STOCKHOLM SCHOOL OF ECONOMICS GREENHOUSE GAS EMISSIONS REPORT 2023

Introduction

The Stockholm School of Economics (SSE) is the leading business school in the Nordic and Baltic countries and enjoys a high reputation in Sweden and internationally. World-class research forms the basis of SSE programs, consisting of Bachelor's, Master's and PhD programs, an EMBA program and a wide range of executive education. Commercial executive education is conducted by the SSE's wholly-owned subsidiary Handelshögskolan i Stockholm Executive Education AB. The activities of SSE's incubator are conducted through SSE Business Lab AB and its subsidiaries.

SSE provides education in six buildings owned by the School /SSE Real Estate Holding AB. Five properties are in Stockholm and one near Sigtuna. Around 250 students gain access to accommodation via the School, in 12 buildings in Stockholm and one in Sollentuna.

During 2023 the operating income for the SSE Group was SEK 859 million, the number of students was 1916 and the average number of full-time employees was 272.

This separate report on the School's greenhouse gas emissions during 2023 complements the forthcoming Sustainability report.

Stockholm School of Economics has been quantifying some of its greenhouse gas emissions for several years and is now expanding the scope of reporting. 2023 was the first year for which a comprehensive screening of the greenhouse gas emissions from the School's activities was carried out. Previous quantifications of emissions, included in Sustainability reports, are not necessarily comparable with the 2023 quantifications since the 2023 audit was far more comprehensive.

Data for 2023 was not available for all relevant activities and data quality was poor for some other activities. During 2024 additional resources will be put in place to enable more data, and data of better quality, to be collected. This will make it possible to establish a robust baseline, from which near- and long-term targets can be set, and reduction activities planned.

Methodology

The greenhouse gas audit for 2023 follows the principles set out in the Greenhouse Gas Protocol's Corporate Reporting and Accounting Standard (ghgprotocol.org). The organisational boundary has been set using the operational control approach, so all parts of the SSE Group are included.

For the quantification of emissions, specific activity data has been used where available (eg for energy use and business travel) and relevant emissions factors. For other activities, estimates have been made.

The School's emissions from electricity have been quantified using both market-based and location-based accounting approaches.

Operational boundaries and data quality

Following the reporting structure laid out in the Greenhouse Gas Protocol Corporate Standard, the organisation's emissions in each category have been considered, to determine which categories were relevant, for which categories data for 2023 was available, and the quality of the data available.

The table below summarises the status for this report:

Scope	Category	Activity	Relevant?	Data available?	Data quality
Scope 1					
- Direct emissions		Fuel combustion in own assets	No	N/A	N/A
		Refrigerants	Yes	Yes	Low
		Other direct emissions	No	N/A	N/A
Scope 2					
– Purchased Energy		Electricity	Yes	Yes	High
		Heating	Yes	Yes	High
		Cooling	Yes	Yes	High
		Steam	No	N/A	N/A
		Other indirect energy	No	N/A	N/A
Scope 3	1	Purchased goods and services	Yes	Yes	Low
- Other Indirect	2	Capital goods	Yes	No	N/A
Emissions	3	Fuel- and energy related activities	Yes	Yes	High
	4	Upstream transport	Yes	Yes	Medium
	5	Waste generated in operations	Yes	Yes	Low
	6	Business travel	Yes	Yes	Medium
	7	Employee commuting	Yes	No	N/A
	8	Upstream leased assets	No	N/A	N/A
	9	Downstream transports	No	N/A	N/A
	10	Processing of sold products	No	N/A	N/A
	11	Use of sold products	No	N/A	N/A
	12	End-of-life treatment of sold products	No	N/A	N/A
	13	Downstream leased assets	No	N/A	N/A
	14	Franchises	No	N/A	N/A
	15	Investments and cash deposits	No[1]	No	N/A

[1] Category 15 in scope 3 is considered not relevant on the basis of the guidance in the GHG Protocol's Corporate Value Chain (Scope 3) Accounting and Reporting Standard which states "This category is applicable to investors (i.e., companies that make an investment with the objective of making a profit) and companies that provide financial services." Neither is it common practice among universities to include these emissions today.

Where a category of emissions was deemed relevant and data was available but of low quality, some estimations have been made. For capital goods (plant, property and equipment) and for commuting no data was available and it was not considered possible to make meaningful estimates. The School will work to collect more data and to improve data quality during 2024.

Quantification results 2023

GHG emissions*	tCO2e	% of total reported emissions	Comments
Scope 1 - Direct emissions			
Refrigerants	54	4%	estimate of emissions arising from leakage of refrigerants when ventilation equipment failed
Scope 2 – Energy emissions			
Electricity for teaching and admin buildings (location-based)	163	13%	electricity purchased by School for teaching and administration buildings
Heating for teaching and admin buildings	120	9%	heating (fjärrvärme) purchased by School for teaching and administration buildings
Cooling	0	0 %	cooling (fjärrkyla) purchased by School for teaching and administration buildings
Scope 3 – Indirect emissions			
3:1 Purchased goods and services	c.20	2%	estimate of emissions embedded in office supplies including paper, coffee, tea, milk, books, cleaning materials, pens, printed material, ink
3:3 Fuel- and energy-related activities	177	14%	other emissions arising from energy production and use
3:4 Upstream transport	0.03	0%	transport of office supplies to the School from main supplier
3:5 Waste	0.94	0%	transport of waste materials for recycling or combustion with heat recovery
3:6 Business travel	762	58%	employee travel by air, train, bus and car

* Besides carbon dioxide equivalents (CO_2e), the GHG Protocol requires disclosure of all GHGs separately (CO_2, CH_4, N_2O, HFCs, PFCs, SF_6), when possible. With the calculation methods used in this audit, an exact division per greenhouse gas is not possible, but CO_2 stands for the majority.

