228.772978	13.337207	0.206429	0	0	0	0
Fugitive	2,699.121678	65.16536	0.79845	0.32204	2,500.676548	0	0	0.001089
<b>Total</b>	175,862.302661	171,764.770827	24.234748	3.368678	2,500.676548	0	0	0.001089

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	30,922.873338	30,798.068276	2.109032	0.248121	0	0	0	0
Purchased Heating - Location Based	1,209.47822	1,205.88511	0.106816	0.002273	0	0	0	0
<b>Total</b>	<b>32,132.351558</b>	<b>32,003.953385</b>	<b>2.215848</b>	<b>0.250394</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	14,374.49381	14,250.981742	2.062854	0.248121	0	0	0	0
Purchased Heating - Market Based	1,209.47822	1,205.88511	0.106816	0.002273	0	0	0	0
<b>Total</b>	<b>15,583.97203</b>	<b>15,456.866851</b>	<b>2.16967</b>	<b>0.250394</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Biogenic - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Mobile Biomass Combustion	104.218575	104.218575	0	0	0	0	0	0
<b>Total</b>	<b>104.218575</b>	<b>104.218575</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Optional - Optional Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Scope 3	80,575	80,575	0	0	0	0	0	0
<b>Total</b>	<b>80,575</b>	<b>80,575</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

# Simplified Estimation Methods (SEMs)

	Total Estimated CO <sub>2e</sub> (t)	Total Emissions (t of CO <sub>2e</sub> )	Estimated CO <sub>2e</sub> as a Percentage of Total*
Location Based	1,457.470204	208,098.872794	0.700373906156482%
Market Based	1,457.470204	191,550.493267	0.760880423329178%

\*Total based on scope 1, scope 2 & biomass emissions

## Facility Emissions | UCSD Aggregate Sources

Equity share - 100% | Entity controls the facility emissions - Yes

9500 Gilman Dr, San Diego, California, 92093-0089, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	702.72638	699.25121	0.011861	0.011861	0	0	0	0
<b>Total</b>	702.72638	699.25121	0.011861	0.011861	0	0	0	0

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	3,358.463147	3,344.908352	0.229057	0.026948	0	0	0	0
Purchased Heating - Location Based	1,209.47822	1,205.88511	0.106816	0.002273	0	0	0	0
<b>Total</b>	4,567.941367	4,550.793462	0.335873	0.029221	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	2,676.837174	2,663.335637	0.227155	0.026948	0	0	0	0
Purchased Heating - Market Based	1,209.47822	1,205.88511	0.106816	0.002273	0	0	0	0
<b>Total</b>	3,886.315394	3,869.220747	0.333971	0.029221	0	0	0	0

## Source Emissions | Leased Space - Location Based

TCR GRP 3.0 default emission factors Table 3.7 26.8 scf per sq. ft, 807,634 sq. ft. of of leased ASF with no natural gas bill.

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Heating - Location Based	CO2	Fuel-Specific Factor	1,025 - 1,050 Btu / SCF	Commercial	Emission Factor	Yes		Natural Gas	21,644,591.2 scf	53.06 kg/MMBtu	2020 Default Emission Factors - Table #1.1	1,205.8851	1,205.8851
Purchased Heating - Location Based	CH4	Fuel-Specific Factor	1,025 - 1,050 Btu / SCF	Commercial	Emission Factor	Yes		Natural Gas	21,644,591.2 scf	4.7 g/MMBtu	2020 Default Emission Factors - Table #1.10	0.106816	2.99085
Purchased Heating - Location Based	N2O	Fuel-Specific Factor	1,025 - 1,050 Btu / SCF	Commercial	Emission Factor	Yes		Natural Gas	21,644,591.2 scf	0.1 g/MMBtu	2020 Default Emission Factors - Table #1.10	0.002273	0.602261

## Source Emissions | Leased Space - Market Based

TCR GRP 3.0 default emission factors Table 3.7 26.8 scf per sq. ft, 807,634 sq. ft. of of leased ASF with no natural gas bill.

