



Carbon accounting report 2019

SpareBank 1 SMN Klimaregnskap / Miljøfyrtårn

The aim of this report is to get an overview of the organisation's greenhouse gas (GHG) emissions, which is an integrated part of the company's climate strategy. The carbon accounting is a fundamental tool in order to identify concrete measures to reduce the energy consumption and corresponding GHG emissions. The annual report enables the organisation to benchmark performance indicators and evaluate progress over time.

This report comprises all the data relating to greenhouse gas emissions from SpareBank1 SMN's offices in 2019.

The input data is based on information from both internal and external data sources and then converted into tonnes CO₂-eq. The analysis is based on the international standard; A Corporate Accounting and Reporting Standard, developed by the Greenhouse Gas Protocol Initiative (GHG protocol). This is the most important standard for measuring greenhouse gas emissions and was the basis for the ISO standard 14064-1.

Energy and GHG emissions

| Category | Description | Consumption | Unit | Energy (MWh eqv) | Emissions (tCO ₂ e) | Emissions (distribution) |
|---------------------------------|----------------|-------------|--------|---------------------|-----------------------------------|-----------------------------|
| <i>Transportation</i> | | | | 57.9 | 13.6 | 2.3% |
| Petrol | | 553.0 | liters | 5.3 | 1.3 | 0.2% |
| Diesel (NO) | | 5 135.0 | liters | 52.6 | 12.3 | 2.1% |
| Scope 1 total | | | | 57.9 | 13.6 | 2.3% |
| <i>Electricity*</i> | | | | 4 688.5 | 182.9 | 31.7% |
| Electricity Nordic mix | | 4 688 487.0 | kWh | 4 688.5 | 182.9 | 31.7% |
| <i>DH Nordic locations</i> | | | | 1 015.1 | 44.1 | 7.6% |
| District heating NO/Trondheim | | 1 015 100.0 | kWh | 1 015.1 | 44.1 | 7.6% |
| Scope 2 total | | | | 5 703.6 | 226.9 | 39.3% |
| <i>Air travel</i> | | | | - | 191.4 | 33.1% |
| Continental/Nordic | | 95 398.0 | pkm | - | 8.0 | 1.4% |
| Intercontinental | | 493 612.0 | pkm | - | 51.0 | 8.8% |
| Domestic | | 981 810.0 | pkm | - | 132.3 | 22.9% |
| <i>Business travel</i> | | | | - | 124.3 | 21.5% |
| Mileage all. car (NO) | | 888 105.0 | km | - | 124.3 | 21.5% |
| <i>Waste</i> | | | | - | 6.7 | 1.2% |
| Waste mix,incinerated | | 12 896.0 | kg | - | 6.5 | 1.1% |
| Paper waste,recycled | | 1 265.0 | kg | - | - | - |
| Paper waste,recycled | Til makulering | 8 535.0 | kg | - | 0.2 | - |
| Metal waste,recycled | | 33.0 | kg | - | - | - |
| Plastic waste,recycled | | 444.0 | kg | - | - | - |
| WEEE,recycled | | 111.0 | kg | - | - | - |
| Cardboard, recycled | | 424.0 | kg | - | - | - |
| <i>Paper</i> | | | | - | 14.7 | 2.5% |
| Paper,office | | 12 863.8 | kg | - | 14.7 | 2.5% |
| Scope 3 total | | | | - | 337.1 | 58.4% |
| <i>Total</i> | | | | 5 761.5 | 577.5 | 100.0% |
| <i>Electricity market-based</i> | | | | | 956.5 | |
| <i>Scope 2 market-based</i> | | | | | 1000.5 | |
| <i>Total market-based</i> | | | | | 1351.1 | |

Carbon accounting report 2019

In 2019 SpareBank 1 SMN had a total greenhouse gas emission of 578 tonnes of CO₂ equivalents (tCO₂e). This is a 10.3% reduction compared to 2018, corresponding to 66 tCO₂e.

It is important to note changes in this year's climate accounts compared to the previous year. As of previous years, only data for the offices that are Environmental Lighthouse-certified have been reported, but as of this year, data for all SMN's offices are reported. Furthermore, it must be mentioned that several of the offices do not have their own electricity meter. This applies to the offices of Bruhagen, Fræna, Heimdal, Kolvereid, Lerkendal, Malvik, Overhalla, Støren, Sunndalsøra, Verdal and Surnadal. This has led to uncertainty in the energy figures for previous years for these locations. It has therefore been decided that for the year 2019 no energy data is reported for the aforementioned locations as efforts are being made to ensure better data quality for these by the 2020 reporting, although this implies that the climate accounts are not complete.

