



# FY 2025 GREENHOUSE GAS INVENTORY

Valley Children's Healthcare

Prepared by:

**MAZZETTI**

Issued: March 13, 2026





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## EXECUTIVE SUMMARY

The following Greenhouse Gas Inventory was prepared for Valley Children's Healthcare (VCH) by Mazzetti in accordance with the GHG Protocol Accounting and Reporting Standards. This emissions inventory provides a high-level overview of anthropogenic greenhouse gas (GHG) emissions across various sectors at VCH. Mazzetti was engaged to calculate the Hospital's greenhouse gas emissions inventory for fiscal year (FY) 2025, marking the third year of emissions reporting since the baseline year of 2023. This effort reflects VCH's ongoing commitment to transparency, environmental stewardship, and sustainability.

The inventory was developed with the following considerations:

- It includes Scope 1, Scope 2, and Scope 3 emissions sources for FY 2025, defined as October 1, 2024, through September 30, 2025.
- Greenhouse gases included in the report are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, and HFCs.
- The contribution of each emissions source is reported in metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e).

In FY 2025, VCH emitted a total of 75,076 MTCO<sub>2</sub>e across four buildings: the main hospital, professional center, therapy center, and central plant. These emissions were categorized into three scopes in accordance with the Greenhouse Gas Protocol:

- Scope 1 emissions accounted for 6,369 MTCO<sub>2</sub>e and include direct emissions from sources owned or controlled by the hospital, such as on-site fuel combustion, fleet vehicles, medical gases, and refrigerants.
- Scope 2 emissions totaled 5,661 MTCO<sub>2</sub>e and result from indirect emissions associated with purchased electricity.
- Scope 3 emissions represent the majority of emissions at 63,046 MTCO<sub>2</sub>e and include indirect emissions from sources not owned or controlled by the hospital, such as employee commuting, business travel, patient transport, waste generation, and supply chain activities.

Mazzetti extends its sincere gratitude to all stakeholders who provided the data necessary to complete this inventory. Their cooperation and dedication were instrumental in ensuring the accuracy and completeness of this report.

### Valley Children's Healthcare FY 2025 Emissions Summary

Emissions Type	Annual Emissions per Scope for FY 2025 (MT CO <sub>2</sub> e)
Scope 1	6,369
Scope 2	5,661
Scope 3	63,046
<b>TOTAL</b>	<b>75,076</b>



# METHODOLOGY

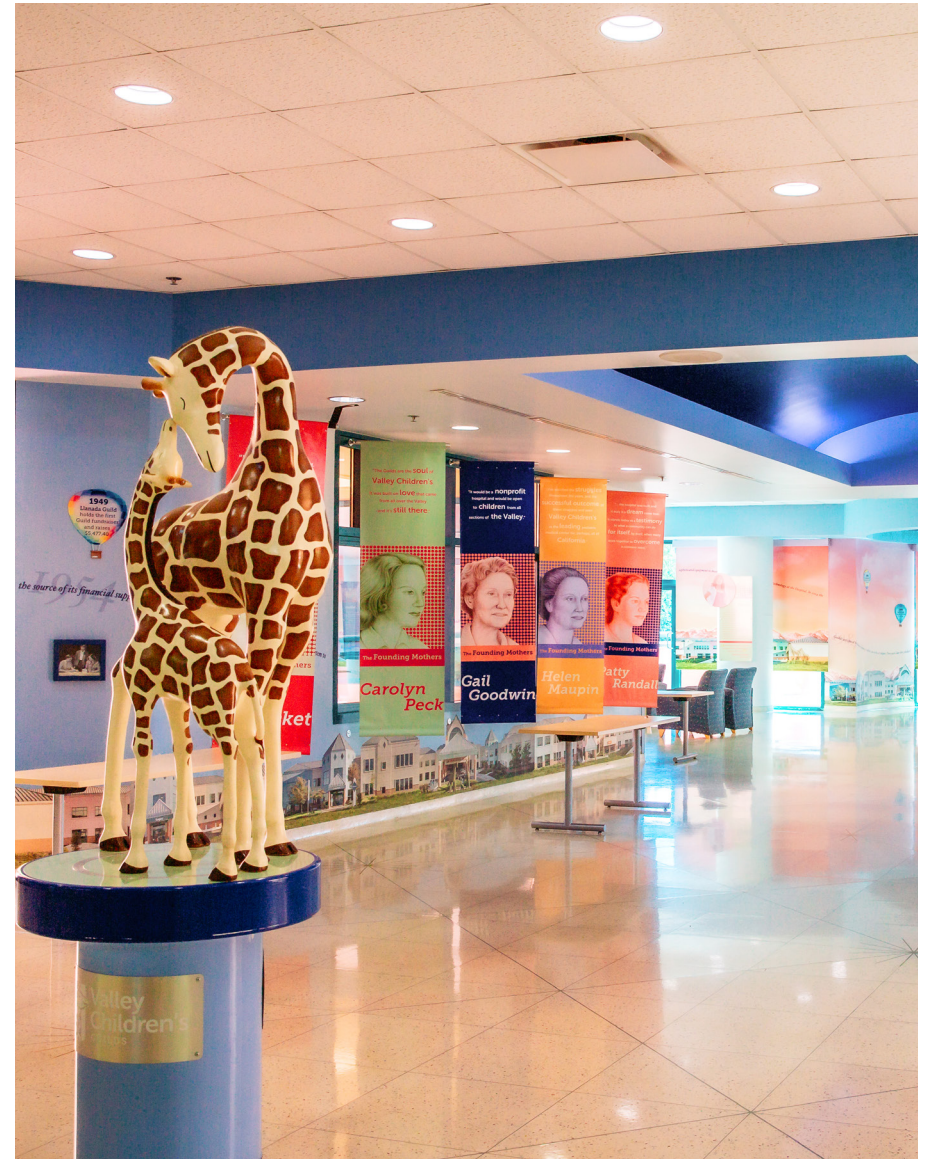
This Greenhouse Gas (GHG) inventory was prepared for Valley Children's Healthcare following the GHG Protocol Corporate Accounting and Reporting Standard. It includes:

- Scope 1 - Direct emissions from owned or controlled sources such as natural gas boilers, mobile sources such as fleet vehicles, and unintentional fugitive emissions like refrigerant loss and anesthetic gas use.
- Scope 2 - Indirect emissions from generating purchased energy such as electricity, chilled water, and hot water.
- Scope 3 - All other indirect emissions that occur upstream and downstream in the value chain for the portion of VCH's operations included in the boundary of this inventory.

# BOUNDARY OF INVENTORY

This inventory includes the following buildings:

- Main Hospital: 619,884 sq. ft.
- Professional Center: 62,703 sq. ft.
- Therapy Center: 11,941 sq. ft.
- Central Plant: 29,728 sq. ft.



## CONSOLIDATION APPROACH

<input type="checkbox"/> Equity Share	<input type="checkbox"/> Financial Control	<input checked="" type="checkbox"/> Operational Control
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Defining an organizational boundary is a vital component in corporate GHG accounting, as this determines which elements will be included as part of the carbon footprint and how emissions from each operation are consolidated and reported.

The Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard details three consolidation approach options for defining an organizational boundary, which encourages a consistent approach across the Scope 1, scope 2, and Scope 3 inventories. The selection of a consolidation approach affects which activities in the company's value chain are categorized as direct emissions (scope 1) and indirect emissions (scope 2 & 3). The Operational Control consolidation approach was used for this inventory.

CONSOLIDATION APPROACH	DESCRIPTION
Equity Share	The equity share approach reflects economic interest, which is the extent of rights a company has to the risks and rewards flowing from an operation. Typically, the share of economic risks and rewards in an operation is aligned with the company's percentage ownership of that operation, and the equity share will normally be the same as the ownership percentage. Under the equity share approach, a company accounts for GHG emissions from operations according to its share of equity in the operation.
Financial Control	Financial control is defined as the ability to direct the financial and operating policies of an operation to gain economic benefits. A company is considered to financially control an operation if it retains a majority of risks and rewards of ownership of the operation's assets.
Operational Control	Operational Control is defined as the authority to introduce and implement operating policies. Based on his definition, it was determined that VCH has operational control over its facilities. Under the operational control approach, a complete inventory accounts for 100% of emissions from operations under the organization's control, including owned and leased assets. As a result, this constitutes a partial inventory due to its limitation to the facilities listed above.

## DATA COLLECTED

The table below summarizes the data types that were collected and analyzed for this inventory.

EMISSIONS SCOPE	EMISSIONS SOURCE	DATA COLLECTED
Scope 1	On-site Natural Gas	Natural gas usage and vendor details
	Fleet Vehicles	Annual vehicle distance traveled along with vehicle type, make, model, year, and fuel type for all owned and leased vehicles.
	Generator Fuel	Annual fuel purchase record for emergency generators.
	Medical Gas	Annual Anesthetic/Medical gas usage record.
	Refrigerants	Annual Refrigerant recharge record by campus.
Scope 2	Purchased Electricity - Market-based	Electricity usage and vendor details
	Purchased Electricity - Location based	Electricity usage and vendor details
Scope 3	3.1 Capital Goods	Annual general ledger reporting for capital procurement expenses.
	3.2 Purchased Goods & Services	Annual general ledger reporting for non-personnel expenses.
	3.3 Fuel & Energy-Related Activities	Annual fuel data and grid report on transmission and distribution losses.
	3.5 Solid Waste	Annual water consumption volume, municipal utility greenhouse gas reporting, municipal utility total volume treated.
	3.5 Wastewater	Annual solid waste volume by type.
	3.6 Business Travel	Dollars spent in various transportation modes (annual).
	3.7 Employee Commute	Annual employee work location data.
	3.9 Patient Transport	Patients in-person encounter annual data.
	3.9 Helicopter Fuel	Annual Flight hours and fuel burn rate.
	3.11 Use of Sold Products	Inhalers type and quantity sold.

## DATA EXCLUSIONS

Emissions sources excluded from this inventory.

EXCLUDED SOURCES	SCOPE 3 SOURCES
	3.1 Purchased Goods and Services
	3.2 Capital Goods
	3.3 Fuel and Energy Related Activities
X	3.4 Upstream Transportation and Distribution
	3.5 Waste Generated in Operations
	3.6 Business Travel
	3.7 Employee Commuting
X	3.8 Upstream Leased Assets
	3.9 Downstream Transportation and Distribution
X	3.10 Processing of Sold Product
	3.11 Use of Sold Product
X	3.12 End-of-Life Treatment of Sold Product
X	3.13 Downstream Leased Assets
X	3.14 Franchises
X	3.15 Investments

## STANDARDS APPLIED

This GHG inventory was compiled following the GHG Protocol Corporate Accounting and Reporting Standard, revised edition, published by the World Resource Institute in 2015.



## GLOBAL WARMING POTENTIAL

GWP values from the Intergovernmental Panel on Climate Change ([IPCC sixth assessment report \(AR6\)](#)) are used when calculating metric tons of carbon dioxide equivalent (MTCO<sub>2</sub>e).






GREENHOUSE GAS	GWP*
CO <sub>2</sub>	1
CH <sub>4</sub>	29.8
N <sub>2</sub> O	273
HFC's	1,300-4,000
Desflurane	2,590
Isoflurane	539
Sevoflurane	195

\*[Source](#)





## EMISSIONS CALCULATION METHODOLOGY





### Scope 1







Scope 1 Emission Sources	Description of the types, sources, and quality of data used to calculate emissions	Description of the methodologies, allocation methods, and assumptions used to calculate emissions
 <p><b>On-site Natural Gas</b></p>	<p>Natural gas data was provided by the VCH Facilities Management team. VCH gets its On-site Natural gas from NRG Energy.</p>	<p>The emissions factors for natural gas were obtained from the <a href="#">EPA GHG Emission Factors Hub</a>.</p>
 <p><b>Fleet Vehicles</b></p>	<p>Fleet mileage data was provided by the VCH Facilities Management team. Fleet vehicle data included in this report includes the fleet vehicles owned by VCH.</p>	<p>EPA Simplified GHG Emissions Calculator (SGEC) version 7 was used to calculate GHG emissions from this source.</p>
 <p><b>Generator Fuel</b></p>	<p>Diesel fuel data was provided by VCH Facilities Management team.</p>	<p>The diesel fuel emission factors came from the <a href="#">EPA GHG emission factors hub</a>.</p>
 <p><b>Medical Gas</b></p>	<p>Medical gas data was provided by the VCH Pharmacy.</p>	<p>Emissions factors for medical nitrous oxide were obtained from the <a href="#">IPCC Climate Change 2021 Report</a>. 100-year Global Warming Potentials for desflurane, sevoflurane, and isoflurane came from <a href="#">IPCC AR6 Supplementary Material</a>.</p>
 <p><b>Refrigerants</b></p>	<p>Refrigerant data was provided by the VCH Engineering and Maintenance team using the refrigerant usage records.</p>	<p>The <a href="#">GHG Protocol Approach 2: Lifecycle Stage Approach</a> emissions factors were used to calculate emissions.</p>

## Scope 2

Scope 2 Emission Sources	Description of the types, sources, and quality of data used to calculate emissions	Description of the methodologies, allocation methods, and assumptions used to calculate emissions
 <p><b>Purchased Electricity - Market-Based Emissions</b></p>	<p>Electricity data was provided by the Facilities Management team. Electricity is sourced from Calpine and distributed by PG&amp;E (Pacific Gas &amp; Electric).</p>	<p>Valley Children’s Healthcare sources all of its electricity from Calpine Solutions. The emissions factors are derived from the EPA eGrid Subregion CAMX, reflecting Calpine Solutions’ power mix compliant with California State requirements, thus closely mirroring the emissions factors of the California subregion.</p>
 <p><b>Purchased Electricity - Location-Based Emissions</b></p>	<p>Electricity data was provided by the Facilities Management team. Electricity is sourced from Calpine and distributed by PG&amp;E (Pacific Gas &amp; Electric).</p>	<p>The annual location-based emissions factors can be found using the <a href="#">EPA’s eGrid Explorer tool</a> on their website. The emissions factor is based on the CAMX region for 2023, which was the most current date available.</p>

