



SPAREBANKEN SØR

Carbon Accounting Report 2021

Sparebanken Sør Konsern Array

This report provides an overview of the organisation's greenhouse gas (GHG) emissions, which is an integrated part of the organisation's climate strategy. Carbon accounting is a fundamental tool in identifying tangible measures to reduce GHG emissions. The annual carbon accounting report enables the organisation to benchmark performance indicators and evaluate progress over time.

This report comprises the following organisational units for Sparebanken Sør.

The input data is based on consumption data from internal and external sources, which are converted into tonnes CO₂-equivalents (tCO₂e). The carbon footprint analysis is based on the international standard; *A Corporate Accounting and Reporting Standard*, developed by the Greenhouse Gas Protocol Initiative (GHG Protocol). The GHG Protocol is the most widely used and recognised international standard for measuring greenhouse gas emissions and is the basis for the ISO standard 14064-1.

Reporting Year Energy and GHG Emissions

Emission source	Description	Consumption	Unit	Energy (MWh)	Emissions tCO ₂ e	% share
Transportation total				64.1	13.6	5.3 %
Petrol		1,888.0	liters	18.3	4.4	1.7 %
Diesel (NO)		4,396.0	liters	45.8	9.2	3.6 %
Scope 1 total				64.1	13.6	5.3 %
Electricity total				5,158.5	159.9	62.9 %
Electricity Nordic mix		5,158,473.0	kWh	5,158.5	159.9	62.9 %
District heating location total				1,092.1	12.5	4.9 %
District heating NO/Arendal		652,629.0	kWh	652.6	10.6	4.2 %
District heating NO/Kristiansand		334,320.0	kWh	334.3	0.3	0.1 %
District heating Norway mix		105,135.0	kWh	105.1	1.5	0.6 %
Electric vehicles total				76.2	2.4	0.9 %
Electric car Nordic		401,109.0	pkm	76.2	2.4	0.9 %
Scope 2 total				6,326.8	174.8	68.7 %
Business travel total				-	55.9	22.0 %
Mileage all. car (NO)		519,025.0	km	-	50.9	20.0 %
Domestic		36,500.0	pkm	-	4.7	1.9 %
Continental/Nordic	Norden	1,200.0	pkm	-	0.1	-
Continental/Nordic	Europa	2,800.0	pkm	-	0.2	0.1 %
Waste total				-	10.1	4.0 %
Residual waste, incinerated		19,228.0	kg	-	9.7	3.8 %
Paper waste, recycled		7,786.0	kg	-	0.2	0.1 %
Glass waste, recycled		502.0	kg	-	-	-
Plastic waste, recycled		1,388.0	kg	-	-	-
Organic waste, recycled		4,216.0	kg	-	0.1	-
EE waste, recycled		313.0	kg	-	-	-
Wood waste, recycled		2,264.0	kg	-	-	-
Metal waste, recycled		3,331.0	kg	-	0.1	-
Scope 3 total				-	66.0	25.9 %
Total				6,390.8	254.4	100.0 %
KJ				23,006,969,244.0		

Reporting Year Market-Based GHG Emissions

Category	Unit	2021
Electricity market-based	tCO ₂ e	1,279.3
Scope 2 market-based	tCO ₂ e	1,294.2
Total market-based	tCO ₂ e	1,373.8

Konsern:

In 2021, the total GHG emissions for Sparebanken Sør were calculated to 254.4 tons of CO₂-equivalents (tCO₂e). This is a reduction of 6.8%, compared to the previous reporting year, when it was reported a total of 273 tCO₂e (2020).

The allocation of this year's GHG emissions are as follows:

Scope 1: 13.4 tCO₂e (5.3%)

Scope 2: 174.8 tCO₂e (66.4%)

Scope 3: 37.9 tCO₂e (25.9%)

The report concludes that there have been emission reductions in all Scopes in 2021. In Scope 1 (-28.4%), which is the decrease of diesel use, and an increase of the use of electric cars. In scope 2 (-3.6%) there has been a change in the emission factor used for electricity, which is a part of the reason of reduction of emissions. In Scope 3 (-9.2% compared to 2020), the reduction of business travels can be explained by the travel restrictions set throughout the year, due to the pandemic Covid-19.

Sparebanken Sør included data from two companies they own; Sørmeglere and Sørlandets Forsikringssenter AS, which makes the data base bigger than previous years.

