



ENERGY MANAGEMENT & CLIMATE PROTECTION

Indicator	External assessment	Item	Unit	2018		2017		2016		2015		2014	
GRI 302-1		Direct energy consumption											
		Petrol	litres MWh	5,300	49	3,751	35	4,054	38	4,950	46	7,520	70
		Diesel	litres MWh	595,091	5,945	605,663	6,051	667,174	6,665	741,840	7,411	786,760	7,860
		Heating oil	litres MWh	93,644	1,009	110,131	1,187	86,676	934	135,730	1,463	107,970	1,164
		Propane	litres MWh	23,969	162	24,580	166	25,338	172	25,000	169	31,890	216
		Gas	MWh	1,922		1,750		1,432		1,335		1,232	
		Total	MWh	9,088		9,189		9,241		10,424		10,542	
		Indirect energy consumption											
		Electricity	MWh	8,194		6,955		7,115		6,968		7,068	
		of which electricity mix	MWh per cent	1146	14	54	1	68	1	70	1	821	12
		of which renewable	MWh per cent	7048	86	6901	99	7,047	99	6,898	99	6,247	88
		District heating	MWh	550		553		535		440		432	
		Total	MWh	8,744		7,508		7,650		7,408		7,500	
Total energy consumption	MWh	17,832		16,697		16,891		17,832		18,042			
GRI 305-1 GRI 305-2 GRI 305-3	✓	GHG emissions											
		Scope 1	t CO _{2e}	2,242		2,257		2,302		2,583		2,534	
		Scope 2 Market based [1]	t CO _{2e}	369		17		19		26		459	
		Scope 2 Location based [2]	t CO _{2e}	3,884		3,380		3,750		3,728		3,958	
		Scope 3 [3]	t CO _{2e}	92		103		100		90		107	
GRI 305-5	✓	Renewable energy sources & offsetting GHG emissions											
		Avoided GHG emissions due to the purchase of electricity from renewable sources	t CO ₂ per cent	3,515	58	3,363	60	3,741	61	3,702	58	3,499	53
		Avoided GHG emissions due to electricity generation (photovoltaic system)	t CO ₂	19		19		19		19		19	
		Emissions offset due to the purchase of climate certificates	t CO ₂	706		341		356		203		294	

[1] The calculation satisfies the requirements of GHG Protocol Scope 2 Guidance. Emission factor according to the utility company swb.

[2] The calculation satisfies the requirements of GHG Protocol Scope 2 Guidance. Since financial year 2015, the calculation has been based on the emission factors of the Federal Environment Agency [UBA]; the figures for the previous years were adjusted accordingly.

[3] The assessment methods for Scope 3 were changed in financial year 2014 and follow the recommendations of DEFRA to include the effect of radiative forcing (RF) for air travel as from 2014. The figures for this KPI for the years 2012/2013 are therefore not directly comparable with the figures as from 2014.



ENVIRONMENTALLY FRIENDLY SHIPPING

Indicator	External assessment	Item	Unit	2018	2017	2016	2015	2014
GRI 305-7	✓	Air emissions by our own fleet						
		SO _x -emissions by our own vessels	t	0.000009	0.000009	0.0096	0.0109	0.0118
		SO _x -emissions of automobile fleet	t	0.000001	0.000001	0.0014	0.0014	0.0013
PERS		Environmental Ship Index						
		Ships with ESI score calling at the ports of Bremen	per cent	40	38	32	28	25
PSI 12		greenports Award						
		Vessel		Car carrier "M/V AUTO ENERGY"	Container vessel "MSC Anzu"	Product / chemicals tanker "Bit Okland"	Car carrier "Morning Lisa"	General cargo vessel "Wilson Dover"
		Owner		TERNTANK Reederi A/S	Yang Ming Transport Coop.	Tarbit Shipping AB	EUKOR Car Carriers	Wilson ASA
PSI 13		Shore power						
		Number of shore power connections for inland shipping	number	21	21	21	20	18



