

CARBON FOOTPRINT ACCOUNTING REPORT



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ATEA ASA

REPORT: CARBON FOOTPRINT ACCOUNTING REPORT 2016

PROVIDED BY: CO2FOCUS AS

Project Brief

This project was commissioned to provide Atea Group an overview of the operations' CO₂ emissions.

The report contains the carbon footprint with carbon indicators for Atea's operations in 2016. The greenhouse gas emissions have been calculated according to the international standard, the Greenhouse Gas Protocol Initiative, including all consumption of fossil fuels for transportation and heating in premises, purchased electricity, air travel and waste. All greenhouse gas emissions are converted into CO₂ equivalents. The report supports the group's commitment to responsible operations locally and for the entire group.

Project details

Job Reference: Carbon Footprint Accounting Report 2016

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Carbon footprint accounting report

2016

Introduction

Environmental focus is an integrated part of Atea's business strategy towards customers and within their own organization. The aim of this report is to get an overview of Atea's greenhouse gas (GHG) emissions and to facilitate the identification of concrete measures in order to reduce energy consumption and GHG emissions contributed from own operational activities. The data collection involve the commitment from employees from various group levels. The annual carbon footprint accounting report enables the organization to benchmark performance indicators and evaluate progress over time.

The carbon footprint report for 2016 includes all of Atea's operations in Norway, Denmark, Sweden, Finland and the Baltics.

Method

The carbon accounting gives a general overview of the company's greenhouse gas emissions, converted into CO₂ – equivalents, based on reported data from internal and external systems. The analysis facilitates the identification of possible measures to reduce energy consumption as well as the overall carbon footprint. The carbon indicators facilitates monitoring of company activities in order to identify improvement areas and highlights areas of possible concern.

The carbon accounting has been measured using best practice standards and guidelines, such as the Greenhouse Gas Protocol. Established emissions factors derive from reliable references for each emissions source. Here, calculated national and regional emission factors for electricity derive from information provided by the International Energy Agency (IEA). Average emission factors for fossil fuels derive from The UK Department for Environment, Food and Rural Affairs (DEFRA).

The international standard the Greenhouse Gas Protocol Initiative (GHG-protocol) is an accounting tool to manage greenhouse gas emissions. Today, hundreds of companies and organizations around the world are using GHG Protocol standards and tools to manage their emissions. The standard was developed through a decade-long partnership between the World Resources Institute and the World Business Council for Sustainable Development. The Greenhouse Gas Protocol Initiative is working with businesses, governments, and environmental groups around the world and in 2006, the standard was used as the basis for the ISO standard 14064-1: Specification with Guidance at the Organization Level for Quantification and Reporting of Greenhouse Gas Emissions and Removals.

The methodology considers the six most important greenhouse gases: carbon dioxide (CO₂), nitrous oxide (N₂O), methane (CH₄), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF₆). These are converted into CO₂ equivalents based on their global warming potential.

The carbon accounting report should include valuable information for decision making for internal as well as external operations. 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. This report is based on the operational control approach that defines what should be included in the carbon inventory, as well as how the emissions are categorized as direct and indirect emissions.

Significant changes

In accordance to the methodological change since 2015, for the carbon footprint accounting report 2016, mileage allowance and fuel consumption from cars not owned by the company related to business travels are reported under Scope 3 instead of Scope 1.

The carbon emission factor for Nordic electricity in 2016 has decreased by 13% compared with last year. The emission factor for intercontinental and domestic air travel has decreased by around 3% and 7% per passenger kilometer, respectively.

Atea's operational control divide the carbon accounting in three scopes of direct and indirect emissions in accordance with the GHG Protocol:

Scope 1: Direct emissions (mandatory reporting)

This scope comprises all direct emissions from company controlled sources, such as internal transport with company vehicles, own energy generation etc. For Atea Group, scope 1 includes the following:

Fuel consumption: Petrol and diesel from reported company cars.

Natural gas: Stationary combustion in the Baltic's premises.

Scope 2: Indirect emissions (mandatory reporting)

This scope concerns all emissions from purchased energy, mainly electricity and district heating.

The location based electricity emissions factors are based on national gross electricity production mixes on a three-year rolling average (international Energy Agency, IEA). 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 source used in the production of electricity derives from assumption in the IEA methodological framework. Factors for district heating/cooling derive from actual (local) production mixes or average IEA statistics.

For the market based method, electricity emission factors are based on the purchase of renewable energy certificates (REC) in addition to the emission factor for residual electricity. The share of electricity with REC's receive a zero emissions factor and the residual electricity derive from figures reported by Reliable Disclosure Systems for Europe (RE-DISS). The Nordic residual electricity mix covers the weighted yearly numbers reported by RE-DISS for Sweden, Norway, Finland and Denmark.

Atea Sweden is the only unit purchasing renewable energy certificates for part of their operations.

Electricity: Actual electricity consumption includes all of Atea's premises and electricity consumed at datacenters. Number of purchased renewable energy certificates (REC).

District heating: Actual and estimated energy (kWh) consumption in Atea's premises and data centers.

Scope 3: Indirect emissions (voluntary reporting)

While Scope 1 and 2 are mandatory according to the GHG protocol, emissions under Scope 3 are reported on a voluntary basis. Scope 3 comprises other indirect emissions from company activities originating from sources not controlled by the company, such as employee travels, emissions from sub-suppliers, and consumption of products or services and waste management. The Atea Group report includes air travel, train travel, mileage allowance, waste management and freight transport ordered by Atea Logistics.

Air travel: Air travel is reported as actual distance travel. For those companies reporting the number of flights to a predefined region; the number of flights are converted to passenger kilometers. The 9 % up-lift factor is added to the distances to take into account non-direct routes.

