



Annual Energy-Statistics 2019

About this statistical data book

This publication has been prepared by the Economic Research Department of Repsol for internal use with the aim to be a tool that will help to support objective analysis, discussion and debate on energy markets.

It is an energy data base, with a special emphasis given to the oil and gas sectors. It contains data relating to more than 50 countries and 10 geographical areas with history from year 2005 to 2018 [latest estimations]. In this sense, it reflects the structure of the world energy sector (it accounts for more than 90% of energy consumption worldwide).

With regard to the content and structure of the publication, the first section presents a brief analysis of the most important aspects of the recent evolution in the international oil and gas sectors whilst also including the local Spanish energy sector.

The second section presents a statistical annex with detailed information on the following areas:

- Oil: proven reserves, production, consumption and prices.
- Natural Gas: proven reserves, production, consumption and prices.
- Electricity: gross generation and renewables share.
- CO₂ Emissions: emissions from fossil fuel combustion and CO₂ intensity.
- Total Energy Intensity.
- Main energy figures for a selection of 55 countries and 10 geographical areas.

In terms of methodology, estimations have been carried out taking into account the most recent available data from various sources (governments, energy reference agencies, JODI and Bloomberg among others) following the same methodology as used by the International Energy Agency (IEA).

Data compilation, aggregation and validation has been made in collaboration with the consultancy firm ENERDATA (www.enerdata.net).

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Recent developments in the oil sector

In 2018, Brent crude oil price averaged 72 dollars per barrel (\$/bl), an increase of around 30% compared to the average level of 2017.

Despite this significant rise, throughout the year there were important movements in the oil price that followed two well defined patterns. The first one, bullish, continued the upward trend initiated by mid-2017 and predominated until early October 2018. The price of oil hovered around 65 \$/bl at the beginning of the year, while it traded at 85\$/bl in early October, which represents an 30% increase in said period. In the second pattern, oil prices fell into a downward spiral from early October until late December that led Brent oil price quoting at 50\$/bl. In less than three months, the price contracted by 40%.

The upward trend of oil prices was underpinned by several factors, among which OPEC's control of production played a key role in balancing global oil supply. In the first half of 2018, OPEC members along with other non-OPEC oil exporting countries (i.e. OPEC+) were very diligent with the production cut agreement signed in late 2016, by which the actual reduction of production exceeded the agreed cuts. To this must be added the progressive deterioration of the geopolitical environment both in Venezuela and Iran. In Venezuela, the domestic problems led to the collapse of its oil production. The US withdrew from the Joint Comprehensive Plan of Action (JCPOA in short), the nuclear deal signed between Iran and G5+1 in 2015 and reinstated all sanctions against Iran and threatened to sanction countries continuing buying crude from Iran in November. Global oil demand growth was relatively solid during the first half and by then the impact of the incipient trade tensions between China and the US on the global economy was barely noticeable.

The tailwinds that underpinned the price started to wane in the second half of 2018 and reversed abruptly since October. In June, the OPEC+ group decided to lower compliance level to 100%, which meant producing more oil and returning to the market every single barrel above the agreed cut. The reason why OPEC+ changed its stance was the steady increase of oil prices coupled with the potential impact on global oil markets of US sanctions on Iran, effective as of 5 November. However, the overreaction of Saudi Arabia and Russia, resulting in significant production growth, entailed in practice the end of OPEC+'s production cut agreement. As to Iran, the sanctions announced by the US Administration to be imposed in November were neutralized by the Administration itself by issuing waivers or exemptions granted to Iran's biggest oil clients (China, India, South Korea, Japan, Italy, Greece, Taiwan and Turkey) for a six-month grace period. Those countries accounted for roughly 80% of Iran's crude oil exports and eliminated de facto the premium on the price previously associated to the sharp fall of Iran's crude oil exports. Another key factor to explain the oil price evolution in 2018 was the shale production coming from the US. During the second half of 2018, US crude oil production grew significantly due to the astonishing growth of US shale production and recorded the largest year-on-year production increase ever attained by any country.

All these barrels coming into the market outpaced oil demand. The economic environment was starting to show signs of fatigue and the heightened threats and the imposition of tariffs between the US and China were not good reasons to be optimistic. Furthermore, the financial environment also weighed on both the economic prospects and consumption, partly due to the combined effect of higher US interest and the consequent depreciation of emerging countries' currencies against the dollar. In sum, during the last part of the year there were very few factors that helped underpin oil prices. Among them, OPEC+ agreement to curb oil production effective as of January 1, 2019.

Looking at the trend of oil prices in 2019, much of comes because of the dynamics initiated in 2018, in particular OPEC+ production cuts and the trade war between China and the US, all of which results in increasing volatility.

Recent developments in the natural gas sector

In 2018, the global natural gas market showed stability. The year started with the adjusted market inherited from 2017, but it progressively reversed into unbalanced, due to the strong growth in production. The prices closed the year above average levels seen in 2017, without registering yet the change in market dynamic because of the increase in production.

In 2018, global demand increased but at a slower pace than supply. Regionally, in Asia-Pacific, China was, once more, the main responsible for the rise in gas demand. However, the drop in Japanese demand, because of the restarting of nuclear activity and the lower-than-expected increase of demand in India [still very intensive in coal], resulted in a diminished growth.

Demand for gas contracted remarkably in Europe, due to strong competition with other sources of power generation. Demand fell moderately in South and Central America, as a result of geopolitical tensions. This decline was offset by an increased demand in North America and Africa.

Regarding to global production, a strong growth was observed. The U.S. registered the highest increase in its production volume compared to the previous year, consolidating its position as a major exporter of liquefied natural gas (LNG). Russia continued to reinforce its market position as gas supplier to Europe and made advances in its intention to become a direct supplier to China, completing several sections of the pipeline Siberian power. In Europe, domestic production fell again due to the dismantling of Groningen (Netherlands).

As for the international LNG market, China played a very significant role in increasing demand, consolidating itself as the world's largest importer. Investments in export infrastructures were also significant after a deep stagnation. The market became more flexible and open with new players like Mozambique, taking part in it.

Despite the situation described, gas prices did not reflect the expected oversupply and hand in hand with the recovery of crude oil prices, increased year-on-year between 6% and 38%, depending on the region.

In 2019, the context is profoundly marked by oversupply, which is negatively impacting gas prices, pressuring them down.

Recent developments in the Spanish energy sector

The good health of the Spanish economy in 2018 boosted the energy demand for fourth year running, recovering 2012 levels. Despite said growth, changes in the energy mix resulted in a 2% in CO₂ emissions.

An in-depth look at the sources used reveals an increase in the use of petroleum products, while gas showed a slight decrease in its demand, and coal suffered a strong reduction in its use, due mostly to its smaller use in electricity generation.

Petroleum products were, once again, the main source of energy use by Spaniards, representing over 50% of its total. The percentage on products used for transport kept its upward tendencies, reaching almost 60%, and diesel remained the main product (about 40% of all petroleum products and two thirds of all transport fuels).

With regards to the energy mix generation, the year was marked by a higher rainfall, resulting in a recovery of hydropower generation, taking it over the last 5 years' average, while the rest of renewables retained a steady course, in line with last year's results and well within the average of the last five years, despite the new power generation capacity installed. The growth in the quota of hydraulic generation resulted in a fall in the quota for technologies with fossil fuels. Overall, in the year, the main sources were nuclear and wind power (20% and 19% respectively), followed by coal (14%), hydropower (13%) and gas-based technologies (combined cycle and cogeneration, 11% each).

Looking forward to 2019, the steep fall in gas prices would result in an increase in the generation with combined cycles, in detriment to coal-based generation, which would imply a fall in the sector's CO₂ emissions. With regards to renewables, a reduction in the generation in hydropower, due to the smaller rainfall in spring is to be expected, as well as a slight increase in solar and wind power generation because of the newly installed capabilities.

Statistical annex



Oil

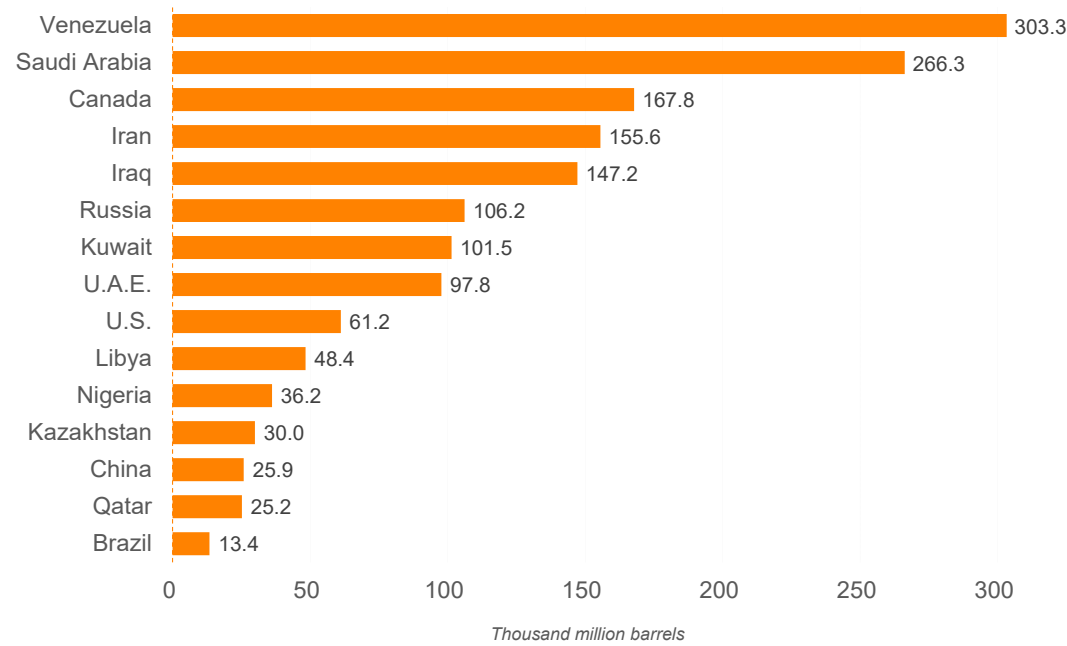
Oil Proved Reserves (Thousand million barrels)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	217.8	221.5	225.3	229.3	232.6	237.9	227.5	227.7	226.5	236.7
Canada	175.0	174.8	174.2	173.7	173.0	172.2	171.5	170.5	168.9	167.8
Mexico	11.9	11.7	11.4	11.4	11.1	10.8	8.0	7.2	7.7	7.7
United States	30.9	35.0	39.8	44.2	48.5	55.0	48.0	50.0	49.9	61.2
South and Central America	235.2	321.5	323.1	323.7	325.1	326.8	324.1	324.2	329.1	329.8
Argentina	2.5	2.5	2.5	2.4	2.3	2.4	2.4	2.2	2.0	2.0
Brazil	12.9	14.2	15.0	15.3	15.6	16.2	13.0	12.6	12.8	13.4
Chile	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Colombia	1.4	1.9	2.0	2.2	2.4	2.4	2.3	2.0	1.7	1.8
Peru	1.1	1.2	1.2	1.4	1.6	1.4	1.2	1.2	1.0	1.0
Trinidad & Tobago	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.2	0.2	0.2
Venezuela	211.2	296.5	297.6	297.7	298.4	300.0	300.9	302.3	302.8	303.3
Other	5.3	4.3	3.9	3.8	4.0	3.5	3.5	3.5	8.5	7.9
Europe	14.0	13.6	13.9	14.2	13.7	12.9	13.9	13.2	13.7	14.3
France	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Germany	0.3	0.3	0.3	0.3	0.2	0.1	0.1	0.1	0.1	0.1
Italy	0.4	0.5	0.5	0.5	0.6	0.5	0.6	0.6	0.5	0.5
Netherlands	0.1	0.3	0.3	0.2	0.2	0.2	0.3	0.2	0.1	0.1
Norway	7.1	6.8	6.9	7.5	7.0	6.5	8.0	7.6	7.9	8.6
Poland	0.1	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Romania	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Spain	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Turkey	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
United Kingdom	2.8	2.8	3.1	3.0	3.0	3.0	2.8	2.6	2.5	2.5
EU	6.0	6.0	6.2	6.0	5.8	5.6	5.1	4.7	4.9	4.8
Other	2.1	1.7	1.5	1.4	1.3	1.1	0.9	0.8	1.3	1.2
Former Soviet Union	144.0	144.2	144.2	143.9	143.5	141.6	140.8	144.6	144.7	144.7
Azerbaijan	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Kazakhstan	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0	30.0
Russia	105.6	105.8	105.7	105.5	105.0	103.2	102.4	106.2	106.2	106.2
Ukraine	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Uzbekistan	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6
Other	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.6	0.5
Middle East	753.1	765.9	797.9	799.3	802.9	803.1	802.9	807.7	807.7	804.6
Iran	137.0	151.2	154.6	157.3	157.8	157.5	158.4	157.2	155.6	155.6
Iraq	115.0	115.0	143.1	141.4	140.3	144.2	143.1	142.5	148.8	147.2
Kuwait	101.5	101.5	101.5	101.5	101.5	101.5	101.5	101.5	101.5	101.5
Qatar	25.9	24.7	23.9	25.2	25.1	25.7	25.2	25.2	25.2	25.2
Saudi Arabia	264.6	264.5	265.4	265.9	265.8	266.6	266.5	266.2	266.2	266.3
United Arab Emirates	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8	97.8
Other	11.3	11.3	11.7	10.2	14.6	9.7	10.5	17.3	12.6	11.0
Africa	122.6	124.5	124.2	127.0	126.4	125.5	126.3	126.5	126.6	123.9
Algeria	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2	12.2
Angola	9.5	9.1	9.1	9.1	9.0	8.4	9.5	9.5	9.5	8.4
Egypt	4.4	4.5	4.3	4.2	3.9	3.7	3.5	3.4	3.6	3.3
Libya	46.4	47.1	48.0	48.5	48.4	48.4	48.4	48.4	48.4	48.4
Nigeria	37.2	37.2	36.2	37.1	37.1	37.4	37.1	37.5	37.5	36.2
Other	12.8	14.5	14.4	15.9	15.9	15.4	15.6	15.6	15.4	15.4
Asia-Pacific	48.8	50.1	49.0	49.9	49.8	49.5	48.8	47.7	47.7	47.6
Australia	4.1	3.8	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0
China	20.4	20.4	20.4	23.7	24.4	24.6	25.1	25.6	25.6	25.9
India	5.8	5.8	5.7	5.7	5.7	5.7	4.8	4.7	4.5	4.5
Indonesia	4.3	4.2	3.7	3.7	3.7	3.6	3.6	3.3	3.2	3.2
Malaysia	5.8	5.9	4.9	5.0	4.5	3.8	3.6	3.0	3.0	3.0
New Zealand	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Thailand	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.3	0.3	0.3
Vietnam	4.5	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
Other	3.4	5.0	5.5	2.8	2.6	2.8	2.8	2.3	2.5	2.2
OECD	234.7	237.9	242.0	246.4	249.2	253.7	244.3	243.8	242.4	250.6
Non-OECD	1,300.7	1,403.6	1,435.6	1,440.9	1,444.9	1,443.5	1,440.0	1,447.8	1,453.6	1,451.1
OPEC	1,068.2	1,165.6	1,198.1	1,201.2	1,206.0	1,206.3	1,207.7	1,214.4	1,219.7	1,214.7
Non-OPEC	467.2	475.9	479.5	486.1	488.1	490.9	476.6	477.2	476.3	486.9
World	1,535.4	1,641.5	1,677.6	1,687.3	1,694.1	1,697.2	1,684.3	1,691.6	1,696.0	1,701.6

Note: Proved reserves of crude and liquids on 31/12. Canadian reserves include oil sands while Venezuelan reserves include extra-heavy oil.

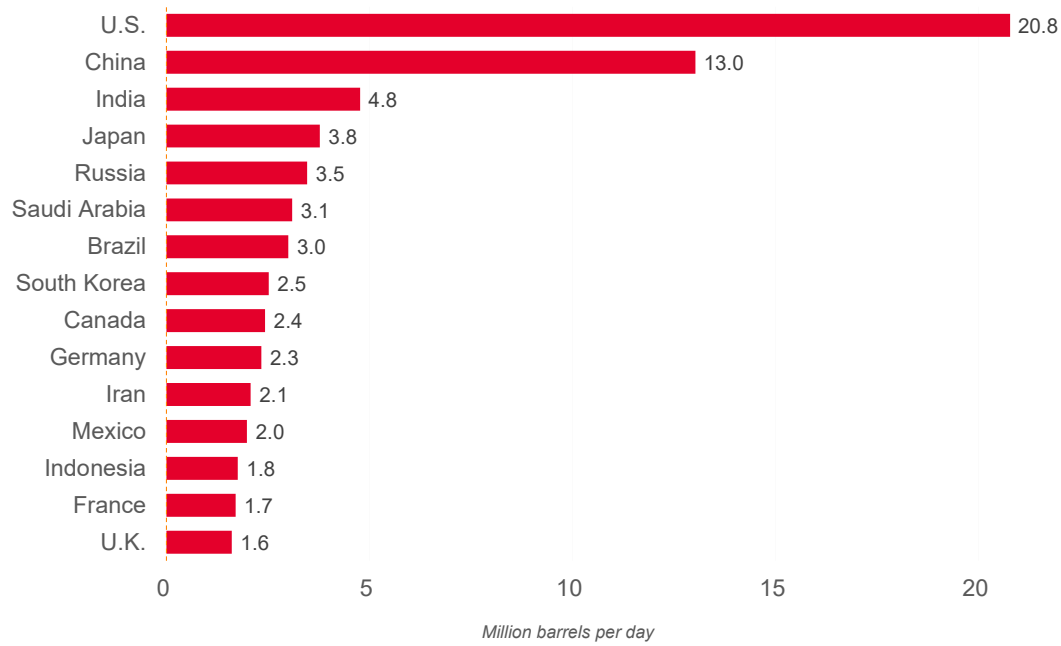
Oil Production (Thousand barrels per day)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	13,602	14,045	14,539	15,787	17,180	19,077	19,996	19,431	20,337	22,778
Canada	3,202	3,332	3,526	3,740	4,000	4,278	4,385	4,471	4,815	5,212
Mexico	2,980	2,961	2,945	2,922	2,890	2,804	2,602	2,467	2,233	2,077
United States	7,420	7,752	8,067	9,125	10,290	11,995	13,008	12,493	13,289	15,489
South and Central America	7,267	7,345	7,470	7,429	7,466	7,646	7,801	7,463	7,211	6,570
Argentina	723	712	656	657	646	617	629	602	570	580
Brazil	2,029	2,144	2,199	2,155	2,120	2,352	2,531	2,613	2,739	2,700
Chile	14	13	13	11	11	9	6	5	6	9
Colombia	672	788	918	953	1,014	997	1,014	888	862	873
Peru	149	156	152	153	166	173	150	134	133	133
Trinidad & Tobago	153	148	140	120	117	114	109	97	99	87
Venezuela	2,922	2,775	2,751	2,733	2,722	2,672	2,665	2,429	2,133	1,534
Other	605	609	641	646	670	711	698	696	669	653
Europe	4,645	4,291	3,912	3,605	3,474	3,474	3,630	3,660	3,609	3,590
Czech Republic	7	6	8	7	5	7	7	5	7	6
France	27	31	31	27	31	28	31	39	34	31
Germany	92	76	77	74	76	62	67	68	67	71
Italy	103	108	103	108	134	128	131	96	97	110
Netherlands	44	36	37	41	31	38	36	24	24	23
Norway	2,349	2,138	2,040	1,917	1,838	1,889	1,948	1,995	1,969	1,850
Poland	25	19	18	20	30	29	28	22	24	32
Portugal	1	0	1	0	1	1	0	1	1	1
Romania	92	89	88	85	85	83	82	78	75	74
Spain	4	3	5	7	18	6	5	3	2	2
Turkey	46	48	46	45	46	47	48	49	49	55
United Kingdom	1,475	1,366	1,122	954	886	872	972	1,026	1,009	1,108
EU	4,574	4,212	3,829	3,518	3,381	3,378	3,536	3,571	3,524	3,503
Other	380	372	336	320	294	283	274	253	252	228
Former Soviet Union	13,236	13,527	13,573	13,599	13,835	13,897	14,037	14,203	14,304	14,560
Azerbaijan	1,050	1,042	924	879	885	862	849	829	783	793
Kazakhstan	1,620	1,694	1,703	1,683	1,734	1,729	1,695	1,666	1,840	1,927
Russia	10,149	10,390	10,539	10,623	10,793	10,892	11,084	11,328	11,321	11,494
Ukraine	87	79	69	76	69	61	54	50	49	51
Uzbekistan	90	75	71	63	60	56	52	48	46	43
Other	239	247	267	275	294	297	303	282	265	252
Middle East	24,915	25,366	27,583	28,150	28,027	28,470	29,831	31,674	31,278	31,729
Iran	4,216	4,215	4,164	3,551	3,289	3,429	3,593	4,422	4,762	4,594
Iraq	2,480	2,430	2,741	3,021	3,146	3,415	4,078	4,503	4,563	4,663
Kuwait	2,181	2,231	2,477	2,713	2,849	2,899	3,061	3,194	3,014	3,050
Qatar	1,469	1,668	1,814	2,011	2,056	2,034	1,993	2,001	1,973	2,010
Saudi Arabia	9,527	9,705	10,923	11,470	11,253	11,413	12,012	12,440	11,979	12,353
United Arab Emirates	2,787	2,831	3,209	3,385	3,498	3,552	3,762	3,848	3,740	3,801
Other	2,256	2,287	2,255	1,999	1,936	1,728	1,331	1,266	1,247	1,258
Africa	10,036	10,243	8,821	9,659	8,823	8,393	8,328	7,791	8,190	8,336
Algeria	1,860	1,720	1,672	1,619	1,573	1,585	1,590	1,604	1,530	1,524
Angola	1,797	1,800	1,712	1,834	1,772	1,696	1,796	1,743	1,701	1,544
Egypt	685	700	689	694	697	709	697	665	640	650
Libya	1,661	1,661	485	1,476	953	497	437	426	877	1,029
Nigeria	2,221	2,535	2,490	2,482	2,293	2,330	2,258	1,936	1,995	2,062
South Africa	156	141	120	131	120	103	106	103	102	93
Other	1,657	1,685	1,654	1,423	1,416	1,472	1,444	1,314	1,345	1,434
Asia-Pacific	8,017	8,367	8,221	8,294	8,141	8,171	8,285	7,967	7,724	7,600
Australia	540	549	473	465	393	412	371	345	315	342
China	3,750	4,031	4,040	4,114	4,149	4,174	4,271	3,960	3,871	3,846
India	812	874	909	898	878	876	868	848	857	840
Indonesia	988	991	942	902	861	835	817	866	836	803
Japan	19	18	17	16	14	13	12	11	11	11
Malaysia	702	727	652	657	624	645	700	737	718	715
New Zealand	59	60	52	47	41	46	48	40	37	30
South Korea	19	21	20	21	19	20	22	24	25	29
Thailand	370	383	408	444	439	436	452	462	439	419
Other	758	713	707	729	724	714	725	674	614	564
OPEC	33,487	33,777	34,559	36,196	35,165	35,210	36,604	37,768	37,503	37,404
Non-OPEC	51,848	53,323	53,539	54,388	56,052	58,405	59,831	59,071	59,902	62,696
Global biofuels	1,578	1,834	1,871	1,925	2,094	2,272	2,287	2,384	2,459	2,616
Processing gains	2,038	2,081	2,108	2,135	2,178	2,214	2,240	2,267	2,294	2,322
World	85,335	87,099	88,098	90,583	91,218	93,615	96,435	96,839	97,405	100,099

Oil Final Consumption (Thousand barrels/day)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	23,392	23,950	23,776	23,346	23,784	23,839	24,263	24,523	24,702	25,166
Canada	2,269	2,380	2,408	2,453	2,429	2,387	2,417	2,471	2,445	2,429
Mexico	2,058	2,094	2,120	2,102	2,090	2,040	2,006	2,053	1,984	1,984
United States	19,065	19,476	19,248	18,791	19,265	19,412	19,840	19,999	20,273	20,770
South and Central America	6,063	6,444	6,583	6,876	6,964	7,132	7,045	6,790	6,800	6,755
Argentina	650	690	713	758	750	757	773	760	756	733
Brazil	2,544	2,774	2,869	2,968	3,112	3,244	3,177	2,985	3,002	3,003
Chile	348	322	332	332	339	336	331	352	354	367
Colombia	248	267	301	317	317	331	342	357	361	360
Peru	194	199	212	218	225	222	235	246	249	256
Trinidad & Tobago	49	47	47	43	50	45	49	56	55	55
Venezuela	737	807	735	852	777	784	672	570	505	439
Other	1,293	1,338	1,374	1,388	1,394	1,413	1,466	1,464	1,518	1,542
Europe	15,505	15,432	14,959	14,476	14,268	14,194	14,519	14,716	15,074	15,058
Belgium	629	659	618	604	623	617	650	659	649	656
Czech Republic	206	202	198	195	188	202	196	180	214	214
Finland	205	214	209	201	198	193	211	214	217	219
France	1,859	1,818	1,778	1,736	1,714	1,691	1,691	1,652	1,736	1,704
Germany	2,434	2,467	2,392	2,389	2,435	2,374	2,368	2,383	2,460	2,341
Italy	1,544	1,544	1,494	1,370	1,260	1,266	1,274	1,237	1,236	1,268
Netherlands	1,017	1,026	1,024	997	991	992	962	967	955	928
Norway	223	215	211	208	207	200	209	206	205	237
Poland	544	568	559	533	505	504	541	582	650	679
Portugal	276	274	256	230	234	233	237	240	247	240
Romania	192	176	184	192	187	190	194	204	214	217
Spain	1,468	1,441	1,385	1,301	1,208	1,200	1,247	1,290	1,296	1,330
Sweden	318	335	313	298	294	301	298	322	323	314
Turkey	703	675	655	689	747	763	881	942	990	973
United Kingdom	1,649	1,624	1,582	1,534	1,512	1,518	1,556	1,583	1,584	1,611
EU	14,097	14,062	13,628	13,130	12,859	12,801	12,999	13,122	13,440	13,409
Other	2,238	2,194	2,101	1,999	1,965	1,950	2,004	2,055	2,098	2,127
Former Soviet Union	3,823	3,891	4,102	4,135	4,346	4,618	4,570	4,510	4,537	4,718
Azerbaijan	73	74	86	90	97	96	96	96	96	97
Kazakhstan	217	233	272	257	348	262	308	326	337	348
Russia	2,710	2,794	2,937	2,939	3,123	3,496	3,436	3,328	3,322	3,466
Ukraine	300	293	290	286	274	238	220	244	249	256
Uzbekistan	90	80	73	66	63	59	55	50	54	56
Other	433	417	444	497	441	467	455	466	479	495
Middle East	7,192	7,278	7,424	7,798	8,085	8,389	8,525	8,472	8,496	8,420
Iran	2,027	1,848	1,786	1,857	2,046	2,027	2,002	1,962	2,020	2,075
Iraq	591	660	690	785	860	879	800	857	871	927
Kuwait	451	450	437	430	467	440	466	474	470	464
Qatar	161	172	172	204	203	230	227	222	223	202
Saudi Arabia	2,469	2,674	2,785	2,979	2,964	3,191	3,415	3,301	3,274	3,099
United Arab Emirates	608	616	679	703	743	800	837	899	865	888
Other	885	858	875	840	802	822	778	757	773	765
Africa	3,383	3,547	3,526	3,735	3,998	4,134	4,206	4,255	4,281	4,273
Algeria	346	351	365	395	417	435	481	429	426	430
Angola	96	103	109	115	132	143	140	135	134	133
Egypt	747	763	757	802	788	840	858	877	840	754
Libya	295	304	187	262	280	267	225	237	242	249
Nigeria	229	274	254	261	396	452	412	428	459	485
South Africa	566	585	625	603	631	610	633	640	637	638
Other	1,104	1,167	1,229	1,297	1,354	1,387	1,457	1,509	1,543	1,584

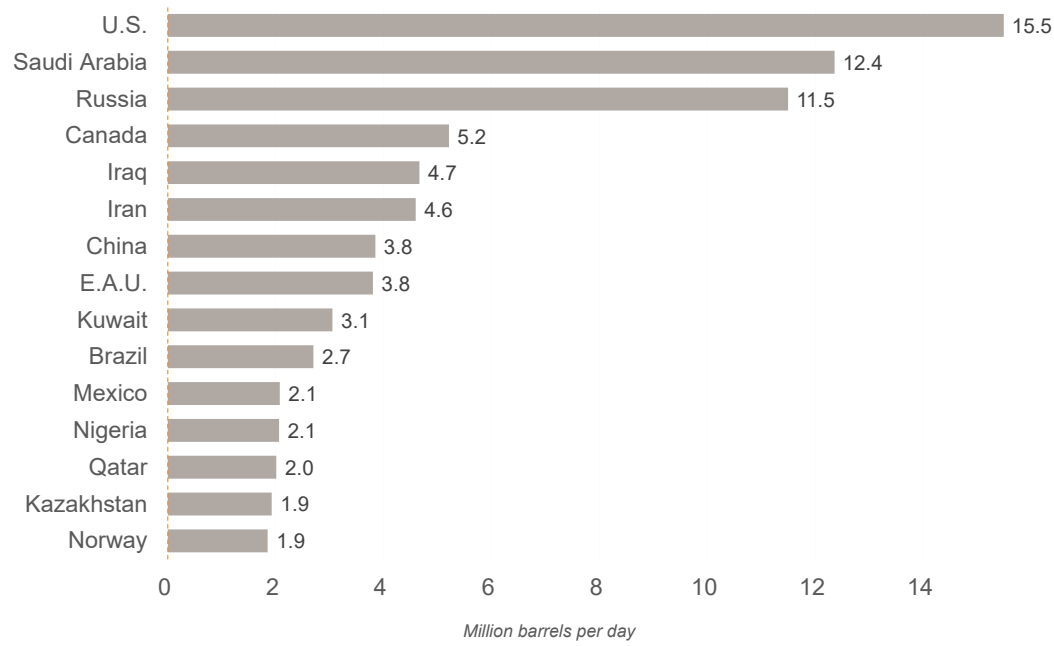
Top 15 Countries - Oil Proved Reserves, 2018



Top 15 Countries - Oil Final Consumption, 2018



Top 15 Countries - Oil Production, 2018





Natural Gas

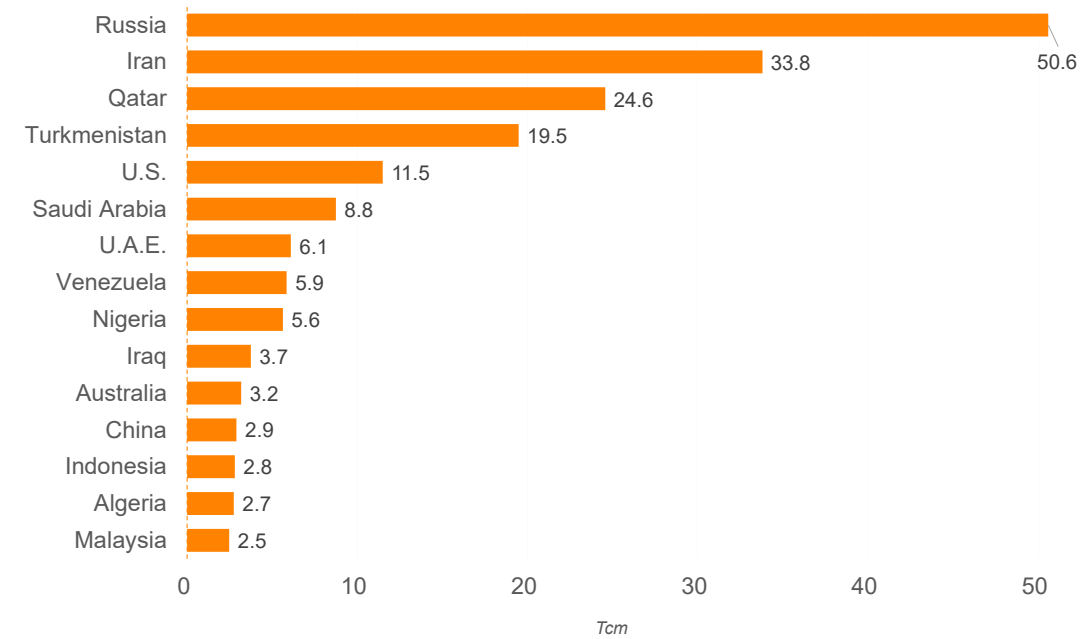
Natural Gas Proved Reserves (Tcm)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	9.8	11.0	11.7	11.9	12.0	12.7	11.1	11.4	13.6	13.7
Canada	1.7	2.0	1.9	2.0	2.0	2.0	2.2	2.1	2.0	2.0
Mexico	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.2	0.2	0.2
United States	7.7	8.6	9.5	9.5	9.7	10.4	8.7	9.1	11.4	11.5
South and Central America	7.4	7.5	7.5	7.6	7.6	7.6	7.6	7.6	7.7	7.9
Argentina	0.4	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.3	0.3
Brazil	0.4	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4
Chile	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Colombia	0.1	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1
Peru	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.5	0.5
Trinidad & Tobago	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	0.3
Venezuela	5.1	5.5	5.5	5.6	5.6	5.6	5.7	5.7	5.8	5.9
Other	0.7	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.5
Europa	5.3	5.1	4.9	4.8	4.6	4.3	4.1	3.8	3.6	3.6
France	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Germany	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Italy	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0
Netherlands	1.3	1.2	1.2	1.2	1.0	0.9	0.8	0.7	0.7	0.6
Norway	2.8	2.8	2.7	2.7	2.7	2.5	2.5	2.4	2.3	2.3
Poland	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Romania	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Turkey	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
United Kingdom	0.6	0.5	0.5	0.5	0.5	0.4	0.3	0.3	0.3	0.3
EU	2.5	2.3	2.2	2.0	1.9	1.7	1.6	1.4	1.4	1.3
Other	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Former Soviet Union	60.3	63.3	74.1	74.6	74.7	75.2	75.4	75.5	75.6	76.5
Azerbaijan	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	2.1
Kazakhstan	2.0	2.0	2.0	1.9	1.9	1.9	1.9	1.9	1.9	1.9
Russia	46.0	46.0	48.7	49.3	49.3	49.9	50.2	50.4	50.6	50.6
Turkmenistan	8.2	11.3	19.5	19.5	19.5	19.5	19.5	19.5	19.5	19.5
Ukraine	1.0	1.0	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9
Uzbekistan	1.7	1.7	1.7	1.6	1.6	1.6	1.6	1.6	1.5	1.5
Other	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Middle East	75.5	79.1	79.1	79.5	79.5	79.5	79.4	79.9	80.1	80.5
Iran	29.6	33.2	33.2	33.5	33.7	33.7	33.7	33.7	33.8	33.8
Iraq	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.8	3.7	3.7
Kuwait	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
Qatar	25.4	25.2	25.1	25.1	24.7	24.5	24.3	24.1	24.2	24.6
Saudi Arabia	7.9	8.1	8.2	8.2	8.3	8.5	8.6	8.6	8.7	8.8
United Arab Emirates	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Other	1.6	1.6	1.6	1.6	1.8	1.8	1.8	1.8	1.8	1.8
Africa	14.7	14.5	14.6	14.5	14.4	14.4	12.7	13.2	13.2	13.7
Algeria	4.5	4.5	4.5	4.5	4.5	4.5	2.7	2.7	2.7	2.7
Angola	0.3	0.3	0.4	0.3	0.3	0.3	0.3	0.4	0.4	0.4
Egypt	2.2	2.2	2.2	2.2	2.2	2.2	2.1	2.2	2.2	2.2
Libya	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
Nigeria	5.3	5.1	5.2	5.1	5.1	5.1	5.3	5.5	5.5	5.6
South Africa	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other	0.8	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	1.2
Asia-Pacific	15.3	15.6	15.8	15.8	16.2	15.9	15.4	15.4	15.1	15.3
Australia	3.6	3.8	3.7	3.7	4.0	3.9	3.3	3.3	3.2	3.2
China	2.2	2.2	2.3	2.3	2.4	2.4	2.6	2.7	2.7	2.9
India	1.1	1.2	1.3	1.4	1.4	1.5	1.3	1.3	1.3	1.3
Indonesia	3.0	3.1	2.9	2.9	2.9	2.9	2.9	2.8	2.8	2.8
Japan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Malaysia	2.4	2.3	2.5	2.6	2.6	2.7	2.8	2.5	2.5	2.5
New Zealand	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Thailand	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2
Other	2.6	2.6	2.6	2.6	2.6	2.2	2.2	2.4	2.3	2.4
OECD	18.7	19.9	20.2	20.4	20.5	20.4	18.6	18.9	19.7	19.4
Non-OECD	169.6	176.1	187.4	188.3	188.5	189.3	187.2	187.9	189.3	191.9
World	188.3	196.0	207.7	208.7	209.0	209.8	205.8	206.8	209.0	211.3

Note: Proved reserves of natural gas on 31/12.