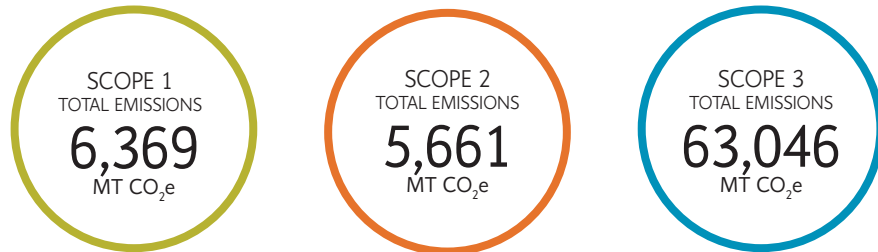
## Scope 3

Scope 3 Emission Sources	Description of the types, sources, and quality of data used to calculate emissions	Description of the methodologies, allocation methods, and assumptions used to calculate emissions
 <p><b>Capital Goods</b></p>	<p>Expense data was provided by the VCH Finance Department via general ledger reporting.</p>	<p>Expenses were matched with the categories and emissions factors from the <a href="#">EPA Supply Chain Greenhouse Gas Emissions Factors v1.3 by NAICS-6</a>. The National Consumer Price Index (CPI) values were used to adjust spend-based data for inflation. For the Purchased Goods and Services data, an inflation factor of 1.09—calculated from the CPI values for 2022 and 2025—was applied to convert FY2025 dollars into 2022 dollars, aligning with the use of the EPA 2022 emission factors for this category.</p>
 <p><b>Purchased Goods and Services</b></p>	<p>VCH Finance Department provided expense data via general ledger reporting.</p>	<p>Expenses were matched with the categories and emissions factors from the <a href="#">EPA Supply Chain Greenhouse Gas Emissions Factors v1.3 by NAICS-6</a>. The National Consumer Price Index (CPI) values were used to adjust spend-based data for inflation. For the Purchased Goods and Services data, an inflation factor of 1.09—calculated from the CPI values for 2022 and 2025—was applied to convert FY2025 dollars into 2022 dollars, aligning with the use of the EPA 2022 emission factors for this category.</p>
 <p><b>Fuel and Energy Related Activities</b></p>	<p>Electricity data was provided by the Facilities Management team. Electricity is sourced from Calpine and distributed by PG&amp;E (Pacific Gas &amp; Electric).</p>	<p>Upstream Emissions of Purchased Fuels: The emissions associated with the extraction, production, and transportation of natural gas, diesel, and gasoline are reported in Scope 3 emissions using emissions factors from the UK Department for Business, Energy, and Industrial Strategy's <a href="#">2024 Greenhouse Gas Reporting Conversion Factors</a>. US-based factors are not available via the EPA or other trusted US sources.</p> <p>Upstream Emissions of Purchased Electricity: Directly purchased electricity from Calpine has extraction, production, and transportation emissions associated with it. Emissions were calculated using the UK factors for overseas US electricity production.</p> <p>Transmission and Distribution (T&amp;D) Losses: T&amp;D losses are associated with directly purchased electricity from Calpine Solutions. Grid losses were calculated at 6.15% per the California Energy Commission data.</p>
 <p><b>Solid Waste</b></p>	<p>Waste tonnage data for the campus was provided by the Facilities Management team. Miles for the transportation of waste were not included in the inventory.</p>	<p>To calculate emissions from each waste stream, emission factors were used from the <a href="#">EPA GHG emission factors hub</a>.</p>

Scope 3 Emission Sources	Description of the types, sources, and quality of data used to calculate emissions	Description of the methodologies, allocation methods, and assumptions used to calculate emissions
 <p><b>Wastewater Treatment and Transport</b></p>	<p>Wastewater data was provided by the VCH Facilities Management team. Madera county is responsible for the wastewater treatment.</p>	<p>The Madera County wastewater treatment and disposal estimate was used to calculate wastewater Emissions.</p>
 <p><b>Business Travel</b></p>	<p>VCH Finance Department provided spend data for this category.</p>	<p>The spend-based method was used to estimate emissions, using secondary EEIO (environmentally extended input-output) factors from the EPA Supply Chain Greenhouse Gas Emissions Factors v1.2 by <a href="#">EPA Supply Chain Greenhouse Gas Emissions Factors v1.2 by NAICS-6</a>.</p>
 <p><b>Employee Commute</b></p>	<p>VCH Human Resources Department provided the employee data along with information on workplace preference, that is, in-person/telework. Due to lack of employee mode of transport, it was assumed that all employees commuted to work in single occupancy vehicles.</p>	<p>The Passenger Car (fuel unknown) emission factors were used from the <a href="#">EPA GHG emission factors hub</a>. Assumptions include 48 work weeks per year and two trips per day.</p>
 <p><b>Patient Transport</b></p>	<p>The Planning and Data Analytics team provided the total miles travelled by patients in FY2024.</p>	<p>Patient trips of 250 miles or less were assumed to be via passenger car, trips over 250 miles were assumed to be via air, and the distance-based method was used to estimate emissions. The Passenger Car (fuel unknown) and air travel emission factors were used from the <a href="#">EPA GHG emission factors hub</a>.</p>
 <p><b>Helicopter Fuel</b></p>	<p>Jet fuel data for VCH was provided by REACH.</p>	<p>The jet fuel (jet A fuel) emission factors came from the <a href="#">Climate Registry 2023 Default Emission Factor Document</a>.</p>
 <p><b>Use of Sold Products</b></p>	<p>Data for the annual sale of Metered Dose Inhalers (MDIs) was provided by the Pharmacy team at VCH.</p>	<p>Emissions factors were obtained from <a href="#">IPCC Climate Change 2021 Report</a> and the <a href="#">IPCC AR6 Supplementary Material</a>.</p>