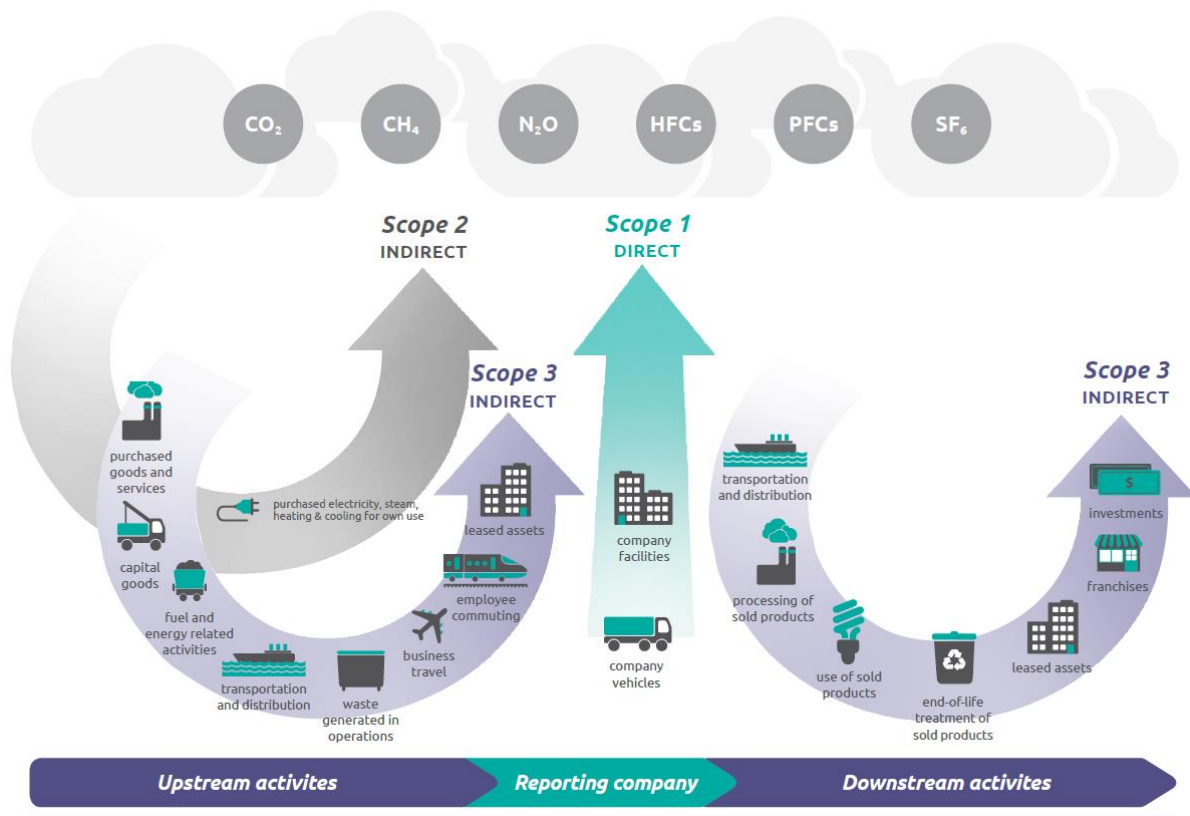
Train travel: The same as in case of air travel, train travel is reported as actual travelled distance in passenger kilometer unit, which afterwards is recalculated to CO₂ emission.

Mileage allowance and fuel consumption: Kms driven and fuel consumption from cars not owned by the company related to business travels.

Freight transport: Includes freight transport of commercial products. The distribution center in Sweden provides products to the end customer and to Atea's operations in Norway, Denmark, Sweden, Finland and the Baltics. Reported tonne-km (tkm), means of transport, freight weight and CO₂-emissions have been reported from the logistics companies.

Waste: The waste figures are based on actual and estimated amount of waste. The emission factors comprise the total climate impact of waste treatment without including avoided emissions in other systems (next cycle). Here, the energy recovery from incineration of waste included in the production of district heating is not deducted from the emission factor of waste for incineration. Recycled waste fractions includes only a small transport component (collection of waste) while the material recycling and replacement of virgin materials takes place outside the system (by the actor who buy the recycled material).

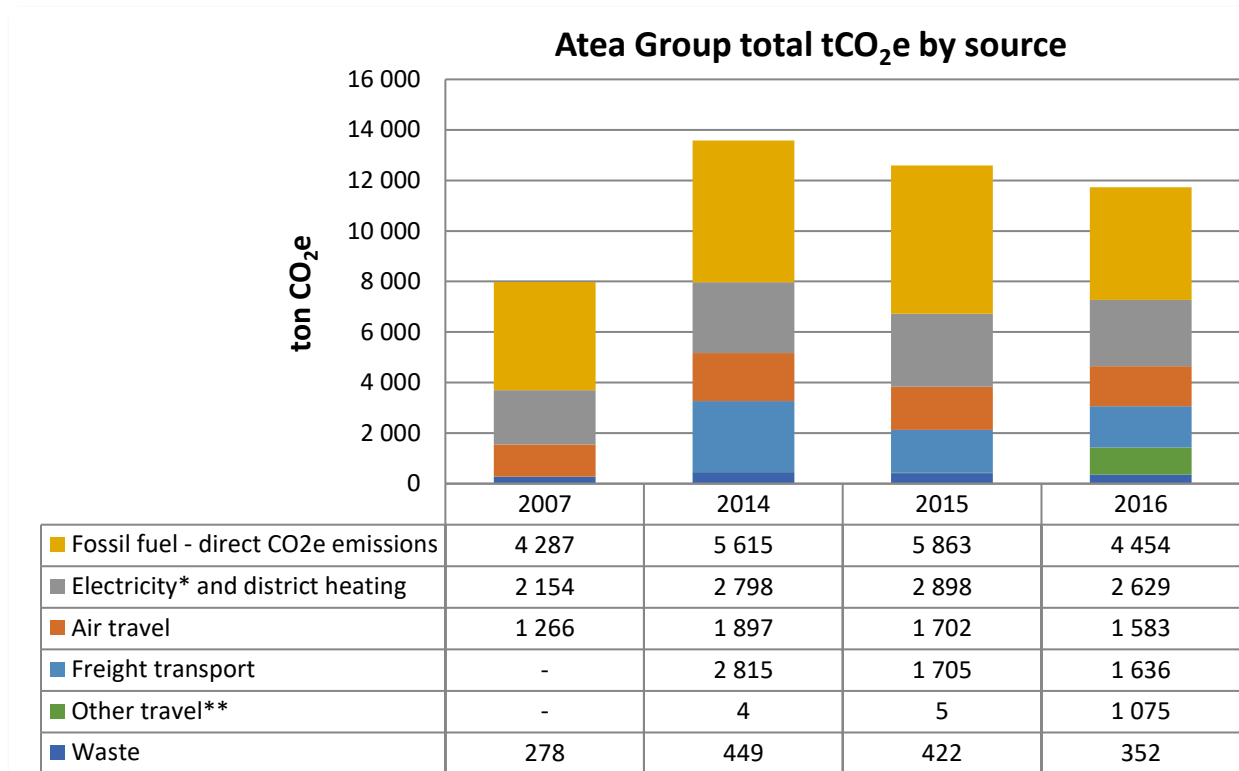
FIGURE 1 REPORTING BOUNDARIES OF THE GREENHOUSE GAS PROTOCOL



Source WBCSD/WRI (2011). Corporate value chain (Scope 3)

