

Climate analysis

2021



Summary

SBAB has conducted an annual climate report for 2021. The report has been produced and validated by U&We (an external sustainability consultancy) using the data management tool *Our Impacts*. The report follows the standard of the Green House Gas (GHG) protocol.

SBAB's annual climate reports have been produced with the help of *Our Impacts* since 2009.

The total emissions for 2021 are 461.9 tonnes CO₂e (carbon dioxide equivalents), calculated with the marketbased approach. The reported 2020 emissions were 601.8 tCO₂e. Therefore, we have a significantly less negative impact in 2021 as compared to the previous year. The reason for the decrease is primarily reduced travel and reduced impact from the purchase of IT equipment.

- IT equipment: The climate impact reduced by 139.9 tCO₂e, which represents a 27 percent reduction from the previous year.

– Electricity consumption, offices: The climate impact reduced by 15.2 tCO₂e, a 29 percent reduction from the previous year due to a new green energy contract in Solna.

- Server services, electricity: The climate impact increased by 7.4 tCO₂e, an increase of 28 percent. There was the same number of servers with green electricity compared to 2020, however, we had 8% higher kwh usage.
- The pandemic resulted in less travelling and a reduction of impact by 28 tonnes.
 - Air travel -27 tonnes (-75%), Taxi journeys -0.4 tonnes (-36%). Business trips by car - 2 tonnes (-9%). Hotel nights +1.2 tonnes (+ 18%)

For the selected measuring range, data has been available, and the collection process has been concluded without issues.



Introduction

Background and purpose

SBAB carried out a climate impact calculation of their 2021 emissions as part of the climate strategy and action plan to reduce emissions.

The climate impact calculation has been produced by the web-based tool *Our Impacts*.

Participants

SBAB point of contact has been Peder Wissler. Quality checks, auditing and analysis of the climate impact report was performed by Johan Solberg, U&We.

Time of collection

Data collection was performed during January and February 2022.



Methodology

Standard

The standard used in the report is the Greenhouse Gas Protocol (GHG Protocol), developed by the World Resources Institute and the World Business Council for Sustainable Development. According to the GHG Protocol, a company must take responsibility for all emissions from activities under their control. Control is defined as financial or operational control. The GHG Protocol divides emissions into three groups or scopes. These are:

- **Scope 1** – direct emissions of greenhouse gases from burning of fossil fuels, for example emissions from oil burners and vehicles
- **Scope 2** – indirect greenhouse gases from purchased energy such as electricity, district heating
- **Scope 3** – other indirect greenhouse gas emissions from, for example, business trips, transports, paper consumption

The GHG Protocol includes seven greenhouse gases. These are:

- Carbon dioxide, CO₂
- Methan gas, CH₄
- Nitrous gases, N₂O
- Hydrofluorcarbons, HFCs
- Perfluorcarbons, PFCs
- Nitrotrifluorid, NF₃
- Sulphur hexafluoride, SF₆

These gases have different global warming potentials (GWP). For example, CO₂e has potential 1, while CH₄ has potential 25. That is why all gases are converted to carbon dioxide equivalents CO₂e.



Data

For the 2021 annual climate footprint report, data has been collected from SBAB offices in Stockholm, Karlstad, Gothenburg, and Malmö, as well as from the Booli office (Booli is a subsidiary of SBAB).

The climate calculations are based on data from 2021. Comparisons have been made with previous annual climate reports (2015-2021).

Emission factors

Our Impacts includes emission factors that are collected from international and scientifically approved sources. In any cases where specific emission factors for Sweden are available, they were used. Sweden specific emission factors were used, for example, for renewable electricity, district heating and emissions data from the Swedish Railways (SJ).