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Heating - Market Based	CO2	Fuel-Specific Factor	1,025 - 1,050 Btu / SCF	Commercial	Emission Factor	Yes		Natural Gas	21,644,591.2 scf	53.06 kg/MMBtu	2020 Default Emission Factors - Table #1.1	1,205.8851	1,205.8851
Purchased Heating - Market Based	CH4	Fuel-Specific Factor	1,025 - 1,050 Btu / SCF	Commercial	Emission Factor	Yes		Natural Gas	21,644,591.2 scf	4.7 g/MMBtu	2020 Default Emission Factors - Table #1.10	0.106816	2.99085
Purchased Heating - Market Based	N2O	Fuel-Specific Factor	1,025 - 1,050 Btu / SCF	Commercial	Emission Factor	Yes		Natural Gas	21,644,591.2 scf	0.1 g/MMBtu	2020 Default Emission Factors - Table #1.10	0.002273	0.602261

## Source Emissions | Natural Gas Use

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	131,785 therm	53.06 kg/MMBtu	2020 Default Emission Factors - Table #1.1	699.25121	699.25121
Stationary Combustion	CH4	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	131,785 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.011861	0.332098
Stationary Combustion	N2O	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	131,785 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.011861	3.143072

## Source Emissions | Off Campus Purchased Electricity SDGE - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	10,659,105 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	2,400.525094	2,400.525094
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	10,659,105 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.164386	4.60282
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	10,659,105 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.01934	5.124988

## Source Emissions | Off Campus Purchased Electricity SDGE - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	10,659,105 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	2,400.525094	2,400.525094
Purchased Electricity - Market Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	10,659,105 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.164386	4.60282
Purchased Electricity - Market Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	10,659,105 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.01934	5.124988

## Source Emissions | Off Campus Purchased Electricity UCOP - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	4,193,366 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	944.383258	944.383258
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	4,193,366 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.064671	1.810781
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	4,193,366 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.007608	2.016206

## Source Emissions | Off Campus Purchased Electricity UCOP - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO <sub>2</sub> e (t)
Purchased Electricity - Market Based	CO <sub>2</sub>	Utility-Specific Rate	2018	System Average	Emission Factor	No		University of California, Office of the President	4,193,366 kWh	138.17 lb/MWh	2020 Default Emission Factors - Table #3.8	262.810543	262.810543
Purchased Electricity - Market Based	CH <sub>4</sub>	Utility-Specific Rate	2018	System Average	Emission Factor	No		University of California, Office of the President	4,193,366 kWh	33 lb/GWh	2020 Default Emission Factors - Table #3.1	0.062769	1.757523
Purchased Electricity - Market Based	N <sub>2</sub> O	Utility-Specific Rate	2018	System Average	Emission Factor	No		University of California, Office of the President	4,193,366 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.007608	2.016206

## Facility Emissions | UCSD Main Campus

Equity share - 100% | Entity controls the facility emissions - Yes

9500 Gilman Dr, La Jolla, California, 92093-0089, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	160,357.750687	159,362.597415	9.961282	2.702783	0	0	0	0
Mobile Combustion	4,656.918371	4,228.772978	13.337207	0.206429	0	0	0	0
Fugitive	2,677.254538	64.69432	0.79845	0.2413	2,500.676548	0	0	0.001089
<b>Total</b>	<b>167,691.923596</b>	<b>163,656.064713</b>	<b>24.096939</b>	<b>3.150511</b>	<b>2,500.676548</b>	<b>0</b>	<b>0</b>	<b>0.001089</b>

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	16,562.20793	16,495.362674	1.129592	0.132893	0	0	0	0
<b>Total</b>	16,562.20793	16,495.362674	1.129592	0.132893	0	0	0	0

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	8,487.087595	8,420.873281	1.107058	0.132893	0	0	0	0
<b>Total</b>	8,487.087595	8,420.873281	1.107058	0.132893	0	0	0	0

Biogenic - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Mobile Biomass Combustion	104.218575	104.218575	0	0	0	0	0	0
<b>Total</b>	104.218575	104.218575	0	0	0	0	0	0

Optional - Optional Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Scope 3	80,575	80,575	0	0	0	0	0	0
<b>Total</b>	80,575	80,575	0	0	0	0	0	0

## Source Emissions | Compressed Gas Emission

Based on historical averages of compressed gas purchases

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO <sub>2</sub> e (t)
Fugitive	CO <sub>2</sub>	N/A	All	Unspecified Technology	PreCalculated	Yes		N/A	N/A	N/A	N/A	7.86369	7.86369
Fugitive	CH <sub>4</sub>	N/A	All	Unspecified Technology	PreCalculated	Yes		N/A	N/A	N/A	N/A	0.79845	22.3566