Results Atea Group

FIGURE 2 ATEA GROUP TOTAL ANNUAL CO₂ EMISSIONS BY SOURCE



*tCO₂e emission with location based electricity emission factor

**other travel includes travel with train, petrol and diesel consumption from cars not owned by the company

TABLE 1 CARBON INDICATORS ATEA GROUP

Atea Group total tCO ₂ e emissions	2007	2015	2016	07/16	15/16
Total corporate tCO ₂ e with location based electricity emission factor	7 986	12 594	11 728	47 %	-7 %
Total corporate tCO ₂ e with market based electricity emission factor		21 770	15 825	NA	-27 %
Atea Group key performance indicators					
tCO ₂ e emissions per full time employee*	2,00	1,98	1,83	-8 %	-8 %
tCO ₂ e emissions per revenue in MNOK*	0,48	0,37	0,33	-32 %	-12 %
MWh electricity with REC		4030	12 196	100 %	203 %

*tCO₂e emission with location based electricity emission factor

Atea evaluates its climate efforts by comparing the current carbon emissions per employee and revenue with 2007 levels. Both indicators has decreased since reference year. CO₂ emission per revenue and FTE was reduced by 32% and 8%, respectively.

Looking on performance within last two years, there was noticed a 7% decrease in absolute CO₂ emission level since 2015. This was caused by reduction of burning oil and natural gas consumption, lower number of flight trips as well as around 13% decrease in Nordic mix electricity emission factor.

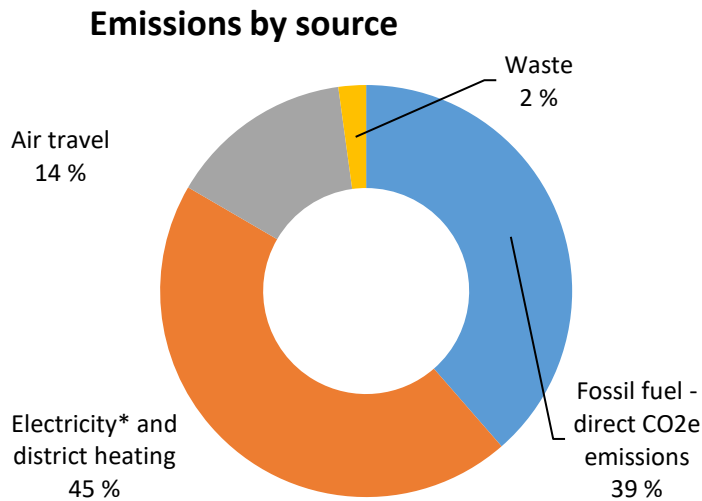
Decrease in market-based emission was caused by both purchase of renewable electricity certificates (REC) by ATEA Sweden and Norway and changes in residual electricity emission factors.

TABLE 2 CARBON FOOTPRINT WITH INDICATORS PER EMPLOYEE AND PER REVENUE (LOCATION BASED EMISSION FACTOR FOR ELECTRICITY)

Division	Emission source	Volume	Energy (MWh)		tCO ₂ -e	Share of total tCO ₂	tCO ₂ e/ employee 2016	tCO ₂ e/ revenue MNOK 2016
	Petrol	liters	110 148	1 054	254	2,2 %		
	Diesel	liters	204 562	2 068	520	4,4 %		
	Electricity	kWh	15 886 751	15 887	890	7,6 %		
	District heating	kWh	709 118	709	9	0,1 %		
	Air travel	pkm	2 395 599	-	290	2,5 %		
	Recycled waste	kg	132 632	-	4	0,0 %		
	Waste	kg	78 202	-	39	0,3 %		
Total Norway - Atea Norge AS			19 718		2 005	17,1 %	1,31	0,27
	Diesel	liters	765 043	7 735	1 945	16,6 %		
	Burning oil	liters	2000	22	4,1	0,03 %		
	Electricity	kWh	6 592 257	6 592	369	3,1 %		
	District heating	kWh	2 062 516	2 063	241	2,1 %		
	Air travel	pkm	3 556 956	-	366	3,1 %		
	Recycled waste	kg	68 797	-	2	0,0 %		
	Waste	kg	165 844	-	75	0,6 %		
Total Denmark - Atea A/S			16 411		3 002	25,6 %	1,89	0,35
	Petrol	liters	15 771	151	36	0,3 %		
	Diesel	liters	144 184	1 458	367	3,1 %		
	Electricity	kWh	5 326 764	5 327	298	2,5 %		
	District heating	kWh	2 217 508	2 218	55	0,5 %		
	Air travel	pkm	6 352 449	-	794	6,8 %		
	Recycled waste	kg	66 760	-	2	0,0 %		
	Waste	kg	102 220	-	51	0,4 %		
	Train travel	pkm	859 275	-	3	0,0 %		
	Milleage allowance	liters	330 509	-	795	6,8 %		
	Electric vehicles	pkm	71556	72	4	0,03 %		
Total Atea Sverige AB			9225		2406	21 %	1,20	0,20
	Petrol	liters	43	0	0	0,0 %		
	Diesel	liters	1 346	14	3	0,0 %		
	Electricity	kWh	1 594 313	1 594	89	0,8 %		
	District heating	kWh	1 057 000	1 057	26	0,2 %		
	Air travel	pkm	102 809	-	9	0,1 %		
	Freight transport	tCO ₂	1 636	-	1 636	13,9 %		
	Recycled waste	kg	964 785	-	31	0,3 %		
	Recycled waste	m ³	50	-	0,8	0,0 %		
	Waste	kg	49739	-	20,9	0,2 %		
	Waste	m ³	785	-	78,8	0,7 %		
	Train travel	pkm	30359	-	0,1	0,0 %		
	Milleage allowance	liters	1 650	-	4	0,0 %		
Total Atea Logistics AB			2 665		1 900	16,2 %	9,74	0,40
	Petrol	liters	18 279	175	42	0,4 %		
	Diesel	liters	40 110	406	102	0,9 %		
	Electricity	kWh	917 267	917	51	0,4 %		
	District heating	kWh	319 700	320	50	0,4 %		
	Air travel	pkm	794 048	-	97	0,8 %		
	Recycled waste	kg	32 851	-	1	0,0 %		
	Waste	kg	9 080	-	5	0,0 %		
	Milleage allowance	km	1 458 246	-	273	2,3 %		
Total Finland			1 817		620	5,3 %	1,65	0,29
	Petrol	liters	126 740	1 213	292	2,5 %		
	Diesel	liters	328 717	3 323	836	7,1 %		
	Autogas/LPG	liters	20 446	143	31	0,3 %		
	Natural gas	m ³	11 475	127	23	0,2 %		
	Electricity	kWh	2 188 783	2 189	482	4,1 %		
	District heating	kWh	406 083	406	64	0,5 %		
	Air travel	pkm	290 948	-	28	0,2 %		
	Recycled waste	kg	37 283	-	1	0,0 %		
	Waste	kg	79 070	-	40	0,3 %		
Total The Baltics			7 401		1 796	15,3 %	2,44	1,75
Total Atea Group			57 238		11 728	100,0 %	1,83	0,33

