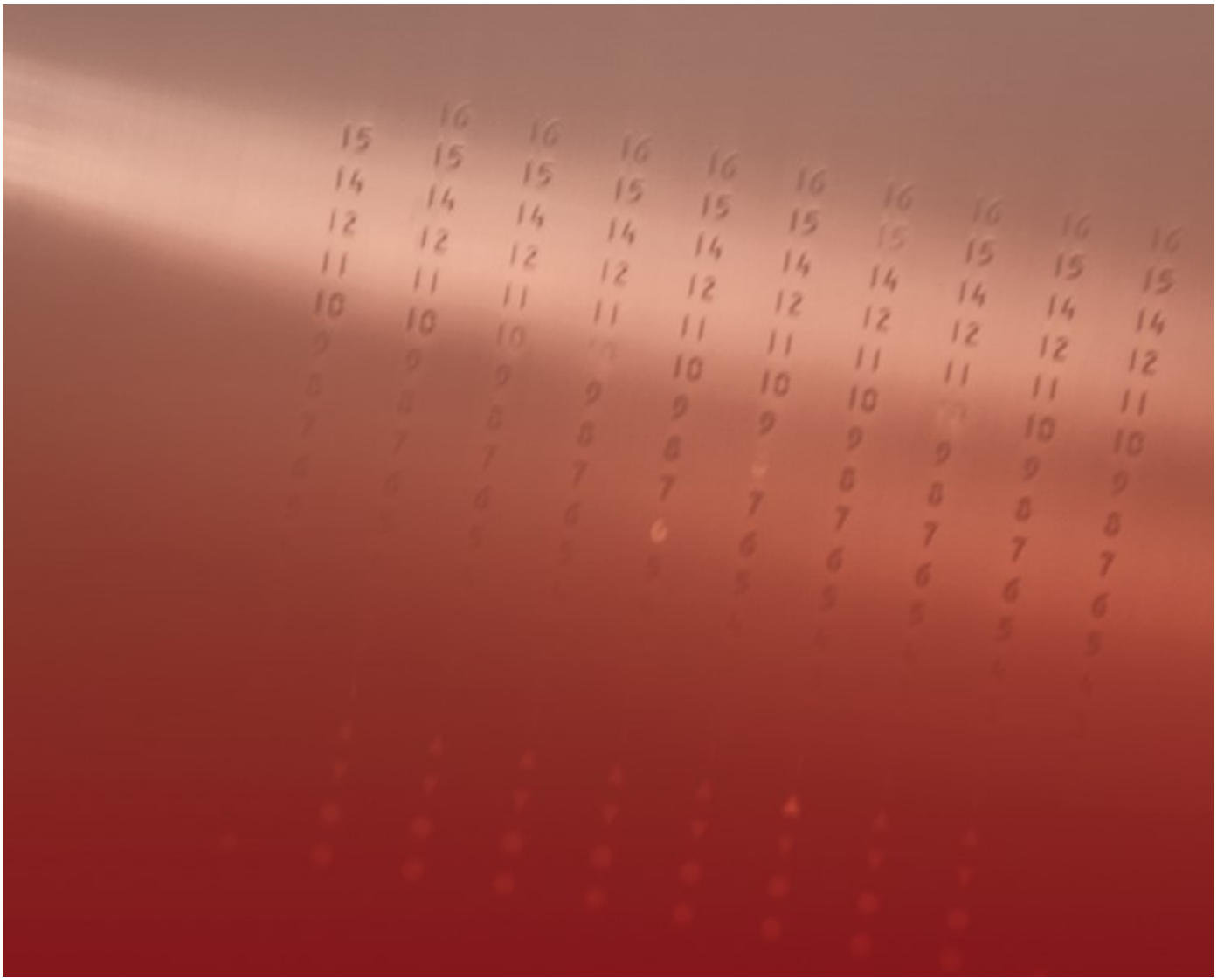

Evaluation Tables of the Energy Balace for Germany

Energy data for the years 1990 to 2023

Last update: February 2025 (final results up to 2023)

AGEB
AG Energiebilanzen e.V.

Content

Preliminary notes and additional information

Preliminary notes on the evaluation tables of the German Energy Balance:

This publication summarizes the most important data of the energy balances since 1990 in the form of aggregated time series. Especially for the reader, who is not interested in detailed energy balances of each year, we give a well-founded overview of the energy statistical development in Germany. It is to be considered, that the data for the most recent year are provisional.

Since 1995 the AG Energiebilanzen applies the physical energy content method for energy balances. This method assumes a 33 % efficiency of nuclear electricity generation, i.e. the input of primary energy is three times as high as the electricity generation. Electricity generation from renewable energy without fuel consumption (hydro, wind, photovoltaics) is calculated with 100 % efficiency. Until 1994 the primary energy consumption of these energy carriers was calculated by the average fuel input in conventional power plants (according to the former "substitution method"). However, all data in this publication are calculated by the physical energy content method.

The structure of this data collection is similar to the structure of the energy balances. It begins with primary energy production and foreign trade (section 1). Section 2 presents an overview of primary energy consumption by energy carriers und the structure of the energy consumption by sectors. The importance of renewable energy is illustrated in section 3. Section 4 shows the fuel input for electricity generation. Combined heat and power generation (CHP) is considered in more detail in section 5. Section 6 provides detailed tables on the development of the final energy consumption by energy carriers and sectors. Furthermore, section 7 illustrates the development of important energy efficiency indicators. In the annex, the classification of energy carriers considered in this publication is compared to the more detailed classification in the energy balances.

The following tables present also data that are not shown in this form in the energy balance. This is especially true for the presentation of CHP, a technology that concerns different energy conversion and consumption sectors of the energy balance. The fuel input for CHP electricity generation is shown in the conversion sector ("Public thermal power station", "Industrial power station" or "Hydro, wind, photovoltaic and other power stations"). However, the fuel input for CHP heat generation is shown in the conversion sector "Public cogeneration plants" only if it serves district heating. The fuel input for heat generation in CHP plants of the industry is included in the final energy consumption. The heat generated in these plants cannot be seen in the energy balance. The same applies to CHP plants of other auto-producers (less than 1 MW). Hence, the schema of the energy balance alone cannot show the full importance of CHP. Therefore, additional data on energy input and generation of heat and power in CHP plants are shown in section 5.

In 2023, the energy balances were subjected to a complete revision, starting with the year 2003 up to the current edge. All areas of the energy balance were carefully analyzed, new findings were incorporated and errors were corrected.
Further information can be found in the infoplus information service of the AG Energiebilanzen,
available at: https://ag-energiebilanzen.de/presse/infoplus/.

Additional information on the German Energy Balance:

The evaluation tables were compiled on behalf of AG Energiebilanzen by

- Energy Environment Forecast & Analysis (EEFA, www.eefa.de),
- Zentrum für Sonnenenergie- und Wasserstoff-Forschung Baden-Württemberg (ZSW, www.zsw-bw.de)

The data are based on the published German Energy Balances (if not explicitly stated otherwise).

Commencing with the balance year 2018, the Federal Ministry for Economic Affairs and Energy stipulated in conjunction with the renewed assignment of the AG Energiebilanzen to prepare the energy balances for Germany that it incorporates the relevant data on renewables which are ascertained by the Working Group on Renewable Energies-Statistics (AGEE-Stat) under the auspices of the Federal Environment Agency (UBA) directly into the energy balances to be established by AGEB.

When it comes to renewables, AGEE-Stat had been an important data source for AGEB already in the past. The fact that original official statistics which could be adopted directly are generally not available for renewables prompts us to make individual estimates of the respective consumption values for whom it is often necessary to rely on specific in-house model calculations which have been specifically developed for this purpose. This applies to both AGEB and AGEE-Stat. It is therefore understandable that different approaches are taken by the model-based estimates of both institutions which do not necessarily lead to the same results.

Nevertheless, it seemed to be advisable to refer to a single data source in order to avoid any divergences which would be hard to explain to the public. When it comes to renewables, AGEE-Stat will, thus, be responsible for the respective data in the energy balance as well as in the requisite derivable evaluations starting with the balance year 2018. This already applies to the tabular information on renewable energy carriers included in this energy report.

1.1 Indigenous energy production by energy source

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Indigenous energy production by energy source in PJ																																			
Hard coal	PJ	2,089	1,980	1,957	1,735	1,557	1,595	1,434	1,391	1,234	1,194	1,012	825	790	777	784	756	641	651	521	415	387	361	324	229	230	185	115	108	75	0	0	0	0	0
Lignite	PJ	3,142	2,462	2,129	1,939	1,830	1,711	1,661	1,573	1,485	1,453	1,528	1,612	1,653	1,641	1,660	1,611	1,591	1,628	1,576	1,529	1,535	1,595	1,676	1,660	1,617	1,608	1,544	1,540	1,506	1,190	979	1,153	1,193	916
Petroleum	PJ	156	149	140	131	124	125	121	120	123	116	131	140	152	162	150	152	150	145	130	119	107	114	112	112	104	103	100	94	88	82	81	77	72	70
Gases	PJ	575	569	578	576	603	621	671	660	643	687	649	654	656	686	636	606	633	623	551	546	464	459	405	389	312	290	278	255	208	200	172	172	159	141
Natural gas, Petroleum gas	PJ	563	556	564	561	588	607	657	646	631	674	638	644	642	668	618	588	611	604	537	534	452	447	391	374	300	280	266	246	201	194	163	165	153	135
Renewable Energy Sources	PJ	200	200	210	230	255	275	270	344	379	404	417	432	455	574	666	753	917	1,070	1,120	1,120	1,293	1,348	1,497	1,547	1,558	1,664	1,669	1,785	1,823	1,919	1,947	1,953	2,044	2,085
Other energy sources	PJ	62	0	0	0	0	0	0	0	0	0	56	51	43	137	168	137	139	158	188	219	239	244	225	201	213	210	223	222	214	216	204	215	212	203
Total	**PJ**	**6,224**	**5,359**	**5,014**	**4,610**	**4,370**	**4,328**	**4,157**	**4,089**	**3,865**	**3,854**	**3,793**	**3,714**	**3,750**	**3,977**	**4,064**	**4,015**	**4,071**	**4,275**	**4,086**	**3,948**	**4,025**	**4,122**	**4,238**	**4,138**	**4,034**	**4,059**	**3,929**	**4,003**	**3,915**	**3,607**	**3,383**	**3,570**	**3,681**	**3,414**
Indigenous energy production by energy source in mill. tce																																			
Hard coal	mill. tce	71.3	67.6	66.8	59.2	53.1	54.4	48.9	47.5	42.1	40.7	34.5	28.1	27.0	26.5	26.7	25.8	21.9	22.2	17.8	14.1	13.2	12.3	11.1	7.8	7.8	6.3	3.9	3.7	2.6	0.0	0.0	0.0	0.0	0.0
Lignite	mill. tce	107.2	84.0	72.6	66.1	62.5	58.4	56.7	53.7	50.7	49.6	52.1	55.0	56.4	56.0	56.6	55.0	54.3	55.5	53.8	52.2	52.4	54.4	57.2	56.6	55.2	54.9	52.7	52.5	51.4	40.6	33.4	39.3	40.7	31.3
Petroleum	mill. tce	5.3	5.1	4.8	4.5	4.2	4.3	4.1	4.1	4.2	4.0	4.5	4.8	5.2	5.5	5.1	5.2	5.1	5.0	4.4	4.1	3.7	3.9	3.8	3.8	3.5	3.5	3.4	3.2	3.0	2.8	2.8	2.6	2.5	2.4
Gases	mill. tce	19.6	19.4	19.7	19.6	20.6	21.2	22.9	22.5	22.0	23.4	22.1	22.3	22.4	23.4	21.7	20.7	21.6	21.3	18.8	18.6	15.8	15.7	13.8	13.3	10.6	9.9	9.5	8.7	7.1	6.8	5.9	5.9	5.4	4.8
Natural gas, Petroleum gas	mill. tce	19.2	19.0	19.2	19.1	20.1	20.7	22.4	22.0	21.5	23.0	21.8	22.0	21.9	22.8	21.1	20.1	20.8	20.6	18.3	18.2	15.4	15.2	13.3	12.8	10.2	9.5	9.1	8.4	6.9	6.6	5.6	5.6	5.2	4.6
Renewable Energy Sources	mill. tce	6.8	6.8	7.2	7.9	8.7	9.4	9.2	11.8	12.9	13.8	14.2	14.7	15.5	19.6	22.7	25.7	31.3	36.5	38.2	38.2	44.1	46.0	51.1	52.8	53.2	56.8	57.0	60.9	62.2	65.5	66.4	66.6	69.8	71.1
Other energy sources	mill. tce	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.8	1.5	4.7	5.7	4.7	4.8	5.4	6.4	7.5	8.2	8.3	7.7	6.9	7.3	7.2	7.6	7.6	7.3	7.4	7.0	7.3	7.2	6.9
Total	**mill. tce**	**212.4**	**182.8**	**171.1**	**157.3**	**149.1**	**147.7**	**141.8**	**139.5**	**131.9**	**131.5**	**129.4**	**126.7**	**128.0**	**135.7**	**138.6**	**137.0**	**138.9**	**145.9**	**139.4**	**134.7**	**137.3**	**140.6**	**144.6**	**141.2**	**137.6**	**138.5**	**134.1**	**136.6**	**133.6**	**123.1**	**115.4**	**121.8**	**125.6**	**116.5**
Indigenous energy production by energy source in %																																			
Hard coal	%	33.6	36.9	39.0	37.6	35.6	36.9	34.5	34.0	31.9	31.0	26.7	22.2	21.1	19.5	19.3	18.8	15.8	15.2	12.8	10.5	9.6	8.8	7.7	5.5	5.7	4.5	2.9	2.7	1.9	0.0	0.0	0.0	0.0	0.0
Lignite	%	50.5	45.9	42.5	42.1	41.9	39.5	39.9	38.5	38.4	37.7	40.3	43.4	44.1	41.3	40.9	40.1	39.1	38.1	38.6	38.7	38.1	38.7	39.5	40.1	40.1	39.6	39.3	38.5	38.5	33.0	28.9	32.3	32.4	26.8
Petroleum	%	2.5	2.8	2.8	2.8	2.8	2.9	2.9	2.9	3.2	3.0	3.5	3.8	4.0	4.1	3.7	3.8	3.7	3.4	3.2	3.0	2.7	2.8	2.6	2.7	2.6	2.5	2.6	2.4	2.2	2.3	2.4	2.1	2.0	2.0
Gases	%	9.2	10.6	11.5	12.5	13.8	14.4	16.1	16.2	16.6	17.8	17.1	17.6	17.5	17.3	15.6	15.1	15.5	14.6	13.5	13.8	11.5	11.1	9.5	9.4	7.7	7.2	7.1	6.4	5.3	5.6	5.1	4.8	4.3	4.1
Natural gas, Petroleum gas	%	9.1	10.4	11.2	12.2	13.5	14.0	15.8	15.8	16.3	17.5	16.8	17.3	17.1	16.8	15.2	14.6	15.0	14.1	13.1	13.5	11.2	10.8	9.2	9.0	7.4	6.9	6.8	6.2	5.1	5.4	4.8	4.6	4.2	4.0
Renewable Energy Sources	%	3.2	3.7	4.2	5.0	5.8	6.3	6.5	8.4	9.8	10.5	11.0	11.6	12.1	14.4	16.4	18.7	22.5	25.0	27.4	28.4	32.1	32.7	35.3	37.4	38.6	41.0	42.5	44.6	46.6	53.2	57.5	54.7	55.5	61.1
Other energy sources	%	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5	1.4	1.2	3.4	4.1	3.4	3.4	3.7	4.6	5.6	5.9	5.9	5.3	4.9	5.3	5.2	5.7	5.5	5.5	6.0	6.0	6.0	5.8	5.9
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Indigenous energy production by energy source, changes compared to the previous year in %																																			
Hard coal	%	n/a	-5.2	-1.1	-11.4	-10.2	2.4	-10.1	-3.0	-11.3	-3.3	-15.2	-18.5	-4.2	-1.7	0.9	-3.6	-15.1	1.5	-19.9	-20.4	-6.7	-6.6	-10.3	-29.3	0.4	-19.8	-37.7	-6.2	-30.2	-100.0	0.0	0.0	0.0	0.0
Lignite	%	n/a	-21.7	-13.5	-8.9	-5.6	-6.5	-3.0	-5.3	-5.6	-2.1	5.1	5.5	2.6	-0.8	1.2	-3.0	-1.2	2.3	-3.1	-3.0	0.4	3.9	5.1	-1.0	-2.6	-0.6	-3.9	-0.3	-2.2	-21.0	-17.7	17.8	3.4	-23.2
Petroleum	%	n/a	-4.7	-5.7	-6.8	-4.8	1.0	-3.6	-1.0	2.9	-5.6	13.0	6.5	8.6	6.7	-7.5	1.5	-1.6	-2.9	-10.6	-8.3	-10.2	6.7	-2.4	0.6	-7.6	-1.0	-2.4	-5.9	-6.7	-6.9	-1.0	-5.4	-5.6	-4.0
Gases	%	n/a	-1.1	1.7	-0.4	4.7	3.0	8.1	-1.6	-2.6	6.8	-5.5	0.8	0.2	4.7	-7.4	-4.7	4.4	-1.5	-11.6	-0.8	-15.1	-1.0	-11.9	-3.8	-19.9	-6.8	-4.4	-8.3	-18.1	-3.8	-14.1	-0.1	-7.4	-11.6
Natural gas, Petroleum gas	%	n/a	-1.4	1.4	-0.5	4.9	3.1	8.3	-1.7	-2.3	6.8	-5.4	1.0	-0.3	4.1	-7.5	-5.0	3.9	-1.0	-11.2	-0.6	-15.4	-1.1	-12.5	-4.2	-19.9	-6.7	-5.1	-7.3	-18.4	-3.3	-15.8	0.8	-7.1	-11.6
Renewable Energy Sources	%	n/a	0.1	5.0	9.8	10.8	7.7	-1.8	27.7	10.1	6.4	3.2	3.8	5.4	26.1	15.9	13.0	21.8	16.7	4.6	0.0	15.4	4.2	11.0	3.4	0.7	6.8	0.3	6.9	2.1	5.3	1.4	0.3	4.7	2.0
Other energy sources	%	n/a	-100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-9.0	-15.5	215.4	23.0	-18.5	1.5	13.3	19.1	16.5	9.0	2.0	-7.6	-10.6	5.9	-1.6	6.2	-0.4	-3.5	1.0	-5.6	5.5	-1.6	-4.2
Total	**%**	**n/a**	**-13.9**	**-6.4**	**-8.1**	**-5.2**	**-1.0**	**-4.0**	**-1.6**	**-5.5**	**-0.3**	**-1.6**	**-2.1**	**1.0**	**6.1**	**2.2**	**-1.2**	**1.4**	**5.0**	**-4.4**	**-3.4**	**1.9**	**2.4**	**2.8**	**-2.4**	**-2.5**	**0.6**	**-3.2**	**1.9**	**-2.2**	**-7.9**	**-6.2**	**5.5**	**3.1**	**-7.2**

1990 - 2023: final data

Other energy sources: incl. nuclear energy (uranium mining until 1990)

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1.2 Import by energy source

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Import by energy source in PJ																																			
Hard coal	PJ	445	489	494	429	508	492	551	670	778	816	954	1,098	1,098	1,171	1,210	1,135	1,366	1,406	1,364	1,115	1,385	1,429	1,457	1,613	1,555	1,544	1,634	1,411	1,292	1,179	869	1,131	1,228	912
Lignite	PJ	59	64	60	53	48	39	40	38	34	35	30	34	15	3	2	2	4	3	3	3	2	2	1	2	2	1	1	1	1	1	1	1	1	1
Petroleum	PJ	5,692	6,051	6,503	6,528	6,553	6,141	6,360	6,329	6,570	6,160	6,231	6,348	6,035	6,065	6,151	6,292	6,247	5,776	5,969	5,582	5,489	5,246	5,352	5,473	5,410	5,515	5,550	5,634	5,353	5,463	5,015	5,038	5,277	4,839
Gases	PJ	1,791	1,895	1,978	2,108	2,212	2,322	2,634	2,567	2,511	2,639	2,676	2,663	2,765	2,947	3,166	3,311	3,272	3,046	3,192	3,083	3,307	3,154	3,110	3,440	3,163	3,607	3,597	4,019	5,761	5,571	5,474	5,436	4,737	3,213
Natural gas, Petroleum gas	PJ	1,791	1,895	1,978	2,108	2,212	2,322	2,634	2,567	2,511	2,639	2,676	2,663	2,765	2,947	3,166	3,311	3,272	3,046	3,192	3,083	3,307	3,154	3,110	3,440	3,163	3,607	3,597	4,019	5,761	5,571	5,474	5,436	4,737	3,213
Renewable Energy Sources	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	19	23	44	70	76	67	64	85	96	86	96	96	90	80	81	101	89	140	108	108	106
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	115	112	104	122	133	143	135	137	138	146	162	167	166	177	173	205	174	165	150	151	155	184	167	141	146	133	102	100	114	144	173	186	178	250
Nuclear energy	PJ	1,606	1,609	1,733	1,675	1,650	1,682	1,764	1,859	1,764	1,855	1,851	1,868	1,798	1,801	1,822	1,779	1,826	1,533	1,623	1,472	1,533	1,178	1,085	1,061	1,060	1,001	923	833	829	819	702	754	379	79
Total	**PJ**	**9,708**	**10,220**	**10,872**	**10,915**	**11,105**	**10,819**	**11,484**	**11,600**	**11,796**	**11,653**	**11,904**	**12,179**	**11,877**	**12,181**	**12,549**	**12,768**	**12,960**	**12,005**	**12,368**	**11,469**	**11,956**	**11,288**	**11,259**	**11,826**	**11,431**	**11,893**	**11,887**	**12,078**	**13,451**	**13,266**	**12,373**	**12,654**	**11,906**	**9,400**
Import by energy source in mill. tce																																			
Hard coal	mill. tce	15.2	16.7	16.9	14.6	17.3	16.8	18.8	22.9	26.5	27.9	32.6	37.5	37.5	39.9	41.3	38.7	46.6	48.0	46.6	38.1	47.2	48.8	49.7	55.0	53.1	52.7	55.8	48.1	44.1	40.2	29.6	38.6	41.9	31.1
Lignite	mill. tce	2.0	2.2	2.0	1.8	1.6	1.3	1.4	1.3	1.2	1.2	1.0	1.1	0.5	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	mill. tce	194.2	206.5	221.9	222.7	223.6	209.5	217.0	215.9	224.2	210.2	212.6	216.6	205.9	206.9	209.9	214.7	213.1	197.1	203.7	190.5	187.3	179.0	182.6	186.7	184.6	188.2	189.4	192.2	182.6	186.4	171.1	171.9	180.0	165.1
Gases	mill. tce	61.1	64.7	67.5	71.9	75.5	79.2	89.9	87.6	85.7	90.0	91.3	90.9	94.3	100.5	108.0	113.0	111.7	103.9	108.9	105.2	112.8	107.6	106.1	117.4	107.9	123.1	122.7	137.1	196.6	190.1	186.8	185.5	161.6	109.6
Natural gas, Petroleum gas	mill. tce	61.1	64.7	67.5	71.9	75.5	79.2	89.9	87.6	85.7	90.0	91.3	90.9	94.3	100.5	108.0	113.0	111.7	103.9	108.9	105.2	112.8	107.6	106.1	117.4	107.9	123.1	122.7	137.1	196.6	190.1	186.8	185.5	161.6	109.6
Renewable Energy Sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.8	1.5	2.4	2.6	2.3	2.2	2.9	3.3	2.9	3.3	3.3	3.1	2.7	2.8	3.5	3.0	4.8	3.7	3.7	3.6
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	mill. tce	3.9	3.8	3.6	4.2	4.6	4.9	4.6	4.7	4.7	5.0	5.5	5.7	5.7	6.0	5.9	7.0	6.0	5.6	5.1	5.1	5.3	6.3	5.7	4.8	5.0	4.5	3.5	3.4	3.9	4.9	5.9	6.4	6.1	8.5
Nuclear energy	mill. tce	54.8	54.9	59.1	57.1	56.3	57.4	60.2	63.4	60.2	63.3	63.2	63.7	61.4	61.4	62.2	60.7	62.3	52.3	55.4	50.2	52.3	40.2	37.0	36.2	36.2	34.2	31.5	28.4	28.3	27.9	24.0	25.7	12.9	2.7
Total	**mill. tce**	**331.3**	**348.7**	**371.0**	**372.4**	**378.9**	**369.1**	**391.9**	**395.8**	**402.5**	**397.6**	**406.2**	**415.5**	**405.2**	**415.6**	**428.2**	**435.6**	**442.2**	**409.6**	**422.0**	**391.3**	**407.9**	**385.1**	**384.1**	**403.5**	**390.0**	**405.8**	**405.6**	**412.1**	**458.9**	**452.6**	**422.2**	**431.8**	**406.2**	**320.7**
Import by energy source in %																																			
Hard coal	%	4.6	4.8	4.5	3.9	4.6	4.5	4.8	5.8	6.6	7.0	8.0	9.0	9.2	9.6	9.6	8.9	10.5	11.7	11.0	9.7	11.6	12.7	12.9	13.6	13.6	13.0	13.7	11.7	9.6	8.9	7.0	8.9	10.3	9.7
Lignite	%	0.6	0.6	0.6	0.5	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	%	58.6	59.2	59.8	59.8	59.0	56.8	55.4	54.6	55.7	52.9	52.3	52.1	50.8	49.8	49.0	49.3	48.2	48.1	48.3	48.7	45.9	46.5	47.5	46.3	47.3	46.4	46.7	46.6	39.8	41.2	40.5	39.8	44.3	51.5
Gases	%	18.5	18.5	18.2	19.3	19.9	21.5	22.9	22.1	21.3	22.6	22.5	21.9	23.3	24.2	25.2	25.9	25.2	25.4	25.8	26.9	27.7	27.9	27.6	29.1	27.7	30.3	30.3	33.3	42.8	42.0	44.2	43.0	39.8	34.2
Natural gas, Petroleum gas	%	18.5	18.5	18.2	19.3	19.9	21.5	22.9	22.1	21.3	22.6	22.5	21.9	23.3	24.2	25.2	25.9	25.2	25.4	25.8	26.9	27.7	27.9	27.6	29.1	27.7	30.3	30.3	33.3	42.8	42.0	44.2	43.0	39.8	34.2
Renewable Energy Sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.5	0.6	0.5	0.6	0.7	0.9	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.7	1.1	0.9	0.9	1.1
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	%	1.2	1.1	1.0	1.1	1.2	1.3	1.2	1.2	1.2	1.3	1.4	1.4	1.4	1.5	1.4	1.6	1.3	1.4	1.2	1.3	1.3	1.6	1.5	1.2	1.3	1.1	0.9	0.8	0.8	1.1	1.4	1.5	1.5	2.7
Nuclear energy	%	16.5	15.7	15.9	15.3	14.9	15.5	15.4	16.0	15.0	15.9	15.6	15.3	15.1	14.8	14.5	13.9	14.1	12.8	13.1	12.8	12.8	10.4	9.6	9.0	9.3	8.4	7.8	6.9	6.2	6.2	5.7	6.0	3.2	0.8
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Import by energy source, changes compared to the previous year in %																																			
Hard coal	%	n/a	9.9	1.1	-13.1	18.3	-3.1	11.9	21.7	16.0	5.0	16.9	15.1	0.0	6.6	3.4	-6.2	20.3	2.9	-3.0	-18.3	24.1	3.2	2.0	10.7	-3.6	-0.7	5.8	-13.7	-8.4	-8.7	-26.3	30.2	8.6	-25.7
Lignite	%	n/a	7.6	-6.3	-10.8	-9.6	-18.9	3.1	-6.2	-9.7	3.4	-15.3	11.8	-56.0	-78.6	-41.6	4.8	131.0	-28.5	-14.1	-6.0	-18.2	-16.2	-31.3	50.1	16.8	-35.1	-34.9	-28.5	5.8	19.3	2.8	-13.8	19.3	6.2
Petroleum	%	n/a	6.3	7.5	0.4	0.4	-6.3	3.6	-0.5	3.8	-6.2	1.1	1.9	-4.9	0.5	1.4	2.3	-0.7	-7.5	3.3	-6.5	-1.7	-4.4	2.0	2.3	-1.2	2.0	0.6	1.5	-5.0	2.1	-8.2	0.5	4.7	-8.3
Gases	%	n/a	5.8	4.4	6.6	4.9	5.0	13.5	-2.6	-2.2	5.1	1.4	-0.5	3.8	6.6	7.4	4.6	-1.2	-6.9	4.8	-3.4	7.3	-4.6	-1.4	10.6	-8.1	14.0	-0.3	11.8	43.3	-3.3	-1.7	-0.7	-12.9	-32.2
Natural gas, Petroleum gas	%	n/a	5.8	4.4	6.6	4.9	5.0	13.5	-2.6	-2.2	5.1	1.4	-0.5	3.8	6.6	7.4	4.6	-1.2	-6.9	4.8	-3.4	7.3	-4.6	-1.4	10.6	-8.1	14.0	-0.3	11.8	43.3	-3.3	-1.7	-0.7	-12.9	-32.2
Renewable Energy Sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.1	89.7	58.3	8.0	-11.1	-4.9	33.3	12.6	-10.2	11.3	-0.3	-5.7	-11.5	1.2	25.2	-12.4	57.3	-22.6	0.0	-1.6
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-100.0	0.0	7.0	-3.3	-100.0	0.0
Electricity	%	n/a	-2.2	-7.1	16.7	9.5	7.3	-5.9	1.6	0.8	6.0	11.2	2.9	-0.5	6.3	-1.9	18.0	-14.8	-5.2	-9.3	0.5	2.6	18.7	-9.3	-15.2	3.1	-8.5	-23.4	-1.8	14.0	26.5	19.7	7.7	-4.6	40.5
Nuclear energy	%	n/a	0.2	7.7	-3.4	-1.5	1.9	4.9	5.4	-5.1	5.2	-0.2	0.9	-3.8	0.1	1.2	-2.4	2.6	-16.0	5.9	-9.3	4.2	-23.2	-7.9	-2.2	-0.2	-5.5	-7.8	-9.8	-0.4	-1.2	-14.2	7.4	-49.8	-79.2
Total	**%**	**n/a**	**5.3**	**6.4**	**0.4**	**1.7**	**-2.6**	**6.2**	**1.0**	**1.7**	**-1.2**	**2.2**	**2.3**	**-2.5**	**2.6**	**3.0**	**1.7**	**1.5**	**-7.4**	**3.0**	**-7.3**	**4.2**	**-5.6**	**-0.3**	**5.0**	**-3.3**	**4.0**	**0.0**	**1.6**	**11.4**	**-1.4**	**-6.7**	**2.3**	**-5.9**	**-21.1**

