## **DIN EN ISO 14083:2023-11 (E)**

## Greenhouse gases - Quantification and reporting of greenhouse gas emissions arising from transport chain operations (ISO 14083:2023)

Со	ntents	5	Page
Eur	opean f	oreword	6
Ann	ex S (in	formative)	7
	_	,	
Intr		on	
1	Scop	le	14
2	Norr	native references	14
3	Tern	ns and definitions	14
	3.1	Terms related to transport chain operations	
	3.2	Terms related to greenhouse gases and energy	
	3.3	Terms related to quantification.	22
	3.4	Other terms	24
4	Gene	eral principles	24
	4.1	General	24
	4.2	Relevance	
	4.3	Completeness	
	4.4	Consistency	
	4.5	Accuracy	
	4.6	Transparency	
	4.7	Conservativeness	
5		ntification principles	
	5.1	General	
	5.2	System boundaries	
		5.2.1 Transport operations and hub operations included	
		5.2.3 Application of cut-off criteria	
		5.2.4 Processes not included	
		5.2.5 Optional processes	
		5.2.6 Optional quantification of black carbon emissions from transport	,
		operations	28
		5.2.7 Carbon offsetting and GHG emissions trading	
	5.3	Conversion of energy carrier data into GHG emissions	
		5.3.1 General	
		5.3.2 Global warming potential	
	5.4	Calculation of transport activity	
		5.4.1 Passenger transport	
		5.4.2 Freight transport	29
		5.4.3 Combined transport of freight and passengers (including passenger vehicles)	20
		5.4.4 Use of distance adjustment factor	
	5.5	Calculation of hub activity	
	5.5	5.5.1 Passenger hub	
		5.5.2 Freight hub	
		5.5.3 Combined freight and passenger hub (including passenger vehicles)	
	5.6	Allocation	
		5.6.1 General	31

		5.6.2 Allocation between passengers and freight				
		5.6.3 Allocation between passengers of different travel classes				
		5.6.4 Allocation between ambient and temperature-controlled freight	32			
6	General principles related to transport chains, transport chain elements, transport					
		ation categories and hub operation categories				
	6.1	Transport chains and TCEs				
	6.2	Transport operations and hub operations related to TCEs				
	6.3	Transport operation categories and hub operation categories				
		6.3.1 General				
		6.3.2 Transport operation categories				
		6.3.3 Hub operation categories	37			
7	•	ntification actions				
	7.1	General				
	7.2	Establishment of GHG emission intensity of a TOC or a HOC				
		7.2.1 General				
		7.2.2 Selection of the option				
		7.2.3 Calculation with primary data (option A)				
		7.2.4 Calculation with a model (option B)				
		7.2.5 Selection of a value from a database of default values (option C)				
	7.2	7.2.6 Collection of a value from a contracted operator (option D)				
	7.3 7.4	Calculation of GHG emissions for a TCE				
		Calculation of GHG emissions for a transport chain				
8		ntification actions at the TOC level				
	8.1	General				
	8.2	Quantification of the GHG activity data of a TOC	42			
	8.3	Calculation of GHG emissions of a TOC				
		8.3.1 General				
		8.3.2 No allocation needed 8.3.3 Allocation needed				
	8.4	Calculation of transport activity of a TOC				
	0.4	8.4.1 General				
		8.4.2 Transport activity distance				
		8.4.3 Transport activity of a TOC of passengers — General case				
		8.4.4 Transport activity of a TOC of freight — General case				
		8.4.5 Transport activity of a TOC of passengers with multi-class vehicles				
		8.4.6 Transport activity of a TOC of freight with multi-temperature vehicles				
		8.4.7 Transport activity of a TOC with passengers and freight (whether including	10			
		passenger vehicles or not)	47			
		8.4.8 Transport activities of a TOC with any other case				
	8.5	Calculation of GHG emission intensity for the TOC				
		8.5.1 General	48			
		8.5.2 General case				
		8.5.3 Case of a TOC of freight with multi-temperature vehicles	49			
9	Ona	ntification actions at the HOC level	49			
	9.1	General				
	9.2	Quantification of the GHG activity data of a HOC				
	9.3	Calculation of GHG emissions of a HOC				
		9.3.1 General				
		9.3.2 No allocation needed				
		9.3.3 Allocation needed				
	9.4	Quantification of hub activity of the HOC				
		9.4.1 Freight hub activity				
		9.4.2 Passenger hub activity				
	9.5	Calculation of GHG emission intensity for the HOC				
		9.5.1 General				
		9.5.2 General case	52			

		9.5.3 Case of a HOC of freight with multi-temperature conditions	53
10	Calcı	ılation of GHG emissions for a transport TCE	53
	10.1	General	53
	10.2	Calculation of transport activity	
	10.3	Selection of a GHG emission intensity	
	10.4	General case	
	10.5	Case of differentiation by passenger classes	
	10.6 10.7	Case of differentiation by cargo temperature	
11		llation of GHG emissions for a hub TCE	
11	11.1	General	
	11.1	Quantification of hub activity	
	11.3	Selection of a GHG emission intensity	
	11.4	General case	
	11.5	Case of differentiation by cargo temperature	55
	11.6	Case of transfer of passengers and freight at the same hub	55
12	Resu	lts	56
	12.1	For one transport chain	
		12.1.1 Calculation of GHG emissions	
		12.1.2 Calculation of transport activity	56
		12.1.3 Calculation of GHG emission intensities	
	12.2	For a set of transport chains	
		12.2.1 General	
		12.2.2 Calculation of GHG emissions	
		12.2.4 Calculation of GHG emission intensities	
	12.3	For a transport service	
	12.4	For a set of transport services	
	12.5	For a transport mode	
13	Dono	rting	5Ω
13	13.1	General	
	13.2	Reporting at the organizational level	
		13.2.1 Reporting boundaries	
		13.2.2 Report	
		13.2.3 Periodicity	
	13.3	Reporting at the level of transport or hub services	
		13.3.1 Granularity	
	12 /	13.3.2 Report	
	13.4	Supporting information	
		13.4.2 Description of the calculation method	
		13.4.3 Transparent reporting from the use of modelled data or default GHG	
		emission intensities	65
Anne	<b>x A</b> (no	rmative) <b>Air transport</b>	67
	-	rmative) Cable car transport	
	-	rmative) Inland waterway transport	
	•	rmative) <b>Transport by pipeline</b>	
	-	rmative) Rail transport	
	-	rmative) <b>Road transport</b>	
	•	rmative) <b>Sea transport</b>	
Anne	x H (no	rmative) <b>Hubs</b>	89

Annex I (normative) Approach to account for refrigerant leakage GHG emissions from mobile air conditioning and temperature-controlled freight units during transportation operations	93
Annex J (normative) Additional requirements and guidance for GHG emission factors	
Annex K (informative) GHG emission factors and sources	100
Annex L (informative) Additional guidance for allocation to passenger according to passenger class of travel	105
Annex M (informative) General guidance on the approach to modelling of GHG emissions of transport chains	111
Annex N (informative) Additional guidance for use of ICT equipment and data servers related to transport operations	116
Annex O (informative) Quantification of GHG emissions arising from (re)packaging processes at logistics hubs	119
Annex P (informative) Quantification of black carbon emissions from transport operations	121
Annex Q (informative) Selection of sources of default GHG emission intensities	123
Annex R (informative) Comparison of GHG emission categorization used in the GHG Protocol and this document	125
Bibliography	128