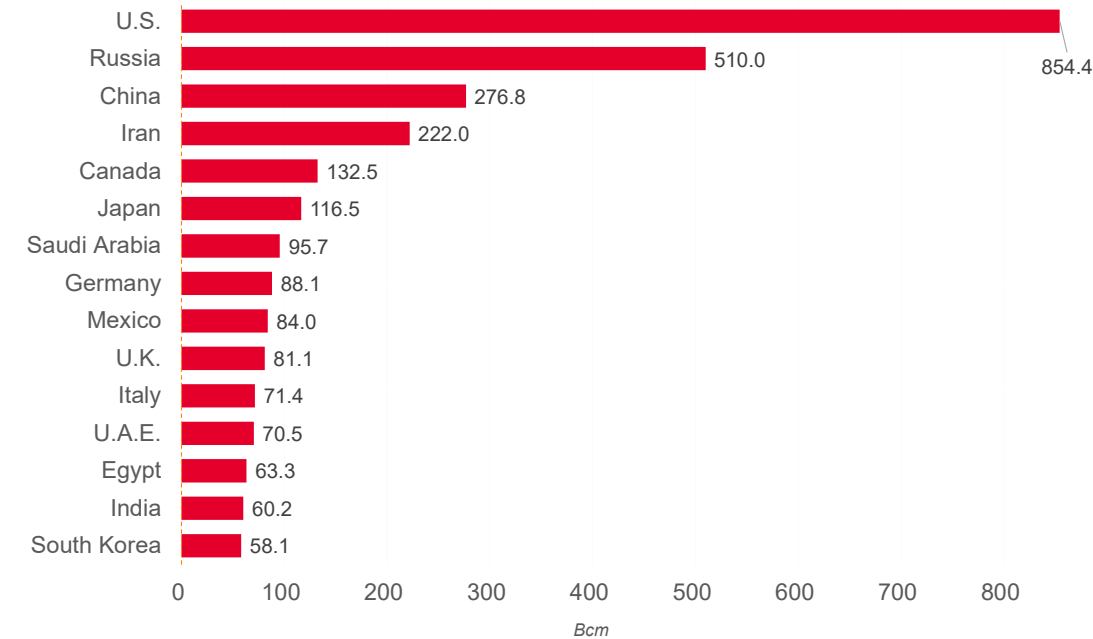
Natural Gas Production (Bcm)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	798.9	814.7	857.4	883.6	887.6	942.3	973.1	966.0	987.3	1,072.6
Canada	164.0	159.9	159.7	155.7	156.1	164.1	165.0	174.1	181.1	184.1
Mexico	50.6	51.0	49.0	47.0	45.8	44.8	41.6	36.7	31.1	29.5
United States	584.3	603.9	648.8	680.8	685.7	733.4	766.5	755.3	775.1	859.0
South and Central America	156.2	167.5	171.8	175.6	178.9	180.9	175.8	176.4	176.6	178.0
Argentina	44.4	42.3	41.7	40.8	38.7	38.9	40.1	43.0	43.0	47.0
Brazil	11.7	14.7	16.7	19.2	21.2	22.8	23.5	23.7	25.5	25.5
Chile	1.8	1.8	1.5	1.2	1.0	0.8	1.0	1.2	1.2	1.5
Colombia	12.0	12.7	12.3	12.6	15.3	14.8	14.0	12.9	12.2	12.5
Peru	4.2	7.9	12.2	12.4	12.9	13.6	13.1	14.6	13.3	13.3
Trinidad & Tobago	41.2	42.8	40.8	41.0	41.2	41.0	38.2	34.6	34.9	35.0
Venezuela	18.6	22.0	22.2	23.3	22.5	22.6	23.0	24.5	25.0	20.9
Other	22.3	23.2	24.5	25.0	26.2	26.5	23.0	22.0	21.4	22.2
Europe	310.0	317.4	292.6	294.7	287.1	271.5	263.2	258.9	252.0	249.9
Czech Republic	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2
France	0.9	0.8	0.6	0.5	0.3	0.0	0.0	0.0	0.0	0.0
Germany	17.6	15.1	14.8	13.1	12.2	11.5	10.3	9.4	8.1	8.1
Italy	8.0	8.4	8.4	8.6	7.7	7.1	6.8	5.8	5.5	5.4
Netherlands	78.6	90.3	83.4	82.1	86.9	72.5	55.0	52.1	40.3	38.0
Norway	108.9	110.4	105.8	119.2	113.2	112.9	121.3	120.6	126.2	127.1
Poland	5.9	6.1	6.2	6.3	6.2	6.1	6.1	5.8	5.7	5.6
Romania	11.3	10.9	10.9	10.9	10.9	11.1	11.1	9.8	10.6	10.7
Spain	0.0	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1
Turkey	0.7	0.7	0.8	0.6	0.5	0.5	0.4	0.4	0.4	0.5
United Kingdom	61.3	57.9	46.4	39.6	37.3	38.8	41.3	41.6	41.8	41.0
EU	200.0	205.7	185.4	174.1	172.6	155.3	139.1	138.0	131.2	112.1
Other	16.7	16.7	15.1	13.4	11.5	10.9	10.6	13.1	13.2	13.2
Former Soviet Union	747.2	828.1	867.5	858.8	885.1	861.2	860.5	856.6	913.4	946.0
Azerbaijan	16.3	16.7	16.3	17.7	18.3	19.3	19.2	18.7	18.2	18.3
Kazakhstan	27.2	28.3	28.5	30.7	33.0	33.6	37.6	37.7	42.7	42.8
Russia	582.5	657.3	672.8	658.1	674.5	646.5	638.0	644.2	694.0	725.0
Turkmenistan	38.3	45.3	66.2	69.0	78.4	80.0	83.7	79.8	81.4	82.1
Ukraine	21.1	20.2	20.3	20.1	21.0	19.7	19.5	19.7	20.1	20.4
Uzbekistan	61.4	60.1	63.0	62.9	59.6	61.7	62.2	56.3	56.8	57.0
Other	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Middle East	403.7	466.6	497.5	520.6	551.1	566.3	587.4	609.1	628.0	638.1
Iran	137.4	143.9	150.4	156.4	156.7	174.6	184.1	199.8	213.8	220.0
Iraq	4.7	5.1	7.4	7.0	7.0	6.8	6.9	7.6	7.9	8.2
Kuwait	11.5	11.7	13.5	15.5	16.3	15.0	16.9	17.3	17.5	18.0
Qatar	89.4	120.6	133.5	144.4	163.3	160.0	166.8	168.9	169.1	171.0
Saudi Arabia	64.0	73.3	74.7	81.1	82.0	85.1	87.3	90.8	91.1	92.0
United Arab Emirates	47.2	51.3	52.3	54.3	54.6	54.2	60.2	61.1	62.9	63.1
Other	49.5	60.7	65.6	62.0	71.2	70.5	65.2	63.5	65.7	65.7
Africa	202.0	209.5	203.4	211.7	198.6	199.4	199.6	205.1	218.2	231.0
Algeria	0.7	0.7	0.8	0.8	0.9	0.7	0.8	1.7	3.4	4.1
Angola	83.4	84.6	81.8	85.3	81.0	82.6	84.0	94.7	96.1	96.3
Egypt	62.1	56.8	56.4	54.1	48.1	43.1	40.0	39.0	45.6	57.3
Libya	15.9	16.8	7.9	12.2	12.8	12.5	11.6	9.9	9.9	9.9
Nigeria	24.4	32.5	38.3	41.2	37.2	42.4	43.7	40.3	43.7	44.0
South Africa	1.2	1.5	1.4	1.2	1.3	1.1	1.3	1.1	1.1	1.0
Other	14.3	16.5	16.9	17.0	17.4	17.1	18.3	18.3	18.4	18.4
Asia-Pacific	449.6	483.1	486.0	483.5	506.9	524.0	534.9	551.9	587.3	625.0
Australia	49.5	52.7	56.4	54.0	61.7	62.6	67.2	86.9	108.6	132.0
China	85.3	95.8	105.3	110.6	120.9	130.2	134.6	136.9	148.1	160.4
India	46.5	51.2	46.5	39.8	34.6	32.8	31.2	30.9	31.8	33.2
Indonesia	76.9	85.7	81.5	77.1	76.5	75.3	75.0	74.0	73.0	73.0
Japan	3.8	3.5	3.5	3.4	3.1	2.9	2.8	2.9	3.0	2.7
Malaysia	61.6	60.5	62.4	61.0	69.0	69.7	68.6	67.8	71.9	71.2
New Zealand	4.5	4.8	4.4	4.6	4.8	5.2	5.0	5.1	5.0	5.0
South Korea	0.5	0.5	0.5	0.4	0.5	0.3	0.2	0.2	0.3	0.3
Thailand	27.4	31.6	28.1	33.5	36.3	37.0	33.0	32.3	30.5	30.7
Other	93.7	96.8	97.4	99.0	99.7	108.0	117.3	115.0	115.0	116.5
OECD	1,163.2	1,184.8	1,206.4	1,230.6	1,238.2	1,277.3	1,305.3	1,314.5	1,351.0	1,405.3
Non-OECD	1,904.3	2,102.2	2,169.9	2,198.0	2,256.9	2,268.5	2,289.1	2,309.4	2,411.8	2,535.3
World	3,067.6	3,287.0	3,376.3	3,428.6	3,495.2	3,545.8	3,594.5	3,624.0	3,762.8	3,940.6

Natural Gas Demand (Bcm)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	801.2	826.6	851.0	884.6	906.3	931.6	958.2	976.3	974.5	1,070.8
Canada	94.1	94.4	100.1	99.8	104.0	106.1	104.7	113.7	120.2	132.5
Mexico	64.7	65.1	68.5	71.2	74.6	72.6	77.6	79.4	80.8	84.0
United States	642.4	667.1	682.3	713.7	727.7	752.9	775.9	783.2	773.5	854.4
South and Central America	132.0	147.5	150.7	159.3	166.6	172.5	172.5	168.9	168.5	155.5
Argentina	46.1	45.6	48.5	50.0	50.3	50.6	51.5	53.6	53.6	54.1
Brazil	20.4	27.6	27.5	32.7	38.5	42.4	42.2	35.8	36.7	34.2
Chile	3.3	5.4	5.5	5.1	4.9	4.3	4.8	5.2	5.4	6.1
Colombia	9.0	9.9	9.1	9.5	11.7	12.3	12.1	11.5	10.9	11.3
Peru	4.9	6.6	7.7	8.2	7.7	9.6	9.5	10.0	8.8	0.0
Trinidad & Tobago	16.1	17.7	18.0	17.1	17.4	17.0	17.0	15.0	15.3	15.3
Venezuela	22.9	25.0	25.1	26.1	25.4	24.5	24.3	25.6	25.1	21.9
Other	9.2	9.8	9.3	10.6	10.7	11.6	11.0	12.3	12.7	12.6
Europe	547.0	588.3	540.7	529.5	522.5	472.6	489.7	518.0	541.2	535.0
Belgium	18.1	20.1	17.3	17.2	17.4	15.2	16.8	17.2	17.2	17.7
Czech Republic	8.2	9.7	8.2	8.2	8.3	7.4	7.8	8.4	8.6	8.2
Finland	4.2	4.6	4.0	3.6	3.4	3.0	2.7	2.5	2.3	0.0
France	46.1	51.1	44.4	45.8	46.6	39.1	42.0	45.9	46.2	44.1
Germany	87.3	91.1	83.5	83.8	87.7	76.0	78.2	84.4	89.5	88.1
Italy	76.7	81.6	76.6	73.6	68.8	60.8	66.3	69.7	73.8	71.4
Netherlands	42.6	48.1	42.0	40.2	40.0	34.9	34.3	36.0	37.1	36.8
Norway	8.4	7.5	6.2	6.5	6.8	6.9	7.4	6.7	5.3	5.0
Poland	14.5	15.4	15.4	16.4	16.5	16.1	16.5	17.6	18.5	18.9
Portugal	5.1	5.4	5.4	4.7	4.5	4.2	4.9	5.2	6.4	6.0
Romania	12.7	12.9	13.3	12.9	11.8	11.2	10.7	10.8	11.4	11.1
Spain	37.5	37.3	34.7	34.3	31.4	28.4	29.4	30.0	32.9	32.7
Sweden	1.3	1.8	1.4	1.2	1.1	1.0	0.9	1.0	0.8	0.8
Turkey	34.7	37.7	44.1	44.7	45.1	48.2	47.2	45.9	53.1	49.1
United Kingdom	93.7	101.8	84.4	79.6	78.9	71.9	74.0	83.3	81.2	81.1
EU	420.7	457.9	408.2	396.1	392.1	348.9	363.3	390.5	405.2	408.4
Other	56.2	62.3	59.8	56.6	54.2	48.2	50.5	53.6	56.9	64.2
Former Soviet Union	590.3	655.8	670.8	656.6	648.1	643.6	605.3	613.0	653.2	683.0
Azerbaijan	9.8	9.3	9.9	10.1	10.1	10.9	10.7	10.5	10.4	10.0
Kazakhstan	24.1	26.8	29.3	26.8	30.5	31.4	32.9	34.5	35.0	34.2
Russia	420.4	460.1	475.1	464.4	463.3	462.4	437.0	445.4	485.8	510.0
Turkmenistan	18.6	21.3	23.4	23.6	24.2	24.6	25.5	25.6	26.1	27.6
Ukraine	49.0	66.3	56.2	51.6	47.3	40.1	31.3	30.7	29.5	26.7
Uzbekistan	45.2	44.7	49.9	51.5	45.1	46.0	40.7	39.3	39.8	42.2
Other	23.3	27.4	27.1	28.6	27.7	28.2	27.3	27.0	26.7	32.2
Middle East	341.9	373.5	395.1	410.4	425.2	450.5	478.9	498.1	514.7	537.1
Iran	138.5	146.5	155.0	154.0	155.1	175.0	186.3	199.6	207.6	222.0
Iraq	4.6	5.0	7.3	6.9	6.8	6.6	6.8	7.5	9.1	11.1
Kuwait	12.1	14.2	16.7	17.8	18.1	18.0	20.5	21.8	22.2	22.7
Qatar	22.8	25.4	28.7	33.6	35.6	38.6	42.5	40.4	43.1	41.9
Saudi Arabia	62.7	71.9	73.2	79.5	80.3	83.4	85.5	89.0	93.2	95.7
United Arab Emirates	57.9	59.1	61.2	64.2	65.5	64.3	72.0	72.5	72.2	70.5
Other	43.3	51.3	53.2	54.4	63.8	64.6	65.3	67.4	67.3	73.3
Africa	101.2	105.9	114.5	120.2	120.2	122.6	127.9	138.4	145.9	152.9
Algeria	28.8	28.0	29.7	33.6	34.3	38.7	41.3	41.6	43.0	45.6
Angola	0.7	0.7	0.7	0.7	0.4	0.3	0.8	0.8	0.8	0.0
Egypt	42.9	43.0	46.8	46.9	45.1	41.9	44.1	53.8	59.0	63.3
Libya	5.9	6.9	5.3	5.6	7.0	5.8	4.4	5.0	4.5	0.0
Nigeria	9.5	10.6	14.7	15.1	15.0	17.1	17.0	16.7	17.2	18.5
South Africa	3.7	4.6	4.6	4.9	4.9	4.7	5.2	5.3	5.5	5.3
Other	9.8	12.1	12.5	13.3	13.5	14.1	15.1	15.3	16.0	20.3
Asia-Pacific	529.8	583.1	625.0	649.8	683.8	701.2	696.9	726.1	771.2	820.0
Australia	35.2	34.1	35.9	34.3	36.3	38.0	38.7	41.4	41.9	42.6
China	90.0	107.2	132.0	148.1	168.6	184.4	190.3	204.9	235.2	276.8
India	59.6	65.3	66.0	58.7	53.4	51.9	51.9	56.4	58.6	60.2
Indonesia	41.3	46.6	42.8	42.0	43.8	43.9	45.4	46.9	48.5	49.0
Japan	96.7	103.0	119.7	125.8	126.1	127.9	120.2	122.0	121.0	116.5
Malaysia	38.7	37.4	38.0	38.9	45.8	46.0	45.0	42.9	44.7	43.5
New Zealand	4.2	4.5	4.1	4.6	4.8	5.3	4.9	5.0	5.1	4.4
South Korea	38.0	46.4	49.9	54.0	57.1	51.7	47.2	49.6	51.7	58.1
Thailand	34.7	39.5	37.0	42.2	45.4	45.4	45.3	44.3	43.6	43.0
Other	91.4	99.1	99.7	101.2	102.5	106.6	108.0	112.7	120.9	125.9
OECD	1,505.6	1,587.3	1,584.5	1,614.6	1,640.8	1,616.5	1,649.3	1,704.1	1,726.1	1,812.1
Non-OECD	1,537.9	1,693.3	1,763.2	1,795.8	1,831.8	1,878.0	1,880.0	1,934.8	2,043.0	2,142.3
World	3,043.4	3,280.7	3,347.7	3,410.4	3,472.6	3,494.6	3,529.3	3,638.9	3,769.2	3,954.4

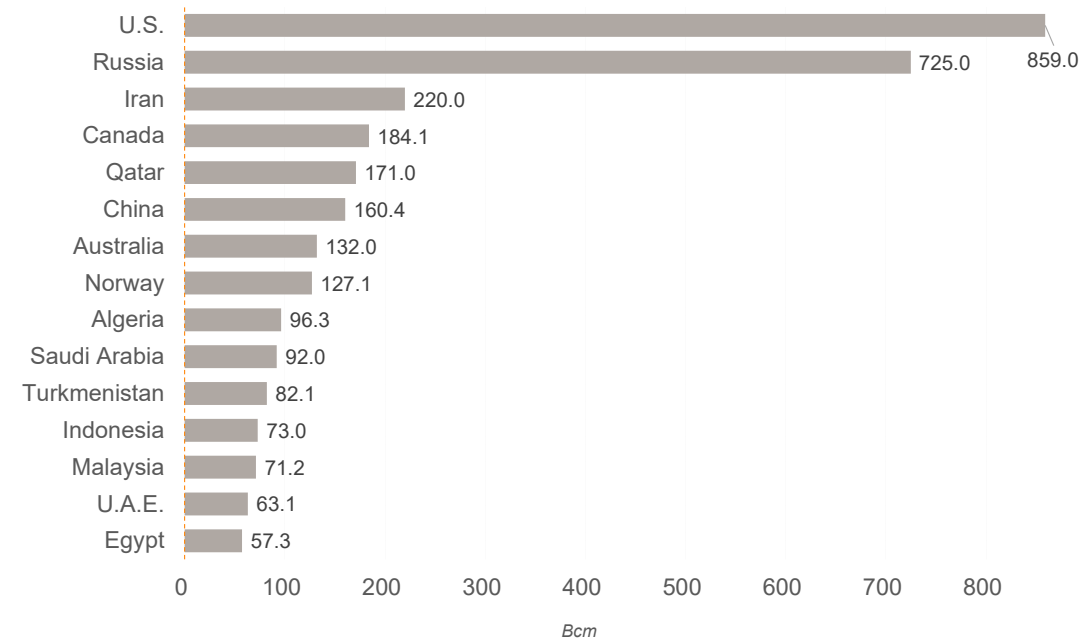
Top 15 Countries - Natural Gas Proved Reserves, 2018



Top 15 Countries - Natural Gas Demand, 2018



Top 15 Countries - Natural Gas Production, 2018





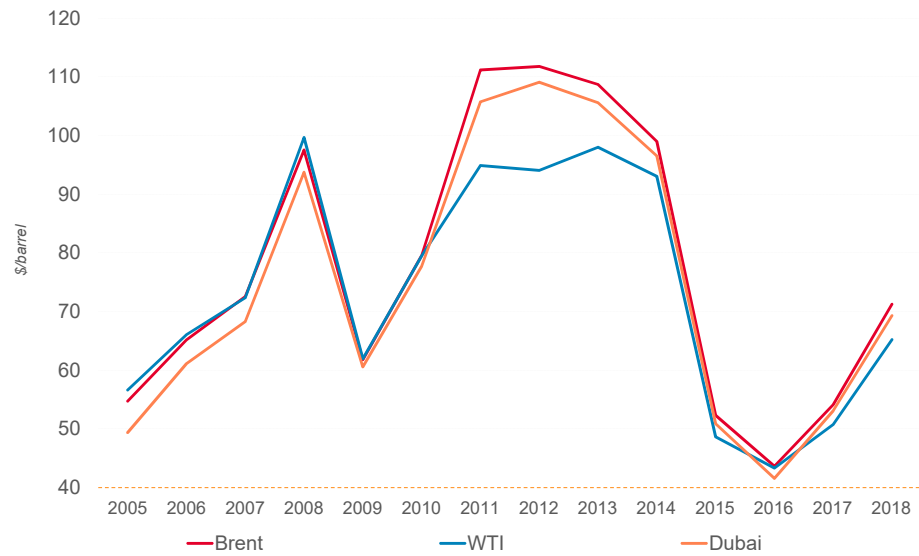
Oil and
Natural Gas
prices

Oil and Natural Gas Prices

	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Crude oil (\$ per barrel)										
Brent	61.8	79.5	111.2	111.8	108.7	99.0	52.3	43.7	54.2	71.3
WTI	62.0	79.5	94.9	94.1	98.0	93.0	48.7	43.3	50.8	65.2
Dubai	60.6	77.7	105.7	109.1	105.6	96.5	50.9	41.6	53.1	69.3
Natural gas (dollar per million Btu)										
Henry Hub (HH)	3.9	4.4	4.0	2.8	3.7	4.3	2.6	2.5	3.0	3.2
National Balancing Point (NBP)	4.8	6.5	9.0	9.5	10.6	8.2	6.5	4.7	5.8	8.0
Japan Korea Marker (JKM)	10.5	9.6	13.2	16.2	15.2	15.2	7.5	5.7	7.2	9.8
Title Transfer Facility (TTF)	4.9	6.7	9.1	9.3	10.4	8.1	6.4	4.5	5.7	7.8

Source: Thomson Reuters

Crude Oil Price Benchmarks



Natural Gas Price Benchmarks





Power
Generation

Total Power Generation (TWh)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	5,066	5,258	5,286	5,232	5,263	5,304	5,296	5,310	5,262	5,412
Canada	610	604	634	634	659	662	668	667	671	663
Mexico	268	276	303	307	297	301	311	320	313	320
United States	4,188	4,378	4,349	4,291	4,306	4,340	4,317	4,322	4,277	4,429
South and Central America	1,042	1,099	1,142	1,188	1,236	1,254	1,271	1,279	1,294	1,290
Argentina	122	126	130	136	139	139	145	147	147	148
Brazil	466	516	532	553	571	591	582	579	588	596
Chile	61	60	66	70	73	71	75	79	79	81
Colombia	57	59	61	62	74	71	78	77	78	80
Peru	33	36	39	40	44	46	48	52	53	n.d.
Trinidad & Tobago	8	8	9	9	10	10	10	11	11	n.d.
Venezuela	120	114	118	122	123	126	123	113	119	100
Other	176	180	188	197	202	201	209	221	220	n.d.
Europe	3,708	3,866	3,814	3,842	3,814	3,744	3,803	3,844	3,894	3,883
Belgium	91	95	90	83	83	73	70	86	86	74
Czech Republic	82	86	87	87	87	86	84	83	87	88
Finland	72	81	74	70	71	68	69	69	68	70
France	536	569	565	564	574	564	570	556	554	571
Germany	596	633	613	630	639	628	647	649	655	647
Italy	293	302	303	299	290	280	283	290	296	291
Netherlands	114	119	114	103	102	103	110	115	116	117
Norway	132	124	128	148	134	142	145	150	150	148
Poland	152	158	164	162	165	159	165	167	170	170
Portugal	50	54	52	47	52	53	52	60	59	60
Romania	58	61	62	59	59	66	66	65	64	65
Spain	295	302	294	298	286	279	281	275	275	274
Sweden	137	149	150	167	153	154	162	156	164	163
Turkey	195	211	229	239	240	252	262	274	297	303
United Kingdom	377	382	368	364	358	338	339	339	339	334
EU	3,222	3,367	3,301	3,296	3,271	3,191	3,235	3,258	3,293	3,278
Other	530	541	520	521	522	500	498	510	513	508
Former Soviet Union	1,407	1,483	1,513	1,542	1,538	1,542	1,531	1,557	1,583	1,612
Azerbaijan	19	19	20	23	23	25	25	25	24	n.d.
Kazakhstan	79	83	87	93	103	105	106	107	116	120
Russia	992	1,038	1,055	1,071	1,059	1,064	1,068	1,091	1,110	1,128
Ukraine	174	189	195	199	194	183	164	165	157	159
Uzbekistan	50	52	52	53	54	55	57	58	60	62
Other	94	103	104	104	104	109	112	111	116	n.d.
Middle East	818	892	916	958	989	1,057	1,112	1,147	1,194	1,215
Iran	221	233	240	254	262	275	281	289	308	311
Iraq	38	49	54	46	58	68	69	80	86	97
Kuwait	53	57	57	63	61	65	68	70	73	75
Qatar	24	28	31	35	35	39	41	42	44	n.d.
Saudi Arabia	217	240	250	272	284	312	338	345	350	352
United Arab Emirates	91	98	99	103	106	117	127	130	135	131
Other	174	187	185	186	182	182	187	191	199	n.d.
Africa	629	675	698	726	747	773	796	812	836	855
Algeria	41	48	56	62	65	71	75	78	83	87
Angola	5	5	6	6	8	9	10	10	11	n.d.
Egypt	139	147	157	165	168	175	186	194	200	207
Libya	30	33	26	34	38	38	38	36	37	n.d.
Nigeria	20	26	27	29	29	30	31	31	31	33
South Africa	250	260	263	258	256	253	250	253	255	256
Other	145	156	164	172	183	197	206	209	219	n.d.
Asia-Pacific	7,514	8,265	8,863	9,247	9,840	10,223	10,525	11,092	11,627	12,317
Australia	248	253	254	251	249	247	251	257	257	259
China	3,715	4,208	4,716	4,994	5,447	5,679	5,860	6,218	6,585	7,092
India	917	980	1,073	1,125	1,192	1,294	1,373	1,478	1,559	1,643
Indonesia	157	170	183	200	216	228	234	249	255	268
Japan	1,060	1,127	1,064	1,052	1,073	1,053	1,047	1,058	1,085	1,102
Malaysia	116	125	129	134	138	147	150	157	160	166
New Zealand	43	45	44	44	43	43	44	43	44	44
South Korea	455	500	523	535	542	551	553	563	576	593
Taiwan	230	247	252	250	252	260	258	264	270	274
Thailand	148	160	156	167	170	172	177	191	188	189
Other	425	451	468	495	516	548	578	615	648	687
OECD	10,479	10,946	10,895	10,882	10,904	10,862	10,915	11,001	11,051	11,230
Non-OECD	9,707	10,592	11,338	11,853	12,522	13,034	13,418	14,039	14,639	15,355
World	20,186	21,538	22,233	22,735	23,426	23,896	24,333	25,040	25,691	26,584

Renewables in Power Generation (%)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	17.4%	16.8%	19.0%	19.0%	19.8%	20.0%	20.3%	21.9%	24.0%	23.8%
Canada	62.8%	61.4%	62.6%	63.5%	63.9%	63.4%	63.5%	65.0%	66.2%	65.9%
Mexico	12.9%	16.6%	14.9%	13.8%	13.3%	17.5%	15.3%	15.3%	15.9%	16.7%
United States	10.8%	10.6%	12.7%	12.4%	13.0%	13.4%	13.6%	15.3%	17.4%	17.5%
South and Central America	70.1%	67.8%	70.0%	66.7%	63.8%	62.6%	61.2%	64.2%	66.5%	68.9%
Argentina	29.2%	28.8%	32.5%	29.5%	31.7%	31.8%	28.4%	27.2%	29.9%	30.7%
Brazil	89.0%	84.7%	87.1%	82.4%	76.7%	73.1%	74.0%	80.3%	79.2%	82.5%
Chile	48.8%	40.2%	39.6%	36.4%	35.7%	42.9%	43.6%	43.3%	44.4%	46.8%
Colombia	72.9%	72.1%	83.5%	79.6%	69.4%	69.3%	64.0%	65.9%	79.4%	75.7%
Peru	60.6%	57.7%	56.8%	55.3%	53.9%	52.4%	52.7%	50.3%	59.0%	n.d.
Trinidad & Tobago	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.d.
Venezuela	71.9%	67.5%	70.9%	67.4%	67.8%	69.1%	61.0%	60.1%	66.1%	70.8%
Europe	23.6%	25.2%	25.2%	28.4%	30.9%	32.3%	33.6%	34.0%	33.8%	36.4%
Belgium	7.5%	8.2%	10.6%	14.2%	15.6%	18.4%	22.3%	17.9%	18.8%	23.3%
Czech Republic	6.3%	7.6%	9.1%	10.1%	11.8%	11.9%	12.8%	12.7%	12.4%	11.9%
Finland	30.1%	30.0%	32.9%	40.6%	36.0%	38.6%	44.5%	44.2%	46.4%	n.d.
France	13.9%	14.6%	12.3%	15.6%	17.8%	17.3%	16.5%	18.4%	17.2%	19.9%
Germany	16.9%	17.6%	21.1%	23.7%	24.8%	26.8%	29.9%	29.9%	34.2%	36.0%
Italy	25.1%	26.6%	28.1%	31.5%	39.3%	43.7%	39.0%	37.9%	35.7%	39.9%
Netherlands	9.5%	9.4%	10.8%	12.1%	12.0%	11.3%	12.4%	12.8%	15.0%	15.7%
Norway	96.6%	95.7%	96.6%	98.0%	97.7%	97.7%	97.7%	97.8%	97.8%	97.9%
Poland	6.1%	7.3%	8.3%	10.7%	10.7%	12.8%	14.1%	14.0%	14.5%	13.0%
Portugal	37.9%	53.2%	47.1%	43.8%	59.2%	61.4%	48.7%	55.5%	41.0%	52.2%
Romania	27.3%	33.9%	26.6%	25.7%	34.8%	42.0%	40.1%	42.2%	38.3%	41.3%
Spain	26.1%	33.5%	30.6%	30.4%	40.5%	40.9%	35.7%	39.3%	32.8%	38.6%
Sweden	58.5%	55.3%	56.0%	59.1%	54.1%	55.9%	63.3%	57.2%	57.5%	55.3%
Turkey	19.6%	26.4%	25.3%	27.2%	28.8%	20.9%	32.0%	32.9%	29.4%	32.4%
United Kingdom	7.7%	7.7%	10.4%	12.2%	15.7%	19.9%	25.4%	25.4%	30.1%	34.0%
EU	19.5%	21.1%	21.4%	24.2%	27.2%	29.2%	29.9%	30.1%	30.4%	32.7%
Former Soviet Union	17.3%	16.5%	16.0%	15.6%	17.0%	16.3%	15.8%	17.0%	17.1%	18.0%
Azerbaijan	12.2%	18.4%	13.2%	7.9%	6.7%	5.6%	7.0%	8.4%	7.8%	n.d.
Kazakhstan	8.7%	9.7%	9.1%	8.2%	7.5%	7.9%	8.9%	11.2%	11.2%	17.8%
Russia	17.8%	16.3%	15.9%	15.7%	17.3%	16.7%	16.0%	17.2%	17.0%	17.2%
Ukraine	7.0%	7.1%	5.7%	5.9%	8.1%	6.0%	5.3%	6.6%	7.8%	8.8%
Uzbekistan	18.7%	21.0%	19.5%	21.4%	21.3%	21.4%	20.7%	20.3%	19.8%	19.1%
Middle East	1.6%	2.0%	2.2%	2.3%	2.5%	2.0%	1.8%	2.2%	1.9%	2.1%
Iran	3.4%	4.2%	5.1%	5.0%	5.7%	5.2%	5.1%	5.8%	5.0%	5.3%
Iraq	8.5%	9.7%	6.3%	9.5%	8.1%	4.3%	3.7%	4.2%	2.5%	2.5%
Kuwait	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Qatar	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Saudi Arabia	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
United Arab Emirates	0.0%	0.0%	0.0%	0.0%	0.1%	0.3%	0.2%	0.3%	0.3%	0.4%
Africa	16.9%	17.4%	17.1%	16.6%	17.0%	17.9%	17.6%	17.1%	17.5%	17.8%
Algeria	0.8%	0.4%	0.9%	1.0%	0.5%	0.4%	0.3%	0.4%	0.6%	0.6%
Angola	65.3%	68.0%	70.9%	60.8%	58.0%	53.2%	53.2%	56.1%	60.3%	n.d.
Egypt	10.1%	10.0%	9.3%	8.9%	8.8%	8.9%	8.5%	8.1%	8.0%	8.2%
Libya	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	n.d.
Nigeria	22.9%	24.4%	21.8%	19.7%	18.4%	17.6%	18.2%	18.1%	18.1%	16.7%
South Africa	1.8%	2.1%	2.0%	1.7%	1.7%	2.6%	3.5%	4.4%	5.0%	5.3%
Asia-Pacific	15.1%	15.8%	15.3%	17.0%	17.7%	19.1%	19.9%	21.1%	21.7%	22.5%
Australia	7.5%	8.6%	10.4%	10.5%	13.2%	14.6%	13.3%	14.6%	15.8%	19.6%
China	17.9%	18.8%	17.0%	20.1%	20.5%	22.8%	24.1%	25.3%	25.7%	26.3%
India	15.7%	16.1%	17.2%	15.8%	17.4%	16.3%	15.6%	16.2%	17.1%	18.5%
Indonesia	13.2%	15.9%	12.0%	11.2%	12.3%	11.5%	10.7%	12.8%	13.3%	12.5%
Japan	9.8%	10.3%	11.1%	10.7%	11.4%	12.8%	14.6%	15.3%	16.2%	17.5%
Malaysia	7.0%	6.0%	6.7%	7.4%	8.6%	9.7%	10.0%	13.5%	14.9%	14.5%
New Zealand	71.5%	73.0%	75.9%	71.7%	74.1%	79.1%	80.0%	83.9%	81.1%	83.1%
South Korea	1.7%	1.8%	2.0%	2.0%	2.4%	2.5%	2.6%	3.5%	4.1%	4.4%
Taiwan	4.3%	4.2%	4.1%	4.8%	5.0%	4.4%	4.7%	5.4%	5.2%	5.2%
Thailand	6.9%	5.6%	8.0%	8.3%	8.1%	8.4%	8.4%	15.2%	17.2%	20.2%
OECD	17.9%	18.1%	19.4%	20.4%	21.6%	22.4%	23.2%	24.2%	25.3%	26.1%
Non-OECD	21.6%	21.7%	21.0%	21.9%	22.3%	22.8%	22.9%	24.1%	24.5%	25.2%
World	19.7%	19.9%	20.2%	21.2%	21.9%	22.6%	23.1%	24.1%	24.8%	25.6%



CO₂
Emissions

Total CO ₂ Emissions <i>(Million tonnes of carbon dioxide)</i>	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	6,156	6,424	6,240	6,053	6,151	6,177	6,042	5,943	5,998	6,144
Canada	532	548	556	556	564	562	562	566	582	596
Mexico	430	446	462	464	454	439	446	449	453	430
United States	5,195	5,430	5,221	5,033	5,133	5,176	5,034	4,927	4,963	5,118
South and Central America	1,028	1,106	1,125	1,189	1,219	1,253	1,235	1,201	1,171	1,142
Argentina	171	175	182	189	184	187	193	194	188	185
Brazil	332	376	396	428	460	486	461	428	429	420
Chile	66	70	76	79	83	77	81	86	85	89
Colombia	59	61	66	66	76	79	79	86	74	76
Peru	38	41	44	44	45	48	49	51	51	n.d.
Trinidad & Tobago	36	39	38	37	38	38	37	35	35	n.d.
Venezuela	161	172	146	164	152	152	141	128	118	103
Other	166	173	177	181	182	187	194	194	190	n.d.
Europe	4,047	4,178	4,053	4,024	3,932	3,759	3,817	3,828	3,906	3,839
Belgium	100	109	99	98	99	92	98	96	96	97
Czech Republic	110	113	110	106	103	100	102	103	103	101
Finland	56	64	56	51	52	48	45	48	46	n.d.
France	351	357	331	335	339	305	311	309	314	302
Germany	737	780	750	767	787	749	754	760	763	733
Italy	394	402	394	375	344	328	336	333	329	327
Netherlands	180	192	180	177	176	169	174	175	177	180
Norway	37	40	39	38	38	38	38	37	41	39
Poland	303	323	317	311	308	294	298	309	318	329
Portugal	54	48	48	47	45	44	48	49	53	50
Romania	78	75	81	79	69	69	69	68	72	69
Spain	280	267	270	266	238	236	252	242	261	255
Sweden	43	49	44	41	39	39	38	40	39	39
Turkey	265	270	291	304	292	314	327	347	377	385
United Kingdom	467	484	447	469	456	417	402	378	370	362
EU	3,612	3,732	3,583	3,550	3,468	3,288	3,326	3,313	3,355	3,284
Other	592	604	595	562	547	518	527	533	548	n.d.
Former Soviet Union	2,232	2,375	2,492	2,483	2,419	2,357	2,306	2,298	2,387	2,427
Azerbaijan	25	24	27	29	30	31	31	32	32	n.d.
Kazakhstan	203	221	235	234	251	235	228	233	239	247
Russia	1,512	1,610	1,683	1,666	1,611	1,599	1,606	1,583	1,689	1,755
Ukraine	257	277	290	285	274	231	192	204	177	175
Uzbekistan	102	100	109	111	99	100	90	87	88	92
Other	133	143	149	158	155	160	159	160	162	159
Middle East	1,543	1,608	1,660	1,732	1,783	1,851	1,876	1,896	1,925	1,941
Iran	521	515	530	535	558	584	578	590	605	632
Iraq	93	105	112	128	137	142	131	141	151	170
Kuwait	80	79	80	79	89	83	92	92	91	92
Qatar	52	59	67	74	76	82	83	84	87	n.d.
Saudi Arabia	395	435	451	482	489	524	551	547	550	536
United Arab Emirates	150	156	160	170	179	178	189	194	190	188
Other	253	260	259	263	256	257	251	248	250	n.d.
Africa	983	1,020	1,021	1,080	1,125	1,169	1,163	1,185	1,202	1,326
Algeria	97	97	105	115	118	127	135	133	136	144
Angola	14	15	16	16	18	19	20	20	19	n.d.
Egypt	182	184	190	196	196	198	205	212	212	213
Libya	48	51	36	45	50	48	42	44	46	n.d.
Nigeria	46	56	61	63	82	90	85	88	95	99
South Africa	411	416	402	420	430	443	418	423	420	428
Other	186	200	211	224	231	243	258	265	275	n.d.
Asia-Pacific	12,330	13,140	14,069	14,574	15,090	15,190	15,212	15,276	15,710	16,097
Australia	402	403	400	398	394	384	386	399	399	403
China	7,221	7,763	8,491	8,754	9,167	9,082	9,061	9,003	9,179	9,467
India	1,489	1,575	1,663	1,797	1,841	2,002	2,013	2,057	2,185	2,277
Indonesia	379	381	402	431	429	467	466	466	496	522
Japan	1,053	1,100	1,153	1,198	1,218	1,177	1,146	1,142	1,142	1,123
Malaysia	178	195	200	203	222	229	229	227	233	236
New Zealand	30	30	29	31	31	32	32	31	32	31
South Korea	536	594	626	630	629	625	639	656	683	704
Taiwan	251	268	268	259	262	266	266	271	282	282
Thailand	218	235	235	252	264	260	264	261	263	268
Other	572	597	600	621	634	668	711	761	816	784
OECD	12,094	12,607	12,367	12,226	12,259	12,059	11,965	11,909	12,057	12,151
Non-OECD	16,225	17,244	18,293	18,909	19,460	19,698	19,686	19,719	20,242	20,765
World	28,320	29,851	30,660	31,135	31,719	31,757	31,652	31,628	32,299	32,916

Oil CO ₂ Emissions <i>(Million tonnes of carbon dioxide)</i>	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	2,587	2,661	2,553	2,523	2,543	2,544	2,586	2,603	2,631	2,657
Canada	265	274	274	279	279	272	274	277	282	280
Mexico	254	254	261	263	259	247	245	254	248	230
United States	2,069	2,133	2,018	1,982	2,005	2,024	2,067	2,072	2,101	2,146
South and Central America	690	729	749	791	792	812	786	763	748	726
Argentina	79	82	85	88	83	86	90	88	82	86
Brazil	255	276	294	314	326	340	316	298	298	289
Chile	45	43	44	44	45	44	45	47	49	51
Colombia	29	31	35	37	39	41	42	44	45	46
Peru	25	25	26	25	26	26	28	29	30	n.d.
Trinidad & Tobago	4	5	5	4	5	4	5	5	5	n.d.
Venezuela	101	111	102	117	106	106	90	81	72	56
Other	152	157	160	162	161	165	170	169	167	n.d.
Europe	1,682	1,656	1,589	1,543	1,510	1,491	1,530	1,552	1,585	1,580
Belgium	50	50	47	46	47	45	48	47	46	46
Czech Republic	22	21	21	21	20	21	21	21	22	22
Finland	24	25	24	23	23	21	21	23	23	n.d.
France	210	204	197	192	189	183	184	181	181	178
Germany	266	267	256	258	264	255	257	257	262	255
Italy	192	186	180	166	152	153	154	148	142	148
Netherlands	65	66	65	64	62	61	59	61	66	69
Norway	23	22	22	21	21	20	20	20	26	24
Poland	64	67	66	63	58	58	62	69	78	81
Portugal	32	31	28	25	25	25	25	26	26	25
Romania	24	23	24	25	23	24	24	25	25	25
Spain	165	161	150	138	133	132	139	143	145	150
Sweden	31	33	30	28	27	27	27	28	27	29
Turkey	77	72	74	77	82	85	96	104	108	106
United Kingdom	168	167	160	160	155	155	160	162	165	164
EU	1,524	1,504	1,440	1,391	1,353	1,334	1,363	1,376	1,398	1,400
Other	268	260	246	236	229	227	233	238	242	n.d.
Former Soviet Union	448	448	488	488	487	494	492	482	481	450
Azerbaijan	8	8	9	10	10	10	11	11	13	n.d.
Kazakhstan	28	30	36	33	47	33	41	46	47	50
Russia	313	316	348	348	336	361	355	336	333	338
Ukraine	40	38	38	37	36	31	29	31	31	31
Uzbekistan	12	11	10	9	8	8	7	7	6	6
Other	48	45	47	51	49	50	49	51	52	n.d.
Middle East	853	859	877	922	954	974	944	927	931	928
Iran	249	228	230	237	257	243	214	202	203	201
Iraq	84	95	99	115	124	129	118	126	134	148
Kuwait	56	51	48	45	53	48	52	49	48	47
Qatar	12	13	12	15	14	17	16	17	18	n.d.
Saudi Arabia	276	298	311	330	335	364	387	377	372	374
United Arab Emirates	36	37	38	39	43	45	41	45	45	47
Other	140	137	139	141	128	128	115	111	112	n.d.
Africa	431	453	451	481	522	540	548	558	566	660
Algeria	42	44	47	50	52	55	58	56	55	58
Angola	13	14	15	15	17	19	18	18	17	n.d.
Egypt	101	102	101	107	110	118	121	123	115	104
Libya	38	39	26	34	36	37	31	31	33	n.d.
Nigeria	28	36	33	34	54	60	54	56	61	63
South Africa	64	65	70	70	74	71	75	75	80	80
Other	145	154	160	171	177	181	191	199	205	n.d.
Asia-Pacific	2,846	2,947	3,051	3,192	3,256	3,269	3,390	3,464	3,594	3,704
Australia	117	122	128	129	137	135	133	136	134	140
China	1,010	1,060	1,083	1,147	1,208	1,238	1,322	1,353	1,416	1,494
India	393	405	424	450	454	476	524	552	590	607
Indonesia	190	196	216	236	230	233	217	211	226	228
Japan	466	471	505	518	497	456	437	422	417	410
Malaysia	68	69	76	74	84	88	82	80	80	80
New Zealand	18	18	18	18	18	18	19	19	20	19
South Korea	181	186	179	182	182	179	191	199	199	196
Taiwan	80	81	76	73	72	72	75	74	74	71
Thailand	91	94	98	105	108	108	108	113	117	120
Other	232	244	247	258	266	266	282	304	321	339
OECD	5,030	5,098	4,957	4,906	4,875	4,804	4,878	4,912	4,968	4,986
Non-OECD	4,507	4,654	4,801	5,032	5,189	5,320	5,398	5,437	5,569	5,720
World	9,537	9,752	9,758	9,938	10,064	10,124	10,276	10,349	10,536	10,706