1990 - 2023: final data

Other energy sources: incl. import of district heat

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1.3 Export by energy source

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Export by energy source in PJ																																			
Hard coal	PJ	267	202	122	74	115	82	50	47	36	27	48	39	18	56	55	59	56	60	66	40	64	29	71	16	20	15	29	31	30	35	36	44	49	37
Lignite	PJ	92	44	27	22	21	15	16	14	12	11	13	14	12	13	14	16	20	20	24	24	27	29	33	33	45	42	30	32	32	28	23	26	26	22
Petroleum	PJ	620	606	908	952	981	633	667	683	695	776	923	821	838	819	1,049	1,136	1,177	1,215	1,081	948	787	773	793	850	892	949	961	988	950	929	939	1,073	1,159	1,039
Gases	PJ	41	68	113	121	150	101	117	126	152	206	307	221	243	448	503	712	545	551	529	465	720	619	599	773	784	1,144	811	1,129	2,800	2,394	2,683	2,498	1,837	710
Natural gas, Petroleum gas	PJ	39	66	111	119	149	101	116	125	151	205	306	220	243	448	503	712	545	551	529	465	720	619	599	773	784	1,144	811	1,129	2,800	2,394	2,683	2,498	1,837	710
Renewable Energy Sources	PJ	3	3	3	3	2	0	0	0	0	0	0	0	0	9	11	11	29	36	37	37	69	79	59	72	86	82	72	75	99	104	116	112	109	112
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	112	114	123	119	125	126	154	145	140	142	151	157	164	189	183	221	236	225	222	195	209	197	241	257	268	307	284	289	290	262	241	253	276	216
Nuclear energy	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**PJ**	**1,135**	**1,037**	**1,296**	**1,290**	**1,394**	**957**	**1,004**	**1,016**	**1,035**	**1,163**	**1,442**	**1,253**	**1,276**	**1,534**	**1,814**	**2,155**	**2,063**	**2,108**	**1,960**	**1,710**	**1,875**	**1,727**	**1,795**	**2,000**	**2,094**	**2,539**	**2,187**	**2,544**	**4,201**	**3,753**	**4,039**	**4,006**	**3,456**	**2,136**
Export by energy source in mill. tce																																			
Hard coal	mill. tce	9.1	6.9	4.2	2.5	3.9	2.8	1.7	1.6	1.2	0.9	1.6	1.3	0.6	1.9	1.9	2.0	1.9	2.1	2.3	1.4	2.2	1.0	2.4	0.5	0.7	0.5	1.0	1.1	1.0	1.2	1.2	1.5	1.7	1.3
Lignite	mill. tce	3.1	1.5	0.9	0.8	0.7	0.5	0.5	0.5	0.4	0.4	0.4	0.5	0.4	0.5	0.5	0.6	0.7	0.7	0.8	0.8	0.9	1.0	1.1	1.1	1.5	1.4	1.0	1.1	1.1	1.0	0.8	0.9	0.9	0.7
Petroleum	mill. tce	21.2	20.7	31.0	32.5	33.5	21.6	22.8	23.3	23.7	26.5	31.5	28.0	28.6	28.0	35.8	38.8	40.2	41.5	36.9	32.4	26.9	26.4	27.1	29.0	30.4	32.4	32.8	33.7	32.4	31.7	32.0	36.6	39.5	35.4
Gases	mill. tce	1.4	2.3	3.8	4.1	5.1	3.5	4.0	4.3	5.2	7.0	10.5	7.5	8.3	15.3	17.2	24.3	18.6	18.8	18.1	15.9	24.6	21.1	20.4	26.4	26.7	39.0	27.7	38.5	95.5	81.7	91.6	85.2	62.7	24.2
Natural gas, Petroleum gas	mill. tce	1.3	2.3	3.8	4.1	5.1	3.4	4.0	4.3	5.2	7.0	10.5	7.5	8.3	15.3	17.2	24.3	18.6	18.8	18.1	15.9	24.6	21.1	20.4	26.4	26.7	39.0	27.7	38.5	95.5	81.7	91.6	85.2	62.7	24.2
Renewable Energy Sources	mill. tce	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	1.0	1.2	1.2	1.3	2.3	2.7	2.0	2.5	2.9	2.8	2.5	2.6	3.4	3.6	4.0	3.8	3.7	3.8
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	mill. tce	3.8	3.9	4.2	4.0	4.3	4.3	5.2	5.0	4.8	4.9	5.2	5.4	5.6	6.4	6.2	7.5	8.0	7.7	7.6	6.6	7.1	6.7	8.2	8.8	9.1	10.5	9.7	9.9	9.9	8.9	8.2	8.6	9.4	7.4
Nuclear energy	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**mill. tce**	**38.7**	**35.4**	**44.2**	**44.0**	**47.6**	**32.7**	**34.2**	**34.7**	**35.3**	**39.7**	**49.2**	**42.7**	**43.5**	**52.4**	**61.9**	**73.5**	**70.4**	**71.9**	**66.9**	**58.3**	**64.0**	**58.9**	**61.2**	**68.3**	**71.5**	**86.6**	**74.6**	**86.8**	**143.4**	**128.0**	**137.8**	**136.7**	**117.9**	**72.9**
Export by energy source in %																																			
Hard coal	%	23.6	19.5	9.4	5.7	8.3	8.6	5.0	4.7	3.5	2.3	3.3	3.1	1.4	3.6	3.0	2.7	2.7	2.9	3.4	2.3	3.4	1.7	4.0	0.8	1.0	0.6	1.3	1.2	0.7	0.9	0.9	1.1	1.4	1.8
Lignite	%	8.1	4.3	2.1	1.7	1.5	1.6	1.6	1.4	1.2	1.0	0.9	1.1	1.0	0.9	0.8	0.8	1.0	0.9	1.2	1.4	1.4	1.7	1.8	1.7	2.2	1.6	1.4	1.3	0.8	0.8	0.6	0.7	0.8	1.0
Petroleum	%	54.6	58.4	70.1	73.8	70.4	66.1	66.5	67.2	67.2	66.8	64.0	65.5	65.7	53.4	57.8	52.7	57.1	57.6	55.2	55.5	42.0	44.8	44.2	42.5	42.6	37.4	43.9	38.8	22.6	24.7	23.3	26.8	33.5	48.6
Gases	%	3.6	6.5	8.7	9.4	10.8	10.6	11.7	12.4	14.6	17.7	21.3	17.6	19.1	29.2	27.7	33.0	26.4	26.2	27.0	27.2	38.4	35.9	33.4	38.6	37.4	45.0	37.1	44.4	66.6	63.8	66.4	62.4	53.2	33.2
Natural gas, Petroleum gas	%	3.5	6.4	8.6	9.3	10.7	10.5	11.6	12.3	14.6	17.6	21.2	17.6	19.0	29.2	27.7	33.0	26.4	26.2	27.0	27.2	38.4	35.9	33.4	38.6	37.4	45.0	37.1	44.4	66.6	63.8	66.4	62.4	53.2	33.2
Renewable Energy Sources	%	0.3	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.6	0.5	1.4	1.7	1.9	2.2	3.7	4.6	3.3	3.6	4.1	3.2	3.3	3.0	2.4	2.8	2.9	2.8	3.1	5.2
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	%	9.9	11.0	9.5	9.2	9.0	13.1	15.3	14.3	13.5	12.3	10.5	12.6	12.8	12.3	10.1	10.3	11.4	10.7	11.3	11.4	11.1	11.4	13.4	12.9	12.8	12.1	13.0	11.4	6.9	7.0	6.0	6.3	8.0	10.1
Nuclear energy	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Export by energy source, changes compared to the previous year in %																																			
Hard coal	%	n/a	-24.5	-39.4	-39.5	55.6	-28.5	-39.2	-5.6	-24.0	-26.0	79.4	-18.0	-53.5	206.4	-1.7	7.6	-4.9	7.6	10.1	-40.4	60.9	-53.7	141.1	-77.5	27.1	-24.5	87.9	7.0	-2.4	17.7	1.7	21.8	10.6	-22.9
Lignite	%	n/a	-51.5	-39.7	-17.5	-7.0	-26.7	4.9	-9.0	-16.7	-5.6	16.1	9.5	-15.0	10.2	2.5	17.5	21.5	0.6	23.4	-1.0	9.9	9.2	12.5	1.4	36.0	-7.2	-28.6	7.4	1.2	-12.5	-18.8	14.1	-0.1	-16.9
Petroleum	%	n/a	-2.3	49.8	4.9	3.0	-35.5	5.4	2.4	1.8	11.6	18.9	-11.0	2.1	-2.2	28.0	8.3	3.7	3.2	-11.0	-12.3	-17.0	-1.8	2.6	7.2	5.0	6.4	1.3	2.8	-3.8	-2.3	1.2	14.2	8.0	-10.4
Gases	%	n/a	65.5	66.7	7.2	24.4	-32.4	15.5	7.4	20.4	35.8	49.2	-28.2	10.1	84.5	12.1	41.6	-23.4	1.1	-4.0	-12.1	54.7	-14.0	-3.3	29.0	1.4	45.9	-29.1	39.2	147.9	-14.5	12.1	-6.9	-26.4	-61.4
Natural gas, Petroleum gas	%	n/a	68.2	68.2	7.4	25.0	-32.6	15.7	7.5	21.1	35.3	49.5	-28.1	10.3	84.6	12.1	41.6	-23.4	1.1	-4.0	-12.1	54.7	-14.0	-3.3	29.0	1.4	45.9	-29.1	39.2	147.9	-14.5	12.1	-6.9	-26.4	-61.4
Renewable Energy Sources	%	n/a	-21.7	2.8	-2.7	-5.5	-100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	24.4	0.9	166.2	24.7	1.1	1.5	85.0	15.2	-25.7	22.5	19.6	-4.2	-12.6	4.7	31.3	5.4	11.7	-4.3	-2.5	2.7
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	17.3	-4.8	-8.4	11.4	-2.0	11.3	-10.5	5.5	-36.7	-11.3	43.3	-7.4	-3.2	-100.0	0.0	0.0	4.9	-37.0	-1.7
Electricity	%	n/a	2.2	7.9	-3.9	5.3	0.6	22.2	-5.4	-3.5	1.6	6.4	4.0	4.1	15.0	-3.0	20.9	6.5	-4.5	-1.2	-12.4	7.0	-5.4	22.0	6.9	4.1	14.8	-7.5	1.8	0.2	-9.5	-8.1	5.0	8.9	-21.5
Nuclear energy	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**%**	**n/a**	**-8.7**	**25.0**	**-0.4**	**8.1**	**-31.3**	**4.8**	**1.2**	**1.9**	**12.3**	**24.1**	**-13.1**	**1.8**	**20.3**	**18.2**	**18.8**	**-4.3**	**2.2**	**-7.0**	**-12.8**	**9.7**	**-7.9**	**3.9**	**11.5**	**4.7**	**21.2**	**-13.9**	**16.3**	**65.1**	**-10.7**	**7.6**	**-0.8**	**-13.7**	**-38.2**

1990 - 2023: final data

Other energy sources: incl. export of district heat

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1.4 Net import by energy source

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Net import by energy source in PJ																																			
Hard coal	PJ	177	287	372	355	393	410	501	623	742	790	906	1,059	1,080	1,115	1,155	1,076	1,310	1,346	1,298	1,076	1,321	1,399	1,386	1,597	1,535	1,529	1,605	1,380	1,262	1,144	832	1,087	1,179	875
Lignite	PJ	-32	19	33	31	28	24	25	24	22	24	17	19	3	-10	-12	-14	-15	-17	-22	-22	-25	-27	-31	-31	-43	-40	-29	-31	-32	-28	-22	-26	-25	-21
Petroleum	PJ	5,072	5,445	5,595	5,576	5,573	5,508	5,693	5,646	5,875	5,384	5,308	5,527	5,197	5,245	5,102	5,156	5,070	4,561	4,888	4,634	4,702	4,473	4,559	4,623	4,518	4,567	4,589	4,646	4,403	4,534	4,075	3,965	4,118	3,801
Gases	PJ	1,751	1,828	1,866	1,988	2,062	2,220	2,517	2,441	2,359	2,433	2,368	2,443	2,522	2,498	2,663	2,599	2,727	2,495	2,663	2,618	2,587	2,535	2,511	2,667	2,379	2,463	2,785	2,890	2,961	3,177	2,790	2,938	2,899	2,503
Natural gas, Petroleum gas	PJ	1,752	1,829	1,867	1,989	2,063	2,221	2,518	2,442	2,359	2,434	2,369	2,443	2,522	2,498	2,663	2,599	2,727	2,495	2,663	2,618	2,587	2,535	2,511	2,667	2,379	2,463	2,785	2,890	2,961	3,177	2,790	2,938	2,899	2,503
Renewable Energy Sources	PJ	-3	-3	-3	-3	-2	0	0	0	0	0	0	0	0	10	13	33	41	40	31	27	17	17	28	24	10	8	8	6	2	-16	23	-3	-1	-5
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	3	-2	-19	3	8	17	-19	-8	-2	4	11	10	2	-12	-9	-16	-61	-60	-72	-44	-54	-14	-74	-116	-122	-174	-182	-189	-175	-118	-68	-67	-98	33
Nuclear energy	PJ	1,606	1,609	1,733	1,675	1,650	1,682	1,764	1,859	1,764	1,855	1,851	1,868	1,798	1,801	1,822	1,779	1,826	1,533	1,623	1,472	1,533	1,178	1,085	1,061	1,060	1,001	923	833	829	819	702	754	379	79
Total	**PJ**	**8,573**	**9,183**	**9,577**	**9,625**	**9,711**	**9,862**	**10,481**	**10,584**	**10,760**	**10,490**	**10,462**	**10,926**	**10,601**	**10,647**	**10,734**	**10,613**	**10,897**	**9,898**	**10,408**	**9,760**	**10,081**	**9,560**	**9,464**	**9,826**	**9,336**	**9,353**	**9,700**	**9,534**	**9,249**	**9,513**	**8,333**	**8,649**	**8,450**	**7,264**
Net import by energy source in mill. tce																																			
Hard coal	mill. tce	6.1	9.8	12.7	12.1	13.4	14.0	17.1	21.3	25.3	26.9	30.9	36.1	36.8	38.0	39.4	36.7	44.7	45.9	44.3	36.7	45.1	47.7	47.3	54.5	52.4	52.2	54.8	47.1	43.0	39.0	28.4	37.1	40.2	29.8
Lignite	mill. tce	-1.1	0.7	1.1	1.1	0.9	0.8	0.8	0.8	0.8	0.8	0.6	0.7	0.1	-0.4	-0.4	-0.5	-0.5	-0.6	-0.7	-0.7	-0.8	-0.9	-1.1	-1.1	-1.5	-1.4	-1.0	-1.1	-1.1	-0.9	-0.8	-0.9	-0.9	-0.7
Petroleum	mill. tce	173.1	185.8	190.9	190.2	190.1	187.9	194.3	192.6	200.5	183.7	181.1	188.6	177.3	179.0	174.1	175.9	173.0	155.6	166.8	158.1	160.4	152.6	155.6	157.8	154.2	155.8	156.6	158.5	150.2	154.7	139.1	135.3	140.5	129.7
Gases	mill. tce	59.7	62.4	63.7	67.8	70.4	75.8	85.9	83.3	80.5	83.0	80.8	83.3	86.0	85.2	90.9	88.7	93.1	85.1	90.9	89.3	88.3	86.5	85.7	91.0	81.2	84.0	95.0	98.6	101.0	108.4	95.2	100.3	98.9	85.4
Natural gas, Petroleum gas	mill. tce	59.8	62.4	63.7	67.9	70.4	75.8	85.9	83.3	80.5	83.1	80.8	83.4	86.0	85.2	90.9	88.7	93.1	85.1	90.9	89.3	88.3	86.5	85.7	91.0	81.2	84.0	95.0	98.6	101.0	108.4	95.2	100.3	98.9	85.4
Renewable Energy Sources	mill. tce	-0.1	-0.1	-0.1	-0.1	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.4	1.1	1.4	1.4	1.1	0.9	0.6	0.6	0.9	0.8	0.3	0.3	0.3	0.2	0.1	-0.5	0.8	-0.1	0.0	-0.2
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	mill. tce	0.1	-0.1	-0.7	0.1	0.3	0.6	-0.6	-0.3	-0.1	0.1	0.4	0.3	0.1	-0.4	-0.3	-0.6	-2.1	-2.0	-2.5	-1.5	-1.8	-0.5	-2.5	-4.0	-4.2	-5.9	-6.2	-6.4	-6.0	-4.0	-2.3	-2.3	-3.3	1.1
Nuclear energy	mill. tce	54.8	54.9	59.1	57.1	56.3	57.4	60.2	63.4	60.2	63.3	63.2	63.7	61.4	61.4	62.2	60.7	62.3	52.3	55.4	50.2	52.3	40.2	37.0	36.2	36.2	34.2	31.5	28.4	28.3	27.9	24.0	25.7	12.9	2.7
Total	**mill. tce**	**292.5**	**313.3**	**326.8**	**328.4**	**331.3**	**336.5**	**357.6**	**361.1**	**367.1**	**357.9**	**357.0**	**372.8**	**361.7**	**363.3**	**366.3**	**362.1**	**371.8**	**337.7**	**355.1**	**333.0**	**344.0**	**326.2**	**322.9**	**335.3**	**318.6**	**319.1**	**331.0**	**325.3**	**315.6**	**324.6**	**284.3**	**295.1**	**288.3**	**247.8**
Net import by energy source in %																																			
Hard coal	%	2.1	3.1	3.9	3.7	4.0	4.2	4.8	5.9	6.9	7.5	8.7	9.7	10.2	10.5	10.8	10.1	12.0	13.6	12.5	11.0	13.1	14.6	14.6	16.3	16.4	16.3	16.5	14.5	13.6	12.0	10.0	12.6	14.0	12.0
Lignite	%	-0.4	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	-0.1	-0.1	-0.1	-0.1	-0.2	-0.2	-0.2	-0.2	-0.3	-0.3	-0.3	-0.5	-0.4	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3	-0.3
Petroleum	%	59.2	59.3	58.4	57.9	57.4	55.9	54.3	53.3	54.6	51.3	50.7	50.6	49.0	49.3	47.5	48.6	46.5	46.1	47.0	47.5	46.6	46.8	48.2	47.1	48.4	48.8	47.3	48.7	47.6	47.7	48.9	45.8	48.7	52.3
Gases	%	20.4	19.9	19.5	20.7	21.2	22.5	24.0	23.1	21.9	23.2	22.6	22.4	23.8	23.5	24.8	24.5	25.0	25.2	25.6	26.8	25.7	26.5	26.5	27.1	25.5	26.3	28.7	30.3	32.0	33.4	33.5	34.0	34.3	34.5
Natural gas, Petroleum gas	%	20.4	19.9	19.5	20.7	21.2	22.5	24.0	23.1	21.9	23.2	22.6	22.4	23.8	23.5	24.8	24.5	25.0	25.2	25.6	26.8	25.7	26.5	26.5	27.1	25.5	26.3	28.7	30.3	32.0	33.4	33.5	34.0	34.3	34.5
Renewable Energy Sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3	0.4	0.4	0.3	0.3	0.2	0.2	0.3	0.2	0.1	0.1	0.1	0.1	0.0	-0.2	0.3	0.0	0.0	-0.1
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	%	0.0	0.0	-0.2	0.0	0.1	0.2	-0.2	-0.1	0.0	0.0	0.1	0.1	0.0	-0.1	-0.1	-0.2	-0.6	-0.6	-0.7	-0.5	-0.5	-0.1	-0.8	-1.2	-1.3	-1.9	-1.9	-2.0	-1.9	-1.2	-0.8	-0.8	-1.2	0.5
Nuclear energy	%	18.7	17.5	18.1	17.4	17.0	17.1	16.8	17.6	16.4	17.7	17.7	17.1	17.0	16.9	17.0	16.8	16.8	15.5	15.6	15.1	15.2	12.3	11.5	10.8	11.3	10.7	9.5	8.7	9.0	8.6	8.4	8.7	4.5	1.1
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Net import by energy source, changes compared to the previous year in %																																			
Hard coal	%	n/a	61.8	29.5	-4.4	10.5	4.3	22.2	24.5	19.0	6.5	14.8	16.8	2.0	3.3	3.6	-6.8	21.7	2.7	-3.5	-17.1	22.8	5.9	-0.9	15.2	-3.9	-0.4	5.0	-14.0	-8.6	-9.4	-27.2	30.6	8.5	-25.8
Lignite	%	n/a	-160.4	69.8	-5.3	-11.4	-13.1	2.0	-4.3	-5.4	8.2	-30.0	13.6	-86.9	-510.2	16.0	19.4	6.7	9.2	30.6	-0.3	13.2	11.3	15.3	-0.5	37.1	-5.9	-28.3	8.5	1.1	-13.2	-19.4	15.1	-0.6	-17.7
Petroleum	%	n/a	7.4	2.8	-0.3	-0.1	-1.2	3.4	-0.8	4.1	-8.4	-1.4	4.1	-6.0	0.9	-2.7	1.1	-1.7	-10.0	7.2	-5.2	1.5	-4.9	1.9	1.4	-2.3	1.1	0.5	1.2	-5.2	3.0	-10.1	-2.7	3.9	-7.7
Gases	%	n/a	4.4	2.1	6.5	3.7	7.7	13.4	-3.0	-3.4	3.1	-2.7	3.1	3.2	-0.9	6.6	-2.4	4.9	-8.5	6.7	-1.7	-1.2	-2.0	-0.9	6.2	-10.8	3.5	13.1	3.8	2.5	7.3	-12.2	5.3	-1.3	-13.7
Natural gas, Petroleum gas	%	n/a	4.4	2.1	6.5	3.7	7.7	13.4	-3.0	-3.4	3.2	-2.7	3.1	3.2	-0.9	6.6	-2.4	4.9	-8.5	6.7	-1.7	-1.2	-2.0	-0.9	6.2	-10.8	3.5	13.1	3.8	2.5	7.3	-12.2	5.3	-1.3	-13.7
Renewable Energy Sources	%	n/a	-21.7	2.8	-2.7	-5.5	-100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.8	165.7	23.2	-3.7	-22.3	-12.4	-37.7	2.1	60.8	-12.5	-59.3	-19.1	-0.2	-29.7	-56.9	-744.6	-248.6	-115.0	-78.6	632.1
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	17.3	-4.8	-8.4	11.4	-2.0	11.3	-10.5	5.5	-36.7	-11.3	2.8	-10.3	-4.6	-100.0	0.0	-3.2	9.0	-9.0	-1.7
Electricity	%	n/a	-172.9	824.8	-116.3	169.0	106.4	-209.2	-55.4	-72.8	-263.0	193.9	-10.9	-74.7	-575.2	-19.8	74.2	271.9	-2.5	21.4	-38.9	21.9	-74.8	445.5	56.7	5.3	42.5	4.6	3.8	-7.1	-33.0	-42.2	-1.6	46.7	-133.8
Nuclear energy	%	n/a	0.2	7.7	-3.4	-1.5	1.9	4.9	5.4	-5.1	5.2	-0.2	0.9	-3.8	0.1	1.2	-2.4	2.6	-16.0	5.9	-9.3	4.2	-23.2	-7.9	-2.2	-0.2	-5.5	-7.8	-9.8	-0.4	-1.2	-14.2	7.4	-49.8	-79.2
Total	**%**	**n/a**	**7.1**	**4.3**	**0.5**	**0.9**	**1.6**	**6.3**	**1.0**	**1.7**	**-2.5**	**-0.3**	**4.4**	**-3.0**	**0.4**	**0.8**	**-1.1**	**2.7**	**-9.2**	**5.2**	**-6.2**	**3.3**	**-5.2**	**-1.0**	**3.8**	**-5.0**	**0.2**	**3.7**	**-1.7**	**-3.0**	**2.8**	**-12.4**	**3.8**	**-2.3**	**-14.0**

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Other energy sources: incl. trade balance of district heat

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1.5 Bunkers on sea-going ships

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Bunkers on sea-going ships in PJ																																			
Diesel oil	PJ	23.3	19.3	19.0	21.1	19.7	20.4	27.9	27.4	22.5	20.8	21.5	19.7	20.6	21.5	18.8	18.3	22.3	24.4	20.2	20.7	22.3	20.9	18.4	18.2	20.9	43.3	42.2	9.8	0.0	0.0	0.0	0.0	0.0	0.0
Fuel oil light	PJ	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	27.0	31.3	30.1	22.7	30.1	31.5	27.8
Fuel oil heavy	PJ	80.2	68.0	54.0	70.1	64.4	64.4	56.5	62.7	62.8	66.0	69.6	72.3	77.9	86.9	92.8	86.3	86.1	104.3	104.4	93.2	93.9	92.2	87.0	77.6	75.0	57.4	75.4	58.3	39.2	26.8	32.4	28.1	29.7	26.8
Other petroleum products	PJ	1.8	2.0	2.2	2.2	2.3	2.1	1.6	1.5	1.6	1.7	1.6	1.3	1.6	0.5	0.4	0.3	0.2	0.0	0.4	0.7	0.6	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	**PJ**	**105.4**	**89.4**	**75.2**	**93.3**	**86.4**	**86.9**	**86.0**	**91.6**	**86.9**	**88.5**	**92.7**	**93.3**	**100.1**	**108.9**	**112.0**	**104.9**	**108.6**	**128.7**	**125.0**	**114.7**	**116.9**	**113.3**	**105.4**	**95.8**	**96.0**	**100.7**	**117.7**	**95.1**	**70.5**	**56.9**	**55.1**	**58.2**	**61.1**	**54.7**
Bunkers on sea-going ships in mill. tce																																			
Diesel oil	mill. tce	0.8	0.7	0.6	0.7	0.7	0.7	1.0	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.6	0.6	0.8	0.8	0.7	0.7	0.8	0.7	0.6	0.6	0.7	1.5	1.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Fuel oil light	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	1.1	1.0	0.8	1.0	1.1	0.9
Fuel oil heavy	mill. tce	2.7	2.3	1.8	2.4	2.2	2.2	1.9	2.1	2.1	2.3	2.4	2.5	2.7	3.0	3.2	2.9	2.9	3.6	3.6	3.2	3.2	3.1	3.0	2.6	2.6	2.0	2.6	2.0	1.3	0.9	1.1	1.0	1.0	0.9
Other petroleum products	mill. tce	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**mill. tce**	**3.6**	**3.0**	**2.6**	**3.2**	**2.9**	**3.0**	**2.9**	**3.1**	**3.0**	**3.0**	**3.2**	**3.2**	**3.4**	**3.7**	**3.8**	**3.6**	**3.7**	**4.4**	**4.3**	**3.9**	**4.0**	**3.9**	**3.6**	**3.3**	**3.3**	**3.4**	**4.0**	**3.2**	**2.4**	**1.9**	**1.9**	**2.0**	**2.1**	**1.9**
Bunkers on sea-going ships in %																																			
Diesel oil	%	22.1	21.6	25.2	22.6	22.8	23.5	32.5	30.0	25.9	23.5	23.2	21.1	20.6	19.7	16.7	17.5	20.5	18.9	16.2	18.0	19.1	18.4	17.5	19.0	21.7	43.0	35.9	10.3	0.0	0.0	0.0	0.0	0.0	0.0
Fuel oil light	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	28.4	44.3	52.9	41.2	51.7	51.5	50.9
Fuel oil heavy	%	76.2	76.1	71.8	75.1	74.5	74.1	65.7	68.5	72.3	74.6	75.0	77.5	77.9	79.8	82.9	82.2	79.2	81.0	83.5	81.3	80.3	81.4	82.5	80.9	78.2	57.0	64.1	61.3	55.7	47.1	58.8	48.3	48.5	49.0
Other petroleum products	%	1.7	2.3	3.0	2.3	2.7	2.4	1.8	1.6	1.8	1.9	1.8	1.4	1.6	0.5	0.4	0.3	0.2	0.0	0.3	0.7	0.6	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Bunkers on sea-going ships, changes compared to the previous year in %																																			
Diesel oil	%	n/a	-17.3	-1.8	11.2	-6.7	3.8	36.8	-1.8	-17.9	-7.8	3.8	-8.6	4.5	4.3	-12.7	-2.2	21.6	9.2	-17.1	2.3	8.1	-6.5	-11.7	-1.3	14.6	107.4	-2.4	-76.7	-100.0	0.0	0.0	0.0	0.0	0.0
Fuel oil light	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	16.0	-3.8	-24.6	32.8	4.6	-11.7
Fuel oil heavy	%	n/a	-15.2	-20.6	29.6	-8.1	0.0	-12.3	11.1	0.2	5.1	5.4	3.9	7.7	11.6	6.8	-7.1	-0.2	21.1	0.2	-10.7	0.7	-1.8	-5.6	-10.8	-3.2	-23.5	31.5	-22.8	-32.7	-31.7	21.0	-13.3	5.5	-9.6
Other petroleum products	%	n/a	13.1	9.6	-1.3	7.1	-11.6	-23.6	-8.3	9.6	7.2	-4.8	-21.7	23.1	-66.9	-24.1	-24.7	-15.9	-80.3	671.4	97.1	-12.9	-65.2	-75.7	1.8	1.8	-42.1	-12.1	-20.7	-100.0	0.0	0.0	0.0	0.0	0.0
Total	**%**	**n/a**	**-15.2**	**-15.8**	**24.1**	**-7.5**	**0.6**	**-1.0**	**6.5**	**-5.1**	**1.8**	**4.8**	**0.6**	**7.3**	**8.9**	**2.8**	**-6.3**	**3.5**	**18.5**	**-2.8**	**-8.3**	**1.9**	**-3.1**	**-6.9**	**-9.1**	**0.1**	**4.9**	**16.9**	**-19.2**	**-25.8**	**-19.3**	**-3.1**	**5.6**	**5.0**	**-10.6**

