

Eco-Efficiency Indicators: GLOBAL WARMING CONTRIBUTION [t CO₂ eq.]

CO ₂ emissions related to energy use	2004	2005	2006	2007	2008
From the energy purchased					
Natural gas (dry)	454'921	456'317	408'276	393'259	366'041
Diesel+light oil	9'795	15'393	17'378	5'464	2'724
Heavy oil	21'710	29'281	20'466	20'791	12'373
Electricity	355'736	370'753	319'571	342'612	331'381
Steam	177'110	192'939	163'156	176'824	174'875
Purchased wastes				9'702	18'849
Others	1'186	8'348	8'133	5'766	4'741
<i>Total CO₂ from energy purchased</i>	<i>1'020'458</i>	<i>1'073'032</i>	<i>936'980</i>	<i>954'418</i>	<i>910'984</i>
CO₂ emissions due to energy sold					
Steam	-57'625	-59'259	-57'624	-68'781	-63'935
Energy derived global warming contribution	962'833	1'013'773	879'356	885'637	847'049
Other Global Warming Gas Emissions					
Ozone Depleting Substances			17'780	12'384	9'979
Total Global Warming contribution [t CO₂]	962'833	1'013'773	897'136	898'021	857'028
Net Value Added [million CHF]	2'587	2'412	2'154	2'158	1'881
Eco-efficiency Indicator "Global warming contribution /Net Value Added" [t CO₂ eq./million CHF]	372.2	420.3	416.5	416.1	455.6
Net Value Added [million CHF] at 2000 exchange rates	3'273	3051.0	2668.0	2572.0	2681.0
Eco-efficiency Indicator "Global warming contribution /Net Value Added" [t CO₂ eq./million CHF] at 2000 exchange rates	294.2	332.3	336.3	349.2	319.7

The amount of CO₂ linked to the use of energy was recognised as contributing to the Global Warming Effect. As the total global warming contribution of ozone depleting substances amounts to more than 1% of the total they were recognised in 2006. The basis for the calculation of the CO₂ emissions is the energy requirement, so the global warming contribution includes the CO₂ from steam and electricity used by our sites, but produced by third parties.

CO₂ produced from the use of wastes produced by our own operations as an alternative fuel is not included, which is in accordance with the Kyoto Protocol. Comparable fuels (wastes, solvents), purchased from external parties, were fully added to our total Energy consumption and also converted into primary Energy demand. The emissions from these comparable fuels, especially CO₂, were also added to our total emissions. At one site (Suffolk) we are using landfill gas (methane) as energy source. The calorific value is fully added to our Energy demand including conversion to primary Energy, but the CO₂ emissions from that are not counted into our emissions.

For the year 2006 emissions from former TE sites are subtracted. Consequently Net Value Added 2006 does not include TE.