Natural Gas CO ₂ Emissions <i>(Million tonnes of carbon dioxide)</i>	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	1,550	1,625	1,661	1,740	1,768	1,802	1,846	1,866	1,859	2,015
Canada	180	183	197	199	209	217	216	214	227	250
Mexico	132	136	141	148	141	139	145	147	150	127
United States	1,239	1,306	1,323	1,393	1,418	1,446	1,485	1,504	1,482	1,638
South and Central America	261	287	278	294	306	316	321	314	316	303
Argentina	90	90	94	96	97	97	99	102	103	104
Brazil	39	52	53	63	74	81	80	69	73	67
Chile	6	10	11	9	10	8	8	9	9	11
Colombia	17	19	17	18	19	20	20	24	24	25
Peru	10	13	15	16	15	18	18	19	17	n.d.
Trinidad & Tobago	31	34	34	33	33	34	32	30	30	n.d.
Venezuela	58	60	44	46	46	45	50	46	45	40
Other	9	10	11	12	13	13	14	15	15	n.d.
Europe	1,047	1,134	1,045	1,019	1,003	915	948	1,006	1,052	1,027
Belgium	35	39	33	33	33	29	32	33	33	34
Czech Republic	16	18	17	16	17	15	16	17	17	16
Finland	8	9	8	7	7	6	5	5	4	n.d.
France	90	96	85	88	89	75	80	88	89	85
Germany	164	180	163	164	167	151	156	171	181	178
Italy	149	158	149	143	133	118	129	135	143	139
Netherlands	82	92	80	76	76	67	66	68	71	70
Norway	12	14	13	13	13	13	14	13	10	10
Poland	26	28	28	30	30	29	30	32	34	35
Portugal	10	10	11	9	9	8	10	10	13	12
Romania	23	24	24	24	23	21	21	21	22	22
Spain	73	72	67	66	60	55	57	58	64	63
Sweden	3	3	3	2	2	2	2	2	2	1
Turkey	68	74	86	87	89	94	93	89	103	96
United Kingdom	182	196	163	154	152	140	143	162	158	158
EU	958	1,034	934	908	890	798	831	892	925	909
Other	107	119	113	108	103	92	96	102	108	n.d.
Former Soviet Union	1,108	1,206	1,244	1,234	1,209	1,197	1,135	1,141	1,216	1,269
Azerbaijan	17	16	18	19	19	21	20	20	20	n.d.
Kazakhstan	47	54	54	54	57	61	63	63	64	62
Russia	789	856	878	869	861	856	817	827	902	947
Ukraine	91	102	105	95	88	73	58	57	55	55
Uzbekistan	84	84	93	96	84	86	77	74	75	79
Other	80	93	97	99	98	100	100	100	100	n.d.
Middle East	655	712	745	766	787	834	890	930	961	999
Iran	267	283	296	294	297	335	358	382	398	426
Iraq	9	10	14	13	13	13	13	14	18	21
Kuwait	24	28	33	35	35	35	40	43	43	44
Qatar	40	46	54	60	62	65	67	67	69	n.d.
Saudi Arabia	119	137	140	152	154	160	164	170	178	180
United Arab Emirates	113	116	120	126	128	126	141	142	141	138
Other	83	93	89	86	98	101	107	111	114	n.d.
Africa	186	197	217	228	226	229	241	248	264	270
Algeria	54	53	58	65	66	73	78	78	81	86
Angola	1	1	1	1	1	1	1	2	2	n.d.
Egypt	80	81	88	89	85	80	84	88	97	95
Libya	11	12	10	11	13	11	11	13	13	n.d.
Nigeria	18	20	28	29	28	30	32	32	34	36
South Africa	3	5	7	7	7	7	7	7	7	7
Other	19	23	24	26	26	27	29	29	31	n.d.
Asia-Pacific	1,011	1,110	1,197	1,247	1,302	1,336	1,340	1,398	1,482	1,573
Australia	66	68	69	71	73	75	76	83	84	85
China	170	202	249	277	317	348	363	393	452	532
India	107	117	117	101	90	87	86	95	100	104
Indonesia	75	77	78	80	82	84	84	81	84	72
Japan	205	217	252	262	261	264	252	261	259	254
Malaysia	68	67	65	67	78	80	78	73	76	74
New Zealand	8	8	8	8	9	10	9	9	9	8
South Korea	72	91	98	107	111	100	93	99	103	116
Taiwan	24	31	33	32	32	34	37	38	42	44
Thailand	67	77	71	82	87	87	87	85	84	83
Other	148	156	157	162	162	168	175	181	190	202
OECD	2,917	3,115	3,103	3,174	3,203	3,147	3,208	3,310	3,350	3,493
Non-OECD	2,900	3,157	3,285	3,353	3,397	3,483	3,514	3,593	3,799	3,964
World	5,817	6,271	6,388	6,527	6,601	6,630	6,722	6,903	7,149	7,457

Coal CO ₂ Emissions (Million tonnes of carbon dioxide)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	1,989	2,114	2,000	1,764	1,817	1,809	1,589	1,453	1,487	1,428
Canada	87	90	84	77	75	73	71	74	72	65
Mexico	44	56	60	52	53	52	57	49	55	50
United States	1,858	1,969	1,856	1,635	1,689	1,685	1,461	1,331	1,359	1,313
South and Central America	77	90	98	104	122	125	128	125	107	107
Argentina	2	3	4	5	4	4	4	3	3	3
Brazil	38	48	49	52	60	65	65	60	59	58
Chile	15	18	22	25	28	25	28	30	27	27
Colombia	13	12	13	11	17	18	17	18	5	6
Peru	3	3	3	3	4	3	3	3	3	n.d.
Trinidad & Tobago	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Venezuela	1	1	1	1	1	1	1	0	0	0
Other	5	5	6	7	8	9	10	10	9	n.d.
Europe	1,267	1,333	1,361	1,403	1,359	1,290	1,272	1,198	1,196	1,156
Belgium	11	16	15	15	15	15	14	13	13	13
Czech Republic	71	72	71	68	65	63	63	63	62	61
Finland	23	29	24	20	22	19	17	19	18	n.d.
France	46	51	43	49	55	41	39	34	38	31
Germany	289	314	313	327	338	324	322	312	299	278
Italy	49	53	60	62	53	53	49	44	38	35
Netherlands	30	32	31	34	34	38	46	43	37	33
Norway	2	3	3	3	3	3	3	3	3	3
Poland	212	226	221	216	217	204	203	204	202	209
Portugal	11	7	9	12	10	11	13	11	13	12
Romania	30	28	33	30	23	23	24	22	24	22
Spain	41	33	53	61	45	49	55	40	51	41
Sweden	8	10	9	8	8	7	7	7	7	8
Turkey	121	124	131	139	122	136	138	154	166	183
United Kingdom	115	119	120	152	146	118	94	48	40	33
EU	1,082	1,143	1,157	1,197	1,170	1,097	1,071	979	963	904
Other	208	216	225	209	203	187	185	179	184	n.d.
Former Soviet Union	654	697	735	737	698	640	650	643	657	686
Azerbaijan	0	0	0	0	0	0	0	0	0	n.d.
Kazakhstan	128	137	145	148	147	141	124	124	128	134
Russia	390	414	432	424	388	355	405	388	422	439
Ukraine	126	136	148	152	149	127	105	115	90	95
Uzbekistan	6	5	6	6	6	7	6	6	7	7
Other	5	4	5	7	8	10	10	9	10	n.d.
Middle East	36	37	38	45	42	43	42	39	33	32
Iran	5	4	5	4	5	6	6	6	5	6
Iraq	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Kuwait	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Qatar	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Saudi Arabia	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
United Arab Emirates	1	3	2	5	7	8	7	7	4	4
Other	30	30	31	36	30	29	29	26	24	22
Africa	366	370	352	371	376	400	374	378	375	383
Algeria	1	0	0	0	0	0	0	0	0	0
Angola	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Egypt	1	1	1	1	1	1	1	0	1	1
Libya	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.	n.d.
Nigeria	0	0	0	0	0	0	0	0	0	0
South Africa	344	346	325	344	348	365	336	342	336	343
Other	21	23	26	27	27	35	37	36	38	n.d.
Asia-Pacific	8,449	9,031	9,760	10,070	10,458	10,509	10,406	10,327	10,541	10,704
Australia	220	212	203	196	183	174	176	180	181	177
China	6,041	6,478	7,133	7,302	7,612	7,463	7,347	7,226	7,279	7,349
India	989	1,052	1,121	1,245	1,296	1,437	1,402	1,408	1,494	1,564
Indonesia	114	108	109	115	116	150	165	174	187	201
Japan	372	399	381	401	439	434	430	427	432	425
Malaysia	41	59	59	63	60	61	69	75	78	83
New Zealand	5	4	4	5	4	4	4	3	2	4
South Korea	271	305	334	327	320	333	340	341	360	368
Taiwan	145	154	156	151	155	157	152	156	163	164
Thailand	60	65	66	65	69	64	68	62	62	65
Other	191	196	195	199	205	233	254	274	304	305
OECD	4,046	4,291	4,193	4,030	4,062	3,987	3,751	3,544	3,590	3,494
Non-OECD	8,793	9,382	10,150	10,465	10,811	10,828	10,710	10,620	10,806	11,002
World	12,839	13,673	14,343	14,495	14,873	14,816	14,461	14,164	14,396	14,496

CO ₂ Emissions Intensity (kCO ₂ /\$15ppp)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	332	338	321	304	304	299	284	275	271	272
Canada	383	383	377	370	366	355	351	349	348	349
Mexico	243	240	239	231	223	211	209	205	203	189
United States	328	334	316	298	299	294	278	268	264	265
South and Central America	186	187	183	185	182	182	181	180	175	167
Argentina	229	213	209	219	209	218	219	224	212	215
Brazil	117	123	125	133	138	145	143	138	137	132
Chile	210	212	217	212	214	195	202	211	205	206
Colombia	116	114	116	111	122	122	118	127	107	108
Peru	132	132	134	125	120	125	125	126	121	n.d.
Trinidad & Tobago	833	873	865	835	831	838	813	791	823	n.d.
Venezuela	310	336	274	292	267	277	274	297	319	341
Europe	198	200	190	188	182	171	169	166	164	158
Belgium	210	224	199	197	198	183	191	185	181	181
Czech Republic	347	349	333	325	315	297	288	284	273	259
Finland	248	277	238	218	223	207	194	206	191	n.d.
France	140	139	126	128	128	114	115	113	112	107
Germany	213	217	201	205	209	195	193	191	187	176
Italy	175	176	171	167	156	149	151	149	144	142
Netherlands	227	239	220	219	218	206	208	204	201	198
Norway	128	137	131	124	123	120	119	115	124	114
Poland	361	371	347	334	327	302	295	298	293	290
Portugal	172	152	153	155	151	147	158	156	165	154
Romania	205	198	213	206	174	168	162	152	152	138
Spain	172	163	167	169	155	151	156	145	152	144
Sweden	109	115	102	94	89	87	82	82	78	77
Turkey	209	196	190	189	168	171	168	173	175	173
United Kingdom	194	198	180	186	178	158	148	137	132	127
EU	199	202	190	189	185	172	170	166	164	157
Former Soviet Union	503	510	508	488	464	448	448	445	453	450
Azerbaijan	169	155	174	186	180	184	183	192	195	n.d.
Kazakhstan	622	633	625	596	602	542	519	524	517	515
Russia	475	484	481	459	436	430	444	439	461	471
Ukraine	701	725	721	705	678	613	562	585	494	473
Uzbekistan	859	773	779	732	605	571	475	425	407	407
Middle East	331	328	320	326	327	329	327	312	315	314
Iran	387	361	363	395	413	413	415	373	369	391
Iraq	237	251	251	251	252	259	229	221	242	268
Kuwait	325	328	304	283	312	292	321	309	317	312
Qatar	263	250	248	264	259	269	264	261	266	n.d.
Saudi Arabia	313	328	309	313	309	320	323	315	320	305
United Arab Emirates	300	307	296	300	298	288	293	293	284	274
Africa	208	205	204	204	207	209	201	201	197	211
Algeria	203	197	206	219	218	227	232	221	223	230
Angola	98	104	107	101	107	108	108	107	104	n.d.
Egypt	217	208	211	214	208	205	203	201	194	185
Libya	218	221	405	227	397	824	829	923	588	n.d.
Nigeria	57	64	67	66	82	85	78	82	87	90
South Africa	648	637	596	610	608	616	574	580	569	574
Asia-Pacific	384	378	381	373	365	348	330	315	307	298
Australia	427	419	407	390	376	358	351	354	346	338
China	589	572	571	546	531	490	457	426	406	393
India	284	273	270	277	267	270	251	239	238	232
Indonesia	185	175	174	176	166	172	163	156	158	158
Japan	223	224	235	240	239	230	221	219	215	209
Malaysia	301	308	300	290	302	294	279	267	258	250
New Zealand	203	199	190	196	191	191	184	176	175	165
South Korea	368	384	390	383	372	358	356	355	359	360
Taiwan	602	578	557	527	522	509	506	508	513	500
Thailand	243	244	242	242	246	240	237	227	220	215
OECD	261	265	254	248	245	236	228	223	221	217
Non-OECD	360	355	355	349	342	331	318	305	299	293
World	310	310	306	301	297	287	277	268	264	260



Energy Intensity

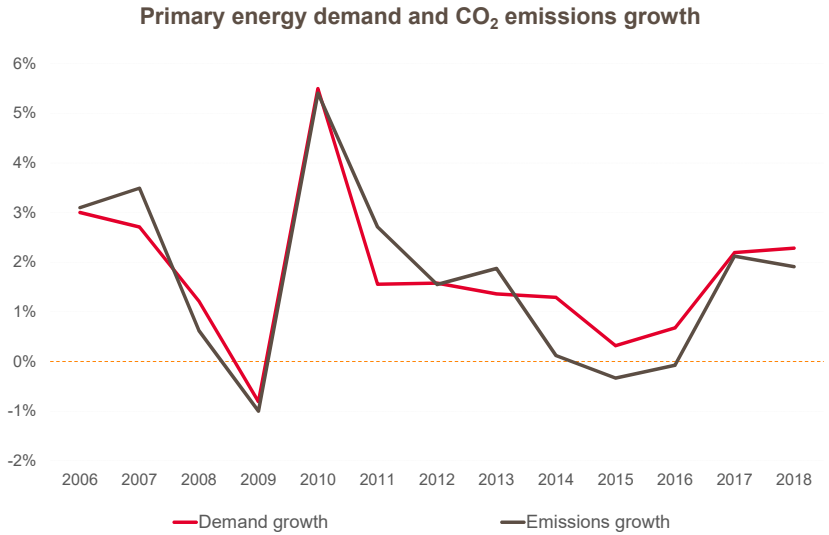
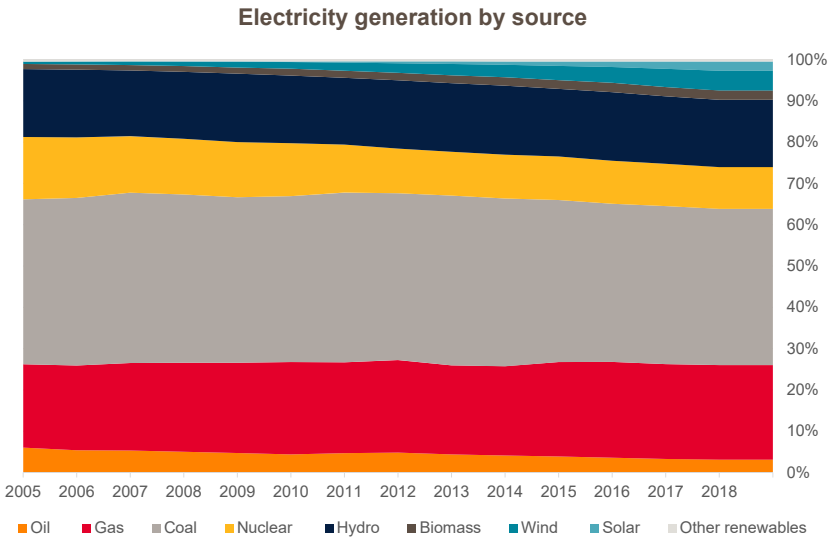
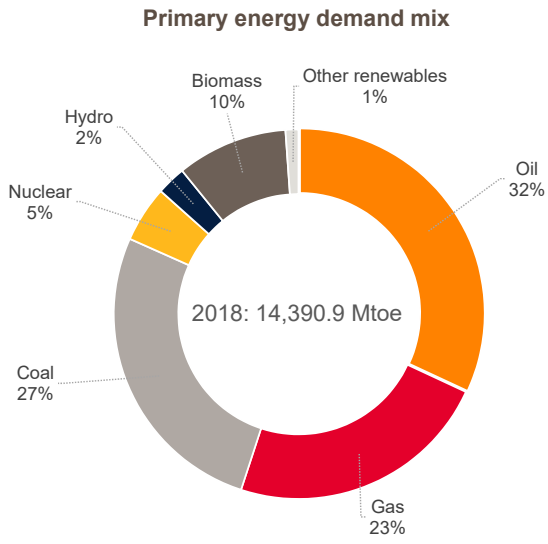
Total Energy Intensity (ktep/\$15ppp)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
North America	141	140	137	132	132	130	126	123	121	122
Canada	188	184	181	179	177	177	176	174	174	176
Mexico	102	94	95	96	94	91	87	85	84	80
United States	137	136	133	127	128	126	121	118	116	117
South and Central America	95	94	92	93	92	92	91	91	90	88
Argentina	101	96	93	94	94	97	97	100	95	97
Brazil	85	88	85	87	88	90	92	92	92	92
Chile	94	93	95	100	100	88	88	93	92	92
Colombia	60	59	55	53	62	60	58	59	55	55
Peru	55	62	65	65	59	61	60	59	57	n.d.
Trinidad & Tobago	439	454	448	431	428	429	417	412	431	n.d.
Venezuela	125	142	126	130	121	123	117	131	146	157
Europe	91	92	87	87	85	81	80	79	78	76
Belgium	118	123	113	108	112	105	104	109	105	99
Czech Republic	134	139	132	132	132	125	119	115	115	111
Finland	150	159	149	146	145	149	142	145	140	n.d.
France	101	102	97	97	97	92	92	89	87	86
Germany	90	91	83	83	84	80	79	78	77	72
Italy	75	76	73	72	71	67	69	67	67	67
Netherlands	99	104	95	97	95	89	87	87	84	81
Norway	108	101	90	91	94	91	90	86	88	87
Poland	112	116	111	106	104	97	95	96	97	97
Portugal	78	73	73	71	72	71	72	71	72	69
Romania	92	93	94	91	80	77	75	71	68	65
Spain	78	78	78	80	76	73	74	72	72	70
Sweden	114	121	114	116	113	107	97	102	101	98
Turkey	78	77	74	73	67	66	66	68	68	66
United Kingdom	82	83	76	77	74	68	67	65	63	62
EU	92	93	88	88	87	82	81	80	79	76
Former Soviet Union	212	217	215	210	200	197	195	200	203	200
Azerbaijan	81	75	82	87	83	84	84	85	86	n.d.
Kazakhstan	195	198	206	188	196	177	178	184	181	181
Russia	203	207	206	204	195	195	196	203	211	215
Ukraine	312	346	314	303	287	280	273	271	250	238
Uzbekistan	372	335	339	320	263	248	205	184	176	176
Middle East	133	132	125	132	129	133	132	126	127	130
Iran	152	143	143	160	164	168	169	157	155	164
Iraq	85	90	91	90	91	90	83	87	95	105
Kuwait	128	134	118	122	120	111	117	121	125	123
Qatar	128	122	124	150	153	163	157	147	148	n.d.
Saudi Arabia	132	140	121	130	121	130	130	121	124	119
United Arab Emirates	128	120	112	112	112	120	119	112	109	105
Africa	142	139	142	139	137	139	135	136	133	135
Algeria	85	81	82	87	88	92	93	89	90	91
Angola	86	88	88	91	86	103	93	89	90	n.d.
Egypt	88	83	85	86	82	83	79	82	81	78
Libya	86	88	154	86	153	302	285	318	202	n.d.
Nigeria	138	146	152	147	142	137	132	139	141	141
South Africa	232	211	209	196	190	198	187	192	186	187
Asia-Pacific	144	143	140	136	132	128	122	117	114	111
Australia	135	132	130	124	121	117	114	115	113	111
China	187	187	183	176	169	160	151	140	135	131
India	127	121	119	118	113	111	104	100	98	95
Indonesia	97	95	86	85	83	83	79	77	77	76
Japan	101	102	94	91	89	86	84	82	81	79
Malaysia	123	118	116	112	120	116	106	105	102	98
New Zealand	119	122	119	122	120	123	121	117	117	110
South Korea	161	165	166	165	161	158	158	159	158	157
Taiwan	247	239	228	217	216	211	207	206	200	198
Thailand	120	122	121	121	126	124	121	121	118	114
OECD	114	114	110	107	107	103	101	99	98	97
Non-OECD	146	146	143	141	137	134	129	125	123	121
World	134	134	131	128	126	123	120	117	115	114



Regional
and country
data

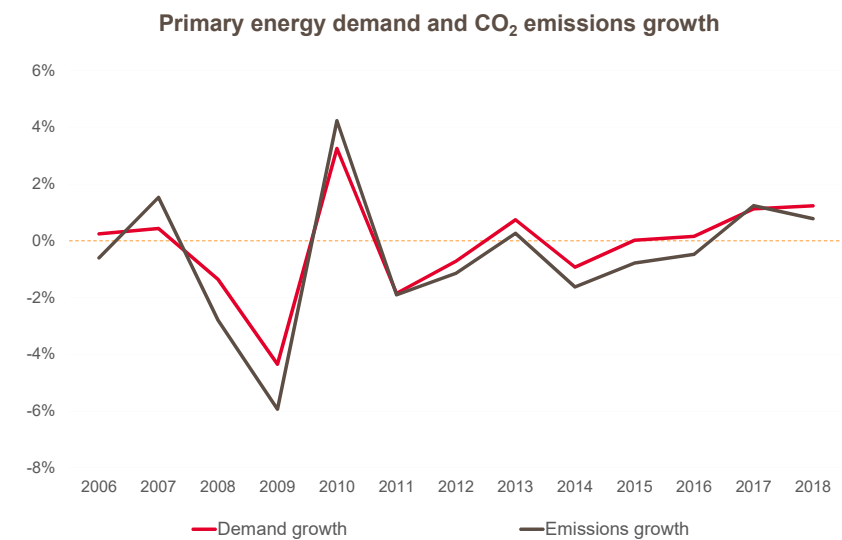
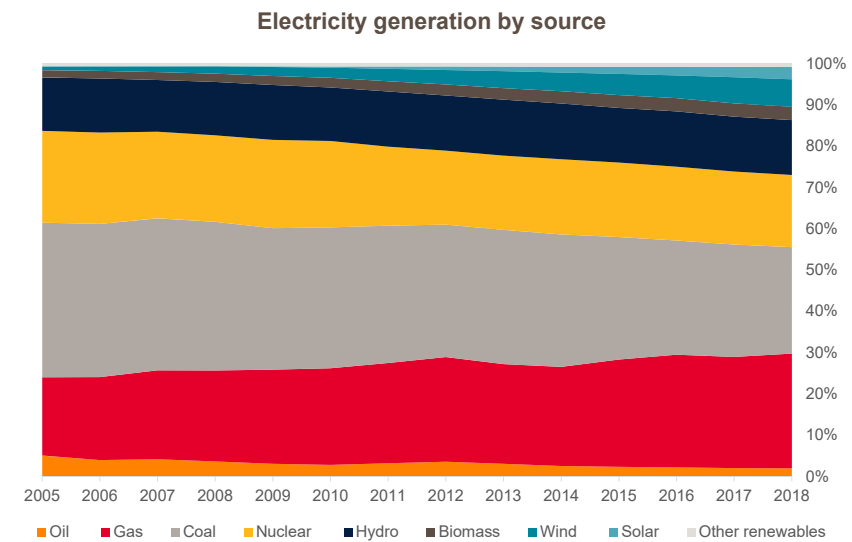
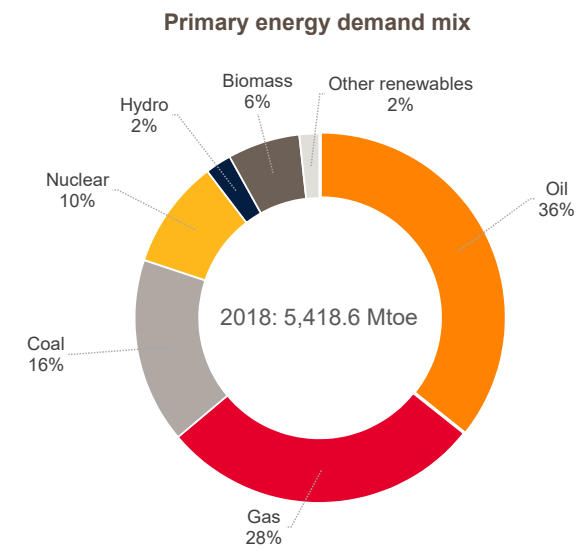
World (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	12,200.1	12,870.7	13,071.2	13,277.5	13,458.2	13,632.0	13,675.1	13,767.6	14,069.7	14,390.9	100.0
Oil	4,015.2	4,136.5	4,135.6	4,216.1	4,224.9	4,299.4	4,355.8	4,400.9	4,495.9	4,547.6	31.6
Gas	2,536.2	2,733.9	2,789.8	2,842.0	2,893.9	2,912.2	2,941.1	3,032.4	3,141.0	3,295.3	22.9
Coal	3,387.2	3,650.6	3,804.6	3,849.2	3,905.7	3,935.8	3,848.5	3,729.7	3,757.6	3,798.5	26.4
Nuclear	702.6	718.3	673.1	641.2	646.1	660.8	669.8	679.1	686.3	701.4	4.9
Hydro	280.8	296.1	302.0	316.2	327.3	335.7	334.7	348.4	351.0	362.4	2.5
Biomass	1,172.4	1,218.5	1,233.1	1,264.4	1,286.0	1,295.5	1,311.4	1,342.8	1,369.7	1,385.3	9.6
Other renewables	25.6	32.2	43.1	53.9	68.0	78.8	94.4	111.4	136.8	160.4	1.1
Electricity balance of trade*	80.0	84.5	90.0	94.5	106.2	113.8	119.3	122.9	131.4	140.1	1.0
Total final consumption, by source	8,530.8	8,953.7	9,100.5	9,213.7	9,389.6	9,486.9	9,573.7	9,696.2	9,930.8	10,147.5	100.0
Oil	3,475.4	3,593.0	3,581.3	3,622.6	3,689.0	3,750.8	3,842.7	3,904.5	3,995.1	4,031.5	39.7
Gas	1,195.4	1,287.6	1,314.3	1,319.2	1,364.9	1,366.7	1,354.9	1,385.2	1,438.2	1,516.4	14.9
Coal	1,170.1	1,241.9	1,303.5	1,316.0	1,324.9	1,325.5	1,299.6	1,252.4	1,261.4	1,282.6	12.6
Electricity	1,435.6	1,533.6	1,583.0	1,621.9	1,673.2	1,706.9	1,733.0	1,789.6	1,840.0	1,908.7	18.8
Heat	273.9	296.2	308.5	317.9	311.3	312.0	312.5	326.8	336.1	345.2	3.4
Biomass	980.4	1,001.5	1,009.9	1,016.0	1,026.2	1,024.9	1,031.0	1,037.6	1,059.9	1,063.1	10.5
Electricity generation, by source	1,736.0	1,852.3	1,912.0	1,955.2	2,014.7	2,055.1	2,092.7	2,153.4	2,209.4	2,286.8	100.0
Oil	81.7	80.8	89.3	94.2	88.3	84.4	80.8	76.7	72.7	71.5	3.1
Gas	379.4	414.3	420.5	438.2	434.2	444.3	478.6	500.0	507.2	523.3	22.9
Coal	695.7	744.3	785.7	789.3	828.4	834.4	820.8	824.0	844.7	865.0	37.8
Nuclear	231.9	237.0	222.1	211.6	213.2	218.1	221.0	224.1	226.5	231.5	10.1
Hydro	287.2	303.6	309.2	323.3	334.4	343.1	342.3	357.7	360.7	372.2	16.3
Biomass	26.1	31.0	32.9	35.5	38.6	41.9	44.4	49.0	49.9	51.8	2.3
Wind	23.8	29.3	37.5	45.1	55.6	61.8	72.1	82.3	97.7	109.0	4.8
Solar	1.8	2.9	5.6	8.9	12.4	17.0	22.3	29.1	39.1	51.4	2.2
Other renewables	8.4	9.1	9.2	9.3	9.6	10.2	10.4	10.5	11.0	11.2	0.5
Total final consumption, by sector	8,530.8	8,953.7	9,100.5	9,213.7	9,389.6	9,486.9	9,573.7	9,696.2	9,930.8	10,147.5	100.0
Industry	2,614.2	2,820.1	2,927.1	2,966.6	2,995.1	3,009.5	2,987.9	2,980.8	3,055.8	3,134.5	30.9
Transport	2,273.4	2,371.7	2,406.8	2,442.0	2,511.6	2,555.9	2,633.0	2,692.1	2,747.2	2,776.5	27.4
Residential/Comercial	2,665.5	2,747.8	2,741.6	2,744.5	2,820.0	2,816.9	2,841.2	2,894.1	2,961.6	3,048.8	30.0
Oil final consumption, by sector	3,475.4	3,593.0	3,581.3	3,622.6	3,689.0	3,750.8	3,842.7	3,904.5	3,995.1	4,031.5	100.0
Industry	307.8	307.4	283.7	286.9	287.0	282.6	292.5	297.0	301.5	305.1	7.6
Transport	2,175.9	2,264.7	2,289.8	2,315.7	2,377.5	2,414.9	2,484.8	2,537.9	2,587.7	2,607.2	64.7
Residential/Comercial	292.9	296.0	285.1	279.1	287.4	280.6	289.1	292.2	301.5	304.5	7.6
Natural gas final consumption, by sector	1,195.4	1,287.6	1,314.3	1,319.2	1,364.9	1,366.7	1,354.9	1,385.2	1,438.2	1,516.4	100.0
Industry	448.9	502.1	521.3	536.7	541.0	547.5	535.9	543.0	565.9	592.0	39.0
Transport	24.2	27.4	31.8	33.6	35.6	38.6	41.2	42.1	44.5	49.0	3.2
Residential/Comercial	580.8	605.3	596.0	579.4	618.0	610.8	605.9	620.5	641.9	682.4	45.0
Refined products consumption	3,455.7	3,570.5	3,566.1	3,607.0	3,671.3	3,733.6	3,823.8	3,889.9	3,982.1	4,018.5	100.0
Gasoline	945.5	974.2	961.9	980.7	1,012.7	1,023.4	1,056.8	1,080.6	1,090.1	1,100.8	27.4
Diesel	1,118.9	1,166.3	1,187.4	1,207.5	1,224.6	1,249.0	1,265.1	1,258.0	1,276.6	1,282.8	31.9
Heating Oil	288.2	293.1	282.9	264.8	256.3	252.2	249.5	260.5	270.6	256.5	6.4
Aviation Jet	240.8	253.2	259.4	262.6	270.2	279.3	294.7	308.9	324.3	337.3	8.4
LPG	235.1	241.3	233.4	237.8	254.8	260.9	270.1	282.7	295.4	307.9	7.7
Imports	4,031.6	4,211.7	4,283.3	4,305.0	4,305.7	4,260.7	4,445.2	4,617.9	4,823.5	4,942.5	100.0
Oil	3,280.3	3,387.1	3,412.3	3,443.8	3,431.6	3,415.8	3,572.4	3,704.1	3,824.8	3,871.2	78.3
Gas	751.3	824.6	871.0	861.2	874.1	844.9	872.8	913.7	998.7	1,071.4	21.7
Gasoline	176.2	189.9	197.3	201.9	205.8	207.0	221.3	237.5	245.2	253.3	5.1
Diesel	288.9	308.3	318.7	330.4	349.8	359.6	374.6	396.0	400.3	387.3	7.8
Heating Oil	231.9	240.9	256.2	251.6	251.0	241.0	242.5	239.4	233.3	250.4	5.1
Aviation Jet	66.1	69.7	68.4	68.0	72.8	71.5	78.3	87.5	91.5	94.2	1.9
LPG	74.3	79.1	85.3	86.4	92.0	100.9	109.8	124.2	128.6	140.7	2.8
Exports	3,977.2	4,125.6	4,228.0	4,283.4	4,318.6	4,270.7	4,499.2	4,684.2	4,845.2	5,024.7	100.0
Oil	3,241.1	3,308.1	3,381.8	3,429.9	3,431.4	3,413.3	3,601.7	3,757.7	3,840.6	3,929.0	78.2
Gas	736.1	817.5	846.2	853.5	887.2	857.4	897.5	926.5	1,004.6	1,095.7	21.8
Gasoline	167.1	176.3	181.7	193.4	188.6	194.8	221.7	236.3	233.6	247.5	4.9
Diesel	309.1	313.8	327.0	346.4	355.0	358.3	385.4	415.2	429.1	432.1	8.6
Heating Oil	280.1	289.2	295.2	284.4	300.5	292.2	302.5	277.6	256.8	249.6	5.0
Aviation Jet	74.0	75.6	77.1	80.7	87.8	85.2	90.5	94.3	98.1	112.7	2.2
LPG	70.2	75.9	83.4	83.2	81.9	104.4	109.7	126.0	132.7	133.9	2.7
CO₂ Emissions (Million tons CO₂)	28,319.6	29,850.7	30,659.9	31,135.5	31,719.1	31,757.4	31,651.6	31,627.7	32,298.9	32,915.9	-
CO₂ Intensity (tCO₂/million \$15ppp)	309.8	310.3	306.3	301.0	296.7	287.1	276.9	268.2	264.1	259.6	-
Final energy intensity (toe/million \$15ppp)	85.2	85.0	83.0	81.2	80.2	78.0	76.2	74.8	73.8	72.7	-
Total energy intensity (toe/million \$15ppp)	133.5	133.8	130.6	128.4	125.9	123.2	119.6	116.7	115.1	113.5	-

*Heat is included



OECD (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	5,260.3	5,431.7	5,331.2	5,292.8	5,332.3	5,282.9	5,284.2	5,292.5	5,352.3	5,418.6	100.0
Oil	1,961.6	1,964.8	1,927.3	1,919.4	1,897.6	1,875.3	1,901.9	1,900.0	1,921.5	1,915.8	35.4
Gas	1,254.7	1,322.8	1,320.4	1,345.5	1,367.3	1,347.1	1,374.4	1,420.1	1,438.4	1,510.1	27.9
Coal	1,033.4	1,090.8	1,069.2	1,023.5	1,030.0	1,010.0	944.9	894.2	894.3	870.8	16.1
Nuclear	584.3	596.4	543.9	508.6	511.4	516.1	513.6	512.2	509.6	511.2	9.4
Hydro	114.2	116.4	119.5	119.5	121.6	120.6	118.8	121.3	120.2	122.9	2.3
Biomass	251.9	272.8	274.7	293.7	309.3	310.6	316.6	322.4	331.9	340.2	6.3
Other renewables	21.2	25.9	33.6	40.7	48.8	55.2	64.3	71.8	84.0	92.9	1.7
Electricity balance of trade*	39.0	41.9	42.6	42.0	46.2	48.0	49.8	50.5	52.3	54.5	1.0
Total final consumption, by source	3,582.5	3,738.7	3,654.4	3,629.4	3,686.1	3,653.3	3,674.7	3,710.4	3,762.3	3,819.0	100.0
Oil	1,739.2	1,774.6	1,713.7	1,688.7	1,695.2	1,690.1	1,720.1	1,735.8	1,755.8	1,759.0	46.1
Gas	664.5	711.7	695.3	691.7	728.9	714.8	703.3	713.4	731.3	766.1	20.1
Coal	155.9	179.7	178.9	174.9	172.0	169.8	166.4	159.7	162.7	162.5	4.3
Electricity	774.6	808.7	806.0	804.2	808.6	803.8	805.5	816.8	820.0	832.0	21.8
Heat	67.2	72.3	68.3	68.9	68.7	65.3	66.2	69.1	70.6	71.9	1.9
Biomass	181.1	191.7	192.3	201.0	212.8	209.6	213.1	215.5	222.0	227.4	6.0
Electricity generation, by source	901.2	941.3	936.9	935.9	937.8	934.1	938.7	946.0	950.4	965.8	100.0
Oil	27.8	26.5	29.9	33.6	28.9	23.6	22.1	20.9	19.2	19.1	2.0
Gas	205.2	220.0	227.5	236.9	226.2	224.3	243.5	258.0	256.0	268.3	27.8
Coal	308.7	321.1	311.4	300.0	304.6	299.3	278.4	261.5	258.4	248.8	25.8
Nuclear	192.8	196.8	179.5	167.8	168.8	170.3	169.5	169.0	168.2	168.7	17.5
Hydro	119.6	122.1	124.9	124.9	126.9	125.8	123.9	126.8	126.0	128.4	13.3
Biomass	19.6	22.0	23.2	24.9	26.3	28.0	29.5	30.3	30.8	31.2	3.2
Wind	19.5	23.1	28.3	32.7	38.5	42.0	47.9	52.1	59.9	64.2	6.6
Solar	1.7	2.8	5.3	7.9	10.3	13.3	16.4	19.8	24.1	28.7	3.0
Other renewables	6.2	6.9	7.0	7.0	7.2	7.5	7.5	7.7	7.8	8.3	0.9
Total final consumption, by sector	3,582.5	3,738.7	3,654.4	3,629.4	3,686.1	3,653.3	3,674.7	3,710.4	3,762.3	3,819.0	100.0
Industry	793.2	861.5	864.6	862.3	863.9	857.7	853.0	856.3	875.5	887.3	23.2
Transport	1,157.4	1,181.0	1,159.4	1,148.1	1,167.3	1,170.5	1,203.2	1,222.2	1,233.6	1,241.9	32.5
Residential/Commercial	1,204.1	1,250.5	1,196.1	1,179.3	1,223.3	1,183.1	1,181.4	1,189.7	1,199.6	1,237.0	32.4
Oil final consumption, by sector	1,739.2	1,774.6	1,713.7	1,688.7	1,695.2	1,690.1	1,720.1	1,735.8	1,755.8	1,759.0	100.0
Industry	98.9	99.9	91.9	87.6	83.8	78.3	80.7	81.6	81.4	81.2	4.6
Transport	1,110.9	1,131.1	1,105.0	1,087.3	1,103.8	1,105.8	1,136.4	1,152.3	1,162.2	1,169.2	66.5
Residential/Commercial	153.1	152.7	138.1	130.5	132.8	121.5	123.8	122.0	122.5	120.9	6.9
Natural gas final consumption, by sector	664.5	711.7	695.3	691.7	728.9	714.8	703.3	713.4	731.3	766.1	100.0
Industry	219.3	249.6	253.2	259.9	263.1	264.6	258.7	264.0	271.4	281.6	36.8
Transport	2.9	3.1	3.3	3.5	3.6	3.8	4.2	4.3	4.4	4.5	0.6
Residential/Commercial	406.2	421.3	400.9	389.7	423.5	407.0	400.6	401.6	411.1	434.5	56.7
Refined products consumption	1,732.4	1,767.2	1,707.8	1,683.1	1,689.1	1,684.2	1,713.1	1,730.0	1,750.4	1,753.5	100.0
Gasoline	620.4	626.5	598.2	589.4	591.8	591.0	602.2	610.7	608.4	605.5	34.5
Diesel	581.8	598.7	591.0	583.3	587.4	590.4	597.9	601.3	611.5	621.0	35.4
Heating Oil	40.0	36.7	32.1	27.8	21.5	18.8	20.4	18.4	19.5	19.1	1.1
Aviation Jet	67.8	68.8	68.3	68.5	71.2	73.3	76.5	79.3	82.0	83.1	4.7
LPG	116.0	117.9	104.0	103.0	111.6	108.6	110.1	108.8	110.3	114.4	6.5
Imports	2,665.8	2,750.8	2,734.6	2,707.7	2,643.7	2,555.9	2,657.9	2,732.2	2,828.8	2,839.6	100.0
Oil	2,072.5	2,108.0	2,077.4	2,058.9	1,992.9	1,935.4	2,023.3	2,071.8	2,110.0	2,078.7	73.2
Gas	593.3	642.8	657.2	648.7	650.8	620.6	634.5	660.4	718.8	760.8	26.8
Gasoline	93.0	93.1	92.5	91.3	84.6	81.8	92.0	99.5	100.4	100.2	3.5
Diesel	146.9	156.1	155.6	159.7	168.7	167.0	181.1	192.5	196.4	195.5	6.9
Heating Oil	88.1	90.2	94.0	91.7	91.3	87.1	86.5	84.2	67.2	65.8	2.3
Aviation Jet	41.4	42.2	41.0	41.4	44.9	45.1	50.4	55.4	57.5	59.3	2.1
LPG	45.2	47.2	50.6	50.5	52.0	53.1	55.0	59.8	58.8	61.5	2.2
Exports	1,109.0	1,150.6	1,184.7	1,226.3	1,251.2	1,282.6	1,374.4	1,439.8	1,586.7	1,730.9	100.0
Oil	827.5	847.8	877.2	909.6	933.6	974.1	1,044.9	1,090.5	1,179.7	1,266.4	73.2
Gas	281.5	302.8	307.5	316.8	317.7	308.5	329.5	349.3	407.0	464.6	26.8
Gasoline	94.2	100.8	107.8	119.4	114.4	118.0	134.7	140.8	141.0	143.4	8.3
Diesel	152.3	157.0	170.6	188.0	196.3	191.0	201.7	206.8	221.8	203.0	11.7
Heating Oil	96.2	103.5	107.4	103.2	105.3	107.5	112.8	108.5	92.3	87.5	5.1
Aviation Jet	31.2	33.0	34.7	38.6	40.3	38.3	41.0	43.2	45.9	54.1	3.1
LPG	8.6	9.2	9.4	10.2	10.3	26.9	34.6	41.8	47.2	51.5	3.0
CO₂ Emissions (Million tons CO₂)	12,094.5	12,606.8	12,367.2	12,226.0	12,258.8	12,059.5	11,965.3	11,908.7	12,056.6	12,151.1	-
CO₂ Intensity (tCO₂/million \$15ppp)	261.3	264.5	254.4	248.2	245.2	236.1	228.4	223.4	220.6	217.0	-
Final energy intensity (toe/million \$15ppp)	69.7	70.6	67.7	66.2	66.5	64.2	63.1	62.6	61.8	61.4	-
Total energy intensity (toe/million \$15ppp)	113.7	114.0	109.7	107.4	106.6	103.4	100.9	99.3	97.9	96.8	-