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2.1 Primary energy consumption by energy source

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Primary energy consumption by energy source in PJ																																			
Hard coal	PJ	2,306	2,330	2,196	2,139	2,140	2,060	2,090	2,065	2,059	1,967	2,021	1,949	1,927	2,010	1,909	1,808	1,964	2,017	1,800	1,496	1,714	1,715	1,725	1,840	1,759	1,729	1,693	1,502	1,428	1,084	896	1,112	1,142	860
Lignite	PJ	3,201	2,507	2,176	1,983	1,861	1,734	1,688	1,595	1,514	1,473	1,550	1,633	1,663	1,639	1,648	1,596	1,576	1,613	1,554	1,507	1,512	1,564	1,645	1,629	1,574	1,565	1,511	1,507	1,481	1,163	958	1,127	1,168	895
Petroleum	PJ	5,228	5,547	5,628	5,746	5,692	5,689	5,808	5,753	5,775	5,599	5,499	5,577	5,381	5,227	5,139	5,143	5,109	4,608	4,890	4,650	4,689	4,539	4,552	4,638	4,509	4,585	4,581	4,684	4,478	4,520	4,080	4,042	4,102	3,876
Gases	PJ	2,304	2,422	2,398	2,536	2,580	2,812	3,145	3,005	3,031	3,022	2,996	3,158	3,157	3,199	3,215	3,269	3,334	3,210	3,236	3,052	3,183	2,923	2,934	3,074	2,672	2,781	3,068	3,167	3,098	3,220	3,145	3,310	2,727	2,626
Natural gas, Petroleum gas	PJ	2,293	2,409	2,382	2,520	2,567	2,799	3,132	2,992	3,019	3,010	2,985	3,148	3,143	3,181	3,198	3,250	3,312	3,191	3,222	3,039	3,171	2,911	2,920	3,059	2,660	2,770	3,056	3,159	3,091	3,214	3,136	3,303	2,721	2,621
Renewable Energy Sources	PJ	196	197	207	228	253	275	270	344	379	403	417	432	455	584	678	786	958	1,110	1,151	1,147	1,310	1,365	1,524	1,571	1,568	1,672	1,677	1,790	1,825	1,903	1,970	1,949	2,044	2,079
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	56	51	43	137	168	137	139	158	188	219	239	244	225	201	213	210	223	222	214	216	204	215	212	203
Net import of electricity	PJ	3	-2	-19	3	8	17	-19	-8	-2	4	11	10	2	-12	-9	-16	-61	-60	-72	-44	-54	-14	-74	-116	-122	-174	-182	-189	-175	-118	-68	-67	-98	33
Nuclear energy	PJ	1,668	1,609	1,733	1,675	1,650	1,682	1,764	1,859	1,764	1,855	1,851	1,868	1,798	1,801	1,822	1,779	1,826	1,533	1,623	1,472	1,533	1,178	1,085	1,061	1,060	1,001	923	833	829	819	702	754	379	79
Total	**PJ**	**14,905**	**14,610**	**14,319**	**14,309**	**14,185**	**14,269**	**14,746**	**14,614**	**14,521**	**14,323**	**14,401**	**14,679**	**14,427**	**14,586**	**14,571**	**14,500**	**14,845**	**14,189**	**14,370**	**13,500**	**14,126**	**13,515**	**13,615**	**13,897**	**13,232**	**13,368**	**13,494**	**13,516**	**13,178**	**12,808**	**11,887**	**12,443**	**11,675**	**10,651**
Primary energy consumption by energy source in mill. tce																																			
Hard coal	mill. tce	78.7	79.5	74.9	73.0	73.0	70.3	71.3	70.5	70.3	67.1	69.0	66.5	65.7	68.6	65.1	61.7	67.0	68.8	61.4	51.1	58.5	58.5	58.9	62.8	60.0	59.0	57.8	51.3	48.7	37.0	30.6	37.9	39.0	29.3
Lignite	mill. tce	109.2	85.5	74.3	67.6	63.5	59.2	57.6	54.4	51.7	50.3	52.9	55.7	56.7	55.9	56.2	54.4	53.8	55.0	53.0	51.4	51.6	53.4	56.1	55.6	53.7	53.4	51.5	51.4	50.5	39.7	32.7	38.5	39.9	30.5
Petroleum	mill. tce	178.4	189.3	192.0	196.0	194.2	194.1	198.2	196.3	197.1	191.0	187.6	190.3	183.6	178.4	175.3	175.5	174.3	157.2	166.9	158.7	160.0	154.9	155.3	158.2	153.8	156.4	156.3	159.8	152.8	154.2	139.2	137.9	139.9	132.3
Gases	mill. tce	78.6	82.6	81.8	86.5	88.0	95.9	107.3	102.5	103.4	103.1	102.2	107.8	107.7	109.2	109.7	111.5	113.8	109.5	110.4	104.1	108.6	99.8	100.1	104.9	91.2	94.9	104.7	108.1	105.7	109.9	107.3	112.9	93.1	89.6
Natural gas, Petroleum gas	mill. tce	78.2	82.2	81.3	86.0	87.6	95.5	106.9	102.1	103.0	102.7	101.9	107.4	107.2	108.6	109.1	110.9	113.0	108.9	109.9	103.7	108.2	99.3	99.6	104.4	90.8	94.5	104.3	107.8	105.4	109.7	107.0	112.7	92.8	89.4
Renewable Energy Sources	mill. tce	6.7	6.7	7.1	7.8	8.6	9.4	9.2	11.8	12.9	13.8	14.2	14.7	15.5	19.9	23.2	26.8	32.7	37.9	39.3	39.1	44.7	46.6	52.0	53.6	53.5	57.0	57.2	61.1	62.3	64.9	67.2	66.5	69.7	70.9
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.9	1.8	1.5	4.7	5.7	4.7	4.8	5.4	6.4	7.5	8.1	8.3	7.7	6.9	7.3	7.2	7.6	7.6	7.3	7.4	7.0	7.3	7.2	6.9
Net import of electricity	mill. tce	0.1	-0.1	-0.7	0.1	0.3	0.6	-0.6	-0.3	-0.1	0.1	0.4	0.3	0.1	-0.4	-0.3	-0.6	-2.1	-2.0	-2.5	-1.5	-1.8	-0.5	-2.5	-4.0	-4.2	-5.9	-6.2	-6.4	-6.0	-4.0	-2.3	-2.3	-3.3	1.1
Nuclear energy	mill. tce	56.9	54.9	59.1	57.1	56.3	57.4	60.2	63.4	60.2	63.3	63.2	63.7	61.4	61.4	62.2	60.7	62.3	52.3	55.4	50.2	52.3	40.2	37.0	36.2	36.2	34.2	31.5	28.4	28.3	27.9	24.0	25.7	12.9	2.7
Total	**mill. tce**	**508.6**	**498.5**	**488.6**	**488.2**	**484.0**	**486.9**	**503.1**	**498.6**	**495.4**	**488.7**	**491.4**	**500.8**	**492.3**	**497.7**	**497.2**	**494.8**	**506.5**	**484.1**	**490.3**	**460.6**	**482.0**	**461.1**	**464.6**	**474.2**	**451.5**	**456.1**	**460.4**	**461.2**	**449.6**	**437.0**	**405.6**	**424.6**	**398.4**	**363.4**
Primary energy consumption by energy source in %																																			
Hard coal	%	15.5	15.9	15.3	14.9	15.1	14.4	14.2	14.1	14.2	13.7	14.0	13.3	13.4	13.8	13.1	12.5	13.2	14.2	12.5	11.1	12.1	12.7	12.7	13.2	13.3	12.9	12.5	11.1	10.8	8.5	7.5	8.9	9.8	8.1
Lignite	%	21.5	17.2	15.2	13.9	13.1	12.2	11.4	10.9	10.4	10.3	10.8	11.1	11.5	11.2	11.3	11.0	10.6	11.4	10.8	11.2	10.7	11.6	12.1	11.7	11.9	11.7	11.2	11.2	11.2	9.1	8.1	9.1	10.0	8.4
Petroleum	%	35.1	38.0	39.3	40.2	40.1	39.9	39.4	39.4	39.8	39.1	38.2	38.0	37.3	35.8	35.3	35.5	34.4	32.5	34.0	34.4	33.2	33.6	33.4	33.4	34.1	34.3	34.0	34.7	34.0	35.3	34.3	32.5	35.1	36.4
Gases	%	15.5	16.6	16.7	17.7	18.2	19.7	21.3	20.6	20.9	21.1	20.8	21.5	21.9	21.9	22.1	22.5	22.5	22.6	22.5	22.6	22.5	21.6	21.5	22.1	20.2	20.8	22.7	23.4	23.5	25.1	26.5	26.6	23.4	24.7
Natural gas, Petroleum gas	%	15.4	16.5	16.6	17.6	18.1	19.6	21.2	20.5	20.8	21.0	20.7	21.4	21.8	21.8	21.9	22.4	22.3	22.5	22.4	22.5	22.4	21.5	21.4	22.0	20.1	20.7	22.6	23.4	23.5	25.1	26.4	26.5	23.3	24.6
Renewable Energy Sources	%	1.3	1.4	1.4	1.6	1.8	1.9	1.8	2.4	2.6	2.8	2.9	2.9	3.2	4.0	4.7	5.4	6.5	7.8	8.0	8.5	9.3	10.1	11.2	11.3	11.8	12.5	12.4	13.2	13.9	14.9	16.6	15.7	17.5	19.5
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.4	0.3	0.9	1.2	0.9	0.9	1.1	1.3	1.6	1.7	1.8	1.7	1.4	1.6	1.6	1.6	1.6	1.6	1.7	1.7	1.7	1.8	1.9
Net import of electricity	%	0.0	0.0	-0.1	0.0	0.1	0.1	-0.1	-0.1	0.0	0.0	0.1	0.1	0.0	-0.1	-0.1	-0.1	-0.4	-0.4	-0.5	-0.3	-0.4	-0.1	-0.5	-0.8	-0.9	-1.3	-1.3	-1.4	-1.3	-0.9	-0.6	-0.5	-0.8	0.3
Nuclear energy	%	11.2	11.0	12.1	11.7	11.6	11.8	12.0	12.7	12.2	13.0	12.9	12.7	12.5	12.3	12.5	12.3	12.3	10.8	11.3	10.9	10.9	8.7	8.0	7.6	8.0	7.5	6.8	6.2	6.3	6.4	5.9	6.1	3.2	0.7
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Primary energy consumption by energy source, changes compared to the previous year in %																																			
Hard coal	%	n/a	1.0	-5.8	-2.6	0.1	-3.8	1.5	-1.2	-0.3	-4.5	2.8	-3.6	-1.1	4.3	-5.0	-5.3	8.7	2.7	-10.8	-16.9	14.6	0.0	0.6	6.6	-4.4	-1.7	-2.1	-11.3	-4.9	-24.1	-17.4	24.1	2.7	-24.7
Lignite	%	n/a	-21.7	-13.2	-8.9	-6.1	-6.8	-2.7	-5.5	-5.1	-2.7	5.3	5.3	1.8	-1.4	0.5	-3.2	-1.3	2.4	-3.6	-3.0	0.3	3.5	5.1	-1.0	-3.4	-0.5	-3.5	-0.2	-1.8	-21.5	-17.6	17.7	3.6	-23.4
Petroleum	%	n/a	6.1	1.5	2.1	-0.9	-0.1	2.1	-1.0	0.4	-3.1	-1.8	1.4	-3.5	-2.9	-1.7	0.1	-0.7	-9.8	6.1	-4.9	0.8	-3.2	0.3	1.9	-2.8	1.7	-0.1	2.3	-4.4	0.9	-9.7	-0.9	1.5	-5.5
Gases	%	n/a	5.1	-1.0	5.8	1.7	9.0	11.8	-4.4	0.9	-0.3	-0.9	5.4	0.0	1.3	0.5	1.7	2.0	-3.7	0.8	-5.7	4.3	-8.1	0.4	4.8	-13.1	4.1	10.3	3.2	-2.2	3.9	-2.4	5.3	-17.6	-3.7
Natural gas, Petroleum gas	%	n/a	5.1	-1.1	5.8	1.8	9.0	11.9	-4.5	0.9	-0.3	-0.8	5.5	-0.2	1.2	0.5	1.6	1.9	-3.7	1.0	-5.7	4.3	-8.2	0.3	4.8	-13.0	4.1	10.3	3.4	-2.2	4.0	-2.4	5.3	-17.6	-3.7
Renewable Energy Sources	%	n/a	0.5	5.0	10.0	10.9	8.7	-1.8	27.7	10.1	6.4	3.3	3.8	5.4	28.3	16.1	15.9	21.9	15.9	3.7	-0.3	14.2	4.2	11.7	3.1	-0.2	6.6	0.3	6.7	2.0	4.3	3.5	-1.0	4.8	1.8
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-9.0	-15.5	215.0	23.0	-18.5	1.5	13.3	19.1	16.5	9.0	2.0	-7.7	-10.6	6.0	-1.6	6.2	-0.4	-3.4	0.9	-5.6	5.5	-1.6	-4.2
Net import of electricity	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Nuclear energy	%	n/a	-3.5	7.7	-3.4	-1.5	1.9	4.9	5.4	-5.1	5.2	-0.2	0.9	-3.8	0.1	1.2	-2.4	2.6	-16.0	5.9	-9.3	4.2	-23.2	-7.9	-2.2	-0.2	-5.5	-7.8	-9.8	-0.4	-1.2	-14.2	7.4	-49.8	-79.2
Total	**%**	**n/a**	**-2.0**	**-2.0**	**-0.1**	**-0.9**	**0.6**	**3.3**	**-0.9**	**-0.6**	**-1.4**	**0.5**	**1.9**	**-1.7**	**1.1**	**-0.1**	**-0.5**	**2.4**	**-4.4**	**1.3**	**-6.1**	**4.6**	**-4.3**	**0.7**	**2.1**	**-4.8**	**1.0**	**0.9**	**0.2**	**-2.5**	**-2.8**	**-7.2**	**4.7**	**-6.2**	**-8.8**

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Other energy sources: non-renewable wastes, other energy sources and trade balance of district heat

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2.2 Structure of energy consumption by sector

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Structure of energy consumption by sector in PJ																																			
Indigenous energy production	PJ	6,224	5,359	5,014	4,610	4,370	4,328	4,157	4,089	3,865	3,854	3,793	3,714	3,750	3,977	4,064	4,015	4,071	4,275	4,086	3,948	4,025	4,122	4,238	4,138	4,034	4,059	3,929	4,003	3,915	3,607	3,383	3,570	3,681	3,414
Primary energy consumption	**PJ**	**14,905**	**14,610**	**14,319**	**14,309**	**14,185**	**14,269**	**14,746**	**14,614**	**14,521**	**14,323**	**14,401**	**14,679**	**14,427**	**14,586**	**14,571**	**14,500**	**14,845**	**14,189**	**14,370**	**13,500**	**14,126**	**13,515**	**13,615**	**13,897**	**13,232**	**13,368**	**13,494**	**13,516**	**13,178**	**12,808**	**11,887**	**12,443**	**11,675**	**10,651**
Transformation input	PJ	12,893	12,001	11,929	11,735	11,729	11,450	11,591	11,326	11,513	11,319	11,617	11,530	11,478	11,811	12,042	12,193	12,250	12,052	11,841	10,978	11,169	10,751	10,870	10,786	10,605	10,736	10,702	10,596	10,170	9,779	9,094	9,412	9,358	8,152
Transformation output	PJ	9,320	8,517	8,488	8,433	8,428	8,232	8,261	8,046	8,286	8,082	8,307	8,160	8,152	8,514	8,784	8,944	8,942	8,791	8,640	8,010	8,056	7,875	7,999	7,880	7,750	7,984	8,029	8,103	7,822	7,722	7,283	7,443	7,596	6,889
Cons., losses in energy sector	PJ	902	870	840	886	810	765	776	787	790	751	788	822	829	938	1,055	1,007	973	1,009	824	818	645	654	714	771	639	675	759	842	807	759	656	689	545	576
Non-energy consumption	PJ	958	890	911	887	964	963	953	1,012	1,046	1,035	1,068	1,031	1,046	1,053	1,061	1,091	1,059	1,035	1,018	959	1,034	1,017	983	979	988	928	974	1,011	964	942	948	996	850	707
Final energy consumption	PJ	9,472	9,366	9,127	9,234	9,110	9,322	9,686	9,535	9,458	9,300	9,235	9,455	9,226	9,298	9,197	9,153	9,505	8,884	9,327	8,754	9,334	8,968	9,049	9,242	8,749	9,014	9,088	9,171	9,058	9,050	8,471	8,789	8,517	8,104
Mining, quarrying, manufact.	PJ	2,977	2,694	2,560	2,432	2,463	2,474	2,424	2,440	2,397	2,384	2,421	2,365	2,322	2,520	2,542	2,469	2,539	2,622	2,573	2,280	2,595	2,666	2,613	2,589	2,562	2,573	2,637	2,657	2,629	2,537	2,432	2,607	2,392	2,213
Transport	PJ	2,379	2,428	2,522	2,596	2,553	2,614	2,625	2,643	2,691	2,781	2,751	2,698	2,672	2,554	2,515	2,527	2,666	2,589	2,622	2,530	2,516	2,523	2,529	2,578	2,554	2,647	2,704	2,757	2,776	2,757	2,325	2,348	2,519	2,498
Private households	PJ	2,357	2,483	2,401	2,581	2,537	2,655	2,890	2,854	2,782	2,612	2,584	2,822	2,689	2,759	2,656	2,603	2,658	2,295	2,617	2,497	2,681	2,343	2,508	2,616	2,249	2,348	2,410	2,407	2,401	2,492	2,484	2,584	2,424	2,276
Services	PJ	1,759	1,761	1,644	1,625	1,556	1,579	1,747	1,598	1,588	1,523	1,478	1,571	1,544	1,465	1,484	1,555	1,642	1,377	1,515	1,447	1,542	1,436	1,399	1,458	1,386	1,446	1,337	1,349	1,252	1,264	1,231	1,251	1,182	1,117
Structure of energy consumption by sector in mill. tce																																			
Indigenous energy production	mill. tce	212.4	182.8	171.1	157.3	149.1	147.7	141.8	139.5	131.9	131.5	129.4	126.7	128.0	135.7	138.6	137.0	138.9	145.9	139.4	134.7	137.3	140.6	144.6	141.2	137.6	138.5	134.1	136.6	133.6	123.1	115.4	121.8	125.6	116.5
Primary energy consumption	**mill. tce**	**508.6**	**498.5**	**488.6**	**488.2**	**484.0**	**486.9**	**503.1**	**498.6**	**495.4**	**488.7**	**491.4**	**500.8**	**492.3**	**497.7**	**497.2**	**494.8**	**506.5**	**484.1**	**490.3**	**460.6**	**482.0**	**461.1**	**464.6**	**474.2**	**451.5**	**456.1**	**460.4**	**461.2**	**449.6**	**437.0**	**405.6**	**424.6**	**398.4**	**363.4**
Transformation input	mill. tce	439.9	409.5	407.0	400.4	400.2	390.7	395.5	386.4	392.8	386.2	396.4	393.4	391.7	403.0	410.9	416.0	418.0	411.2	404.0	374.6	381.1	366.8	370.9	368.0	361.9	366.3	365.2	361.5	347.0	333.7	310.3	321.1	319.3	278.2
Transformation output	mill. tce	318.0	290.6	289.6	287.7	287.6	280.9	281.9	274.5	282.7	275.8	283.4	278.4	278.2	290.5	299.7	305.2	305.1	300.0	294.8	273.3	274.9	268.7	272.9	268.9	264.4	272.4	273.9	276.5	266.9	263.5	248.5	254.0	259.2	235.1
Cons., losses in energy sector	mill. tce	30.8	29.7	28.7	30.2	27.7	26.1	26.5	26.8	27.0	25.6	26.9	28.1	28.3	32.0	36.0	34.4	33.2	34.4	28.1	27.9	22.0	22.3	24.4	26.3	21.8	23.0	25.9	28.7	27.5	25.9	22.4	23.5	18.6	19.7
Non-energy consumption	mill. tce	32.7	30.4	31.1	30.3	32.9	32.9	32.5	34.5	35.7	35.3	36.4	35.2	35.7	35.9	36.2	37.2	36.1	35.3	34.7	32.7	35.3	34.7	33.5	33.4	33.7	31.7	33.2	34.5	32.9	32.1	32.3	34.0	29.0	24.1
Final energy consumption	mill. tce	323.2	319.6	311.4	315.1	310.8	318.1	330.5	325.3	322.7	317.3	315.1	322.6	314.8	317.3	313.8	312.3	324.3	303.1	318.3	298.7	318.5	306.0	308.8	315.3	298.5	307.6	310.1	312.9	309.1	308.8	289.1	299.9	290.6	276.5
Mining, quarrying, manufact.	mill. tce	101.6	91.9	87.3	83.0	84.1	84.4	82.7	83.3	81.8	81.3	82.6	80.7	79.2	86.0	86.7	84.2	86.6	89.5	87.8	77.8	88.6	91.0	89.2	88.4	87.4	87.8	90.0	90.7	89.7	86.6	83.0	88.9	81.6	75.5
Transport	mill. tce	81.2	82.8	86.1	88.6	87.1	89.2	89.6	90.2	91.8	94.9	93.9	92.0	91.2	87.1	85.8	86.2	91.0	88.3	89.5	86.3	85.8	86.1	86.3	88.0	87.1	90.3	92.3	94.1	94.7	94.1	79.3	80.1	85.9	85.2
Private households	mill. tce	80.4	84.7	81.9	88.1	86.6	90.6	98.6	97.4	94.9	89.1	88.2	96.3	91.7	94.2	90.6	88.8	90.7	78.3	89.3	85.2	91.5	79.9	85.6	89.3	76.7	80.1	82.2	82.1	81.9	85.0	84.8	88.2	82.7	77.7
Services	mill. tce	60.0	60.1	56.1	55.4	53.1	53.9	59.6	54.5	54.2	52.0	50.4	53.6	52.7	50.0	50.6	53.1	56.0	47.0	51.7	49.4	52.6	49.0	47.7	49.8	47.3	49.3	45.6	46.0	42.7	43.1	42.0	42.7	40.3	38.1
Structure of energy consumption by sector, changes compared to the previous year in %																																			
Indigenous energy production	%	n/a	-13.9	-6.4	-8.1	-5.2	-1.0	-4.0	-1.6	-5.5	-0.3	-1.6	-2.1	1.0	6.1	2.2	-1.2	1.4	5.0	-4.4	-3.4	1.9	2.4	2.8	-2.4	-2.5	0.6	-3.2	1.9	-2.2	-7.9	-6.2	5.5	3.1	-7.2
Primary energy consumption	**%**	**n/a**	**-2.0**	**-2.0**	**-0.1**	**-0.9**	**0.6**	**3.3**	**-0.9**	**-0.6**	**-1.4**	**0.5**	**1.9**	**-1.7**	**1.1**	**-0.1**	**-0.5**	**2.4**	**-4.4**	**1.3**	**-6.1**	**4.6**	**-4.3**	**0.7**	**2.1**	**-4.8**	**1.0**	**0.9**	**0.2**	**-2.5**	**-2.8**	**-7.2**	**4.7**	**-6.2**	**-8.8**
Transformation input	%	n/a	-6.9	-0.6	-1.6	-0.1	-2.4	1.2	-2.3	1.7	-1.7	2.6	-0.7	-0.4	2.9	2.0	1.3	0.5	-1.6	-1.8	-7.3	1.7	-3.7	1.1	-0.8	-1.7	1.2	-0.3	-1.0	-4.0	-3.9	-7.0	3.5	-0.6	-12.9
Transformation output	%	n/a	-8.6	-0.3	-0.6	-0.1	-2.3	0.4	-2.6	3.0	-2.5	2.8	-1.8	-0.1	4.4	3.2	1.8	0.0	-1.7	-1.7	-7.3	0.6	-2.2	1.6	-1.5	-1.7	3.0	0.6	0.9	-3.5	-1.3	-5.7	2.2	2.0	-9.3
Cons., losses in energy sector	%	n/a	-3.5	-3.4	5.4	-8.5	-5.5	1.4	1.3	0.4	-4.9	5.0	4.3	0.8	13.1	12.5	-4.5	-3.4	3.7	-18.3	-0.8	-21.1	1.5	9.1	8.0	-17.1	5.6	12.5	10.9	-4.2	-5.9	-13.6	5.0	-20.9	5.7
Non-energy consumption	%	n/a	-7.1	2.4	-2.7	8.7	-0.1	-1.1	6.3	3.3	-1.1	3.2	-3.4	1.4	0.7	0.8	2.8	-2.9	-2.2	-1.7	-5.7	7.8	-1.7	-3.4	-0.4	1.0	-6.1	4.9	3.8	-4.6	-2.3	0.7	5.0	-14.6	-16.8
Final energy consumption	%	n/a	-1.1	-2.5	1.2	-1.3	2.3	3.9	-1.6	-0.8	-1.7	-0.7	2.4	-2.4	0.8	-1.1	-0.5	3.8	-6.5	5.0	-6.1	6.6	-3.9	0.9	2.1	-5.3	3.0	0.8	0.9	-1.2	-0.1	-6.4	3.8	-3.1	-4.8
Mining, quarrying, manufact.	%	n/a	-9.5	-5.0	-5.0	1.3	0.4	-2.0	0.7	-1.8	-0.5	1.6	-2.3	-1.8	8.5	0.9	-2.9	2.9	3.3	-1.9	-11.4	13.8	2.7	-2.0	-0.9	-1.1	0.4	2.5	0.8	-1.0	-3.5	-4.1	7.2	-8.2	-7.5
Transport	%	n/a	2.1	3.9	2.9	-1.6	2.4	0.4	0.7	1.8	3.3	-1.1	-2.0	-1.0	-4.4	-1.5	0.5	5.5	-2.9	1.3	-3.5	-0.6	0.3	0.2	2.0	-1.0	3.7	2.1	2.0	0.7	-0.7	-15.7	1.0	7.3	-0.8
Private households	%	n/a	5.3	-3.3	7.5	-1.7	4.6	8.9	-1.3	-2.5	-6.1	-1.1	9.2	-4.7	2.6	-3.8	-2.0	2.1	-13.6	14.0	-4.6	7.4	-12.6	7.0	4.3	-14.0	4.4	2.7	-0.1	-0.2	3.8	-0.3	4.0	-6.2	-6.1
Services	%	n/a	0.1	-6.6	-1.2	-4.2	1.5	10.6	-8.5	-0.6	-4.1	-3.0	6.3	-1.7	-5.1	1.3	4.8	5.6	-16.1	10.0	-4.4	6.5	-6.8	-2.6	4.2	-5.0	4.4	-7.5	0.9	-7.2	0.9	-2.6	1.7	-5.5	-5.5

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3.1 Renewables' primary energy consumption