The greenhouse gas emissions in 2019 had the following distribution:

Scope 1: 2.3% (13.6 tCO₂e)

Scope 2: 39.3% (226.9 tCO₂e)

Scope 3: 58.4% (337.1 tCO₂e)

KPI

Energy consumption per square meter was reduced by 16% from 2018 to 2019.

Emissions per FTEs were reduced by more than 85% from 2018 to 2019. This is because the number of FTEs has increased from 128 to 658 in the same period. The number of FTEs reported in 2019 includes temporary workers, resulting in lower emissions per FTEs in 2019 compared 2018, as the emissions are divided among more employees.

Scope 1:

Fuel consumption: In 2019, SpareBank 1 SMN's cars had a total fuel consumption of 5.688 liters. 553 liters of this is gasoline, while diesel makes up 5.135 liters. The total emissions related to fuel equals 13.6 tCO₂e. 2019 is the first time the bank reports on fuel.

Scope 2:

Electricity: Measured consumption of electricity in owned or rented premises. The table shows greenhouse gas emissions from electricity calculated with the location-based Nordic mix. Emissions from electricity consumption were reduced by 36.4% from 2018 to 2019.

One of the reasons for this change is that for 2019 no energy figures have been reported for offices without their own electricity meter. A further explanation of this is given in the introduction of the Climate Accounting Report 2019

Another reason for the change in emissions from electricity consumption is because the emission factor Nordic mix was reduced by 13% from 2018. This means that in 2019 electricity was produced from sources with lower greenhouse gas emissions compared to the previous year.

Greenhouse gas emissions calculated by market-based factor is presented at the bottom of the table above. As SpareBank 1 SMN did not purchase Guarantees of Origin (RECs) for its electricity consumption in 2019, the emission factor Nordic residual mix is used in the calculation. The practice of presenting the emissions from electricity consumption with two different emission factors is further explained under Scope 2 in Method and Sources.

District heating: Use of district heating in owned / rented buildings. The total greenhouse gas emissions from district heating in 2019 were 44.1 tCO₂e. This is the first year the bank reports on district heating.

Scope 3:

Flights: Measured in traveled passenger kilometers (pkm) per office in 2019, as opposed to 2018 when all flights were allocated to the head office. In 2019, flights had a greenhouse gas emission of 191.4 tCO₂e and accounted for 33.1% of the total greenhouse gas emissions for the bank. Compared to 2018, emissions from flights have been reduced by almost 5%. This reduction is mainly due to the fact that the emissions factors for flights being reduced from 2018 to 2019.

Mileage was granted to the bank's employees for 888 105 km in 2019. This corresponds to a greenhouse gas emission of 124.3 tCO₂e, and is a 7.6% reduction from 2018.

Waste: Reported waste in kilograms divided into different waste fractions, as well as treatment method for the head office (recycled, energy recovered, landfill). Greenhouse gas emissions from waste at the head office were 6.7 tCO₂ in 2019. For the first time this year, the bank has also reported on the amount of shredded paper at their offices. The amount of shredded paper in 2019 was 8,535 kg, equivalent to emissions of 0.2 tCO₂e