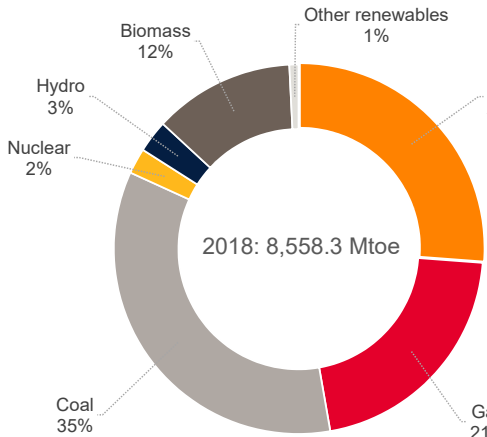
*Heat is included



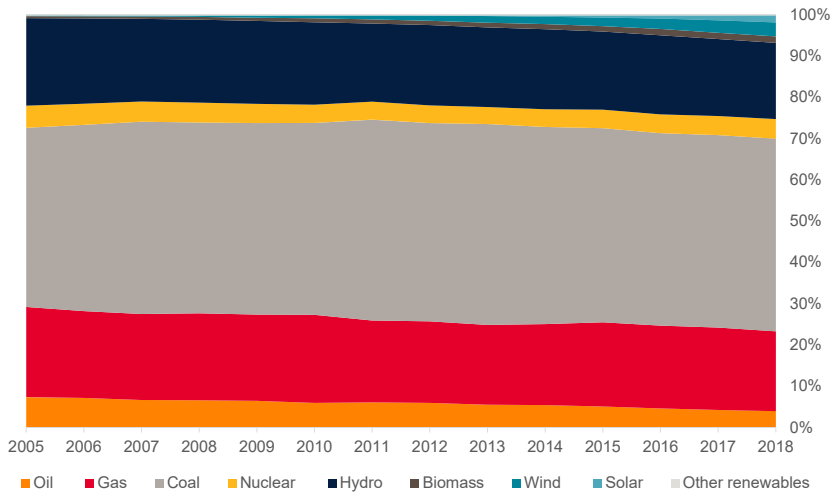
Non-OECD (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	6,602.4	7,079.1	7,375.0	7,633.4	7,772.1	7,983.0	8,006.6	8,076.3	8,300.3	8,558.3	100.0
Oil	1,716.2	1,811.9	1,843.4	1,945.4	1,973.5	2,058.0	2,069.7	2,102.1	2,157.3	2,217.7	25.9
Gas	1,281.5	1,411.1	1,469.4	1,496.5	1,526.5	1,565.0	1,566.7	1,612.3	1,702.5	1,785.2	20.9
Coal	2,353.8	2,559.9	2,735.4	2,825.7	2,875.7	2,925.8	2,903.7	2,835.5	2,863.3	2,927.7	34.2
Nuclear	118.3	121.9	129.2	132.6	134.7	144.7	156.2	166.9	176.7	190.2	2.2
Hydro	166.6	179.6	182.5	196.6	205.7	215.2	215.9	227.1	230.8	239.5	2.8
Biomass	920.5	945.7	958.3	970.7	976.7	984.9	994.8	1,020.4	1,037.8	1,045.0	12.2
Other renewables	4.4	6.3	9.5	13.3	19.2	23.5	30.1	39.6	52.8	67.4	0.8
Electricity balance of trade*	41.0	42.7	47.4	52.6	60.0	65.8	69.6	72.3	79.1	85.6	1.0
Total final consumption, by source	4,610.9	4,855.2	5,081.1	5,232.9	5,349.6	5,467.5	5,514.7	5,587.0	5,751.3	5,914.5	100.0
Oil	1,398.8	1,458.5	1,502.6	1,582.5	1,640.0	1,694.7	1,738.3	1,769.9	1,822.2	1,858.4	31.4
Gas	530.9	575.8	619.0	627.4	636.0	652.0	651.6	671.8	706.9	750.3	12.7
Coal	1,014.2	1,062.2	1,124.6	1,141.1	1,152.9	1,155.7	1,133.2	1,092.7	1,098.7	1,120.1	18.9
Electricity	661.0	724.9	777.0	817.8	864.7	903.1	927.4	972.8	1,020.1	1,076.7	18.2
Heat	206.7	223.9	240.3	249.0	242.7	246.7	246.3	257.7	265.6	273.3	4.6
Biomass	799.3	809.8	817.6	815.1	813.4	815.3	817.9	822.1	837.9	835.7	14.1
Electricity generation, by source	834.8	910.9	975.1	1,019.4	1,076.9	1,121.0	1,153.9	1,207.4	1,259.0	1,321.0	100.0
Oil	53.9	54.3	59.4	60.6	59.3	60.8	58.7	55.8	53.5	52.5	4.0
Gas	174.2	194.2	193.0	201.2	208.0	219.9	235.1	242.0	251.2	255.0	19.3
Coal	387.0	423.2	474.3	489.3	523.7	535.0	542.3	562.4	586.3	616.2	46.6
Nuclear	39.0	40.2	42.6	43.7	44.4	47.8	51.5	55.1	58.3	62.8	4.8
Hydro	167.6	181.5	184.3	198.4	207.6	217.4	218.3	231.0	234.7	243.7	18.5
Biomass	6.4	9.0	9.7	10.6	12.3	13.9	14.9	18.7	19.1	20.6	1.6
Wind	4.4	6.2	9.1	12.3	17.1	19.8	24.2	30.3	37.8	44.8	3.4
Solar	0.0	0.1	0.3	1.0	2.1	3.7	5.9	9.3	15.0	22.6	1.7
Other renewables	2.2	2.2	2.2	2.3	2.4	2.7	2.8	2.8	3.1	2.9	0.2
Total final consumption, by sector	4,610.9	4,855.2	5,081.1	5,232.9	5,349.6	5,467.5	5,514.7	5,587.0	5,751.3	5,914.5	100.0
Industry	1,821.1	1,958.6	2,062.5	2,104.4	2,131.2	2,151.8	2,134.9	2,124.6	2,180.4	2,247.2	38.0
Transport	778.7	830.9	882.4	942.6	990.5	1,019.4	1,045.6	1,071.2	1,096.5	1,120.6	18.9
Residential/Commercial	1,461.3	1,497.4	1,545.5	1,565.2	1,596.7	1,633.8	1,659.8	1,704.4	1,762.0	1,811.8	30.6
Oil final consumption, by sector	1,398.8	1,458.5	1,502.6	1,582.5	1,640.0	1,694.7	1,738.3	1,769.9	1,822.2	1,858.4	100.0
Industry	208.9	207.6	191.8	199.2	203.2	204.2	211.7	215.4	220.1	223.9	12.0
Transport	727.6	773.8	819.8	877.2	919.8	943.1	964.0	986.8	1,008.4	1,023.9	55.1
Residential/Commercial	139.8	143.4	147.0	148.6	154.6	159.1	165.4	170.1	179.0	183.6	9.9
Natural gas final consumption, by sector	530.9	575.8	619.0	627.4	636.0	652.0	651.6	671.8	706.9	750.3	100.0
Industry	229.6	252.6	268.0	276.8	277.9	282.9	277.2	279.0	294.5	310.4	41.4
Transport	21.3	24.3	28.5	30.1	31.9	34.8	37.0	37.8	40.1	44.6	5.9
Residential/Commercial	174.6	184.1	195.2	189.7	194.5	203.8	205.3	219.0	230.7	247.9	33.0
Refined products consumption	1,386.0	1,443.6	1,493.3	1,572.7	1,628.4	1,683.4	1,726.5	1,761.1	1,814.6	1,850.9	100.0
Gasoline	325.1	347.7	363.7	391.3	420.9	432.4	454.6	469.9	481.7	495.2	26.8
Diesel	511.2	539.0	569.2	603.3	615.9	626.6	624.9	619.7	628.5	626.6	33.9
Heating Oil	83.1	79.4	72.4	67.1	65.7	68.0	65.9	67.6	68.4	65.7	3.5
Aviation Jet	27.0	30.4	32.1	33.9	35.8	37.7	39.9	42.8	44.6	47.5	2.6
LPG	119.1	123.4	129.4	134.8	143.2	152.3	159.9	173.9	185.1	193.5	10.5
Imports	1,365.8	1,460.9	1,548.6	1,597.3	1,662.0	1,704.8	1,787.4	1,885.7	1,994.7	2,103.0	100.0
Oil	1,207.8	1,279.1	1,334.9	1,384.9	1,438.7	1,480.4	1,549.1	1,632.4	1,714.8	1,792.4	85.2
Gas	158.0	181.8	213.8	212.5	223.3	224.4	238.3	253.3	279.9	310.5	14.8
Gasoline	83.2	96.8	104.8	110.6	121.2	125.2	129.3	138.0	144.8	153.1	7.3
Diesel	142.1	152.2	163.1	170.7	181.1	192.6	193.4	203.5	203.9	191.7	9.1
Heating Oil	143.7	150.6	162.3	159.9	159.7	154.0	156.0	155.2	166.1	184.5	8.8
Aviation Jet	24.7	27.5	27.4	26.5	27.9	26.4	27.9	32.2	33.9	34.8	1.7
LPG	29.1	31.9	34.7	35.9	39.9	47.9	54.7	64.5	69.8	79.2	3.8
Exports	2,868.3	2,975.0	3,043.3	3,057.1	3,067.4	2,988.1	3,124.8	3,244.4	3,258.5	3,293.8	100.0
Oil	2,413.6	2,460.3	2,504.6	2,520.4	2,497.8	2,439.2	2,556.8	2,667.2	2,660.9	2,662.6	80.8
Gas	454.6	514.7	538.7	536.7	569.6	548.9	568.0	577.1	597.6	631.1	19.2
Gasoline	72.9	75.6	73.9	74.0	74.2	76.8	86.9	95.5	92.7	104.1	3.2
Diesel	156.9	156.8	156.3	158.4	158.7	167.3	183.7	208.5	207.3	229.3	7.0
Heating Oil	183.9	185.8	187.8	181.2	195.2	184.7	189.6	169.1	164.5	162.1	4.9
Aviation Jet	42.8	42.6	42.4	42.1	47.5	46.9	49.5	51.1	52.2	58.6	1.8
LPG	61.6	66.7	74.0	73.0	71.5	77.5	75.1	84.2	85.6	82.3	2.5
CO ₂ Emissions (Million tons CO ₂)	16,225.1	17,243.8	18,292.7	18,909.4	19,460.3	19,697.9	19,686.3	19,719.0	20,242.3	20,764.8	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	359.6	355.2	355.4	349.1	342.0	330.8	317.8	305.1	299.3	293.3	-
Final energy intensity (toe/million \$15ppp)	93.6	91.7	90.4	88.3	86.0	83.7	81.0	78.6	77.3	75.8	-
Total energy intensity (toe/million \$15ppp)	146.3	145.8	143.3	140.9	136.6	134.1	129.3	125.0	122.7	120.9	-

*Heat is included

Primary energy demand mix



Electricity generation by source



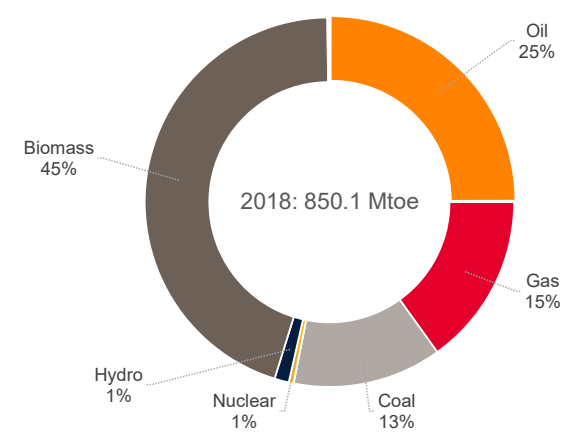
Primary energy demand and CO₂ emissions growth



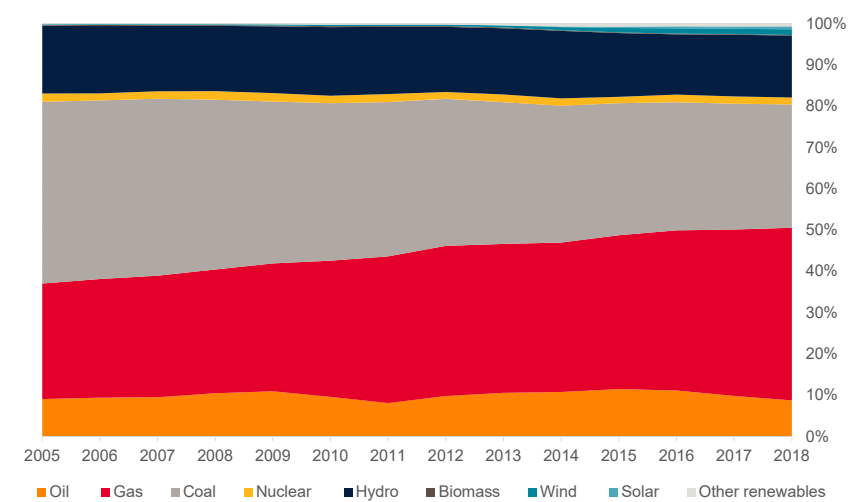
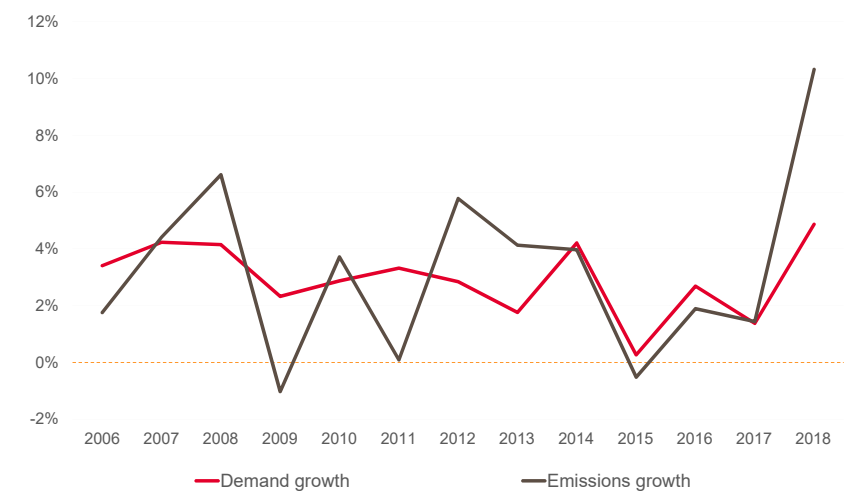
Africa (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	669.9	689.1	712.0	732.3	745.2	776.6	778.7	799.6	810.6	850.1	100.0
Oil	153.2	160.7	165.7	167.9	174.4	188.0	183.8	184.5	185.1	211.2	24.8
Gas	84.3	88.2	95.4	100.2	100.1	102.2	106.6	115.4	121.6	127.4	15.0
Coal	110.4	107.4	105.8	104.7	103.6	111.4	104.9	108.0	105.8	110.2	13.0
Nuclear	3.3	3.2	3.5	3.1	3.7	3.6	3.2	3.9	3.9	3.7	0.4
Hydro	8.5	9.4	9.5	9.6	10.0	10.6	10.3	9.9	10.4	10.6	1.3
Biomass	308.4	318.2	329.9	344.1	350.3	355.7	364.1	372.3	377.9	380.5	44.8
Other renewables	0.1	0.2	0.2	0.2	0.3	0.6	1.0	1.2	1.3	1.5	0.2
Electricity balance of trade*	1.7	1.9	1.9	2.3	2.8	4.4	4.8	4.5	4.6	4.8	0.6
Total final consumption, by source	475.1	487.2	500.0	514.7	535.8	546.6	555.1	569.2	580.0	586.1	100.0
Oil	127.1	135.0	135.9	143.1	154.2	158.8	159.1	164.5	168.1	166.6	28.4
Gas	28.0	29.0	32.2	32.5	33.6	31.8	35.0	36.5	38.2	40.6	6.9
Coal	24.3	17.4	15.5	18.0	19.6	20.5	18.4	18.0	17.8	19.4	3.3
Electricity	43.4	46.3	48.4	49.9	50.6	52.4	53.8	54.9	56.5	57.9	9.9
Heat	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.0
Biomass	252.3	259.4	267.8	271.0	277.7	282.8	288.7	295.0	299.3	301.4	51.4
Electricity generation, by source	54.1	58.0	60.1	62.5	64.2	66.5	68.4	69.8	71.9	73.6	100.0
Oil	5.9	5.6	4.9	6.1	6.8	7.2	7.9	7.8	7.1	6.4	8.7
Gas	16.8	19.1	21.3	22.7	23.2	24.0	25.5	27.0	28.9	30.8	41.8
Coal	21.2	22.1	22.4	22.2	22.0	22.0	21.9	21.7	21.9	22.0	29.9
Nuclear	1.1	1.0	1.2	1.0	1.2	1.2	1.1	1.3	1.3	1.2	1.6
Hydro	8.7	9.6	9.8	9.8	10.3	10.9	10.6	10.2	10.7	11.0	15.0
Biomass	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Wind	0.1	0.2	0.2	0.2	0.3	0.5	0.7	0.9	0.9	1.0	1.4
Solar	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.5	0.7
Other renewables	0.1	0.2	0.2	0.2	0.3	0.5	0.5	0.5	0.5	0.5	0.7
Total final consumption, by sector	475.1	487.2	500.0	514.7	535.8	546.6	555.1	569.2	580.0	586.1	100.0
Industry	83.5	85.4	88.1	85.8	89.0	86.1	86.2	87.5	89.6	92.0	15.7
Transport	79.7	86.2	88.4	94.9	105.6	109.9	111.7	117.2	119.9	119.9	20.5
Residential/Commercial	282.7	286.7	296.0	304.9	313.9	323.6	329.9	335.1	340.6	344.3	58.7
Oil final consumption, by sector	127.1	135.0	135.9	143.1	154.2	158.8	159.1	164.5	168.1	166.6	100.0
Industry	15.9	16.2	16.1	14.9	16.7	17.6	17.1	17.2	17.3	17.1	10.2
Transport	78.9	85.5	87.6	94.0	104.8	109.0	110.9	116.4	119.0	119.0	71.4
Residential/Commercial	16.7	17.7	17.5	18.1	18.8	18.4	18.1	17.1	17.3	17.0	10.2
Natural gas final consumption, by sector	28.0	29.0	32.2	32.5	33.6	31.8	35.0	36.5	38.2	40.6	100.0
Industry	13.9	15.5	18.4	17.8	17.8	15.9	17.1	17.4	18.6	19.5	48.1
Transport	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	1.0
Residential/Commercial	4.9	4.9	5.6	6.6	7.3	7.9	8.7	8.9	9.5	10.2	25.2
Refined products consumption	127.1	135.0	135.9	143.1	154.2	158.8	159.1	164.5	168.1	166.6	100.0
Gasoline	35.8	38.3	39.6	42.6	48.4	50.2	51.6	54.3	55.1	55.6	33.3
Diesel	52.6	57.2	59.6	62.5	68.3	70.3	71.5	74.6	76.8	75.9	45.5
Heating Oil	8.3	8.3	7.4	6.5	6.7	7.2	6.0	6.0	6.0	6.1	3.7
Aviation Jet	2.5	2.4	2.5	2.5	2.7	2.7	2.7	2.6	2.6	2.6	1.5
LPG	12.3	12.4	12.4	13.0	13.0	12.9	13.3	13.7	13.9	13.7	8.2
Imports	112.8	123.6	135.1	139.3	147.0	160.1	165.1	177.8	175.5	170.7	100.0
Oil	108.6	118.1	129.0	132.4	140.3	152.9	152.2	154.9	154.4	153.9	90.1
Gas	4.3	5.5	6.1	6.9	6.8	7.2	13.0	22.9	21.0	16.8	9.9
Gasoline	18.4	24.9	30.1	28.4	30.8	33.0	32.4	36.7	36.3	36.8	21.6
Diesel	26.4	29.9	35.4	38.8	43.7	47.4	53.2	52.9	55.0	49.0	28.7
Heating Oil	4.5	6.2	5.8	6.6	8.3	9.6	9.2	8.5	7.2	1.6	0.9
Aviation Jet	3.2	3.6	3.7	4.1	3.9	4.0	4.5	5.1	5.7	6.7	3.9
LPG	6.0	6.1	6.0	6.3	6.4	7.0	7.5	7.4	8.1	8.2	4.8
Exports	526.9	544.7	456.8	501.6	454.2	425.4	429.2	410.7	438.4	412.5	100.0
Oil	438.4	452.8	376.7	418.5	381.9	354.1	357.3	333.7	355.3	331.7	80.4
Gas	88.5	91.9	80.1	83.0	72.3	71.3	71.9	77.1	83.1	80.8	19.6
Gasoline	1.6	1.4	1.1	1.4	1.6	1.5	1.5	1.7	1.6	2.0	0.5
Diesel	2.3	1.7	1.5	1.8	2.3	2.6	2.7	3.2	3.2	3.3	0.8
Heating Oil	12.2	10.8	9.1	8.5	10.7	9.4	9.6	10.2	9.7	9.5	2.3
Aviation Jet	3.4	3.3	2.7	3.2	4.2	3.6	4.3	3.9	4.1	3.9	0.9
LPG	8.9	7.8	7.7	7.2	7.1	9.0	9.5	9.6	9.2	8.4	2.0
CO₂ Emissions (Million tons CO₂)	983.5	1,020.1	1,021.0	1,080.0	1,124.6	1,169.3	1,163.2	1,185.2	1,202.3	1,326.4	-
CO₂ Intensity (tCO₂/million \$15ppp)	208.1	205.2	204.1	204.4	207.2	209.2	201.4	201.1	197.5	210.9	-
Final energy intensity (toe/million \$15ppp)	96.4	94.2	96.6	94.0	95.6	94.8	93.2	93.5	92.2	90.2	-
Total energy intensity (toe/million \$15ppp)	141.8	138.6	142.3	138.6	137.3	139.0	134.8	135.6	133.1	135.2	-

*Heat is included

Primary energy demand mix



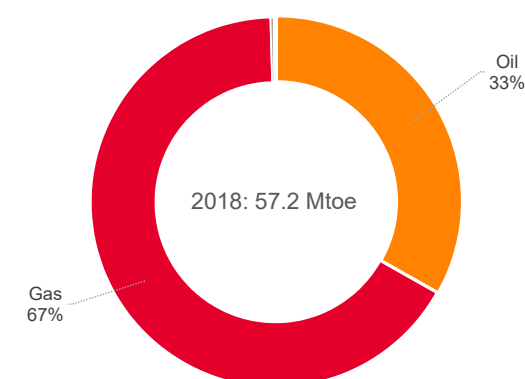
Electricity generation by source

Primary energy demand and CO₂ emissions growth

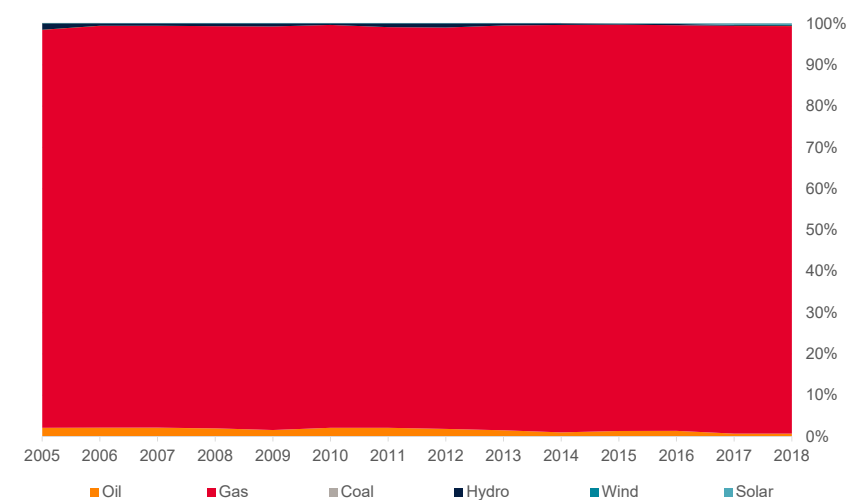
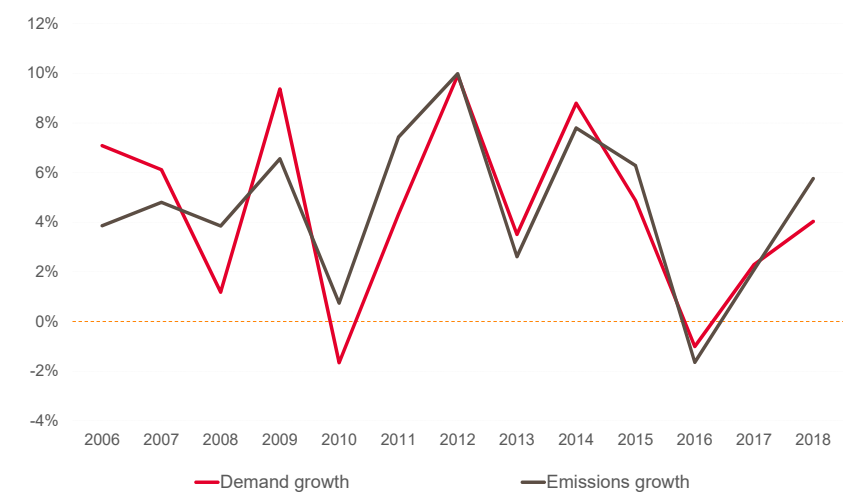
Algeria (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	40.8	40.1	41.8	46.0	47.6	51.8	54.3	53.7	55.0	57.2	100.0
Oil	16.3	16.4	16.7	17.6	18.7	19.3	19.7	19.1	18.9	19.0	33.2
Gas	24.0	23.3	24.8	28.0	28.6	32.3	34.4	34.7	35.8	38.0	66.4
Coal	0.4	0.3	0.3	0.3	0.2	0.2	0.1	0.0	0.2	0.2	0.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Electricity balance of trade*	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.0	-0.1
Total final consumption, by source	25.1	26.0	27.5	30.7	32.3	34.6	36.9	37.1	37.5	39.0	100.0
Oil	14.3	14.3	15.0	16.5	17.4	18.1	18.4	17.8	17.7	17.8	45.6
Gas	8.1	8.5	9.1	10.5	11.0	12.5	14.1	14.8	15.0	16.2	41.4
Coal	0.3	0.3	0.2	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.1
Electricity	2.4	2.9	3.1	3.5	3.7	3.9	4.3	4.5	4.8	5.0	12.9
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity generation, by source	3.5	4.1	4.8	5.3	5.6	6.1	6.5	6.7	7.2	7.4	100.0
Oil	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7
Gas	3.4	4.0	4.7	5.2	5.5	6.0	6.4	6.6	7.1	7.3	98.6
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	25.1	26.0	27.5	30.7	32.3	34.6	36.9	37.1	37.5	39.0	100.0
Industry	4.8	5.3	5.4	5.3	5.4	5.5	5.9	6.0	6.5	6.9	17.6
Transport	9.7	10.1	10.9	12.3	13.0	14.1	15.0	14.5	14.3	14.3	36.6
Residential/Comercial	7.6	7.7	8.5	9.5	10.5	10.3	11.3	11.6	12.4	13.3	34.0
Oil final consumption, by sector	14.3	14.3	15.0	16.5	17.4	18.1	18.4	17.8	17.7	17.8	100.0
Industry	1.0	0.9	1.0	0.8	0.8	0.8	0.8	0.8	0.8	0.8	4.4
Transport	9.6	10.1	10.9	12.3	12.9	14.0	14.9	14.4	14.2	14.2	79.8
Residential/Comercial	2.4	2.3	2.4	2.4	2.6	1.9	2.0	1.9	2.1	2.3	12.8
Natural gas final consumption, by sector	8.1	8.5	9.1	10.5	11.0	12.5	14.1	14.8	15.0	16.2	100.0
Industry	2.5	3.0	3.0	3.0	3.1	3.2	3.4	3.6	3.9	4.2	26.3
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Comercial	3.8	3.7	4.2	5.1	5.6	6.0	6.7	6.9	7.4	8.0	49.3
Refined products consumption	14.3	14.3	15.0	16.5	17.4	18.1	18.4	17.8	17.7	17.8	100.0
Gasoline	2.5	2.9	3.2	3.7	4.1	4.4	4.7	4.6	4.4	4.2	23.3
Diesel	8.1	8.2	8.8	9.3	9.8	9.9	10.5	10.3	10.2	10.4	58.7
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.2
LPG	2.4	2.3	2.4	2.5	2.4	2.2	2.2	2.2	2.3	2.6	14.5
Imports	1.7	1.3	2.4	4.9	5.5	3.5	4.4	3.9	3.8	0.9	100.0
Oil	1.7	1.3	2.4	4.9	5.5	3.5	4.4	3.9	3.8	0.9	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.4	1.3	1.7	1.1	1.7	1.7	1.7	0.1	11.5
Diesel	0.6	0.4	1.3	2.9	2.8	1.1	1.8	1.5	1.5	0.2	21.3
Heating Oil	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	19.2
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	113.6	111.0	105.9	102.3	94.9	93.3	93.3	102.8	100.5	92.6	100.0
Oil	66.7	62.4	61.1	57.8	54.6	55.4	56.3	56.9	54.6	49.0	52.9
Gas	46.9	48.6	44.8	44.5	40.3	37.9	37.0	45.9	45.9	43.6	47.1
Gasoline	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating Oil	5.4	5.4	5.5	4.9	5.1	6.2	6.4	6.7	6.1	5.6	6.0
Aviation Jet	0.4	1.0	0.8	0.7	1.2	1.6	1.1	1.2	1.2	1.0	1.1
LPG	8.0	7.0	7.1	6.5	6.3	8.5	8.9	8.6	8.2	7.5	8.1
CO₂ Emissions (Million tons CO₂)	96.7	97.5	104.7	115.2	118.2	127.4	135.4	133.2	135.9	143.8	-
CO₂ Intensity (tCO₂/million \$15ppp)	202.6	196.9	205.6	218.7	218.4	226.8	232.3	221.2	222.7	229.8	-
Final energy intensity (toe/million \$15ppp)	47.6	48.2	50.2	53.2	55.0	55.1	57.0	55.0	56.2	57.0	-
Total energy intensity (toe/million \$15ppp)	85.3	81.0	82.1	87.3	87.9	92.2	93.2	89.3	90.1	91.4	-

*Heat is included

Primary energy demand mix



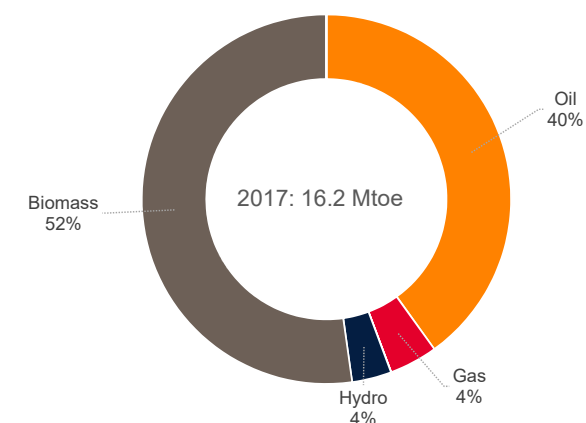
Electricity generation by source

Primary energy demand and CO₂ emissions growth

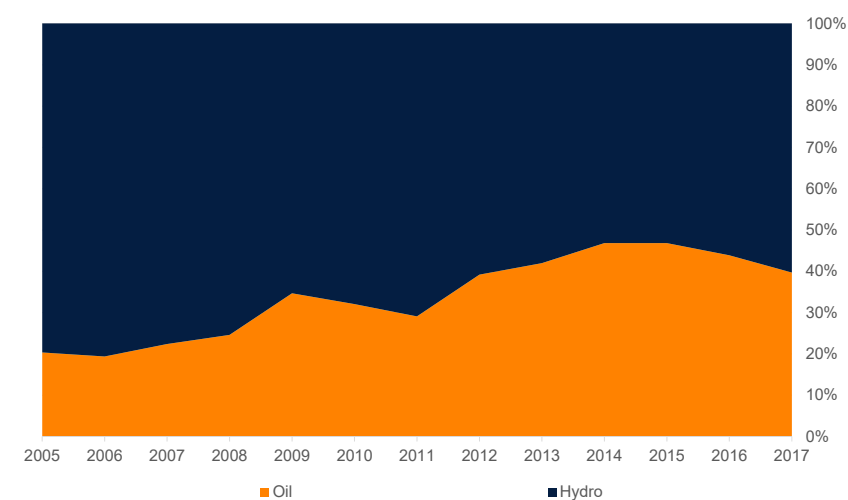
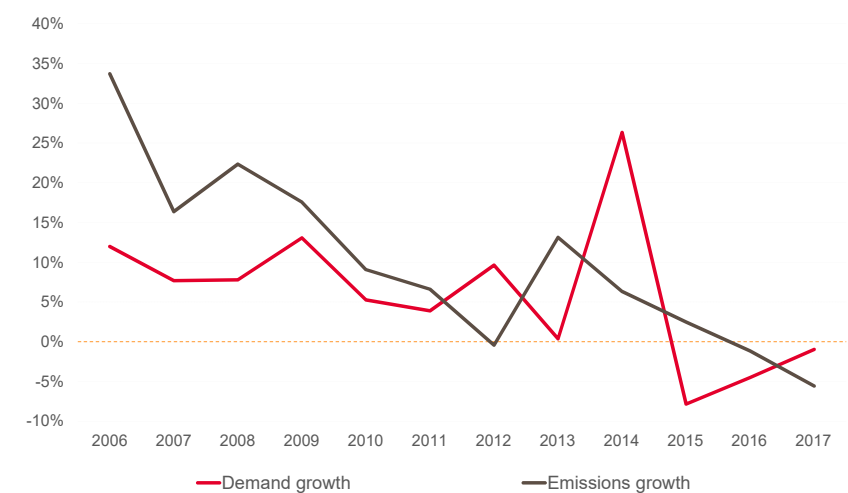
Angola (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	12.2	12.8	13.3	14.6	14.7	18.5	17.1	16.3	16.2	n.d.	100.0
Oil	4.2	4.6	4.9	6.1	6.2	9.7	7.9	6.9	6.5	n.d.	n.d.
Gas	0.6	0.6	0.6	0.6	0.3	0.3	0.6	0.7	0.7	n.d.	n.d.
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Hydro	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.6	n.d.	n.d.
Biomass	7.1	7.3	7.5	7.6	7.8	8.1	8.1	8.3	8.4	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Electricity balance of trade*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	n.d.	n.d.
Total final consumption, by source	9.7	10.3	10.8	11.2	11.9	12.2	12.3	12.3	12.2	n.d.	100.0
Oil	3.5	3.8	4.2	4.4	5.2	5.2	4.9	4.8	4.5	n.d.	n.d.
Gas	0.6	0.6	0.6	0.6	0.3	0.2	0.6	0.6	0.6	n.d.	n.d.
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Electricity	0.3	0.4	0.4	0.5	0.6	0.7	0.7	0.8	0.8	n.d.	n.d.
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Biomass	5.3	5.4	5.6	5.7	5.8	6.1	6.1	6.2	6.3	n.d.	n.d.
Electricity generation, by source	0.4	0.5	0.5	0.5	0.7	0.8	0.8	0.9	0.9	n.d.	100.0
Oil	0.1	0.2	0.1	0.2	0.3	0.4	0.4	0.4	0.4	n.d.	n.d.
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Hydro	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.6	n.d.	n.d.
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Total final consumption, by sector	9.7	10.3	10.8	11.2	11.9	12.2	12.3	12.3	12.2	n.d.	100.0
Industry	1.1	1.2	1.2	1.1	0.9	0.9	1.2	1.3	1.4	n.d.	n.d.
Transport	2.0	2.2	2.5	2.5	2.8	2.9	2.9	2.8	2.6	n.d.	n.d.
Residential/Comercial	6.5	6.7	7.0	7.3	7.9	8.1	7.9	7.9	8.0	n.d.	n.d.
Oil final consumption, by sector	3.5	3.8	4.2	4.4	5.2	5.2	4.9	4.8	4.5	n.d.	100.0
Industry	0.3	0.3	0.3	0.2	0.3	0.3	0.2	0.3	0.4	n.d.	n.d.
Transport	2.0	2.2	2.5	2.5	2.8	2.9	2.9	2.8	2.6	n.d.	n.d.
Residential/Comercial	1.1	1.2	1.3	1.4	1.8	1.7	1.5	1.4	1.3	n.d.	n.d.
Natural gas final consumption, by sector	0.6	0.6	0.6	0.6	0.3	0.2	0.6	0.6	0.6	n.d.	100.0
Industry	0.6	0.6	0.6	0.6	0.3	0.2	0.6	0.6	0.6	n.d.	n.d.
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Residential/Comercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Refined products consumption	3.5	3.8	4.2	4.4	5.2	5.2	4.9	4.8	4.5	n.d.	100.0
Gasoline	0.8	1.0	1.1	1.1	1.0	1.1	1.0	0.9	0.7	n.d.	n.d.
Diesel	2.0	2.2	2.4	2.5	3.2	3.2	3.1	3.0	2.9	n.d.	n.d.
Heating Oil	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.2	n.d.	n.d.
Aviation Jet	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.2	n.d.	n.d.
LPG	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	n.d.	n.d.
Imports	3.3	3.3	3.6	4.7	4.9	5.8	5.4	5.5	5.1	n.d.	100.0
Oil	3.3	3.3	3.6	4.7	4.9	5.8	5.4	5.5	5.1	n.d.	n.d.
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Gasoline	1.1	0.9	1.0	1.4	1.1	1.5	1.3	1.1	1.1	n.d.	n.d.
Diesel	1.9	2.1	2.3	3.0	3.3	3.7	3.6	3.6	3.3	n.d.	n.d.
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Aviation Jet	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.4	0.4	n.d.	n.d.
LPG	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	0.1	n.d.	n.d.
Exports	91.2	88.0	79.7	85.8	86.9	83.4	88.6	85.9	84.4	n.d.	100.0
Oil	91.2	88.0	79.7	85.8	86.4	83.1	88.6	85.1	80.3	n.d.	n.d.
Gas	0.0	0.0	0.0	0.0	0.4	0.4	0.0	0.7	4.1	n.d.	n.d.
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Heating Oil	0.1	0.1	0.2	0.2	0.4	0.4	0.6	0.6	0.6	n.d.	n.d.
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
LPG	0.5	0.5	0.5	0.5	0.6	0.4	0.5	0.6	0.8	n.d.	n.d.
CO₂ Emissions (Million tons CO₂)	14.0	15.2	16.2	16.2	18.3	19.4	19.9	19.7	18.6	n.d.	-
CO₂ Intensity (tCO₂/million \$15ppp)	98.4	103.8	106.5	100.8	106.8	108.3	107.8	107.3	103.9	n.d.	-
Final energy intensity (toe/million \$15ppp)	67.4	68.9	69.8	68.1	67.7	66.5	65.5	65.8	67.0	n.d.	-
Total energy intensity (toe/million \$15ppp)	86.0	87.5	87.5	91.2	85.7	103.4	92.5	88.9	90.3	n.d.	-