Scope 1:

Transportation: Consumption of fossil fuels in the company's vehicles is based on an estimate of the number of kilometers per year and average consumption of fuel on the basis of mileage over the car's life to date. Diesel and petrol consumption account for emissions corresponding to 13.4 tCO₂e. This is a 28.4% reduction from the previous reporting year. The use of electric cars has increased since 2020, and is therefore a part of the explanation why the use of diesel has reduced for Sparebanken Sør.

Scope 2:

Electricity: Measured consumption of electricity in self owned or rented premises/buildings. The main body of the table included in this report presents location-based electricity emissions using the emission factor Electricity Nordic Mix. The actual consumption of electricity has increased from 4173604 kWh in 2020, to 5158473 in 2021. Due to changes in the emission factor Nordic Mix, emissions from electricity use have been reduced by approximately 6.5%.

Emissions is based on the actual use of electricity.

District Heating: Use of District Heating in self owned or rented premises/buildings. Locations in Arendal, Kristiansand and the smaller offices located throughout Norway, were the ones reporting on their use of District Heating.

Total emissions from District Heating in Kristiansand amount to 0,3 tCO₂e, which is an 25.4% reduction from the previous reporting year.

The usage of District Heating in Arendal went up 27.4%, from 8.3 tCO₂e to 10.6 tCO₂ emissions, causing the total of District Heating emissions to rise from 8.8 tCO₂e to 10.9 tCO₂e in 2021.

The smaller offices can be found in i Bryne, Bygland, Byremo, Bø, Evje, Flekkefjord, Froland, Fyresdal, Hovden, Hægebostad, Kvinesdal, Kviteseid, Lillesand, Lindesnes, Sandefjord, Sogndal, Søgne, Treungen, Vanse, Vågsbygd, Øyslebø, Åmli and Åseral, as well as the offices of Sørmeqleren. Being the first year they include District Heating, the emissions naturally rose 100% from 2020. The emissions were reported 1.5 tCO₂e in 2021, using the emission factor District Heating Norway Mix.

Scope 3:

Air Travel: Measured in pkm per region. Emissions from air travel correspond to 5 tCO₂e. Emissions from air travel has been reduced significantly from the previous reporting year. The drastic decline is likely due to COVID-19 related travel restrictions, as Sparebanken Sør cut all continental and intercontinental flights by 100%, while domestic travels rose with 89.7%.

Mileage allowance: In 2021, mileage allowance was paid for 519 025 km which corresponds to an emission of 50.9 tCO₂e, which is a 8.3% decrease from 2020. This is due to 138 703 less km reported.

Waste: Reported waste fractions in kg with consideration of treatment method (recycled, energy recovered, landfill). In 2021 waste accounted for 10.1 tCO₂e.

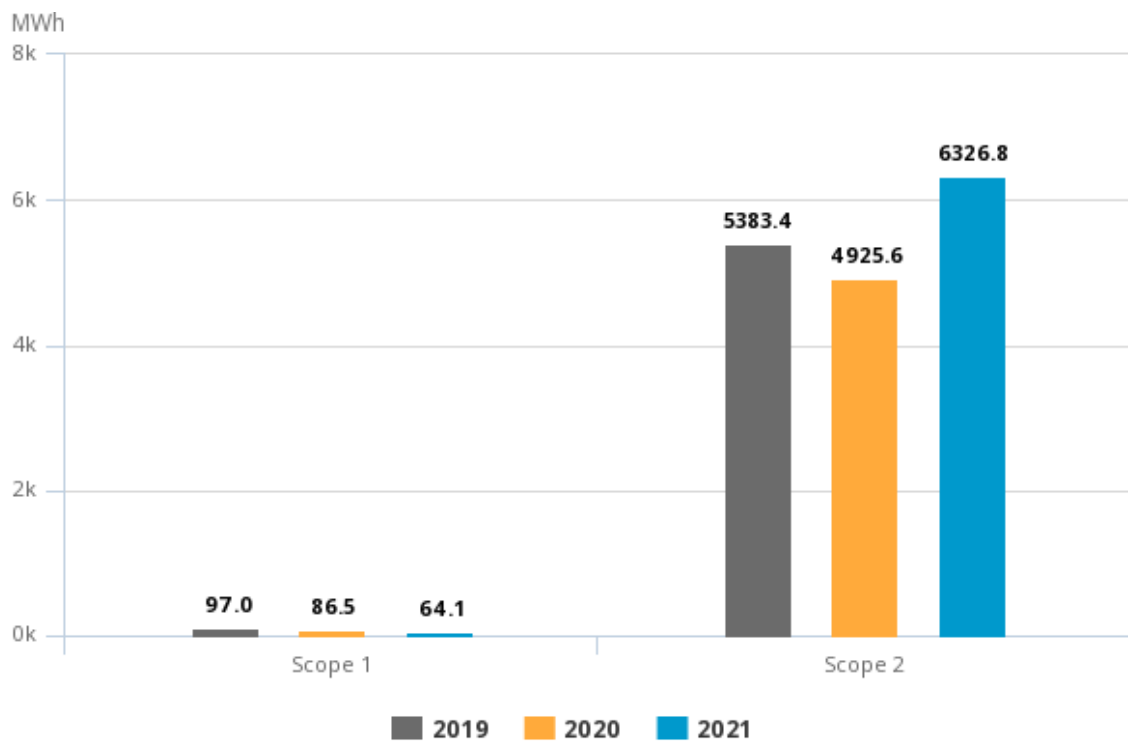
Waste fractions with emissions lower than 0,1 tCO₂e, such as waste related to glass, organic waste and paper, glass, plastic and EE waste are only marked with a line (-) in the presented tables.

