Multidata - Bluegarden

This report is an independent review of the company's Carbon Footprint Analysis based on the total energy consumption related to corporate operations. The carbon footprint gives a general overview of the company's greenhouse gas emissions, converted into CO_2 - equivalents and it is based on reported data from internal and external systems.

The analysis facilitates the identification of possible measures to reduce the energy consumption and thus also the overall carbon footprint. The purposes of the carbon indicators are to measure the carbon intensity per employee and per value creation in addition to showing environmental transparency towards external stakeholders.

The analysis is based on the international standard **Greenhouse Gas Protocol Initiative (GHG protocol)**, which is the most important standard for measuring greenhouse gas emissions, developed by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD). The GHG protocol consists of two accounting standards explaining how to calculate and report GHG emissions and was the basis for the ISO standard 14064-I. The GHG protocol founds its carbon inventory and reporting on three main scopes of direct and indirect emissions. The reporting considers the following greenhouse gases, all converted into CO_2 equivalents: CO_2, CH_4 (methane), N_2O (laughing gas), SF_6, HFCs and PFCs.

The company's total amount for 2010 are **1 017,1** tonnes CO_2 .

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for CO2focus AS

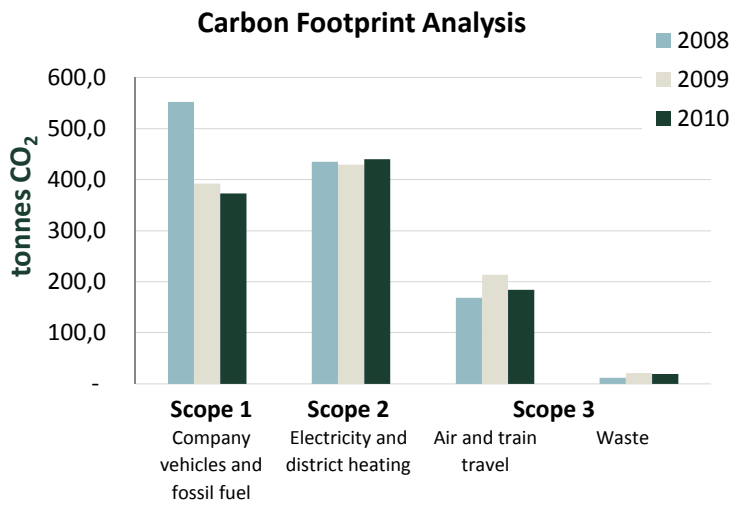
Key figures emissions

Category	Consumption		Energy eq. (MWh)[1]		Emissions (tonnes CO_2)		Percentage
Petrol	44 468	l	404,7		103,0		10 %
E85	-	l	-		-		0 %
Diesel	67 476	l	620,8		170,7		17 %
Bio diesel 30 %	-	l	-		-		0 %
Autogas vehicles	1 556	l	8,6		0,3		0 %
Hybrid (petrol)	3 338	l	30,4		7,7		1 %
Fuel oil / kerosene	-	l	-		-		0 %
Propane / LPG	-	l	-		-		0 %
Natural gas	48 663	m3	486,6		91,4		9 %
Sum scope 1			**1 551,0**	**MWh**	**373,1**	**tonnes CO_2**	37 %
Electricity	2 249 806	kWh	2 249,8		393,0		39 %
District heating	358 674	kWh	358,7		47,3		5 %
Sum scope 2			**2 608,5**	**MWh**	**440,4**	**tonnes CO_2**	43 %
Air travel	1 082 824	km			184,5		18 %
Train	-	km	-		-		0 %
Transportation of goods	-	tonne km	0,0		-		0 %
General waste	71 030	kg			19,2		2 %
Paper	22 084	kg			-		0 %
Glass	-	kg			-		0 %
Metal	-	kg			-		0 %
Plastic	-	kg			-		0 %
Organic waste	630	kg			-		0 %
Sum scope 3			**0,0**		**203,7**	**tonnes CO_2**	20 %
Total corporate CO_2 emissions			**4 159,5**	**MWh**	**1 017,1**	**tonnes CO_2**	100 %

1) Energy equivalent is calculated for the corporate main operations (scope 1 and 2) to show the yearly energy intensity related to the corporate daily activities.