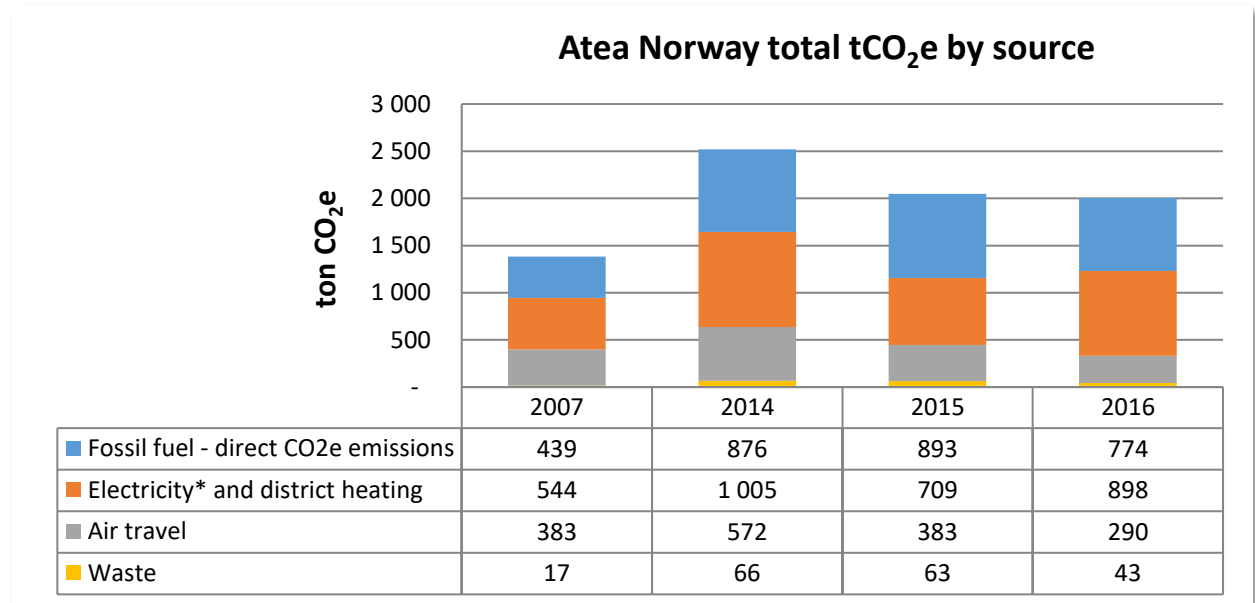
Atea Norway

FIGURE 3 EMISSIONS PER SOURCE ATEA NORWAY 2016



In 2016, the annual greenhouse gas emission from Atea Norway was calculated to be 2 005 tCO₂e. The carbon emission per full time employee in 2016 decreased by 28% comparing to 2007. Reduction was also noticed in case of total emission which was 2% lower than in 2015. There was observed significant reduction in flight trips as well as lack of burning oil consumption. In 2015 ATEA Norway reported for the first time on electricity consumption from data center. Market-based emission was also significantly reduced since 2015 due to purchase of renewable energy certificates covering 54% of total electricity consumption.

FIGURE 4 ATEA NORWAY TOTAL ANNUAL CO₂ EMISSIONS BY SOURCE



*tCO₂e emission with location based electricity emission factor

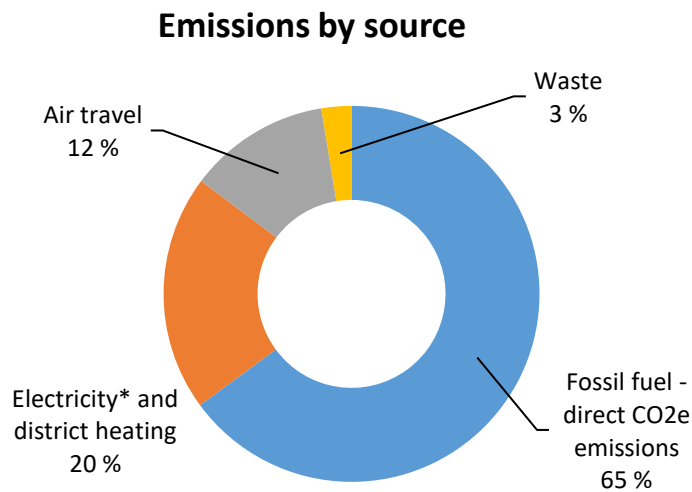
TABLE 3 CARBON INDICATORS ATEA NORWAY

Atea Norway total tCO ₂ e emissions	2007	2015	2016	07/16	15/16
Total corporate tCO ₂ e with location based electricity emission factor	1 383	2 048	2 005	45 %	-2 %
Total corporate tCO ₂ e with market based electricity emission factor		6 276	3 227	NA	-49 %
Atea Norway key performance indicators					
tCO ₂ e emissions per full time employee*	1,83	1,26	1,31	-28 %	4 %
tCO ₂ e emissions per revenue in MNOK*	0,42	0,30	0,27	-35 %	-10 %
MWh electricity with REC			8 579	100 %	100 %