# ENTERPRISE-WIDE EMISSIONS SUMMARY

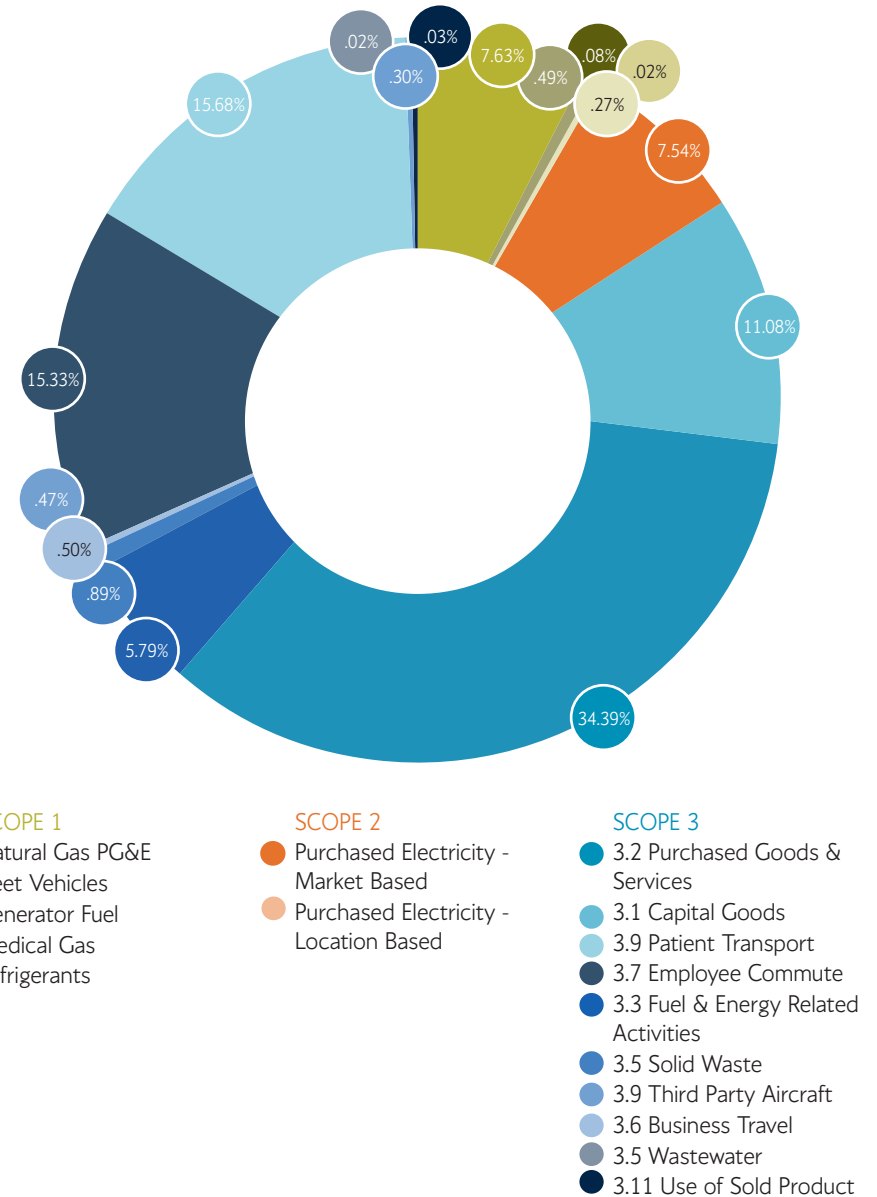
In FY 2025, the greenhouse gas emissions for Valley Children's Healthcare amounted to 75,076 Metric Tons of CO<sub>2</sub> equivalent (MTCO<sub>2</sub>e). Scope 1 emissions totaled 6,369 MTCO<sub>2</sub>e, Scope 2 emissions totaled 5,661 MTCO<sub>2</sub>e, while Scope 3 totaled 63,046 MTCO<sub>2</sub>e.



The table below lists VCH enterprise-wide emissions sources from the highest percentage of total emissions to the lowest. This list serves as a guide for prioritizing action, focusing on addressing the larger emissions sources first.

Emissions Category	Percentage of Total Emissions
3.2 Purchased Goods & Services	34.39%
3.9 Patient Transport	15.68%
3.7 Employee Commute	15.33%
3.1 Capital Goods	11.08%
Natural Gas	7.63%
Purchased Electricity - Market Based Emissions	7.54%
3.3 Fuel & Energy Related Activities	5.79%
3.5 Solid Waste	0.89%
Medical Gas	0.49%
3.9 Third Party Aircraft	0.47%
3.6 Business Travel	0.30%
Refrigerants	0.27%
Fleet Vehicles	0.08%
3.11 Use of Sold Product	0.03%
Generator Fuel	0.02%
3.5 Wastewater	0.02%

## ENTERPRISE-WIDE SCOPE 1, 2, & 3 EMISSIONS PERCENTAGE BREAKDOWN

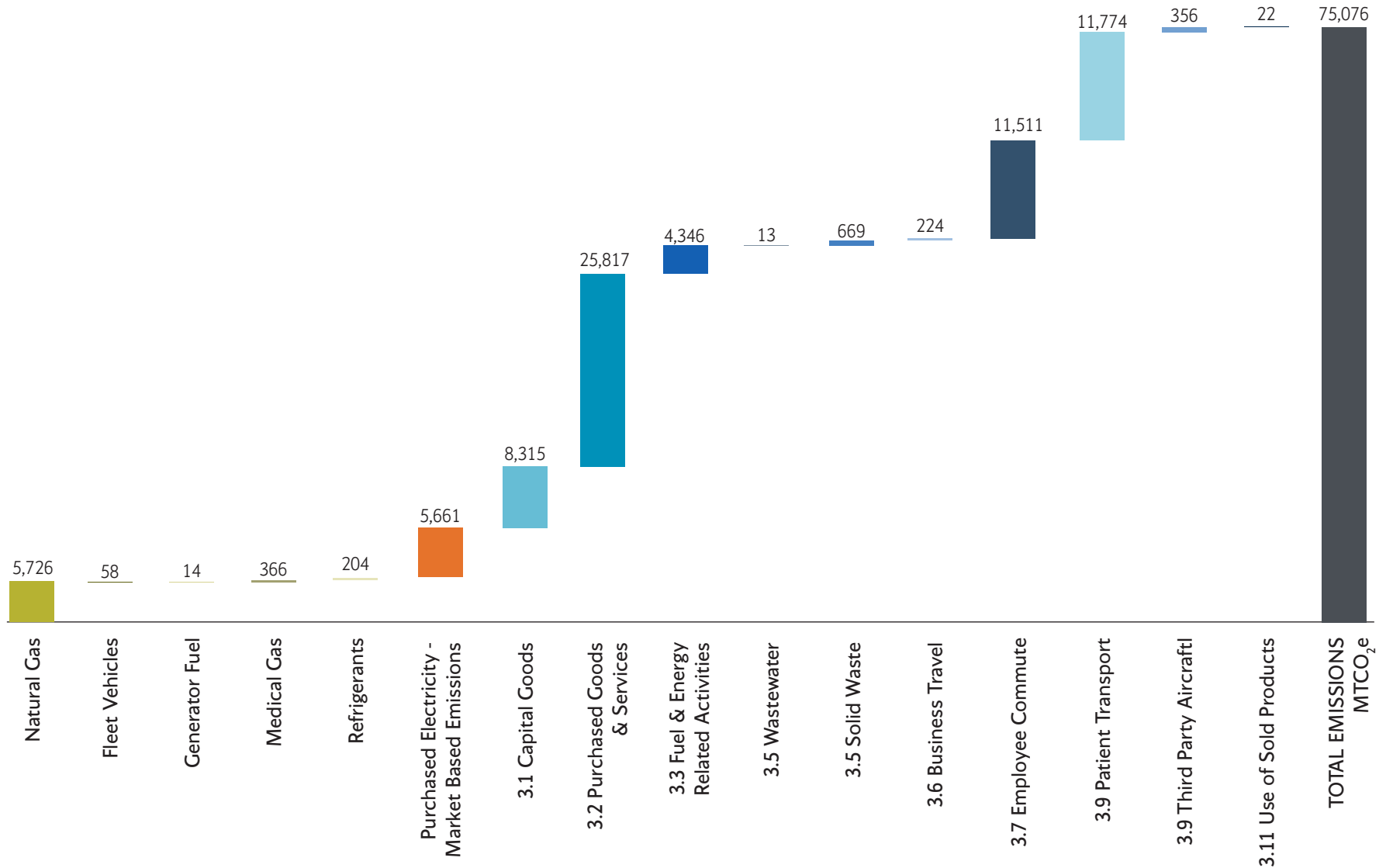


## ENTERPRISE-WIDE EMISSIONS BREAKDOWN (MTCO<sub>2</sub>e)

Emissions Scope	Emissions Category	Total MTCO <sub>2</sub> e
SCOPE 1:	Natural Gas	5,726
	Fleet Vehicles	58
	Generator Fuel	14
	Medical Gas	366
	Refrigerants	204
SCOPE 2	Purchased Electricity - Market Based Emissions	5,661
SCOPE 3	3.1 Capital Goods	8,315
	3.2 Purchased Goods & Services	25,817
	3.3 Fuel & Energy Related Activities	4,346
	3.5 Wastewater	13
	3.5 Solid Waste	669
	3.6 Business Travel	224
	3.7 Employee Commute	11,511
	3.9 Patient Transport	11,774
	3.9 Third Party Aircraft	356
	3.11 Use of Sold Products	22
Total Scope 1,2,3 Emissions (MTCO <sub>2</sub> e)		<b>75,076</b>

\*The GHG Protocol requires Location-based emissions to be reported, with the option of excluding the emission category from the total.