Biogenic emissions are emissions related to biological decomposition of waste in landfills, wastewater treatment, or manure management processes, and are not included in this report as it is not relevant to Sparebanken Sør.

Annual GHG Emissions

Category	Description	2019	2020	2021	% change from previous year
Transportation total		22.8	19.0	13.6	-28.4 %
Petrol		4.9	5.8	4.4	-23.7 %
Diesel (NO)		17.9	13.2	9.2	-30.5 %
Scope 1 total		22.8	19.0	13.6	-28.4 %
Electricity total		169.7	171.1	159.9	-6.5 %
Electricity Nordic mix		169.7	171.1	159.9	-6.5 %
District heating location total		24.8	8.8	12.5	42.5 %
District heating NO/Arendal		22.0	8.3	10.6	27.4 %
District heating NO/Kristiansand		2.7	0.4	0.3	-25.4 %
District heating Norway mix		-	-	1.5	100.0 %
Electric vehicles total		1.0	1.4	2.4	71.9 %
Electric car Nordic		1.0	1.4	2.4	71.9 %
Scope 2 total		195.5	181.3	174.8	-3.6 %
Business travel total		185.1	60.9	55.9	-8.2 %
Nordic		-	-	-	-
Continental/Nordic		38.0	-	-	-
Continental/Nordic	Norden	-	0.3	0.1	-72.1 %
Continental/Nordic	Europa	-	0.9	0.2	-73.7 %
Domestic		17.1	2.5	4.7	89.7 %
Mileage all. car (NO)		81.5	55.5	50.9	-8.3 %
Intercontinental		48.5	1.7	-	-100.0 %
Waste total		14.1	11.8	10.1	-14.8 %
Residual waste, incinerated		13.9	11.5	9.7	-16.0 %
Paper waste, recycled		0.2	0.2	0.2	9.2 %
Glass waste, recycled		-	-	-	85.2 %
Plastic waste, recycled		-	-	-	60.1 %
Organic waste, recycled		-	0.1	0.1	17.4 %
EE waste, recycled		-	-	-	-60.4 %
Metal waste, recycled		-	0.1	0.1	24.3 %
Wood waste, recycled		-	-	-	100.0 %
Scope 3 total		199.2	72.7	66.0	-9.2 %
Total		417.5	273.0	254.4	-6.8 %
Percentage change		100.0 %	-34.6 %	-6.8 %	

Annual energy consumption (MWh) Scope 1 & 2



Annual Market-Based GHG Emissions

Category	Unit	2019	2020	2021
Electricity market-based	tCO ₂ e	-	1,097.7	1,279.3
Scope 2 market-based	tCO ₂ e	25.8	1,107.8	1,294.2
Total market-based	tCO ₂ e	247.8	1,199.5	1,373.8
Percentage change		100.0 %	384.1 %	14.5 %