System limits

The emission sources reported are:

Scope 1

- Own/long-term leased cars (no emissions in 2021, as SBAB no longer has them)

Scope 2

- Electricity – Good Environmental Choice (Bra Miljöval), residual electricity, windpower
- District heating
- District cooling

Scope 3

- Waste for incineration
- Recycled waste
- Copying paper
- Water consumption
- Supplier electricity (servers)
- IT equipment

Business trips

- Flights
- Staff cars
- Hotel nights
- Trains
- Taxi

Upstream emissions

The GHG Protocol recommends that upstream emissions are included, for example supplier emissions. For electricity and district heating, transferral losses must be considered, and fuel transports must be included, as well as the manufacturing of the fuel used for production of electricity and heating. For driving, manufacturing and transport of fuel is included.

Upstream emissions have been calculated for the company's diesel/petrol cars and for train travels. Renewable electricity has been updated with upstream emissions including transport and distribution losses.

For train travel, the SJ emission factors that consider upstream emissions were used.

Air travel

Air travel emissions include more than the fossil content of the air fuel. The condensation trails left by air travel cause a greenhouse effect. That is why air travel emissions are usually appointed a higher emission factor, a RFI factor (Radiative Forcing Index). In this climate calculation report, this factor has been set at 2.0, which means that the emission is calculated two times more in relation to the carbon dioxide value of the consumed fuel.

Key figures

By relating the emissions to key descriptive statistics at SBAB, an intensity measure is reported in addition to absolute emissions. The emissions have been put in relation to the following indicators:

- Office space in square meter
- Number of full-time employees (FTE)
- Lending MSEK

Data quality

Data can either be actual, i.e., taken from accounting, reports etc., or estimated, i.e. estimated according to a method of calculation. 97.1 per cent of the emissions for 2021 are based on actual data. This means that in general data quality is very high.



Results

Data in the tables show emissions of greenhouse gases, expressed as carbon dioxide equivalents CO₂e. The reporting is done in tonnes CO₂e, if not otherwise stated.

Total emissions

In 2021, SBAB's total emissions were 461.9 tCO₂e. A decrease of 23 per cent as compared to 2020.

The table shows the emissions from 2015 onwards.

Numbers have been rounded up to avoid decimals.

Total emissions

tCO ₂ e	2021	2020	2019	2018	2017	2016	2015
	461.9	601.8	533.7	193.3	183.8	186.0	158.6

2020 is the year with the highest measured climate footprint since SBAB started to measuring their climate impact since 2009.

Emissions divided per scope (Numbers have been rounded up)

tCO ₂ e	2021	2020	2019	2018	2017	2016	2015
Scope 1	0.0	1.4	12.3	12.4	17.1	17.1	13.7
Scope 2	44.4	54.0	39.6	23.5	22.6	32.7	54.5
Scope 3	417.5	546.4	481.8	157.4	144.1	136.2	90.4

tCO ₂ e	2021	2020	2019	2018	2017	2016	2015
Total	461.9	601.8	533.7	193.3	183.8	186.0	158.6

The table shows that all emissions come from scopes 2 and 3. The decrease in scope 1 is explained by the fact company cars have been phased out of the organisation (policy decision).

Emission divided per emission source

The table below shows the emissions from all sources of emission that have been measured.

All measured sources of emissions

tCO ₂ e	2021	2020	2019	2018	2017	2016	2015
District heating	29.4	15.7	26.0	24.7	23.9	25.2	45.4
District cooling	0	0.2					
Electricity	37.4	52.6	26.5	12.1	10.8	14.2	15.0
Water consumption	0.5	0.3	0.3	0.4			
Waste for incineration	0.1	0.1	0.4	0.06	0.4	2.6	0.2
Company cars	0	0.7	15.5	15.5	21.4	20.5	15.0
Flight	9.0	35.8	131.6	130.3	115.9	108.2	65.7
Trains	0.1	0	0.4	0.4	0.4	1.5	1.32
Copying paper	0	0.8	0.7	0.5			
Employees' cars	22.1	23.6	11.7	5.6	7.3	11.4	16.0
Taxi	0.7	1.1	3.3	3.6	3.7	2.4	
Server centres	31.8	24.8	88.6				
IT equipment	322.8	439.3	209.2				
Hotel nights	8.0	6.8	19.6				
Total	461.9	601.8	533.7	193.3	183.8	186.0	158.6

IT equipment (employee computers and phones) and electricity consumption are the two dominant sources of emissions. Together, in 2021, they account for 360 tCO₂e or 78 per cent. Measure of climate impact of IT equipment includes computer screens, computers, laptops and mobile telephones. Air travel is down by 75 per cent. Electricity consumption has decreased by

29 per cent. This is largely due to the solna office being able to shift to a green electricity contract.