*tCO₂e emission with location based electricity emission factor

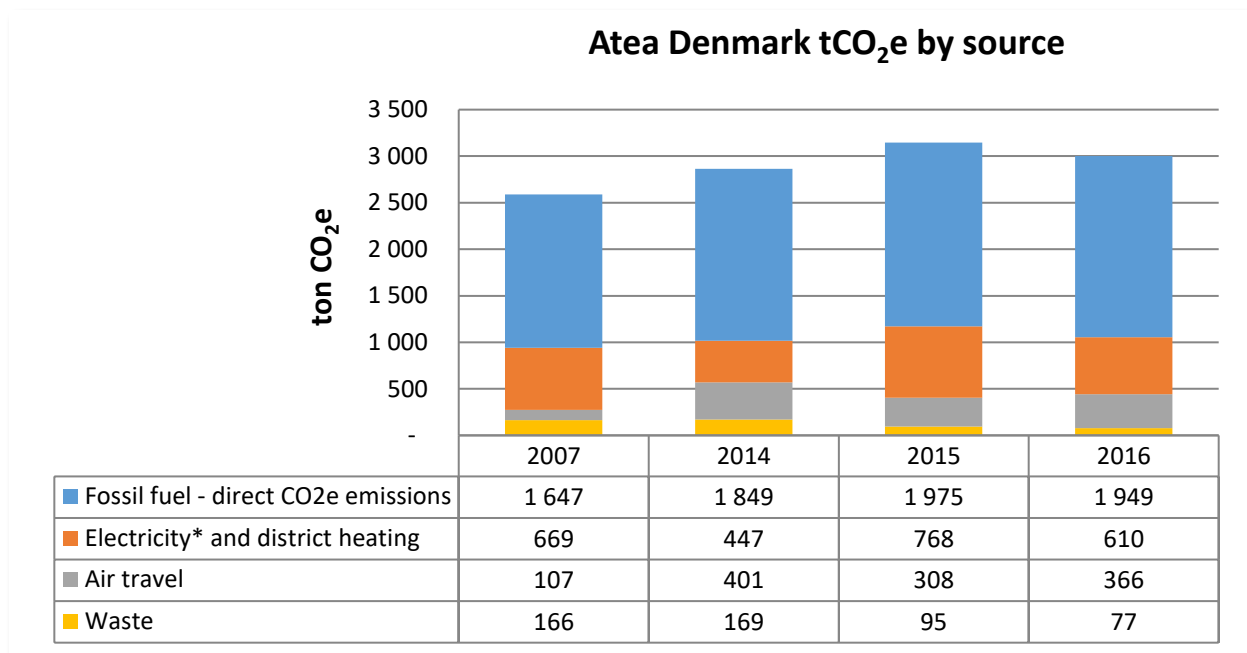
Atea Denmark

FIGURE 5 EMISSIONS PER SOURCE ATEA DENMARK 2016



In 2016, the annual greenhouse gas emission from Atea Denmark was calculated to be 3 002 tCO₂e, a 5% decrease since 2015. There was noticed decrease in electricity consumption in data center however, flight trips have increased at the same time. Looking on emission per FTE and revenue, 6% and 3% reduction was observed in comparison with 2015, respectively.

FIGURE 6 ATEA DENMARK TOTAL ANNUAL CO₂ EMISSIONS BY SOURCE



*tCO₂e emission with location based electricity emission factor

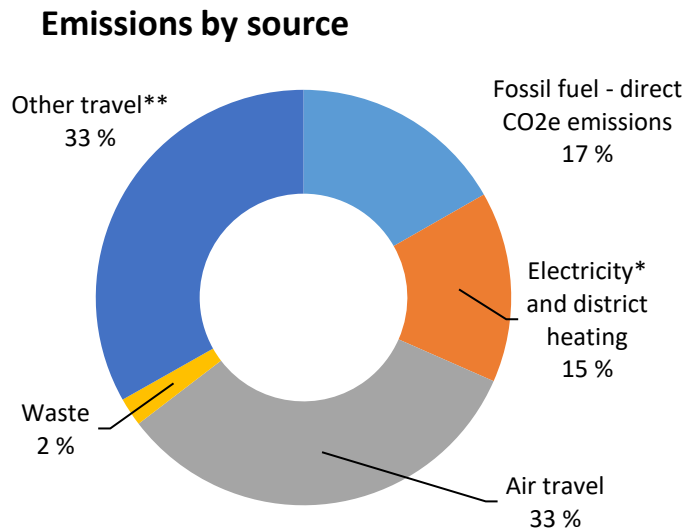
TABLE 4 CARBON INDICATORS ATEA DENMARK

Atea Denmark total tCO ₂ e emissions	2007	2015	2016	07/16	15/16
Total corporate tCO ₂ e with location based electricity emission factor	2 588	3 146	3 002	16 %	-5 %
Total corporate tCO ₂ e with market based electricity emission factor		6 480	4 538	NA	-30 %
Atea Denmark key performance indicators					
tCO ₂ e emissions per full time employee*	2,17	2,01	1,89	-13 %	-6 %
tCO ₂ e emissions per revenue in MNOK*	0,56	0,36	0,35	-37 %	-3 %