## Source Emissions | CUP Boilers

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	977,895 therm	53.06 kg/MMBtu	2020 Default Emission Factors - Table #1.1	5,188.71087	5,188.71087
Stationary Combustion	CH4	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	977,895 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.088011	2.464295
Stationary Combustion	N2O	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	977,895 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.088011	23.322796

## Source Emissions | Cup COGEN

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Industrial	Turbines >3MW	Emission Factor	No		1,025 - 1,050 Btu / SCF	25,025,116 therm	53.06 kg/MMBtu	2020 Default Emission Factors - Table #1.1	132,783.265496	132,783.265496
Stationary Combustion	CH4	Natural Gas	Industrial	Turbines >3MW	Emission Factor	No		1,025 - 1,050 Btu / SCF	25,025,116 therm	3.8 g/MMBtu	2020 Default Emission Factors - Table #1.7	9.509544	266.267234
Stationary Combustion	N2O	Natural Gas	Industrial	Turbines >3MW	Emission Factor	No		1,025 - 1,050 Btu / SCF	25,025,116 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	2.25226	596.849017

## Source Emissions | Dry Ice

Total sublimation of dry ice to gas assumed, CO2e calculated of estimated tons of dry ice purchased.

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Fugitive	CO2	N/A	All	Unspecified Technology	PreCalculated	Yes		N/A	N/A	N/A	N/A	55.42	55.42

## Source Emissions | Emergency Generators

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	No		Distillate Fuel Oil No. 2	3,012.29 gal	10.21 kg/gal	2020 Default Emission Factors - Table #1.1	30.755481	30.755481
Stationary Combustion	CH4	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	No		Distillate Fuel Oil No. 2	3,012.29 gal	0.003 kg/MMBtu	2020 Default Emission Factors - Table #1.9	0.001247	0.034918
Stationary Combustion	N2O	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	No		Distillate Fuel Oil No. 2	3,012.29 gal	0.0006 kg/MMBtu	2020 Default Emission Factors - Table #1.9	0.000249	0.066096

## Source Emissions | Emissions from Ammunition

33 Officers, assuming 100 bullets per year.

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Fugitive	CO2	N/A	All	Unspecified Technology	PreCalculated	Yes		N/A	N/A	N/A	N/A	0.00003	0.00003

## Source Emissions | Fuel Cell Purchased Electricity - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	19,913,462 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	4,484.688465	4,484.688465
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	19,913,462 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.307109	8.59904
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	19,913,462 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.03613	9.574561

## Source Emissions | Fuel Cell Purchased Electricity - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	19,913,462 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	4,484.688465	4,484.688465
Purchased Electricity - Market Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	19,913,462 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.307109	8.59904
Purchased Electricity - Market Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	19,913,462 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.03613	9.574561

## Source Emissions | Main Campus Aggregated Sources

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	1,588,058 therm	53.06 kg/MMBtu	2020 Default Emission Factors - Table #1.1	8,426.235748	8,426.235748
Stationary Combustion	CH4	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	1,588,058 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.142925	4.001906
Stationary Combustion	N2O	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	1,588,058 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.142925	37.875183

## Source Emissions | Mobile Bio-Diesel Fuel

Estimated 8 mpg.

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Biomass Combustion - Biomass	CO2	Biofuels	Diesel Medium and Heavy-Duty Trucks and Busses	Medium and Heavy-Duty Vehicles (Model Years 1960-2015)	Emission Factor	No		Renewable Diesel (R100) Fuel	10,207.5 gal	10.21 kg/gal	2020 Default Emission Factors - Table #2.1	104.218575	104.218575
Mobile Combustion	CH4	Biofuels	Diesel Medium and Heavy-Duty Trucks and Busses	Medium and Heavy-Duty Vehicles (Model Years 1960-2015)	Emission Factor	No		Renewable Diesel (R100) Fuel	81,660 mi	0.0051 g/mi	2020 Default Emission Factors - Table #2.5	0.000416	0.011661
Mobile Combustion	N2O	Biofuels	Diesel Medium and Heavy-Duty Trucks and Busses	Medium and Heavy-Duty Vehicles (Model Years 1960-2015)	Emission Factor	No		Renewable Diesel (R100) Fuel	81,660 mi	0.0048 g/mi	2020 Default Emission Factors - Table #2.5	0.000392	0.103872