*Heat is included

Primary energy demand mix

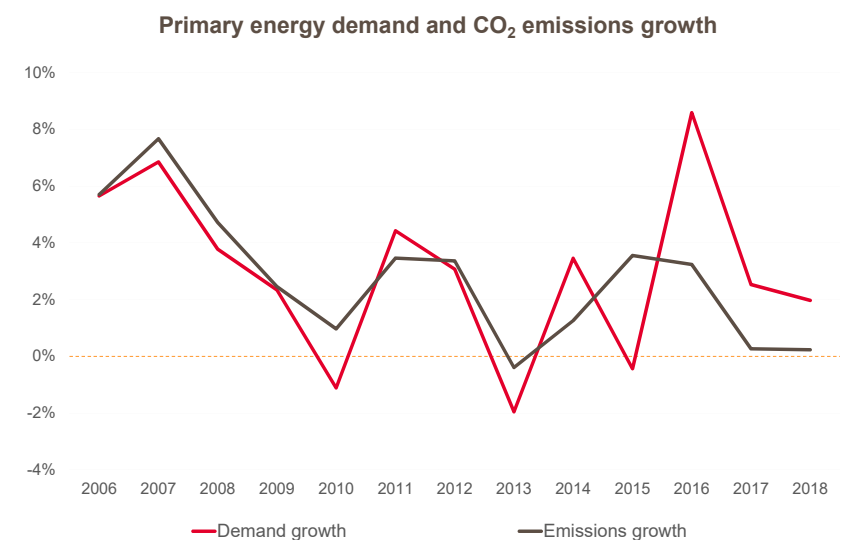
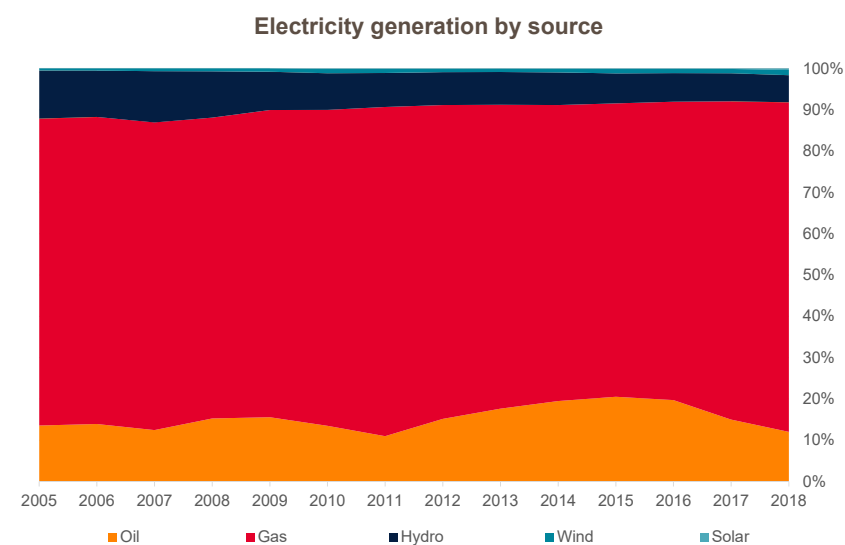
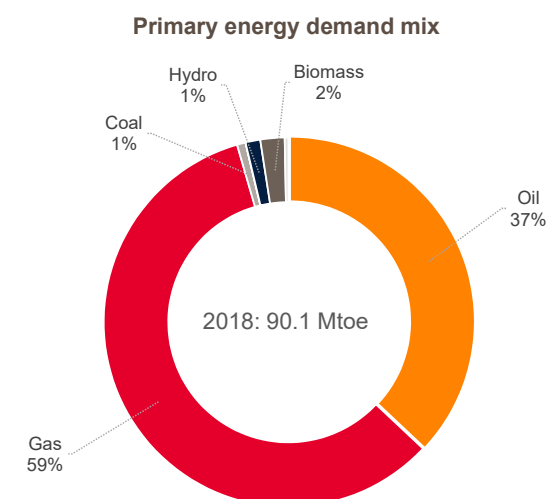


Electricity generation by source

Primary energy demand and CO₂ emissions growth

Egypt (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	73.8	73.0	76.2	78.6	77.0	79.7	79.3	86.2	88.3	90.1	100.0
Oil	34.8	34.0	34.0	36.2	36.1	41.4	39.1	37.9	35.6	33.3	37.0
Gas	35.7	35.8	39.0	39.1	37.6	34.9	36.8	44.8	49.1	52.7	58.5
Coal	0.6	0.4	0.4	0.4	0.4	0.4	0.4	0.3	0.4	0.7	0.8
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.3
Biomass	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.9	1.9	2.1
Other renewables	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3
Electricity balance of trade*	-0.1	-0.1	-0.1	-0.0	-0.0	-0.1	-0.1	-0.1	-0.0	-0.0	-0.0
Total final consumption, by source	51.6	53.0	55.4	56.2	54.5	54.0	55.7	58.4	59.9	59.9	100.0
Oil	28.2	29.4	29.7	30.1	28.7	30.1	30.0	31.0	31.1	29.3	49.0
Gas	11.1	11.0	11.8	12.0	11.9	9.0	10.0	11.0	12.0	12.9	21.6
Coal	0.6	0.4	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.7	1.1
Electricity	10.2	10.6	11.9	12.1	11.9	12.7	13.5	14.1	14.5	15.0	25.1
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.9	1.9	3.2
Electricity generation, by source	12.0	12.6	13.5	14.2	14.5	15.0	16.0	16.7	17.2	17.8	100.0
Oil	1.9	1.7	1.5	2.1	2.5	2.9	3.3	3.3	2.6	2.1	12.0
Gas	8.9	9.7	10.8	10.8	10.6	10.8	11.4	12.1	13.2	14.2	79.8
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	1.1	1.1	1.1	1.1	1.1	1.2	1.2	1.2	1.2	1.2	6.6
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	1.2
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	51.6	53.0	55.4	56.2	54.5	54.0	55.7	58.4	59.9	59.9	100.0
Industry	14.4	14.6	15.5	13.7	14.6	13.3	13.1	13.6	14.2	14.9	24.9
Transport	13.9	14.9	15.6	17.0	17.1	17.9	18.3	18.7	19.1	18.3	30.5
Residential/Comercial	13.9	14.2	15.0	15.7	15.8	16.7	17.7	18.3	18.5	18.7	31.3
Oil final consumption, by sector	28.2	29.4	29.7	30.1	28.7	30.1	30.0	31.0	31.1	29.3	100.0
Industry	5.5	5.3	5.1	3.7	4.9	5.4	4.8	5.0	4.8	4.7	16.0
Transport	13.5	14.5	15.2	16.5	16.7	17.5	18.0	18.3	18.7	17.8	60.8
Residential/Comercial	5.0	5.0	5.0	4.8	4.7	4.7	4.8	4.9	4.9	4.5	15.5
Natural gas final consumption, by sector	11.1	11.0	11.8	12.0	11.9	9.0	10.0	11.0	12.0	12.9	100.0
Industry	5.0	5.4	5.9	6.2	6.1	4.2	4.7	4.9	5.3	5.7	43.9
Transport	0.4	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.4	0.4	3.0
Residential/Comercial	0.8	0.9	1.0	1.1	1.3	1.5	1.5	1.6	1.7	1.8	14.2
Refined products consumption	28.2	29.4	29.7	30.1	28.7	30.1	30.0	31.0	31.1	29.3	100.0
Gasoline	5.2	5.5	6.1	6.5	6.3	6.8	7.3	7.7	7.7	7.5	25.6
Diesel	11.5	12.2	12.5	12.9	12.9	13.3	13.3	13.6	14.0	13.0	44.2
Heating Oil	3.9	3.8	3.3	2.5	2.6	3.1	2.4	2.4	2.1	2.2	7.4
Aviation Jet	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.7	0.8	2.7
LPG	5.0	4.9	4.9	4.8	4.7	4.7	4.8	5.0	4.9	4.6	15.6
Imports	10.2	12.0	12.1	13.0	15.9	20.6	25.5	34.9	30.6	27.0	100.0
Oil	10.2	12.0	12.1	13.0	15.9	20.6	19.8	19.5	17.7	17.4	64.6
Gas	0.0	0.0	0.0	0.0	0.0	0.0	5.7	15.4	12.9	9.6	35.4
Gasoline	0.5	0.7	1.3	1.3	1.7	2.3	2.7	3.3	3.1	2.7	10.2
Diesel	3.5	3.5	4.7	5.2	6.0	6.5	7.3	7.5	7.4	6.7	24.7
Heating Oil	0.7	1.4	0.7	1.0	2.9	4.1	3.7	3.1	1.2	0.1	0.3
Aviation Jet	0.0	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
LPG	2.8	2.6	2.5	2.3	2.3	2.5	2.6	2.4	2.7	2.7	10.0
Exports	23.5	23.9	20.0	17.1	15.6	14.3	15.3	15.8	14.2	17.1	100.0
Oil	8.5	13.3	13.0	12.0	13.9	14.0	15.1	15.6	13.8	16.5	96.2
Gas	15.0	10.6	7.0	5.1	1.7	0.3	0.2	0.2	0.4	0.7	3.8
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.2	1.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4	2.3
Aviation Jet	0.6	0.4	0.2	0.3	0.5	0.5	1.0	1.6	1.6	1.6	9.5
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CO₂ Emissions (Million tons CO₂)	181.9	183.6	190.0	196.4	195.6	198.1	205.1	211.7	212.3	212.8	-
CO₂ Intensity (tCO₂/million \$15ppp)	216.6	208.0	211.4	213.8	208.4	205.1	203.4	201.4	193.8	184.5	-
Final energy intensity (toe/million \$15ppp)	53.4	52.5	54.3	53.6	52.1	51.1	50.3	49.7	48.8	46.4	-
Total energy intensity (toe/million \$15ppp)	87.9	82.7	84.8	85.5	82.1	82.5	78.7	81.9	80.6	78.1	-

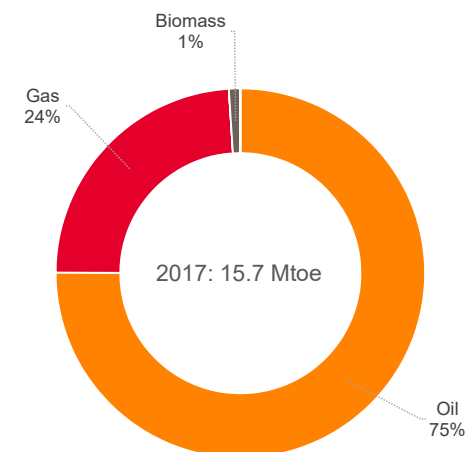
*Heat is included



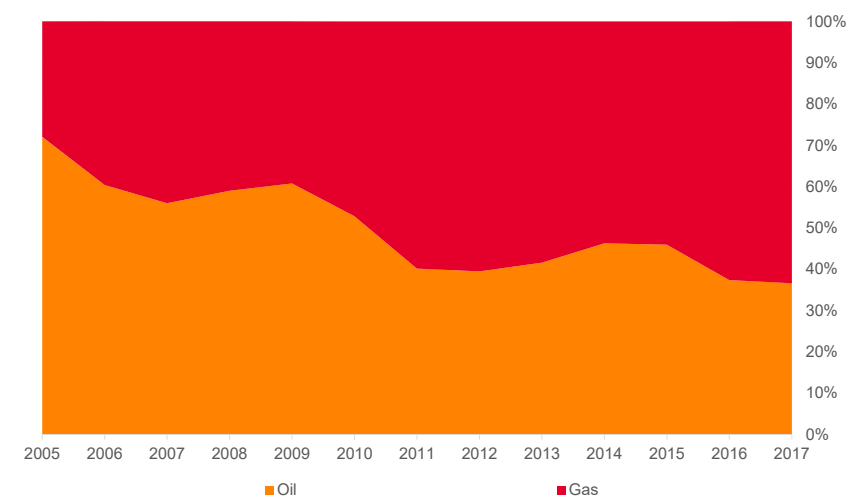
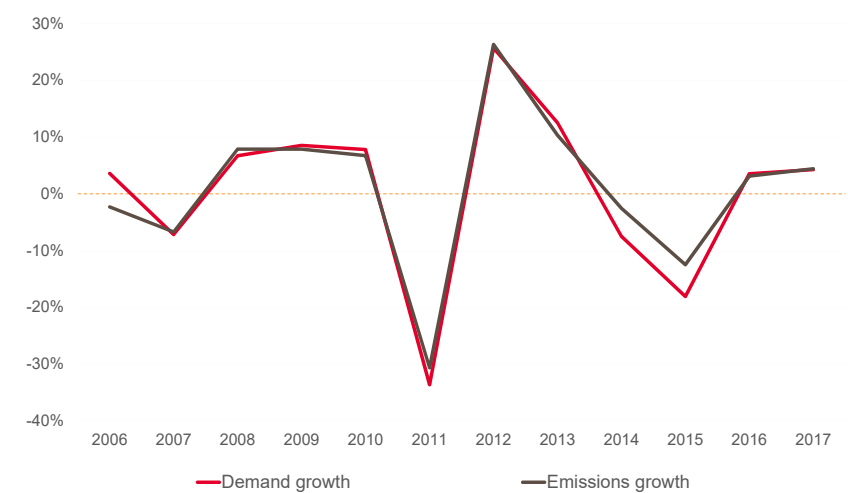
Libya (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	19.0	20.5	13.6	17.1	19.2	17.8	14.6	15.1	15.7	n.d.	100.0
Oil	13.9	14.5	9.0	12.2	13.2	12.8	10.7	10.7	11.8	n.d.	n.d.
Gas	4.9	5.8	4.4	4.7	5.8	4.9	3.7	4.2	3.8	n.d.	n.d.
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Biomass	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Electricity balance of trade*	-0.0	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Total final consumption, by source	12.0	13.2	8.2	9.7	11.1	10.2	8.0	10.0	11.0	n.d.	100.0
Oil	8.1	9.2	5.8	8.0	8.7	8.5	6.4	8.5	9.5	n.d.	n.d.
Gas	2.1	2.2	0.9	0.1	0.7	0.1	0.1	0.1	0.1	n.d.	n.d.
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Electricity	1.6	1.7	1.4	1.6	1.6	1.5	1.3	1.2	1.2	n.d.	n.d.
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Biomass	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	n.d.	n.d.
Electricity generation, by source	2.6	2.8	2.2	2.9	3.3	3.2	3.2	3.1	3.2	n.d.	100.0
Oil	1.6	1.5	0.9	1.2	1.4	1.5	1.5	1.2	1.2	n.d.	n.d.
Gas	1.0	1.3	1.3	1.8	1.9	1.7	1.7	2.0	2.0	n.d.	n.d.
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Total final consumption, by sector	12.0	13.2	8.2	9.7	11.1	10.2	8.0	10.0	11.0	n.d.	100.0
Industry	1.6	1.5	0.6	0.5	1.1	0.9	0.6	0.6	0.6	n.d.	n.d.
Transport	5.2	6.1	4.6	5.6	5.9	6.5	5.1	7.1	7.5	n.d.	n.d.
Residential/Comercial	2.1	2.2	1.7	2.2	2.2	2.0	1.6	1.6	1.6	n.d.	n.d.
Oil final consumption, by sector	8.1	9.2	5.8	8.0	8.7	8.5	6.4	8.5	9.5	n.d.	100.0
Industry	0.5	0.5	0.2	0.4	0.7	0.7	0.4	0.5	0.5	n.d.	n.d.
Transport	5.2	6.1	4.6	5.6	5.9	6.5	5.1	7.1	7.5	n.d.	n.d.
Residential/Comercial	0.7	0.7	0.4	0.7	0.7	0.6	0.4	0.4	0.5	n.d.	n.d.
Natural gas final consumption, by sector	2.1	2.2	0.9	0.1	0.7	0.1	0.1	0.1	0.1	n.d.	100.0
Industry	0.9	0.8	0.3	0.0	0.2	0.1	0.0	0.0	0.0	n.d.	n.d.
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Residential/Comercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Refined products consumption	8.1	9.2	5.8	8.0	8.7	8.5	6.4	8.5	9.5	n.d.	100.0
Gasoline	3.1	3.3	2.7	3.7	4.1	4.1	4.0	4.0	4.0	n.d.	n.d.
Diesel	2.1	2.8	1.8	2.0	1.9	2.5	1.1	3.1	3.5	n.d.	n.d.
Heating Oil	0.5	0.5	0.2	0.4	0.7	0.7	0.4	0.5	0.5	n.d.	n.d.
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
LPG	0.4	0.4	0.3	0.3	0.4	0.3	0.3	0.3	0.3	n.d.	n.d.
Imports	3.4	3.8	4.0	5.0	5.8	8.1	6.8	7.0	6.9	n.d.	100.0
Oil	3.4	3.8	4.0	5.0	5.8	8.1	6.8	7.0	6.9	n.d.	n.d.
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Gasoline	2.3	2.6	2.1	3.0	3.4	3.5	3.5	3.6	3.5	n.d.	n.d.
Diesel	0.9	1.0	1.8	1.7	2.2	4.4	3.3	3.4	3.4	n.d.	n.d.
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	n.d.	n.d.
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Exports	85.5	85.5	19.7	75.0	54.4	24.8	23.2	21.5	47.7	n.d.	100.0
Oil	77.4	77.5	17.7	69.7	49.8	19.5	17.4	17.6	43.9	n.d.	n.d.
Gas	8.1	8.0	2.0	5.3	4.7	5.3	5.8	3.9	3.8	n.d.	n.d.
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Heating Oil	3.5	2.5	0.4	0.3	2.1	0.0	0.3	0.4	0.2	n.d.	n.d.
Aviation Jet	1.5	1.0	0.5	0.6	0.9	0.3	0.2	0.1	0.2	n.d.	n.d.
LPG	0.3	0.2	0.0	0.2	0.1	0.1	0.1	0.1	0.1	n.d.	n.d.
CO₂ Emissions (Million tons CO₂)	48.2	51.4	35.7	45.1	49.7	48.5	42.4	43.7	45.7	n.d.	-
CO₂ Intensity (tCO₂/million \$15ppp)	217.7	221.2	404.5	227.4	397.3	824.1	829.1	923.3	587.8	n.d.	-
Final energy intensity (toe/million \$15ppp)	41.0	42.9	79.2	42.9	74.4	161.7	145.7	198.4	127.1	n.d.	-
Total energy intensity (toe/million \$15ppp)	85.7	88.0	154.0	86.1	153.4	302.1	284.5	318.1	202.3	n.d.	-

*Heat is included

Primary energy demand mix



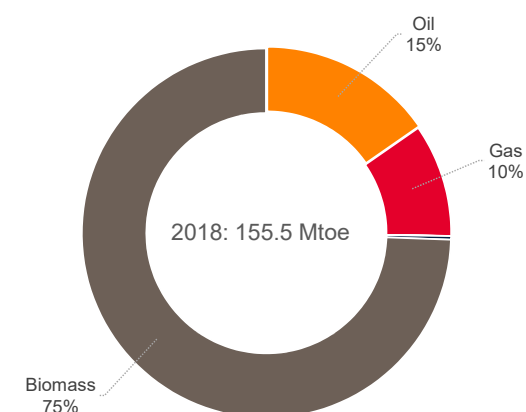
Electricity generation by source

Primary energy demand and CO₂ emissions growth

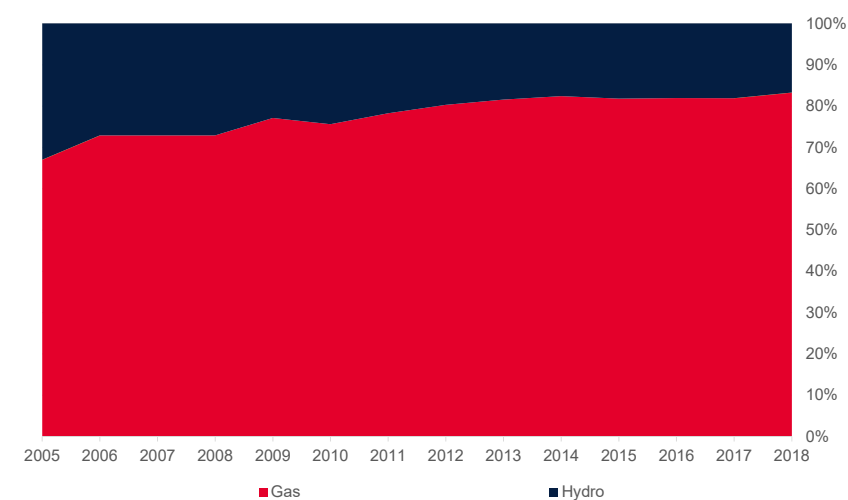
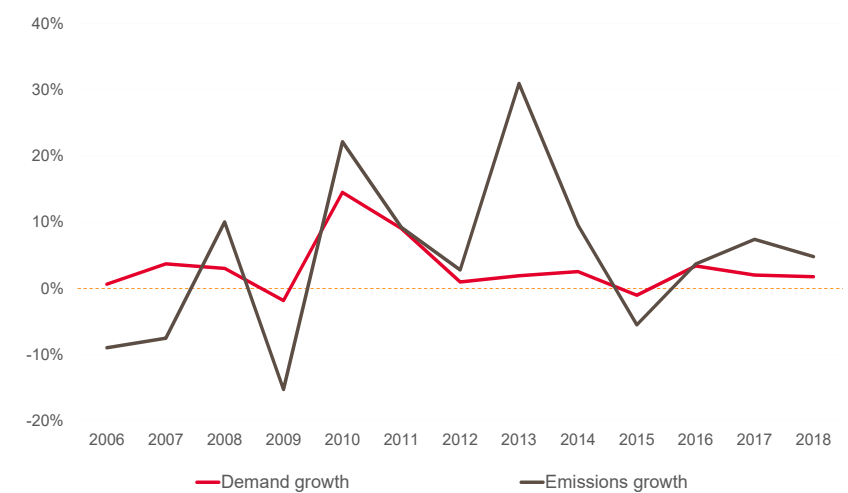
Nigeria (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	111.1	127.2	138.7	140.1	142.8	146.4	144.9	149.8	152.8	155.5	100.0
Oil	9.5	20.1	23.8	19.1	21.3	23.1	18.7	21.3	23.1	23.9	15.4
Gas	7.9	8.8	12.2	12.6	12.5	14.3	14.2	13.9	14.3	15.4	9.9
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3
Biomass	93.3	97.7	102.1	107.9	108.5	108.6	111.5	114.1	114.9	115.8	74.4
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	0.0	-0.0	-0.0	-0.0	0.0	-0.0	0.0	-0.0	-0.0	0.0	0.0
Total final consumption, by source	100.1	105.7	110.7	115.4	123.4	125.9	126.7	129.6	132.2	134.1	100.0
Oil	9.4	11.7	10.8	11.1	17.8	20.0	18.1	18.8	20.3	21.1	15.7
Gas	1.6	1.2	3.5	3.1	3.3	3.8	3.8	3.4	3.7	4.0	2.9
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	1.5	1.8	2.0	2.2	2.0	2.1	2.2	2.2	2.2	2.3	1.7
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	87.5	91.0	94.4	99.0	100.2	100.0	102.7	105.2	105.9	106.7	79.6
Electricity generation, by source	1.7	2.2	2.3	2.5	2.5	2.6	2.7	2.7	2.6	2.9	100.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gas	1.3	1.7	1.8	2.0	2.0	2.2	2.2	2.2	2.2	2.4	83.3
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	16.7
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	100.1	105.7	110.7	115.4	123.4	125.9	126.7	129.6	132.2	134.1	100.0
Industry	6.5	7.1	9.8	10.1	9.9	7.3	7.4	7.1	7.4	7.6	5.7
Transport	8.1	9.5	8.5	8.8	15.1	16.6	15.1	17.2	18.8	19.5	14.6
Residential/Commercial	84.4	88.5	91.4	95.4	97.2	100.4	102.7	103.7	104.4	105.3	78.5
Oil final consumption, by sector	9.4	11.7	10.8	11.1	17.8	20.0	18.1	18.8	20.3	21.1	100.0
Industry	0.2	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	2.2
Transport	8.1	9.5	8.5	8.8	15.1	16.6	15.1	17.2	18.8	19.5	92.8
Residential/Commercial	1.0	1.9	1.9	1.9	2.3	2.7	2.3	0.8	0.8	0.7	3.4
Natural gas final consumption, by sector	1.6	1.2	3.5	3.1	3.3	3.8	3.8	3.4	3.7	4.0	100.0
Industry	0.7	0.6	2.6	2.0	2.1	2.5	2.4	2.2	2.4	2.6	64.9
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Commercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refined products consumption	9.4	11.7	10.8	11.1	17.8	20.0	18.1	18.8	20.3	21.1	100.0
Gasoline	7.5	8.2	7.9	8.2	12.5	13.7	12.5	13.7	14.5	15.4	73.1
Diesel	0.6	1.3	0.7	0.6	2.5	2.9	2.6	3.5	4.3	4.2	19.7
Heating Oil	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.5	0.5	2.2
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.2
Imports	8.4	17.3	20.2	15.9	17.7	20.6	17.3	19.9	19.6	22.4	100.0
Oil	8.4	17.3	20.2	15.9	17.7	20.6	17.3	19.9	19.6	22.4	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	7.1	12.7	16.3	12.1	13.3	14.5	11.1	14.5	13.3	15.5	69.4
Diesel	0.0	2.7	2.1	1.9	2.2	3.4	3.9	4.0	3.8	3.7	16.7
Heating Oil	0.0	0.2	0.1	0.1	0.0	0.1	0.1	0.3	0.0	0.0	0.0
Aviation Jet	0.6	0.5	0.5	0.6	0.4	0.4	0.5	0.6	0.5	0.7	3.3
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3
Exports	123.0	143.5	139.4	142.6	123.6	127.6	127.9	108.2	113.1	123.7	100.0
Oil	110.9	125.7	120.3	121.6	105.7	107.3	106.4	89.2	91.8	102.7	83.1
Gas	12.0	17.7	19.1	21.0	17.8	20.4	21.5	19.0	21.3	21.0	16.9
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating Oil	0.3	0.5	0.7	0.4	0.3	0.3	0.1	0.2	0.5	0.4	0.3
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CO₂ Emissions (Million tons CO₂)	45.8	55.9	61.1	62.8	82.3	90.1	85.2	88.3	94.8	99.4	-
CO₂ Intensity (tCO₂/million \$15ppp)	56.8	64.3	67.0	66.0	82.0	84.5	77.8	82.0	87.4	89.9	-
Final energy intensity (toe/million \$15ppp)	122.7	120.8	120.3	120.2	121.9	116.7	114.4	119.0	120.4	119.7	-
Total energy intensity (toe/million \$15ppp)	137.7	146.3	152.1	147.3	142.4	137.4	132.4	139.2	140.9	140.7	-

*Heat is included

Primary energy demand mix



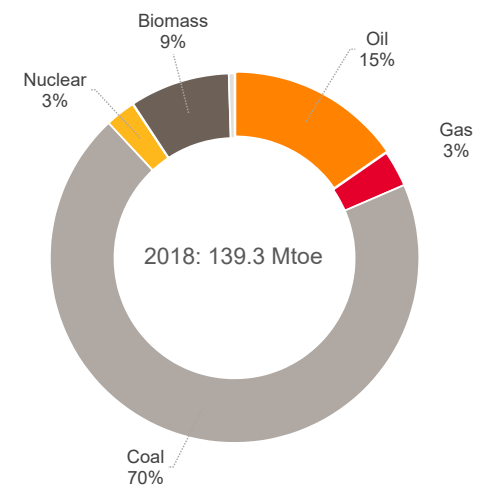
Electricity generation by source

Primary energy demand and CO₂ emissions growth

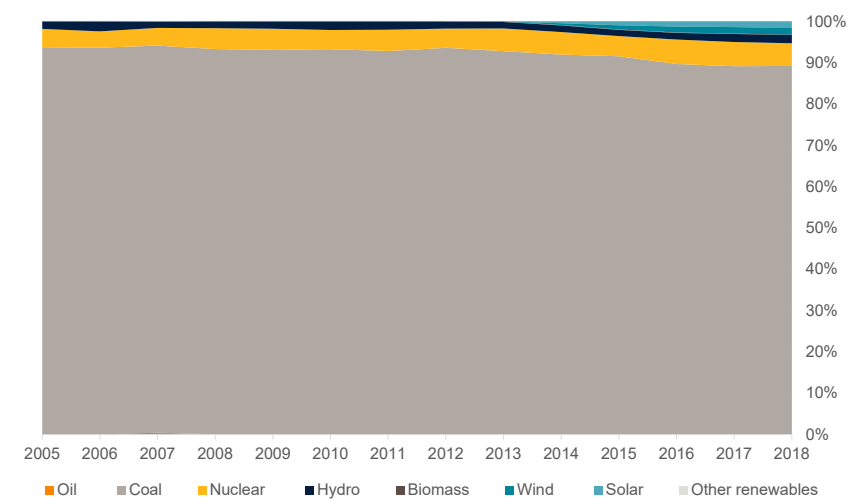
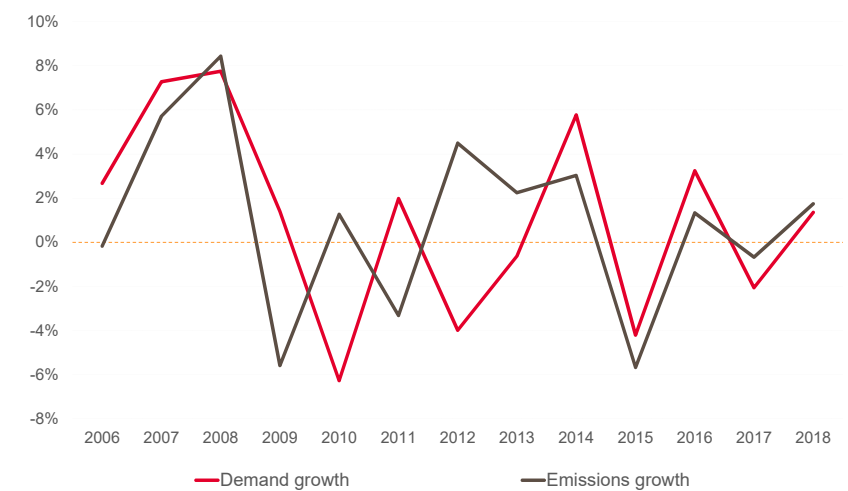
South Africa (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	147.1	137.9	140.6	135.0	134.2	141.9	136.0	140.4	137.5	139.3	100.0
Oil	25.0	18.3	22.8	19.0	18.7	20.5	21.6	21.5	21.4	21.4	15.4
Gas	3.1	3.9	3.8	4.0	4.1	3.9	4.4	4.4	4.5	4.4	3.2
Coal	103.6	100.5	98.5	97.1	95.8	101.7	94.2	98.1	95.2	97.1	69.7
Nuclear	3.3	3.2	3.5	3.1	3.7	3.6	3.2	3.9	3.9	3.7	2.6
Hydro	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Biomass	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.2	12.2	12.2	8.8
Other renewables	0.0	0.0	0.0	0.0	0.0	0.2	0.4	0.6	0.6	0.7	0.5
Electricity balance of trade*	-0.1	-0.1	-0.2	-0.4	-0.3	-0.1	-0.0	-0.4	-0.4	-0.3	-0.2
Total final consumption, by source	71.9	67.1	68.0	69.5	72.7	72.0	70.7	70.4	69.9	71.1	100.0
Oil	22.7	22.8	24.6	24.4	25.8	24.8	25.8	26.0	25.8	25.8	36.4
Gas	1.8	2.6	3.5	3.4	3.4	3.2	3.3	3.1	3.2	3.1	4.4
Coal	22.0	15.4	13.4	15.9	17.6	18.2	16.0	15.7	15.2	16.3	23.0
Electricity	16.6	17.4	17.6	17.0	16.9	16.8	16.7	16.6	16.6	16.7	23.5
Heat	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Biomass	8.8	8.8	8.8	8.8	8.8	8.9	8.9	8.9	8.9	8.9	12.6
Electricity generation, by source	21.5	22.3	22.6	22.2	22.0	21.7	21.5	21.7	21.9	22.0	100.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Coal	20.0	20.8	20.9	20.7	20.4	20.0	19.6	19.5	19.5	19.6	89.1
Nuclear	1.1	1.0	1.2	1.0	1.2	1.2	1.1	1.3	1.3	1.2	5.5
Hydro	0.4	0.4	0.4	0.4	0.3	0.4	0.3	0.3	0.4	0.4	2.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Wind	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.3	1.6
Solar	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	0.4	1.6
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	71.9	67.1	68.0	69.5	72.7	72.0	70.7	70.4	69.9	71.1	100.0
Industry	28.0	26.7	25.5	25.3	26.8	26.9	26.0	25.9	25.7	26.3	37.1
Transport	16.0	16.4	17.4	17.4	18.9	17.9	18.7	18.8	18.5	18.6	26.2
Residential/Commercial	21.4	17.3	18.0	19.9	20.2	20.2	19.5	18.9	18.8	19.1	26.9
Oil final consumption, by sector	22.7	22.8	24.6	24.4	25.8	24.8	25.8	26.0	25.8	25.8	100.0
Industry	1.6	1.5	1.7	1.9	2.0	2.1	2.3	2.2	2.2	2.3	8.9
Transport	15.7	16.1	17.1	17.1	18.6	17.6	18.4	18.5	18.2	18.3	70.8
Residential/Commercial	0.8	0.8	0.9	0.8	0.8	0.7	0.7	0.8	0.8	0.8	2.9
Natural gas final consumption, by sector	1.8	2.6	3.5	3.4	3.4	3.2	3.3	3.1	3.2	3.1	100.0
Industry	1.7	2.6	3.5	3.3	3.4	3.2	3.2	3.1	3.2	3.1	99.0
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Commercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0
Refined products consumption	22.7	22.8	24.6	24.4	25.8	24.8	25.8	26.0	25.8	25.8	100.0
Gasoline	8.6	8.7	9.2	9.1	9.4	8.5	8.9	9.4	9.2	9.2	35.4
Diesel	8.1	8.7	9.9	10.0	11.4	11.4	12.0	11.4	11.4	11.8	45.6
Heating Oil	0.8	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.6	2.3
Aviation Jet	1.0	1.0	1.1	1.0	1.0	1.0	1.0	1.2	1.0	0.9	3.4
LPG	0.3	0.4	0.4	0.4	0.3	0.3	0.3	0.4	0.3	0.3	1.2
Imports	32.6	27.9	31.0	28.9	29.2	31.5	33.2	33.3	34.5	35.3	100.0
Oil	30.5	25.3	28.2	25.8	26.1	28.4	29.9	29.8	30.9	31.6	89.6
Gas	2.1	2.6	2.7	3.1	3.1	3.1	3.3	3.5	3.6	3.7	10.4
Gasoline	1.5	1.6	1.9	1.4	1.2	0.9	1.5	1.1	1.6	1.7	4.8
Diesel	1.9	2.1	3.3	3.3	4.4	4.5	5.8	3.9	5.4	5.4	15.4
Heating Oil	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Aviation Jet	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3	0.3	0.9
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.5
Exports	2.2	2.3	2.0	2.8	3.6	3.3	4.4	4.3	4.0	4.5	100.0
Oil	2.2	2.3	2.0	2.8	3.6	3.3	4.4	4.3	4.0	4.5	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.3	0.3	0.2	0.3	0.7	0.8	0.8	0.9	0.8	1.0	23.1
Diesel	0.7	0.6	0.5	0.8	1.4	1.3	1.4	1.7	1.6	1.6	36.9
Heating Oil	1.0	0.9	1.0	1.2	1.1	0.9	1.2	1.2	1.1	1.2	26.0
Aviation Jet	0.0	0.1	0.1	0.1	0.1	0.1	0.7	0.3	0.3	0.4	7.9
LPG	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.7
CO₂ Emissions (Million tons CO₂)	410.9	416.1	402.3	420.3	429.8	442.8	417.7	423.2	420.4	427.7	-
CO₂ Intensity (tCO₂/million \$15ppp)	648.3	637.2	596.4	609.8	608.3	616.2	573.8	579.8	568.5	574.0	-
Final energy intensity (toe/million \$15ppp)	106.3	96.1	94.3	94.9	97.3	94.6	92.1	91.0	88.8	89.8	-
Total energy intensity (toe/million \$15ppp)	232.2	211.2	208.5	195.9	189.9	197.5	186.8	192.3	185.9	187.0	-

