

# Greenhouse Gas Balance 2022

for the Skiarea Carezza Consortium, Karersee Strasse 25, 39056, Karersee

This concise report presents the CO<sub>2</sub>e corporate carbon footprint (CCF) for the operations of the Skiarea Carezza Consortium during the assessment year 2022, shedding light on the greenhouse gas (GHG) emissions caused by its operational processes. This report plays a crucial role within the company's climate strategy and aids in the achievement of its climate goals. The analysis adheres to the operational control approach, focusing on the Karersee location.

The GHG balance provides insight into reduction potentials, helps derive effective measures, and facilitates their implementation, all of which significantly contribute to the realization of the company's climate objectives. The report accounts for all six greenhouse gases (GHGs) specified by the international Greenhouse Gas Protocol (GHGP), converting their emissions to carbon dioxide equivalent (CO<sub>2</sub>e) using the appropriate conversion factors. The Global Warming Potential (GWP) 100a is used to express the emissions in the unit of t CO<sub>2</sub>e.

GHG emissions are categorized according to GHGP's Scope 1 (direct), 2 (indirect), and 3 (indirect from other sources) classifications. For biogenic energy sources, the direct emissions of biogenic origin (methane and nitrous oxide) resulting from combustion are considered, though the portions of biogenic carbon in the energy source are not disclosed.

Consumption data from the year 2022, utilized for the calculations, were provided by the company and lie within its realm of responsibility. If consumption data are insufficiently determined, practical assumptions or average values are employed.

	VORJAHR		2022	
	in t CO <sub>2</sub> e	%-Share	in t CO <sub>2</sub> e	%-Share
<b>SCOPE 1 - Direct Emissions</b>				
Fuel from Stationary Combustion	21,0	9%	18,2	4%
Fuel from Company Fleet	96,0	42%	292,6	59%
Refrigerants	-	0%	-	0%
<b>Total</b>	<b>117,1</b>	<b>52%</b>	<b>310,9</b>	<b>62%</b>
<b>SCOPE 2 – Indirect Emissions</b>				
Electricity	-	0%	-	0%
District Heating/Cooling	-	0%	-	0%
<b>Total</b>	<b>-</b>	<b>0%</b>	<b>-</b>	<b>0%</b>
<b>SCOPE 3 – Indirect Emissions from Processes or Goods</b>				
Paper and Printing	0,4	0%	1,6	0%
Catering	25,9	11%	8,7	2%
Water	1,0	0%	0,2	0%
Capital Goods	2,7	1%	6,6	1%
Energy-Related Emissions	50,9	22%	153,6	31%
Deliveries	-	0%	-	0%
Waste	4,9	2%	2,2	0%
Business Travel	-	0%	-	0%
Employee Commuting	23,6	10%	14,9	3%
<b>Total</b>	<b>109,5</b>	<b>48%</b>	<b>187,7</b>	<b>38%</b>
<b>Total</b>	<b>226,5</b>	<b>100%</b>	<b>498,6</b>	<b>100%</b>

This report evaluates changes in greenhouse gas emissions for Carezza Dolomites in 2022 compared to the previous year. The goal is to identify potential areas for emissions reduction.

Within direct emissions (**Scope 1**), emissions from stationary combustion decreased in 2022 while emissions from the company fleet rose significantly.

Indirect emissions (**Scope 2**) from electricity didn't generate emissions due to renewable energy sources used.

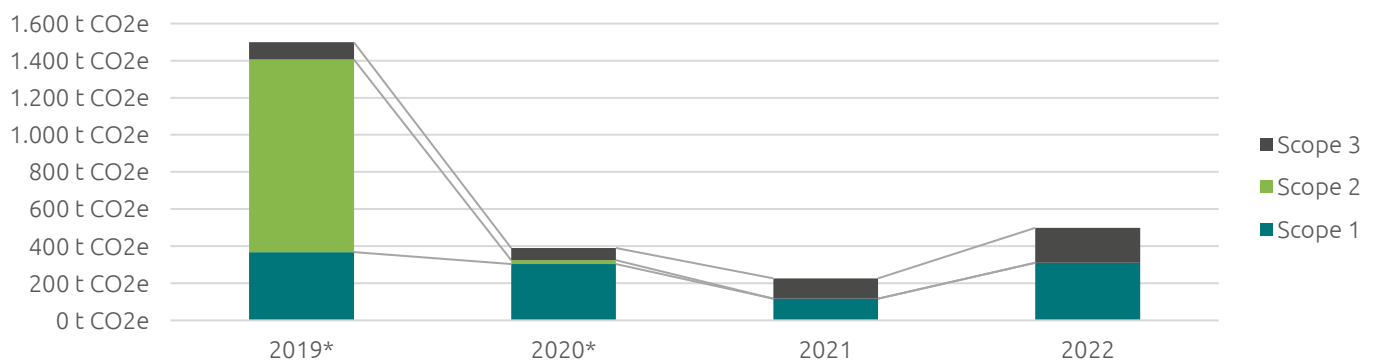
In the realm of indirect emissions (**Scope 3**) from processes and goods, variations occurred: emissions from paper and printing slightly increased, catering emissions dropped, and water-related emissions decreased. Changes were noted in emissions from capital goods and energy, largely attributed to increased electricity demand.

