ANNEX 4: Standard Factors (DEHSt List)

Standard factors as per Art. 31 (1) c) MRR for emission factors, net calorific values and carbon content

a) Fuel	Emission factor	Calorific value		t C/t	t C/1000 Nm³
	t CO_2/GJ	GJ/t	GJ/1000 Nm³		
Waste tyres (biomass carbon content 27 %)	0.088	28.2		0.677	
Anthracite (heat generation)	0.098	31.5		0.843	
Lignite briquette, Lusatia	0.101	19.4		0.535	
Lignite briquette, Rhineland	0.099	19.7		0.532	
Lignite dust, Lusatia	0.099	21.6		0.584	
Lignite dust, Middle Germany	0.098	19.1		0.511	
Lignite dust, Rhineland	0.098	22.0		0.589	
Diesel oil	0.0741	42.6		0.862	
Natural gas, Altmark	0.056		11.7		0.179
Natural gas H	0.056		36.0		0.550
Natural gas L	0.056		33.0		0.504
Liquid gas (100 % propane)	0.0647	46.3		0.817	
Liquid gas (100 % butane)	0.0663	45.7		0.827	
Coal seam/coal mine methane	0.055		17.8		0.267
Heating oil EL, DIN 51603, Part 1	0.0741	42.6[38]		0.862	
Heating oil S, DIN 51603, Part 3	0.0809	39.5		0.872	
Raw lignite, Helmstedt	0.099	10.2		0.276	
Raw lignite, Lusatia	0.113	8.8		0.270	
Raw lignite, Middle Germany	0.104	10.7		0.304	
Raw lignite, Rhineland	0.114	8.9		0.277	
Coal coke	0.105	27.6		0.791	
High-grade coal, Germany	0.093	28.3		0.718	
High-grade coal import, Australia	0.095	25.4		0.659	
High-grade coal import, China	0.095	25.5		0.661	
High-grade coal import, Indonesia	0.095	25.3		0.657	
High-grade coal import, Canada	0.095	26.1		0.677	
High-grade coal import, Columbia	0.094	25.2		0.647	
High-grade coal import, Poland	0.094	27.5		0.706	
High-grade coal import, Russia	0.095	25.6		0.664	
High-grade coal import, Norway	0.094	28.6		0.734	
High-grade coal import, South Africa	0.096	25.2		0.661	
High-grade coal import, USA	0.094	27.8		0.713	

38 According to DIN 51603 part 1, the net calorific value of 42.6 GJ/t is related to a density of 860 t/1000m³

a) Fuel	Emission factor	Calorific value		t C/t	t C/1000 Nm³
High-grade coal import, Venezuela	0.093	27.8		0.706	
Fluidised bed lignite, Lusatia	0.101	19.4		0.535	
Fluidised bed lignite, Rhineland	0.098	21.6		0.579	
Polystyrene (foamed)	0.085	39.8		0.923	
Electrode burn-off/anode material				0.980	
Crude oil				0.932	
Tar				0.883	

b) Material	Emission factor				
	t CO_2/t Material				
Cement clinker	0,525				

The 100 % values listed here shall be used for technically pure substances.
Mass-based parameters should be determined from the individual components for mixtures of several substances.