

# Monitoring Emission Inventory

## Monitoring Emission Inventory

① Copy as many "MEI" tabs for Monitoring Emission Inventories as necessary.

1) Inventory year

2) Number of inhabitants in the inventory year

3) Emission factors  IPCC  
 LCA (Life Cycle Assessment)

4) Emission reporting unit  tonnes CO<sub>2</sub>  
 tonnes CO<sub>2</sub> equivalent

5) Methodological notes Emission factors: IPCC; national emission factor for German electricity in 2015: Umweltbundesamt; value used for "other biomass" (wood): mean value of range given in SEAP guide because source of wood is unknown; emission factors for electricity and heat/cold: computed with the formulas given in the SEAP guide; electricity: locally produced amount completely deducted; national emission factor remains unchanged because locally produced amount is very small in relation to national one; CHPP at sewage facility: amount of produced gas unknown; traffic measured on territorial scale

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## A. Final energy consumption

① Please note that for separating decimals dot [.] is used. No thousand separators are allowed.

Sector	FINAL ENERGY CONSUMPTION [MWh]															
	Electricity	Heat/cold	Fossil fuels							Renewable energies					Total	
			Natural gas	Liquid gas	Heating oil	Diesel	Gasoline	Lignite	Coal	Other fossil fuels	Plant oil	Biofuel	Other biomass	Solar thermal		Geothermal
<b>BUILDINGS, EQUIPMENT/FACILITIES AND INDUSTRIES</b>																
<u>Municipal buildings, equipment/facilities</u>	3.505	3.119	2.675	-	162									-		9.461
<u>Tertiary (non municipal) buildings, equipment/facilities</u>	51.315,6	26.480	37.971	753	11.898									16	619	129.053
<u>Residential buildings</u>	44.632	18.001	150.767	2.970	84.156									34.817	1.971	339.806
<u>Public lighting</u>	1.562															1.562
<u>Industry</u>	<u>Non-ETS</u>	33.077	13.799	157.272	3.538	17.890								16.241	1	241.817
	<u>ETS (not recommended)</u>															-
<b>Subtotal</b>	<b>134.092</b>	<b>61.400</b>	<b>348.685</b>	<b>7.261</b>	<b>114.106</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>51.073</b>	<b>1.971</b>	<b>721.699</b>
<b>TRANSPORT</b>																
<u>Municipal fleet</u>			9			731	23									762
<u>Public transport</u>	800					4.611	-									5.411
<u>Private and commercial transport</u>						45.723	55.383									101.106
<b>Subtotal</b>	<b>800</b>	<b>-</b>	<b>9</b>	<b>-</b>	<b>-</b>	<b>51.064</b>	<b>55.406</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>107.279</b>
<b>OTHER</b>																
<u>Agriculture, Forestry, Fisheries</u>																-
<b>TOTAL</b>	<b>134.892</b>	<b>61.400</b>	<b>348.694</b>	<b>7.261</b>	<b>114.106</b>	<b>51.064</b>	<b>55.406</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>51.073</b>	<b>1.971</b>	<b>828.978</b>

Covenant Key Sectors

# Monitoring Emission Inventory

## B. Energy supply

Hide sections or rows as appropriate to your emission inventory.

### B1. Municipal purchases of certified green electricity

Municipal purchases of certified green electricity	Renewable electricity purchased [MWh]	CO <sub>2</sub> / CO <sub>2</sub> eq. Emission factor [t/MWh]
<b>Certified green electricity purchased</b>	<b>5.068</b>	

### B2. Local/distributed electricity production (Renewable energy only)

Local renewable electricity plants (ETS and large-scale plants > 20 MWe not recommended)	Renewable electricity produced [MWh]	Emission factor [t/MWh produced]	CO <sub>2</sub> / CO <sub>2</sub> eq. emissions [t]
Wind			0
Hydroelectric	6.485		0
Photovoltaics	5.779		0
Geothermal			0
<b>TOTAL</b>	<b>12.264</b>		<b>0</b>

### B3. Local/distributed electricity production

Local electricity production plants (ETS and large-scale plants > 20 MW not recommended)	Electricity produced [MWh]		Energy carrier input [MWh]										CO <sub>2</sub> / CO <sub>2</sub> eq. emissions [t]			
	from renewable sources	from non-renewable sources	Fossil fuels							Waste	Plant oil	Other biomass	Other renewable	Other	Fossil sources	Renewable sources
			Natural gas	Liquid gas	Heating oil	Lignite	Coal									
Combined Heat and Power		21.784	59.504								19.205				4.438	
Other	1.552															
<b>TOTAL</b>	<b>1.552</b>	<b>21.784</b>	<b>59.504</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>19.205</b>	<b>0</b>	<b>0</b>	<b>4.438</b>	<b>0</b>	