## Source Emissions | Mobile CNG Fleet

Est. 4 mpg

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Alternative Fuels	Buses	Internal Combustion Engine	Emission Factor	No		Compressed Natural Gas (CNG)	330,646.67 GGE	0.05444 kg/scf	2020 Default Emission Factors - Table #2.1	2,280.111265	2,280.111265
Mobile Combustion	CH4	Alternative Fuels	Buses	Internal Combustion Engine	Emission Factor	No		Compressed Natural Gas (CNG)	1,322,586.68 mi	10 g/mi	2020 Default Emission Factors - Table #2.6	13.225867	370.32427
Mobile Combustion	N2O	Alternative Fuels	Buses	Internal Combustion Engine	Emission Factor	No		Compressed Natural Gas (CNG)	1,322,586.68 mi	0.001 g/mi	2020 Default Emission Factors - Table #2.6	0.001323	0.350485

## Source Emissions | Mobile Fleet - Diesel

estimated 8 mpg

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Medium and Heavy-Duty Vehicles (Model Years 1960-2011)	Emission Factor	No		All	479.1 gal	10.21 kg/gal	2020 Default Emission Factors - Table #2.1	4.891611	4.891611
Mobile Combustion	CH4	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Medium and Heavy-Duty Vehicles (Model Years 1960-2011)	Emission Factor	No		All	3,832.8 mi	0.0051 g/mi		0.00002	0.000547
Mobile Combustion	N2O	Diesel Fuel	Diesel Medium and Heavy-Duty Trucks and Busses	Medium and Heavy-Duty Vehicles (Model Years 1960-2011)	Emission Factor	No		All	3,832.8 mi	0.0048 g/mi		0.000018	0.004875

## Source Emissions | Mobile Fleet - Unleaded

estimated 15mpg

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Vans, Pickup Trucks, SUVs (Model Year 2000)	Emission Factor	No		All	214,871.31 gal	8.78 kg/gal	2020 Default Emission Factors - Table #2.1	1,886.570102	1,886.570102
Mobile Combustion	CH4	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Vans, Pickup Trucks, SUVs (Model Year 2000)	Emission Factor	No		All	3,223,069.65 mi	0.034 g/mi	2020 Default Emission Factors - Table #2.5	0.109584	3.068362
Mobile Combustion	N2O	Motor Gasoline	Gasoline Light Trucks (Vans, Pickup Trucks, SUVs)	Vans, Pickup Trucks, SUVs (Model Year 2000)	Emission Factor	No		All	3,223,069.65 mi	0.0631 g/mi	2020 Default Emission Factors - Table #2.5	0.203376	53.894559

## Source Emissions | Nitrous Oxide

Based on historical averages of annual compressed gas cylinder purchases.

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Fugitive	N2O	N/A	All	Unspecified Technology	PreCalculated	Yes		N/A	N/A	N/A	N/A	0.2413	63.9445

## Source Emissions | Propane devices.

Estimated 200 5 gallon propane tanks a year

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	Yes		Propane (Liquid)	1,000 gal	5.72 kg/gal	2020 Default Emission Factors - Table #1.1	5.72	5.72
Stationary Combustion	CH4	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	Yes		Propane (Liquid)	1,000 gal	0.003 kg/MMBtu	2020 Default Emission Factors - Table #1.9	0.000273	0.007644
Stationary Combustion	N2O	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	Yes		Propane (Liquid)	1,000 gal	0.0006 kg/MMBtu	2020 Default Emission Factors - Table #1.9	0.000055	0.014469

## Source Emissions | Purchased Electricity SDGE - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	3,653,088 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	822.707855	822.707855
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	3,653,088 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.056339	1.577478
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	3,653,088 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.006628	1.756436

## Source Emissions | Purchased Electricity SDGE - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	3,653,088 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	822.707855	822.707855
Purchased Electricity - Market Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	3,653,088 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.056339	1.577478
Purchased Electricity - Market Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	3,653,088 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.006628	1.756436

## Source Emissions | Purchased Electricity UCOP - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	49,678,176 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	11,187.966354	11,187.966354
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	49,678,176 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.766145	21.452052
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	49,678,176 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.090135	23.885688

## Source Emissions | Purchased Electricity UCOP - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2018	System Average	Emission Factor	No		University of California, Office of the President	49,678,176 kWh	138.17 lb/MWh	2020 Default Emission Factors - Table #3.8	3,113.476961	3,113.476961
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2018	System Average	Emission Factor	No		University of California, Office of the President	49,678,176 kWh	33 lb/GWh	2020 Default Emission Factors - Table #3.1	0.743611	20.82111
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2018	System Average	Emission Factor	No		University of California, Office of the President	49,678,176 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.090135	23.885688

