

DIN EN 16258:2013-03 (E)

Methodology for calculation and declaration of energy consumption and GHG emissions of transport services (freight and passengers)

Contents		Page
Foreword		4
Introduction		5
1	Scope	6
2	Terms, definitions and abbreviations	6
2.1	General terms	6
2.2	Specific terms	9
3	Units and symbols	11
3.1	Energy	11
3.2	GHG emissions	11
4	Quantification boundaries	12
4.1	General	12
4.2	Processes included	12
4.3	Processes not included	12
4.4	Greenhouse gases	13
4.5	Carbon offsetting and emissions trading	13
5	Principles of calculation of energy consumption and GHG emissions in transport services	13
5.1	General objectives	13
5.2	Steps of the calculation of energy consumption and GHG emissions of one transport service	14
5.3	Sub steps for the calculation of energy consumption and GHG emissions of one leg of one transport service	14
5.4	Categories of values used for the calculation	14
5.4.1	General	14
5.4.2	Use of default values	15
6	Principles of identification of the different legs of a transport service	15
7	Principles of the calculation at the vehicle operation system (VOS) level	15
7.1	General	15
7.2	Sub step 2.1: Establishing the VOS related to the leg	15
7.3	Sub step 2.2: Quantification of the total fuel consumption for the VOS	16
7.4	Sub step 2.3: Calculation of total energy consumption and GHG emissions for the VOS ..	16
8	Principles of allocation to cargo and/or passengers	17
8.1	General	17
8.2	Basic principles	18
8.3	Allocation parameters and units	18
8.3.1	General	18
8.3.2	Allocation for passengers	18
8.3.3	Allocation for freight	18
8.3.4	Combined transport of passengers and freight	19
8.4	Data collecting	20
9	Principles of summing the results for each leg	20

10	Declaration	20
10.1	General	20
10.2	Possibility to make a short declaration	21
10.3	Supporting information	21
10.3.1	General statement	21
10.3.2	Transparent description of the method	21
Annex A (normative) Energy and GHG emission factors		23
A.1	Transport fuels	23
A.1.1	General	23
A.1.2	Consistency between sources	23
A.1.3	Table of energy and GHG emission factors	23
A.1.4	Biofuel Blends	25
A.1.5	Specified fuels	28
A.2	Electricity	28
A.2.1	Well-to-wheels energy factors	28
A.2.2	Well-to-wheels emission factors	28
A.2.3	Tank-to-wheels energy factor	29
A.2.4	Tank-to-wheels emission factor	29
Annex B (normative) Allocation methods for ferries (maritime transport)		30
B.1	General	30
B.2	Mass method	30
B.3	Area method	31
B.4	Default values	31
Annex C (informative) Inclusion of empty trips into a VOS		32
C.1	General	32
C.2	Example for a simple case	32
C.3	Example of a VOS for a distribution or collection round trip	33
Annex D (informative) Template for declaration of categories of values used		34
Annex E (informative) Example for passengers: transport service by bus		35
E.1	Description of the example	35
E.2	Example with use of specific measured values	36
E.3	Example with use of transport operator fleet values	37
E.4	Example with use of default values	38
E.5	Example with use of transport operator specific values	38
E.6	Overview of the results	39
Annex F (informative) Examples for freight		40
F.1	Transport service of freight transport by train	40
F.1.1	Description of the example	40
F.1.2	Example with use of specific measured values	41
F.1.3	Example with use of transport operator specific values	42
F.1.4	Examples with use of default values	43
F.1.5	Overview of the results	45
F.2	Transport service of freight transport by container ship	45
F.2.1	Description of the example	45
F.2.2	Example with use of specific measured values	46
F.2.3	Example with use of default values	47
F.2.4	Overview of the results	48
Annex G (informative) Example for combined passenger and freight transport: ferry lines		49

G.1	Description of the example	49
G.2	Results and comparison of the two allocation methods	49
	Annex H (informative) Detailed sources used and calculations done for establishment of Table A.1 .	51
	Annex I (informative) Example of available sources of default values	65
	Bibliography	66