EFFICIENT LAND USE AND BIODIVERSITY

Indicator	External assessment	Item	Unit	2018	2017	2016	2015	2014			
GRI 304-3	✓	Port compensatory mitigation sites									
		Protected or safe habitats created by bremenports	hectares	1,214	1,203	1,203	1,189	1,189			
		of which port compensatory mitigation sites which are still in the targeted development phase	hectares	567	658	658	644	644			
		of which port compensatory mitigation sites which have passed into the maintenance phase after successful development	hectares	647	545	545	545	545			
		Status of port compensatory mitigation sites									
		Number of sites	number	54	51	51	48	48			
		of which fully functioning	hectares per cent	901 74%	901 75%	865 72%	864 73%	714 60%			
		of which functioning well	hectares per cent	200 16%	194 16%	225 19%	301 25%	316 27%			
		of which functioning	hectares per cent	86 7%	82 7%	91 8%	23 2%	137 12%			
		of which functioning conditionally	hectares per cent	27 2%	26 2%	22 2%	1 0%	22 2%			
		of which functioning to a very limited extent	hectares per cent	0 0%	0 0%	0 0%	0 0%	0 0%			
PERS		Habitat-Index [1]	per cent	36.88	36.73	34.7	30.63	30.14			
		Total port area	hectares	4,047	4,039	3,954	3,881	3,947			

[1] Habitat sites which are the responsibility of the ports of Bremen / total port area



EFFICIENT LAND USE AND BIODIVERSITY

Indicator	External assessment	Protected area	Adjacent port areas	Type of habitat	Relevance for protected species
GRI 304-1	✓	Weser Flora-Fauna-Habitat [DE2417-370]	Überseehafen and Fischereihafen, Bremerhaven	Estuarine [tidal river estuary]	Migration area and adaptation zone for migratory fish such as shad, river and sea lamprey
		Luneplate nature reserve (large parts of the Weser FFH area [DE2417-370]) and Luneplate Bird Sanctuary have been designated as a nature reserve since 17.02.2015)	Überseehafen and Fischereihafen, Bremerhaven	Tidal lower course of the river with tidal inlets and brackish flats, reedbeds, wet fallows, salt marsh with flooding in winter, seasonally flooded grassland, ditches, ponds and shrubs	Migratory fish (shad, river and sea lamprey), waterfowl and waders, meadow and reedbed birds, plant species found in brackish reedbeds and salt marshes
		Lower Saxony Wadden Sea National Park Bird Sanctuary [DE2210-401]; Flora-Fauna-Habitat [DE2306-301]; UNESCO World Heritage Site	Überseehafen, Bremerhaven	mostly: estuarine [see above], vegetation-free mud, sand and mixed flats, Atlantic salt meadows	Breeding ground and partial habitat for a particularly high number of rare bird species; migratory route for sea lampreys; habitat for porpoises and seals
		Weserportsee nature reserve	Überseehafen, Bremerhaven	Different types of closely interlinked habitats (ponds, wet hollows, reedbeds, shrubs, open sandy areas and infertile grassland)	Habitat for various species of fauna and flora, some of which are endangered
		Weser Flora-Fauna-Habitat between the Ochtum estuary and Rehum [DE2817-370]	Klößnerhafen, Bremen	Inland water (tidal lower course of the Weser with strong bank reinforcement)	Spawning grounds and larvae / fish nursery habitat for shad, river and sea lamprey
		Niedervieland bird sanctuary [DE2918-401]	Dredged material treatment site, Bremen - Seehausen	Large extensively farmed wet grassland area with ditches, alluvial forest, reedbeds, large and small ponds	Brutgebiet: Blaukehlchen, Rohrweihe, Sumpfohreule, Tüpfelralle, Wachtelkönig, Weißstorch; Gastlebensraum: Bruchwasserläufer, Goldregenpfeifer, Kampfläufer, Kornweihe, Zwergsäger, Zwergschwan
		Flood polder nature reserve	Neustädter Hafen, Bremen and dredged material treatment site, Bremen - Seehausen	Floodplain area with sporadically flooded wet grassland, alluvial forest, reed beds, ruderal areas and small ponds	Habitat for bluethroat, sedge warbler, bittern, marsh harrier, black-necked grebe, gadwall, shelduck, amphibians and dragonflies as well as purple loosestrife, flag iris and willow

