

Greenhouse Gas Balance 2023

for the Skiarea Carezza Consortium, Karerseestrasse 21/a, 39056, Karersee

This concise report presents the CO₂e 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 (CO₂e) using the appropriate conversion factors. The Global Warming Potential (GWP) 100a is used to express the emissions in the unit of t CO₂e.

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 2023, 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.

	2022		2023	
	in t CO ₂ e	%-Share	in t CO ₂ e	%-Share
SCOPE 1 - Direct Emissions				
Fuel from Stationary Combustion	18,2	4%	8,1	2%
Fuel from Company Fleet	292,6	59%	281,0	60%
Total	310,9	62%	289,1	61%
SCOPE 2 – Indirect Emissions				
Electricity	-	-	-	-
District Heating/Cooling	-	-	-	-
Total	-	0%	-	0%
SCOPE 3 – Indirect Emissions from Processes or Goods				
Paper and Printing	1,6	0%	-	-
Catering	8,7	2%	-	-
Water	0,2	0%	0,5	0%
Capital Goods ¹	6,6	1%	5,3	1%
Energy-Related Emissions ²	153,6	31%	161,5	34%
Waste	2,2	0%	2,3	0%
Employee Commuting	14,9	3%	12,8	3%
Total	187,7	38%	182,4	39%
Total	498,6	100%	471,5	100%

¹Capital goods" include the IT equipment acquired during the reporting year, as well as the consumption-based upstream emissions (manufacturing) from the fleet vehicles.

²"Energy-related emissions" include and report the upstream emissions (from production and transportation) of the energy carriers used.

Analysis of Emissions by Scopes

scope 1 - Direct Emissions (61.3% in 2023)

Scope 1 includes direct emissions, which made up 61.3% of total emissions in 2023. A significant reduction in emissions from stationary fuel combustion was observed, decreasing from 18.2 tons of CO₂ equivalent (tCO₂e) in 2022 to 8.1 tons in 2023. This decrease is primarily due to a halving of the required heating oil. Emissions from the company fleet also saw a slight decrease, dropping from 292.6 tCO₂e to 281.0 tCO₂e, maintaining this category as the largest source of direct emissions.

Scope 2 - Indirect Emissions (0% in 2023)

Scope 2 covers indirect emissions from the purchase of electricity and district heating. In both 2022 and 2023, there were no recorded emissions under this scope, as all energy needs were met through renewable sources.

Scope 3 - Indirect Emissions from Upstream and Downstream Activities (38.7% in 2023)

In 2023, changes in Scope 3 emissions were influenced by a strategic adjustment in the system boundaries used for data collection. This led to the exclusion of categories such as catering and paper and printing from the CO₂ balance, showing a reported reduction to zero. It is crucial to note that this change does not reflect an actual reduction in emissions but rather a change in reporting methodology.

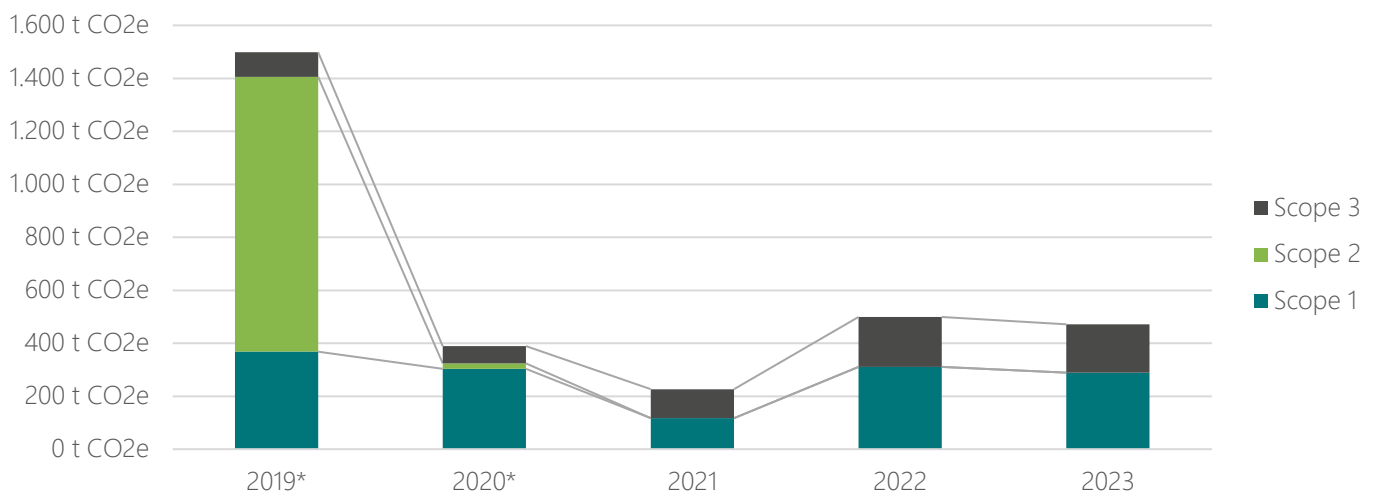
The total Scope 3 emissions were reduced to 182.4 tCO₂e in 2023, accounting for 38.7% of total emissions, down slightly from 38% in 2022. Despite the adjusted system boundaries, the energy-related emissions category increased by approximately 8 tCO₂e. There emissions for capital goods, which typically include vehicle mileagewere calculated to 5,4 tCO₂e for in 2023. Emissions from water and waste remained consistent, while emissions from employee commuting decreased slightly, demonstrating ongoing efforts in emission reduction within the revised boundaries.

Conclusion and Outlook

In 2023, the total emissions were reduced to 471.5 tCO₂e, representing 94.6% of the previous year's total of 498.6 tCO₂e. The data suggest that the primary areas for further emission reductions are in the company's fleet and energy-related emissions. It is recommended that Carezza continue investing in clean technologies to reduce these emissions and further optimize employee mobility.

The greenhouse gas emissions of recent years are composed as follows:

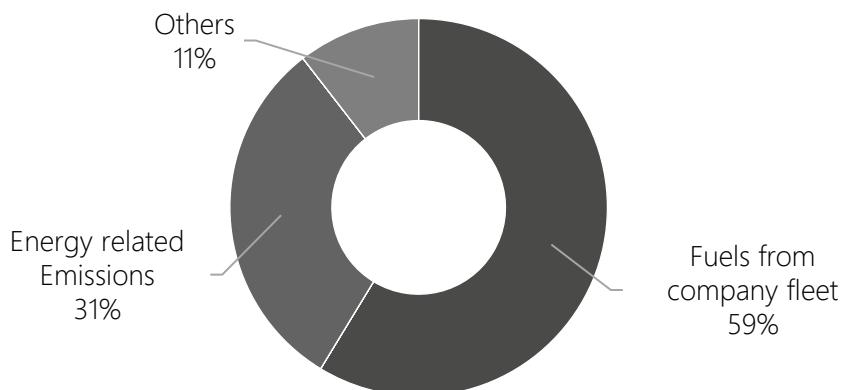
Jährliche Treibhausgas-Emissionen



*Note: The use of an outdated calculation methodology

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
2023	Carezza	Water	Installation of efficient Watertaps
2023	Carezza	Fuels	Purchase of fuel efficient Motosleds

Brixen, 1. August 2024

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 v.3.10, 2023
- 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 CO₂-Fußabdruck, 2020
- Carbon Footprint Methodology 2018
- Goldsteijn, 2015

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