# ENTERPRISE-WIDE SCOPES 1, 2, & 3 EMISSIONS BREAKDOWN (MTCO<sub>2</sub>e)



# ENTERPRISE-WIDE SCOPE 3 BREAKDOWN

Capital Goods, representing 12.4% of VCH Scope 3 emissions, refers to emissions associated with the production, procurement, and use of long-lasting physical assets such as buildings, infrastructure, machinery, and equipment used in the organization's operations.

Purchased Goods and Services, the largest source of VCH Scope 3 emissions, constitute 40.8% of the organization's emissions. This category refers to emissions associated with the goods and services procured by the organization to support its operations.

Fuel and Energy Related Activities, accounting for 6.9% of VCH Scope 3 emissions, refers to emissions associated with the extraction, production, and transportation of fuel and energy sources the organization uses.

Wastewater Treatment and Transport, comprising 0.02% of VCH Scope 3 emissions, refers to emissions associated with treating and transporting wastewater the organization generates.

Solid waste, accounting for 0.71% of VCH Scope 3 emissions, refers to emissions associated with waste disposal within the organization.

Business Travel, accounting for 0.41% of VCH Scope 3 emissions, refers to emissions associated

with employee travel for business purposes. This includes flights, train travel, car rentals, and other modes of transportation used by employees for work-related reasons.

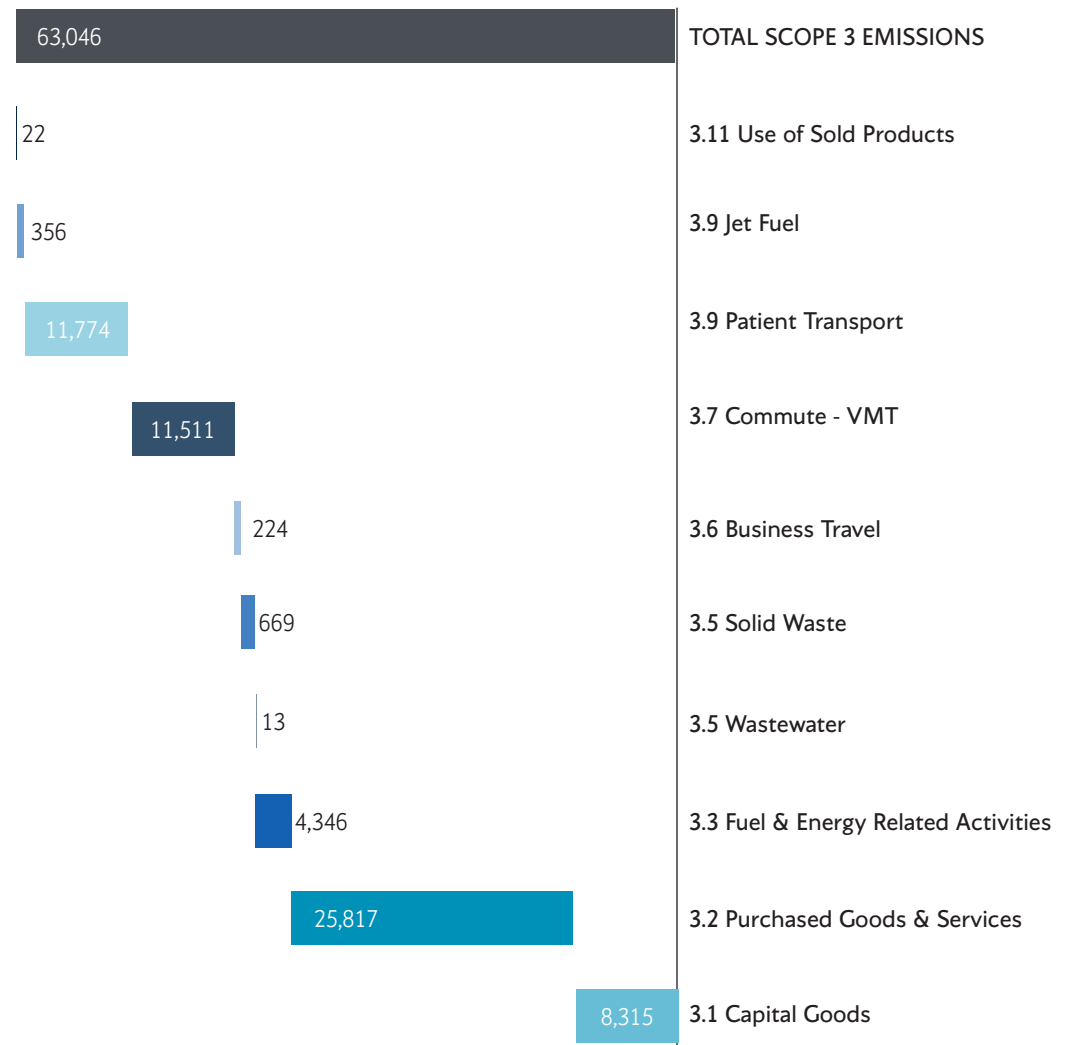
Employee Commute, which accounts for 21.53% of VCH Scope 3 emissions, refers to emissions associated with the daily travel of employees to and from their workplace. This includes emissions from transportation modes such as personal vehicles, public transportation, carpooling, and vanpooling.

Patient Transport, representing 16.56% of VCH Scope 3 emissions, refers to emissions associated with transporting patients to and from VCH facilities for medical purposes. It includes emissions from ambulance services, medical shuttle services, and transportation arranged by patients or their caregivers to access healthcare services.

Third-party aircraft (Jet Fuel), comprising 0.6% of VCH Scope 3 Emissions, refers to emissions associated with the use of leased aircraft for the transport of patients.

Use of Sold Products, which accounts for 0.03% of TCH Scope 3 Emissions, refers to the emissions from the sale of Metered Dose Inhalers (MDIs).

## ENTERPRISE-WIDE SCOPE 3 BREAKDOWN (MTCO<sub>2</sub>e)



# VCH HISTORICAL EMISSIONS COMPARISON SCOPE 1 & 2 (MTCO<sub>2</sub>e)

The table and graph below illustrate a comparison of Scope 1 and 2 carbon emissions at VCH, offering insights into emissions efficiency.