Sources: World Heritage Site (cf. Doc Id: 530792), Nature reserves & areas of outstanding natural beauty in Bremen (cf. Doc. Id: 639882), NATURA 2000 sites in Bremen: http://www.umwelt.bremen.de/sixcms/media.php/13/Nat2000_Stand_12-2011_A3300_neu.22950.pdf (cf. Doc Id:530794); Lower Saxony Wadden Sea National Park (Doc Id.: 531206); Integrated Management Plan for the Weser, Map 1 (cf. Doc. Id.:531208), Integrated Management Plan for the Weser, Map 1 (international conservation areas) / detailed area descriptions in Bremen environmental information system BUISY, site areas according to figures from the real estate department, 15.08.2019



EFFECTS OF MAINTAINING THE WATER DEPTHS

Indicator	External assessment	Item	Unit	2018	2017	2016	2015	2014					
GRI 306-2	✓	Dredged sand in the year under review, hopper volume (wet)	m ³	96,951	158,145	131,729	171,020	130,500					
		of which relocated	per cent	100	100	99.6	100	99.9					
		of which directly recycled	per cent	0	0	0.4	0	0.1					
		of which landfilled	per cent	0	0	0	0	0					
		Dredged mud in the year under review, hopper volume (wet)	m ³	181,061	214,466	282,045	321,539	437,100					
		of which relocated	per cent	18.9	17.4	15.68	14.4	24					
		of which directly recycled	per cent	0	0	0	0	0					
		of which deposited on the dewatering fields for treatment	per cent	81.1	30.2	58.9	59.6	46					
		of which directly landfilled	per cent	0	52.4	25.5	26.1	30					
		Types of use of dredging spoils removed from the dewatering fields											
		Total volume of removed dredging spoils measured on-site (wet) [1]	m ³ per cent	190,780	100	109,815	100	223,532	100	172,482	100	148,523	100
		of which intended for recycling [2]	m ³ per cent	118,754	65.9	81,930	74.6	112,816	50.5	114,632	66.5	123,603	83.2
		of which landfilled	m ³ per cent	72,026	37.8	27,885	25.4	110,716	49.5	57,850	33.5	24,920	16.8
PERS		Total volume of dredging spoils in relation to port water area [3]	m ³ /m ²	0.050	0.067	0.070	0.089	0.103					
		Port water area pursuant to Bremen Port Area Ordinance	m ²	5,532,100	5,532,100	5,532,100	5,532,100	5,532,100					
PERS		Landfilled dredging spoils share of dredged mud	per cent	52.5	25.5	35.4	60.5	43.6					

[1] As the mud is treated in the dewatering fields for approx. 1 year, this quantity refers to the dredging spoils deposited in the dewatering fields the previous year.

[2] Total volume of dredged sediment in m³ in Bremen and Bremerhaven (not including the turning point in the Weser maritime waterway) / total port water area in m² according to Bremen Port Area Ordinance [Hafengebietsverordnung].

[3] Landfilled dredging spoils in m³ [directly landfilled dredging spoils in year X + landfilled dredging spoils from the dewatering fields in Seehausen in the following year (year X+1)] / total volume of dredged mud. The figure for the volume of landfilled material from the dewatering fields in Seehausen from the following year serves as a basis, as the dredged mud generally has to remain in the dewatering fields in Seehausen for approx. 1 year before it can be landfilled.