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Renewables' primary energy consumption in PJ																																			
Hydropower	PJ														66	75	71	72	76	74	69	75	64	78	83	71	68	74	73	65	72	67	71	63	72
Wind energy	PJ	58	53	62	64	67	83	73	77	80	91	127	124	145	69	94	100	113	146	149	142	139	179	186	190	211	290	288	380	396	453	476	413	449	510
Photovoltaics	PJ														1	2	5	8	11	16	24	43	72	96	110	128	137	135	140	160	163	178	178	217	230
Solarthermal energy	PJ														9	9	10	12	13	15	18	19	22	23	23	25	27	27	28	32	31	32	31	35	33
Geothermal energy	PJ	0	0	0	0	0	7	7	8	8	8	9	11	13	2	2	2	2	2	3	3	4	3	4	6	8	9	11	11	13	14	16	17	17	17
Ambient heat	PJ														7	8	8	10	12	15	18	21	25	28	31	35	38	41	45	49	53	58	64	72	86
Biomass	PJ														337	385	421	495	568	645	658	774	766	863	880	837	859	853	861	859	867	861	911	929	869
Renewable waste	PJ	139	145	145	164	186	185	189	259	291	304	280	297	297	63	65	89	102	114	102	97	107	109	116	130	134	132	136	140	135	134	135	137	132	130
Liquid Biofuels	PJ														31	41	80	144	166	131	117	127	125	129	117	121	112	112	113	118	116	147	128	129	133
Total	**PJ**	**196**	**197**	**207**	**228**	**253**	**275**	**270**	**344**	**379**	**403**	**417**	**432**	**455**	**584**	**678**	**786**	**958**	**1,110**	**1,151**	**1,147**	**1,310**	**1,365**	**1,524**	**1,571**	**1,568**	**1,672**	**1,677**	**1,790**	**1,825**	**1,903**	**1,970**	**1,949**	**2,044**	**2,079**
Renewables' primary energy consumption in mill. tce																																			
Hydropower	mill. tce														2.3	2.5	2.4	2.5	2.6	2.5	2.3	2.6	2.2	2.7	2.8	2.4	2.3	2.5	2.5	2.2	2.5	2.3	2.4	2.2	2.4
Wind energy	mill. tce	2.0	1.8	2.1	2.2	2.3	2.8	2.5	2.6	2.7	3.1	4.3	4.2	5.0	2.3	3.2	3.4	3.8	5.0	5.1	4.8	4.7	6.1	6.3	6.5	7.2	9.9	9.8	13.0	13.5	15.5	16.2	14.1	15.3	17.4
Photovoltaics	mill. tce														0.0	0.1	0.2	0.3	0.4	0.6	0.8	1.5	2.5	3.3	3.8	4.4	4.7	4.6	4.8	5.4	5.6	6.1	6.1	7.4	7.8
Solarthermal energy	mill. tce														0.3	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.0	1.1	1.1	1.1	1.1	1.2	1.1
Geothermal energy	mill. tce	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6
Ambient heat	mill. tce														0.3	0.3	0.3	0.3	0.4	0.5	0.6	0.7	0.8	1.0	1.1	1.2	1.3	1.4	1.5	1.7	1.8	2.0	2.2	2.4	2.9
Biomass	mill. tce														11.5	13.1	14.4	16.9	19.4	22.0	22.5	26.4	26.1	29.5	30.0	28.6	29.3	29.1	29.4	29.3	29.6	29.4	31.1	31.7	29.6
Renewable waste	mill. tce	4.7	4.9	4.9	5.6	6.4	6.3	6.5	8.8	9.9	10.4	9.6	10.1	10.2	2.2	2.2	3.0	3.5	3.9	3.5	3.3	3.6	3.7	4.0	4.4	4.6	4.5	4.6	4.8	4.6	4.6	4.6	4.7	4.5	4.4
Liquid Biofuels	mill. tce														1.0	1.4	2.7	4.9	5.7	4.5	4.0	4.3	4.3	4.4	4.0	4.1	3.8	3.8	3.9	4.0	4.0	5.0	4.4	4.4	4.5
Total	**mill. tce**	**6.7**	**6.7**	**7.1**	**7.8**	**8.6**	**9.4**	**9.2**	**11.8**	**12.9**	**13.8**	**14.2**	**14.7**	**15.5**	**19.9**	**23.1**	**26.8**	**32.7**	**37.9**	**39.3**	**39.1**	**44.7**	**46.6**	**52.0**	**53.6**	**53.5**	**57.0**	**57.2**	**61.1**	**62.3**	**64.9**	**67.2**	**66.5**	**69.7**	**70.9**
Renewables' primary energy consumption in %																																			
Hydropower	%														11.3	11.0	9.0	7.5	6.9	6.4	6.0	5.8	4.7	5.1	5.3	4.5	4.1	4.4	4.1	3.6	3.8	3.4	3.6	3.1	3.4
Wind energy	%	29.5	26.7	30.1	27.9	26.4	30.3	27.2	22.5	21.1	22.6	30.5	28.7	31.9	11.8	13.8	12.7	11.8	13.1	12.9	12.4	10.6	13.2	12.2	12.1	13.4	17.4	17.2	21.3	21.7	23.8	24.1	21.2	22.0	24.5
Photovoltaics	%														0.2	0.3	0.6	0.9	1.0	1.4	2.1	3.3	5.3	6.3	7.0	8.1	8.2	8.1	7.8	8.7	8.6	9.0	9.1	10.6	11.1
Solarthermal energy	%														1.5	1.3	1.3	1.3	1.2	1.3	1.6	1.5	1.6	1.5	1.5	1.6	1.6	1.6	1.6	1.8	1.6	1.6	1.6	1.7	1.6
Geothermal energy	%	0.0	0.0	0.0	0.0	0.0	2.5	2.7	2.2	2.2	2.1	2.2	2.6	2.7	0.3	0.3	0.3	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.4	0.5	0.5	0.7	0.6	0.7	0.7	0.8	0.9	0.9	0.8
Ambient heat	%														1.3	1.1	1.0	1.0	1.1	1.3	1.6	1.6	1.8	1.8	2.0	2.2	2.3	2.4	2.5	2.7	2.8	2.9	3.3	3.5	4.1
Biomass	%														57.6	56.7	53.6	51.6	51.2	56.0	57.4	59.1	56.1	56.6	56.0	53.4	51.4	50.8	48.1	47.1	45.5	43.7	46.8	45.4	41.8
Renewable waste	%	70.5	73.3	69.9	72.1	73.6	67.2	70.1	75.3	76.7	75.3	67.3	68.7	65.3	10.9	9.5	11.3	10.6	10.3	8.9	8.5	8.1	8.0	7.6	8.3	8.5	7.9	8.1	7.8	7.4	7.1	6.9	7.0	6.5	6.3
Liquid Biofuels	%														5.2	6.0	10.2	15.1	15.0	11.4	10.2	9.7	9.1	8.5	7.4	7.7	6.7	6.7	6.3	6.5	6.1	7.4	6.6	6.3	6.4
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Renewables' primary energy consumption, changes compared to the previous year in %																																			
Hydropower	%	n/a														13.2	-5.3	2.0	5.7	-3.4	-6.9	10.1	-15.7	23.1	5.7	-14.8	-3.1	8.3	-1.9	-10.2	11.3	-7.0	5.0	-10.3	12.9
Wind energy	%	n/a	-8.8	18.2	2.1	4.7	24.9	-12.0	5.7	3.2	14.1	39.1	-2.2	17.2	-6.6	36.3	6.7	12.8	29.3	2.2	-4.7	-2.2	29.3	3.7	2.0	10.9	37.8	-0.9	32.2	4.0	14.5	4.9	-13.2	8.9	13.6
Photovoltaics	%	n/a														77.7	130.4	73.1	38.5	43.7	48.9	78.2	67.1	33.8	14.5	15.8	7.4	-1.4	3.2	14.3	2.0	9.5	-0.3	22.2	5.9
Solarthermal energy	%	n/a														1.3	18.0	17.7	11.4	14.6	17.9	6.4	14.4	4.2	1.3	8.1	7.6	0.6	3.0	14.3	-3.2	4.0	-5.1	13.8	-6.3
Geothermal energy	%	n/a	0.0	0.0	0.0	0.0	0.0	7.5	4.5	8.6	-0.3	11.5	22.6	10.3	40.9	7.3	18.8	-0.3	-0.6	40.3	10.5	17.6	-10.2	17.1	59.0	23.1	16.9	25.9	-4.6	18.1	10.4	11.9	6.4	4.5	-4.1
Ambient heat	%	n/a														2.9	7.7	20.3	25.1	23.1	20.4	16.5	14.8	13.9	12.4	10.4	9.0	8.5	8.8	8.8	8.5	9.5	11.6	11.0	20.0
Biomass	%	n/a														14.2	9.4	17.5	14.9	13.5	2.1	17.7	-1.1	12.7	2.0	-4.9	2.6	-0.7	0.9	-0.2	0.9	-0.7	5.9	1.9	-6.5
Renewable waste	%	n/a	4.4	0.2	13.4	13.4	-0.8	2.5	37.1	12.2	4.5	-7.7	5.8	0.2	44.9	2.1	37.2	14.7	12.1	-10.3	-4.9	9.5	2.2	6.7	11.4	3.2	-1.6	3.1	3.1	-3.8	-0.4	0.7	1.1	-3.0	-1.8
Liquid Biofuels	%	n/a														32.4	97.8	80.1	15.2	-21.1	-10.6	8.3	-2.0	3.6	-9.5	3.4	-7.4	0.2	1.1	4.0	-1.7	26.6	-12.5	0.2	3.6
Total	**%**	**n/a**	**0.5**	**5.0**	**10.0**	**10.9**	**8.7**	**-1.8**	**27.7**	**10.1**	**6.4**	**3.3**	**3.8**	**5.4**	**28.3**	**16.1**	**15.9**	**21.9**	**15.9**	**3.7**	**-0.3**	**14.2**	**4.2**	**11.7**	**3.1**	**-0.2**	**6.6**	**0.3**	**6.7**	**2.0**	**4.3**	**3.5**	**-1.0**	**4.8**	**1.8**

1990 - 2023: final data

Source: AGEE-Stat

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4.1 Transformation input for electricity generation by energy source

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Transformation input for electricity generation by energy source in PJ																																			
Hard coal	PJ	1,270	1,354	1,285	1,323	1,308	1,332	1,370	1,281	1,365	1,273	1,268	1,231	1,200	1,230	1,182	1,161	1,234	1,259	1,083	942	1,012	961	1,007	1,115	1,041	981	939	755	670	472	353	442	528	322
Lignite	PJ	1,796	1,679	1,617	1,532	1,505	1,455	1,433	1,392	1,346	1,335	1,420	1,507	1,537	1,507	1,487	1,458	1,433	1,475	1,416	1,369	1,364	1,410	1,495	1,473	1,432	1,421	1,376	1,357	1,332	1,037	839	1,000	1,041	793
Petroleum	PJ	121	137	129	102	104	97	90	83	81	83	82	90	85	86	89	96	82	76	79	83	67	55	61	58	49	52	48	47	40	39	38	37	46	40
Gases	PJ	422	404	358	349	400	418	443	462	477	471	469	477	494	526	541	592	630	658	706	620	690	649	587	529	482	487	613	646	624	672	696	674	582	561
Natural gas, Petroleum gas	PJ	332	322	278	277	322	341	367	379	389	391	391	397	406	440	456	503	533	536	603	552	589	556	491	426	386	388	508	541	524	579	612	582	499	481
Renewable Energy Sources	PJ	122	115	123	125	137	143	138	148	166	175	183	172	193	221	266	312	367	459	491	502	545	628	723	757	803	897	901	994	1,018	1,085	1,128	1,057	1,139	1,201
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	40	36	28	50	49	70	77	82	83	88	94	83	83	79	86	82	89	87	79	80	79	79	76	74
Electricity	PJ	18	19	18	18	19	21	21	20	19	19	22	22	23	28	34	34	32	33	29	27	31	28	29	28	29	29	27	30	30	29	32	26	29	26
Nuclear energy	PJ	1,663	1,608	1,732	1,674	1,649	1,681	1,763	1,858	1,763	1,855	1,851	1,868	1,798	1,800	1,822	1,779	1,826	1,533	1,623	1,472	1,533	1,178	1,085	1,061	1,060	1,001	923	833	829	819	702	754	379	79
Total	**PJ**	**5,413**	**5,316**	**5,264**	**5,123**	**5,123**	**5,148**	**5,258**	**5,244**	**5,218**	**5,211**	**5,335**	**5,403**	**5,357**	**5,448**	**5,469**	**5,502**	**5,682**	**5,574**	**5,510**	**5,104**	**5,337**	**4,993**	**5,070**	**5,101**	**4,982**	**4,952**	**4,916**	**4,749**	**4,622**	**4,233**	**3,867**	**4,068**	**3,821**	**3,097**
Transformation input for electricity generation by energy source in mill. tce																																			
Hard coal	mill. tce	43.3	46.2	43.9	45.1	44.6	45.5	46.7	43.7	46.6	43.4	43.3	42.0	40.9	42.0	40.3	39.6	42.1	43.0	37.0	32.2	34.5	32.8	34.4	38.1	35.5	33.5	32.0	25.8	22.8	16.1	12.0	15.1	18.0	11.0
Lignite	mill. tce	61.3	57.3	55.2	52.3	51.4	49.6	48.9	47.5	45.9	45.5	48.4	51.4	52.4	51.4	50.7	49.7	48.9	50.3	48.3	46.7	46.5	48.1	51.0	50.2	48.9	48.5	46.9	46.3	45.5	35.4	28.6	34.1	35.5	27.1
Petroleum	mill. tce	4.1	4.7	4.4	3.5	3.5	3.3	3.1	2.8	2.8	2.8	2.8	3.1	2.9	2.9	3.0	3.3	2.8	2.6	2.7	2.8	2.3	1.9	2.1	2.0	1.7	1.8	1.6	1.6	1.4	1.3	1.3	1.3	1.6	1.4
Gases	mill. tce	14.4	13.8	12.2	11.9	13.7	14.3	15.1	15.8	16.3	16.1	16.0	16.3	16.8	18.0	18.4	20.2	21.5	22.4	24.1	21.2	23.6	22.2	20.0	18.1	16.4	16.6	20.9	22.1	21.3	22.9	23.8	23.0	19.9	19.1
Natural gas, Petroleum gas	mill. tce	11.3	11.0	9.5	9.4	11.0	11.6	12.5	12.9	13.3	13.3	13.3	13.6	13.8	15.0	15.6	17.1	18.2	18.3	20.6	18.9	20.1	19.0	16.8	14.5	13.2	13.2	17.3	18.4	17.9	19.7	20.9	19.9	17.0	16.4
Renewable Energy Sources	mill. tce	4.2	3.9	4.2	4.3	4.7	4.9	4.7	5.0	5.7	6.0	6.3	5.9	6.6	7.6	9.1	10.6	12.5	15.7	16.7	17.1	18.6	21.4	24.7	25.8	27.4	30.6	30.7	33.9	34.7	37.0	38.5	36.1	38.8	41.0
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4	1.2	1.0	1.7	1.7	2.4	2.6	2.8	2.8	3.0	3.2	2.8	2.8	2.7	2.9	2.8	3.0	3.0	2.7	2.7	2.7	2.7	2.6	2.5
Electricity	mill. tce	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.9	1.1	1.2	1.1	1.1	1.0	0.9	1.1	1.0	1.0	1.0	1.0	1.0	0.9	1.0	1.0	1.0	1.1	0.9	1.0	0.9
Nuclear energy	mill. tce	56.8	54.9	59.1	57.1	56.3	57.4	60.2	63.4	60.2	63.3	63.1	63.7	61.3	61.4	62.2	60.7	62.3	52.3	55.4	50.2	52.3	40.2	37.0	36.2	36.2	34.2	31.5	28.4	28.3	27.9	24.0	25.7	12.9	2.7
Total	**mill. tce**	**184.7**	**181.4**	**179.6**	**174.8**	**174.8**	**175.7**	**179.4**	**178.9**	**178.0**	**177.8**	**182.0**	**184.4**	**182.8**	**185.9**	**186.6**	**187.7**	**193.9**	**190.2**	**188.0**	**174.1**	**182.1**	**170.3**	**173.0**	**174.0**	**170.0**	**168.9**	**167.7**	**162.0**	**157.7**	**144.4**	**132.0**	**138.8**	**130.4**	**105.7**
Transformation input for electricity generation by energy source in %																																			
Hard coal	%	23.5	25.5	24.4	25.8	25.5	25.9	26.1	24.4	26.2	24.4	23.8	22.8	22.4	22.6	21.6	21.1	21.7	22.6	19.7	18.5	19.0	19.3	19.9	21.9	20.9	19.8	19.1	15.9	14.5	11.2	9.1	10.9	13.8	10.4
Lignite	%	33.2	31.6	30.7	29.9	29.4	28.3	27.3	26.5	25.8	25.6	26.6	27.9	28.7	27.7	27.2	26.5	25.2	26.5	25.7	26.8	25.6	28.2	29.5	28.9	28.7	28.7	28.0	28.6	28.8	24.5	21.7	24.6	27.3	25.6
Petroleum	%	2.2	2.6	2.5	2.0	2.0	1.9	1.7	1.6	1.6	1.6	1.5	1.7	1.6	1.6	1.6	1.8	1.5	1.4	1.4	1.6	1.3	1.1	1.2	1.1	1.0	1.0	1.0	1.0	0.9	0.9	1.0	0.9	1.2	1.3
Gases	%	7.8	7.6	6.8	6.8	7.8	8.1	8.4	8.8	9.1	9.0	8.8	8.8	9.2	9.7	9.9	10.8	11.1	11.8	12.8	12.2	12.9	13.0	11.6	10.4	9.7	9.8	12.5	13.6	13.5	15.9	18.0	16.6	15.2	18.1
Natural gas, Petroleum gas	%	6.1	6.1	5.3	5.4	6.3	6.6	7.0	7.2	7.5	7.5	7.3	7.4	7.6	8.1	8.3	9.1	9.4	9.6	10.9	10.8	11.0	11.1	9.7	8.3	7.7	7.8	10.3	11.4	11.3	13.7	15.8	14.3	13.1	15.5
Renewable Energy Sources	%	2.3	2.2	2.3	2.4	2.7	2.8	2.6	2.8	3.2	3.4	3.4	3.2	3.6	4.1	4.9	5.7	6.5	8.2	8.9	9.8	10.2	12.6	14.3	14.8	16.1	18.1	18.3	20.9	22.0	25.6	29.2	26.0	29.8	38.8
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.7	0.5	0.9	0.9	1.3	1.4	1.5	1.5	1.7	1.8	1.7	1.6	1.5	1.7	1.7	1.8	1.8	1.7	1.9	2.0	1.9	2.0	2.4
Electricity	%	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.6	0.7	0.7	0.8	0.6	0.8	0.9
Nuclear energy	%	30.7	30.3	32.9	32.7	32.2	32.7	33.5	35.4	33.8	35.6	34.7	34.6	33.6	33.0	33.3	32.3	32.1	27.5	29.5	28.8	28.7	23.6	21.4	20.8	21.3	20.2	18.8	17.5	17.9	19.3	18.2	18.5	9.9	2.5
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Transformation input for electricity generation by energy source, changes compared to the previous year in %																																			
Hard coal	%	n/a	6.6	-5.1	2.9	-1.1	1.8	2.8	-6.5	6.6	-6.7	-0.4	-2.9	-2.5	2.5	-3.9	-1.7	6.3	2.0	-14.0	-13.0	7.3	-5.0	4.8	10.7	-6.7	-5.8	-4.3	-19.6	-11.3	-29.4	-25.3	25.2	19.6	-39.1
Lignite	%	n/a	-6.5	-3.6	-5.3	-1.7	-3.4	-1.5	-2.8	-3.3	-0.8	6.4	6.2	2.0	-2.0	-1.3	-2.0	-1.7	2.9	-4.0	-3.3	-0.4	3.3	6.0	-1.5	-2.7	-0.8	-3.2	-1.4	-1.8	-22.2	-19.1	19.1	4.2	-23.8
Petroleum	%	n/a	12.7	-5.7	-20.7	1.3	-6.1	-7.6	-7.4	-2.5	2.2	-0.6	9.1	-5.3	1.4	2.4	8.7	-14.4	-8.1	4.3	5.2	-19.5	-17.6	10.1	-4.4	-15.0	4.5	-7.8	-0.3	-16.3	-2.8	-1.9	-2.5	25.1	-12.4
Gases	%	n/a	-4.3	-11.5	-2.5	14.7	4.6	5.9	4.2	3.4	-1.2	-0.4	1.6	3.5	6.6	2.7	9.5	6.5	4.4	7.4	-12.2	11.3	-5.9	-9.6	-9.9	-9.0	1.2	25.8	5.4	-3.4	7.6	3.7	-3.2	-13.7	-3.7
Natural gas, Petroleum gas	%	n/a	-3.1	-13.7	-0.3	16.3	5.8	7.9	3.0	2.7	0.5	0.0	1.7	2.1	8.5	3.6	10.2	6.0	0.6	12.5	-8.3	6.6	-5.5	-11.7	-13.4	-9.4	0.6	30.9	6.5	-3.1	10.4	5.8	-4.9	-14.2	-3.6
Renewable Energy Sources	%	n/a	-5.4	6.8	1.1	10.3	4.2	-3.7	6.9	12.7	5.5	4.6	-6.1	12.3	14.5	20.1	17.4	17.8	24.9	7.0	2.2	8.6	15.3	15.1	4.7	6.1	11.7	0.4	10.3	2.5	6.5	4.0	-6.3	7.8	5.5
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-8.4	-22.6	76.7	-1.5	42.1	10.3	6.0	1.5	5.7	7.6	-12.0	-0.3	-4.7	9.1	-4.4	8.3	-2.1	-9.2	1.7	-1.5	0.1	-3.7	-3.3
Electricity	%	n/a	3.7	-0.7	-0.1	2.3	12.5	-1.2	-3.5	-4.5	-1.3	13.9	-0.2	4.7	22.3	20.5	2.2	-5.3	2.2	-13.7	-4.3	13.3	-9.6	4.2	-3.7	2.4	0.6	-6.9	10.1	1.2	-3.3	8.7	-18.2	13.3	-9.8
Nuclear energy	%	n/a	-3.3	7.7	-3.4	-1.5	1.9	4.9	5.4	-5.1	5.2	-0.2	0.9	-3.8	0.1	1.2	-2.4	2.6	-16.0	5.9	-9.3	4.2	-23.2	-7.9	-2.2	-0.2	-5.5	-7.8	-9.8	-0.4	-1.2	-14.2	7.4	-49.8	-79.2
Total	**%**	**n/a**	**-1.8**	**-1.0**	**-2.7**	**0.0**	**0.5**	**2.1**	**-0.3**	**-0.5**	**-0.1**	**2.4**	**1.3**	**-0.8**	**1.7**	**0.4**	**0.6**	**3.3**	**-1.9**	**-1.2**	**-7.4**	**4.6**	**-6.4**	**1.5**	**0.6**	**-2.3**	**-0.6**	**-0.7**	**-3.4**	**-2.7**	**-8.4**	**-8.6**	**5.2**	**-6.1**	**-19.0**

1990 - 2023: final data

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4.2 Transformation input for district heating by energy source

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Transformation input for district heating by energy source in PJ																																			
Hard coal	PJ	93	110	110	115	115	104	114	100	103	97	96	110	108	162	165	139	126	121	126	124	139	131	136	129	110	114	104	101	100	87	62	71	67	52
Lignite	PJ	219	156	129	98	81	64	54	43	41	28	32	29	30	38	60	43	41	41	43	43	41	39	41	43	38	40	37	33	31	28	26	30	28	24
Petroleum	PJ	42	64	62	55	37	41	38	26	19	17	12	17	16	17	13	11	10	8	8	9	10	7	9	7	6	6	7	6	5	5	5	7	12	9
Gases	PJ	116	125	119	123	152	168	193	173	178	178	178	193	203	273	256	268	259	244	244	226	253	227	220	218	190	194	213	218	194	194	190	210	179	182
Natural gas, Petroleum gas	PJ	105	118	114	118	148	165	190	168	173	174	174	189	198	270	252	267	258	243	243	225	252	224	217	214	186	190	209	216	192	192	189	208	178	181
Renewable Energy Sources	PJ	22	21	21	23	22	10	8	8	13	22	18	14	15	23	31	42	48	47	56	61	68	70	81	83	88	93	95	97	95	97	98	105	102	103
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	17	15	15	24	27	34	37	37	37	50	62	63	64	57	58	60	62	65	57	58	53	58	54	55
Electricity	PJ	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Nuclear energy	PJ	4	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**PJ**	**496**	**477**	**442**	**415**	**407**	**387**	**409**	**352**	**355**	**344**	**353**	**378**	**388**	**538**	**553**	**537**	**521**	**498**	**513**	**514**	**573**	**536**	**552**	**537**	**490**	**507**	**518**	**520**	**482**	**468**	**435**	**480**	**443**	**425**
Transformation input for district heating by energy source in mill. tce																																			
Hard coal	mill. tce	3.2	3.8	3.8	3.9	3.9	3.5	3.9	3.4	3.5	3.3	3.3	3.7	3.7	5.5	5.6	4.7	4.3	4.1	4.3	4.2	4.8	4.5	4.7	4.4	3.8	3.9	3.6	3.4	3.4	3.0	2.1	2.4	2.3	1.8
Lignite	mill. tce	7.5	5.3	4.4	3.4	2.8	2.2	1.8	1.5	1.4	1.0	1.1	1.0	1.0	1.3	2.1	1.5	1.4	1.4	1.5	1.5	1.4	1.3	1.4	1.5	1.3	1.4	1.3	1.1	1.1	0.9	0.9	1.0	1.0	0.8
Petroleum	mill. tce	1.4	2.2	2.1	1.9	1.3	1.4	1.3	0.9	0.6	0.6	0.4	0.6	0.5	0.6	0.5	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.3
Gases	mill. tce	4.0	4.3	4.1	4.2	5.2	5.7	6.6	5.9	6.1	6.1	6.1	6.6	6.9	9.3	8.7	9.2	8.8	8.3	8.3	7.7	8.6	7.7	7.5	7.4	6.5	6.6	7.3	7.4	6.6	6.6	6.5	7.2	6.1	6.2
Natural gas, Petroleum gas	mill. tce	3.6	4.0	3.9	4.0	5.0	5.6	6.5	5.7	5.9	5.9	5.9	6.4	6.8	9.2	8.6	9.1	8.8	8.3	8.3	7.7	8.6	7.6	7.4	7.3	6.4	6.5	7.1	7.4	6.6	6.6	6.4	7.1	6.1	6.2
Renewable Energy Sources	mill. tce	0.7	0.7	0.7	0.8	0.8	0.3	0.3	0.3	0.4	0.8	0.6	0.5	0.5	0.8	1.0	1.4	1.6	1.6	1.9	2.1	2.3	2.4	2.8	2.8	3.0	3.2	3.2	3.3	3.2	3.3	3.3	3.6	3.5	3.5
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.5	0.5	0.8	0.9	1.1	1.2	1.3	1.3	1.7	2.1	2.1	2.2	1.9	2.0	2.1	2.1	2.2	1.9	2.0	1.8	2.0	1.8	1.9
Electricity	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear energy	mill. tce	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**mill. tce**	**16.9**	**16.3**	**15.1**	**14.2**	**13.9**	**13.2**	**13.9**	**12.0**	**12.1**	**11.7**	**12.0**	**12.9**	**13.2**	**18.4**	**18.9**	**18.3**	**17.8**	**17.0**	**17.5**	**17.5**	**19.6**	**18.3**	**18.8**	**18.3**	**16.7**	**17.3**	**17.7**	**17.7**	**16.5**	**16.0**	**14.9**	**16.4**	**15.1**	**14.5**
Transformation input for district heating by energy source in %																																			
Hard coal	%	18.7	23.1	24.9	27.8	28.1	26.8	28.0	28.6	29.0	28.3	27.1	29.0	28.0	30.2	29.9	25.9	24.2	24.3	24.6	24.2	24.3	24.4	24.7	24.1	22.6	22.4	20.1	19.3	20.7	18.5	14.3	14.7	15.2	12.3
Lignite	%	44.1	32.8	29.1	23.7	19.9	16.7	13.1	12.2	11.6	8.1	9.0	7.7	7.8	7.1	10.9	8.1	8.0	8.2	8.3	8.4	7.2	7.3	7.5	8.0	7.8	7.9	7.1	6.4	6.5	5.9	6.0	6.3	6.4	5.7
Petroleum	%	8.5	13.4	14.1	13.3	9.1	10.5	9.2	7.5	5.3	4.9	3.5	4.5	4.1	3.1	2.4	2.0	2.0	1.6	1.6	1.8	1.7	1.2	1.7	1.3	1.1	1.2	1.3	1.1	1.1	1.1	1.2	1.5	2.7	2.0
Gases	%	23.4	26.3	27.0	29.6	37.3	43.3	47.3	49.2	50.1	51.8	50.4	51.0	52.3	50.7	46.3	50.0	49.6	49.0	47.5	44.0	44.1	42.3	39.9	40.6	38.8	38.2	41.1	41.9	40.3	41.4	43.8	43.7	40.4	42.8
Natural gas, Petroleum gas	%	21.1	24.7	25.9	28.5	36.3	42.5	46.4	47.9	48.9	50.6	49.4	49.9	51.2	50.1	45.6	49.8	49.5	48.8	47.3	43.8	44.0	41.7	39.3	39.8	38.1	37.5	40.3	41.6	39.9	41.1	43.4	43.3	40.2	42.6
Renewable Energy Sources	%	4.4	4.4	4.7	5.5	5.4	2.5	1.9	2.3	3.6	6.5	5.1	3.7	3.7	4.3	5.5	7.8	9.2	9.5	10.9	11.9	11.8	13.1	14.7	15.4	17.9	18.4	18.3	18.7	19.6	20.6	22.5	21.9	23.1	24.3
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.7	3.9	3.9	4.5	4.9	6.3	7.0	7.4	7.2	9.6	10.9	11.7	11.5	10.6	11.8	11.9	12.0	12.5	11.8	12.4	12.2	12.0	12.2	12.9
Electricity	%	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear energy	%	0.9	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Transformation input for district heating by energy source, changes compared to the previous year in %																																			
Hard coal	%	n/a	18.5	0.0	4.9	-0.8	-9.3	10.0	-12.1	2.4	-5.5	-1.5	14.5	-1.1	49.8	2.0	-15.9	-9.3	-3.9	3.8	-1.3	11.9	-6.1	4.4	-5.3	-14.5	2.9	-8.3	-3.6	-0.7	-13.3	-27.9	13.2	-4.4	-22.6
Lignite	%	n/a	-28.4	-17.7	-23.8	-17.4	-20.5	-16.8	-20.2	-3.8	-32.2	12.9	-7.8	3.9	26.6	57.8	-28.2	-4.4	-1.0	3.6	1.9	-5.2	-4.3	5.1	4.3	-10.8	4.2	-7.9	-9.4	-6.1	-11.7	-5.3	14.6	-5.7	-15.0
Petroleum	%	n/a	50.9	-2.6	-11.8	-32.9	10.1	-7.1	-30.1	-29.4	-9.9	-26.9	39.1	-6.7	5.3	-20.4	-19.4	-4.3	-22.5	2.0	15.9	5.0	-32.9	37.8	-24.1	-19.9	9.3	13.5	-15.8	-10.4	1.5	-4.3	39.8	71.1	-28.2
Gases	%	n/a	8.1	-4.6	2.8	23.5	10.6	15.3	-10.5	2.8	0.3	-0.4	8.4	5.2	34.7	-6.3	4.9	-3.6	-5.6	-0.3	-7.1	11.8	-10.5	-2.9	-1.0	-12.8	2.0	10.0	2.3	-10.9	-0.1	-1.8	10.2	-14.9	1.8
Natural gas, Petroleum gas	%	n/a	12.4	-2.9	3.5	24.8	11.4	15.3	-11.3	3.0	0.3	0.0	8.4	5.1	36.0	-6.6	6.1	-3.5	-5.7	-0.3	-7.2	12.1	-11.4	-3.0	-1.3	-12.8	2.0	9.7	3.5	-10.9	-0.1	-1.8	10.3	-14.6	1.8
Renewable Energy Sources	%	n/a	-4.7	0.0	9.2	-3.3	-56.5	-17.2	2.7	54.9	78.0	-20.3	-21.4	3.3	58.4	33.0	36.2	15.2	-1.5	18.0	9.4	11.1	3.4	16.1	2.0	5.7	6.3	1.9	2.3	-2.7	2.2	1.3	7.3	-2.7	0.9
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-10.3	1.7	59.7	12.8	22.8	9.0	0.3	0.8	34.0	25.6	0.6	1.6	-10.7	1.8	4.5	2.7	4.4	-12.0	2.0	-8.5	8.1	-6.5	1.9
Electricity	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	-100.0	0.0	-11.9	-52.2	-65.6	81.9	-100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear energy	%	n/a	-91.8	81.3	-3.6	9.6	35.2	7.6	-4.8	7.3	-9.9	-35.9	-8.1	0.9	0.7	-100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**%**	**n/a**	**-3.8**	**-7.3**	**-6.2**	**-1.9**	**-4.8**	**5.6**	**-13.9**	**0.9**	**-3.0**	**2.5**	**7.2**	**2.5**	**38.9**	**2.8**	**-3.0**	**-2.9**	**-4.4**	**2.9**	**0.2**	**11.5**	**-6.5**	**3.0**	**-2.7**	**-8.7**	**3.5**	**2.1**	**0.3**	**-7.2**	**-2.9**	**-7.0**	**10.3**	**-7.8**	**-4.0**