*tCO₂e emission with location based electricity emission factor

Atea Sweden

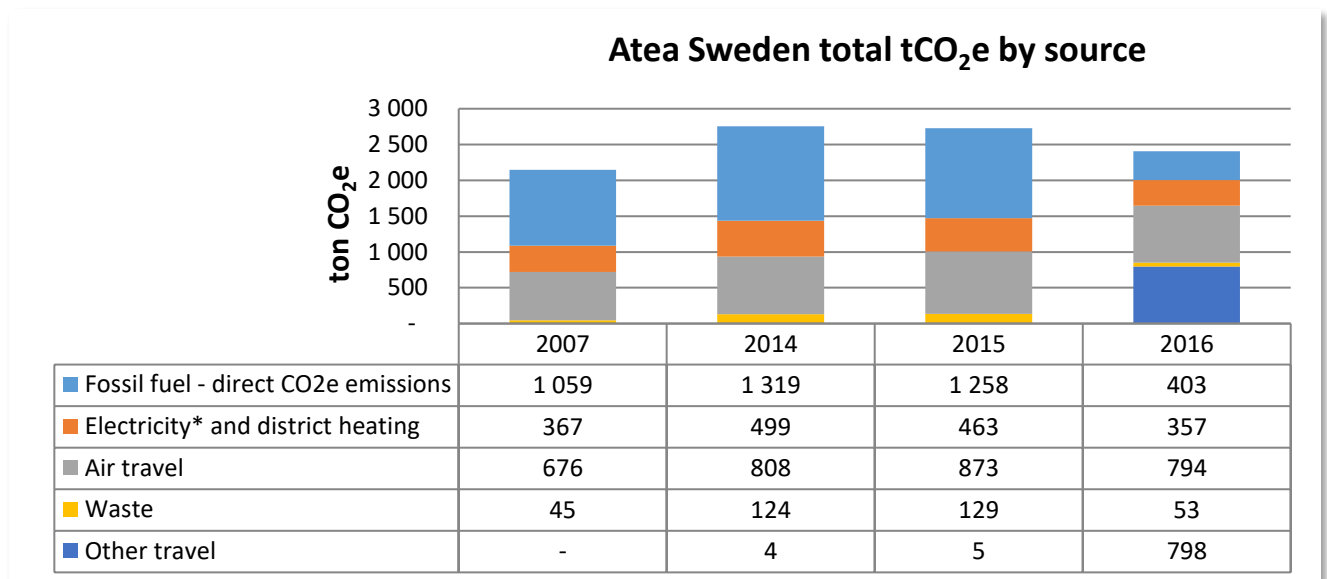
FIGURE 7 EMISSIONS PER SOURCE ATEA SWEDEN 2016



In 2016, the annual GHG emission from Atea Sweden was calculated to be 2 406 tons CO₂e, a 12 % decrease in comparison with 2015. Looking on emission per FTE and revenue, it was reduced by 15% and 24% comparing with 2015 levels, respectively.

Atea Sweden is continuously purchasing renewable energy certificates (REC). The number of purchased REC in 2016 corresponds to 3 617 MWh - 68% of the total electricity consumption. The electricity purchased with REC is accounted as zero emission. The rest of electricity is accounted with Nordic mix residual emission factor, which in 2016 amounted 0,289 kgCO₂e/kWh. ATEA Sweden has introduced active energy management and is striving for elimination of emission from energy sources.

FIGURE 8 ATEA SWEDEN TOTAL ANNUAL CO₂ EMISSIONS BY SOURCE



*tCO₂e emission with location based electricity emission factor

**other travel includes travel with train, petrol and diesel consumption from cars not owned by the company

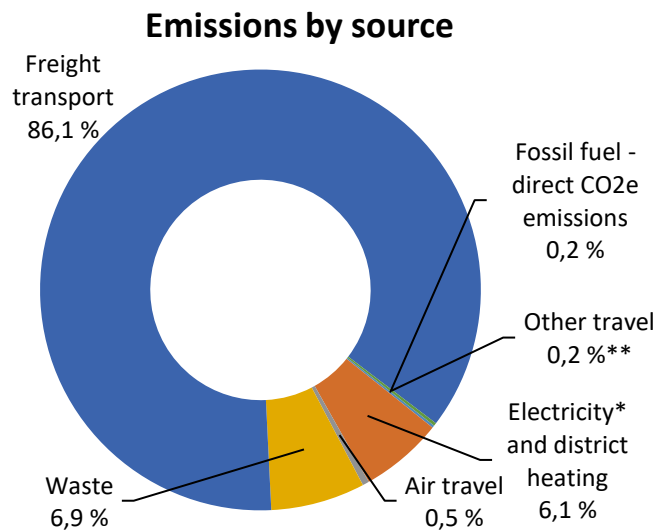
TABLE 5 CARBON INDICATORS ATEA SWEDEN

Atea Sweden total tCO ₂ e emissions	2007	2015	2016	07/16	15/16
Total corporate tCO ₂ e with location based electricity emission factor	2 147	2 727	2 406	12 %	-12 %
Total corporate tCO ₂ e with market based electricity emission factor		2 769	2 601	NA	-6 %
Atea Sweden key performance indicators					
tCO ₂ e emissions per full time employee*	1,82	1,41	1,20	-34 %	-15 %
tCO ₂ e emissions per revenue in MNOK*	0,52	0,26	0,20	-61 %	-24 %
MWh electricity with REC		4030	3617	100 %	-10 %