In FY 2025, VCH's total emissions decreased by 8.57% compared to the baseline year, FY 2023. This reduction was primarily driven by a notable decline in Scope 2 and Scope 3 emissions, which fell by 11% and 9%, respectively.

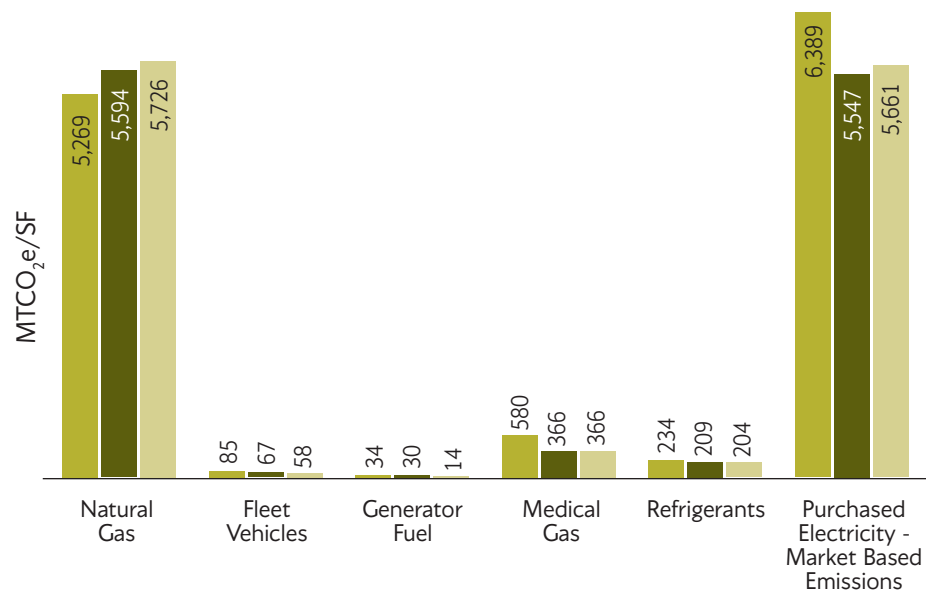
Compared to FY 2024, the emissions increased by 0.96%. Further analysis revealed that electricity consumption at VCH increased by 2% and Scope 2 emissions showed a similar increase of 2%. Calpine Solution continues to integrate more renewable energy into its portfolio to align with California's energy regulations, contributing to a cleaner regional grid.

Scope 1 emissions saw a 2% increase, primarily due to a 2% rise in natural gas consumption in FY 2025 compared to last year. All other Scope 1 categories experienced a decline in emissions with generator fuel emissions decreasing by about 50%.

On further analysis we found the average energy use intensity (EUI kbtu/sf/y) for VCH is 283.12 kbtu/sf/yr. This is 21% higher than the US average for hospitals which is at 234.3 kbtu/sf/yr as stated in [Portfolio Manager Technical Reference: U.S. National Energy Use Intensity](#).

## HISTORICAL SCOPE 1 & 2 EMISSIONS COMPARISON

● FY2023 ● FY2024 ● FY2025



	EMISSION SOURCE	FY23 ACTIVITY DATA	FY24 ACTIVITY DATA	FY25 ACTIVITY DATA	UNIT	FY23 TOTAL CO <sub>2</sub> e	FY24 TOTAL CO <sub>2</sub> e	FY25 TOTAL CO <sub>2</sub> e	UNIT	PERCENTAGE CHANGE
Scope 1	Natural Gas	991,893	1,053,414	1,078,300	Therms	5,269	5,594	5,726	Metric Tons	2% ↑
	Fleet Vehicles	154,269	133,750	114,005	Miles	85	67	58	Metric Tons	14% ↓
	Generator Fuel	3,267	2,906	1,390	Gallons	34	30	14	Metric Tons	52% ↓
	Medical Gas	6	7	7	Metric Tons	580	366	366	Metric Tons	0%
	Refrigerants	192	198	182	Pounds	234	209	204	Metric Tons	2% ↓
Scope 2	Purchased Electricity - Market Based Emissions	26,426,979	27,920,855	28,494,841	kWh	6,389	5,547	5,661	Metric Tons	2% ↑

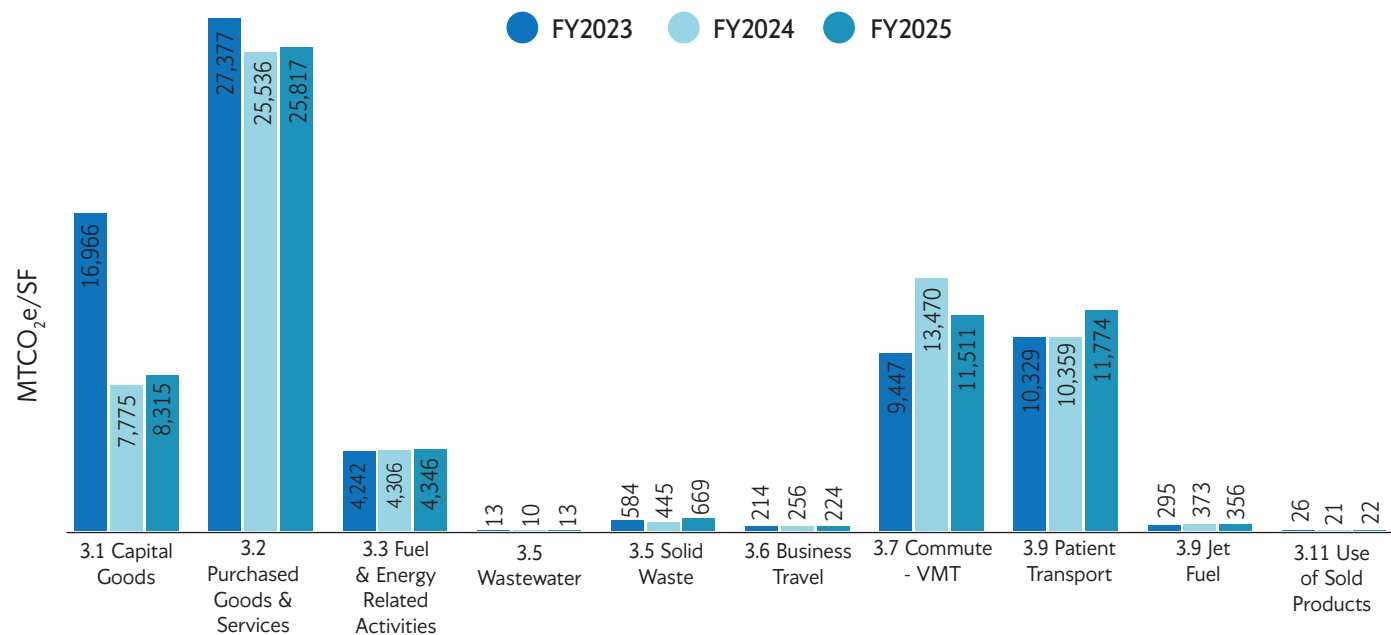
# HOSPITAL SCOPE 3 CARBON EMISSIONS COMPARISON (MTCO<sub>2</sub>e)

Scope 3 emissions remained relatively stable between FY24 and FY25. Purchased Goods & Services continued to be the largest contributor, followed by Employee Commuting and Patient Transport, which together account for a significant share of total Scope 3 emissions. Capital Goods also represents a notable portion of emissions, reflecting ongoing investments in infrastructure and equipment.