## Source Emissions | Refrigerant

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Fugitive	HFC-134a	N/A	All	Unspecified Technology	PreCalculated	No		N/A	N/A	N/A	N/A	1.815742	2,360.464076
Fugitive	R-404A	N/A	All	Unspecified Technology	PreCalculated	No		N/A	N/A	N/A	N/A	0.031009	122.267337
Fugitive	R-410A	N/A	All	Unspecified Technology	PreCalculated	No		N/A	N/A	N/A	N/A	0.009327	17.945135

## Source Emissions | SF6 Emissions

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Fugitive	SF6	N/A	All	Unspecified Technology	PreCalculated	No		N/A	N/A	N/A	N/A	0.001089	25.58257

## Source Emissions | UC Medical Center - La Jolla

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	2,436,470 therm	53.06 kg/MMBtu	2020 Default Emission Factors - Table #1.1	12,927.90982	12,927.90982
Stationary Combustion	CH4	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	2,436,470 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.219282	6.139904
Stationary Combustion	N2O	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	2,436,470 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.219282	58.10981

## Source Emissions | UCSD Business Air Travel

40,508,476 miles and using Irradiating Force

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Scope 3 (Optional)	CO2	N/A	All	Unspecified Technology	PreCalculated	No		N/A	N/A	N/A	N/A	19,541	19,541

## Source Emissions | UCSD Commuting Emissions

UC San Diego and UCOP transportation work groups calculate emissions.

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Scope 3 (Optional)	CO2	N/A	All	Unspecified Technology	PreCalculated	No		N/A	N/A	N/A	N/A	61,034	61,034

## Source Emissions | UCSD Mobile Lift Trucks

Estimated fuel use

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Mobile Combustion	CO2	Alternative Fuels	All	Unspecified Technology	Emission Factor	Yes		Propane (Liquid)	10,000 gal	5.72 kg/gal	2020 Default Emission Factors - Table #2.1	57.2	57.2
Mobile Combustion	CH4	Alternative Fuels	All	Unspecified Technology	Emission Factor	Yes		Propane (Liquid)	10,000 gal	0.132 g/gal	Custom Emission Factor	0.00132	0.03696
Mobile Combustion	N2O	Alternative Fuels	All	Unspecified Technology	Emission Factor	Yes		Propane (Liquid)	10,000 gal	0.132 g/gal	Custom Emission Factor	0.00132	0.3498

## Source Emissions | Welding Activities

Based on historical averages of compressed gas cylinder purchases.

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Fugitive	CO2	N/A	All	Unspecified Technology	PreCalculated	Yes		N/A	N/A	N/A	N/A	1.4106	1.4106

## Facility Emissions | UCSD Medical Center Hillcrest

Equity share - 100% | Entity controls the facility emissions - Yes

9500 Gilman Drive, La Jolla, California, 92093-0089, US

Scope 1 - Direct Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Stationary Combustion	7,445.785545	7,408.983864	0.125948	0.125567	0	0	0	0
Fugitive	21.86714	0.47104	0	0.08074	0	0	0	0
<b>Total</b>	<b>7,467.652685</b>	<b>7,409.454904</b>	<b>0.125948</b>	<b>0.206307</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Location Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Location Based	11,002.20226	10,957.797249	0.750383	0.08828	0	0	0	0
<b>Total</b>	<b>11,002.20226</b>	<b>10,957.797249</b>	<b>0.750383</b>	<b>0.08828</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

Scope 2 - Market Based - Indirect Emissions	Total CO <sub>2</sub> e (t)	CO <sub>2</sub> (t)	CH <sub>4</sub> (t)	N <sub>2</sub> O (t)	HFC (t of CO <sub>2</sub> e)	PFC (t of CO <sub>2</sub> e)	NF <sub>3</sub> (t)	SF <sub>6</sub> (t)
Purchased Electricity - Market Based	3,210.569042	3,166.772823	0.72864	0.08828	0	0	0	0
<b>Total</b>	<b>3,210.569042</b>	<b>3,166.772823</b>	<b>0.72864</b>	<b>0.08828</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