Emissions from Air Travel

A detailed analysis of air travel can be found in the table below.

Emissions per flight distance (Numbers have been rounded up)

Air travel emission tCO ₂ e	2021	2020	2019	2018	2017	2016	2015
Short	8.5	32.2	58.3	45.8	46.4	51.5	43.8
Medium	0.5	3.6	29.8	47.7	12.1	23.7	20.6
Long	0	0	43.5	36.8	57.4	33.0	1.3
Total	9.0	35.8	131.6	130.3	115.9	108.2	65.7

Per passenger kilometre, short flights have the greatest climate impact, while long flights have the least impact. The reason for this is that take-off and landing cause more emissions than the horizontal flight. Short-range flights are in the Nordic countries. Medium-range flights are in Europe, and long-range are inter-continental flights.

In 2021, air travel continued to decline, a trend that started with the COVID-19 pandemic the preceding year. The decrease was 75 per cent as compared to 2020 levels.

There has been a clear decrease of short-range travel (-73 per cent), while medium-range travel has decreased (-86 per cent), and no long-range trips have occurred in 2020 or 2021.

The main reason for the decline air travel is due to the reduced possibility to have meetings and conferences due to the COVID-19 pandemic. Currently, digital meetings are increasingly planned and promoted instead.

The key figures used are:

- Emissions in relation to the number of full-time employees
- Emissions in relation to floor space, m²
- Emissions in relation to lending volume, MSEK

Key figures

tCO ₂ e	2021	2020	2019	2018	2017	2016	2015
Emission kgCO ₂ e	461 900	601 800	533 700	193 300	183 800	186 000	158 600
Full-time employees *FTE	833	760	695	574	506	485	443
kgCO₂e/FTE	555	792	768	337	363	383	358
Floor space, m ²	15 781	14 736	13 445	11 855	11 266	10 856	11 477
kgCO₂e/m²	29	41	40	16	16	17	14
Lending, MSEK	467 000	423 000	383 800	364 200	335 100	296 000	297 000
kgCO₂e/ Lending MSEK	0.98	1.42	1.39	0.53	0.55	0.63	0.53

Table 5. Key figures for 2021, 2020, 2019, 2018, 2017, 2016 and 2015. Emissions are stated in kgCO₂e. *FTE=FTE Full time equivalent (a measuring unit equivalent to an employee that works full time for a year), this means that part-time staff is recalculated into full time.

The number of full-time employees has gradually increased throughout the years. In 2019, Booli was added as a new unit and the climate impact from IT equipment was added. In 2021, the number of full-time employees increased by 9.6 per cent. This means that the intensity emission measure/full-time employee reduced from 792 kg/FTE for 2020 to 555kg/FTE. In comparison to general data for service companies this is still a low value.

The floor space changes every year due to various reasons, for example, more staff and moving offices. In 2020, it increased due to new offices in Karlstad and Solna (Stockholm). Emissions in relation to lending volume show a lower level in 2021 as compared to 2020. Lending is at a higher level in 2021 as compared to 2020.

Energy usage

Emissions due to energy use in our offices are relatively low due to the active choice to purchase Good Environmental Choice for electricity (Bra Miljöval). Below, the energy usage is presented to analyse the energy efficiency over time.