*tCO₂e emission with location based electricity emission factor

Atea Logistics

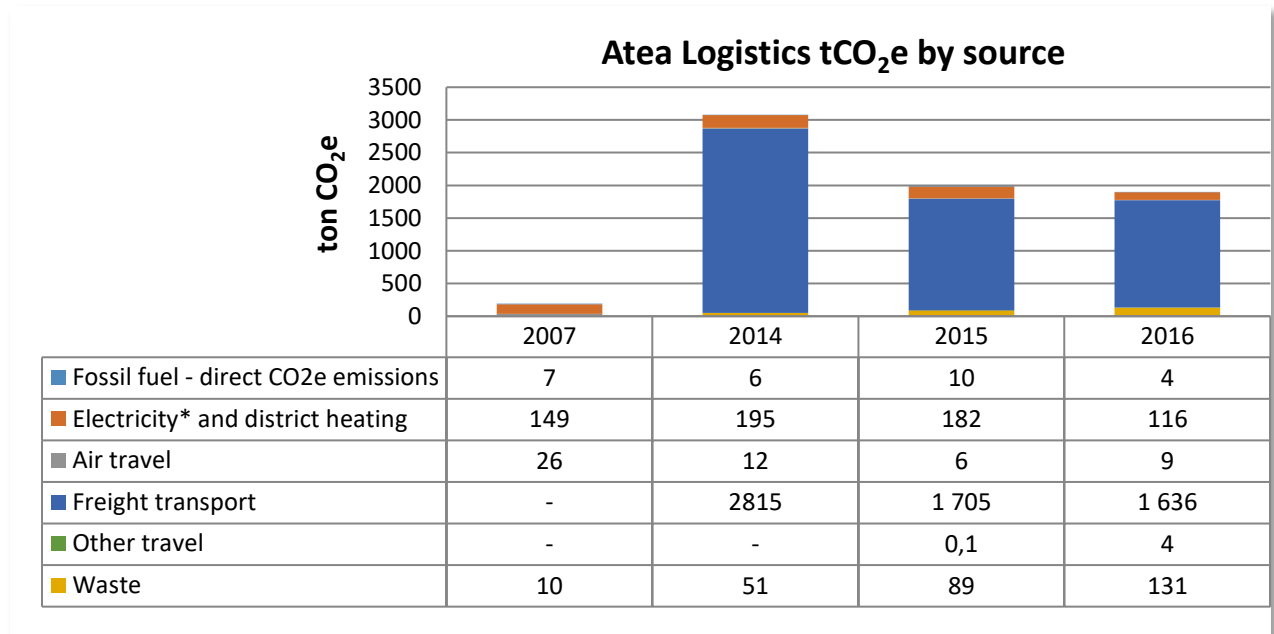
FIGURE 9 EMISSIONS PER SOURCE ATEA LOGISTICS 2016



Atea Logistics is a part of Atea Groups Shared Services. In 2016, the annual greenhouse gas emission from Atea Logistics was calculated to be 1 900 tCO₂e, a 5% decrease in comparison with 2015. A huge increase in absolute emission and KPIs since 2007 is due to the fact that the inventory boundary for scope 3 has been extended to include freight transport ordered by Atea Logistics.

The largest contributor of GHG emissions is freight transport, which constitutes 86% of the total emission in Atea Logistic and around 14% of the total emission in whole Atea Group.

FIGURE 10 ATEA LOGISTICS TOTAL ANNUAL CO₂ EMISSIONS BY SOURCE



*tCO₂e emission with location based electricity emission factor

**other travel includes travel with train, petrol and diesel consumption from cars not owned by the company

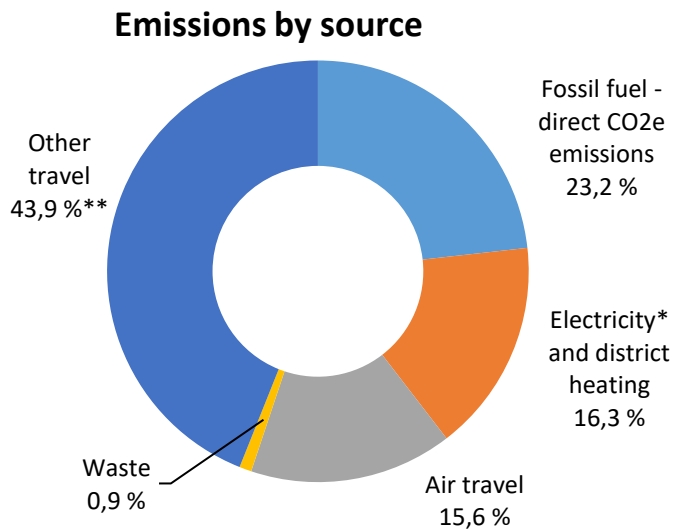
TABLE 6 CARBON INDICATORS ATEA LOGISTICS

Atea Logistics total tCO ₂ e emissions	2007	2015	2016	07/16	15/16
Total corporate tCO ₂ e with location based electricity emission factor	192	1 993	1 900	888 %	-5 %
Total corporate tCO ₂ e with market based electricity emission factor		2 639	2 271	NA	-14 %
Atea Logistics key performance indicators					
tCO ₂ e emissions per full time employee*	0,99	10,83	9,74	888 %	-10 %
tCO ₂ e emissions per revenue in MNOK*	0,08	0,42	0,40	425 %	-3 %

*tCO₂e emission with location based electricity emission factor

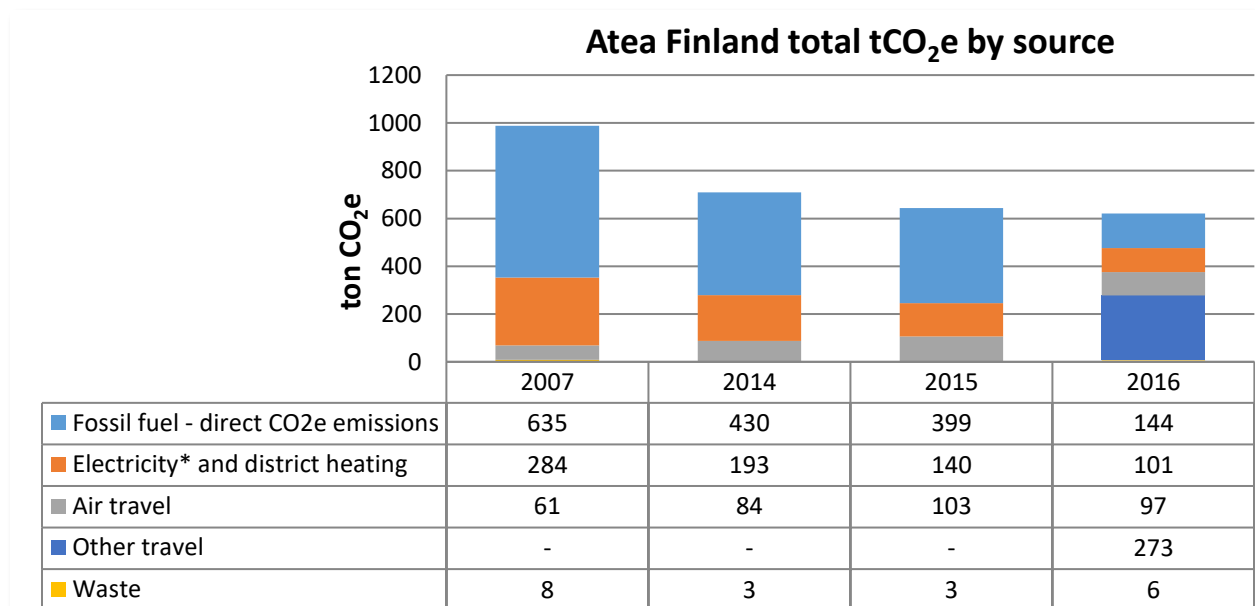
Atea Finland

FIGURE 11 EMISSIONS PER SOURCE ATEA FINLAND 2016



In 2016, the annual greenhouse gas emission from Atea Finland was calculated to be 620 tCO₂e, a 4% decrease of CO₂ emissions compared to 2015. Looking on KPIs, both emission per FTE and revenue was decreased by 9% and 5%, respectively. The reduction of CO₂ emission is mainly due to the new company car policy that encourages and guides employees to select low emission cars. Most of the emissions is caused by fuel consumption for transportation purposes.