*Heat is included

Primary energy demand mix



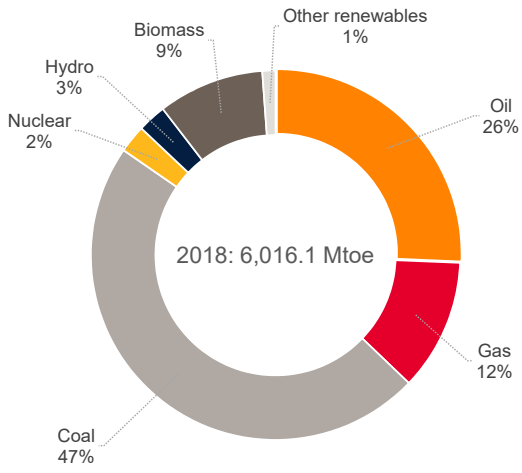
Electricity generation by source

Primary energy demand and CO₂ emissions growth

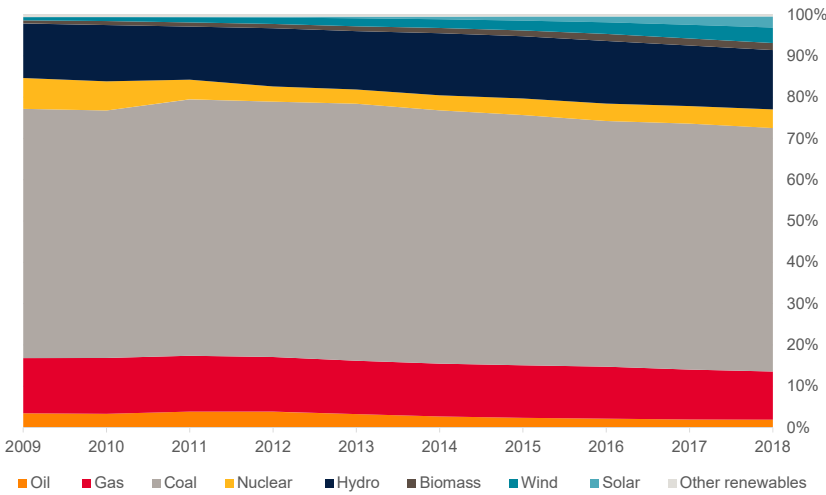
Asia-Pacific (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	4,609.8	4,974.8	5,166.1	5,316.5	5,453.0	5,572.0	5,623.2	5,661.4	5,828.6	6,016.1	100.0
Oil	1,133.9	1,211.9	1,236.5	1,288.5	1,311.2	1,335.6	1,383.7	1,419.3	1,472.0	1,521.9	25.3
Gas	441.5	486.0	520.8	541.5	569.8	584.3	580.7	605.1	642.6	683.3	11.4
Coal	2,249.0	2,462.1	2,621.8	2,701.1	2,769.2	2,818.6	2,798.3	2,727.3	2,763.3	2,815.5	46.8
Nuclear	146.1	151.7	110.1	89.0	88.8	97.3	110.4	121.9	129.5	144.2	2.4
Hydro	84.4	94.8	95.8	109.9	117.2	129.8	134.1	140.7	142.5	147.8	2.5
Biomass	504.9	513.8	519.1	517.5	514.5	515.9	515.9	534.4	547.2	552.1	9.2
Other renewables	5.2	7.1	10.4	13.9	20.0	24.3	30.6	40.1	53.3	68.2	1.1
Electricity balance of trade*	44.8	47.4	51.6	55.1	62.2	66.3	69.6	72.6	78.1	82.9	1.4
Total final consumption, by source	3,251.7	3,416.7	3,578.0	3,687.8	3,799.6	3,862.8	3,920.8	3,973.0	4,113.8	4,264.9	100.0
Oil	994.8	1,027.4	1,054.9	1,103.4	1,144.0	1,167.6	1,219.5	1,251.9	1,297.8	1,339.9	31.4
Gas	201.9	218.2	242.5	255.6	270.5	276.0	273.7	284.9	309.1	339.3	8.0
Coal	976.1	1,031.4	1,088.9	1,101.5	1,114.9	1,116.8	1,099.0	1,058.3	1,065.4	1,082.6	25.4
Electricity	539.2	592.6	634.7	667.0	709.1	739.9	763.0	805.5	848.4	903.4	21.2
Heat	72.3	80.8	89.0	97.6	108.0	113.2	120.7	129.9	139.4	149.6	3.5
Biomass	467.3	466.3	468.0	462.7	453.1	449.2	444.9	442.4	453.8	450.0	10.6
Electricity generation, by source	646.2	710.8	762.2	795.2	846.2	879.1	905.1	953.9	999.9	1,059.3	100.0
Oil	22.2	23.5	29.2	30.5	27.4	23.5	21.3	20.4	19.5	20.4	1.9
Gas	86.4	96.3	103.2	105.1	109.3	112.3	115.2	120.1	120.7	123.3	11.6
Coal	390.0	425.8	473.0	491.6	526.5	539.2	548.1	567.4	595.2	624.5	59.0
Nuclear	48.2	50.1	36.3	29.4	29.3	32.1	36.4	40.2	42.7	47.6	4.5
Hydro	85.3	96.8	97.9	111.9	119.3	131.9	136.4	144.5	146.6	152.2	14.4
Biomass	4.9	7.0	7.8	8.4	9.9	11.2	12.5	16.5	17.0	18.1	1.7
Wind	4.8	6.6	9.5	12.3	16.6	18.5	21.7	26.5	33.1	39.6	3.7
Solar	0.3	0.5	0.9	1.7	3.4	5.8	8.9	13.6	20.2	28.6	2.7
Other renewables	4.1	4.3	4.3	4.4	4.5	4.6	4.7	4.7	4.9	5.0	0.5
Total final consumption, by sector	3,251.7	3,416.7	3,578.0	3,687.8	3,799.6	3,862.8	3,920.8	3,973.0	4,113.8	4,264.9	100.0
Industry	1,439.5	1,544.3	1,632.3	1,662.9	1,701.1	1,721.8	1,716.8	1,698.6	1,749.8	1,816.4	42.6
Transport	495.6	527.3	560.1	598.4	631.3	645.3	675.4	699.4	724.7	750.1	17.6
Residential/Comercial	901.5	927.5	953.6	970.9	992.1	1,002.6	1,025.4	1,058.4	1,106.5	1,148.6	26.9
Oil final consumption, by sector	994.8	1,027.4	1,054.9	1,103.4	1,144.0	1,167.6	1,219.5	1,251.9	1,297.8	1,339.9	100.0
Industry	134.1	128.3	118.0	122.8	119.6	116.4	125.0	128.1	133.4	140.6	10.5
Transport	471.3	500.3	527.9	563.8	593.2	603.7	631.5	651.1	673.2	693.5	51.8
Residential/Comercial	110.0	114.0	117.0	118.2	121.4	124.5	131.0	136.3	142.8	147.0	11.0
Natural gas final consumption, by sector	201.9	218.2	242.5	255.6	270.5	276.0	273.7	284.9	309.1	339.3	100.0
Industry	86.6	91.6	99.7	102.7	110.6	112.7	107.7	113.4	124.4	137.0	40.4
Transport	13.5	14.7	18.2	19.1	20.9	23.3	25.0	25.7	28.2	31.9	9.4
Residential/Comercial	67.3	77.2	82.8	86.6	88.8	90.9	93.1	96.4	105.0	116.2	34.3
Refined products consumption	987.9	1,019.7	1,051.9	1,098.9	1,140.9	1,162.3	1,214.1	1,246.8	1,292.3	1,334.2	100.0
Gasoline	198.8	212.0	221.3	233.9	255.5	258.1	280.9	292.9	301.4	315.2	23.6
Diesel	338.1	356.9	377.4	406.0	410.5	413.1	418.7	417.9	433.1	440.0	33.0
Heating Oil	50.8	46.7	42.0	37.3	34.1	33.3	32.7	32.3	33.0	33.6	2.5
Aviation Jet	22.1	24.9	24.6	26.1	29.4	32.0	35.1	38.2	40.4	41.7	3.1
LPG	84.7	89.2	92.4	93.2	99.6	106.1	111.1	122.9	129.1	134.9	10.1
Imports	1,389.6	1,497.3	1,577.2	1,639.0	1,678.6	1,704.9	1,770.4	1,878.3	1,992.7	2,100.3	100.0
Oil	1,227.0	1,307.9	1,351.9	1,400.2	1,422.9	1,444.9	1,516.6	1,608.3	1,694.8	1,768.1	84.2
Gas	162.6	189.4	225.3	238.8	255.7	260.0	253.8	270.0	297.9	332.2	15.8
Gasoline	37.4	44.3	48.1	53.7	58.3	57.5	59.8	61.9	67.6	71.4	3.4
Diesel	70.5	70.3	70.2	67.9	66.7	73.6	71.2	80.6	85.2	78.4	3.7
Heating Oil	108.2	111.9	123.5	122.6	125.0	118.2	115.7	115.0	125.9	145.6	6.9
Aviation Jet	19.0	20.5	20.8	20.1	22.0	20.5	21.8	26.4	28.3	26.6	1.3
LPG	34.8	38.7	41.4	43.1	44.0	50.0	55.8	65.9	69.2	77.8	3.7
Exports	447.8	468.3	477.7	471.1	483.6	483.1	511.2	550.7	579.8	602.8	100.0
Oil	353.5	364.8	372.1	371.4	378.7	374.9	396.3	423.0	433.2	444.5	73.8
Gas	94.2	103.5	105.6	99.6	104.9	108.2	115.0	127.7	146.5	158.2	26.2
Gasoline	48.6	56.0	54.5	58.8	58.2	62.3	66.2	69.0	69.2	71.6	11.9
Diesel	93.2	98.8	97.0	99.8	104.1	104.6	108.8	121.7	125.5	132.0	21.9
Heating Oil	53.2	54.3	64.4	58.1	61.4	56.2	56.5	57.3	60.3	59.3	9.8
Aviation Jet	35.4	33.9	34.3	35.8	39.2	40.1	44.4	48.3	50.3	58.9	9.8
LPG	4.8	4.1	4.7	4.2	4.2	4.4	4.1	4.5	4.6	5.3	0.9
CO₂ Emissions (Million tons CO₂)	12,330.1	13,140.2	14,069.3	14,574.0	15,090.0	15,189.8	15,212.3	15,275.7	15,709.7	16,097.0	-
CO₂ Intensity (tCO₂/million \$15ppp)	384.1	377.9	381.2	373.5	365.5	348.5	330.6	315.0	306.6	673.0	-
Final energy intensity (toe/million \$15ppp)	101.3	98.3	96.9	94.5	92.0	88.6	85.2	81.9	80.3	78.8	-
Total energy intensity (toe/million \$15ppp)	143.6	143.1	140.0	136.2	132.1	127.8	122.2	116.7	113.8	111.2	-

*Heat is included

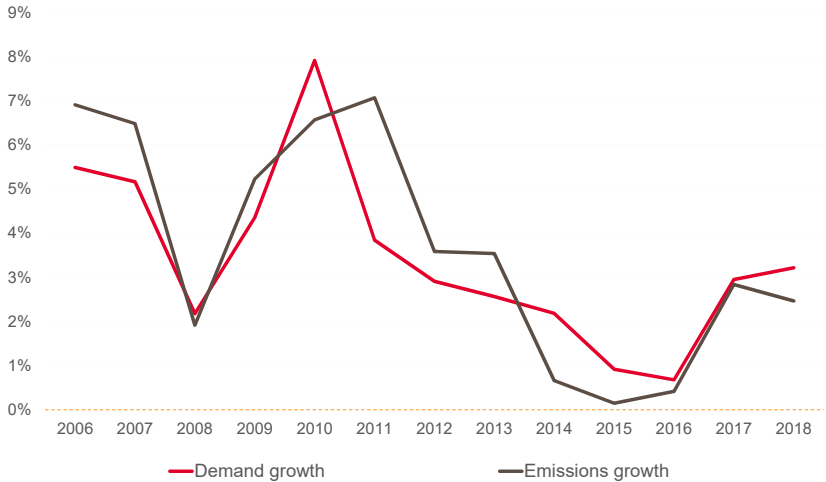
Primary energy demand mix



Electricity generation by source

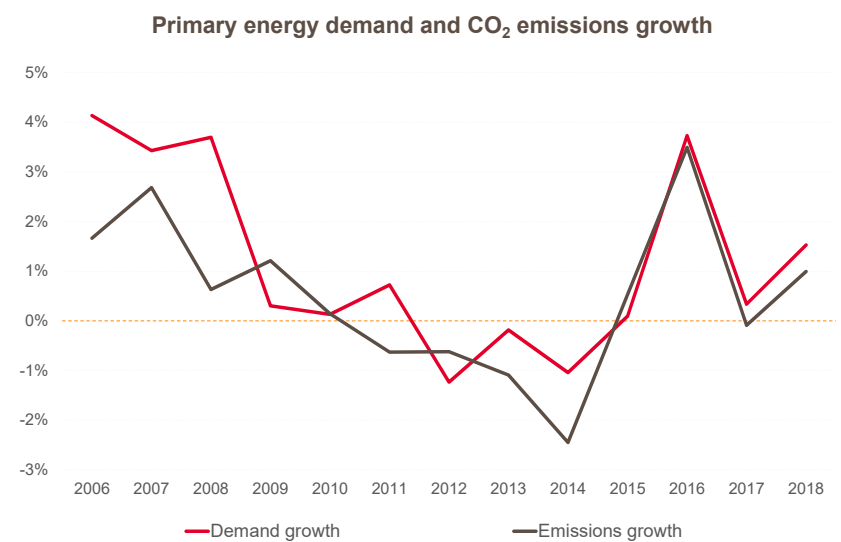
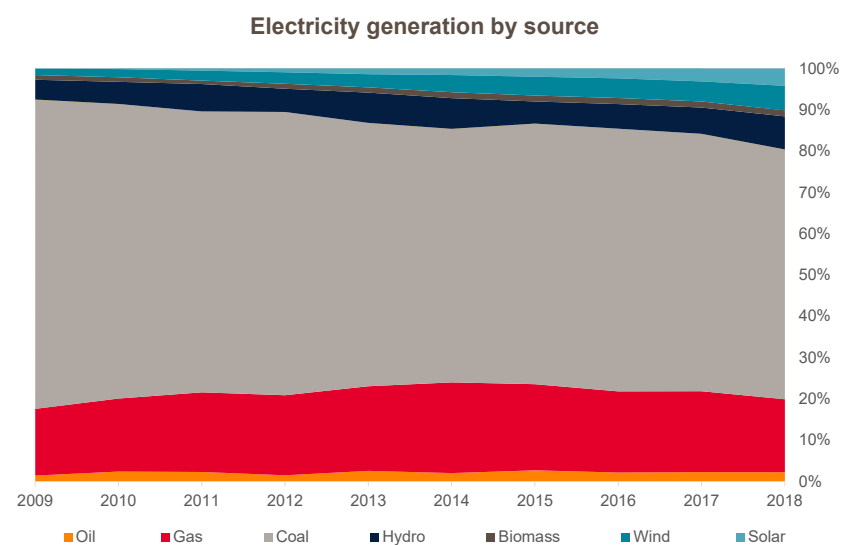
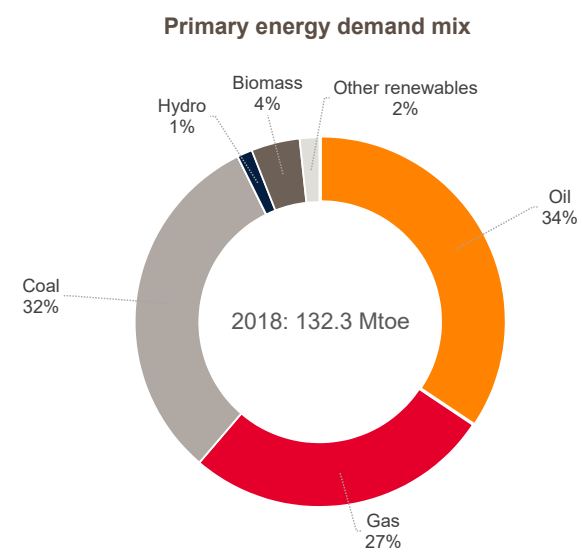


Primary energy demand and CO₂ emissions growth



Australia (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	127.1	127.3	128.2	126.6	126.4	125.1	125.2	129.9	130.3	132.3	100.0
Oil	39.5	41.6	43.2	44.0	44.6	43.8	42.0	43.2	44.1	45.4	34.3
Gas	29.3	28.4	29.9	28.6	30.3	31.7	32.2	34.5	34.9	35.5	26.8
Coal	52.7	50.5	48.1	47.0	43.7	41.5	42.9	43.8	42.3	41.5	31.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	1.0	1.2	1.4	1.2	1.6	1.6	1.1	1.3	1.4	1.8	1.3
Biomass	4.1	4.9	4.7	4.7	4.9	4.9	5.2	5.1	5.4	5.6	4.2
Other renewables	0.3	0.5	0.6	0.8	1.0	1.2	1.4	1.6	1.8	2.3	1.7
Electricity balance of trade*	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.3
Total final consumption, by source	75.8	77.6	79.4	79.5	81.4	81.4	81.2	81.8	83.5	86.7	100.0
Oil	38.2	39.0	40.6	41.3	42.7	42.6	42.0	42.8	43.6	45.6	52.6
Gas	12.0	12.4	12.5	12.5	13.0	13.3	13.4	13.0	13.5	14.4	16.6
Coal	4.3	3.8	3.7	3.2	3.1	3.1	3.0	3.1	3.3	3.2	3.7
Electricity	17.8	18.1	18.2	18.0	18.0	17.9	18.2	18.2	18.2	18.4	21.2
Heat	0.2	0.3	0.3	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.5
Biomass	3.3	4.2	4.1	4.1	4.4	4.2	4.3	4.2	4.5	4.7	5.4
Electricity generation, by source	21.3	21.7	21.8	21.6	21.4	21.3	21.6	22.1	22.1	22.3	100.0
Oil	0.3	0.5	0.5	0.3	0.6	0.4	0.6	0.5	0.5	0.5	2.2
Gas	3.4	3.8	4.2	4.2	4.4	4.7	4.5	4.3	4.3	3.9	17.7
Coal	16.0	15.5	14.8	14.8	13.7	13.1	13.6	14.0	13.8	13.5	60.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	1.0	1.2	1.4	1.2	1.6	1.6	1.2	1.3	1.4	1.8	8.0
Biomass	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.5
Wind	0.3	0.4	0.5	0.6	0.7	0.9	1.0	1.0	1.1	1.3	5.9
Solar	0.0	0.0	0.1	0.2	0.3	0.3	0.4	0.5	0.7	0.9	4.2
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	75.8	77.6	79.4	79.5	81.4	81.4	81.2	81.8	83.5	86.7	100.0
Industry	23.5	23.9	24.4	24.3	25.4	24.9	24.1	23.5	24.4	25.5	29.4
Transport	28.9	29.8	30.7	31.0	31.5	31.5	32.4	32.7	32.5	33.3	38.4
Residential/Commercial	16.8	17.2	17.5	17.5	17.7	17.7	18.3	18.5	18.5	19.1	22.0
Oil final consumption, by sector	38.2	39.0	40.6	41.3	42.7	42.6	42.0	42.8	43.6	45.6	100.0
Industry	3.3	3.2	3.7	4.3	4.9	4.5	3.9	3.6	3.6	4.1	9.0
Transport	28.0	29.1	30.0	30.3	30.8	30.8	31.5	31.9	31.8	32.5	71.3
Residential/Commercial	1.0	1.0	1.0	1.0	1.0	1.1	1.2	1.1	1.1	1.2	2.6
Natural gas final consumption, by sector	12.0	12.4	12.5	12.5	13.0	13.3	13.4	13.0	13.5	14.4	100.0
Industry	7.3	7.4	7.4	7.4	7.8	7.8	7.7	7.3	7.6	8.2	56.5
Transport	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7
Residential/Commercial	4.1	4.2	4.2	4.3	4.4	4.5	4.7	4.8	4.9	5.2	36.0
Refined products consumption	38.2	39.0	40.6	41.3	42.7	42.6	42.0	42.8	43.6	45.6	100.0
Gasoline	14.8	14.9	15.1	14.8	14.8	14.3	14.4	14.3	14.5	13.9	30.4
Diesel	14.1	14.9	15.6	16.6	17.5	18.0	18.6	19.1	19.3	21.6	47.4
Heating Oil	0.9	0.9	0.9	0.9	0.8	0.7	0.3	0.2	0.2	0.3	0.6
Aviation Jet	2.3	2.4	2.6	2.7	2.9	3.0	3.0	3.1	3.0	2.7	5.9
LPG	2.0	2.2	2.2	2.2	2.2	2.1	2.1	2.0	1.6	1.7	3.7
Imports	41.0	42.9	46.5	47.3	49.8	49.4	48.2	48.7	50.7	53.0	100.0
Oil	35.5	38.0	40.9	42.4	44.2	43.4	43.0	43.6	46.0	48.3	91.1
Gas	5.6	4.9	5.6	5.0	5.6	6.0	5.1	5.1	4.7	4.7	8.9
Gasoline	3.2	3.0	2.1	2.9	2.8	2.8	4.3	5.2	5.3	4.9	9.3
Diesel	7.1	7.4	7.6	9.6	10.7	11.5	12.7	15.2	16.5	17.5	33.1
Heating Oil	1.6	1.7	1.5	1.6	1.6	1.3	0.2	0.3	1.0	1.3	2.5
Aviation Jet	1.7	1.8	1.8	1.9	2.7	2.9	3.6	4.7	5.1	5.2	9.7
LPG	0.6	0.6	0.5	0.6	0.5	0.4	0.6	0.5	0.5	0.5	0.9
Exports	34.5	38.5	42.0	39.0	43.0	41.7	43.9	56.5	73.4	88.8	100.0
Oil	16.5	17.6	18.7	17.0	15.5	14.5	14.6	13.4	12.9	14.9	16.7
Gas	18.0	20.9	23.3	22.1	27.5	27.2	29.3	43.1	60.5	73.9	83.3
Gasoline	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Diesel	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0
Heating Oil	0.2	0.1	0.2	0.5	0.2	0.0	0.1	0.2	0.1	0.1	0.2
Aviation Jet	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1
LPG	1.5	1.7	1.5	1.3	1.5	1.5	1.3	1.2	1.2	1.2	1.4
CO₂ Emissions (Million tons CO₂)	402.4	403.0	400.5	398.0	393.6	384.0	386.0	399.5	399.1	403.1	-
CO₂ Intensity (tCO₂/million \$15ppp)	427.0	419.2	406.9	390.2	376.3	357.7	351.1	353.6	345.6	338.1	-
Final energy intensity (toe/million \$15ppp)	75.6	76.1	76.1	73.6	73.4	71.2	70.2	68.3	67.6	67.6	-
Total energy intensity (toe/million \$15ppp)	134.9	132.4	130.3	124.2	120.8	116.5	113.9	115.0	112.8	111.0	-

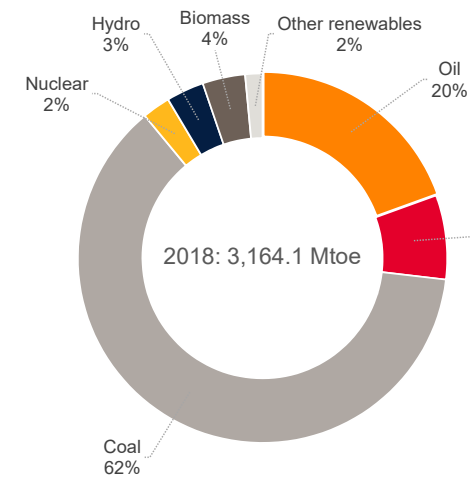
*Heat is included



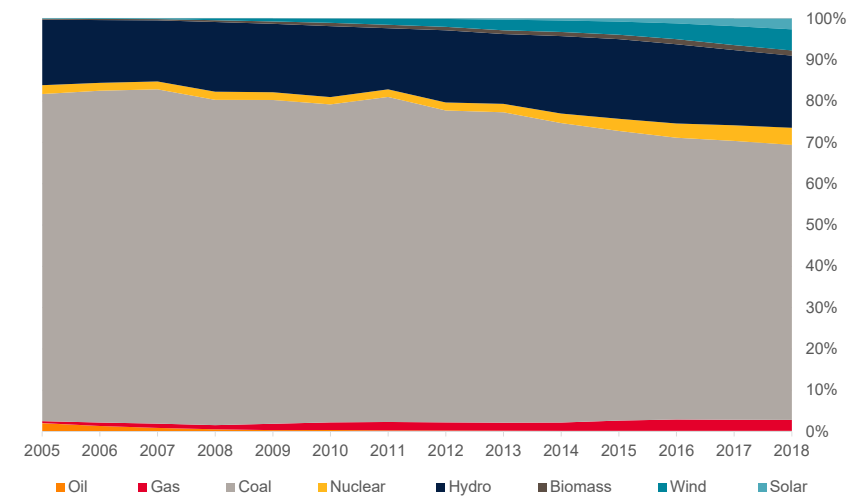
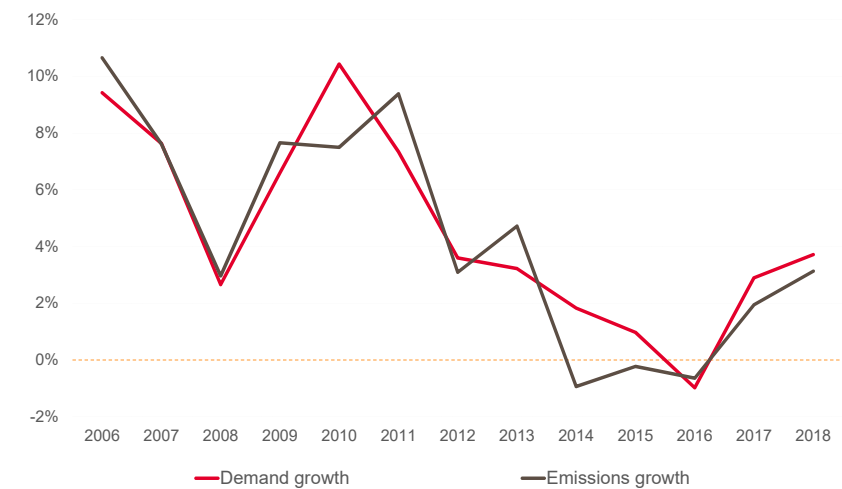
China (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	2,296.8	2,536.4	2,722.7	2,820.8	2,911.7	2,965.1	2,993.9	2,964.6	3,050.6	3,164.1	100.0
Oil	376.6	428.7	443.3	465.4	486.9	506.4	535.9	548.4	576.0	609.5	19.3
Gas	75.0	89.4	110.0	123.4	140.5	153.6	158.5	170.7	196.0	230.7	7.3
Coal	1,623.1	1,789.9	1,940.5	1,985.9	2,025.1	2,023.9	1,996.9	1,919.4	1,926.2	1,944.9	61.5
Nuclear	18.3	19.3	22.5	25.4	29.1	34.5	44.5	55.6	64.6	76.7	2.4
Hydro	52.9	61.2	59.2	74.2	78.2	90.4	95.8	100.0	100.5	103.3	3.3
Biomass	139.0	133.3	126.7	120.2	114.2	113.8	113.7	113.0	118.1	116.8	3.7
Other renewables	2.3	3.9	6.3	8.8	13.5	15.9	19.8	26.9	36.6	47.2	1.5
Electricity balance of trade*	9.5	10.8	14.3	17.5	24.3	26.4	28.7	30.7	32.6	35.0	1.1
Total final consumption, by source	1,644.1	1,735.6	1,858.3	1,931.1	2,003.5	2,041.2	2,072.8	2,082.1	2,166.4	2,273.5	100.0
Oil	352.7	368.9	385.4	408.1	432.5	451.2	480.3	494.6	516.2	546.7	24.0
Gas	55.8	63.5	78.6	87.9	98.2	107.6	107.6	116.3	133.5	157.1	6.9
Coal	775.6	812.2	868.3	885.3	889.3	879.0	862.3	819.1	822.4	830.6	36.5
Electricity	263.6	296.8	332.2	355.0	387.0	405.6	419.4	445.2	474.6	515.0	22.6
Heat	65.1	73.6	81.6	90.2	100.7	105.5	112.9	121.7	130.5	140.0	6.2
Biomass	131.4	120.5	112.2	104.6	95.8	92.4	90.3	85.2	89.3	84.2	3.7
Electricity generation, by source	319.5	361.9	405.6	429.5	468.5	488.4	503.9	534.7	566.3	609.9	100.0
Oil	1.0	1.3	1.0	0.9	0.9	0.8	0.8	0.9	0.9	1.0	0.2
Gas	4.9	6.7	8.3	8.5	9.2	9.8	12.5	14.7	15.2	16.2	2.7
Coal	250.4	278.6	319.2	324.3	352.0	353.9	353.4	364.8	382.3	406.1	66.6
Nuclear	6.0	6.4	7.4	8.4	9.6	11.4	14.7	18.3	21.3	25.3	4.1
Hydro	52.9	62.1	60.1	75.0	79.1	91.5	97.2	102.6	103.1	106.3	17.4
Biomass	1.8	2.9	3.3	3.5	4.2	4.9	5.5	6.5	6.8	7.7	1.3
Wind	2.3	3.8	6.0	8.3	12.1	13.4	16.0	20.4	26.0	31.2	5.1
Solar	0.0	0.1	0.2	0.5	1.3	2.5	3.9	6.5	10.7	16.0	2.6
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	1,644.1	1,735.6	1,858.3	1,931.1	2,003.5	2,041.2	2,072.8	2,082.1	2,166.4	2,273.5	100.0
Industry	944.8	1,015.2	1,089.2	1,119.2	1,142.8	1,141.1	1,132.1	1,107.4	1,140.2	1,187.1	52.2
Transport	178.3	196.7	215.9	238.2	257.9	268.7	289.1	296.5	307.7	325.1	14.3
Residential/Commercial	350.8	355.3	368.2	380.9	398.2	409.2	428.1	447.6	478.6	507.9	22.3
Oil final consumption, by sector	352.7	368.9	385.4	408.1	432.5	451.2	480.3	494.6	516.2	546.7	100.0
Industry	64.6	61.1	48.8	51.5	50.3	44.7	49.0	52.8	56.2	60.9	11.1
Transport	165.7	183.1	198.7	219.1	236.3	244.0	262.2	267.2	275.2	288.2	52.7
Residential/Commercial	33.2	35.9	38.4	40.1	42.7	45.9	51.7	54.8	58.2	61.1	11.2
Natural gas final consumption, by sector	55.8	63.5	78.6	87.9	98.2	107.6	107.6	116.3	133.5	157.1	100.0
Industry	20.4	22.7	29.5	32.6	38.7	41.7	39.6	44.9	51.6	60.8	38.7
Transport	6.8	6.7	9.2	10.2	11.9	14.6	16.3	17.1	19.6	23.1	14.7
Residential/Commercial	20.1	26.8	30.7	33.7	36.5	39.2	41.6	43.8	50.3	59.2	37.7
Refined products consumption	349.3	365.7	383.9	407.2	431.1	447.3	476.9	491.5	512.9	543.2	100.0
Gasoline	63.6	71.6	78.2	84.1	96.5	100.7	117.1	122.2	127.2	137.1	25.2
Diesel	132.7	145.3	153.8	168.7	170.8	171.4	167.6	167.6	169.3	171.2	31.5
Heating Oil	16.0	13.5	11.9	10.7	12.2	12.6	11.1	10.3	10.5	10.8	2.0
Aviation Jet	9.3	11.3	11.1	12.3	14.0	15.7	18.0	20.4	22.1	23.7	4.4
LPG	24.6	26.4	27.3	27.4	30.6	35.4	40.5	47.6	51.6	55.0	10.1
Imports	257.8	299.1	332.2	356.3	376.1	401.8	437.7	495.8	554.3	628.5	100.0
Oil	251.5	286.5	307.7	323.0	334.4	354.9	389.0	436.8	479.3	529.6	84.3
Gas	6.4	12.6	24.5	33.3	41.7	46.9	48.6	59.0	75.0	98.9	15.7
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.5	0.1
Diesel	1.9	1.8	2.4	0.9	0.3	0.5	0.4	0.9	0.7	0.6	0.1
Heating Oil	24.1	23.0	26.8	26.8	23.5	17.8	15.4	11.7	13.5	17.0	2.7
Aviation Jet	5.9	5.0	5.5	5.4	5.5	4.0	3.6	3.6	3.8	4.2	0.7
LPG	4.9	3.9	4.2	4.3	5.4	8.9	14.9	20.1	23.0	25.6	4.1
Exports	36.0	37.0	35.7	33.3	36.8	37.2	46.8	59.4	65.7	72.4	100.0
Oil	33.3	33.7	33.0	30.9	34.5	35.0	44.1	56.6	62.8	69.9	96.6
Gas	2.7	3.4	2.7	2.4	2.3	2.2	2.7	2.8	2.9	2.4	3.4
Gasoline	5.1	5.3	4.2	3.0	4.8	5.2	6.1	10.0	10.9	13.5	18.6
Diesel	4.6	4.7	2.1	1.9	2.8	4.2	7.3	15.7	17.6	22.5	31.1
Heating Oil	8.6	9.9	12.3	11.6	11.3	9.5	10.5	9.9	11.1	9.8	13.5
Aviation Jet	6.1	6.2	6.7	7.7	9.5	11.0	12.7	13.5	13.6	16.9	23.4
LPG	1.0	1.1	1.4	1.5	1.5	1.7	1.7	1.6	1.6	1.6	2.2
CO₂ Emissions (Million tons CO₂)	7,221.0	7,762.6	8,490.9	8,753.7	9,167.2	9,081.6	9,061.3	9,003.3	9,178.9	9,466.5	-
CO₂ Intensity (tCO₂/million \$15ppp)	588.8	572.1	571.3	546.1	530.7	490.0	457.3	425.9	406.4	393.2	-
Final energy intensity (toe/million \$15ppp)	124.7	119.7	116.6	112.3	107.9	101.7	96.8	90.9	88.4	86.9	-
Total energy intensity (toe/million \$15ppp)	187.3	186.9	183.2	176.0	168.6	160.0	151.1	140.2	135.1	131.4	-

*Heat is included

Primary energy demand mix

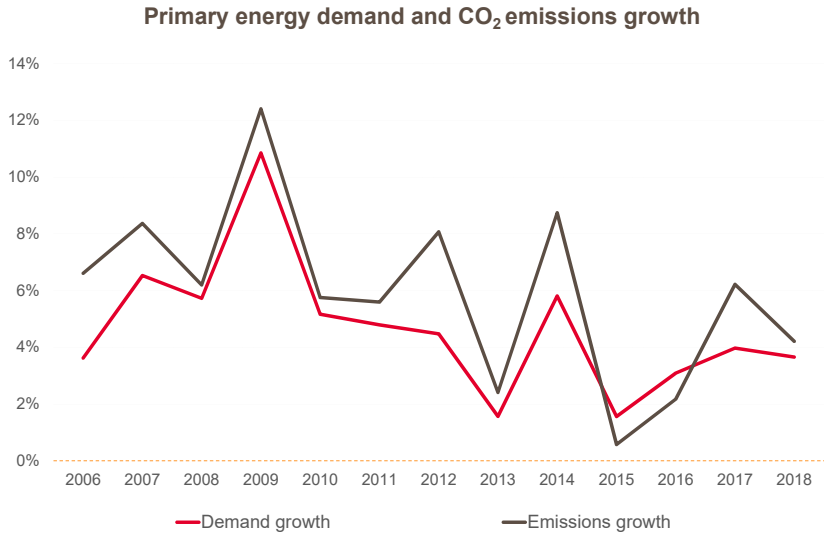
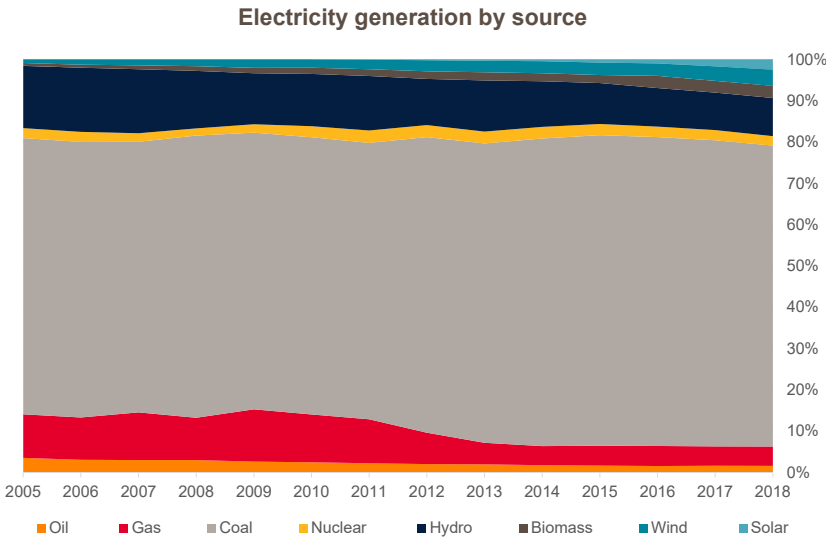
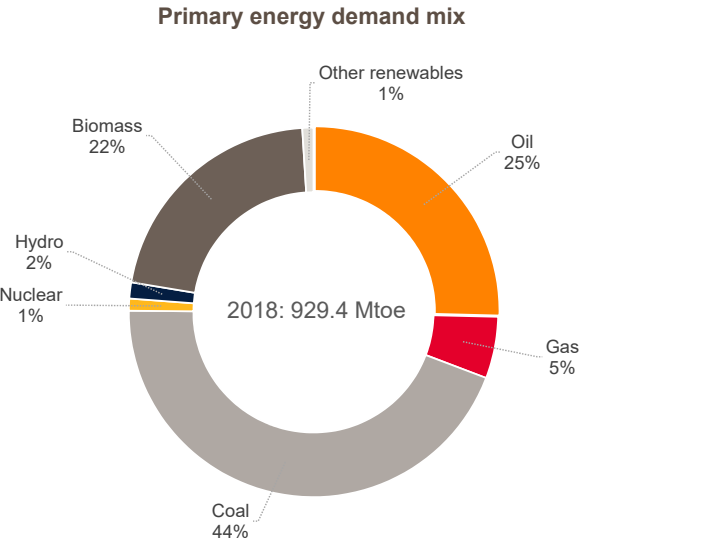


