

Country Specific Net Calorific Values and CO₂ Emission Factors for use in the Annual Installation Emissions Report- 2007

Subject to revision, the following factors may be used for calculating CO₂ emissions for **2007 only**. They are based on Ireland's Specific Emission Factors used in the 2005 National Inventory reported to UNFCCC, unless otherwise stated. Please note that this table may be updated at anytime as new information becomes available. The fuel factor does not include an oxidation factor; this must be applied separately (**except for cement kilns where combustion is assumed to be practically 100%**). The operator must ensure that the most recent version of this table is used when calculating CO₂ emissions for submission in the verified Annual Installation Emissions Report.

Fuel Factors

Fuel	t CO ₂ /TJ
Coal	Site specific
Kerosene	71.76
HFO/RFO/MFO/LFO	76.38*
LPG	64.13**
Diesel / Gas Oil	73.67
Natural Gas	57.089
Pet Coke	100.8****
Crude Oil	Site specific
Peat	Site Specific

*This factor also applies for MFO and LFO. Please note that GO and LFO are different fuels with different calorific values. Gas oil (BS 2869 Class D), LFO (BS 2869 Class E).

**Source: Flogas Ireland Ltd. analysis data for commercial propane (LPG).

*** *IPCC 1996.

Net Calorific Values

Fuel	NCV (TJ/kt)
Coal	Site specific
Kerosene	44.20
HFO/RFO/MFO/LFO	41.24*
LPG	46.68**
Diesel / Gas Oil	43.31
Natural Gas	Not required, use bills***
Pet Coke	31.00****
Crude Oil	Site specific
Peat	Site Specific

*This factor also applies for MFO and LFO. Please note that GO and LFO are different fuels with different emission factors.

**Source: Flogas Ireland Ltd. analysis data for commercial propane (LPG), 2004. Average density 507.05 kg/m³ (g/l).

***Note BGE Gas bills show kWh based on Gross Calorific Value - convert to Net Calorific Value by multiplying by 0.903 and then convert to TJ by multiplying by 3.6 x 10⁻⁶

**** Source IPCC 1996.

Tier 1 Oxidation Factors to be applied for all combustion (except cement kilns)

Fuel	Oxidation factor
Coal, Pet Coke, Peat	0.99
Kerosene, HFO/RFO, Diesel / Gas Oil, Crude Oil	0.995
LPG, Natural Gas	0.995

(From Annex II of the Monitoring and Reporting Guidelines, Commission Decision 2004/156/EC)