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5.1 CHP plants: generation and energy input

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
		in TWh																																	
Total gross elec. generation (EB)	TWh	549.9	539.4	537.1	525.7	526.8	537.9	553.0	552.7	556.7	555.6	575.1	584.1	584.0	609.0	617.7	622.7	639.7	640.8	640.9	595.8	632.8	612.9	629.0	637.7	626.6	647.0	649.2	652.3	641.4	608.2	574.7	587.1	577.9	511.3
Power plant own use (EB)	TWh	41.4	39.1	38.7	38.1	38.2	38.4	39.1	38.8	38.8	38.1	38.0	38.4	36.6	39.6	39.6	40.3	41.1	40.7	40.1	37.8	38.9	37.2	38.3	38.3	37.6	38.7	36.8	35.4	34.8	31.0	27.7	29.8	28.3	23.5
Total net electr. generation (EB)	TWh	508.4	500.3	498.4	487.7	488.6	499.5	513.9	513.9	518.0	517.5	537.1	545.7	547.4	569.3	578.1	582.5	598.5	600.1	600.7	558.0	593.9	575.7	590.7	599.3	589.0	608.3	612.3	616.9	606.6	577.2	547.0	557.3	549.5	487.7
CHP net electr. generation	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	77.7	79.9	83.3	87.2	88.0	91.3	91.8	100.1	98.2	101.3	102.8	102.3	108.0	117.9	125.1	114.5	113.6	112.5	115.9	106.7	102.3
CHP net heat generation	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	182.9	186.5	190.0	192.6	192.4	196.7	195.8	212.1	202.7	208.6	212.1	206.1	214.8	222.7	225.0	227.6	224.4	217.9	226.5	211.5	197.6
Total CHP net generation	**TWh**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**260.7**	**266.4**	**273.3**	**279.8**	**280.4**	**287.9**	**287.7**	**312.2**	**300.8**	**309.9**	**314.9**	**308.4**	**322.8**	**340.6**	**350.1**	**342.1**	**338.0**	**330.4**	**342.5**	**318.2**	**300.0**
		in PJ																																	
Transformation input electr. (EB)	PJ	5,413	5,316	5,264	5,123	5,123	5,148	5,258	5,244	5,218	5,211	5,335	5,403	5,357	5,448	5,469	5,502	5,682	5,574	5,510	5,104	5,337	4,993	5,070	5,101	4,982	4,952	4,916	4,749	4,622	4,233	3,867	4,068	3,821	3,097
Transformation input CHP electr.	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	553	572	583	602	604	633	642	695	681	698	706	701	739	804	856	748	742	734	763	699	666
Transformation input CHP heat	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	669	688	693	698	692	718	720	775	739	755	768	744	769	799	807	791	782	761	785	741	693
Total transformation input CHP	**PJ**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**1,221**	**1,260**	**1,276**	**1,300**	**1,295**	**1,352**	**1,362**	**1,470**	**1,420**	**1,453**	**1,473**	**1,445**	**1,508**	**1,603**	**1,662**	**1,539**	**1,524**	**1,495**	**1,548**	**1,440**	**1,360**
		Efficiency in %																																	
Gross electricity generation (EB)	%	36.6	36.5	36.7	36.9	37.0	37.6	37.9	37.9	38.4	38.4	38.8	38.9	39.2	40.2	40.7	40.7	40.5	41.4	41.9	42.0	42.7	44.2	44.7	45.0	45.3	47.0	47.5	49.5	50.0	51.7	53.5	52.0	54.4	59.4
Total CHP net generation	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	76.8	76.1	77.1	77.5	77.9	76.7	76.0	76.5	76.2	76.8	76.9	76.9	77.1	76.5	75.8	80.0	79.9	79.5	79.6	79.6	79.4
		CHP-share in %																																	
CHP-share net electr. generation	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13.7	13.8	14.3	14.6	14.7	15.2	16.5	16.9	17.1	17.1	17.1	17.4	17.8	19.3	20.3	18.9	19.7	20.6	20.8	19.4	21.0

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5.2 Combined heat and power - Total

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Combined heat and power - Total - Net electricity generation in TWh																																			
Hard coal	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	19.8	18.9	15.7	14.2	12.8	13.1	13.3	15.3	13.9	13.6	14.5	12.6	11.9	11.7	14.4	11.3	9.7	8.8	9.5	9.1	6.8
Lignite	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.8	5.1	5.1	5.1	5.1	5.1	5.0	5.4	5.4	5.7	6.0	5.2	5.3	5.3	5.0	4.7	4.2	3.4	3.8	3.4	2.6
Petroleum	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.3	3.8	3.8	3.5	3.5	2.9	2.6	2.5	2.1	2.4	2.3	2.1	2.2	2.2	2.1	2.0	1.9	1.9	1.8	2.7	2.1
Gases	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	42.3	44.3	48.9	52.0	51.4	53.7	51.1	54.5	53.2	52.5	51.0	50.1	54.2	62.9	66.4	60.5	61.9	62.3	65.1	55.1	54.9
Renewable Energy Sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.2	5.2	6.8	9.4	12.4	13.7	17.2	19.3	20.6	23.8	25.9	28.7	31.1	32.2	33.2	32.4	32.6	33.1	32.4	33.4	33.0
Other energy sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.4	2.5	3.0	3.0	2.8	2.7	2.7	3.1	2.9	3.2	3.1	3.6	3.4	3.6	3.9	3.6	3.2	3.1	3.2	3.1	2.9
Total	**TWh**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**77.7**	**79.9**	**83.3**	**87.2**	**88.0**	**91.3**	**91.8**	**100.1**	**98.2**	**101.3**	**102.8**	**102.3**	**108.0**	**117.9**	**125.1**	**114.5**	**113.6**	**112.5**	**115.9**	**106.7**	**102.3**
Combined heat and power - Total - Net heat generation in TWh																																			
Hard coal	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	44.7	43.4	40.3	38.2	35.0	36.1	34.4	37.4	33.5	33.1	35.7	30.9	32.2	31.4	30.0	31.7	27.7	23.2	25.2	23.7	17.3
Lignite	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	16.0	15.8	16.4	16.7	16.2	16.6	16.3	17.4	17.7	18.4	18.9	17.5	18.0	18.0	16.6	15.5	13.7	12.5	13.2	12.3	10.1
Petroleum	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13.7	13.1	12.4	12.9	12.0	10.4	10.3	10.4	8.8	11.5	10.8	9.5	9.9	9.8	9.9	10.2	10.2	9.7	9.6	12.8	11.3
Gases	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	86.1	88.9	92.0	92.0	92.2	93.2	90.1	95.8	91.4	91.1	89.2	87.6	90.2	99.4	102.5	101.7	104.1	104.6	107.8	92.2	90.1
Renewable Energy Sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	12.2	15.3	19.0	22.3	26.2	29.4	33.3	38.3	38.8	41.9	44.9	46.6	49.2	48.9	50.8	52.5	53.0	52.8	54.1	54.6	54.3
Other energy sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10.2	10.0	9.9	10.5	10.8	11.0	11.5	12.8	12.5	12.8	12.6	14.0	15.1	15.1	15.2	16.0	15.7	15.0	16.7	15.8	14.5
Total	**TWh**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**182.9**	**186.5**	**190.0**	**192.6**	**192.4**	**196.7**	**195.8**	**212.1**	**202.7**	**208.6**	**212.1**	**206.1**	**214.8**	**222.7**	**225.0**	**227.6**	**224.4**	**217.9**	**226.5**	**211.5**	**197.6**
Combined heat and power - Total - Transformation input in PJ																																			
Hard coal	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	321	305	263	238	211	225	222	241	218	216	231	199	199	195	215	193	167	145	157	148	109
Lignite	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	95	99	101	100	97	100	97	106	107	112	116	104	106	106	98	92	83	73	78	71	58
Petroleum	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	80	75	73	74	67	64	63	61	55	62	56	51	50	52	51	51	53	50	50	66	57
Gases	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	577	610	630	643	636	653	635	669	648	637	619	610	646	727	757	693	715	719	747	638	627
Renewable Energy Sources	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	88	115	142	178	209	237	266	301	308	336	361	381	405	413	428	416	416	424	422	426	424
Other energy sources	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	60	57	67	67	75	73	79	90	85	91	90	100	101	109	114	95	90	85	94	91	86
Total	**PJ**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**1,221**	**1,260**	**1,276**	**1,300**	**1,295**	**1,352**	**1,362**	**1,470**	**1,420**	**1,453**	**1,473**	**1,445**	**1,508**	**1,603**	**1,662**	**1,539**	**1,524**	**1,495**	**1,548**	**1,440**	**1,360**
for CHP electricity generati	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	553	572	583	602	604	633	642	695	681	698	706	701	739	804	856	748	742	734	763	699	666
Combined heat and power - Total - Efficiency in %																																			
Hard coal	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	72.3	73.4	76.8	79.2	81.5	78.8	77.2	78.6	78.4	78.0	78.0	78.5	79.6	79.6	74.3	80.2	80.8	79.5	79.7	80.1	79.6
Lignite	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	78.5	76.2	76.4	78.7	78.8	77.9	78.5	77.8	78.0	77.8	77.3	78.9	79.1	79.2	79.7	79.4	78.3	78.3	78.9	79.7	79.0
Petroleum	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	81.0	81.0	79.8	80.2	82.8	74.7	74.1	75.3	71.2	81.2	84.5	82.7	86.5	83.4	84.7	85.2	82.2	84.0	82.3	84.1	85.0
Gases	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	80.1	78.7	80.6	80.6	81.3	81.0	80.1	80.8	80.4	81.1	81.6	81.3	80.5	80.3	80.4	84.3	83.6	83.6	83.3	83.0	83.3
Renewable Energy Sources	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	66.9	64.5	65.3	63.9	66.5	65.5	68.3	68.8	69.5	70.4	70.6	71.2	71.3	70.7	70.7	73.6	74.0	73.0	73.7	74.3	74.2
Other energy sources	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	76.3	79.3	69.2	73.0	65.3	67.7	64.7	63.5	65.0	62.9	62.5	63.2	66.3	61.5	60.5	74.5	75.6	76.3	75.9	75.2	73.0
Total	**%**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**76.8**	**76.1**	**77.1**	**77.5**	**77.9**	**76.7**	**76.0**	**76.5**	**76.2**	**76.8**	**76.9**	**76.9**	**77.1**	**76.5**	**75.8**	**80.0**	**79.9**	**79.5**	**79.6**	**79.6**	**79.4**

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Combined heat and power - Total: Main activity producer plants, Autoproducer plants and Other producer plants (below 1 MWel)

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5.3 Combined heat and power - Main activity producers

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Combined heat and power - Main activity producers - Net electricity generation in TWh																																			
Hard coal	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	17.2	16.9	13.9	12.4	11.1	11.2	11.6	13.5	12.2	12.8	13.7	11.8	11.2	10.4	13.0	10.1	8.7	7.2	8.0	7.6	5.8
Lignite	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.6	3.8	3.9	3.7	3.7	3.8	3.8	4.1	4.0	4.2	4.5	3.8	4.0	4.0	3.7	3.4	3.0	2.4	3.0	2.6	2.0
Petroleum	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.4	0.4	0.5	0.3	0.2	0.1	0.2	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2
Gases	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	27.4	29.2	31.8	34.9	34.0	35.3	31.2	31.5	30.1	28.9	25.9	22.6	22.6	29.2	30.6	27.6	28.5	28.9	30.6	25.0	26.4
Renewable Energy Sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.8	1.0	1.2	1.4	1.6	2.0	2.3	2.5	2.6	3.0	3.7	4.3	4.9	5.1	5.5	7.1	7.1	7.5	7.9	8.3	8.1
Other energy sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.0	1.0	1.2	1.3	1.4	1.4	1.5	1.7	1.9	2.0	1.9	2.3	2.2	2.4	2.7	2.3	2.2	1.9	2.0	1.9	1.9
Total	**TWh**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**50.3**	**52.3**	**52.3**	**54.0**	**51.9**	**53.8**	**50.5**	**53.4**	**51.1**	**51.1**	**49.7**	**44.9**	**44.9**	**51.2**	**55.5**	**50.7**	**49.5**	**47.9**	**51.6**	**45.7**	**44.3**
Combined heat and power - Main activity producers - Net heat generation in TWh																																			
Hard coal	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	34.7	36.5	33.0	31.1	28.5	29.8	28.7	31.1	27.6	29.0	31.9	27.2	28.2	26.1	24.6	26.5	23.2	17.1	19.1	18.4	14.3
Lignite	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9.8	9.8	10.2	10.1	9.6	10.0	10.1	10.3	10.1	10.4	11.2	9.8	10.5	10.1	9.0	7.9	7.1	6.6	7.8	7.3	6.2
Petroleum	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.2	1.0	0.8	0.6	0.4	0.3	0.5	0.5	0.3	0.4	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.2	0.3	0.7	0.3
Gases	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	41.6	45.7	47.5	50.1	48.2	47.7	43.7	44.9	40.4	40.6	36.5	32.4	32.5	38.1	40.2	38.5	40.2	40.2	42.4	35.2	35.8
Renewable Energy Sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.7	3.3	4.1	4.6	5.2	6.1	6.7	7.3	7.8	8.4	9.9	10.8	11.6	11.8	12.2	16.2	16.7	17.1	18.2	18.2	18.0
Other energy sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.8	3.9	4.5	4.8	4.8	4.8	5.8	6.8	6.8	7.1	7.0	8.0	7.9	8.2	8.4	9.4	10.2	9.0	10.0	9.0	9.2
Total	**TWh**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**93.9**	**100.1**	**100.1**	**101.4**	**96.7**	**98.7**	**95.4**	**100.9**	**93.1**	**95.9**	**96.9**	**88.5**	**91.0**	**94.5**	**94.5**	**98.8**	**97.5**	**90.2**	**97.8**	**88.6**	**83.8**
Combined heat and power - Main activity producers - Transformation input in PJ																																			
Hard coal	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	265	266	221	197	174	186	186	202	183	193	210	179	177	163	183	163	141	110	122	116	90
Lignite	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	63	66	66	65	63	65	64	68	66	69	73	63	66	64	57	52	46	41	49	45	37
Petroleum	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	7	7	6	4	3	2	4	4	4	3	2	2	2	2	2	1	1	1	2	5	2
Gases	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	316	337	351	367	357	366	335	342	323	313	279	246	245	303	315	286	299	297	313	260	267
Renewable Energy Sources	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	22	26	37	41	45	54	58	64	67	73	87	96	102	109	114	122	121	126	133	133	131
Other energy sources	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	24	24	35	36	38	40	47	56	56	59	60	68	66	73	77	65	64	58	64	58	59
Total	**PJ**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**697**	**726**	**715**	**711**	**680**	**713**	**693**	**735**	**700**	**710**	**711**	**653**	**658**	**715**	**748**	**690**	**672**	**633**	**683**	**617**	**586**
for CHP electricity generati	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	356	367	358	359	345	363	348	369	358	358	351	320	318	360	392	340	328	315	339	303	290
Combined heat and power - Main activity producers - Efficiency in %																																			
Hard coal	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	70.4	72.4	76.5	79.5	82.0	79.2	77.8	79.2	78.2	77.9	78.1	78.6	80.0	80.5	74.0	81.0	81.6	79.3	79.7	80.2	80.7
Lignite	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	76.7	74.1	76.1	76.8	76.2	76.7	77.6	76.3	76.7	76.0	77.7	77.8	78.7	78.8	79.2	78.2	78.5	79.2	79.3	79.2	79.8
Petroleum	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	82.6	71.0	80.7	78.0	69.2	68.5	66.6	67.3	60.1	71.9	70.6	68.0	63.1	63.3	64.6	73.4	73.9	75.0	74.8	74.6	76.8
Gases	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	78.7	80.0	81.4	83.3	82.8	81.6	80.5	80.4	78.6	80.1	80.6	80.5	81.0	79.9	80.9	83.3	82.9	83.9	83.9	83.3	83.8
Renewable Energy Sources	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	58.0	59.9	52.1	52.8	54.1	54.2	55.7	54.9	55.5	56.5	56.4	56.9	58.2	55.9	55.8	68.5	70.7	70.1	70.7	71.8	71.5
Other energy sources	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	71.6	73.1	58.4	61.0	58.7	56.0	56.2	55.3	55.9	55.3	53.2	54.8	55.6	52.2	51.9	64.6	69.4	67.0	67.7	67.1	67.8
Total	**%**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**74.5**	**75.6**	**76.8**	**78.7**	**78.7**	**77.0**	**75.7**	**75.5**	**74.2**	**74.6**	**74.2**	**73.5**	**74.4**	**73.4**	**72.2**	**77.9**	**78.8**	**78.5**	**78.7**	**78.4**	**78.7**

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Source: EEFA according to DESTATIS

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5.4 Combined heat and power - Autoproducers

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Combined heat and power - Autoproducers - Net electricity generation in TWh																																			
Hard coal	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.6	1.9	1.9	1.9	1.7	1.8	1.7	1.9	1.7	0.8	0.8	0.8	0.7	1.3	1.4	1.2	1.0	1.6	1.6	1.6	1.0
Lignite	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.2	1.3	1.2	1.4	1.4	1.3	1.2	1.4	1.4	1.5	1.4	1.3	1.3	1.3	1.3	1.3	1.2	1.0	0.9	0.8	0.6
Petroleum	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3.6	3.1	3.0	3.0	3.1	2.6	2.2	2.1	1.6	2.1	2.1	1.9	2.0	2.0	1.9	1.8	1.8	1.8	1.7	2.3	1.9
Gases	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13.6	13.8	15.7	15.6	15.8	16.7	17.8	20.5	19.9	19.7	20.4	21.3	24.6	26.0	27.8	24.6	24.7	24.7	25.8	21.4	20.1
Renewable Energy Sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.1	1.4	2.1	2.3	2.3	2.0	2.5	2.7	2.7	2.9	3.0	3.1	3.3	3.4	3.4	3.0	3.3	3.4	3.2	3.4	3.4
Other energy sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.4	1.4	1.7	1.6	1.4	1.3	1.1	1.3	1.1	1.2	1.2	1.2	1.2	1.2	1.3	1.2	1.0	1.2	1.2	1.2	1.0
Total	**TWh**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**23.5**	**22.9**	**25.6**	**25.8**	**25.8**	**25.7**	**26.6**	**29.8**	**28.4**	**28.3**	**28.9**	**29.7**	**33.1**	**35.3**	**37.1**	**33.2**	**33.0**	**33.7**	**34.3**	**30.6**	**27.9**
Combined heat and power - Autoproducers - Net heat generation in TWh																																			
Hard coal	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	10.1	6.9	7.3	7.1	6.4	6.4	5.7	6.3	5.9	4.1	3.7	3.7	4.0	5.3	5.5	5.2	4.5	6.2	6.1	5.3	3.0
Lignite	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6.1	6.1	6.2	6.6	6.6	6.6	6.2	7.2	7.6	8.0	7.7	7.7	7.5	8.0	7.7	7.5	6.7	5.9	5.4	5.0	4.0
Petroleum	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	11.9	11.6	11.1	11.9	11.3	9.7	9.4	9.5	8.2	10.8	10.2	9.0	9.5	9.3	9.5	9.8	9.9	9.5	9.2	12.1	10.8
Gases	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	42.6	41.2	42.5	39.8	41.6	42.7	43.3	47.1	46.2	44.6	45.4	45.9	47.3	49.9	50.3	50.8	50.8	51.1	52.0	43.7	41.0
Renewable Energy Sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	5.0	5.8	7.6	7.5	8.2	8.1	9.0	10.9	10.9	11.0	12.1	11.5	11.6	11.5	12.3	11.3	11.2	11.0	11.3	12.0	11.7
Other energy sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	6.3	5.9	5.2	5.4	5.8	6.0	5.6	5.9	5.6	5.7	5.6	6.0	7.2	6.9	6.8	6.6	5.5	6.0	6.7	6.8	5.3
Total	**TWh**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**82.0**	**77.5**	**80.0**	**78.3**	**79.8**	**79.5**	**79.3**	**86.9**	**84.4**	**84.1**	**84.8**	**83.8**	**87.2**	**90.9**	**92.0**	**91.3**	**88.7**	**89.6**	**90.6**	**85.1**	**75.8**
Combined heat and power - Autoproducers - Transformation input in PJ																																			
Hard coal	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	56	40	42	41	37	39	36	39	34	23	21	21	22	32	32	30	26	35	34	31	19
Lignite	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	32	33	35	35	34	35	33	38	41	42	43	40	40	42	40	39	36	32	29	26	21
Petroleum	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	69	65	64	67	62	59	57	55	50	57	52	47	47	48	48	49	51	48	47	61	53
Gases	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	248	256	264	261	261	267	278	300	291	283	289	297	327	343	356	319	324	329	340	285	267
Renewable Energy Sources	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	28	37	48	52	54	54	57	67	67	69	74	71	73	73	76	66	68	70	69	73	72
Other energy sources	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	35	31	30	28	35	32	31	33	29	32	30	32	35	37	37	29	26	27	30	32	27
Total	**PJ**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**469**	**462**	**484**	**484**	**484**	**487**	**492**	**533**	**512**	**506**	**510**	**509**	**544**	**574**	**590**	**533**	**531**	**540**	**550**	**509**	**459**
for CHP electricity generati	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	168	169	186	189	187	188	194	212	201	199	202	207	232	249	261	220	222	228	234	210	191
Combined heat and power - Autoproducers - Efficiency in %																																			
Hard coal	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	80.9	80.5	78.2	77.9	79.5	76.6	74.5	75.5	79.1	78.7	76.8	77.9	76.7	75.3	76.1	75.8	76.6	79.8	79.7	79.6	74.5
Lignite	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	82.2	80.6	77.1	82.2	83.6	80.1	80.1	80.4	80.1	80.7	76.8	80.7	79.8	79.9	80.4	81.1	77.9	77.1	78.2	80.6	77.6
Petroleum	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	80.7	81.9	79.5	80.1	83.4	74.5	74.2	75.5	71.4	81.5	85.1	83.2	87.3	84.4	85.4	85.5	82.3	84.2	82.6	84.8	85.7
Gases	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	81.4	77.2	79.2	76.5	79.0	80.0	79.2	81.0	81.8	81.7	82.0	81.3	79.3	79.7	79.0	85.2	84.0	83.1	82.4	82.2	82.4
Renewable Energy Sources	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	78.8	69.6	72.2	68.3	70.2	67.2	72.0	73.1	73.2	72.8	73.2	74.6	73.1	74.0	74.7	78.1	76.9	74.1	75.4	76.3	75.5
Other energy sources	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	79.9	84.8	82.8	89.2	73.0	82.9	77.8	77.7	82.7	77.0	81.1	80.5	86.4	80.0	78.4	96.5	91.1	96.6	93.2	90.1	84.5
Total	**%**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**81.0**	**78.3**	**78.5**	**77.4**	**78.5**	**77.8**	**77.4**	**78.8**	**79.4**	**80.0**	**80.3**	**80.3**	**79.5**	**79.2**	**78.8**	**84.1**	**82.5**	**82.1**	**81.7**	**81.9**	**81.3**

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Source: EEFA according to DESTATIS

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5.5 Combined heat and power - Other producers

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Combined heat and power - Other producers - Net electricity generation in TWh																																			
Hard coal	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lignite	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1
Gases	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.3	1.4	1.4	1.5	1.6	1.8	2.0	2.5	3.1	3.8	4.7	6.3	7.0	7.7	8.1	8.3	8.7	8.7	8.7	8.6	8.5
Renewable Energy Sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.3	2.9	3.6	5.6	8.5	9.7	12.5	14.1	15.3	17.9	19.2	21.2	22.9	23.7	24.3	22.3	22.3	22.2	21.3	21.7	21.5
Other energy sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**TWh**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**3.9**	**4.6**	**5.4**	**7.5**	**10.4**	**11.8**	**14.8**	**16.9**	**18.6**	**21.9**	**24.1**	**27.7**	**30.0**	**31.4**	**32.5**	**30.6**	**31.0**	**30.9**	**30.0**	**30.4**	**30.2**
Combined heat and power - Other producers - Net heat generation in TWh																																			
Hard coal	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lignite	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.5	0.5	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Gases	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.9	2.0	2.1	2.2	2.4	2.7	3.1	3.8	4.8	5.9	7.3	9.3	10.4	11.5	12.0	12.4	13.1	13.3	13.4	13.3	13.3
Renewable Energy Sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.5	6.3	7.2	10.1	12.8	15.2	17.6	20.1	20.1	22.4	22.9	24.3	26.0	25.6	26.3	25.0	25.0	24.7	24.6	24.4	24.6
Other energy sources	TWh	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**TWh**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**7.0**	**8.9**	**9.9**	**12.9**	**15.8**	**18.4**	**21.2**	**24.4**	**25.2**	**28.6**	**30.4**	**33.9**	**36.6**	**37.3**	**38.5**	**37.5**	**38.2**	**38.1**	**38.1**	**37.8**	**38.0**
Combined heat and power - Other producers - Transformation input in PJ																																			
Hard coal	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lignite	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Petroleum	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	3	3	3	3	3	3	2	2	2	2	2	1	1	1	1	1	1	1	1	0	1
Gases	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	13	16	15	15	17	19	22	27	34	41	51	67	74	82	86	88	93	93	94	93	93
Renewable Energy Sources	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	39	52	57	85	110	129	151	170	173	194	200	215	230	232	238	227	227	227	220	221	220
Other energy sources	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1	1	2	2	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**PJ**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**56**	**73**	**77**	**105**	**132**	**152**	**177**	**201**	**209**	**237**	**253**	**283**	**305**	**314**	**325**	**316**	**321**	**321**	**314**	**314**	**314**
for CHP electricity generati	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	28	36	38	54	72	82	100	114	122	141	153	174	188	195	202	188	191	191	191	186	185
Combined heat and power - Other producers - Efficiency in %																																			
Hard coal	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lignite	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	85.1	85.0	85.0	85.1	85.0	85.0	84.9	85.2	84.9	84.8	85.0	84.8	85.1	84.9	85.0	85.2	84.9	85.0	85.3	85.0	72.6
Gases	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	88.7	75.0	86.1	86.0	84.6	84.3	84.2	84.4	84.6	84.7	84.7	84.2	84.5	84.4	84.4	84.3	84.4	85.0	85.0	85.0	84.5
Renewable Energy Sources	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	63.4	63.1	67.9	66.7	69.8	69.6	71.8	72.4	73.5	74.7	75.8	76.4	76.6	76.6	76.5	75.0	74.8	74.2	75.0	75.2	75.4
Other energy sources	%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	60.8	62.9	50.7	57.2	55.4	54.5	54.7	53.0	54.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**%**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**70.6**	**66.7**	**71.6**	**69.9**	**71.8**	**71.6**	**73.4**	**74.0**	**75.4**	**76.5**	**77.6**	**78.3**	**78.6**	**78.7**	**78.6**	**77.6**	**77.7**	**77.4**	**78.0**	**78.1**	**78.1**