Electricity generation by source

Primary energy demand and CO₂ emissions growth

India (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	665.7	700.0	733.6	766.4	778.4	823.7	836.5	862.4	896.6	929.4	100.0
Oil	158.8	161.5	166.3	177.1	175.7	185.6	207.3	216.7	229.6	235.7	25.4
Gas	49.6	54.4	55.0	48.9	44.5	43.2	43.2	47.0	48.9	50.2	5.4
Coal	263.4	279.0	295.1	326.5	345.0	384.8	379.7	379.6	393.1	412.0	44.3
Nuclear	4.9	6.8	8.4	8.6	8.9	9.4	9.8	9.9	10.0	9.8	1.1
Hydro	9.7	10.7	12.2	10.8	12.7	12.3	11.7	11.8	12.2	13.1	1.4
Biomass	176.9	185.1	193.7	190.8	187.6	184.0	179.8	191.6	195.3	199.0	21.4
Other renewables	1.6	1.7	2.2	2.8	3.2	3.7	4.5	5.1	6.9	9.0	1.0
Electricity balance of trade*	0.7	0.8	0.8	0.9	0.8	0.6	0.7	0.6	0.6	0.7	0.1
Total final consumption, by source	464.0	491.8	518.1	522.3	532.2	549.7	563.9	585.2	609.6	632.8	100.0
Oil	130.1	134.2	141.1	148.9	149.8	156.8	174.3	182.2	192.9	198.5	31.4
Gas	24.9	27.2	28.3	27.9	29.6	29.0	29.0	31.7	32.6	33.1	5.2
Coal	85.5	95.3	101.6	98.7	107.2	114.4	110.3	112.3	114.9	124.1	19.6
Electricity	57.4	62.4	67.7	71.7	74.9	83.4	88.9	95.5	101.7	107.9	17.1
Heat	0.2	0.3	0.4	0.5	0.4	0.6	0.7	0.7	0.8	0.8	0.1
Biomass	165.9	172.4	179.1	174.7	170.2	165.5	160.8	162.9	166.7	168.3	26.6
Electricity generation, by source	78.9	84.3	92.2	96.7	102.5	111.3	118.1	127.1	134.1	141.3	100.0
Oil	2.1	2.1	2.1	2.0	2.0	2.0	2.0	2.0	2.2	2.3	1.6
Gas	10.0	9.7	9.8	7.4	5.4	5.2	5.7	6.1	6.3	6.6	4.7
Coal	52.8	56.6	61.7	69.2	74.3	82.9	88.8	95.0	99.4	103.0	72.9
Nuclear	1.6	2.3	2.8	2.8	2.9	3.1	3.2	3.3	3.3	3.2	2.3
Hydro	9.7	10.7	12.2	10.8	12.7	12.3	11.7	11.8	12.2	13.1	9.2
Biomass	1.0	1.3	1.5	1.8	2.0	2.2	2.3	3.8	3.8	4.1	2.9
Wind	1.6	1.7	2.1	2.6	2.9	3.2	3.6	3.9	4.7	5.5	3.9
Solar	0.0	0.0	0.1	0.2	0.4	0.5	0.9	1.2	2.3	3.5	2.5
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	464.0	491.8	518.1	522.3	532.2	549.7	563.9	585.2	609.6	632.8	100.0
Industry	149.7	164.3	174.7	170.3	181.5	194.0	193.9	202.2	209.4	220.5	34.8
Transport	59.5	64.3	69.5	73.4	75.1	78.3	85.7	89.6	96.4	100.9	15.9
Residential/Comercial	187.7	197.3	207.3	204.2	202.1	201.7	202.6	209.6	218.0	223.5	35.3
Oil final consumption, by sector	130.1	134.2	141.1	148.9	149.8	156.8	174.3	182.2	192.9	198.5	100.0
Industry	14.3	13.3	13.4	15.3	15.3	17.7	22.4	25.9	26.7	26.7	13.4
Transport	57.2	61.7	66.3	70.3	71.8	74.9	81.9	85.3	92.2	96.5	48.6
Residential/Comercial	23.6	24.4	24.8	24.5	25.0	26.7	28.2	29.0	30.9	31.8	16.0
Natural gas final consumption, by sector	24.9	27.2	28.3	27.9	29.6	29.0	29.0	31.7	32.6	33.1	100.0
Industry	10.5	11.0	8.8	6.5	7.3	6.8	5.1	7.7	8.9	9.1	27.4
Transport	1.2	1.4	1.8	1.6	1.7	1.8	2.0	2.1	2.2	2.2	6.7
Residential/Comercial	0.9	1.1	1.7	1.6	1.5	1.4	1.4	1.6	1.6	1.6	4.9
Refined products consumption	130.1	134.2	141.1	148.9	149.8	156.8	174.3	182.2	192.9	198.5	100.0
Gasoline	13.7	15.2	16.0	16.8	18.3	20.4	23.4	25.4	28.0	30.3	15.2
Diesel	53.2	56.9	61.2	65.1	64.1	65.3	69.6	71.0	75.8	78.1	39.4
Heating Oil	9.6	9.1	7.9	6.4	5.2	5.1	5.9	6.5	6.2	6.0	3.0
Aviation Jet	1.5	1.6	1.8	1.7	1.8	1.8	2.0	2.2	2.4	2.7	1.3
LPG	14.8	16.2	17.3	17.6	18.4	20.3	22.2	24.3	26.4	28.1	14.2
Imports	188.0	196.3	207.8	220.4	225.5	230.5	252.7	273.6	280.3	284.8	100.0
Oil	177.4	184.9	191.8	204.8	210.0	214.7	235.7	252.5	258.1	261.5	91.8
Gas	10.6	11.4	16.0	15.6	15.4	15.7	17.0	21.1	22.2	23.3	8.2
Gasoline	0.4	1.8	0.7	0.2	0.3	0.4	1.1	0.5	0.2	0.7	0.3
Diesel	2.6	2.1	1.1	0.5	0.1	0.1	0.2	1.0	1.4	0.6	0.2
Heating Oil	0.9	1.0	1.2	1.0	1.3	0.9	1.1	0.9	1.2	1.4	0.5
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.4	0.3	0.3	0.1
LPG	3.1	5.1	6.5	7.1	7.4	9.4	10.1	12.5	12.8	14.8	5.2
Exports	53.2	61.4	64.4	66.1	71.4	66.6	63.3	68.7	70.0	64.1	100.0
Oil	53.2	61.4	64.4	66.1	71.4	66.6	63.3	68.7	70.0	64.1	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	10.5	14.5	14.1	15.4	14.5	15.3	13.9	12.7	11.6	18.2	18.2
Diesel	19.1	21.1	21.2	23.2	27.4	26.4	24.9	30.7	28.8	45.0	45.0
Heating Oil	5.0	6.5	7.6	5.7	5.9	4.6	2.7	2.2	2.4	2.1	3.2
Aviation Jet	4.9	4.8	4.9	5.0	6.1	5.9	6.1	7.7	7.7	7.9	12.3
LPG	0.1	0.2	0.2	0.2	0.3	0.3	0.2	0.4	0.4	0.5	0.7
CO₂ Emissions (Million tons CO₂)	1,489.4	1,575.1	1,663.2	1,797.5	1,840.8	2,001.7	2,013.1	2,056.9	2,184.9	2,277.0	-
CO₂ Intensity (tCO₂/million \$15ppp)	284.4	272.8	270.1	276.8	266.5	269.5	251.0	239.4	238.4	231.5	-
Final energy intensity (toe/million \$15ppp)	81.7	78.8	77.6	73.5	70.5	68.0	64.0	62.3	61.1	59.2	-
Total energy intensity (toe/million \$15ppp)	127.1	121.2	119.2	118.0	112.7	110.9	104.3	100.4	97.8	94.5	-

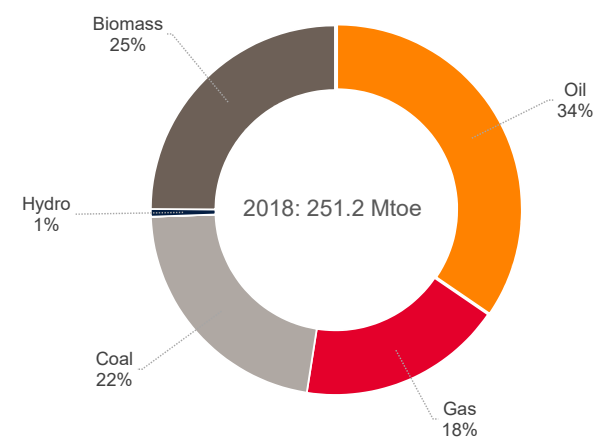
*Heat is included



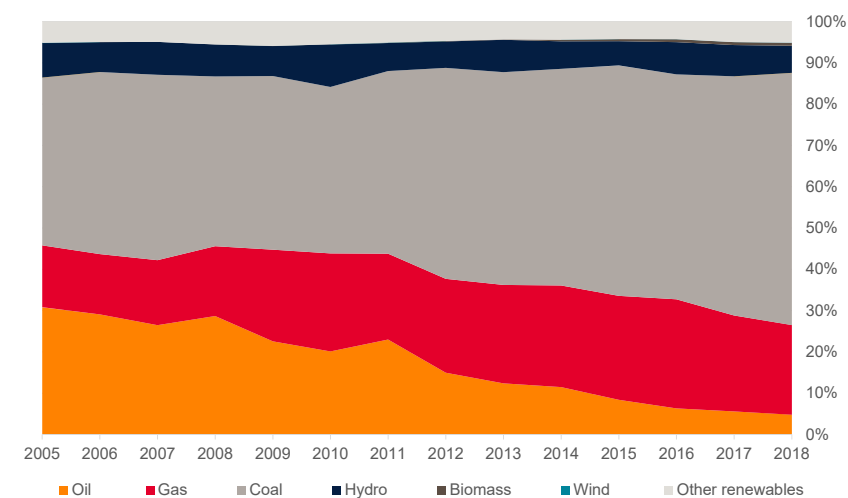
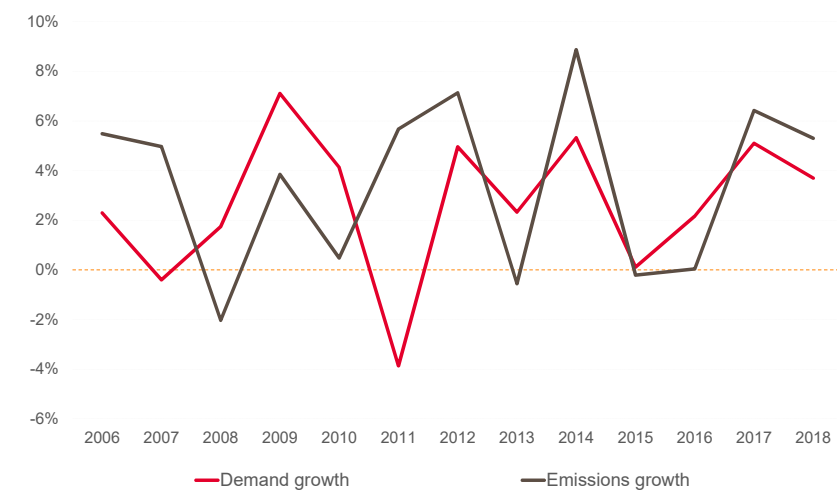
Indonesia (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	199.0	207.2	199.2	209.1	214.0	225.4	225.6	230.5	242.3	251.2	100.0
Oil	65.8	68.4	67.4	73.4	75.1	75.8	71.9	70.6	74.7	78.6	31.3
Gas	34.4	38.8	35.6	35.0	36.5	36.6	37.9	39.1	40.4	40.9	16.3
Coal	30.5	31.8	26.9	28.5	28.8	37.2	41.0	43.3	46.4	50.0	19.9
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	1.0	1.5	1.1	1.1	1.5	1.3	1.2	1.7	1.7	1.5	0.6
Biomass	51.4	50.6	52.1	54.9	55.9	57.2	56.4	57.5	57.1	56.6	22.5
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	16.0	16.1	16.1	16.2	16.2	17.3	17.3	18.3	21.9	23.6	9.4
Total final consumption, by source	142.9	142.9	149.2	162.8	164.3	168.7	166.4	164.7	170.2	174.7	100.0
Oil	54.7	56.5	62.4	71.9	70.9	71.1	67.2	67.0	71.9	76.1	43.5
Gas	15.4	15.9	16.7	17.3	17.3	17.0	17.0	13.5	14.3	14.7	8.4
Coal	10.5	8.0	5.1	4.5	4.9	7.6	9.6	9.5	8.8	8.2	4.7
Electricity	11.7	12.7	13.7	15.1	16.1	17.1	17.4	18.6	19.2	20.2	11.5
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	50.6	49.9	51.3	54.0	55.1	55.9	55.1	56.2	56.1	55.6	31.8
Electricity generation, by source	13.5	14.6	15.8	17.2	18.6	19.6	20.1	21.4	22.0	23.1	100.0
Oil	3.0	2.9	3.6	2.6	2.3	2.2	1.7	1.4	1.2	1.1	4.8
Gas	3.0	3.5	3.3	3.9	4.4	4.8	5.1	5.7	5.1	5.0	21.7
Coal	5.7	5.9	7.0	8.8	9.6	10.3	11.2	11.6	12.7	14.1	61.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	1.0	1.5	1.1	1.1	1.5	1.3	1.2	1.7	1.7	1.5	6.6
Biomass	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.7
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.8	0.8	0.8	0.8	0.8	0.9	0.9	0.9	1.1	1.2	5.1
Total final consumption, by sector	142.9	142.9	149.2	162.8	164.3	168.7	166.4	164.7	170.2	174.7	100.0
Industry	42.5	39.9	39.8	40.3	39.8	43.5	46.5	38.8	39.6	41.6	23.8
Transport	27.9	30.7	37.1	44.4	46.9	47.3	42.2	47.2	51.0	51.5	29.5
Residential/Comercial	59.3	58.6	60.7	64.8	66.6	68.0	68.6	69.0	69.9	71.2	40.7
Oil final consumption, by sector	54.7	56.5	62.4	71.9	70.9	71.1	67.2	67.0	71.9	76.1	100.0
Industry	10.1	9.4	11.0	11.4	9.7	10.7	12.2	7.5	8.1	10.1	13.3
Transport	27.8	30.5	36.8	43.8	46.0	41.7	45.1	48.9	49.7	49.7	65.3
Residential/Comercial	7.6	7.0	7.1	7.7	8.2	8.4	8.7	8.4	9.1	9.8	12.9
Natural gas final consumption, by sector	15.4	15.9	16.7	17.3	17.3	17.0	17.0	13.5	14.3	14.7	100.0
Industry	11.4	11.8	12.5	13.0	13.1	12.9	12.7	9.8	10.4	10.7	72.8
Transport	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Residential/Comercial	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.3
Refined products consumption	52.0	53.0	61.8	69.2	69.9	70.0	66.1	65.7	70.5	74.6	100.0
Gasoline	17.0	18.3	20.3	22.4	24.1	24.4	24.9	25.8	26.5	27.6	37.1
Diesel	17.0	17.2	22.5	29.0	28.8	27.5	23.5	22.6	26.3	26.0	34.9
Heating Oil	3.5	3.0	3.1	2.9	1.7	1.6	1.4	1.1	1.2	1.2	1.6
Aviation Jet	1.7	2.3	2.3	2.5	2.7	2.7	2.8	3.0	3.3	3.1	4.2
LPG	3.2	4.2	4.9	5.7	6.3	6.9	7.2	7.5	8.1	8.5	11.3
Imports	39.2	42.0	44.5	49.1	53.6	56.0	52.3	49.6	53.9	55.2	100.0
Oil	39.2	42.0	44.5	49.1	53.6	56.0	52.3	49.6	53.9	55.2	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	8.2	10.0	12.3	14.1	14.7	15.4	14.4	12.4	13.9	14.0	25.4
Diesel	7.4	9.3	8.5	10.9	10.4	10.0	6.4	5.0	6.0	4.7	8.5
Heating Oil	1.7	0.5	0.9	0.4	0.1	0.2	0.1	0.3	0.6	0.7	1.3
Aviation Jet	0.1	0.5	0.7	0.6	0.8	0.8	1.0	0.8	1.6	1.3	2.3
LPG	1.0	1.8	2.3	2.9	3.7	4.1	4.8	5.1	6.2	8.0	14.5
Exports	54.0	57.2	58.0	52.1	50.6	49.1	47.3	46.4	43.5	40.7	100.0
Oil	21.3	21.2	22.5	19.8	20.4	20.0	19.7	20.9	19.3	16.3	40.0
Gas	32.7	36.0	35.4	32.3	30.2	29.1	27.6	25.5	24.2	24.4	60.0
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating Oil	4.6	4.3	4.3	3.8	4.2	4.3	3.8	3.9	5.3	4.6	11.2
Aviation Jet	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CO₂ Emissions (Million tons CO₂)	379.1	380.9	402.5	431.2	428.8	466.8	465.8	466.0	495.9	522.2	-
CO₂ Intensity (tCO₂/million \$15ppp)	184.9	174.9	174.1	175.9	165.7	171.8	163.4	155.7	157.7	158.0	-
Final energy intensity (toe/million \$15ppp)	64.8	60.9	60.8	62.2	60.2	59.3	55.9	52.6	51.9	50.5	-
Total energy intensity (toe/million \$15ppp)	97.1	95.2	86.2	85.3	82.7	82.9	79.2	77.0	77.0	76.0	-

*Heat is included

Primary energy demand mix

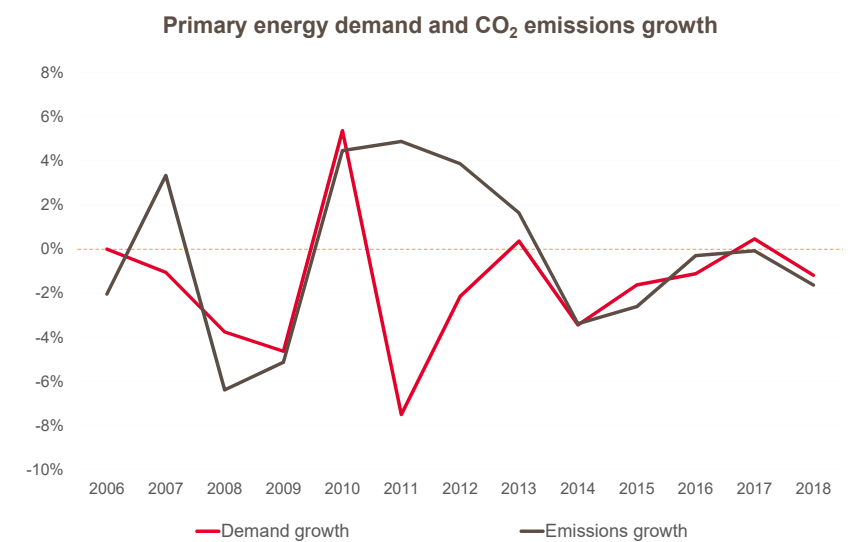
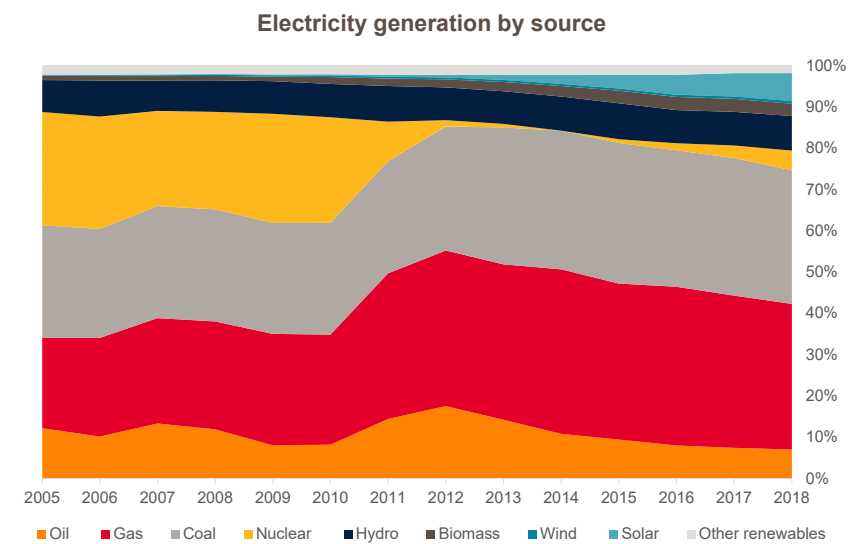
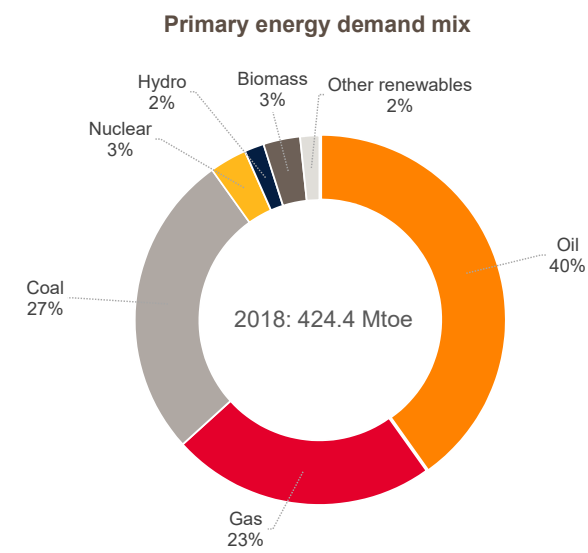


Electricity generation by source

Primary energy demand and CO₂ emissions growth

Japan (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	475.4	500.9	463.4	453.4	455.1	439.5	432.3	427.5	429.5	424.4	100.0
Oil	200.8	202.7	206.8	209.7	200.6	190.3	183.6	176.9	174.1	168.7	39.7
Gas	80.6	85.9	99.7	104.8	105.1	106.6	100.2	101.7	100.9	97.1	22.9
Coal	101.1	114.7	107.1	112.0	122.4	116.6	117.6	114.4	114.8	112.8	26.6
Nuclear	72.9	75.1	26.5	4.2	2.4	0.0	2.5	4.7	8.6	13.7	3.2
Hydro	6.8	7.2	7.3	6.6	6.8	7.2	7.5	6.8	6.9	7.2	1.7
Biomass	7.8	10.0	10.3	10.5	11.6	11.8	13.0	13.8	14.1	13.5	3.2
Other renewables	0.5	0.6	0.8	1.0	1.6	2.4	3.5	4.9	5.8	7.0	1.7
Electricity balance of trade*	4.8	4.7	4.7	4.6	4.7	4.6	4.5	4.4	4.4	4.4	1.0
Total final consumption, by source	323.3	334.1	327.2	325.9	330.0	321.0	317.4	314.1	314.2	310.2	100.0
Oil	165.4	164.5	160.9	159.7	161.2	155.2	153.8	150.1	148.5	144.1	46.4
Gas	31.9	34.1	35.0	34.7	33.9	33.2	32.8	32.2	32.9	33.0	10.6
Coal	38.4	43.2	42.1	42.7	43.9	43.1	41.8	41.4	40.4	39.7	12.8
Electricity	81.4	85.5	82.2	81.9	83.8	82.6	81.9	83.2	85.2	86.4	27.9
Heat	1.2	1.2	1.1	1.1	1.0	1.0	0.9	0.9	0.9	0.9	0.3
Biomass	5.1	5.6	5.9	5.8	6.2	5.9	6.1	6.3	6.4	6.1	2.0
Electricity generation, by source	91.1	97.0	91.5	90.5	92.3	90.5	90.0	91.0	93.3	94.8	100.0
Oil	7.3	7.9	13.2	15.9	13.1	9.8	8.5	7.3	6.9	6.7	7.0
Gas	24.6	25.8	32.3	34.1	34.7	36.0	34.0	35.0	34.4	33.4	35.2
Coal	24.5	26.2	24.8	27.2	30.6	30.4	30.6	30.0	31.1	30.7	32.4
Nuclear	24.1	24.8	8.8	1.4	0.8	0.0	0.8	1.6	2.8	4.5	4.8
Hydro	7.2	7.8	7.9	7.2	7.3	7.5	7.8	7.3	7.6	7.9	8.4
Biomass	1.0	1.6	1.7	1.8	2.1	2.3	2.7	2.9	2.9	2.8	3.0
Wind	0.3	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6
Solar	0.2	0.3	0.4	0.6	1.1	2.0	3.0	4.4	5.3	6.4	6.8
Other renewables	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1	1.7	1.8	1.8
Total final consumption, by sector	323.3	334.1	327.2	325.9	330.0	321.0	317.4	314.1	314.2	310.2	100.0
Industry	95.6	102.4	102.3	101.5	102.7	100.3	97.2	97.0	96.8	95.9	30.9
Transport	76.8	77.1	74.9	74.8	74.8	73.4	73.2	72.6	72.5	72.4	23.3
Residential/Commercial	99.4	103.8	102.2	101.5	102.7	99.6	96.9	97.0	98.2	98.0	31.6
Oil final consumption, by sector	165.4	164.5	160.9	159.7	161.2	155.2	153.8	150.1	148.5	144.1	100.0
Industry	14.9	14.3	15.9	14.8	13.9	13.2	11.7	11.5	11.4	10.7	7.4
Transport	75.1	75.3	73.0	73.0	73.0	71.5	71.2	70.6	70.5	70.3	48.8
Residential/Commercial	25.7	26.2	26.2	25.8	26.5	24.7	22.6	22.4	21.9	21.1	14.7
Natural gas final consumption, by sector	31.9	34.1	35.0	34.7	33.9	33.2	32.8	32.2	32.9	33.0	100.0
Industry	10.6	11.3	11.9	11.8	11.6	11.4	11.3	11.0	11.2	11.3	34.4
Transport	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Residential/Commercial	20.9	22.4	22.6	22.4	21.8	21.4	21.2	20.8	21.3	21.1	64.1
Refined products consumption	164.9	164.0	160.5	159.3	160.9	154.9	153.5	150.0	148.4	144.0	100.0
Gasoline	42.7	42.6	42.3	42.7	42.1	40.5	40.2	40.0	39.3	38.7	26.9
Diesel	40.3	40.3	39.7	39.2	39.8	38.5	38.3	38.0	38.4	38.6	26.8
Heating Oil	6.8	6.7	6.7	6.2	5.6	5.2	4.5	4.6	5.4	6.4	4.4
Aviation Jet	4.4	4.3	3.5	3.3	4.2	4.4	4.5	4.4	4.3	4.2	2.9
LPG	14.2	13.4	13.8	13.8	14.3	13.9	12.4	11.6	12.0	11.4	7.9
Imports	300.8	312.1	327.8	335.6	329.4	317.1	308.8	303.5	299.4	295.3	100.0
Oil	223.1	229.5	230.4	234.1	226.7	212.8	211.0	204.3	201.2	198.1	67.1
Gas	77.7	82.6	97.4	101.5	102.7	104.3	97.8	99.2	98.2	97.3	32.9
Gasoline	0.7	0.9	2.3	2.3	1.3	1.2	0.9	0.7	1.0	2.0	0.7
Diesel	0.3	0.5	0.8	0.6	0.3	0.6	0.5	0.4	0.5	1.2	0.4
Heating Oil	2.2	3.2	7.0	8.7	6.4	4.4	3.2	2.3	2.2	2.5	0.9
Aviation Jet	0.4	0.3	1.1	1.3	0.8	0.5	0.7	0.7	1.2	1.1	0.4
LPG	13.4	14.3	14.4	15.1	13.7	13.3	12.4	12.0	12.0	12.3	4.2
Exports	17.4	17.5	13.9	13.0	17.0	15.8	18.5	18.5	17.6	16.6	100.0
Oil	17.4	17.5	13.9	13.0	17.0	15.8	18.5	18.5	17.6	16.6	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	1.2	1.7	1.0	0.9	1.4	2.4	3.1	2.4	3.0	2.5	14.9
Diesel	10.2	10.0	6.8	6.1	9.2	7.8	8.8	8.3	8.7	7.1	42.6
Heating Oil	2.7	2.5	2.6	2.7	1.9	1.7	2.2	3.1	2.5	2.6	15.9
Aviation Jet	2.1	2.2	2.1	2.3	2.9	2.4	2.8	2.9	2.2	2.2	13.2
LPG	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.3
CO₂ Emissions (Million tons CO₂)	1,052.6	1,099.6	1,153.3	1,198.0	1,217.7	1,176.5	1,145.9	1,142.5	1,141.6	1,123.0	-
CO₂ Intensity (tCO₂/million \$15ppp)	222.9	223.5	234.6	240.1	239.3	230.3	221.4	218.6	214.8	208.9	-
Final energy intensity (toe/million \$15ppp)	58.9	58.8	58.0	56.8	56.1	54.5	52.7	52.1	51.4	50.5	-
Total energy intensity (toe/million \$15ppp)	100.7	101.8	94.3	90.9	89.4	86.0	83.5	81.8	80.8	78.9	-

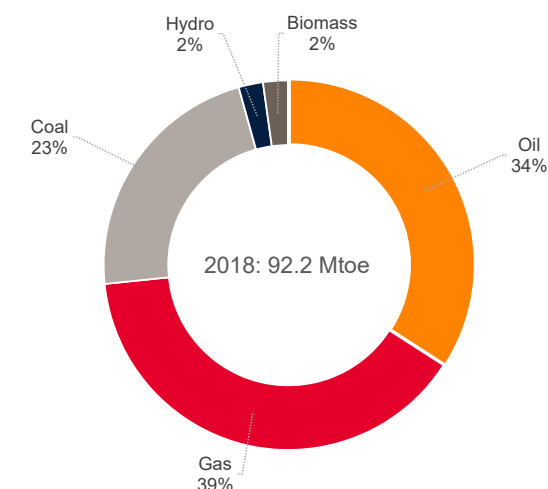
*Heat is included



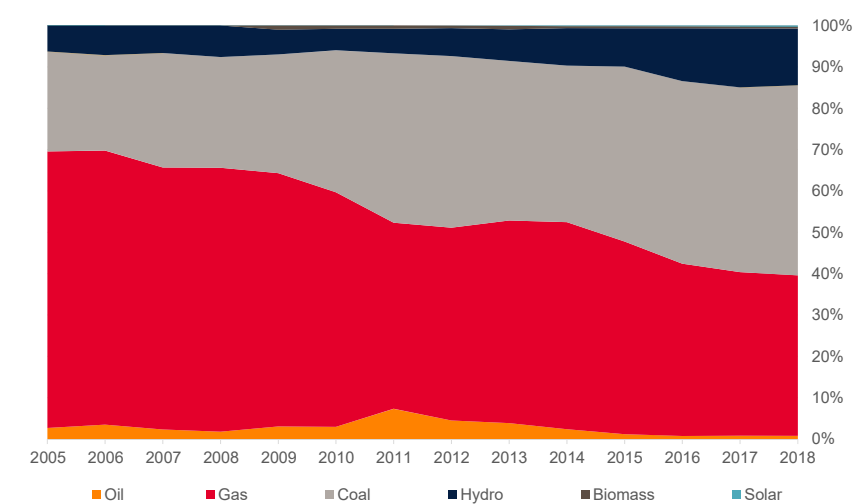
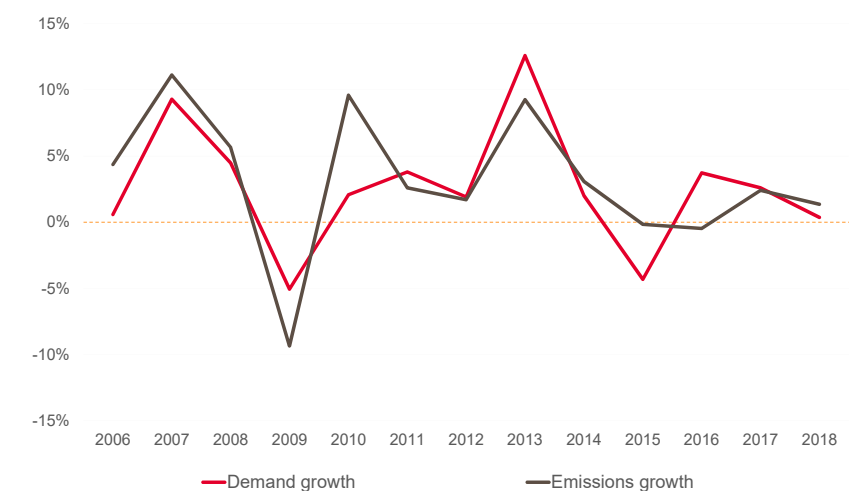
Malaysia (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	72.8	74.3	77.1	78.6	88.5	90.2	86.3	89.6	91.9	92.2	100.0
Oil	27.6	26.2	27.4	27.8	32.2	33.6	28.1	31.3	31.4	31.5	34.1
Gas	32.2	31.2	31.6	32.4	38.1	38.4	37.5	35.8	37.2	36.2	39.3
Coal	10.5	14.6	15.6	15.8	15.3	15.3	17.5	18.8	19.2	20.6	22.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.6	0.6	0.7	0.8	0.9	1.2	1.2	1.7	2.0	2.0	2.1
Biomass	1.8	1.7	1.8	1.7	1.9	1.9	1.9	1.9	2.0	2.0	2.2
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	-0.0	-0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.0	-0.0	-0.0
Total final consumption, by source	43.4	42.5	44.5	47.5	53.8	52.9	51.6	55.9	56.9	57.2	100.0
Oil	25.6	24.0	23.6	24.2	28.2	29.4	27.6	28.2	28.3	28.3	49.5
Gas	6.8	6.3	8.6	10.2	12.0	9.6	9.6	12.3	12.8	12.5	21.8
Coal	1.3	1.8	1.8	1.7	1.5	1.7	1.8	1.8	1.8	2.0	3.5
Electricity	8.9	9.5	9.6	10.4	11.0	11.0	11.4	12.4	12.7	13.2	23.0
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.9	0.9	0.9	1.0	1.1	1.1	1.2	1.2	1.3	1.3	2.2
Electricity generation, by source	10.0	10.7	11.1	11.6	11.9	12.7	12.9	13.5	13.8	14.3	100.0
Oil	0.3	0.3	0.8	0.5	0.5	0.3	0.1	0.1	0.1	0.1	0.8
Gas	6.1	6.1	5.0	5.4	5.8	6.3	6.0	5.6	5.5	5.6	38.8
Coal	2.9	3.7	4.6	4.8	4.6	4.8	5.5	5.9	6.2	6.6	46.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.6	0.6	0.7	0.8	0.9	1.2	1.2	1.7	2.0	2.0	13.7
Biomass	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.5
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	43.4	42.5	44.5	47.5	53.8	52.9	51.6	55.9	56.9	57.2	100.0
Industry	14.4	14.8	14.1	15.6	15.0	14.8	15.0	16.2	16.8	16.9	29.5
Transport	14.9	15.0	15.2	15.4	20.2	22.6	21.3	21.7	21.5	21.5	37.7
Residential/Commercial	7.3	7.9	7.9	7.9	8.3	8.3	8.5	8.9	9.1	9.4	16.4
Oil final consumption, by sector	25.6	24.0	23.6	24.2	28.2	29.4	27.6	28.2	28.3	28.3	100.0
Industry	4.3	4.2	3.6	4.4	3.8	3.1	3.2	2.6	2.8	2.7	9.4
Transport	14.7	14.7	14.9	15.0	19.7	22.0	20.6	21.1	20.8	20.9	73.8
Residential/Commercial	1.8	2.0	1.8	1.6	1.7	1.5	1.5	1.5	1.5	1.6	5.6
Natural gas final consumption, by sector	6.8	6.3	8.6	10.2	12.0	9.6	9.6	12.3	12.8	12.5	100.0
Industry	4.5	4.3	4.3	4.6	4.5	4.9	4.8	6.0	6.2	6.1	48.7
Transport	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	1.7
Residential/Commercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Refined products consumption	25.6	24.0	23.6	24.2	28.2	29.4	27.6	28.2	28.3	28.3	100.0
Gasoline	9.2	9.6	8.2	8.9	12.7	12.7	12.8	13.4	12.7	13.0	46.0
Diesel	8.6	8.4	8.7	8.8	9.6	10.6	9.4	9.3	9.8	9.5	33.6
Heating Oil	1.3	0.5	0.4	0.8	0.3	0.3	0.7	0.5	0.5	0.4	1.5
Aviation Jet	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	0.7	2.3
LPG	2.5	2.9	2.9	2.9	2.9	2.6	2.3	3.5	3.5	3.6	12.8
Imports	18.3	25.5	27.9	30.8	37.1	37.8	30.5	33.1	35.8	35.2	100.0
Oil	13.2	18.5	20.9	22.9	28.6	29.3	22.7	26.2	28.4	27.6	78.3
Gas	5.1	7.0	7.0	7.9	8.5	8.5	7.8	6.8	7.4	7.6	21.7
Gasoline	3.3	4.3	4.2	5.9	8.8	8.3	7.6	8.6	10.8	10.7	30.5
Diesel	2.0	3.2	3.8	3.5	5.1	6.2	4.6	3.9	3.8	4.0	11.5
Heating Oil	1.1	1.2	1.5	0.8	3.0	3.1	1.0	0.1	0.1	0.1	0.2
Aviation Jet	0.1	0.4	0.5	0.3	0.9	0.5	0.5	1.4	1.4	0.8	2.1
LPG	0.4	0.5	0.5	0.4	0.4	0.5	0.4	0.5	0.4	0.6	1.7
Exports	44.5	52.5	49.0	53.0	51.4	52.5	54.5	57.2	59.7	57.7	100.0
Oil	19.8	25.7	21.0	26.1	22.8	23.5	26.3	28.9	28.8	29.5	51.2
Gas	24.8	26.8	28.0	26.9	28.6	29.0	28.1	28.3	30.8	28.1	48.8
Gasoline	0.0	0.0	0.0	2.1	0.1	0.0	0.4	0.5	0.6	0.4	0.7
Diesel	1.4	2.5	4.4	5.3	5.3	5.3	5.4	4.8	4.2	4.4	7.7
Heating Oil	0.6	0.9	0.3	1.0	3.0	4.3	1.4	0.6	0.7	0.8	1.4
Aviation Jet	0.8	0.7	0.7	1.0	0.6	0.5	0.5	1.1	1.3	0.7	1.2
LPG	1.5	0.7	1.0	0.4	0.3	0.3	0.3	0.4	0.3	0.4	0.6
CO₂ Emissions (Million tons CO₂)	177.7	194.8	199.8	203.2	222.1	228.9	228.5	227.5	232.9	236.1	-
CO₂ Intensity (tCO₂/million \$15ppp)	300.9	308.3	300.4	289.6	302.3	293.9	279.4	266.8	258.0	249.8	-
Final energy intensity (toe/million \$15ppp)	62.3	61.4	57.2	57.0	60.6	60.0	55.8	55.4	53.0	51.0	-
Total energy intensity (toe/million \$15ppp)	123.2	117.6	115.9	112.0	120.4	115.9	105.6	105.1	101.8	97.6	-

*Heat is included

Primary energy demand mix



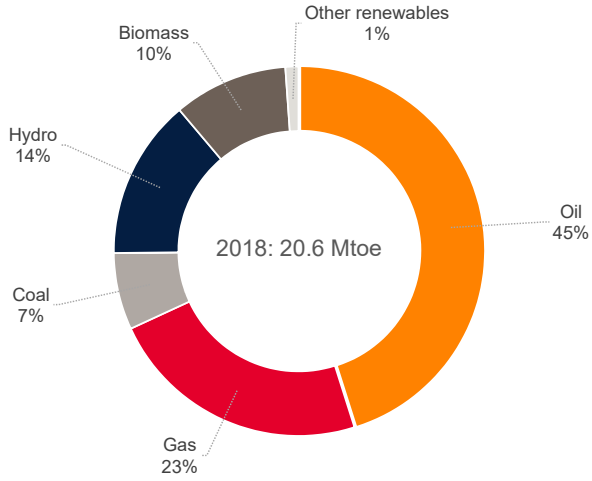
Electricity generation by source

Primary energy demand and CO₂ emissions growth

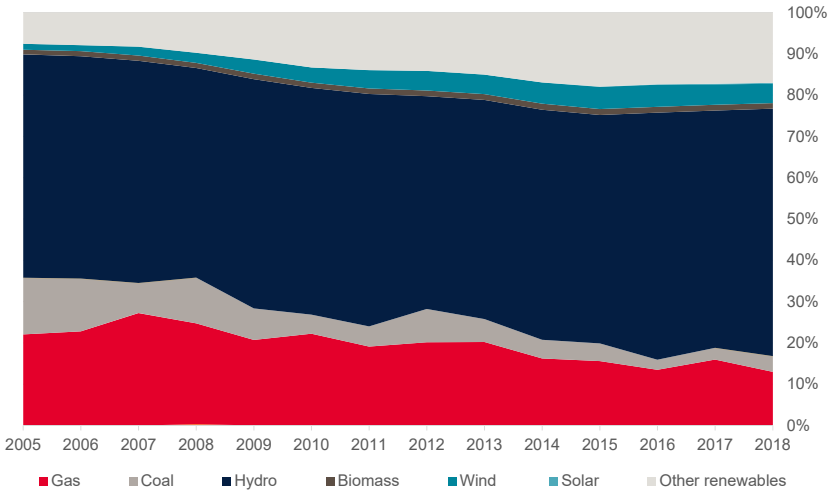
New Zealand <i>(Million toe)</i>	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	17.7	18.5	18.5	19.3	19.5	20.6	20.8	20.8	21.4	20.6	100.0
Oil	6.3	6.2	6.1	6.5	6.4	6.5	6.8	6.9	7.3	7.2	35.1
Gas	3.5	3.7	3.4	3.8	4.0	4.4	4.1	4.2	4.3	3.7	17.9
Coal	1.5	1.3	1.4	1.6	1.4	1.4	1.4	1.2	1.2	1.1	5.2
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	2.1	2.1	2.1	1.9	2.0	2.1	2.1	2.2	2.1	2.2	10.9
Biomass	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.5	1.5	1.6	7.8
Other renewables	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.9
Electricity balance of trade*	3.2	3.9	4.0	4.0	4.4	4.9	5.1	4.6	4.7	4.6	22.2
Total final consumption, by source	12.8	13.2	13.1	13.2	13.6	14.6	14.4	14.9	15.2	14.9	100.0
Oil	5.9	5.9	5.9	5.8	5.9	6.1	6.2	6.4	6.7	6.7	44.8
Gas	1.7	1.8	1.7	1.9	2.3	3.0	2.7	2.9	2.8	2.5	16.5
Coal	0.8	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.9	5.8
Electricity	3.3	3.4	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	22.1
Heat	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.2
Biomass	0.9	1.1	1.1	1.1	1.0	1.0	1.0	1.3	1.4	1.4	9.5
Electricity generation, by source	3.7	3.8	3.8	3.8	3.7	3.7	3.8	3.7	3.7	3.8	100.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gas	0.8	0.9	0.7	0.8	0.7	0.6	0.6	0.5	0.6	0.5	13.0
Coal	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.1	0.1	0.1	3.8
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	2.1	2.1	2.1	1.9	2.0	2.1	2.1	2.2	2.1	2.2	59.9
Biomass	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.4
Wind	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	4.7
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Other renewables	0.4	0.5	0.5	0.5	0.6	0.6	0.7	0.6	0.6	0.6	17.1
Total final consumption, by sector	12.8	13.2	13.1	13.2	13.6	14.6	14.4	14.9	15.2	14.9	100.0
Industry	4.0	4.4	4.3	4.2	4.4	4.8	4.6	5.0	4.9	4.9	32.7
Transport	4.6	4.6	4.6	4.5	4.6	4.6	4.8	4.9	5.2	5.2	34.8
Residential/Comercial	2.7	2.7	2.6	2.7	2.7	2.7	2.7	2.7	2.7	2.8	18.7
Oil final consumption, by sector	5.9	5.9	5.9	5.8	5.9	6.1	6.2	6.4	6.7	6.7	100.0
Industry	0.4	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	6.5
Transport	4.6	4.6	4.6	4.5	4.6	4.6	4.8	4.9	5.2	5.2	77.6
Residential/Comercial	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	4.0
Natural gas final consumption, by sector	1.7	1.8	1.7	1.9	2.3	3.0	2.7	2.9	2.8	2.5	100.0
Industry	0.8	0.9	0.9	0.9	1.1	1.4	1.2	1.3	1.3	1.1	46.3
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Comercial	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	13.3
Refined products consumption	5.9	5.9	5.9	5.8	5.9	6.1	6.2	6.4	6.7	6.7	100.0
Gasoline	2.5	2.5	2.4	2.4	2.4	2.4	2.5	2.5	2.6	2.6	38.3
Diesel	2.5	2.5	2.6	2.6	2.7	2.8	2.9	2.9	3.1	3.2	47.8
Heating Oil	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.5
Aviation Jet	0.3	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.3	4.5
LPG	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	3.1
Imports	7.2	7.1	7.3	7.5	7.6	7.6	7.6	8.2	8.3	8.9	100.0
Oil	7.2	7.1	7.3	7.5	7.6	7.6	7.6	8.2	8.3	8.9	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	1.1	1.0	1.0	1.2	1.2	1.2	1.1	1.0	1.1	1.2	13.3
Diesel	0.7	0.6	0.7	0.5	0.7	0.8	0.7	1.1	1.0	1.4	15.4
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.2	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.3	3.1
LPG	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Exports	2.6	2.6	2.4	2.1	1.8	2.0	2.0	1.8	1.7	1.4	100.0
Oil	2.6	2.6	2.4	2.1	1.8	2.0	2.0	1.8	1.7	1.4	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating Oil	0.2	0.1	0.3	0.3	0.2	0.2	0.1	0.2	0.2	0.2	16.1
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.5
CO₂ Emissions <i>(Million tons CO₂)</i>	30.3	30.1	29.4	31.1	31.1	32.1	31.7	31.2	32.0	31.1	-
CO₂ Intensity <i>(tCO₂/million \$15ppp)</i>	203.1	198.5	189.8	196.3	191.4	191.1	184.0	175.8	175.4	165.3	-
Final energy intensity <i>(toe/million \$15ppp)</i>	79.9	80.9	78.5	77.2	76.5	77.0	75.4	75.2	74.3	72.3	-
Total energy intensity <i>(toe/million \$15ppp)</i>	118.7	122.4	119.3	122.1	119.8	122.8	120.6	117.1	116.9	109.5	-

