Tab. 3-13 Net caloricic values (NCV), CO_2 emission factors and oxidation factors used in the Czech GHG inventory – 2012

Fuel (IPCC 1996 Guidelines definitions)	NCV [TJ/Gg]	CO_2 EF [a] [t CO_2/TJ]	Oxidation factor	CO_2 EF [b] [t CO_2/TJ]
Crude Oil	42.39	73.33	0.99	72.60
Gas / Diesel Oil	42.60	74.07	0.99	73.33
Residual Fuel Oil	39.51	77.37	0.99	76.59
LPG [d]	45.95	65.90	0.995	65.57
Naphtha	43.99	73.33	0.99	72.60
Bitumen	40.19	80.67	0.99	79.86
Lubricants	40.19	73.33	0.99	72.60
Petroleum Coke	38.5	100.83	0.98	98.82
Other Oil	40.35	73.33	0.99	72.60
Coking Coal [d]	29.26	93.24	0.98	91.38
Other Bituminous Coal [d]	24.53	93.24	0.98	91.38
Lignite (Brown Coal) [d]	12.62	99.99	0.98	97.99
Brown Coal Briquettes	21.93	94.60	0.98	92.71
Coke Oven Coke	28.41	108.17	0.98	106.00
Coke Oven Gas (TJ/mill. m^3)	15.62 [c]	47.67	0.995	47.43
Natural Gas (TJ/Gg) [d]	57.05	55.15	0.995	54.87
Natural Gas (TJ/mill. m^3) [d]	34.23 [c]	55.15	0.995	54.87

a) Emission factor without oxidation factor

b) Resulting emission factor with oxidation factor

c) TJ/mill. m^3, t= 15°C, p = 101.3 kPa

d) Country specific values of CO_2 EFs

e) Oxidation factors values used for national inventory of greenhouse gases are 0.995 for Gaseous Fuels, 0.99 for Liquid Fuels and 0.98 for Solid Fuels

The greenhouse gas emissions were calculated as the product of the activity data and the relevant emission factor. A survey of the emission factors employed for CO_2 is given in Tab. 3-13. The experimentally determined country-specific values of the emission factors were used for Coal and Lignite (Fott, 1999), for Natural Gas (please see Annex 2) and since this submission also for Refinery Gas and LPG (please see Annex 2); for the rest of fuels, the default emission factors from the IPCC methodology (IPCC, 1997) were used. Oxidation factors used in the national inventory are the default values taken from the IPCC methodology (IPCC, 1997).

Methane emissions from fuel combustion from stationary sources do not constitute key sources. Relatively the largest contribution comes from fuel combustion in local heating units.

The means of determining methane emissions is similar in many respects to the method of the individual consumption categories for carbon dioxide emissions. The simplest level (Tier 1) (IPCC, 1997) includes only summary fuel categories:

- coal-type Solid Fuels
- Gaseous Fuels
- Liquid Fuels
- wood fuel (biomass)
- other biomass.

Tab. 3-14 provides CH_4 emission factors used for computation of CH_4 emissions.

Tab. 3-14 CH_4 emission factors in the individual sectors used in the Czech GHG inventory (1990 – 2012)

[kg CH_4/TJ]	1A1	1A2 [*)]	1A3e	1A4a	1A4b	1A4c
Liquid Fuels	3	2		10	10	10
Solid Fuels	1	10		10	300	300
Gaseous Fuels	1	5	5	5	5	5
Biomass	30	30		300	300	300
Charcoal	200	200		200	200	200

**) The emission factors are also valid for the other kinds of fuels (Other Fuels).*