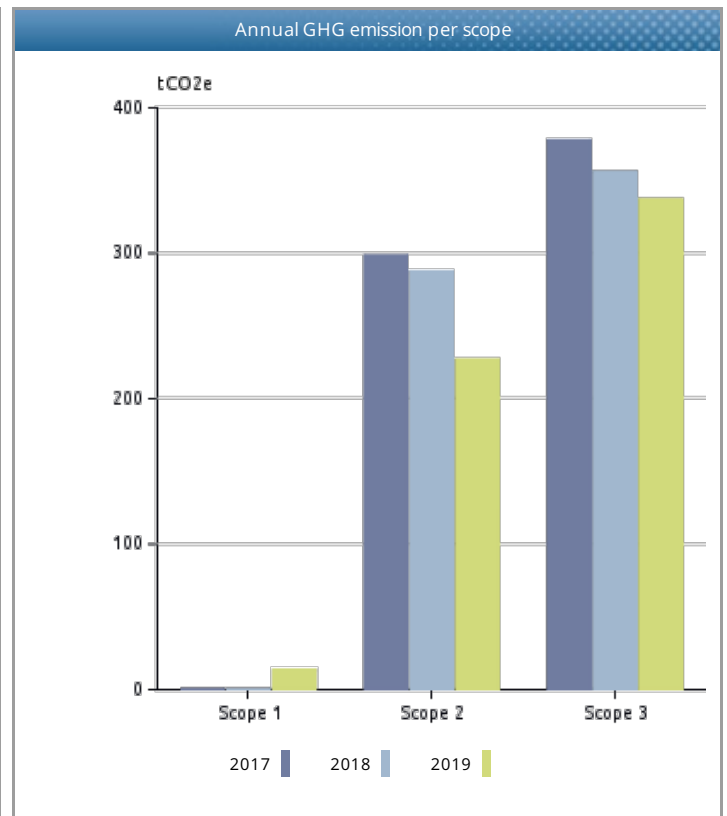
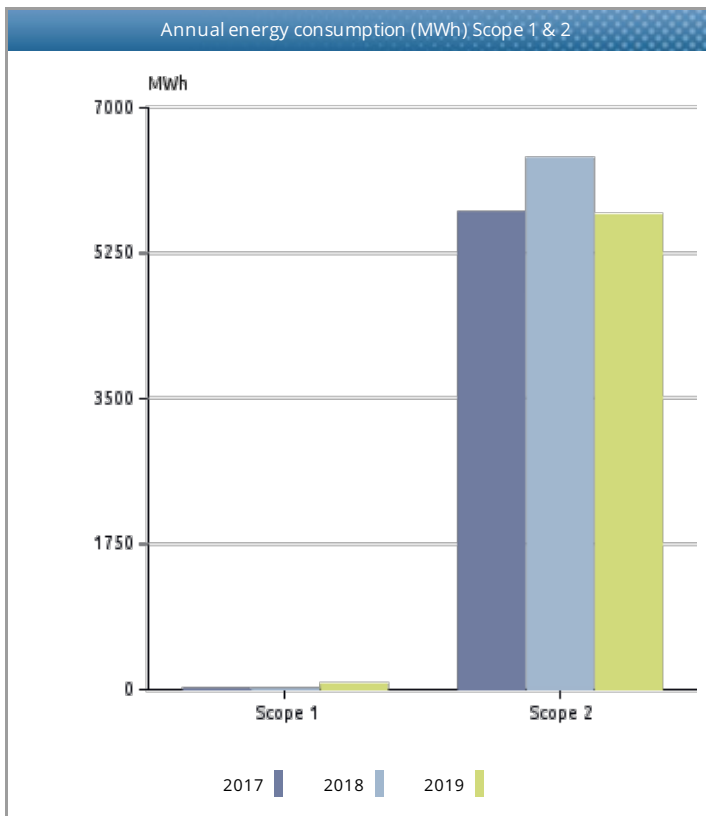
Paper: In 2019, the bank purchased 12 863.8 kg paper. This had a greenhouse gas emission of 14.7 tCO₂e, an increase of 8.3% compared 2018.

Yearly report – GHG emissions (tCO₂e)

| Category | Description | 2017 | 2018 | 2019 | % change from previous year |
|-------------------------------|----------------|--------------|--------------|---------------|-----------------------------|
| <i>Transportation</i> | | | | | - |
| Diesel (NO) | | | | 12.3 | 100.0% |
| Petrol | | | | 1.3 | 100.0% |
| Scope 1 Emissions | | | | 13.6 | 100.0% |
| <i>DH Nordic locations</i> | | | | | - |
| District heating NO/Trondheim | | - | | 44.1 | 100.0% |
| <i>Electricity*</i> | | | | | - |
| Electricity Nordic mix | | 298.4 | 287.5 | 182.9 | -36.4% |
| Scope 2 Emissions | | 298.4 | 287.5 | 226.9 | -21.1% |
| <i>Waste</i> | | | | | - |
| Cardboard, recycled | | | - | - | - |
| Metal waste,recycled | | | - | - | - |
| Paper waste,recycled | | | 0.2 | - | -87.9% |
| Paper waste,recycled | Til makulering | | | 0.2 | 100.0% |
| Plastic waste,recycled | | | - | - | - |
| Waste mix, recycled | | 0.3 | - | - | - |
| Waste mix,incinerated | | 10.0 | 6.9 | 6.5 | -5.7% |
| WEEE,recycled | | | - | - | - |
| Wood waste,recycled | | | - | - | - |
| <i>Air travel</i> | | | | | - |
| Continental/Nordic | | 7.9 | 27.8 | 8.0 | -71.3% |
| Domestic | | 190.0 | 160.8 | 132.3 | -17.7% |
| Intercontinental | | 11.5 | 12.2 | 51.0 | 318.1% |
| Nordic | | 6.6 | | | - |
| <i>Business travel</i> | | | | | - |
| Mileage all. car (NO) | | 135.2 | 134.6 | 124.3 | -7.6% |
| <i>Paper</i> | | | | | - |
| Paper,office | | 16.1 | 13.5 | 14.7 | 8.3% |
| Scope 3 Emissions | | 377.6 | 356.1 | 337.1 | -5.3% |
| Total | | 676.0 | 643.5 | 577.5 | -10.3% |
| Percentage change | | | -4.8% | -10.3% | |