FIGURE 12 ATEA FINLAND TOTAL ANNUAL CO₂ EMISSIONS BY SOURCE



*tCO₂e emission with location based electricity emission factor

**other travel includes travel with train, petrol and diesel consumption from cars not owned by the company

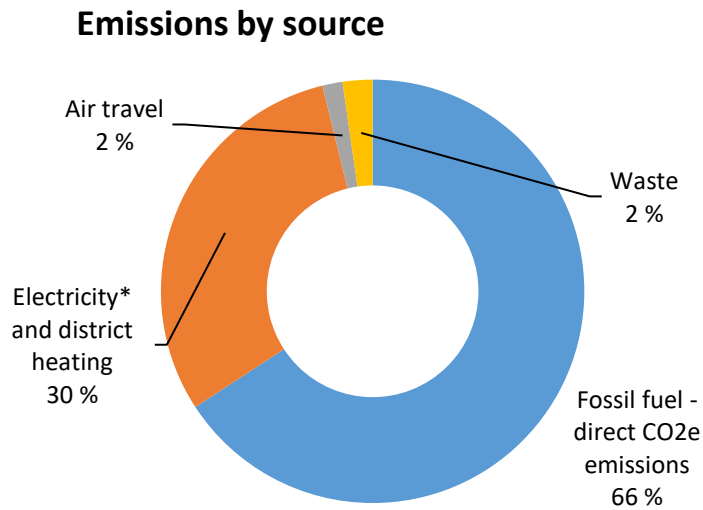
TABLE 7 CARBON INDICATORS ATEA FINLAND

Atea Finland total tCO ₂ e emissions	2007	2015	2016	07/16	15/16
Total corporate tCO ₂ e with location based electricity emission factor	988	644	620	-37 %	-4 %
Total corporate tCO ₂ e with market based electricity emission factor		1026	834	NA	-19 %
Atea Finland key performance indicators					
tCO ₂ e emissions per full time employee*	3,55	1,82	1,65	-54 %	-9 %
tCO ₂ e emissions per revenue in MNOK*	0,68	0,31	0,29	-57 %	-5 %

*tCO₂e emission with location based electricity emission factor

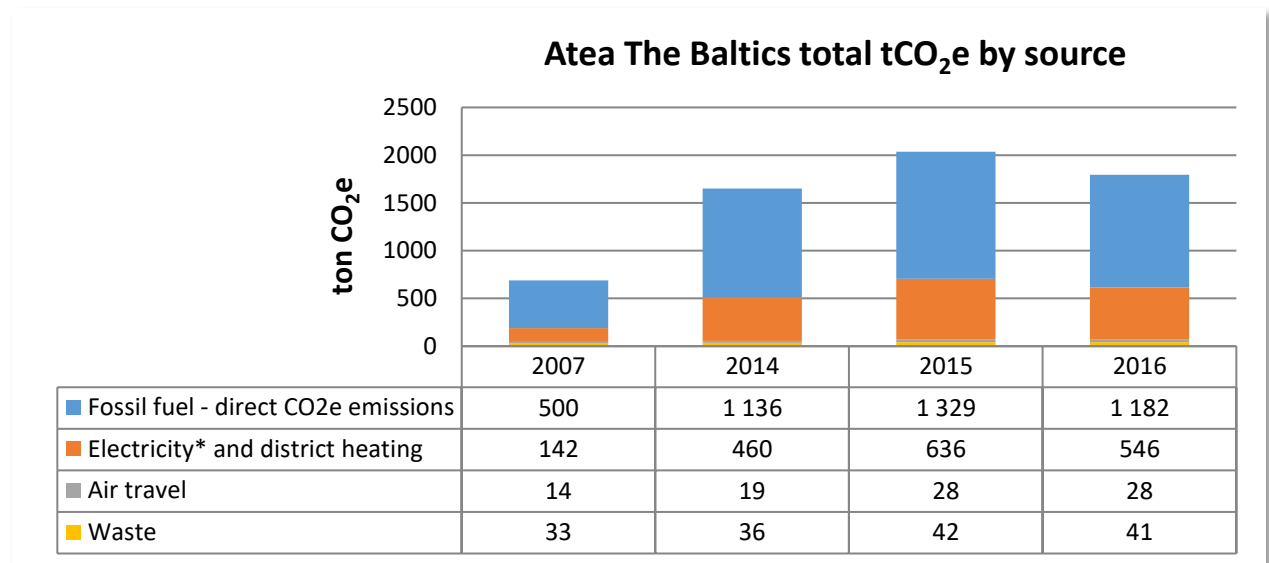
Atea The Baltics

FIGURE 13 EMISSIONS PER SOURCE ATEA THE BALTICS 2016



In 2016, the annual greenhouse gas emission from Atea Baltics was calculated to be 1 796 tCO₂e, a 12% decrease in comparison with previous year. It was caused mainly by lower diesel and electricity (in data center) consumption. Emission per FTE and revenue was also reduced by 15% and 7%, respectively.

FIGURE 14 ATEA THE BALTICS TOTAL ANNUAL CO₂ EMISSIONS BY SOURCE



*tCO₂e emission with location based electricity emission factor

TABLE 8 CARBON INDICATORS ATEA THE BALTICS

Atea The Baltics total tCO ₂ e emissions	2007	2015	2016	07/16	15/16
Total corporate tCO ₂ e with location based electricity emission factor	689	2 036	1 796	161 %	-12 %
Total corporate tCO ₂ e with market based electricity emission factor		2 580	2 354	NA	-9 %
Atea The Baltics key performance indicators					
tCO ₂ e emissions per full time employee*	1,71	2,88	2,44	43 %	-15 %
tCO ₂ e emissions per revenue in MNOK*	1,23	1,87	1,75	42 %	-7 %

*tCO₂e emission with location based electricity emission factor

Reference

Method

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The Nordic electricity mix covers the weighted production in Sweden, Norway, Finland and Denmark, which reflects the common Nord Pool market area. The electricity emissions factors used in CEMAsys is based on national gross electricity production mixes on a 3 year rolling average (International Energy Agency, IEA). Emission factors per fuel type are based on assumption in the IEA methodological framework.

The emission factor for residual electricity is based on figures reported by Reliable Disclosure Systems for Europe (RE-DISS).

Factors for district heating/cooling are either based on actual (local) production mixes, or average IEA statistics.

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