### B4. Local heat/cold production

Local heat/cold production plants	Heat/cold produced [MWh]		Energy carrier input [MWh]										CO <sub>2</sub> / CO <sub>2</sub> eq. emissions [t]			
	from renewable sources	from non-renewable sources	Fossil fuels							Waste	Plant oil	Other biomass	Other renewable	Other	Fossil sources	Renewable sources
			Natural gas	Liquid gas	Heating oil	Lignite	Coal									
Combined Heat and Power		61.400	62.156			1.135					15.481			19.205	7.582	
District heating (heat-only)																
Other																
<b>TOTAL</b>	<b>0</b>	<b>61.400</b>	<b>62.156</b>	<b>0</b>	<b>0</b>	<b>1.135</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>15.481</b>	<b>0</b>	<b>19.205</b>	<b>7.582</b>	<b>0</b>	

# Monitoring Emission Inventory

## C. CO<sub>2</sub> emissions

C1. Please insert the CO<sub>2</sub> emission factors adopted [t/MWh]:

[Click here to visualise fuel emission factors](#)

	Electricity		Heat/cold	Fossil fuels							Renewable energies					
	National	Local		Natural gas	Liquid gas	Heating oil	Diesel	Gasoline	Lignite	Coal	Other fossil	Biofuel	Plant oil	Other biomass	Solar thermal	Geothermal
BEI	0,597	0,529	0,184	0,202	0,227	0,264	0,262	0,256	0,000	0,000	0,000	0,000	0,000	0,200	0,000	0,000
MEI	0,535	0,36228629	0,12347980	0,202	0,231	0,267	0,267	0,249	0,000	0,000	0,000	0,000	0,000	0,200	0,000	0,000

C2. Please complete in case non-energy related sectors are included:

Non-energy related sectors	CO <sub>2</sub> eq. emissions [t]
Waste management	
Waste water management	
Other non-energy related	

## Emission Inventory

Sector	CO <sub>2</sub> emissions [t] / CO <sub>2</sub> eq. emissions [t]															Total	Total per Capita	
	Electricity	Heat/cold	Fossil fuels							Renewable energies								
			Natural gas	Liquid gas	Heating Oil	Diesel	Gasoline	Lignite	Coal	Other fossil fuels	Biofuel	Plant oil	Other biomass	Solar thermal	Geothermal			
<b>BUILDINGS, EQUIPMENT/FACILITIES AND INDUSTRIES</b>																		
Municipal buildings, equipment/facilities	1.269,91	385,13	540,35	-	43,25	-	-	-	-	-	-	-	-	-	-	-	2.238,65	0,06
Tertiary (non municipal) buildings, equipment/facilities	18.590,95	3.269,78	7.670,20	173,89	3.176,73	-	-	-	-	-	-	-	-	3,15	-	-	32.884,71	0,88
Residential buildings	16.169,51	2.222,81	30.454,91	686,10	22.469,63	-	-	-	-	-	-	-	-	6.963,33	-	-	78.966,29	2,11
Public lighting	566,07	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	566,07	0,02
Industry	Non-ETS	11.983,24	1.703,90	31.768,90	817,30	4.776,62	-	-	-	-	-	-	-	3.248,16	-	-	54.298,11	1,45
	ETS (not recommended)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>Subtotal</b>	<b>48.579,69</b>	<b>7.581,62</b>	<b>70.434,36</b>	<b>1.677,30</b>	<b>30.466,23</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10.214,64</b>	<b>-</b>	<b>-</b>	<b>168.953,82</b>	<b>4,51</b>
<b>TRANSPORT</b>																		
Municipal fleet	-	-	1,80	-	-	195,10	5,67	-	-	-	-	-	-	-	-	-	202,57	0,01
Public transport	289,94	-	-	-	-	1.231,08	-	-	-	-	-	-	-	-	-	-	1.521,02	0,04
Private and commercial transport	-	-	-	-	-	#####	#####	-	-	-	-	-	-	-	-	-	25.998,41	0,69
<b>Subtotal</b>	<b>289,94</b>	<b>-</b>	<b>1,80</b>	<b>-</b>	<b>-</b>	<b>#####</b>	<b>#####</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>27.722,00</b>	<b>0,74</b>
<b>OTHER</b>																		
Agriculture, Forestry, Fisheries	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>OTHER NON-ENERGY RELATED</b>																		
Waste management																-		
Waste water management																-		
Other non-energy related																-		
<b>TOTAL</b>	<b>48.870</b>	<b>7.582</b>	<b>70.436</b>	<b>1.677</b>	<b>30.466</b>	<b>13.634</b>	<b>13.796</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>10.215</b>	<b>-</b>	<b>-</b>	<b>196.676</b>	<b>5,25</b>