Key energy and climate performance indicators

| Name | Unit | 2017 | 2018 | 2019 | % change from previous year |
|--|-------------|---------|---------|---------|-----------------------------|
| Sum locations kWh/m2 | | - | 188.7 | 158.6 | -16.0% |
| Total energy scope 1 +2 (MWh) | | 5 738.3 | 6 388.0 | 5 761.5 | -9.8% |
| Total emissions (s1+s2+s3) (tCO2e) | | 676.0 | 643.5 | 577.5 | -10.3% |
| Klimagassutslipp (s.1+2+3) per ansatt (tCO2 p) | ant årsverk | 5.3 | 6.1 | 0.9 | -85.5% |
| FTE | | 128.0 | 106.1 | 658.0 | 519.9% |



Market-based GHG emissions summary

| <i>Category</i> | <i>Unit</i> | <i>2017</i> | <i>2018</i> | <i>2019</i> |
|---------------------------------|--------------|---------------|---------------|----------------|
| <i>Electricity market-based</i> | <i>tCO2e</i> | <i>1578</i> | <i>1846.1</i> | <i>956.5</i> |
| <i>Scope 2 market-based</i> | <i>tCO2e</i> | <i>1578</i> | <i>1846.1</i> | <i>1000.5</i> |
| <i>Total market-based</i> | <i>tCO2e</i> | <i>1955.6</i> | <i>2202.2</i> | <i>1351.1</i> |
| <i>Percentage change</i> | | | <i>12.6 %</i> | <i>-38.6 %</i> |

Methodology and sources

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

This analysis is based on the operational control aspect that defines what should be included in the carbon inventory, as well as in the different scopes. When using the control approach to consolidate GHG emissions, companies shall choose between either the operational control or financial control criteria. Under the control approach, a company accounts for the GHG emissions from operations over which it has control. It does not account for GHG emissions from operations in which it owns an interest but has no control.

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

Scope 1 Mandatory reporting includes all direct emission sources where the organisation has operational control. This includes all use of fossil fuels for stationary combustion or transportation, in owned, leased or rented assets. It also includes any process emissions, from e.g. chemical processes, industrial gases, direct methane emissions etc.

Scope 2 Mandatory reporting includes indirect emissions related to purchased energy; electricity or heating/cooling where the organisation has operational control. The electricity emissions factors used in CEMAsys is based on national gross electricity production mixes on a 3 years rolling average (IEA Stat). The Nordic electricity mix covers the weighted production in Sweden, Norway, Finland and Denmark, which reflects the common Nord Pool market area. Emission factors per fuel type are based on assumption in the IEA methodological framework. Factors for district heating/cooling are either based on actual (local) production mixes, or average IEA stat.

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* method. The location-based method reflects the average emissions intensity of grids on which energy consumption occurs, while the market-based method reflects emissions from electricity that companies have purposefully chosen (or their lack of choice).

Businesses who report on their GHG emissions will now have to disclose both location-based emissions from the production of electricity and the market-based emissions related to the potential purchase of Guaranties of Origin (GoO).

The purpose of this amendment in the reporting method is on one hand to show the impact of energy efficiency and saving measures, and on the other hand to display how the acquisition of GoOs 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 factor using this method is determined by whether the business acquires GoOs or not. When selling GoOs, the supplier certify that the electricity is produced by only renewable sources, which has an emission factor of 0 grams of CO₂e per kWh. However, for electricity without the guarantee of origin, the emission factor is based on the remaining electricity production after all GoOs 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 to foreign consumers. In a market perspective, this implies that Norwegian hydropower is largely substituted with an electricity mix including fossil fuels.

Scope 3 Voluntary reporting of indirect emissions from purchased products or services in the value chain. The scope 3 emissions are a result of the company's different activities, which are not controlled by the company, i.e. they're indirect. Examples are business travel, goods transportation, waste handling, consumption of products etc. In general, the GHG report

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 that reflects the substance and economic reality of the company's business relationships.

References:

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This list of references may not be complete. Depending on the use of the CEMAsys emission factors database, there are a number of different local and national sources. If necessary, please contact CEMAsys Help Desk for further details.