Year-over-year changes were driven primarily by shifts in commuting and transportation patterns. Employee Commuting decreased by 42%, while Business Travel declined by 20%. In contrast, Patient Transport increased by 13.7%, continuing to be a major emissions source within Scope 3.

Overall, the results highlight that supply chain-related activities remain the dominant driver of Scope 3 emissions. Continued engagement with suppliers, along with initiatives that support lower-carbon commuting and transportation options, will be important areas for reducing emissions in future years.

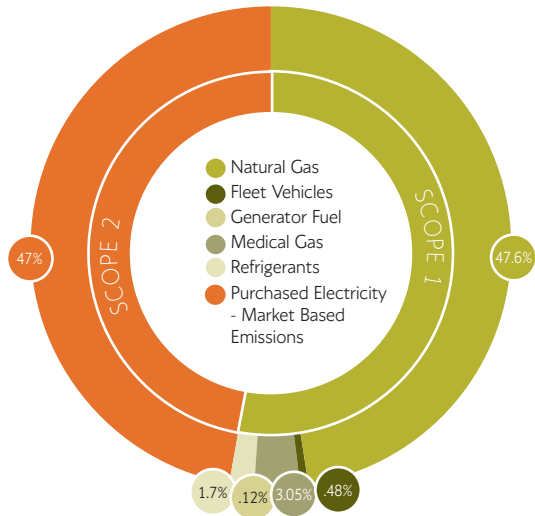
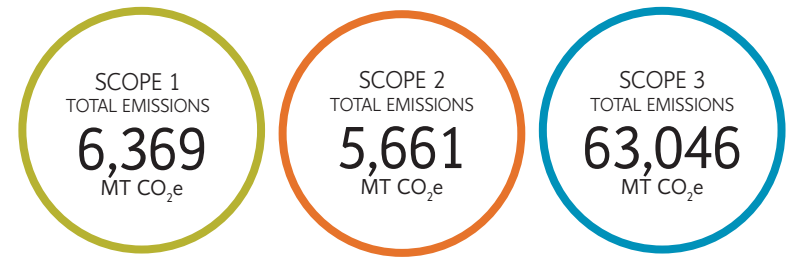
## HISTORICAL SCOPE 3 EMISSIONS COMPARISON



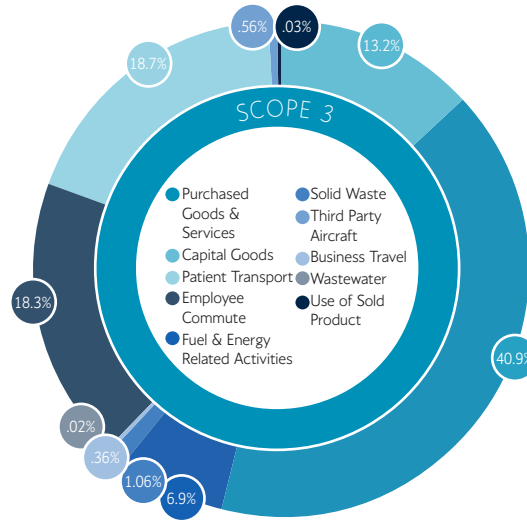
SCOPE 3	EMISSION SOURCE	FY23 TOTAL CO <sub>2</sub> e	FY24 TOTAL CO <sub>2</sub> e	FY25 TOTAL CO <sub>2</sub> e	UNIT	PERCENTAGE CHANGE
	3.1 Capital Goods	16,966	7,775	8,315	Metric Tons	7% ↑
	3.2 Purchased Goods & Services	27,377	25,692	25,817	Metric Tons	0%
	3.3 Fuel & Energy Related Activities	4,242	4,306	4,346	Metric Tons	1% ↑
	3.5 Wastewater	13	10	13	Metric Tons	25% ↑
	3.5 Solid Waste	584	445	669	Metric Tons	50% ↑
	3.6 Business Travel	214	256	224	Metric Tons	12% ↓
	3.7 Employee Commute	9,477	13,470	11,511	Metric Tons	15% ↓
	3.9 Patient Transport	10,329	10,359	11,774	Metric Tons	14% ↑
	3.9 Third Party Aircraft	295	373	356	Metric Tons	5% ↓
3.11 Use of Sold Product	26	21	22	Metric Tons	6% ↑	

# Valley Children's Healthcare

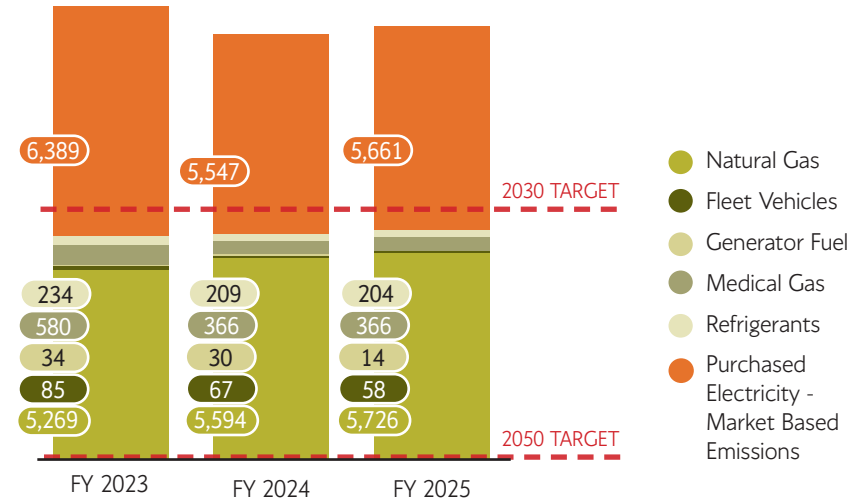
9300 Valley Children's Place, Madera, CA