1990 - 2023: final data

Other producers: plant-capacity below 1 MWel

Source: EEFA according to DESTATIS, AGEE-Stat, Öko-Institut

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6.1 Total final energy consumption by energy source

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Total final energy consumption by energy source in PJ																																			
Hard coal	PJ	571	532	483	428	446	455	447	460	390	393	432	409	398	370	339	306	339	348	330	269	355	353	340	338	348	382	378	366	360	339	277	375	311	279
Lignite	PJ	975	555	353	295	221	178	165	130	104	94	82	77	70	75	81	78	81	78	87	79	89	94	92	93	85	84	87	88	86	79	90	86	81	66
Petroleum	PJ	4,061	4,328	4,376	4,505	4,396	4,402	4,545	4,465	4,431	4,291	4,148	4,257	4,063	3,861	3,710	3,746	3,873	3,289	3,635	3,429	3,397	3,317	3,347	3,449	3,324	3,422	3,410	3,464	3,394	3,454	3,047	2,903	3,076	3,002
Gases	PJ	1,789	1,915	1,913	2,011	2,025	2,163	2,399	2,306	2,327	2,323	2,328	2,436	2,392	2,314	2,290	2,244	2,319	2,208	2,286	2,118	2,353	2,151	2,182	2,286	2,057	2,162	2,227	2,243	2,214	2,207	2,156	2,366	2,094	1,933
Natural gas, Petroleum gas	PJ	1,541	1,688	1,724	1,851	1,882	2,025	2,273	2,169	2,195	2,201	2,204	2,324	2,290	2,210	2,178	2,133	2,203	2,112	2,182	2,035	2,248	2,038	2,078	2,185	1,956	2,055	2,130	2,149	2,107	2,107	2,063	2,274	2,001	1,822
Renewable Energy Sources	PJ	54	44	44	54	68	110	111	175	186	192	201	231	232	331	370	423	529	590	588	567	678	645	695	705	651	654	655	673	687	697	719	763	780	754
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	62	76	29	20	35	62	74	72	96	77	61	65	63	66	66	77	77	72	78	81	74
Electricity	PJ	1,638	1,615	1,602	1,587	1,605	1,648	1,674	1,690	1,709	1,718	1,780	1,778	1,801	1,857	1,882	1,881	1,899	1,909	1,903	1,792	1,918	1,891	1,886	1,875	1,836	1,847	1,856	1,861	1,838	1,793	1,734	1,780	1,719	1,636
District heat	PJ	383	378	356	355	349	366	344	309	310	290	265	268	270	429	449	446	444	427	436	428	472	420	429	435	383	402	410	411	401	403	377	438	375	360
Total	**PJ**	**9,472**	**9,366**	**9,127**	**9,234**	**9,110**	**9,322**	**9,686**	**9,535**	**9,458**	**9,300**	**9,235**	**9,455**	**9,226**	**9,298**	**9,197**	**9,153**	**9,505**	**8,884**	**9,327**	**8,754**	**9,334**	**8,968**	**9,049**	**9,242**	**8,749**	**9,014**	**9,088**	**9,171**	**9,058**	**9,050**	**8,471**	**8,789**	**8,517**	**8,104**
Total final energy consumption by energy source in mill. tce																																			
Hard coal	mill. tce	19.5	18.1	16.5	14.6	15.2	15.5	15.3	15.7	13.3	13.4	14.7	14.0	13.6	12.6	11.6	10.4	11.6	11.9	11.3	9.2	12.1	12.0	11.6	11.5	11.9	13.0	12.9	12.5	12.3	11.6	9.5	12.8	10.6	9.5
Lignite	mill. tce	33.3	18.9	12.0	10.0	7.5	6.1	5.6	4.5	3.6	3.2	2.8	2.6	2.4	2.6	2.8	2.6	2.8	2.7	3.0	2.7	3.0	3.2	3.2	3.2	2.9	2.8	3.0	3.0	2.9	2.7	3.1	2.9	2.8	2.2
Petroleum	mill. tce	138.6	147.7	149.3	153.7	150.0	150.2	155.1	152.3	151.2	146.4	141.5	145.2	138.6	131.7	126.6	127.8	132.1	112.2	124.0	117.0	115.9	113.2	114.2	117.7	113.4	116.7	116.3	118.2	115.8	117.9	104.0	99.0	105.0	102.4
Gases	mill. tce	61.0	65.3	65.3	68.6	69.1	73.8	81.9	78.7	79.4	79.3	79.4	83.1	81.6	79.0	78.1	76.6	79.1	75.3	78.0	72.3	80.3	73.4	74.5	78.0	70.2	73.8	76.0	76.5	75.5	75.3	73.6	80.7	71.5	66.0
Natural gas, Petroleum gas	mill. tce	52.6	57.6	58.8	63.2	64.2	69.1	77.5	74.0	74.9	75.1	75.2	79.3	78.1	75.4	74.3	72.8	75.2	72.1	74.4	69.4	76.7	69.5	70.9	74.5	66.7	70.1	72.7	73.3	71.9	71.9	70.4	77.6	68.3	62.2
Renewable Energy Sources	mill. tce	1.8	1.5	1.5	1.8	2.3	3.8	3.8	6.0	6.4	6.5	6.8	7.9	7.9	11.3	12.6	14.4	18.1	20.1	20.1	19.3	23.1	22.0	23.7	24.1	22.2	22.3	22.3	22.9	23.5	23.8	24.5	26.0	26.6	25.7
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.6	1.0	0.7	1.2	2.1	2.5	2.5	3.3	2.6	2.1	2.2	2.1	2.2	2.3	2.6	2.6	2.4	2.7	2.8	2.5
Electricity	mill. tce	55.9	55.1	54.7	54.1	54.7	56.2	57.1	57.7	58.3	58.6	60.7	60.6	61.5	63.4	64.2	64.2	64.8	65.1	64.9	61.1	65.4	64.5	64.3	64.0	62.6	63.0	63.3	63.5	62.7	61.2	59.2	60.7	58.6	55.8
District heat	mill. tce	13.1	12.9	12.1	12.1	11.9	12.5	11.7	10.5	10.6	9.9	9.0	9.1	9.2	14.6	15.3	15.2	15.2	14.6	14.9	14.6	16.1	14.3	14.6	14.8	13.1	13.7	14.0	14.0	13.7	13.8	12.9	14.9	12.8	12.3
Total	**mill. tce**	**323.2**	**319.6**	**311.4**	**315.1**	**310.8**	**318.1**	**330.5**	**325.3**	**322.7**	**317.3**	**315.1**	**322.6**	**314.8**	**317.3**	**313.8**	**312.3**	**324.3**	**303.1**	**318.3**	**298.7**	**318.5**	**306.0**	**308.8**	**315.3**	**298.5**	**307.6**	**310.1**	**312.9**	**309.1**	**308.8**	**289.1**	**299.9**	**290.6**	**276.5**
Total final energy consumption by energy source in %																																			
Hard coal	%	6.0	5.7	5.3	4.6	4.9	4.9	4.6	4.8	4.1	4.2	4.7	4.3	4.3	4.0	3.7	3.3	3.6	3.9	3.5	3.1	3.8	3.9	3.8	3.7	4.0	4.2	4.2	4.0	4.0	3.7	3.3	4.3	3.6	3.4
Lignite	%	10.3	5.9	3.9	3.2	2.4	1.9	1.7	1.4	1.1	1.0	0.9	0.8	0.8	0.8	0.9	0.8	0.9	0.9	0.9	0.9	1.0	1.1	1.0	1.0	1.0	0.9	1.0	1.0	0.9	0.9	1.1	1.0	0.9	0.8
Petroleum	%	42.9	46.2	47.9	48.8	48.3	47.2	46.9	46.8	46.9	46.1	44.9	45.0	44.0	41.5	40.3	40.9	40.7	37.0	39.0	39.2	36.4	37.0	37.0	37.3	38.0	38.0	37.5	37.8	37.5	38.2	36.0	33.0	36.1	37.0
Gases	%	18.9	20.4	21.0	21.8	22.2	23.2	24.8	24.2	24.6	25.0	25.2	25.8	25.9	24.9	24.9	24.5	24.4	24.9	24.5	24.2	25.2	24.0	24.1	24.7	23.5	24.0	24.5	24.5	24.4	24.4	25.5	26.9	24.6	23.9
Natural gas, Petroleum gas	%	16.3	18.0	18.9	20.0	20.7	21.7	23.5	22.8	23.2	23.7	23.9	24.6	24.8	23.8	23.7	23.3	23.2	23.8	23.4	23.3	24.1	22.7	23.0	23.6	22.4	22.8	23.4	23.4	23.3	23.3	24.4	25.9	23.5	22.5
Renewable Energy Sources	%	0.6	0.5	0.5	0.6	0.7	1.2	1.1	1.8	2.0	2.1	2.2	2.4	2.5	3.6	4.0	4.6	5.6	6.6	6.3	6.5	7.3	7.2	7.7	7.6	7.4	7.3	7.2	7.3	7.6	7.7	8.5	8.7	9.2	9.3
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7	0.8	0.3	0.2	0.4	0.7	0.8	0.8	1.1	0.9	0.7	0.7	0.7	0.7	0.7	0.9	0.9	0.8	0.9	1.0	0.9
Electricity	%	17.3	17.2	17.6	17.2	17.6	17.7	17.3	17.7	18.1	18.5	19.3	18.8	19.5	20.0	20.5	20.5	20.0	21.5	20.4	20.5	20.5	21.1	20.8	20.3	21.0	20.5	20.4	20.3	20.3	19.8	20.5	20.3	20.2	20.2
District heat	%	4.0	4.0	3.9	3.8	3.8	3.9	3.6	3.2	3.3	3.1	2.9	2.8	2.9	4.6	4.9	4.9	4.7	4.8	4.7	4.9	5.1	4.7	4.7	4.7	4.4	4.5	4.5	4.5	4.4	4.5	4.4	5.0	4.4	4.4
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Total final energy consumption by energy source, changes compared to the previous year in %																																			
Hard coal	%	n/a	-7.0	-9.1	-11.4	4.2	1.9	-1.7	2.8	-15.2	0.8	9.8	-5.3	-2.8	-7.1	-8.3	-9.7	10.7	2.7	-5.2	-18.6	32.0	-0.4	-3.6	-0.8	3.0	9.8	-1.2	-3.2	-1.5	-5.9	-18.2	35.3	-17.1	-10.1
Lignite	%	n/a	-43.1	-36.4	-16.5	-24.9	-19.6	-6.9	-21.1	-20.1	-10.1	-12.1	-6.7	-8.7	6.9	8.2	-4.4	4.5	-4.1	11.5	-8.5	11.8	6.2	-2.1	0.2	-7.9	-2.0	3.9	1.6	-2.7	-8.0	13.5	-4.4	-5.6	-18.5
Petroleum	%	n/a	6.6	1.1	2.9	-2.4	0.1	3.3	-1.8	-0.8	-3.2	-3.3	2.6	-4.5	-5.0	-3.9	1.0	3.4	-15.1	10.5	-5.7	-0.9	-2.4	0.9	3.1	-3.6	2.9	-0.3	1.6	-2.0	1.8	-11.8	-4.7	6.0	-2.4
Gases	%	n/a	7.0	-0.1	5.2	0.7	6.8	10.9	-3.9	0.9	-0.2	0.2	4.7	-1.8	-3.3	-1.0	-2.0	3.4	-4.8	3.5	-7.4	11.1	-8.6	1.4	4.8	-10.0	5.1	3.0	0.7	-1.3	-0.3	-2.3	9.7	-11.5	-7.7
Natural gas, Petroleum gas	%	n/a	9.5	2.2	7.4	1.7	7.6	12.3	-4.5	1.2	0.2	0.2	5.5	-1.5	-3.5	-1.5	-2.1	3.3	-4.1	3.3	-6.7	10.4	-9.3	2.0	5.1	-10.5	5.1	3.7	0.9	-1.9	0.0	-2.1	10.2	-12.0	-8.9
Renewable Energy Sources	%	n/a	-18.5	-1.1	22.7	26.6	62.6	0.5	57.9	6.4	3.0	4.5	15.4	0.2	42.7	11.7	14.4	25.2	11.4	-0.2	-3.7	19.6	-4.8	7.7	1.5	-7.7	0.4	0.1	2.7	2.2	1.4	3.1	6.2	2.3	-3.3
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5	-61.4	-31.9	73.3	79.3	18.3	-1.4	31.8	-19.4	-20.6	6.3	-3.8	5.1	0.7	16.6	0.4	-7.5	9.4	3.4	-9.0
Electricity	%	n/a	-1.4	-0.8	-1.0	1.1	2.7	1.6	0.9	1.1	0.5	3.6	-0.1	1.3	3.1	1.3	-0.1	1.0	0.5	-0.3	-5.8	7.0	-1.4	-0.3	-0.6	-2.1	0.6	0.5	0.2	-1.2	-2.4	-3.2	2.7	-3.5	-4.8
District heat	%	n/a	-1.4	-5.8	-0.4	-1.7	4.9	-6.0	-10.2	0.5	-6.7	-8.6	1.1	1.0	58.5	4.7	-0.6	-0.4	-3.9	2.0	-1.9	10.4	-11.0	2.1	1.3	-11.9	4.9	1.9	0.3	-2.2	0.5	-6.6	16.3	-14.4	-3.9
Total	**%**	**n/a**	**-1.1**	**-2.5**	**1.2**	**-1.3**	**2.3**	**3.9**	**-1.6**	**-0.8**	**-1.7**	**-0.7**	**2.4**	**-2.4**	**0.8**	**-1.1**	**-0.5**	**3.8**	**-6.5**	**5.0**	**-6.1**	**6.6**	**-3.9**	**0.9**	**2.1**	**-5.3**	**3.0**	**0.8**	**0.9**	**-1.2**	**-0.1**	**-6.4**	**3.8**	**-3.1**	**-4.8**

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6.2 Final energy consumption by energy source: Mining and quarrying, manufacturing industry

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Final energy consumption by energy source: Mining and quarrying, manufacturing industry in PJ																																			
Hard coal	PJ	501	450	419	367	392	398	396	410	358	359	391	366	356	357	329	296	329	336	318	259	334	334	326	329	336	363	368	358	353	336	275	373	309	275
Lignite	PJ	368	196	131	110	98	81	73	67	63	59	54	49	49	53	63	59	59	63	66	58	64	73	72	72	71	69	73	74	72	67	78	73	70	57
Petroleum	PJ	351	387	390	371	360	346	335	316	300	269	235	235	224	209	190	172	190	169	159	142	165	147	132	118	98	99	110	108	85	85	102	97	112	95
Gases	PJ	893	873	864	851	867	882	866	875	883	901	936	906	883	889	892	887	894	916	922	788	902	907	893	902	880	886	909	941	924	897	886	923	813	778
Natural gas, Petroleum gas	PJ	714	709	723	721	734	747	740	739	752	779	812	794	781	785	780	776	778	820	817	706	797	794	789	800	779	779	812	847	817	796	793	830	720	667
Renewable Energy Sources	PJ	15	5	6	14	12	10	10	10	14	14	14	15	15	54	77	88	86	103	79	88	113	121	111	110	114	110	116	115	113	113	112	118	121	116
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	62	76	29	20	35	62	74	72	96	77	61	65	63	66	66	77	77	72	78	81	74
Electricity	PJ	748	698	682	649	666	686	677	701	716	723	748	750	751	789	810	823	825	850	837	719	799	818	814	807	824	810	816	821	814	786	744	772	725	669
District heat	PJ	101	85	69	68	70	70	68	62	62	58	43	44	43	107	105	114	138	151	130	152	146	169	188	190	174	173	179	172	191	175	163	173	162	150
Total	**PJ**	**2,977**	**2,694**	**2,560**	**2,432**	**2,463**	**2,474**	**2,424**	**2,440**	**2,397**	**2,384**	**2,421**	**2,365**	**2,322**	**2,520**	**2,542**	**2,469**	**2,539**	**2,622**	**2,573**	**2,280**	**2,595**	**2,666**	**2,613**	**2,589**	**2,562**	**2,573**	**2,637**	**2,657**	**2,629**	**2,537**	**2,432**	**2,607**	**2,392**	**2,213**
Final energy consumption by energy source: Mining and quarrying, manufacturing industry in mill. tce																																			
Hard coal	mill. tce	17.1	15.3	14.3	12.5	13.4	13.6	13.5	14.0	12.2	12.2	13.3	12.5	12.2	12.2	11.2	10.1	11.2	11.5	10.9	8.9	11.4	11.4	11.1	11.2	11.5	12.4	12.6	12.2	12.0	11.5	9.4	12.7	10.5	9.4
Lignite	mill. tce	12.6	6.7	4.5	3.8	3.3	2.8	2.5	2.3	2.1	2.0	1.9	1.7	1.7	1.8	2.2	2.0	2.0	2.1	2.2	2.0	2.2	2.5	2.5	2.5	2.4	2.4	2.5	2.5	2.4	2.3	2.7	2.5	2.4	2.0
Petroleum	mill. tce	12.0	13.2	13.3	12.7	12.3	11.8	11.4	10.8	10.2	9.2	8.0	8.0	7.7	7.1	6.5	5.9	6.5	5.8	5.4	4.8	5.6	5.0	4.5	4.0	3.3	3.4	3.7	3.7	2.9	2.9	3.5	3.3	3.8	3.2
Gases	mill. tce	30.5	29.8	29.5	29.0	29.6	30.1	29.5	29.9	30.1	30.8	31.9	30.9	30.1	30.3	30.4	30.3	30.5	31.2	31.5	26.9	30.8	30.9	30.5	30.8	30.0	30.2	31.0	32.1	31.5	30.6	30.2	31.5	27.7	26.6
Natural gas, Petroleum gas	mill. tce	24.4	24.2	24.7	24.6	25.1	25.5	25.2	25.2	25.7	26.6	27.7	27.1	26.7	26.8	26.6	26.5	26.5	28.0	27.9	24.1	27.2	27.1	26.9	27.3	26.6	26.6	27.7	28.9	27.9	27.2	27.1	28.3	24.6	22.8
Renewable Energy Sources	mill. tce	0.5	0.2	0.2	0.5	0.4	0.4	0.3	0.3	0.5	0.5	0.5	0.5	0.5	1.9	2.6	3.0	2.9	3.5	2.7	3.0	3.9	4.1	3.8	3.8	3.9	3.7	4.0	3.9	3.9	3.8	3.8	4.0	4.1	3.9
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.1	2.6	1.0	0.7	1.2	2.1	2.5	2.5	3.3	2.6	2.1	2.2	2.1	2.2	2.3	2.6	2.6	2.4	2.7	2.8	2.5
Electricity	mill. tce	25.5	23.8	23.3	22.2	22.7	23.4	23.1	23.9	24.4	24.7	25.5	25.6	25.6	26.9	27.6	28.1	28.1	29.0	28.6	24.5	27.3	27.9	27.8	27.5	28.1	27.6	27.8	28.0	27.8	26.8	25.4	26.3	24.7	22.8
District heat	mill. tce	3.4	2.9	2.4	2.3	2.4	2.4	2.3	2.1	2.1	2.0	1.5	1.5	1.5	3.7	3.6	3.9	4.7	5.2	4.4	5.2	5.0	5.8	6.4	6.5	5.9	5.9	6.1	5.9	6.5	6.0	5.6	5.9	5.5	5.1
Total	**mill. tce**	**101.6**	**91.9**	**87.3**	**83.0**	**84.1**	**84.4**	**82.7**	**83.3**	**81.8**	**81.3**	**82.6**	**80.7**	**79.2**	**86.0**	**86.7**	**84.2**	**86.6**	**89.5**	**87.8**	**77.8**	**88.6**	**91.0**	**89.2**	**88.4**	**87.4**	**87.8**	**90.0**	**90.7**	**89.7**	**86.6**	**83.0**	**88.9**	**81.6**	**75.5**
Final energy consumption by energy source: Mining and quarrying, manufacturing industry in %																																			
Hard coal	%	16.8	16.7	16.4	15.1	15.9	16.1	16.3	16.8	15.0	15.1	16.1	15.5	15.3	14.1	12.9	12.0	13.0	12.8	12.4	11.4	12.9	12.5	12.5	12.7	13.1	14.1	14.0	13.5	13.4	13.3	11.3	14.3	12.9	12.4
Lignite	%	12.4	7.3	5.1	4.5	4.0	3.3	3.0	2.7	2.6	2.5	2.2	2.1	2.1	2.1	2.5	2.4	2.3	2.4	2.5	2.5	2.5	2.7	2.8	2.8	2.8	2.7	2.8	2.8	2.7	2.6	3.2	2.8	2.9	2.6
Petroleum	%	11.8	14.4	15.2	15.3	14.6	14.0	13.8	12.9	12.5	11.3	9.7	9.9	9.7	8.3	7.5	7.0	7.5	6.4	6.2	6.2	6.3	5.5	5.1	4.6	3.8	3.8	4.2	4.1	3.2	3.4	4.2	3.7	4.7	4.3
Gases	%	30.0	32.4	33.7	35.0	35.2	35.7	35.7	35.9	36.9	37.8	38.6	38.3	38.0	35.3	35.1	35.9	35.2	34.9	35.8	34.6	34.8	34.0	34.2	34.8	34.4	34.4	34.5	35.4	35.2	35.3	36.4	35.4	34.0	35.2
Natural gas, Petroleum gas	%	24.0	26.3	28.2	29.6	29.8	30.2	30.5	30.3	31.4	32.7	33.5	33.6	33.7	31.2	30.7	31.4	30.6	31.3	31.8	31.0	30.7	29.8	30.2	30.9	30.4	30.3	30.8	31.9	31.1	31.4	32.6	31.9	30.1	30.2
Renewable Energy Sources	%	0.5	0.2	0.2	0.6	0.5	0.4	0.4	0.4	0.6	0.6	0.6	0.6	0.7	2.2	3.0	3.6	3.4	3.9	3.1	3.9	4.4	4.6	4.3	4.3	4.4	4.3	4.4	4.3	4.3	4.4	4.6	4.5	5.0	5.2
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.5	3.0	1.2	0.8	1.3	2.4	3.2	2.8	3.6	2.9	2.4	2.5	2.4	2.5	2.5	2.9	3.1	2.9	3.0	3.4	3.3
Electricity	%	25.1	25.9	26.6	26.7	27.0	27.7	27.9	28.7	29.9	30.3	30.9	31.7	32.4	31.3	31.8	33.3	32.5	32.4	32.5	31.6	30.8	30.7	31.2	31.2	32.2	31.5	30.9	30.9	31.0	31.0	30.6	29.6	30.3	30.2
District heat	%	3.4	3.2	2.7	2.8	2.8	2.8	2.8	2.5	2.6	2.4	1.8	1.9	1.9	4.2	4.1	4.6	5.4	5.8	5.1	6.7	5.6	6.4	7.2	7.3	6.8	6.7	6.8	6.5	7.3	6.9	6.7	6.6	6.8	6.8
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Final energy consumption by energy source: Mining and quarrying, manufacturing industry, changes compared to the previous year in %																																			
Hard coal	%	n/a	-10.3	-6.8	-12.4	6.8	1.7	-0.6	3.4	-12.5	0.1	8.9	-6.3	-2.7	0.1	-7.8	-9.9	11.0	2.1	-5.3	-18.4	28.7	0.0	-2.5	1.0	2.3	8.1	1.4	-2.7	-1.5	-4.7	-18.2	35.6	-17.2	-10.8
Lignite	%	n/a	-46.8	-32.8	-16.0	-11.3	-16.9	-10.5	-8.3	-6.0	-5.3	-8.3	-10.0	-0.5	9.4	18.0	-6.3	-0.8	6.8	4.8	-12.1	11.0	14.6	-1.8	0.6	-2.1	-1.9	5.4	0.8	-3.0	-6.6	17.3	-6.7	-3.9	-18.6
Petroleum	%	n/a	10.3	0.6	-4.6	-3.2	-3.8	-3.3	-5.7	-5.0	-10.2	-12.6	-0.2	-4.5	-6.9	-8.8	-9.6	10.2	-10.9	-5.9	-10.7	16.1	-10.4	-10.4	-10.8	-17.3	1.5	10.8	-1.2	-21.7	0.2	19.7	-5.1	15.5	-15.3
Gases	%	n/a	-2.2	-1.1	-1.4	1.8	1.7	-1.9	1.1	0.9	2.0	3.8	-3.2	-2.6	0.7	0.4	-0.5	0.8	2.4	0.7	-14.5	14.5	0.5	-1.5	1.0	-2.4	0.6	2.6	3.6	-1.8	-3.0	-1.1	4.1	-11.9	-4.3
Natural gas, Petroleum gas	%	n/a	-0.6	1.9	-0.3	1.9	1.8	-1.1	0.0	1.7	3.6	4.2	-2.2	-1.6	0.5	-0.6	-0.6	0.3	5.4	-0.3	-13.6	13.0	-0.5	-0.5	1.4	-2.6	0.0	4.2	4.3	-3.5	-2.5	-0.4	4.7	-13.3	-7.3
Renewable Energy Sources	%	n/a	-65.2	10.5	154.8	-18.8	-10.5	-4.2	0.0	42.0	-1.1	-0.5	6.7	2.7	253.7	40.9	15.2	-2.8	19.7	-23.0	11.6	28.1	7.3	-8.5	-0.8	3.2	-3.6	5.9	-0.6	-2.0	-0.4	-0.8	5.6	2.0	-4.0
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.5	-61.4	-31.9	73.3	79.3	18.3	-1.4	31.8	-19.4	-20.6	6.3	-3.8	5.1	0.7	16.6	0.4	-7.5	9.4	3.4	-9.0
Electricity	%	n/a	-6.7	-2.3	-4.7	2.5	3.0	-1.2	3.5	2.2	1.0	3.5	0.2	0.2	5.0	2.6	1.6	0.2	3.1	-1.5	-14.1	11.0	2.4	-0.4	-0.9	2.0	-1.7	0.8	0.7	-0.9	-3.4	-5.4	3.7	-6.1	-7.8
District heat	%	n/a	-15.4	-19.0	-1.7	2.9	0.2	-2.9	-9.0	0.5	-6.7	-26.5	3.8	-2.4	147.6	-1.5	7.8	21.3	9.8	-13.9	16.5	-3.9	16.2	10.7	1.0	-8.1	-0.4	3.2	-3.8	11.2	-8.4	-6.8	6.1	-6.2	-7.6
Total	**%**	**n/a**	**-9.5**	**-5.0**	**-5.0**	**1.3**	**0.4**	**-2.0**	**0.7**	**-1.8**	**-0.5**	**1.6**	**-2.3**	**-1.8**	**8.5**	**0.9**	**-2.9**	**2.9**	**3.3**	**-1.9**	**-11.4**	**13.8**	**2.7**	**-2.0**	**-0.9**	**-1.1**	**0.4**	**2.5**	**0.8**	**-1.0**	**-3.5**	**-4.1**	**7.2**	**-8.2**	**-7.5**

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6.3 Final energy consumption by energy source: private households

