

# Verification of greenhouse gas assertions Hufvudstaden AB 2020

**Used standard: SS-EN ISO 14064-3:2006**

**Reporting organization**

Hufvudstaden AB  
Karl-Johan Wall  
NK 100  
111 77 Stockholm

[www.hufvudstaden.se](http://www.hufvudstaden.se)

**Auditor**

2050 Consulting AB  
Göran Erselius  
Skeppsbron 32  
111 30 Stockholm

[www.2050.se](http://www.2050.se)

**Intended user**

GRESB  
Barbara Strozziiaan 101  
1083 Amsterdam  
The Netherlands

[www.gresb.com](http://www.gresb.com)

## Introduction

2050 Consulting was commissioned by Hufvudstaden to provide independent third-party assurance over the content of their greenhouse gas (GHG) accounting and the energy consumption in facilities covering 1 January 2020 to 31 December 2020. Hufvudstaden needed an independent third-party assurance for their GRESB-reporting in 2021. The verification of Hufvudstaden's greenhouse gas assertions was performed according to the standard SS-EN ISO 14064-3:2006.

Hufvudstaden has been responsible for providing relevant climate-impact related data and the data for energy consumption. 2050 Consulting has assessed GHG data, energy consumption data, GHG information and information systems control in order to validate the reliability and completeness of GHG information and assertion.

No significant changes in the organization's GHG inventory have been made since the last reporting period.

## Verification scope

Hufvudstaden's climate impact occurs in the company's properties situated in Gothenburg and Stockholm, Sweden. The impact includes car travel, own purchased energy sources for properties, energy consumption for heating and cooling, electricity use and leakage from entropy pumps.

## Criteria

GHG Protocol: Corporate standard and ISO 14064-3.  
GRI Guidelines for GHG accounting and reporting.

## Level of assurance

Reasonable assurance engagement.

## Types of GHG

CO<sub>2</sub> and HFCs.

## Time period

January 1, 2020 - December 31, 2020

## Verification techniques

- Interviews with Hufvudstaden employees responsible for collecting and compiling the data.
- Control of samples of the vouchers of used data.
- Control of all sources of used emission factors.
- Control of the calculations, key ratios and baseline scenario.

## Hufvudstaden's GHG disclosure 2020

The table below contains the following information:

- Year-over-year change in emissions (scope 1)
- Year-over-year change in emissions (scope 2)

Tons CO <sub>2</sub> -eq		2020	2019	Change
<b>Scope 1</b>	<b>Total</b>	<b>329,3</b>	<b>255,7</b>	<b>+29%</b>
	Refrigerants	314,7	255,1	
	Cars	14,6	0,6	
<b>Scope 2</b>	<b>Total</b>	<b>630,0</b>	<b>1 039,5</b>	<b>-39%</b>
	Heating & Cooling	630,0	1 039,5	
	Electricity	0	0	
<b>TOTAL</b>	<b>Total</b>	<b>959,4</b>	<b>1 295,2</b>	<b>-26%</b>

Hufvudstaden has chosen to report normal year corrected heat consumption in the section Energy.

For the calculation of GHG's though the actual heat consumption has been used in accordance with ISO 14064-3.

Hufvudstaden has chosen the **market-based method** for the calculation of the scope 2 emissions. In the table below you find the comparison of the scope 2 emissions if Hufvudstaden had chosen the location-based method:

Tons CO <sub>2</sub> -eq. 2020	Location-based method	Market-based method
Electricity	2 626,1	0
District heating	630,0	630,0
<b>Total scope 2 emissions</b>	<b>3 256,1</b>	<b>630,0</b>

The energy consumption has been validated both regarding the actual consumption and the normal year corrected heat consumption.

The reason for the decrease of emissions is basically:

- The consumption of district heating was 20% smaller and the average emission factor for district heating was 25% lower than 2019. Those two factors contributed almost equally to the 39% decrease of emissions in scope 2.
- Leakage of refrigerants vary from year to year and the climate impact from the leakage was 23% higher than 2019.
- The emissions from cars were considerably higher than 2019 (2 500%). The reason for the increase was that maintenance employees had to use the car to do their duties under the

Corona-pandemi. The emissions from car are though only 1.5% of the total scope 1 and 2 emissions.

Except for the decrease of consumption and emissions from district heating also the consumption of electricity (-13%) and district cooling (-25%) decreased.

Energy (MWh)	2020	2019	Change
<b>Electricity</b>	<b>32 561</b>	<b>37 627</b>	<b>-13%</b>
<b>District heating</b>	<b>13 295</b>	<b>16 539</b>	<b>-20%</b>
- whereof Stockholm	8 577	11 250	-24%
- whereof Gothenburg	4 718	5 289	-11%
<b>District cooling</b>	<b>4 008</b>	<b>5 331</b>	<b>-25%</b>
- whereof Stockholm	1 707	2 664	-36%
- whereof Gothenburg	2 301	2 667	-14%
<b>TOTAL</b>	<b>49 865</b>	<b>59 497</b>	<b>-16%</b>

## Conclusion statement

Hufvudstaden has accounted for their GHG emissions in accordance with GHG protocol: Corporate standard, ISO 14064-3 and GRI reporting guidelines. Hufvudstaden has a proper control over the company's energy use in its buildings and the leakage of refrigerants. All relevant aspects of Hufvudstaden's activities are accounted for. 2050 Consulting has verified the calculations, samples of vouchers for the data and origin of used emission factors. Based on the verification process, the GHG assertions is materially correct and is a fair representation of the GHG data and information. With a reasonable assurance, the presented figures give a correct estimate of Hufvudstaden's GHG emissions in scope 1 and 2 and the energy consumption during 2020. The energy consumption data has been verified, both the actual consumption and normal year corrected heat consumption.

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Göran Erselius

2050 Consulting AB

+46 (0) 73 363 13 21