Energy and carbon indicators

	2008	2009	2010	09/10
Total corporate CO_2 emissions:	***1 116,9***	***1 057,0***	***1 017,1***	***-3,8 %***
Total energy consumption scope 1 and 2 (MWh):	***4 557,2***	***4 232,0***	***4 159,5***	***-1,7 %***
Energy consumption per square metre (kWh / m^2)	***215,3***	***190,0***	***183,7***	***-3,3 %***
CO_2 emissions per employee (tonnes CO_2 / employee)	***1,7***	***1,6***	***1,6***	***-1,8 %***
CO_2 emissions per turnover (tonnes CO_2 / million NOK)	***1,3***	***1,2***	***1,1***	***-5,0 %***



Reporting according to the Greenhouse Gas Protocol

Scope 1: Direct emissions
Comprises all direct emissions from company controlled sources, such as company vehicles, own power and heat generation, transportation of employees etc.

Scope 2: Indirect emissions
This level concerns all emissions from purchased energy, mainly electricity or district heating.

Scope 3: Indirect emissions
Comprises other indirect emissions from company activities originating from sources not controlled by the company, such as, emissions from sub-suppliers, service and waste management.

Key figures emissions

Category	*2008*	*2009*	*Notes*	*2010*	*09/10*
Petrol	210,6	127,8	*1*	103,0	**-19 %**
E85	2,1	-	*1*	-	**-**
Diesel	133,1	131,4	*1*	170,7	**30 %**
Bio diesel 30 %	-	-		-	**-**
Autogas vehicles	-	0,2	*1*	0,3	**52 %**
Hybrid (petrol)	-	16,6	*1*	7,7	**-53 %**
Fuel oil / kerosene	-	-		-	**-**
Propane / LPG	-	-		-	**-**
Natural gas	206,8	116,6	*1*	91,4	**-22 %**
Sum scope 1	**552,6**	**392,6**		**373,1**	***-5 %***
Electricity	406,5	385,4	*2*	393,0	**2 %**
District heating	28,9	44,0	*3*	47,3	**8 %**
Sum scope 2	**435,4**	**429,4**		**440,4**	***3 %***
Air travel	156,9	214,0	*4*	184,5	**-14 %**
Train travel	-	-		-	**-**
Transportation of goods	-	-		-	**-**
General waste	11,7	21,0	*5*	19,2	**-9 %**
Paper	-	-	*5*	-	**n.a.**
Glass	-	-		-	**-**
Metal	-	-		-	**-**
Plastic	-	-		-	**-**
Organic waste	-	-		-	**n.a.**
Sum scope 3	**168,6**	**235,0**		**203,7**	***-13 %***
Total corporate CO_2 emissions	**1 156,6**	**1 057,0**		**1 017,1**	***-4 %***

Notes

1. Reported annual quantities of; fuel usage in liters and m3, and car allowance.
2. Reported annual amount of electricity usage. To calculate emission from the electricity used in Norway and Sweden, we used the Nordic mix factor from 2004-2008 of 99 g CO2/kWh (Source: Nordel, ENTSOE-E). Emission from the electricity used in Denmark was calculated using the Energinet.dk emission factor Denmark in 2010 og 455 gCO2/kWh, giving consideration to a 5% transmission losses.
3. Reported amount of district heating in Norway. Emissions calculated based on the fuel mix used by supplier Hafslud in producing district heating in Oslo and its environs in 2010. The emission factor for 2010 was 132 gCO2/kWh, a slight increase from 114 gCO2/kWh in 2009.
4. Emission from flight is based on annual travel distance and amount of CO2 in tonnes reported by the travelling agencies.
5. Reported and estimated quantities of general waste and paper. Paper is almost completely recycled and in this way benefits the environment and hence do not contribute to greenhouse gas emission.

Reference

Scope 1 - Carbon indicator for fuel; Norwegian Climate and Pollution Agency and Energilink (Teknisk Ukeblad)
- Energy converting for fuel; Energilink and NVE, NP, BP and Statoil Forskningssenter (2001-2008).

Scope 2 - Carbon indicator for electricity is calculated from a Nordic production mix. Reference: IEA and ENTSOE-E.
- Carbon indicator for district heating is calculated out of an energy mix, reported from the distric heating supplier.

Scope 3 - Carbon indicator for flights is calculated based on information from Lavutslippsutvalget and DEFRA.
- Carbon indicator for transportation of goods; SINTEF, DEFRA, SSB, NSB, Swedish National Road and Transport Research Institute.
- Carbon indicator for the managment of general waste: Grønn Byggallianse and recycled waste (energy- or material recycle) from Avfall Norge. Either the process of waste is energy- or recycling of waste materials, it gives in this context, zero emission.