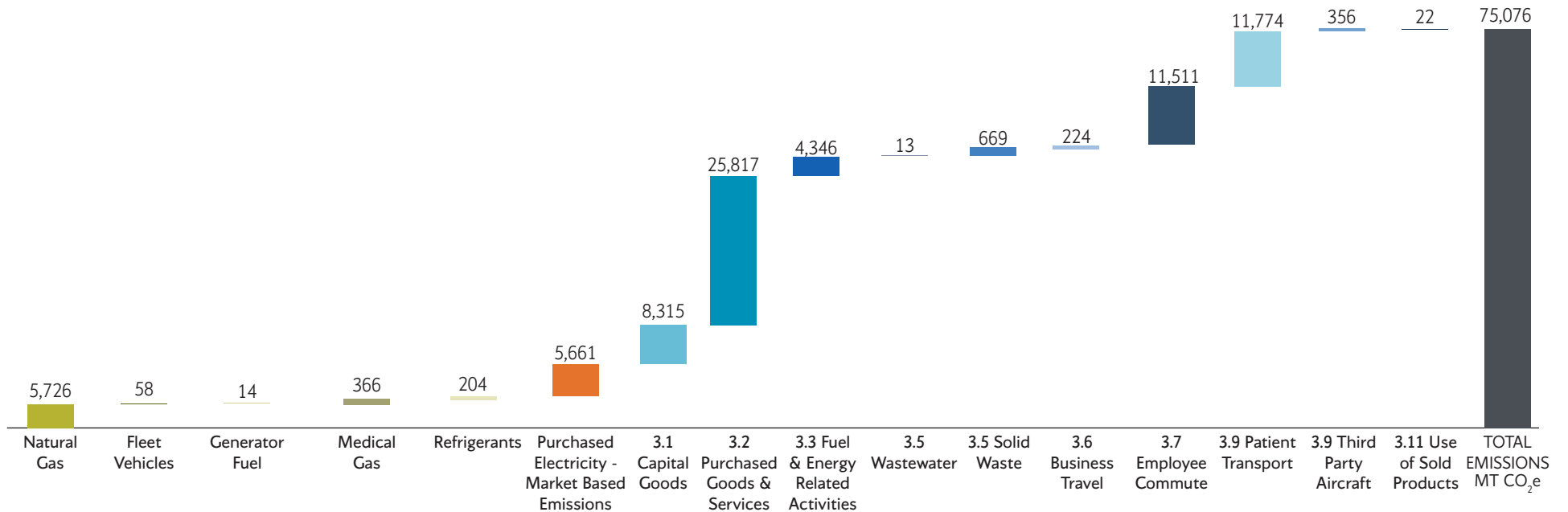
SCOPE 1 & 2 EMISSIONS BREAKDOWN



SCOPE 3 EMISSIONS BREAKDOWN



HISTORICAL SCOPE 1 & 2 EMISSIONS COMPARISON



EMISSIONS BREAKDOWN SCOPE 1, 2, & 3 (MT CO<sub>2</sub>e)

## CONCLUSION

This Fiscal Year 2025 Greenhouse Gas (GHG) Inventory provides valuable insights into the environmental impact of Valley Children’s Healthcare. It is the third inventory to comprehensively analyze all three scopes for VCH. Additionally, this report presents an outlook on emissions reduction, aligning with the healthcare sector’s climate aspiration to decrease GHG emissions by 50% by 2030 and ultimately achieve net zero emissions by 2050. Comprehensive data collection and analysis identified key carbon-intensive areas across the campus.

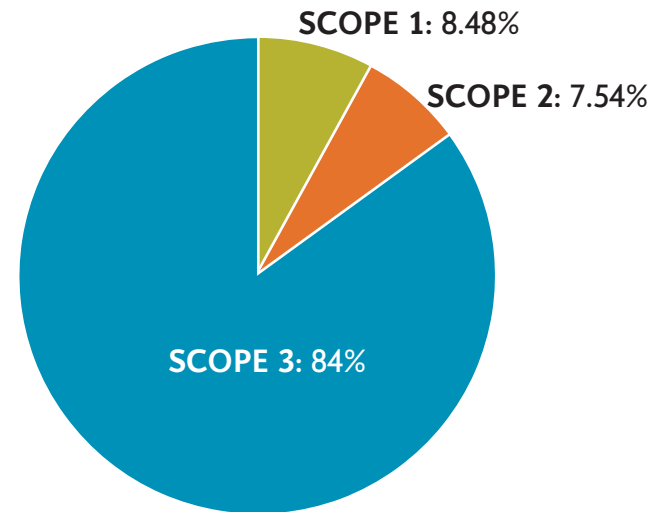
In FY 2025, VCH emitted an aggregate of 75,076 MTCO<sub>2</sub>e Scope 1, 2, and 3 emissions. 8.5% of emissions come from Scope 1 sources, which would require capital investment to be reduced, and 7.5% comes from Scope 2 which could be addressed by either on-site renewable electricity generation and/or a change in electricity procurement practices.

This report demonstrates that VCH saw a less than 1% increase in total emissions from FY2024 to FY2025.

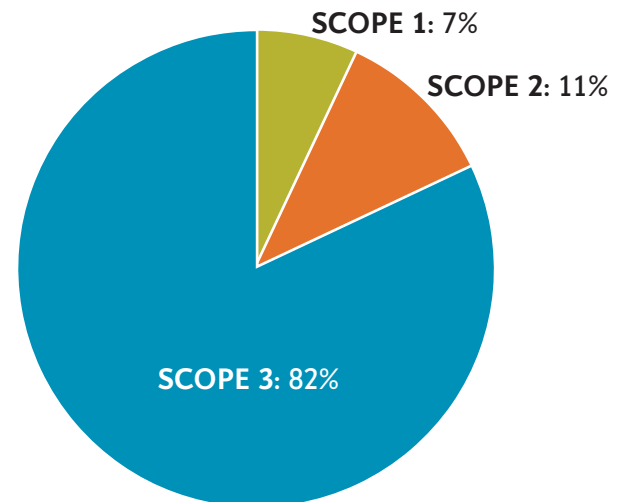
Valley Children’s aggregate market-based emissions are the same as location-based emissions. The emissions factors are derived from the EPA eGrid Subregion CAMX, reflecting Calpine Solutions’ power mix compliant with California State requirements, thus closely mirroring the emissions factors of the California subregion.

EMISSION SCOPE	VCH	AVERAGE US HEALTHCARE EMISSIONS BREAKDOWN	PERCENTAGE DIFFERENCE
Scope 1	8.48%	7%	20%
Scope 2	7.54%	11%	-32%
Scope 3	84%	82%	3%

**VCH EMISSIONS BREAKDOWN  
(METRIC TONS OF CO<sub>2</sub>e)**

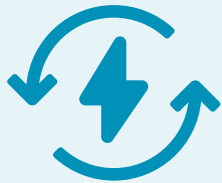


**AVERAGE US HEALTHCARE EMISSIONS  
BREAKDOWN**



Reference: <https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.01247>

## RECOMMENDATIONS



The first step to reducing emissions is to reduce consumption. VCH should perform enterprise-wide energy audits and identify and implement energy reduction opportunities to reduce the overall energy use and make their buildings more efficient. VCH is in the process of installing a microgrid on campus which will reduce Scope 2 emissions significantly.



Scope 3 categories, such as employee commuting and patient transport, can be more effectively monitored by prioritizing the collection of data, such as the mode of transportation, to provide a more accurate basis for the analysis.



VCH should continue using sevoflurane and isoflurane as anesthetic agents as they have lower GWP than desflurane. To further reduce emissions associated with medical gas, VCH can implement sustainable practices like sourcing local e-cylinders for nitrous oxide for locations that use piped nitrous oxide delivery.



The hospital should implement a sustainable procurement policy that includes environmental criteria in selecting and evaluating suppliers to reduce purchased goods and services emissions, the largest source of VCH enterprise-wide emissions. The hospital should prioritize suppliers with solid sustainability practices and certifications and engage with suppliers to encourage sustainable practices throughout the supply chain. [The Climate Excellence Standard](#) sets decarbonization benchmarks for health sector suppliers to align the healthcare supply chain with net-zero emissions by 2050.



To reduce emissions from Employee Commuting, the hospital should promote alternative transportation methods with lower carbon footprints, such as carpooling, public transportation, cycling, or walking. The hospital can also provide incentives or subsidies for employees who choose these options, such as discounted public transit passes, bike storage facilities, or carpool matching services.

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