Energy usage offices

	2021	2020	2019	2018	2017	2016	2015
District heating, kWh	746 461	898 932	639 044	633 544	616 540	687 485	805 284
Electricity, kWh	1 589 153	1 263 979	1 036 327	1 028 187	979 857	946 170	984 596
Total	2 335 614	2 065 415	1 675 371	1 661 731	1 596 397	1 633 655	1 789 880
Floor space, m2	15 781	14 736	13 445	11 855	11 266	10 856	11 477
kWh/m2	148	140	124	140	142	150	156
Annual change							
- electricity	+25.7%						
- district heating	-16.9%						

The total energy consumption for 2021 is 2 335 614 kWh. In 2020, the equivalent consumption was 2 065 415 kWh. Total consumption has increased by 13 per cent. The kWh/m2 increased from 140 to 148 from 2020 to 2021, which indicates a decrease in energy efficiency. The increase of electricity consumption is 25.7 per cent, which was partially due to an increase of floorspace. The district heating consumption decreased by 17 per cent.

The effect of green electricity

For most of its offices, SBAB has Good Environmental Choice for electricity/wind power for all the offices. The exception is Booli that has not reported buying renewable electricity for electricity usage for office, or for their electricity usage for server services, which entails a climate impact based on the Nordic residual mix, according to the Greenhouse Gas Protocol. The table below is a comparison.

Comparison regular electricity SBAB – Good Green Choice Electricity (Bra Miljöval)

	2021	2020	2019	2018	2017
Consumption kWh	1 589 153	1 263 979	1 036 327	1 028 187	979 857
Emission according to Nordic electricity mix tCO2e	537.9	427.8	350.8	348.0	331.7
Good Green Choice Water (Bra Miljöval) Water 95%, 5% wind tCo2e	10.9	8.6	7.1	7.0	6.7
Potential avoided emissions tCO2e	527.0	419.2	343.7	17.1	23.6

SBAB's purchase of green electricity mean emissions are not as high as would have been the case with regular electricity. For 2021, the total potential for avoided emissions constitutes 527 tCO2e. Today, the avoided emissions are 472.3 tonnes. If SBAB

would buy green electricity throughout the entire value chain, another 54.7 tonnes can be saved, (approximately two thirds for the Booli office electricity use and on third for Booli's server centres respectively).

Waste

The amount of waste is detailed below.

Amount of waste

Kg	2021	2020	2019	2018	2017	2016	2015
For incineration	0	0	10 004	20 115	6 704	13 600	11 000
For recycling	21 900	28 810	10 014	12 904	10 326	16 200	22 000
Total	21 900	28 810	20 018	33 019	17 030	29 800	33 000
Waste kg/employee	26.3	37.9	28.8	57.4	33.6	61.4	74.5

Reduction potential

In general, there are three ways to decrease the greenhouse gas emissions. These are:

- Reduce the usage of fossil energy in purchased products/services by more efficiency and changed behaviour
- Transfer to entirely renewable energy

Reduced usage of fossil energy

Air travel

Emissions from air travel are down to 9 tCO₂e, which is a decrease of 75 per cent as compared to the previous year. The reduction is primarily explained by less travelling due to the ongoing COVID-19 pandemic. Digital meetings have proven to be a good substitute for many meetings; therefore, it is important to retain this changed behaviour.

SBAB's travel policy indicates that where available train rides should be taken instead of flights for environmental reasons, and clearly recommends taking a train for trips shorter than 500 km or trips. It is worth noting that short-range flights (flights in the Nordic countries) have been reduced by 73 per cent.

For travel to the airport, flight trains and busses are the first choice.

Taxis

According to SBAB's travel policy, public transport is to be used as a first choice during working hours.

Cars

In 2020, a change was made in the company car policy to consciously phase out company cars.

Regarding the staff's business trips in their own cars, emissions in 2021 were 2.1 tCO₂e, a reduction of 6 per cent from 2020.

This type of emission has increased by +49 per cent as compared to 2019. In all, business trips by car have decreased by 9 per cent.