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Final energy consumption by energy source: private households in PJ																																			
Hard coal	PJ	38	47	39	38	37	38	36	32	24	25	28	29	29	10	8	8	8	10	9	8	18	16	12	8	10	15	8	7	6	2	2	2	2	3
Lignite	PJ	351	209	139	123	103	66	70	37	29	26	20	22	16	19	17	17	20	13	20	21	23	19	19	20	14	14	14	14	14	12	11	12	10	9
Petroleum	PJ	740	872	857	948	915	944	1,002	1,059	986	835	816	933	823	819	737	725	766	461	683	588	593	495	540	576	505	500	513	511	480	560	601	436	441	427
Gases	PJ	607	710	722	816	815	883	1,040	957	968	952	948	1,025	1,003	1,043	1,017	985	960	894	940	928	1,017	845	917	966	781	861	911	890	920	925	896	1,037	895	813
Natural gas, Petroleum gas	PJ	564	674	696	801	814	880	1,039	957	968	952	948	1,025	1,003	1,043	1,017	985	960	894	940	928	1,017	845	917	966	781	861	911	890	920	925	896	1,037	895	813
Renewable Energy Sources	PJ	39	39	38	39	54	96	96	159	165	170	171	196	192	210	207	206	243	258	299	274	330	310	356	372	319	324	317	329	341	347	338	384	402	363
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	422	440	442	453	448	458	483	471	470	473	470	484	491	501	505	509	509	504	502	501	510	492	493	490	467	463	462	471	460	456	459	499	483	473
District heat	PJ	160	166	164	164	165	171	163	140	141	131	131	132	135	156	165	154	151	155	164	176	189	164	171	184	153	170	185	186	179	190	177	214	192	188
Total	**PJ**	**2,357**	**2,483**	**2,401**	**2,581**	**2,537**	**2,655**	**2,890**	**2,854**	**2,782**	**2,612**	**2,584**	**2,822**	**2,689**	**2,759**	**2,656**	**2,603**	**2,658**	**2,295**	**2,617**	**2,497**	**2,681**	**2,343**	**2,508**	**2,616**	**2,249**	**2,348**	**2,410**	**2,407**	**2,401**	**2,492**	**2,484**	**2,584**	**2,424**	**2,276**
Final energy consumption by energy source: private households in mill. tce																																			
Hard coal	mill. tce	1.3	1.6	1.3	1.3	1.3	1.3	1.2	1.1	0.8	0.9	1.0	1.0	1.0	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.6	0.6	0.4	0.3	0.3	0.5	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Lignite	mill. tce	12.0	7.1	4.7	4.2	3.5	2.2	2.4	1.2	1.0	0.9	0.7	0.8	0.6	0.7	0.6	0.6	0.7	0.5	0.7	0.7	0.8	0.7	0.7	0.7	0.5	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.3
Petroleum	mill. tce	25.2	29.8	29.2	32.3	31.2	32.2	34.2	36.1	33.6	28.5	27.8	31.8	28.1	28.0	25.1	24.7	26.2	15.7	23.3	20.1	20.3	16.9	18.4	19.6	17.2	17.1	17.5	17.4	16.4	19.1	20.5	14.9	15.0	14.6
Gases	mill. tce	20.7	24.2	24.6	27.8	27.8	30.1	35.5	32.7	33.0	32.5	32.3	35.0	34.2	35.6	34.7	33.6	32.7	30.5	32.1	31.7	34.7	28.8	31.3	33.0	26.6	29.4	31.1	30.4	31.4	31.6	30.6	35.4	30.5	27.7
Natural gas, Petroleum gas	mill. tce	19.2	23.0	23.7	27.3	27.8	30.0	35.5	32.7	33.0	32.5	32.3	35.0	34.2	35.6	34.7	33.6	32.7	30.5	32.1	31.7	34.7	28.8	31.3	33.0	26.6	29.4	31.1	30.4	31.4	31.6	30.6	35.4	30.5	27.7
Renewable Energy Sources	mill. tce	1.3	1.3	1.3	1.3	1.8	3.3	3.3	5.4	5.6	5.8	5.8	6.7	6.5	7.2	7.0	7.0	8.3	8.8	10.2	9.4	11.3	10.6	12.2	12.7	10.9	11.1	10.8	11.2	11.6	11.9	11.5	13.1	13.7	12.4
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	mill. tce	14.4	15.0	15.1	15.5	15.3	15.6	16.5	16.1	16.0	16.1	16.0	16.5	16.8	17.1	17.2	17.4	17.4	17.2	17.1	17.1	17.4	16.8	16.8	16.7	15.9	15.8	15.7	16.1	15.7	15.5	15.7	17.0	16.5	16.1
District heat	mill. tce	5.5	5.7	5.6	5.6	5.6	5.8	5.6	4.8	4.8	4.5	4.5	4.5	4.6	5.3	5.6	5.2	5.2	5.3	5.6	6.0	6.5	5.6	5.8	6.3	5.2	5.8	6.3	6.3	6.1	6.5	6.0	7.3	6.5	6.4
Total	**mill. tce**	**80.4**	**84.7**	**81.9**	**88.1**	**86.6**	**90.6**	**98.6**	**97.4**	**94.9**	**89.1**	**88.2**	**96.3**	**91.7**	**94.2**	**90.6**	**88.8**	**90.7**	**78.3**	**89.3**	**85.2**	**91.5**	**79.9**	**85.6**	**89.3**	**76.7**	**80.1**	**82.2**	**82.1**	**81.9**	**85.0**	**84.8**	**88.2**	**82.7**	**77.7**
Final energy consumption by energy source: private households in %																																			
Hard coal	%	1.6	1.9	1.6	1.5	1.5	1.4	1.2	1.1	0.9	1.0	1.1	1.0	1.1	0.4	0.3	0.3	0.3	0.4	0.3	0.3	0.7	0.7	0.5	0.3	0.4	0.6	0.3	0.3	0.3	0.1	0.1	0.1	0.1	0.1
Lignite	%	14.9	8.4	5.8	4.8	4.1	2.5	2.4	1.3	1.0	1.0	0.8	0.8	0.6	0.7	0.6	0.7	0.7	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.6	0.6	0.6	0.6	0.6	0.5	0.4	0.5	0.4	0.4
Petroleum	%	31.4	35.1	35.7	36.7	36.1	35.5	34.7	37.1	35.5	32.0	31.6	33.1	30.6	29.7	27.8	27.8	28.8	20.1	26.1	23.6	22.1	21.1	21.5	22.0	22.5	21.3	21.3	21.2	20.0	22.5	24.2	16.9	18.2	18.8
Gases	%	25.8	28.6	30.1	31.6	32.1	33.2	36.0	33.5	34.8	36.4	36.7	36.3	37.3	37.8	38.3	37.8	36.1	38.9	35.9	37.2	37.9	36.1	36.5	36.9	34.7	36.7	37.8	37.0	38.3	37.1	36.1	40.1	36.9	35.7
Natural gas, Petroleum gas	%	23.9	27.1	29.0	31.0	32.1	33.1	36.0	33.5	34.8	36.4	36.7	36.3	37.3	37.8	38.3	37.8	36.1	38.9	35.9	37.2	37.9	36.1	36.5	36.9	34.7	36.7	37.8	37.0	38.3	37.1	36.1	40.1	36.9	35.7
Renewable Energy Sources	%	1.6	1.6	1.6	1.5	2.1	3.6	3.3	5.6	5.9	6.5	6.6	6.9	7.1	7.6	7.8	7.9	9.2	11.3	11.4	11.0	12.3	13.3	14.2	14.2	14.2	13.8	13.2	13.7	14.2	13.9	13.6	14.9	16.6	16.0
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	%	17.9	17.7	18.4	17.6	17.7	17.2	16.7	16.5	16.9	18.1	18.2	17.1	18.3	18.1	19.0	19.5	19.2	22.0	19.2	20.1	19.0	21.0	19.7	18.7	20.7	19.7	19.2	19.6	19.2	18.3	18.5	19.3	19.9	20.8
District heat	%	6.8	6.7	6.8	6.4	6.5	6.4	5.7	4.9	5.1	5.0	5.1	4.7	5.0	5.7	6.2	5.9	5.7	6.8	6.3	7.1	7.1	7.0	6.8	7.1	6.8	7.3	7.7	7.7	7.5	7.6	7.1	8.3	7.9	8.3
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Final energy consumption by energy source: private households, changes compared to the previous year in %																																			
Hard coal	%	n/a	23.7	-17.0	-2.6	-2.6	2.6	-5.3	-11.3	-25.9	7.8	10.8	3.7	-1.4	-64.1	-21.8	-2.5	-0.2	22.7	-6.0	-17.3	141.4	-9.5	-27.2	-31.2	17.4	49.9	-43.7	-19.5	-1.7	-62.9	-11.8	0.2	-7.1	54.3
Lignite	%	n/a	-40.5	-33.5	-11.5	-16.3	-36.2	5.9	-47.5	-20.6	-9.0	-23.8	11.2	-26.5	17.3	-13.6	2.0	16.7	-32.2	45.9	5.3	10.1	-15.3	-1.1	5.8	-28.7	-2.3	-3.3	5.9	-1.4	-14.9	-8.0	12.1	-15.8	-17.5
Petroleum	%	n/a	17.8	-1.7	10.6	-3.5	3.1	6.2	5.6	-6.9	-15.3	-2.4	14.4	-11.8	-0.4	-10.1	-1.7	5.8	-39.9	48.2	-13.9	0.9	-16.5	9.0	6.6	-12.3	-1.1	2.7	-0.5	-6.0	16.7	7.4	-27.5	1.1	-3.2
Gases	%	n/a	17.0	1.7	13.0	-0.1	8.3	17.8	-8.0	1.1	-1.6	-0.4	8.1	-2.2	4.0	-2.4	-3.2	-2.6	-6.9	5.3	-1.3	9.5	-16.8	8.4	5.4	-19.2	10.3	5.8	-2.4	3.4	0.6	-3.1	15.7	-13.7	-9.1
Natural gas, Petroleum gas	%	n/a	19.5	3.3	15.1	1.6	8.0	18.2	-7.9	1.1	-1.6	-0.4	8.1	-2.2	4.0	-2.4	-3.2	-2.6	-6.9	5.3	-1.3	9.5	-16.8	8.4	5.4	-19.2	10.3	5.8	-2.4	3.4	0.6	-3.1	15.7	-13.7	-9.1
Renewable Energy Sources	%	n/a	0.8	-2.6	3.1	38.3	77.7	0.3	64.8	4.0	2.7	0.9	14.4	-2.1	9.7	-1.9	-0.2	18.1	6.1	15.7	-8.2	20.4	-6.0	14.7	4.3	-14.2	1.8	-2.2	3.8	3.7	1.8	-2.8	13.8	4.5	-9.6
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	%	n/a	4.3	0.5	2.5	-1.1	2.2	5.5	-2.5	-0.3	0.6	-0.6	3.0	1.6	1.9	0.9	0.6	0.1	-1.0	-0.4	-0.2	1.8	-3.6	0.3	-0.7	-4.7	-0.7	-0.4	2.1	-2.3	-1.0	0.7	8.7	-3.1	-2.0
District heat	%	n/a	3.8	-1.2	0.0	0.6	3.6	-4.4	-14.5	0.6	-6.7	0.2	0.6	1.8	16.1	5.4	-6.7	-1.6	2.7	5.6	7.6	7.4	-13.2	3.9	8.0	-16.9	11.1	8.6	0.3	-3.4	5.9	-6.8	20.9	-10.3	-1.8
Total	**%**	**n/a**	**5.3**	**-3.3**	**7.5**	**-1.7**	**4.6**	**8.9**	**-1.3**	**-2.5**	**-6.1**	**-1.1**	**9.2**	**-4.7**	**2.6**	**-3.8**	**-2.0**	**2.1**	**-13.6**	**14.0**	**-4.6**	**7.4**	**-12.6**	**7.0**	**4.3**	**-14.0**	**4.4**	**2.7**	**-0.1**	**-0.2**	**3.8**	**-0.3**	**4.0**	**-6.2**	**-6.1**

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6.4 Final energy consumption by energy source: trade, commerce and services (TCS)

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Final energy consumption by energy source: trade, commerce and services (TCS) in PJ																																			
Hard coal	PJ	32	34	25	23	17	18	15	18	8	9	13	14	13	3	2	2	2	3	3	2	2	3	3	1	2	4	1	1	1	0	0	0	0	1
Lignite	PJ	256	150	82	61	20	31	22	26	12	7	7	5	5	2	2	2	3	2	2	1	2	2	1	0	0	0	0	0	0	0	0	0	0	0
Petroleum	PJ	641	696	662	644	624	558	646	513	517	469	415	465	423	358	355	450	441	280	343	329	296	322	322	340	333	329	238	241	214	211	208	200	189	179
Gases	PJ	289	332	327	344	343	399	494	473	476	470	445	505	506	380	378	369	461	393	417	393	425	390	364	411	389	409	402	408	366	381	368	400	379	335
Natural gas, Petroleum gas	PJ	263	304	305	329	334	398	494	473	476	470	445	505	506	380	378	369	461	393	417	393	425	390	364	411	389	409	402	408	366	381	368	400	379	335
Renewable Energy Sources	PJ	1	0	0	0	2	2	2	2	3	3	3	4	4	37	48	52	60	69	86	94	114	95	104	111	103	113	114	119	120	125	129	137	133	144
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	419	422	425	430	436	447	455	458	465	465	504	486	501	520	520	502	520	510	523	530	565	538	535	535	504	534	537	528	521	509	490	464	460	436
District heat	PJ	122	127	123	123	114	125	113	107	108	101	91	91	93	165	179	179	155	121	142	99	137	86	71	61	56	58	46	53	31	38	37	51	21	22
Total	**PJ**	**1,759**	**1,761**	**1,644**	**1,625**	**1,556**	**1,579**	**1,747**	**1,598**	**1,588**	**1,523**	**1,478**	**1,571**	**1,544**	**1,465**	**1,484**	**1,555**	**1,642**	**1,377**	**1,515**	**1,447**	**1,542**	**1,436**	**1,399**	**1,458**	**1,386**	**1,446**	**1,337**	**1,349**	**1,252**	**1,264**	**1,231**	**1,251**	**1,182**	**1,117**
Final energy consumption by energy source: trade, commerce and services (TCS) in mill. tce																																			
Hard coal	mill. tce	1.1	1.2	0.8	0.8	0.6	0.6	0.5	0.6	0.3	0.3	0.4	0.5	0.4	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lignite	mill. tce	8.7	5.1	2.8	2.1	0.7	1.1	0.7	0.9	0.4	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	mill. tce	21.9	23.8	22.6	22.0	21.3	19.0	22.1	17.5	17.6	16.0	14.2	15.9	14.4	12.2	12.1	15.4	15.0	9.5	11.7	11.2	10.1	11.0	11.0	11.6	11.3	11.2	8.1	8.2	7.3	7.2	7.1	6.8	6.4	6.1
Gases	mill. tce	9.9	11.3	11.2	11.7	11.7	13.6	16.9	16.1	16.2	16.0	15.2	17.2	17.3	13.0	12.9	12.6	15.7	13.4	14.2	13.4	14.5	13.3	12.4	14.0	13.3	13.9	13.7	13.9	12.5	13.0	12.5	13.6	12.9	11.4
Natural gas, Petroleum gas	mill. tce	9.0	10.4	10.4	11.2	11.4	13.6	16.8	16.1	16.2	16.0	15.2	17.2	17.3	13.0	12.9	12.6	15.7	13.4	14.2	13.4	14.5	13.3	12.4	14.0	13.3	13.9	13.7	13.9	12.5	13.0	12.5	13.6	12.9	11.4
Renewable Energy Sources	mill. tce	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3	1.7	1.8	2.0	2.4	2.9	3.2	3.9	3.2	3.5	3.8	3.5	3.8	3.9	4.1	4.1	4.3	4.4	4.7	4.6	4.9
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	mill. tce	14.3	14.4	14.5	14.7	14.9	15.2	15.5	15.6	15.9	15.9	17.2	16.6	17.1	17.8	17.8	17.1	17.7	17.4	17.8	18.1	19.3	18.4	18.2	18.2	17.2	18.2	18.3	18.0	17.8	17.4	16.7	15.8	15.7	14.9
District heat	mill. tce	4.2	4.3	4.2	4.2	3.9	4.3	3.8	3.7	3.7	3.4	3.1	3.1	3.2	5.6	6.1	6.1	5.3	4.1	4.8	3.4	4.7	2.9	2.4	2.1	1.9	2.0	1.6	1.8	1.0	1.3	1.2	1.7	0.7	0.8
Total	**mill. tce**	**60.0**	**60.1**	**56.1**	**55.4**	**53.1**	**53.9**	**59.6**	**54.5**	**54.2**	**52.0**	**50.4**	**53.6**	**52.7**	**50.0**	**50.6**	**53.1**	**56.0**	**47.0**	**51.7**	**49.4**	**52.6**	**49.0**	**47.7**	**49.8**	**47.3**	**49.3**	**45.6**	**46.0**	**42.7**	**43.1**	**42.0**	**42.7**	**40.3**	**38.1**
Final energy consumption by energy source: trade, commerce and services (TCS) in %																																			
Hard coal	%	1.8	2.0	1.5	1.4	1.1	1.2	0.9	1.1	0.5	0.6	0.9	0.9	0.8	0.2	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.0	0.2	0.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1
Lignite	%	14.6	8.5	5.0	3.8	1.3	1.9	1.3	1.6	0.8	0.5	0.5	0.3	0.3	0.2	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	%	36.4	39.6	40.3	39.6	40.1	35.3	37.0	32.1	32.5	30.8	28.1	29.6	27.4	24.4	23.9	28.9	26.8	20.3	22.6	22.7	19.2	22.4	23.0	23.3	24.0	22.7	17.8	17.8	17.1	16.7	16.9	16.0	16.0	16.1
Gases	%	16.4	18.8	19.9	21.2	22.1	25.2	28.3	29.6	30.0	30.8	30.1	32.2	32.8	25.9	25.5	23.7	28.1	28.5	27.5	27.1	27.6	27.2	26.0	28.2	28.0	28.3	30.1	30.2	29.2	30.1	29.9	32.0	32.1	30.0
Natural gas, Petroleum gas	%	15.0	17.3	18.5	20.2	21.4	25.2	28.3	29.6	30.0	30.8	30.1	32.2	32.8	25.9	25.5	23.7	28.1	28.5	27.5	27.1	27.6	27.2	26.0	28.2	28.0	28.3	30.1	30.2	29.2	30.1	29.9	32.0	32.1	30.0
Renewable Energy Sources	%	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	2.5	3.3	3.3	3.7	5.0	5.7	6.5	7.4	6.6	7.4	7.6	7.4	7.8	8.5	8.8	9.6	9.9	10.4	10.9	11.3	12.9
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	%	23.8	23.9	25.9	26.5	28.0	28.3	26.0	28.6	29.3	30.5	34.1	30.9	32.4	35.5	35.1	32.3	31.7	37.0	34.5	36.6	36.7	37.5	38.2	36.7	36.4	36.9	40.1	39.1	41.6	40.3	39.8	37.1	39.0	39.1
District heat	%	6.9	7.2	7.5	7.6	7.3	7.9	6.5	6.7	6.8	6.6	6.1	5.8	6.0	11.3	12.0	11.5	9.5	8.8	9.3	6.9	8.9	6.0	5.1	4.2	4.0	4.0	3.4	3.9	2.5	3.0	3.0	4.1	1.8	2.0
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Final energy consumption by energy source: trade, commerce and services (TCS), changes compared to the previous year in %																																			
Hard coal	%	n/a	9.2	-28.1	-8.1	-25.2	7.2	-18.1	21.6	-56.2	13.8	40.6	7.3	-6.0	-79.2	-18.2	-15.4	4.7	29.9	14.0	-42.1	41.3	12.7	10.6	-75.6	196.5	106.0	-75.4	-31.6	13.9	-91.8	-11.6	-47.5	12.5	2272.2
Lignite	%	n/a	-41.4	-45.1	-25.7	-66.8	51.5	-29.0	20.5	-54.8	-38.2	0.0	-28.5	-6.4	-52.7	-34.6	4.6	72.7	-32.2	-10.6	-28.0	80.4	-14.9	-27.1	-100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	%	n/a	8.7	-5.0	-2.7	-3.0	-10.6	15.9	-20.6	0.7	-9.2	-11.4	12.1	-9.2	-15.4	-0.7	26.8	-2.1	-36.6	22.6	-4.1	-9.9	8.7	0.0	5.6	-2.2	-1.1	-27.5	1.0	-11.2	-1.3	-1.6	-3.8	-5.6	-4.9
Gases	%	n/a	14.8	-1.4	5.2	-0.2	16.0	24.0	-4.2	0.5	-1.3	-5.3	13.7	0.2	-25.0	-0.5	-2.4	25.1	-14.7	6.0	-5.7	8.3	-8.2	-6.8	13.0	-5.5	5.2	-1.7	1.6	-10.4	4.1	-3.4	8.8	-5.3	-11.6
Natural gas, Petroleum gas	%	n/a	15.5	0.2	7.9	1.5	19.1	24.2	-4.2	0.6	-1.3	-5.3	13.7	0.2	-25.0	-0.5	-2.4	25.1	-14.7	6.0	-5.7	8.3	-8.2	-6.8	13.0	-5.5	5.2	-1.7	1.6	-10.4	4.1	-3.4	8.8	-5.3	-11.6
Renewable Energy Sources	%	n/a	-93.5	0.0	-33.3	6200.0	9.5	6.3	5.9	8.1	-1.3	12.5	25.0	11.2	801.5	29.7	7.1	15.8	15.8	24.0	9.4	20.7	-16.5	9.3	6.8	-7.2	9.5	1.1	4.5	0.9	4.3	2.6	6.3	-2.4	7.7
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	%	n/a	0.6	0.8	1.3	1.2	2.6	1.8	0.7	1.7	-0.1	8.4	-3.6	3.0	3.9	0.0	-3.5	3.4	-1.9	2.5	1.3	6.7	-4.8	-0.6	0.0	-5.7	5.9	0.6	-1.6	-1.3	-2.4	-3.7	-5.4	-0.7	-5.2
District heat	%	n/a	3.6	-3.0	-0.1	-7.2	9.6	-9.8	-4.8	0.5	-6.7	-9.9	0.6	1.6	78.4	8.2	0.1	-13.2	-22.3	17.3	-29.8	37.5	-36.8	-18.1	-14.1	-8.6	4.2	-21.3	16.2	-42.0	24.4	-4.3	39.7	-59.4	6.2
Total	**%**	**n/a**	**0.1**	**-6.6**	**-1.2**	**-4.2**	**1.5**	**10.6**	**-8.5**	**-0.6**	**-4.1**	**-3.0**	**6.3**	**-1.7**	**-5.1**	**1.3**	**4.8**	**5.6**	**-16.1**	**10.0**	**-4.4**	**6.5**	**-6.8**	**-2.6**	**4.2**	**-5.0**	**4.4**	**-7.5**	**0.9**	**-7.2**	**0.9**	**-2.6**	**1.7**	**-5.5**	**-5.5**

1990 - 2023: final data

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6.5 Final energy consumption by energy source: agriculture, fishing, construction

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Final energy consumption by energy source: agriculture in PJ																																			
Motor gasoline	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.5	2.5	2.5	2.5	2.7	2.8	2.7	2.8	2.8	3.1	3.5	3.5	3.4	3.4
Diesel oil	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	62.1	65.2	66.2	67.2	71.7	69.9	70.8	70.8	68.2	69.6	69.3	69.8	66.7	65.9
Fuel oil light	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	14.3	17.3	14.2	13.3	15.9	13.5	14.3	10.9	10.7	9.9	11.6	11.7	11.2	11.4
Liquified petroleum Gas	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	9.1	10.6	8.7	8.2	9.9	8.5	9.1	7.0	6.9	6.5	7.6	7.7	7.4	7.5
Natural gas, Petroleum gas	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	17.0	19.7	16.1	15.2	18.4	15.8	16.8	13.0	12.9	12.1	14.1	14.3	13.7	13.9
Biodiesel	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	4.0	4.3	4.4	4.0	4.4	3.8	3.7	3.7	3.9	3.9	5.9	4.9	4.6	4.9
Bioethanol	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2
Other biomass	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	18.9	19.0	21.2	23.5	25.5	27.6	29.2	30.5	28.0	28.3	28.4	28.8	27.5	27.9
Electricity	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21.2	20.3	20.5	16.1	22.5	19.9	19.6	18.3	18.5	17.8	16.4	16.7	15.9	16.1
Total	**PJ**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**149.2**	**159.1**	**154.0**	**150.2**	**171.1**	**162.1**	**166.4**	**157.1**	**152.0**	**151.3**	**156.8**	**157.7**	**150.5**	**151.1**
Final energy consumption by energy source: fishing in PJ																																			
Motor gasoline	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel oil	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7
Fuel oil light	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Liquified petroleum Gas	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural gas, Petroleum gas	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Biodiesel	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bioethanol	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other biomass	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.2	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1
Total	**PJ**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**1.2**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	**1.1**	**1.0**	**1.0**	**1.0**	**1.0**	**0.9**	**0.9**	**0.8**
Final energy consumption by energy source: construction in PJ																																			
Motor gasoline	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	2.4	2.5	2.2	2.5	2.4	2.2	2.4	2.7	3.0	3.1	3.2	3.1	3.0	3.0
Diesel oil	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	25.5	26.9	25.6	28.8	29.4	32.5	33.5	34.8	34.2	35.4	35.4	35.4	34.6	34.3
Fuel oil light	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	16.8	15.5	15.2	13.2	15.1	14.6	14.7	15.3	17.2	17.8	18.3	18.0	17.6	17.4
Liquified petroleum Gas	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural gas, Petroleum gas	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	21.9	21.4	22.0	19.0	21.7	20.9	21.1	21.9	24.7	25.6	26.3	25.9	25.3	25.0
Biodiesel	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.7	1.8	1.7	1.7	1.8	1.8	1.8	1.8	1.9	2.0	3.0	2.5	2.4	2.5
Bioethanol	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Other biomass	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	14.3	15.9	15.7	12.9	14.7	14.2	14.3	14.9	16.8	17.3	17.8	17.6	17.2	16.9
Total	**PJ**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**n/a**	**82.6**	**84.1**	**82.6**	**78.2**	**85.3**	**86.3**	**87.8**	**91.6**	**97.9**	**101.3**	**104.1**	**102.6**	**100.3**	**99.2**

1990 - 2023: final data

Source: fossil fuels and electricity according to AG Energiebilanzen based on destatis, UGR; renewable energy sources based on AGEE-Stat

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6.6 Final energy consumption by energy source: transport

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Final energy consumption by energy source: transport in PJ																																			
Hard coal	PJ	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Lignite	PJ	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Petroleum	PJ	2,329	2,372	2,468	2,542	2,497	2,554	2,562	2,577	2,628	2,718	2,681	2,623	2,594	2,475	2,428	2,400	2,476	2,380	2,451	2,370	2,343	2,352	2,353	2,416	2,389	2,494	2,549	2,604	2,616	2,599	2,136	2,170	2,335	2,302
Gases	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	4	6	7	8	9	9	9	7	7	6	5	4	5	5	6	7	8	7
Natural gas, Petroleum gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	4	6	7	8	9	9	9	7	7	6	5	4	5	5	6	7	8	7
Renewable Energy Sources	PJ	0	0	0	0	0	2	2	4	4	5	12	17	20	29	38	76	140	159	124	110	121	118	124	113	116	107	108	109	113	112	141	124	125	132
Other energy sources	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Electricity	PJ	49	55	54	54	55	58	60	61	58	57	57	58	58	47	46	47	46	44	40	42	43	44	43	43	41	40	42	40	42	42	42	46	51	58
District heat	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total	**PJ**	**2,379**	**2,428**	**2,522**	**2,596**	**2,553**	**2,614**	**2,625**	**2,643**	**2,691**	**2,781**	**2,751**	**2,698**	**2,672**	**2,554**	**2,515**	**2,527**	**2,666**	**2,589**	**2,622**	**2,530**	**2,516**	**2,523**	**2,529**	**2,578**	**2,554**	**2,647**	**2,704**	**2,757**	**2,776**	**2,757**	**2,325**	**2,348**	**2,519**	**2,498**
Final energy consumption by energy source: transport in mill. tce																																			
Hard coal	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lignite	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	mill. tce	79.5	80.9	84.2	86.7	85.2	87.1	87.4	87.9	89.7	92.7	91.5	89.5	88.5	84.5	82.8	81.9	84.5	81.2	83.6	80.9	79.9	80.2	80.3	82.4	81.5	85.1	87.0	88.8	89.3	88.7	72.9	74.0	79.7	78.5
Gases	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2
Natural gas, Petroleum gas	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.2
Renewable Energy Sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.4	0.6	0.7	1.0	1.3	2.6	4.8	5.4	4.2	3.7	4.1	4.0	4.2	3.8	4.0	3.7	3.7	3.7	3.9	3.8	4.8	4.2	4.3	4.5
Other energy sources	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	mill. tce	1.7	1.9	1.8	1.8	1.9	2.0	2.0	2.1	2.0	1.9	2.0	2.0	2.0	1.6	1.6	1.6	1.6	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.6	1.7	2.0
District heat	mill. tce	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**mill. tce**	**81.2**	**82.8**	**86.1**	**88.6**	**87.1**	**89.2**	**89.6**	**90.2**	**91.8**	**94.9**	**93.9**	**92.0**	**91.2**	**87.1**	**85.8**	**86.2**	**91.0**	**88.3**	**89.5**	**86.3**	**85.8**	**86.1**	**86.3**	**88.0**	**87.1**	**90.3**	**92.3**	**94.1**	**94.7**	**94.1**	**79.3**	**80.1**	**85.9**	**85.2**
Final energy consumption by energy source: transport in %																																			
Hard coal	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lignite	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	%	97.9	97.7	97.9	97.9	97.8	97.7	97.6	97.5	97.7	97.7	97.5	97.2	97.1	96.9	96.5	95.0	92.9	91.9	93.5	93.7	93.1	93.2	93.0	93.7	93.5	94.2	94.3	94.4	94.2	94.2	91.9	92.4	92.7	92.1
Gases	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Natural gas, Petroleum gas	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3
Renewable Energy Sources	%	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.4	0.6	0.8	1.1	1.5	3.0	5.3	6.1	4.7	4.3	4.8	4.7	4.9	4.4	4.5	4.0	4.0	4.0	4.1	4.1	6.1	5.3	5.0	5.3
Other energy sources	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	%	2.1	2.3	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.2	1.8	1.8	1.9	1.7	1.7	1.5	1.7	1.7	1.7	1.7	1.7	1.6	1.5	1.6	1.5	1.5	1.5	1.8	2.0	2.0	2.3
District heat	%	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Final energy consumption by energy source: transport, changes compared to the previous year in %																																			
Hard coal	%	n/a	17.2	-20.0	-44.8	-21.5	-50.9	-25.2	0.0	-37.2	11.1	-51.7	-100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Lignite	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	-35.2	-31.2	0.5	-21.9	-49.9	-91.2	-100.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Petroleum	%	n/a	1.9	4.0	3.0	-1.7	2.3	0.3	0.6	2.0	3.4	-1.3	-2.2	-1.1	-4.6	-1.9	-1.1	3.2	-3.9	3.0	-3.3	-1.1	0.4	0.0	2.7	-1.1	4.4	2.2	2.2	0.5	-0.7	-17.8	1.6	7.6	-1.4
Gases	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	12.7	42.2	31.5	22.2	18.2	3.8	0.0	1.1	-16.7	1.1	-21.9	-8.0	-21.1	7.7	4.2	27.5	17.8	8.5	-10.4
Natural gas, Petroleum gas	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	12.7	42.2	31.5	22.2	18.2	3.8	0.0	1.1	-16.7	1.1	-21.9	-8.0	-21.1	7.7	4.2	27.5	17.8	8.5	-10.4
Renewable Energy Sources	%	n/a	0.0	0.0	0.0	0.0	0.0	36.0	78.5	11.7	31.6	128.6	36.4	22.2	40.6	32.0	101.5	83.2	13.6	-21.9	-11.6	9.9	-2.0	4.5	-9.0	2.9	-7.5	0.5	1.3	3.7	-0.9	25.5	-11.8	0.7	5.4
Other energy sources	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	%	n/a	12.1	-2.8	0.7	2.7	5.1	2.2	1.9	-4.6	-1.5	0.5	0.6	0.0	-18.4	-1.3	1.8	-3.5	-3.5	-9.3	4.5	4.2	0.2	-0.7	-0.8	-3.4	-3.2	5.3	-4.7	4.3	-0.5	-0.6	11.6	9.5	13.4
District heat	%	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	**%**	**n/a**	**2.1**	**3.9**	**2.9**	**-1.6**	**2.4**	**0.4**	**0.7**	**1.8**	**3.3**	**-1.1**	**-2.0**	**-1.0**	**-4.4**	**-1.5**	**0.5**	**5.5**	**-2.9**	**1.3**	**-3.5**	**-0.6**	**0.3**	**0.2**	**2.0**	**-1.0**	**3.7**	**2.1**	**2.0**	**0.7**	**-0.7**	**-15.7**	**1.0**	**7.3**	**-0.8**

