







CN2050		2018	2030	2040	2050	2018– 2030 p.a. net	2030– 2050 p.a. net
Greenhouse gas emissions* (Mt CO ₂ eq)							
Energy sector 		305	98	45	-19	-17	-6
Industry 		195	123	43	-30	-6	-8
Transport 		162	89	18	0	-6	-4
Buildings 		117	65	24	1	-4	-3
Agriculture 		70	58	52	44	-1	-1
Waste / other 		10	5	3	2	0	0
Total		858	438	185	-2	-35	-22
Reduction relative to 1990		31	65	85	100		
LULUCF (for informational purposes only)		-27	1	2	-10	2	0
Primary energy consumption (PJ)		13,129	8,578	7,208	6,573	-379	-100
Coal		2,909	349	34	0	-213	-17
Petroleum		4,452	2,108	817	2	-195	-105
Fossil gases		3,099	2,613	1,354	3	-41	-131
Gross electricity consumption (TWh)		595	643	824	962	4	16
Share of renewables in gross electricity consumption (%)		38	69	82	100**		
Onshore wind (GW)		52	80	119	130	2	3
Onshore wind (GW)		6	25	51	70	2	2
Photovoltaics (GW)		45	150	252	355	9	10
Number of electric cars, including plug-in hybrids (millions of units)		0	14	32	30	1	1
Rail freight transport (billions of tkm)		135	190	210	230	5	2
Number of heat pumps (millions of units)		1	6	11	14	0.4	0.4
Useful energy demand in residential buildings (kWh/(m ² ·a))		106	85	71	60	-2	-1
Electrolyser capacity in Germany (GW)		0	10	25	51	1	2
Hydrogen use (TWh)		0	63	172	268	5	10
Generation of renewable hydrogen in Germany (TWh)		0	19	38	84	2	3
Imported hydrogen (TWh)		0	44	134	184	4	7
Other imported synthetic fuels (TWh)		0	1	8	123	0	6
Carbon capture and storage (gross volume, MT CO₂)		0	-1	-22	-73	0	-4
Process emissions and waste (Mt CO ₂)		0	-1	-5	-18	0	-1
Negative emissions (Mt CO ₂)		0	0	-17	-56	0	-3
Negative emissions including carbon absorption (Mt CO₂)		0	0	-17	-64	0	-3
Bioenergy CCS (BECCS, Mt CO ₂)		0	0	-15	-37	0	-1
Direct air capture CCS (DACCS, Mt CO ₂)		0	0	-2	-19	0	-1
Imported green polymers (Mt CO ₂)		0	0	0	-8	0	0
Population in Germany (millions)		83	83	81	79	0	0
EU-ETS, EUR ₂₀₁₉ /t		16	52	70	90	3	2

* Negative emissions are directly factored into the sectors.

** This includes electricity generation from renewable hydrogen together with stored and imported renewable electricity.

Prognos, Öko-Institut, Wuppertal Institut (2020)