Notes

Scope 1

The School uses refrigerants in ventilation systems in two buildings: Saltmätargatan 13-17 and Norrtullsgatan 2. Emissions from refrigerants commonly occur as small leakages from equipment, and the emissions are reported on the basis of the refilling required. However in this case equipment failure at one building and a leak at the other led to leakage of refrigerants of unknown quantity. The emissions figure reported here represents the emissions that would occur if all the refrigerant which was added into the equipment was to leak. This was a one-off occurrence with relatively high but very uncertain emissions.

Scope 2

The scope 2 emissions reported arise from production of energy purchased by the School: electricity, heating and cooling to buildings used for teaching and administration. Energy for homeworking by employees has not been included. Energy consumption figures are provided by suppliers.

The School also purchases electricity to accommodation for 238 students but it neither owns these buildings nor has control over the energy efficiency or energy usage. Emissions associated with electricity purchased by the School for student apartments are reported in scope 3 category 3, in accordance with the GHG Protocol Corporate Standard, since this electricity is considered purchased for resale, to students. Heating to the accommodation buildings is purchased by the building owners and not under the control of the School. An estimate of the emissions from this heating has also been included in scope 3 category 3.

Upstream emissions for heating and electricity are covered in scope 3 as per the GHG Protocol Corporate Reporting and Accounting standard.

See Appendix for market-based emissions figures from purchased electricity for teaching and admin buildings.

See Appendix for estimates of the emissions from electricity and heating used in student accommodation.

Scope 3:1 Purchased goods and services

The figure given is a rough estimate based on the data available on centralized purchases made from the main office supplier. Other purchases may have been made by different parts of the School, and no data for purchases of IT equipment, internet use and IT systems, furniture, food and buildings supplies was collected this year. A reasonable estimate of the total emissions embedded in all purchased goods and services would be 50 tCO2e.

Scope 3:3 Fuel and energy-related activities

Emissions reported in this category include indirect emissions from production of purchased energy, transmission and distribution losses, and emissions from electricity and heating (estimated) of student accommodation.

Scope 3:4 Upstream transport

The main supplier (Office Depot) of office supplies to Handelshögskolan provides an annual report of emissions from the transport of the goods. Their report shows that during 2023 nearly 6 tonnes of goods were delivered, for which the transport-related GHG emissions were minimal. The emissions factors are from BEIS (UK).

Scope 3:5 Waste

The School has an effective waste sorting system and the waste contractor provided a detailed breakdown of the waste collected during 2023 (total 44 tonnes). BEIS emissions factors have been used to calculate the ghg emissions from transport of waste to energy recovery or materials reclamation facilities, in line with GHG Protocol guidelines.

Scope 3:6 Business travel

The GHG data shown is from two reports, one from the travel agent Egencia, and one generated in the School's accounting system. The data from the two reports is quantified using different methods: the Egencia quantification uses distances and UK BEIS emissions factors, while the financial accounting system uses a spend-based calculation method. The GHG emissions reported from both systems are for travel purchased during 2023. The Egencia report takes into account cancellations and rebookings. For quantification of emissions from flights, a radiative forcing factor, which accounts for the indirect effects of non-CO_2 emissions of aviation, is included.

GHG emissions from business travel 2023 are considerably higher than those reported for recent years because a) business travel has increased and b) the data from the book-keeping system on spend that didn't go through the travel agent was identified as relevant for the first time in 2023.

Appendix

Market-based figures for purchased electricity and emissions from energy to student accommodation

Scope 2 – Market-based	tCO2e
Electricity for teaching and admin buildings	37
of Scope 3 – emissions related to student accommodation	
Electricity for student accommodation (location-based)	8
Electricity for student accommodation (market-based)	1
Heating for student accommodation	50

Sources of emissions factors

Scope 2: emissions factors

For district heating and district cooling: Stockholm Exergi 2023 Miljönyckeltal
https://www.stockholmexergi.se/content/uploads/2024/01/Miljonyckeltal-2023-v1.2.pdf

For electricity generation:

Wind – https://api.environdec.com/api/v1/EPDLibrary/Files/487ba9dd-8cca-4c17-cd8a-08d9df0ea78f/Data

Hydro - https://api.environdec.com/api/v1/EPDLibrary/Files/733208a4-7d7e-4452-5608-08d9149663be/Data

Solar - Lindahl et al (2018) Solel och klimatpåverkan. Svensk solenergi

God El - https://godel.cdn.triggerfish.cloud/uploads/2023/04/25142202/klimatanalys-2022.pdf

Scope 3: emissions factors

For waste disposal and business travel: https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2023

https://www.energimyndigheten.se/globalassets/statistik/bostader/energistatistik-for-flerbostadshus-2016.pdf