1990 - 2023: final data

See also 'Preliminary notes on the evaluation tables of the German Energy Balance'

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6.7 Final energy consumption: transport by sectors and selected energy sources

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Final energy consumption: transport by sectors and selected energy sources in PJ																																			
Rail transport	PJ	89	91	88	89	88	89	90	89	85	83	83	81	80	69	67	67	64	62	57	57	59	59	58	57	54	54	56	52	51	52	51	53	53	52
Electricity	PJ	49	55	54	54	55	58	60	61	58	57	57	58	58	47	46	47	46	44	40	42	43	44	43	43	41	40	42	40	41	41	39	41	42	41
Diesel oil	PJ	38	34	34	34	32	31	30	28	27	25	25	24	22	22	20	19	17	16	16	14	15	15	14	14	12	13	14	11	9	11	11	11	10	10
Road transport	PJ	2,067	2,118	2,198	2,259	2,209	2,266	2,267	2,281	2,328	2,404	2,358	2,314	2,294	2,179	2,113	2,095	2,220	2,135	2,166	2,089	2,076	2,100	2,083	2,129	2,121	2,215	2,243	2,265	2,272	2,256	2,059	2,025	2,071	2,038
Aviation transport	PJ	196	192	206	218	226	235	246	255	262	281	298	291	288	291	317	345	362	375	379	368	362	347	371	375	362	362	389	426	438	435	200	258	385	398
Jet fuel / kerosene	PJ	193	190	204	217	225	233	245	254	261	280	297	290	287	290	316	344	361	374	378	367	362	346	371	375	362	362	389	425	437	434	200	258	385	398
Coastal and inland shipping	PJ	28	28	30	31	30	24	22	17	16	13	12	11	10	15	17	20	20	17	20	16	19	17	17	17	17	16	15	15	15	15	14	12	10	10
Total	**PJ**	**2,379**	**2,428**	**2,522**	**2,596**	**2,553**	**2,614**	**2,625**	**2,643**	**2,691**	**2,781**	**2,751**	**2,698**	**2,672**	**2,554**	**2,515**	**2,527**	**2,666**	**2,589**	**2,622**	**2,530**	**2,516**	**2,523**	**2,529**	**2,578**	**2,554**	**2,647**	**2,704**	**2,757**	**2,776**	**2,757**	**2,325**	**2,348**	**2,519**	**2,498**
Final energy consumption: transport by sectors and selected energy sources in mill. tce																																			
Rail transport	mill. tce	3.0	3.1	3.0	3.0	3.0	3.1	3.1	3.1	2.9	2.8	2.8	2.8	2.7	2.4	2.3	2.3	2.2	2.1	2.0	1.9	2.0	2.0	2.0	2.0	1.9	1.8	1.9	1.8	1.7	1.8	1.7	1.8	1.8	1.8
Electricity	mill. tce	1.7	1.9	1.8	1.8	1.9	2.0	2.0	2.1	2.0	1.9	2.0	2.0	2.0	1.6	1.6	1.6	1.6	1.5	1.4	1.4	1.5	1.5	1.5	1.5	1.4	1.4	1.4	1.4	1.4	1.4	1.3	1.4	1.4	1.4
Diesel oil	mill. tce	1.3	1.2	1.2	1.2	1.1	1.1	1.0	0.9	0.9	0.9	0.9	0.8	0.8	0.7	0.7	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.4	0.3	0.4	0.4	0.4	0.4	0.3
Road transport	mill. tce	70.5	72.3	75.0	77.1	75.4	77.3	77.4	77.8	79.4	82.0	80.5	79.0	78.3	74.3	72.1	71.5	75.7	72.8	73.9	71.3	70.8	71.6	71.1	72.6	72.4	75.6	76.5	77.3	77.5	77.0	70.3	69.1	70.7	69.5
Aviation transport	mill. tce	6.7	6.6	7.0	7.4	7.7	8.0	8.4	8.7	8.9	9.6	10.2	9.9	9.8	9.9	10.8	11.8	12.3	12.8	12.9	12.6	12.4	11.8	12.7	12.8	12.4	12.4	13.3	14.5	14.9	14.8	6.8	8.8	13.1	13.6
Jet fuel / kerosene	mill. tce	6.6	6.5	7.0	7.4	7.7	8.0	8.3	8.7	8.9	9.6	10.1	9.9	9.8	9.9	10.8	11.7	12.3	12.8	12.9	12.5	12.3	11.8	12.6	12.8	12.3	12.3	13.3	14.5	14.9	14.8	6.8	8.8	13.1	13.6
Coastal and inland shipping	mill. tce	0.9	1.0	1.0	1.0	1.0	0.8	0.7	0.6	0.5	0.4	0.4	0.4	0.3	0.5	0.6	0.7	0.7	0.6	0.7	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.3
Total	**mill. tce**	**81.2**	**82.8**	**86.1**	**88.6**	**87.1**	**89.2**	**89.6**	**90.2**	**91.8**	**94.9**	**93.9**	**92.0**	**91.2**	**87.1**	**85.8**	**86.2**	**91.0**	**88.3**	**89.5**	**86.3**	**85.8**	**86.1**	**86.3**	**88.0**	**87.1**	**90.3**	**92.3**	**94.1**	**94.7**	**94.1**	**79.3**	**80.1**	**85.9**	**85.2**
Final energy consumption: transport by sectors and selected energy sources in %																																			
Rail transport	%	3.7	3.7	3.5	3.4	3.4	3.4	3.4	3.4	3.2	3.0	3.0	3.0	3.0	2.7	2.7	2.7	2.4	2.4	2.2	2.3	2.4	2.3	2.3	2.2	2.1	2.0	2.1	1.9	1.8	1.9	2.2	2.3	2.1	2.1
Electricity	%	2.1	2.3	2.1	2.1	2.2	2.2	2.3	2.3	2.2	2.1	2.1	2.1	2.2	1.8	1.8	1.9	1.7	1.7	1.5	1.6	1.7	1.7	1.7	1.7	1.6	1.5	1.5	1.4	1.5	1.5	1.7	1.8	1.7	1.7
Diesel oil	%	1.6	1.4	1.3	1.3	1.3	1.2	1.1	1.1	1.0	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4	0.3	0.4	0.5	0.5	0.4	0.4
Road transport	%	86.9	87.2	87.1	87.0	86.5	86.7	86.4	86.3	86.5	86.5	85.7	85.8	85.9	85.3	84.0	82.9	83.3	82.5	82.6	82.6	82.5	83.2	82.4	82.6	83.0	83.7	83.0	82.1	81.8	81.8	88.6	86.2	82.2	81.6
Aviation transport	%	8.2	7.9	8.2	8.4	8.9	9.0	9.4	9.7	9.7	10.1	10.8	10.8	10.8	11.4	12.6	13.6	13.6	14.5	14.5	14.5	14.4	13.7	14.7	14.6	14.2	13.7	14.4	15.4	15.8	15.8	8.6	11.0	15.3	15.9
Jet fuel / kerosene	%	8.1	7.8	8.1	8.3	8.8	8.9	9.3	9.6	9.7	10.1	10.8	10.7	10.8	11.4	12.6	13.6	13.5	14.5	14.4	14.5	14.4	13.7	14.7	14.5	14.2	13.7	14.4	15.4	15.8	15.8	8.6	11.0	15.3	15.9
Coastal and inland shipping	%	1.2	1.2	1.2	1.2	1.2	0.9	0.8	0.6	0.6	0.5	0.4	0.4	0.4	0.6	0.7	0.8	0.8	0.7	0.7	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.5	0.6	0.5	0.5	0.6	0.5	0.4	0.4
Total	**%**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
Final energy consumption: transport by sectors and selected energy sources, changes compared to the previous year in %																																			
Rail transport	%	n/a	2.0	-2.3	0.3	-1.2	2.1	1.1	-1.2	-4.9	-2.8	0.6	-2.2	-2.1	-13.2	-2.5	-0.3	-4.5	-3.1	-8.1	-0.2	3.6	0.2	-2.7	-0.5	-5.4	-0.8	4.6	-8.4	-1.0	1.5	-2.1	4.6	-0.2	-1.8
Electricity	%	n/a	12.1	-2.8	0.7	2.7	5.1	2.2	1.9	-4.6	-1.5	0.5	0.6	0.0	-18.5	-1.3	1.9	-3.5	-3.5	-9.3	4.5	4.2	0.2	-0.7	-0.9	-3.5	-3.4	5.1	-5.2	3.7	-1.5	-3.5	5.6	1.3	-1.3
Diesel oil	%	n/a	-11.3	-0.9	1.1	-6.7	-2.7	-4.9	-5.9	-4.5	-5.7	1.6	-7.4	-6.3	-2.0	-5.7	-7.3	-9.9	-3.4	-3.1	-10.1	2.1	0.7	-8.3	1.9	-10.8	8.5	3.4	-17.6	-16.9	14.0	0.3	2.7	-5.3	-4.3
Road transport	%	n/a	2.5	3.8	2.8	-2.2	2.6	0.0	0.6	2.1	3.3	-1.9	-1.9	-0.9	-5.0	-3.0	-0.9	6.0	-3.8	1.5	-3.6	-0.6	1.2	-0.8	2.2	-0.4	4.5	1.3	1.0	0.3	-0.7	-8.7	-1.7	2.3	-1.6
Aviation transport	%	n/a	-1.9	7.3	5.7	3.9	3.6	4.7	3.9	2.8	7.3	6.1	-2.6	-0.9	1.0	8.8	8.7	5.0	3.6	1.1	-2.9	-1.5	-4.3	7.0	1.1	-3.4	0.0	7.5	9.3	2.8	-0.6	-54.0	28.7	49.5	3.4
Jet fuel / kerosene	%	n/a	-1.9	7.8	6.0	4.0	3.7	4.8	3.8	2.9	7.3	6.1	-2.5	-0.8	1.1	8.9	8.7	5.1	3.7	1.0	-2.9	-1.5	-4.3	7.1	1.1	-3.4	-0.1	7.6	9.3	2.8	-0.6	-54.0	28.8	49.5	3.4
Coastal and inland shipping	%	n/a	0.9	6.7	2.2	-2.3	-21.0	-8.1	-20.9	-8.4	-18.5	-7.2	-3.6	-12.8	46.8	18.8	15.7	0.9	-15.9	15.0	-19.0	17.3	-9.4	0.9	-1.8	-1.3	-2.1	-8.4	2.6	-0.6	-1.0	-4.2	-14.1	-22.2	2.1
Total	**%**	**n/a**	**2.1**	**3.9**	**2.9**	**-1.6**	**2.4**	**0.4**	**0.7**	**1.8**	**3.3**	**-1.1**	**-2.0**	**-1.0**	**-4.4**	**-1.5**	**0.5**	**5.5**	**-2.9**	**1.3**	**-3.5**	**-0.6**	**0.3**	**0.2**	**2.0**	**-1.0**	**3.7**	**2.1**	**2.0**	**0.7**	**-0.7**	**-15.7**	**1.0**	**7.3**	**-0.8**

1990 - 2023: final data

See also 'Preliminary notes on the evaluation tables of the German Energy Balance'

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6.8 Final energy consumption: road transport by energy sources

Energy source	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Final energy consumption: road transport by energy sources in PJ																																			
Motor gasoline	PJ	1,330	1,332	1,344	1,351	1,277	1,300	1,300	1,297	1,300	1,301	1,237	1,199	1,166	1,112	1,036	982	958	890	879	841	781	780	731	738	706	759	752	741	717	730	639	638	670	686
Diesel oil	PJ	736	785	854	908	932	964	965	980	1,023	1,097	1,108	1,097	1,106	1,035	1,035	1,032	1,112	1,071	1,139	1,107	1,143	1,171	1,199	1,249	1,271	1,324	1,360	1,395	1,420	1,394	1,262	1,241	1,248	1,189
Liquified petroleum gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	2	6	11	18	24	23	23	21	23	20	19	18	16	17	15	10	10	12	8
Natural gas, Petroleum gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	2	3	3	4	6	7	8	9	9	9	7	7	6	5	4	5	5	6	7	8	7
Renewable energy sources	PJ	0	0	0	0	0	2	2	4	4	5	12	17	20	28	37	75	139	157	123	109	120	117	123	112	115	106	107	108	113	112	140	123	124	131
Electricity	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	5	9	16
Total	**PJ**	**2,067**	**2,118**	**2,198**	**2,259**	**2,209**	**2,266**	**2,267**	**2,281**	**2,327**	**2,403**	**2,358**	**2,314**	**2,293**	**2,179**	**2,113**	**2,095**	**2,220**	**2,135**	**2,166**	**2,089**	**2,076**	**2,100**	**2,083**	**2,129**	**2,121**	**2,215**	**2,243**	**2,265**	**2,272**	**2,256**	**2,059**	**2,025**	**2,071**	**2,038**
thereof motorized individual transport in PJ																																			
Motor gasoline	PJ	1,319	1,322	1,333	1,339	1,266	1,289	1,289	1,287	1,290	1,291	1,228	1,191	1,158	1,103	1,027	973	948	881	872	834	773	772	724	731	700	752	746	734	711	722	632	631	663	679
Diesel oil	PJ	203	199	212	220	228	236	238	239	243	247	248	276	295	315	342	366	409	409	445	443	474	498	522	561	578	611	634	645	648	601	543	519	504	477
Liquified petroleum gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	2	6	10	17	23	22	23	20	22	20	18	17	15	16	14	10	10	11	7
Natural gas, Petroleum gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	3	4	5	6	6	7	6	4	3	3	2	3	2	2	2	2	2
Renewable energy sources	PJ	0	0	0	0	0	0	1	1	1	1	3	4	5	9	13	31	59	67	58	57	67	68	72	68	70	66	66	66	68	65	76	68	68	71
Electricity	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	4	8	14
Total	**PJ**	**1,522**	**1,521**	**1,545**	**1,560**	**1,494**	**1,526**	**1,528**	**1,528**	**1,535**	**1,539**	**1,479**	**1,470**	**1,459**	**1,428**	**1,385**	**1,372**	**1,425**	**1,371**	**1,397**	**1,363**	**1,343**	**1,368**	**1,345**	**1,387**	**1,371**	**1,451**	**1,466**	**1,463**	**1,446**	**1,405**	**1,265**	**1,233**	**1,256**	**1,250**
thereof public transport in PJ																																			
Motor gasoline	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diesel oil	PJ	37	124	76	42	23	33	19	22	42	78	77	50	46	8	6	3	41	40	87	52	57	51	42	37	38	40	41	42	43	39	26	26	36	36
Liquified petroleum gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Natural gas, Petroleum gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	2	1	1	1	1	1	1	0	0	0
Renewable energy sources	PJ	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	5	5	8	4	4	4	3	2	3	2	3	3	3	3	2	2	3	3
Electricity	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	**PJ**	**37**	**124**	**76**	**42**	**23**	**33**	**19**	**22**	**42**	**79**	**78**	**51**	**46**	**9**	**7**	**4**	**47**	**47**	**97**	**58**	**63**	**56**	**46**	**41**	**42**	**44**	**45**	**45**	**46**	**43**	**29**	**28**	**39**	**40**
thereof freight transport in PJ																																			
Motor gasoline	PJ	11	11	11	11	11	11	10	10	10	10	9	9	8	9	9	9	10	9	7	7	8	7	7	7	7	7	7	6	6	7	6	7	7	8
Diesel oil	PJ	497	461	565	645	682	695	708	719	738	771	783	771	765	712	687	664	662	622	607	611	612	621	635	651	656	673	685	709	730	754	694	697	708	676
Liquified petroleum gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Natural gas, Petroleum gas	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	1	1	2	2	1	1	1	2	1	1	1	1	2	3	5	6	5
Renewable energy sources	PJ	0	0	0	0	0	1	2	3	3	4	9	12	14	19	24	45	75	84	57	47	48	45	48	41	43	38	38	40	42	44	61	53	54	57
Electricity	PJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Total	**PJ**	**508**	**472**	**576**	**656**	**693**	**707**	**720**	**732**	**751**	**785**	**801**	**792**	**788**	**741**	**721**	**719**	**748**	**717**	**673**	**668**	**670**	**676**	**692**	**701**	**708**	**721**	**732**	**757**	**780**	**807**	**765**	**763**	**776**	**748**

1990 - 2023: final data

Source: Data based on ZSW-Verkehrsmodell

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7.1 Energy efficiency indicators

Indicator	Unit	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Activity variables 1)																																			
Gross domestic product (GDP)	Bill. €	2,383	2,432	2,481	2,457	2,521	2,559	2,585	2,633	2,688	2,746	2,825	2,871	2,864	2,849	2,882	2,908	3,020	3,107	3,135	2,961	3,084	3,200	3,215	3,228	3,298	3,352	3,429	3,522	3,562	3,597	3,450	3,576	3,625	3,616
Population	Mill.	78.2	78.8	79.5	79.8	80.0	80.3	80.5	80.5	80.5	80.6	80.7	80.9	81.0	81.0	81.0	80.9	80.8	80.7	80.5	80.3	80.2	80.3	80.5	80.8	81.2	82.2	82.5	82.8	83.0	83.2	83.2	83.2	84.4	84.7
Gross production value (GPV)	Bill. €	1,032	1,114	1,104	1,017	1,054	1,064	1,060	1,102	1,157	1,178	1,245	1,249	1,230	1,232	1,280	1,317	1,386	1,462	1,464	1,214	1,370	1,476	1,457	1,458	1,484	1,497	1,510	1,548	1,560	1,510	1,373	1,435	1,415	1,405
Gross value added (GVA)	Bill. €	1,559	1,618	1,676	1,688	1,727	1,767	1,797	1,829	1,876	1,918	1,964	2,009	2,023	2,006	2,023	2,039	2,107	2,170	2,206	2,132	2,163	2,234	2,246	2,267	2,302	2,336	2,380	2,439	2,471	2,500	2,414	2,494	2,559	2,573
Living space	Mill. m2	2,775	2,805	2,840	2,880	2,953	3,005	3,054	3,106	3,154	3,202	3,245	3,280	3,310	3,339	3,369	3,395	3,421	3,444	3,462	3,479	3,681	3,699	3,721	3,744	3,769	3,795	3,823	3,851	3,879	3,908	3,939	3,968	3,997	4,026
Transport performance 2)	Bill. pkm	4,291	4,718	4,723	4,663	5,049	5,158	5,140	5,402	5,581	5,876	6,007	6,062	6,073	6,326	6,640	6,720	7,211	7,450	7,498	6,800	7,233	7,256	5,635	5,692	5,778	5,864	6,071	6,043	5,996	5,994	5,545	5,760	5,821	5,573
Energy intensity 3)																																			
PEC / GDP	GJ/1000 €	6.3	6.0	5.8	5.8	5.6	5.6	5.7	5.6	5.4	5.2	5.1	5.1	5.0	5.1	5.1	5.0	4.9	4.6	4.6	4.6	4.6	4.2	4.2	4.3	4.0	4.0	3.9	3.8	3.7	3.6	3.4	3.5	3.2	2.9
PEC / residents	GJ/Einw.	190.7	185.5	180.2	179.3	177.3	177.7	183.2	181.5	180.4	177.7	178.4	181.4	178.1	180.1	180.0	179.2	183.8	175.9	178.6	168.2	176.1	168.2	169.1	172.1	163.0	162.7	163.5	163.3	158.7	154.0	142.9	149.5	138.4	125.8
FEC / GDP	GJ/1000 €	4.0	3.9	3.7	3.8	3.6	3.6	3.7	3.6	3.5	3.4	3.3	3.3	3.2	3.3	3.2	3.1	3.1	2.9	3.0	3.0	3.0	2.8	2.8	2.9	2.7	2.7	2.7	2.6	2.5	2.5	2.5	2.5	2.3	2.2
FEC / residents	GJ/Einw.	121.2	118.9	114.9	115.7	113.9	116.1	120.4	118.4	117.5	115.3	114.4	116.9	113.9	114.8	113.6	113.2	117.7	110.1	115.9	109.1	116.4	111.6	112.4	114.4	107.8	109.7	110.1	110.8	109.1	108.8	101.9	105.6	101.0	95.7
FEC Industry / GPV	GJ/1000 €	2.9	2.4	2.3	2.4	2.3	2.3	2.3	2.2	2.1	2.0	1.9	1.9	1.9	2.0	2.0	1.9	1.8	1.8	1.8	1.9	1.9	1.8	1.8	1.8	1.7	1.7	1.7	1.7	1.7	1.7	1.8	1.8	1.7	1.6
FEC TCS / GVA	GJ/1000 €	1.1	1.1	1.0	1.0	0.9	0.9	1.0	0.9	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.8	0.8	0.6	0.7	0.7	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.4
FEC Households / Living space	MJ/m2	849.5	885.2	845.5	896.1	859.2	883.4	946.3	918.8	882.0	816.0	796.3	860.2	812.2	826.4	788.3	766.7	776.8	666.5	755.9	717.6	728.4	633.4	674.0	698.8	596.5	618.6	630.4	625.1	619.0	637.7	630.7	651.2	606.5	565.4
FEC Households / residents	GJ/Einw.	30.2	31.5	30.2	32.3	31.7	33.1	35.9	35.4	34.6	32.4	32.0	34.9	33.2	34.1	32.8	32.2	32.9	28.5	32.5	31.1	33.4	29.2	31.1	32.4	27.7	28.6	29.2	29.1	28.9	30.0	29.9	31.0	28.7	26.9
FEC Transport / GDP	GJ/1000 €	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7
FEC Transport / Transport perf.	MJ/100Pkm	55.4	51.5	53.4	55.7	50.6	50.7	51.1	48.9	48.2	47.3	45.8	44.5	44.0	40.4	37.9	37.6	37.0	34.7	35.0	37.2	34.8	34.8	44.9	45.3	44.2	45.1	44.5	45.6	46.3	46.0	41.9	40.8	43.3	44.8
Energy intensity , changes compared to the previous year in %																																			
PEC / GDP	%	n/a	-4.0	-3.9	0.9	-3.4	-0.9	2.3	-2.7	-2.7	-3.4	-2.3	0.3	-1.5	1.6	-1.3	-1.4	-1.4	-7.1	0.4	-0.5	0.5	-7.8	0.3	1.7	-6.8	-0.6	-1.3	-2.5	-3.6	-3.8	-3.2	1.0	-7.4	-8.5
PEC / residents	%	n/a	-2.7	-2.8	-0.5	-1.1	0.2	3.1	-1.0	-0.6	-1.5	0.4	1.7	-1.8	1.1	-0.1	-0.4	2.5	-4.3	1.5	-5.8	4.7	-4.5	0.5	1.8	-5.3	-0.2	0.5	-0.2	-2.8	-3.0	-7.2	4.6	-7.4	-9.1
FEC / GDP	%	n/a	-3.1	-4.5	2.2	-3.8	0.8	2.8	-3.4	-2.8	-3.7	-3.5	0.7	-2.2	1.3	-2.2	-1.3	0.0	-9.2	4.0	-0.6	2.4	-7.4	0.4	1.7	-7.3	1.3	-1.4	-1.8	-2.3	-1.1	-2.4	0.1	-4.4	-4.6
FEC / residents	%	n/a	-1.9	-3.4	0.7	-1.6	2.0	3.7	-1.6	-0.8	-1.8	-0.8	2.2	-2.5	0.8	-1.1	-0.4	4.0	-6.4	5.3	-5.9	6.7	-4.1	0.7	1.8	-5.8	1.8	0.4	0.6	-1.5	-0.3	-6.4	3.7	-4.4	-5.2
FEC Industry / GPV	%	n/a	-16.2	-4.1	3.2	-2.3	-0.5	-1.7	-3.2	-6.4	-2.4	-3.9	-2.6	-0.4	8.4	-3.0	-5.6	-2.2	-2.1	-2.0	6.8	0.9	-4.7	-0.7	-1.0	-2.8	-0.4	1.6	-1.7	-1.8	-0.3	5.4	2.6	-6.9	-6.8
FEC TCS / GVA	%	n/a	-3.5	-9.9	-1.9	-6.4	-0.8	8.8	-10.1	-3.1	-6.2	-5.3	3.9	-2.4	-4.3	0.4	4.0	2.2	-18.5	8.2	-1.1	5.0	-9.8	-3.1	3.2	-6.4	2.9	-9.3	-1.5	-8.4	-0.2	0.8	-1.6	-7.9	-6.0
FEC Households / Living space	%	n/a	4.2	-4.5	6.0	-4.1	2.8	7.1	-2.9	-4.0	-7.5	-2.4	8.0	-5.6	1.7	-4.6	-2.7	1.3	-14.2	13.4	-5.1	1.5	-13.0	6.4	3.7	-14.6	3.7	1.9	-0.9	-1.0	3.0	-1.1	3.2	-6.9	-6.8
FEC Households / residents	%	n/a	4.5	-4.1	7.0	-1.9	4.3	8.6	-1.3	-2.5	-6.2	-1.2	8.9	-4.8	2.6	-3.7	-1.9	2.3	-13.5	14.3	-4.4	7.4	-12.7	6.8	4.0	-14.5	3.2	2.2	-0.4	-0.5	3.6	-0.3	3.9	-7.4	-6.4
FEC Transport / GDP	%	n/a	0.0	1.8	3.9	-4.1	0.9	-0.6	-1.2	-0.3	1.2	-3.8	-3.5	-0.7	-3.9	-2.6	-0.4	1.6	-5.6	0.4	2.1	-4.5	-3.4	-0.2	1.6	-3.1	2.0	-0.1	-0.7	-0.4	-1.6	-12.1	-2.6	5.8	-0.6
FEC Transport / Transport perf.	%	n/a	-7.2	3.8	4.3	-9.2	0.2	0.8	-4.2	-1.5	-1.9	-3.2	-2.8	-1.2	-8.2	-6.2	-0.7	-1.7	-6.0	0.6	6.4	-6.5	0.0	29.1	1.0	-2.4	2.1	-1.3	2.4	1.5	-0.6	-8.9	-2.8	6.2	3.6

1990 - 2023: final data

PEC = Primary Energy Consumption, FEC = Final Energy Consumption

More detailed information on the development of energy efficiency indicators in Germany can be found in the publication:
"Ausgewählte Enffizienzindikatoren zur Energiebilanz in Deutschland" (www.ag-energiebilanzen.de).

1) Sources: Destatis and Verkehr in Zahlen

2) 1 tonne-km is equivalent to 10 passenger-km.

3) Source: EEFA according to AGEB and DESTATIS

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8.1 Classification of energy sources compared to the structure of the German Energy Balance

Evaluation tables	Energy Balance since 2000	Energy Balance 1995 to 1999	Energy Balance 1990 to 1994
Hard coal	Coal	Coal	Coal
	Briquettes	Briquettes	Coke
	Coke	Coke	Briquettes
	Other hard coal products	Other hard coal products	Crude tar
			Pitch
			Other hard coal products
			Crude benzene
Lignite	Coal	Coal	Coal
	Briquettes	Briquettes	Briquettes
	Other lignite products	Other lignite products	Coke
	Hard lignite	Hard lignite	Slack
			Hard lignite
Petroleum	Crude oil	Crude oil	Crude oil
	Motor gasoline	Motor gasoline	Motor gasoline
	Naphtha	Naphtha	Naphtha
	Jet fuel / kerosene	Jet fuel / kerosene	Aviation gasoline
	Diesel oil	Diesel oil	Jet fuel
	Fuel oil light	Fuel oil light	Diesel oil
	Fuel oil heavy	Fuel oil heavy	Fuel oil light
	Petroleum coke	Petroleum coke	Fuel oil heavy
	Liquified petroleum Gas	Liquified petroleum Gas	Petroleum coke
	Refinery gas	Refinery gas	Other petroleum products
	Other petroleum products	Other petroleum products	Liquified petroleum Gas
			Refinery gas
Gases	Coke oven and town gas	Coke oven and town gas	Coke oven gas
	Blast furnace and converter gas	Blast furnace and converter gas	Blast furnace gas
	Natural gas, Petroleum gas	Natural gas, Petroleum gas	Natural gas
	Mine gas	Mine gas	Petroleum gas
			Mine gas
Renewable energy sources	Hydro, wind and photovoltaics	Hydropower	Sewage gas
	Biomass und renew. wastes	Wind energy and photovoltaics	Hydropower
	Other renew. energy sources	Ren. wastes and other biomass	Wood
		Other renew. energy sources	Peat
			Sewage sludge, ren. wastes
Other energy sources	non-renew. wastes, heat		Other energy sources
Electricity	Electricity	Electricity	Electricity
Nuclear energy	Nuclear energy	Nuclear energy	Nuclear energy
District heat	District heat	District heat	District heat

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