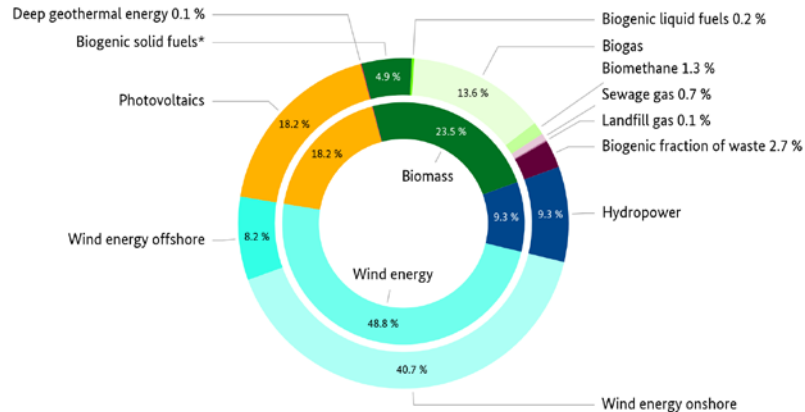


Renewables-based electricity generation in Germany 2017

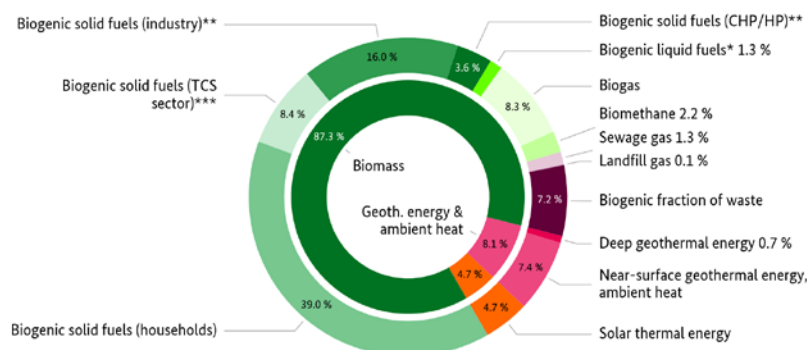
Total: 216.4 billion kilowatt hours



* incl. sewage sludge; BMWi based on Working Group on Renewable Energy-Statistics (AGEE-Stat); as at August 2018; all figures provisional

Renewables-based heat consumption in Germany 2017

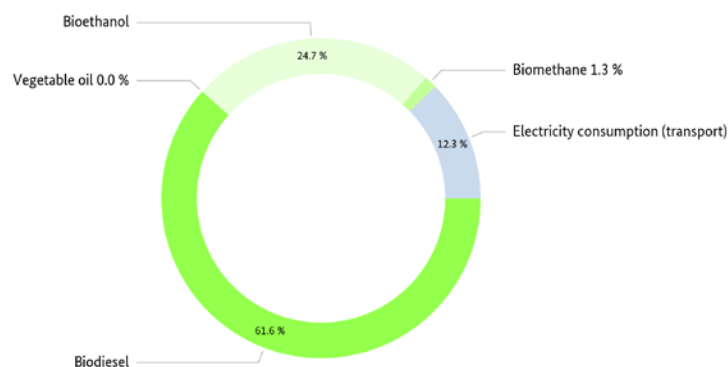
Total: 168.8 billion kilowatt hours



* incl. biodiesel used in farming; ** incl. sewage sludge; *** GHD corresponds to trade, commercial and services sector; BMWi based on Working Group on Renewable Energy-Statistics (AGEE-Stat); as at August 2018; all figures provisional

Renewables-based final energy consumption in transport sector in Germany 2017

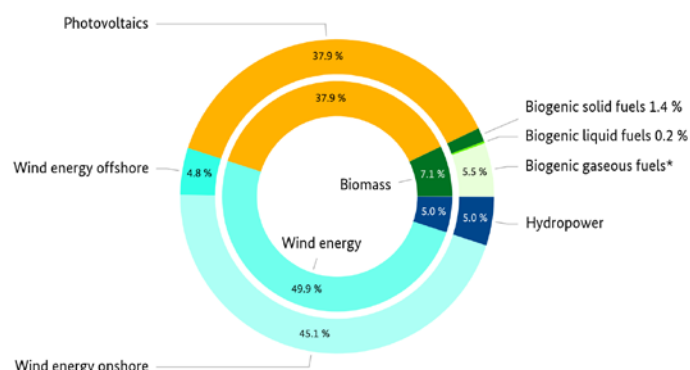
Total: 34.5 billion kilowatt hours



BMWi based on Working Group on Renewable Energy-Statistics (AGEE-Stat); as at August 2018; all figures provisional