Other emissions

Electricity usage has increased due to an increase in office space (m²) of 7 per cent. There is a potential for savings with Booli (which has not reported buying renewable electricity for their electricity usage, or for electricity usage for server services). One major possible improvement is to extend the life cycle of the staff's IT equipment, which has the potential to reduce climate impact estimated at 15 per cent (50 tonnes CO₂e/year). The working group at SBAB that works with climate impact, including the Tech department have had a workshop on IT purchases, extending the life of equipment and recycling used equipment. Another planned measure is to cover more sources of emission (see Proposal for extended measuring ranges).

Data improvement

Data quality	Good quality	Medium good quality or mixed quality	Low quality
Scope 1			
Own cars	●		
Scope 2			
Electricity consumption		●	
District heating	●		
Scope 3			
Waste for incineration		●	
Waste for recycling	●		
Staff cars		●	
Electricity server centres		●	
Air travel	●		
IT equipment		●	
Trains	●		
Taxi	●		
Hotel nights	●		

Waste for incineration. No data this year.

Own cars. Based on consumption of fuel, which is best data quality.

Electricity consumption for Booli, server centres. Not 100 per cent renewable electricity.

IT equipment. A flat rate calculation has been performed to remove the use part of the product's life cycle.

Staff cars. Data quality would be improved by more exact data regarding the type of fuel and car size. For example, currently, number of driven kilometres by private cars are reported en masse, without any information on the type of fuel. In general, data quality is good, although there is still room for improvement. It is crucial to refine data regarding electricity consumption for the server centres.

Proposal for extended measuring range

The GHG Protocol recommends the extension of Scope 3 reporting. During 2020 and 2021, there was significant improvement in the range of emissions sources included in SBAB's reporting. In 2021 SBAB, for the first time calculated and disclosed the emissions from lending (Scope 3 downstream). Please see full disclosure in the annual report 2021. Additional emissions that may be considered for inclusion by SBAB in the future are:

- Employees' journeys to and from work
- Business trips with rental cars
- Representational meals
- Fruit and coffee
- Printed matter

Regarding emission reporting it should be viewed as a long-term process. The principle should be to start from:

- materiality
- available data
- symbolic significance

It should be quite simple to further refine the reporting of business trips since there is available data for rental cars.

Printed matter has a symbolic value, as it relates to saving measures and being climate-minded in the office, i.e., avoiding printing and copying on both sides of the paper.

Emissions from fruit and coffee consumption also have a symbolic value. Data is available from the supplier.

The scope of representational meals is difficult to define and therefore, assessing the scope of the emissions is also difficult.

From a materiality perspective, employees' journeys to and from the office is a type of emission that should be included and prioritised. By creating awareness of and introducing various motivating measures, this type of emission can be reduced. Many companies view such measures as part of their health-promoting programmes. SBAB is planning to include commuting in the future.

Reduction target and climate compensation

SBAB has a reduction target of 15% until 2025 on scope 1, 2, and 3 upstream. A working group with representatives from departments of tech, user experience, facility management and sustainability work actively to achieve the target and improve SBAB's climate impact. Moreover, SBAB committed to climate compensating for 100% of our scope 1, 2 and 3 upstream emissions every year. Climate compensation in 2020 was done through financing a wind power project in Aruba, an

area that is currently largely dependent on coal energy. Climate compensation for 2021 was done via financing a solar power project in Rajasthan, India. Only 9 percent of India's energy is renewable. Both projects are certified Gold Standard, ensuring that the positive climate impact does not come at the expense of other sustainability aspects.

Calculation emissions from our lending

Climate reporting of investments and lending is becoming a more important issue on the agenda for financial institutions. Investors and legislators are demanding more reporting and transparency, and savers now take a new interest in the climate impact of the institutions.

SBAB took the first step to measure the mortgage portfolio's climate effect, to learn more about the emissions originating from their business activity. Please see the full disclosure SBAB's Annual Report 2020. These indirect emissions, Scope 3 downstream, by far exceed the emissions of the own activity of SBAB, and therefore, are critical in order to develop product offerings to reduce adverse climate impact.

An extension of the climate calculation, apart from more transparency in reporting, will constitute a good foundation for setting science-based climate targets (SBT), for companies in the financial sector.

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