## Source Emissions | Boilers 22431

2017 data

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	Yes		Distillate Fuel Oil No. 2	114 gal	10.21 kg/gal	2020 Default Emission Factors - Table #1.1	1.16394	1.16394
Stationary Combustion	CH4	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	Yes		Distillate Fuel Oil No. 2	114 gal	0.003 kg/MMBtu	2020 Default Emission Factors - Table #1.9	0.000047	0.001321
Stationary Combustion	N2O	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	Yes		Distillate Fuel Oil No. 2	114 gal	0.0006 kg/MMBtu	2020 Default Emission Factors - Table #1.9	0.000009	0.002501

## Source Emissions | Boilers 24350

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	1,394,124 therm	53.06 kg/MMBtu	2020 Default Emission Factors - Table #1.1	7,397.221944	7,397.221944
Stationary Combustion	CH4	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	1,394,124 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.125471	3.513192
Stationary Combustion	N2O	Natural Gas	Industrial	Boilers	Emission Factor	No		1,025 - 1,050 Btu / SCF	1,394,124 therm	0.9 g/MMBtu	2020 Default Emission Factors - Table #1.7	0.125471	33.249857

## Source Emissions | Emergency Generators

2017 data

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Stationary Combustion	CO2	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	Yes		Distillate Fuel Oil No. 2	1,038 gal	10.21 kg/gal	2020 Default Emission Factors - Table #1.1	10.59798	10.59798
Stationary Combustion	CH4	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	Yes		Distillate Fuel Oil No. 2	1,038 gal	0.003 kg/MMBtu	2020 Default Emission Factors - Table #1.9	0.00043	0.012032
Stationary Combustion	N2O	Petroleum Products	Industrial	Unspecified Technology	Emission Factor	Yes		Distillate Fuel Oil No. 2	1,038 gal	0.0006 kg/MMBtu	2020 Default Emission Factors - Table #1.9	0.000086	0.022776

## Source Emissions | Fugitive Compressed Gasses

Based on historical average annual compressed gas purchases

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Fugitive	CO2	N/A	All	Unspecified Technology	PreCalculated	Yes		N/A	N/A	N/A	N/A	0.47104	0.47104

## Source Emissions | Healthcare Purchased Electricity SDGE - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	721,989 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	162.598334	162.598334
Purchased Electricity - Market Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	721,989 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.011135	0.31177
Purchased Electricity - Market Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	721,989 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.00131	0.347138

## Source Emissions | Healthcare Purchased Electricity SDGE - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	721,989 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	162.598334	162.598334
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	721,989 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.011135	0.31177
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	721,989 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.00131	0.347138

## Source Emissions | Hillcrest Purchased Electricity UCOP - Location Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Location Based	CO2	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	47,934,162 kWh	496.5 lb/MWh	2020 Default Emission Factors - Table #3.1	10,795.198915	10,795.198915
Purchased Electricity - Location Based	CH4	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	47,934,162 kWh	34 lb/GWh	2020 Default Emission Factors - Table #3.1	0.739248	20.698951
Purchased Electricity - Location Based	N2O	Regional Grid-Average	2019	Unspecified Technology	Emission Factor	No		WECC California	47,934,162 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.08697	23.047152

## Source Emissions | Hillcrest Purchased Electricity UCOP - Market Based

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Purchased Electricity - Market Based	CO2	Utility-Specific Rate	2018	System Average	Emission Factor	No		University of California, Office of the President	47,934,162 kWh	138.17 lb/MWh	2020 Default Emission Factors - Table #3.8	3,004.17449	3,004.17449
Purchased Electricity - Market Based	CH4	Utility-Specific Rate	2018	System Average	Emission Factor	No		University of California, Office of the President	47,934,162 kWh	33 lb/GWh	2020 Default Emission Factors - Table #3.1	0.717506	20.090159
Purchased Electricity - Market Based	N2O	Utility-Specific Rate	2018	System Average	Emission Factor	No		University of California, Office of the President	47,934,162 kWh	4 lb/GWh	2020 Default Emission Factors - Table #3.1	0.08697	23.047152

## Source Emissions | Nitrous Oxide

Activity Type	Gas	Fuel Type	End Use Sector	Technology	Calculation Method	SEM	Additional Information	Fuel	Fuel Quantity	Emission Factor (EF)	EF Reference	Gas Quantity	CO2e (t)
Fugitive	N2O	N/A	All	Unspecified Technology	PreCalculated	Yes		N/A	N/A	N/A	N/A	0.08074	21.3961