Installed capacity for renewables-based electricity generation in Germany 2017

Total: 111.9 million kilowatt



Geothermal power plants are not shown here because of their very small share; * Biogas, biomethane, landfill gas and sewage gas; BMWi based on Working Group on Renewable Energy-Statistics (AGEE-Stat); as at August 2018; all figures provisional



Federal Ministry for Economic Affairs and Energy

Renewable Energy Sources in Germany

Key information 2017 at a glance



BMWi based on Working Group on Renewable Energy-Statistics (AGEE-Stat) as at August 2017

Development of renewable energy sources in 2017

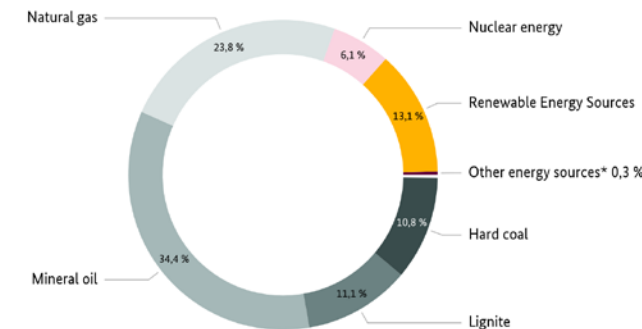
	RES 2018 [GWh]	Renewables based share [%]	GHG emissions avoided [1,000 t CO ₂ -Eq.]
Gross electricity consumption			
Hydropower	20.150	3,4	15.208
Wind energy on land	88.018	14,7	58.691
Wind energy offshore	17.675	2,9	11.927
Photovoltaics	39.426	6,6	24.215
Biogenic solid fuels incl. sewage sludge	10.624	1,8	7.321
Biogenic liquid fuels	513	0,1	287
Biogas	29.323	4,9	10.541
Biomethane	2.757	0,5	1.265
Sewage gas	1.480	0,2	940
Landfill gas	300	0,05	190
Biogenic fraction of waste	5.946	1,0	4.514
Geothermal energy	163	0,03	93
Total	216.375	36,0	135.193
Final energy consumption (heat)			
Biogenic solid fuels (households)	65.806	5,2	12.002
Biogenic solid fuels (TCS sector)	14.204	1,1	3.986
Biogenic solid fuels incl. sewage sludge (industry)	27.000	2,1	7.291
Biogenic solid fuels incl. sewage sludge (HP/CHP)	6.145	0,5	1.310
Biogenic liquid fuels	2.140	0,2	483
Biogas	14.010	1,1	2.144
Biomethane	3.634	0,3	500
Sewage gas	2.178	0,2	494
Landfill gas	127	0,01	37
Biogenic fraction of waste	12.093	0,9	2.661
Solar thermal energy	7.853	0,6	1.950
Deep geothermal energy	1.171	0,1	338
Near-surface geothermal energy and ambient heat	12.442	1,0	1.318
Total	168.803	13,2	34.515
Final energy consumption (transport)			
Biodiesel	21.258	3,2	5.156
Vegetable oil	10	0,00	2
Bioethanol	8.530	1,3	2.123
Biomethane	445	0,1	99
Electricity consumption (transport)	4.248	0,6	
Total	34.491	5,2	7.379

Share of renewable energy sources in Germany (in %)

	1990	2000	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
of gross final energy consumption	-	-	7,2	8,4	10,2	9,9	10,4	11,4	12,5	13,8	13,9	14,3	15,0	14,8	15,6
of gross electricity consumption	3,4	6,2	10,2	11,6	14,3	15,2	16,4	17,0	20,3	23,5	25,1	27,4	31,5	31,6	36,0
of final energy cons. (heat)	2,1	4,4	8,0	8,6	10,4	10,1	10,8	12,1	12,9	14,1	13,9	14,0	13,6	13,5	13,2
of final energy cons. (transport)	0,1	0,5	3,7	6,5	7,5	6,0	5,4	5,8	5,7	6,0	5,5	5,6	5,3	5,2	5,2
of primary energy consumption	1,3	2,9	5,3	6,3	7,9	8,0	8,9	9,9	10,8	10,3	10,8	11,5	12,4	12,4	13,1