Other categories like deliveries, waste, business travel, cleaning, and employee commuting showed alterations as well, extensively outlined in the report. Overall, 498.6 t CO<sub>2</sub>e were emitted in 2022, compared to 226.5 t CO<sub>2</sub>e in the prior year.

This report furnishes invaluable data for further analysis of emission alterations and the formulation of measures to curtail greenhouse gas emissions. Carezza Dolomites remains committed to reducing its ecological footprint and contributing positively to climate protection.

The greenhouse gas emissions of previous years comprise:

### Yearly Greenhouse Gas Emissions

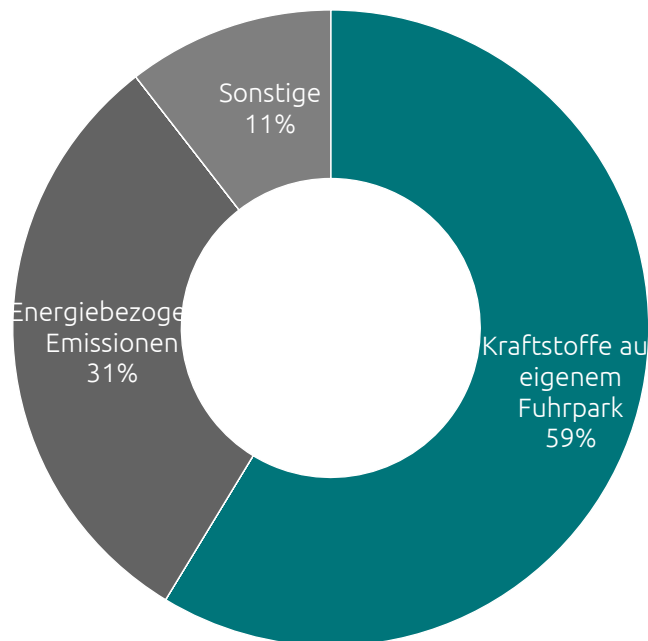


\*Note: The use of an outdated calculation methodology

Greenhouse gas balances from 2019 to 2020 were derived using an outdated calculation methodology and obsolete system boundaries. Thus, direct comparison of these balances with current results, especially those beyond 2021, is limited or infeasible.

To consistently lower or maintain the level of greenhouse gas emissions, short- and medium-term climate goals based on the GHG balance need to be defined, alongside relevant action fields and reduction measures. The company bears the responsibility for achieving these goals and implementing effective measures.

The largest emitters are as follows:



## CLIMATE GOAL

Since 2019, the Skiarea Carezza Consortium has been part of the "turn to zero" community, committing to the joint objective of reducing greenhouse gas emissions to the technically feasible minimum by 2040.

## REDUCTION MEASURES

The Skiarea Carezza Consortium has already implemented the following reduction measures at the Karersee location:

YEAR	LOCATION	CATEGORY	DESCRIPTION
2019	Carezza	Electricity	Heating Regulation of lift stations
2019	Carezza	Paper and Printing	Recycled paper for printers and toilets; Installation of electric hand dryers
2020	Carezza	Electricity	Transition to electricity from South Tyrolean Hydropower
2021	Carezza	Catering	Sensitizing partner restaurants to serve more vegetarian and vegan dishes
2022	Carezza	Employee Commuting	Through early opening of a feeder cable car powered by green energy, employee commute was reduced

Brixen, 30. August 2023

## APPENDIX

The following consumptions and activities are captured in the GHG balance:

- Heating oil and electricity consumption from annual invoices
- Estimated water and waste consumption, utilizing previous year's values
- Travel distances per mode of transportation for business trips through calculations
- Procured materials (paper, catering) through estimates and internal calculations The used consumption data were provided by the company and are within its realm of responsibility.

The following sources were employed for GHG balance calculations:

- Österr. Luftschadstoff-Inventur OLI, 2021
- GEMIS 5.0, 2019
- Ecoinvent v2.2, 2019
- Ecoinvent v3.1, 2020
- Ecoinvent v3.8, 2021
- Ecoinvent v.3.9.1, 2022
- Joanneum Research, 2022
- Intergovernmental Panel on Climate Change (IPCC), Climate Change 2013: IPCC Fifth Assessment Report (AR5), 2013
- illwerke vkw AG, Stromkennzeichnung, 2022
- treeze, 2020
- Österr. Umweltbundesamt, Die Ökobilanz von Personenkraftwagen, 2021
- Öko-Institut, Umwelt- und Kostenentlastung durch eine umweltverträgliche Beschaffung, 2015
- Öko-Institut, Digitaler CO<sub>2</sub>-Fußabdruck, 2020
- ifeu, Ökologische Fußabdrücke von Lebensmitteln und Gerichten in Deutschland, 2020
- Stucki, Jungbluth, Flury, Ökobilanz von Mahlzeiten: Fleisch- & Fischmenüs versus vegetarische Menüs, 2012
- Carbon Footprint Methodology 2018
- Goldsteijn, 2015

Datasets from the ecoinvent life cycle assessment database cannot be disseminated to third parties due to licensing constraints.