Annual Key Energy and Climate Performance Indicators

Name	Unit	2019	2020	2021	% change from previous year
Scope 1 + 2 emissions (tCO ₂ e)		218.3	200.3	188.4	-5.9 %
Total emissions (s1+s2+s3) (tCO ₂ e)		417.5	273.0	254.4	-6.8 %
Total energy scope 1 + 2 (MWh)		5,480.3	5,012.1	6,390.8	27.5 %
Sum energy per location (MWh)		5,383.4	4,925.6	6,326.8	28.4 %
Sum square meters (m ²)		20,334.0	23,006.0	26,769.0	16.4 %
Sum locations kWh/m ²		264.7	214.1	236.3	10.4 %
tCO ₂ e/FTE		0.5	0.4	0.3	-27.8 %
Total tCO ₂ e/FTE		0.9	0.6	0.4	-28.5 %
MWh/FTE		12.3	10.9	10.7	-2.2 %
FTE		446.0	458.0	597.0	30.3 %

Methodology and sources

The Greenhouse Gas Protocol initiative (GHG Protocol) was developed by the World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). This analysis is done according to *A Corporate Accounting and Reporting Standard Revised edition*, currently one of four GHG Protocol accounting standards on calculating and reporting GHG emissions. The reporting considers the following greenhouse gases, all converted into CO₂-equivalents: CO₂, CH₄ (methane), N₂O (laughing gas), SF₆, HFCs, PFCs and NF₃.

For corporate reporting, two distinct approaches can be used to consolidate GHG emissions: the equity share approach and the control approach. The most common consolidation approach is the control approach, which can be defined in either financial or operational terms.

The carbon inventory is divided into three main scopes of direct and indirect emissions.

Scope 1 includes all direct emission sources. This includes all use of fossil fuels for stationary combustion or transportation, in owned and, depending on the consolidation approach selected, leased, or rented assets. It also includes any process emissions, from e.g. chemical processes, industrial gases, direct methane emissions etc.

Scope 2 includes indirect emissions related to purchased energy; electricity and heating/cooling where the organisation has operational control. The electricity emission factors used in Cemasys are based on national gross electricity production mixes from the International Energy Agency's statistics (IEA Stat). Emission factors per fuel type are based on assumptions in the IEA methodological framework. Factors for district heating/cooling are either based on actual (local) production mixes, or average IEA statistics.

In January 2015, the GHG Protocol published new guidelines for calculating emissions from electricity consumption. Primarily two methods are used to "allocate" the GHG emissions created by electricity generation to the end consumers of a given grid. These are the location-based and the market-based methods. The location-based method reflects the average emission intensity of the grids on which energy consumption occurs, while the market-based method reflects emissions from electricity that companies have purposefully chosen (or not chosen).

Organisations who report on their GHG emissions will now have to disclose both the location-based emissions from the production of electricity, and the market-based emissions related to the potential purchase of Guarantees of Origin (GoOs) and Renewable Energy Certificates (RECs).

The purpose of this amendment in the reporting methodology is on the one hand to show the impact of energy efficiency measures, and on the other hand to display how the acquisition of GoOs or RECs affect the GHG emissions. Using both methods in the emission reporting highlights the effect of all measures regarding electricity consumption.

The location-based method: The location-based method is based on statistical emissions information and electricity output aggregated and averaged within a defined geographic boundary and during a defined time period. Within this boundary, the different energy producers utilize a mix of energy resources, where the use of fossil fuels (coal, oil, and gas) result in direct GHG-emissions. These emissions are reflected in the location-based emission factor.

The market-based method: The choice of emission factors when using this method is determined by whether the business acquires GoOs/RECs or not. When selling GoOs or RECs, the supplier certifies that the electricity is produced exclusively by renewable sources, which has an emission factor of 0 grams CO₂e per kWh. However, for electricity without the GoO or REC, the emission factor is based on the remaining electricity production after all GoOs and RECs for renewable energy are sold. This is called a residual mix, which is normally substantially higher than the location-based factor. As an example, the market-based Norwegian residual mix factor is approximately 7 times higher than the location-based Nordic mix factor. The reason for this high factor is due to Norway's large export of GoOs/RECs to foreign consumers. In a

market perspective, this implies that Norwegian hydropower is largely substituted with an electricity mix including fossil fuels.

Scope 3 includes indirect emissions resulting from value chain activities. The scope 3 emissions are a result of the company's upstream and downstream activities, which are not controlled by the company, i.e. they are indirect. Examples are business travel, goods transportation, waste handling, consumption of products etc.

In general, the carbon accounting should include information that users, both internal and external to the company, need for their decision making. An important aspect of relevance is the selection of an appropriate inventory boundary which reflects the substance and economic reality of the company's business relationships.