Total primary energy consumption in Germany 2017

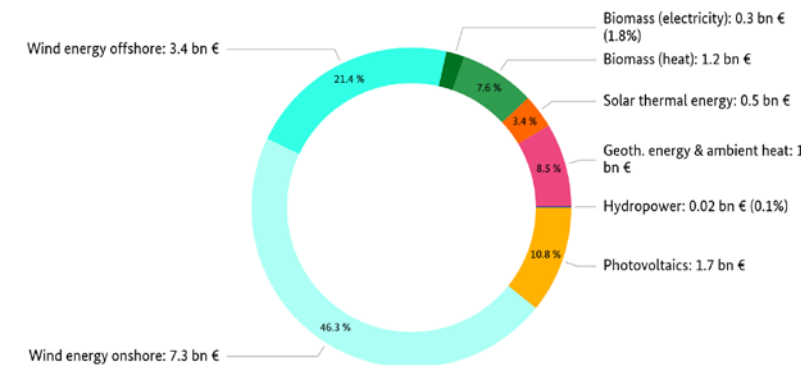
Total: 13.594 Petajoule



* other energy sources: non-renewable wastes, waste heat and foreign trade balance for electricity and heat; BMWi based on Arbeitsgemeinschaft Energiebilanzen (AGEB); as at August 2018; all figures provisional

Investment in construction of renewable energy plants in Germany 2017

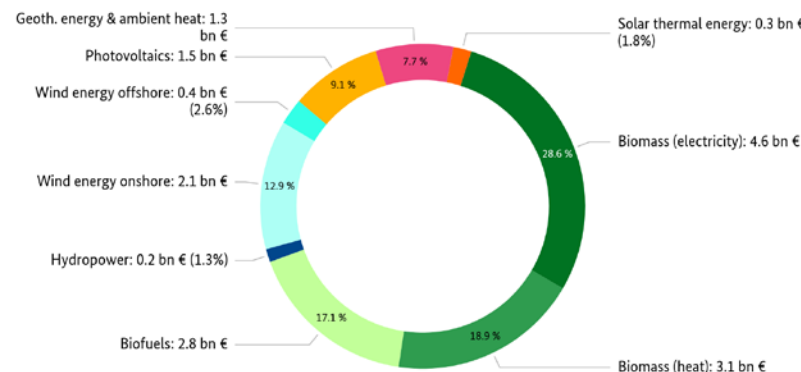
Total investment: 15.4 billion Euro



BMWi based on Centre for Solar Energy and Hydrogen Research Baden Wuerttemberg (ZSW); as at August 2018; all figures provisional

Economic stimuli from the operation of renewable energy plants in Germany 2017

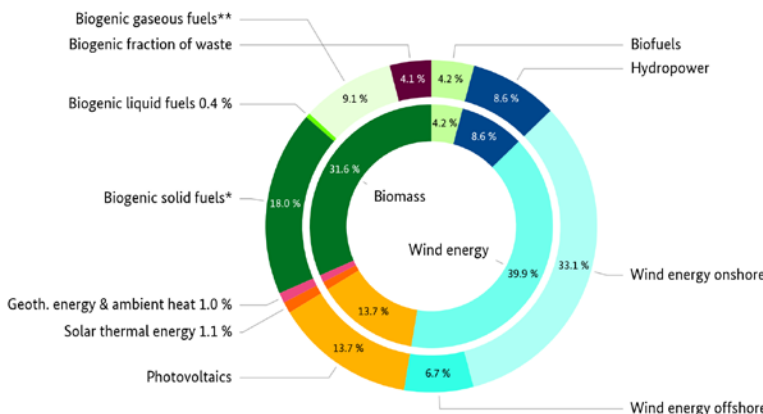
Total: 16.2 billion Euro



BMWi based on Centre for Solar Energy and Hydrogen Research Baden Wuerttemberg (ZSW); as at August 2018; all figures provisional

Greenhouse gas emissions avoided through use of renewable energy sources 2017

Total: 177.1 million tonnes CO₂-equivalents



* incl. sewage sludge; ** incl. biogas, biomethane, sewage gas and landfill gas; BMWi based on Working Group on Renewable Energy-Statistics (AGEE-Stat) using data of the Federal Environment Agency (UBA); as at August 2018; all figures provisional