*Heat is included

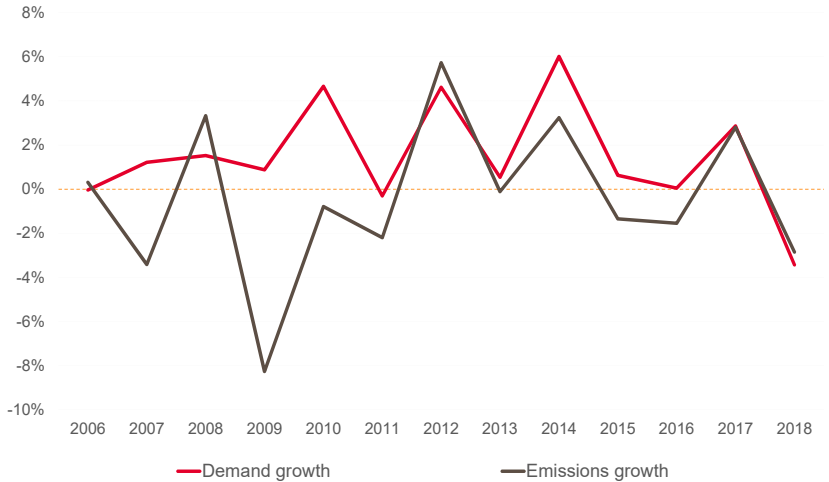
Primary energy demand mix



Electricity generation by source



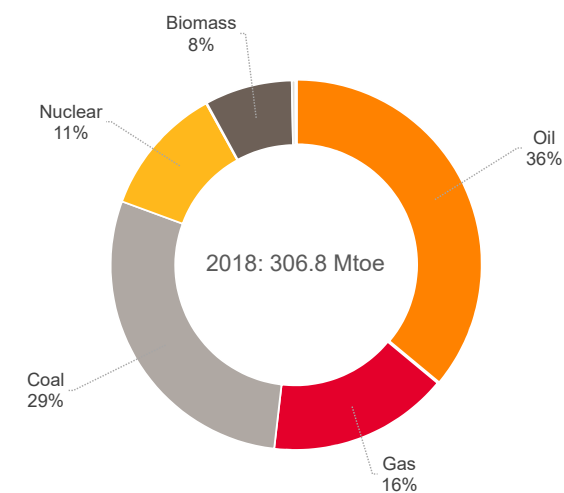
Primary energy demand and CO₂ emissions growth



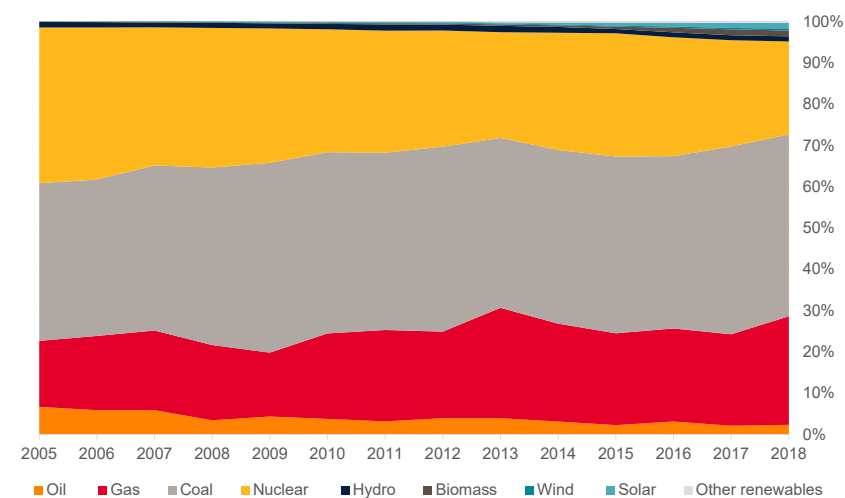
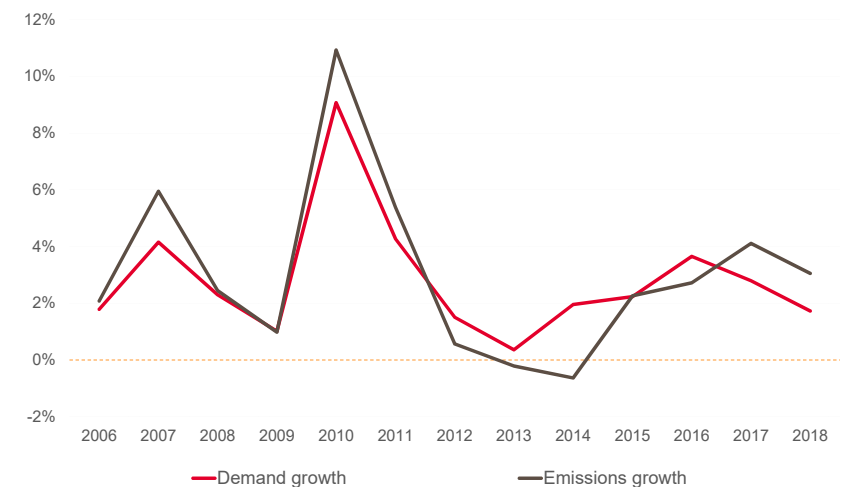
South Korea (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	234.3	255.6	266.5	270.5	271.5	276.8	283.0	293.4	301.6	306.8	100.0
Oil	90.6	95.1	93.7	97.2	96.6	96.3	102.7	109.8	111.5	110.3	36.0
Gas	31.7	38.6	41.6	45.0	47.6	43.1	39.3	41.3	43.1	48.4	15.8
Coal	64.9	73.4	80.3	77.1	77.9	81.7	80.8	81.5	86.1	88.2	28.7
Nuclear	38.5	38.7	40.3	39.2	36.2	40.8	42.9	42.2	38.7	34.8	11.3
Hydro	0.2	0.3	0.4	0.3	0.4	0.2	0.2	0.2	0.2	0.2	0.1
Biomass	8.1	9.0	9.9	11.4	12.4	14.0	16.2	17.4	20.7	23.4	7.6
Other renewables	0.1	0.1	0.2	0.2	0.2	0.3	0.5	0.6	0.8	0.9	0.3
Electricity balance of trade*	0.1	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.5	0.2
Total final consumption, by source	159.1	171.5	177.4	182.8	185.5	187.7	193.5	199.5	207.8	212.6	100.0
Oil	79.7	81.9	82.1	84.4	84.6	86.5	90.3	94.1	96.6	95.6	44.9
Gas	18.1	20.6	21.6	22.9	24.1	22.2	20.5	21.5	22.9	24.5	11.5
Coal	14.4	17.8	19.9	19.7	19.5	19.9	20.8	19.3	20.0	20.4	9.6
Electricity	34.9	38.6	40.5	41.4	41.9	41.9	42.6	44.5	45.4	47.1	22.1
Heat	4.5	4.4	4.6	4.4	4.4	4.7	4.5	5.0	5.6	6.2	2.9
Biomass	7.5	8.2	8.8	10.1	11.0	12.5	14.8	15.2	17.4	18.9	8.9
Electricity generation, by source	39.1	43.0	45.0	46.0	46.6	47.4	47.5	48.4	49.6	51.0	100.0
Oil	1.7	1.6	1.4	1.8	1.8	1.5	1.1	1.5	1.1	1.2	2.3
Gas	6.0	8.9	10.0	9.6	12.5	11.2	10.6	10.9	10.9	13.4	26.3
Coal	18.0	18.9	19.3	20.6	19.2	19.9	20.3	20.2	22.5	22.5	44.0
Nuclear	12.7	12.8	13.3	12.9	11.9	13.5	14.2	13.9	12.8	11.5	22.5
Hydro	0.5	0.6	0.7	0.7	0.7	0.7	0.5	0.6	0.6	0.6	1.2
Biomass	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.5	0.7	0.7	1.4
Wind	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.4
Solar	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.4	0.6	0.7	1.4
Other renewables	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.2	0.2	0.3
Total final consumption, by sector	159.1	171.5	177.4	182.8	185.5	187.7	193.5	199.5	207.8	212.6	100.0
Industry	50.5	58.1	62.7	63.8	63.9	65.4	66.9	66.1	69.2	72.1	33.9
Transport	29.8	30.4	29.9	30.7	31.9	32.4	34.4	35.4	35.5	35.4	16.7
Residential/Commercial	39.0	41.5	41.7	41.8	42.8	41.1	42.2	45.4	47.7	50.2	23.6
Oil final consumption, by sector	79.7	81.9	82.1	84.4	84.6	86.5	90.3	94.1	96.6	95.6	100.0
Industry	5.8	5.9	5.2	4.1	3.5	3.5	3.4	3.6	3.3	3.3	3.4
Transport	28.4	28.9	28.4	29.1	30.1	30.6	32.6	33.4	33.6	33.2	34.8
Residential/Commercial	6.8	6.9	6.8	6.3	5.7	5.4	6.2	6.4	6.5	6.4	6.7
Natural gas final consumption, by sector	18.1	20.6	21.6	22.9	24.1	22.2	20.5	21.5	22.9	24.5	100.0
Industry	5.6	7.1	8.3	9.3	9.8	8.8	7.4	7.5	8.1	9.1	37.0
Transport	0.9	1.0	1.1	1.1	1.2	1.2	1.2	1.2	1.2	1.2	4.8
Residential/Commercial	11.6	12.5	12.2	12.5	13.1	12.2	11.9	12.8	13.6	14.3	58.2
Refined products consumption	79.7	81.9	82.1	84.4	84.6	86.5	90.3	94.1	96.6	95.6	100.0
Gasoline	8.2	8.6	8.7	8.6	9.2	9.2	9.6	9.9	9.9	10.0	10.4
Diesel	18.0	18.6	18.3	18.9	19.8	20.1	21.7	22.1	22.4	22.2	23.2
Heating Oil	4.7	4.4	3.6	2.6	1.8	1.6	1.7	1.9	1.8	1.7	1.8
Aviation Jet	0.7	0.8	1.0	1.3	1.2	1.5	1.7	1.7	1.7	1.7	1.8
LPG	9.5	9.5	9.1	8.3	8.6	8.3	8.7	9.5	9.1	9.3	9.8
Imports	179.5	193.9	202.8	211.4	213.6	212.4	218.7	229.4	236.7	247.4	100.0
Oil	149.3	154.6	160.9	168.5	166.0	168.4	179.7	189.8	193.0	196.2	79.3
Gas	30.2	39.3	41.9	42.8	47.7	44.0	38.9	39.6	43.6	51.2	20.7
Gasoline	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.2	0.1	0.0	0.0
Diesel	0.3	0.3	0.4	0.9	1.4	0.8	0.3	0.3	0.3	0.3	0.1
Heating Oil	3.0	2.7	2.4	4.2	7.1	8.0	7.2	7.2	6.1	6.5	2.6
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	6.3	7.1	7.3	7.1	6.4	6.1	6.0	8.3	7.2	7.8	3.2
Exports	44.3	45.8	54.9	58.8	56.9	59.0	62.8	64.3	66.9	74.0	100.0
Oil	44.3	45.8	54.9	58.8	56.9	59.0	62.8	64.3	66.9	74.0	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	5.0	4.9	6.7	7.9	8.0	9.1	9.9	9.5	10.2	10.9	14.7
Diesel	17.1	17.8	21.7	24.1	22.3	23.8	23.5	23.9	24.0	26.0	35.2
Heating Oil	3.9	4.0	5.3	4.3	3.4	2.1	1.6	2.0	2.5	3.9	5.2
Aviation Jet	9.4	9.6	10.9	12.3	12.0	12.6	14.4	14.9	16.1	20.1	27.2
LPG	0.0	0.1	0.1	0.2	0.1	0.1	0.1	0.2	0.2	0.5	0.7
CO₂ Emissions (Million tons CO₂)	535.7	594.3	626.3	629.9	628.6	624.6	638.8	656.1	683.1	704.0	-
CO₂ Intensity (tCO₂/million \$15ppp)	368.3	383.6	389.9	383.4	371.8	357.5	355.7	355.3	358.9	359.9	-
Final energy intensity (toe/million \$15ppp)	83.9	85.9	85.5	84.9	83.8	81.0	81.4	81.0	81.5	82.0	-
Total energy intensity (toe/million \$15ppp)	161.1	165.0	165.9	164.7	160.6	158.4	157.6	158.9	158.4	156.9	-

*Heat is included

Primary energy demand mix

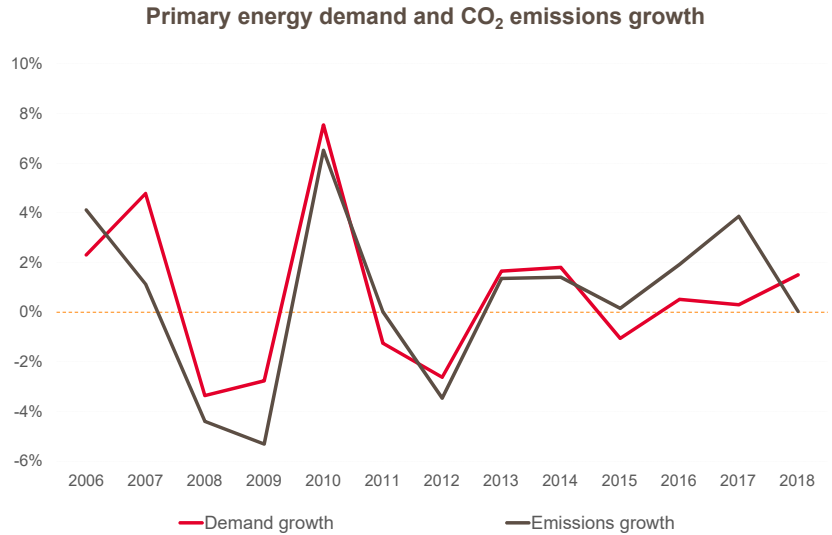
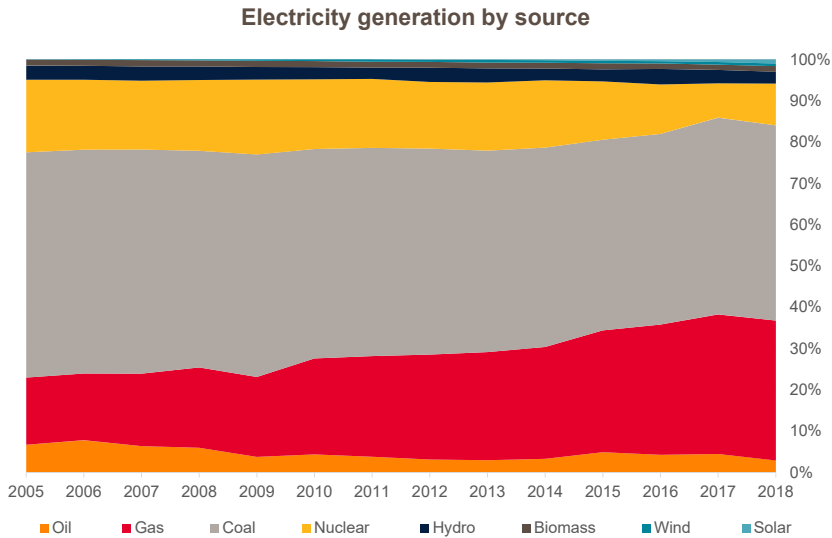
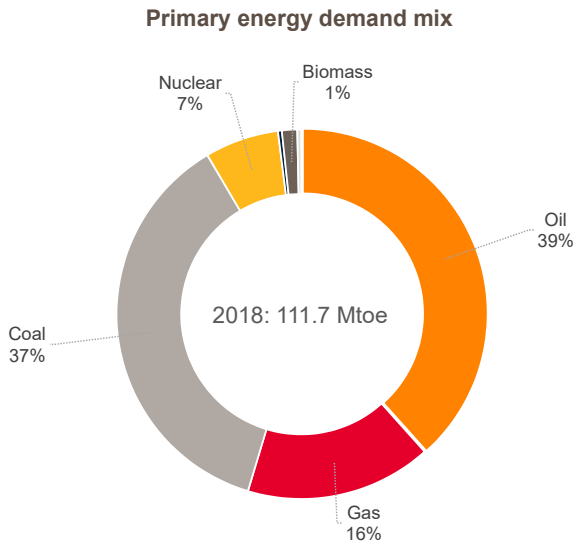


Electricity generation by source

Primary energy demand and CO₂ emissions growth

Taiwan (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	103.0	110.8	109.4	106.6	108.3	110.3	109.1	109.7	110.0	111.7	100.0
Oil	42.6	44.2	41.2	40.8	41.6	42.4	42.6	42.9	42.3	42.8	38.3
Gas	9.7	13.3	14.0	13.2	13.1	13.6	14.8	15.4	17.9	18.2	16.3
Coal	38.2	40.6	40.9	39.6	40.3	40.9	39.7	40.7	41.6	41.1	36.8
Nuclear	10.8	10.8	11.0	10.5	10.9	11.0	9.5	8.3	5.8	7.2	6.5
Hydro	0.3	0.4	0.3	0.5	0.5	0.4	0.4	0.6	0.5	0.4	0.3
Biomass	1.2	1.3	1.7	1.7	1.7	1.7	1.8	1.5	1.5	1.5	1.3
Other renewables	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.3	0.4	0.3
Electricity balance of trade*	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.0
Total final consumption, by source	65.8	70.5	69.0	68.2	71.6	72.5	72.7	73.6	73.1	74.1	100.0
Oil	38.4	39.6	36.1	36.1	37.5	37.8	38.3	38.2	37.4	38.5	52.0
Gas	1.8	2.1	2.4	2.4	2.5	2.7	2.8	3.0	3.2	3.4	4.6
Coal	8.0	9.9	11.0	10.2	11.7	11.7	11.4	11.8	11.1	10.8	14.5
Electricity	17.3	18.8	19.2	19.1	19.5	20.0	19.8	20.3	20.8	21.0	28.4
Heat	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0	0.1
Biomass	0.0	0.0	0.2	0.2	0.2	0.2	0.2	0.1	0.4	0.3	0.4
Electricity generation, by source	19.8	21.2	21.7	21.5	21.7	22.4	22.2	22.7	23.2	23.5	100.0
Oil	0.7	0.9	0.8	0.7	0.6	0.7	1.1	1.0	1.0	0.7	2.9
Gas	3.8	4.9	5.3	5.5	5.7	6.1	6.5	7.2	7.9	8.0	33.9
Coal	10.6	10.8	10.9	10.7	10.6	10.8	10.2	10.5	11.1	11.1	47.2
Nuclear	3.6	3.6	3.6	3.5	3.6	3.6	3.1	2.7	1.9	2.4	10.1
Hydro	0.6	0.6	0.6	0.7	0.7	0.6	0.6	0.8	0.8	0.7	2.9
Biomass	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	1.4
Wind	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.6
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	1.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	65.8	70.5	69.0	68.2	71.6	72.5	72.7	73.6	73.1	74.1	100.0
Industry	22.6	25.0	26.5	25.2	26.7	26.9	26.1	26.7	26.8	25.8	34.9
Transport	12.0	12.3	12.5	12.2	12.2	12.4	12.7	13.0	12.9	12.7	17.1
Residential/Comercial	10.6	10.8	10.9	10.7	10.7	11.0	11.0	11.3	11.4	11.6	15.7
Oil final consumption, by sector	38.4	39.6	36.1	36.1	37.5	37.8	38.3	38.2	37.4	38.5	100.0
Industry	4.4	3.7	3.2	2.7	2.4	2.1	1.8	1.7	1.6	1.4	3.7
Transport	11.9	12.2	12.3	12.0	12.0	12.2	12.6	12.9	12.8	12.6	32.7
Residential/Comercial	1.9	1.8	1.8	1.7	1.7	1.7	1.7	1.6	1.6	1.8	4.6
Natural gas final consumption, by sector	1.8	2.1	2.4	2.4	2.5	2.7	2.8	3.0	3.2	3.4	100.0
Industry	0.8	1.0	1.2	1.3	1.4	1.5	1.6	1.7	1.9	2.1	60.9
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Comercial	1.0	1.1	1.1	1.1	1.1	1.2	1.2	1.3	1.3	1.3	38.7
Refined products consumption	38.4	39.6	36.1	36.1	37.5	37.8	38.3	38.2	37.4	38.5	100.0
Gasoline	7.7	7.8	7.8	7.7	7.7	7.8	8.1	8.4	8.2	8.0	20.7
Diesel	4.5	4.7	4.8	4.8	4.7	4.8	4.9	4.9	4.9	4.9	12.7
Heating Oil	3.6	3.7	3.3	2.7	2.4	2.1	1.9	1.7	1.6	1.3	3.5
Aviation Jet	0.3	0.2	0.2	0.2	0.2	0.3	0.3	0.2	0.3	0.3	0.8
LPG	3.5	3.0	2.4	2.1	2.8	2.8	2.5	3.1	2.4	2.9	7.4
Imports	74.9	77.3	71.9	74.6	75.1	78.9	78.6	80.1	81.1	82.5	100.0
Oil	64.6	64.4	57.6	61.1	61.5	64.5	63.2	64.2	63.3	64.4	78.0
Gas	10.3	12.9	14.2	13.5	13.6	14.3	15.3	16.0	17.8	18.2	22.0
Gasoline	0.0	0.0	0.1	0.0	0.0	0.0	0.2	0.1	0.1	0.1	0.1
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Heating Oil	0.8	2.2	1.3	1.0	1.4	1.7	1.0	1.6	2.4	2.1	2.5
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.1	0.2	0.2
LPG	1.3	1.0	1.3	0.8	1.3	1.9	1.5	1.9	1.4	2.0	2.4
Exports	19.2	16.4	14.0	17.1	17.7	17.7	17.1	17.5	16.9	18.1	100.0
Oil	19.2	16.4	14.0	17.1	17.7	17.7	17.1	17.5	16.9	18.1	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	4.4	3.9	2.9	3.4	4.4	4.3	4.4	4.8	4.5	4.2	23.5
Diesel	10.4	8.9	7.9	9.6	10.2	10.1	9.3	9.2	8.5	9.7	53.8
Heating Oil	0.5	0.7	0.9	1.3	0.6	0.7	0.9	1.2	1.5	1.8	9.9
Aviation Jet	2.8	1.6	1.2	1.4	1.3	1.1	1.1	1.0	0.9	1.0	5.7
LPG	0.2	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.5
CO ₂ Emissions (Million tons CO ₂)	251.4	267.8	267.8	258.5	262.0	265.7	266.1	271.3	281.7	281.8	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	601.5	577.8	556.7	526.6	522.2	509.1	505.8	508.4	513.1	499.7	-
Final energy intensity (toe/million \$15ppp)	109.7	105.3	105.0	99.3	100.4	97.6	96.1	97.1	94.4	90.2	-
Total energy intensity (toe/million \$15ppp)	246.5	239.1	227.5	217.0	215.9	211.3	207.4	205.5	200.4	198.0	-

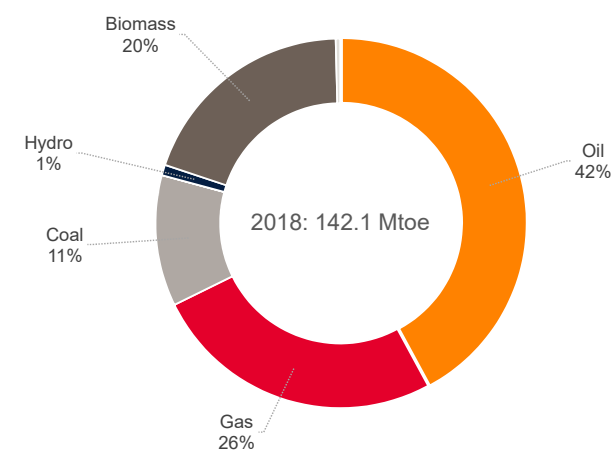
*Heat is included



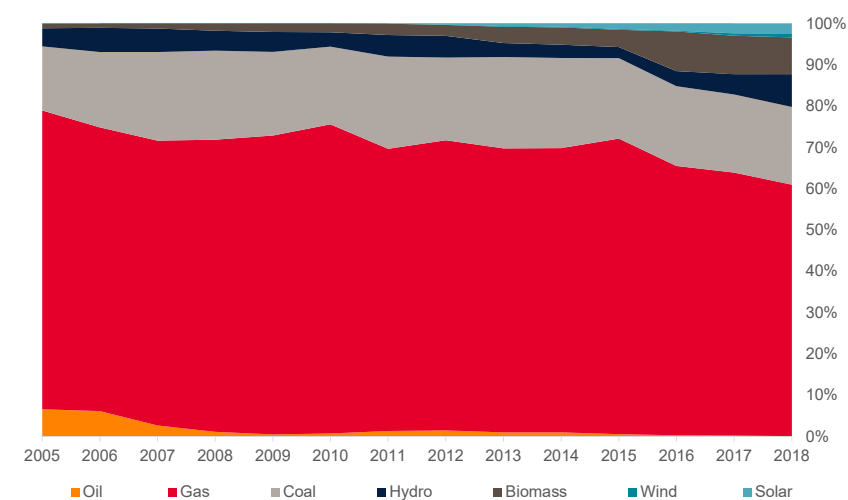
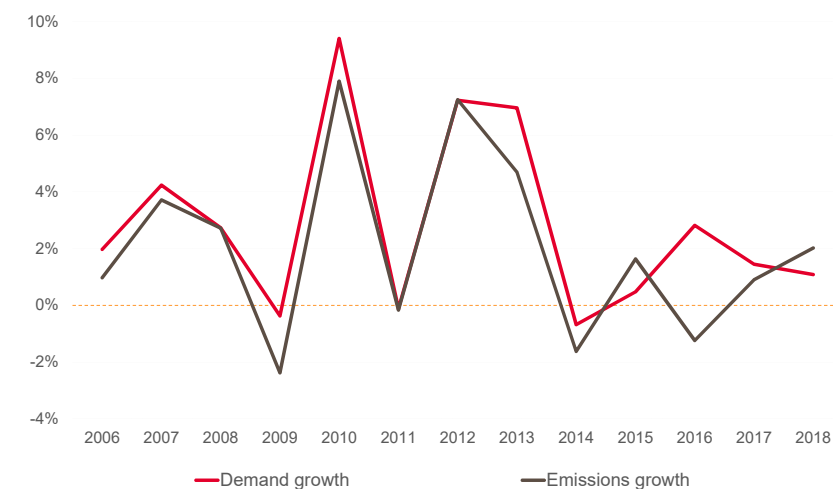
Thailand (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	107.7	117.9	117.7	126.2	135.0	134.1	134.7	138.5	140.5	142.1	100.0
Oil	42.5	44.9	47.2	49.5	53.7	53.1	53.1	55.4	57.8	58.9	41.4
Gas	28.9	33.0	30.8	35.2	37.8	37.8	37.7	36.9	36.3	35.8	25.2
Coal	14.9	16.4	16.4	16.5	17.2	15.9	16.9	15.4	15.6	16.0	11.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.6	0.5	0.7	0.8	0.5	0.5	0.4	0.6	0.8	1.3	0.9
Biomass	20.7	22.6	21.8	23.5	24.7	25.8	25.3	28.2	27.6	27.2	19.2
Other renewables	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.5	0.5	0.4
Electricity balance of trade*	0.1	0.5	0.8	0.7	1.0	0.9	1.0	1.6	2.0	2.2	1.6
Total final consumption, by source	78.5	84.9	85.7	91.9	95.9	97.6	99.0	97.5	99.1	100.6	100.0
Oil	41.2	43.8	45.4	48.3	51.8	51.8	51.9	53.8	54.9	55.9	55.5
Gas	4.3	4.6	5.8	6.1	7.1	7.4	7.2	7.2	7.1	7.2	7.1
Coal	7.9	9.2	7.5	7.8	7.3	6.4	8.2	6.1	6.7	7.0	7.0
Electricity	11.6	12.8	12.8	13.9	14.1	15.4	15.8	16.7	17.0	17.2	17.1
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	13.4	14.4	14.2	15.7	15.5	16.5	15.9	13.8	13.4	13.3	13.2
Electricity generation, by source	12.8	13.7	13.4	14.3	14.6	14.8	15.3	16.5	16.2	16.3	100.0
Oil	0.1	0.1	0.2	0.2	0.1	0.1	0.1	0.0	0.0	0.0	0.1
Gas	9.2	10.3	9.2	10.1	10.1	10.2	10.9	10.7	10.3	9.9	60.8
Coal	2.6	2.6	3.0	2.9	3.2	3.2	3.0	3.2	3.1	3.1	18.8
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.6	0.5	0.7	0.8	0.5	0.5	0.4	0.6	0.8	1.3	7.9
Biomass	0.3	0.3	0.4	0.4	0.6	0.6	0.6	1.6	1.5	1.4	8.9
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.9
Solar	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	0.4	2.5
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	78.5	84.9	85.7	91.9	95.9	97.6	99.0	97.5	99.1	100.6	100.0
Industry	24.4	26.5	25.1	28.2	28.4	30.6	31.2	31.4	32.0	32.6	32.4
Transport	19.6	19.9	21.1	22.4	22.7	22.4	23.8	25.2	25.5	25.7	25.6
Residential/Comercial	15.4	17.0	16.9	18.0	17.5	17.5	17.4	15.0	15.2	15.3	15.2
Oil final consumption, by sector	41.2	43.8	45.4	48.3	51.8	51.8	51.9	53.8	54.9	55.9	100.0
Industry	2.7	2.8	2.9	3.7	5.0	6.3	4.8	5.7	5.8	6.0	10.7
Transport	17.8	17.8	18.5	19.2	19.0	18.4	19.8	21.4	21.8	22.1	39.5
Residential/Comercial	2.6	2.9	3.1	3.6	2.8	2.6	2.5	2.5	2.5	2.5	4.5
Natural gas final consumption, by sector	4.3	4.6	5.8	6.1	7.1	7.4	7.2	7.2	7.1	7.2	100.0
Industry	2.1	2.0	2.2	2.4	2.4	2.5	3.0	3.3	3.4	3.6	50.4
Transport	1.2	1.5	1.9	2.3	2.5	2.6	2.5	2.3	2.0	1.9	26.6
Residential/Comercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refined products consumption	40.8	43.4	45.0	47.8	51.6	51.7	51.3	53.2	54.3	55.2	100.0
Gasoline	5.3	5.2	5.2	5.4	5.5	5.6	6.3	7.0	7.2	7.4	13.5
Diesel	15.7	15.7	16.6	17.9	18.1	18.3	18.0	18.8	19.3	19.6	35.6
Heating Oil	1.0	0.9	0.9	1.0	1.0	1.0	0.6	0.9	0.8	0.9	1.6
Aviation Jet	0.4	0.4	0.5	0.5	0.6	0.6	0.9	1.0	1.0	1.1	1.9
LPG	5.8	6.8	7.9	8.6	8.7	8.7	7.7	7.1	7.3	7.0	12.7
Imports	50.9	53.0	52.7	56.9	59.9	57.8	62.8	62.8	72.9	74.9	100.0
Oil	43.4	44.8	43.9	48.0	50.4	49.0	50.8	51.2	60.1	62.0	82.7
Gas	7.5	8.2	8.8	9.0	9.5	8.8	12.0	11.6	12.8	12.9	17.3
Gasoline	0.0	0.0	0.0	0.3	0.2	0.7	0.6	1.2	1.3	1.2	1.6
Diesel	0.3	0.1	0.0	0.0	0.2	0.3	0.1	0.7	1.1	0.8	1.1
Heating Oil	0.1	0.1	0.3	0.3	0.3	0.4	0.2	0.1	0.1	0.0	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.1
LPG	0.9	1.9	1.7	2.0	2.3	2.5	1.6	0.5	0.8	0.8	1.1
Exports	13.5	12.8	11.6	14.2	14.3	12.6	14.1	12.9	14.3	15.0	100.0
Oil	13.5	12.8	11.6	14.2	14.3	12.6	14.1	12.9	14.3	15.0	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	1.0	1.0	0.7	1.2	1.2	1.0	1.1	1.1	1.2	1.3	8.6
Diesel	4.2	4.8	3.5	4.7	4.2	3.8	5.4	4.2	4.6	4.8	32.1
Heating Oil	3.7	3.1	3.3	3.7	3.6	3.6	3.5	3.1	3.3	3.3	21.9
Aviation Jet	1.3	1.1	1.0	0.6	1.2	1.0	1.2	0.4	0.6	0.8	5.4
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.5	3.1
CO₂ Emissions (Million tons CO₂)	218.2	235.4	235.0	252.1	263.9	259.6	263.8	260.6	262.9	268.2	-
CO₂ Intensity (tCO₂/million \$15ppp)	243.0	243.9	241.5	241.5	246.1	239.9	236.9	226.6	220.0	214.6	-
Final energy intensity (toe/million \$15ppp)	69.9	69.3	68.6	69.4	67.8	68.9	68.5	64.9	63.4	61.4	-
Total energy intensity (toe/million \$15ppp)	120.0	122.1	120.9	120.9	125.9	123.9	121.0	120.5	117.6	113.7	-

*Heat is included

Primary energy demand mix



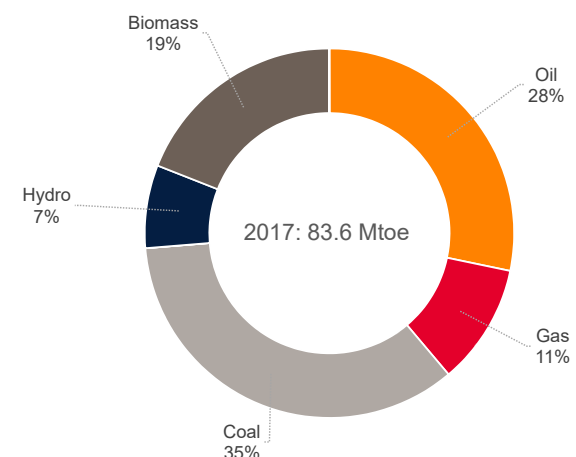
Electricity generation by source

Primary energy demand and CO₂ emissions growth

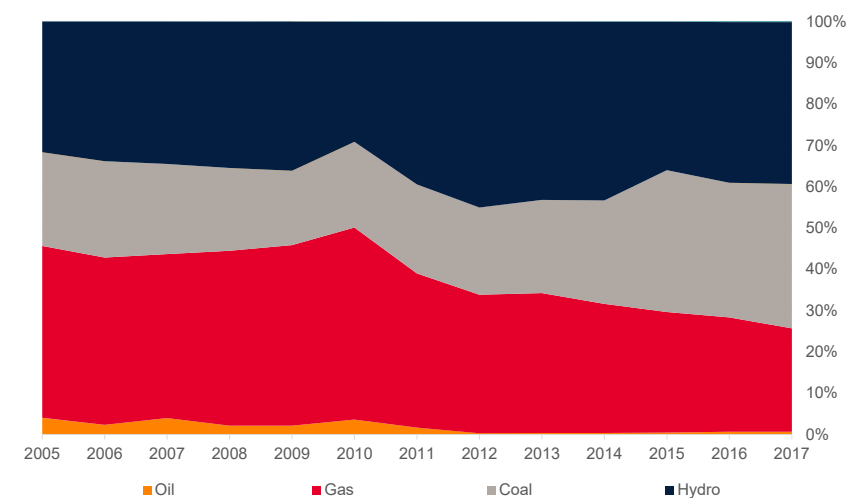
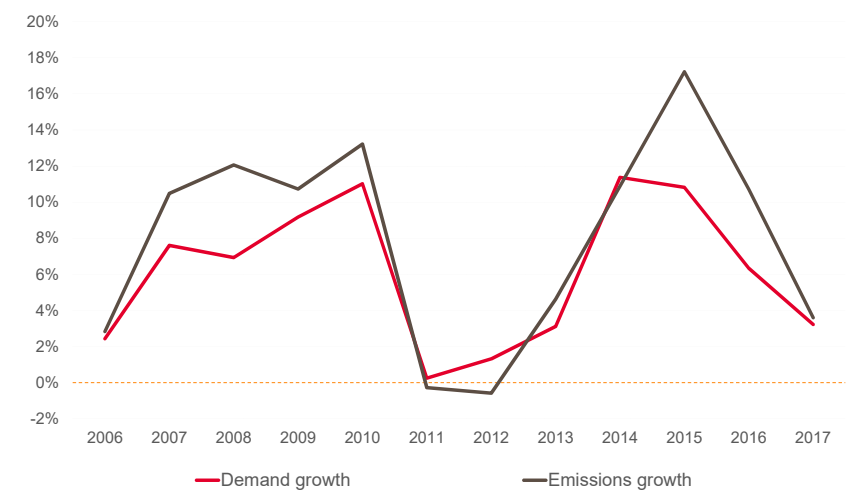
Vietnam (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	53.1	58.9	59.1	59.8	61.7	68.7	76.2	81.0	83.6	n.d.	100.0
Oil	15.7	18.7	17.2	16.1	16.1	19.1	21.2	22.5	23.6	n.d.	n.d.
Gas	7.1	8.1	7.6	8.3	8.5	9.1	9.5	9.5	8.8	n.d.	n.d.
Coal	12.6	14.7	15.6	15.8	17.2	19.9	25.0	27.6	29.1	n.d.	n.d.
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Hydro	2.6	2.4	3.5	4.5	4.5	5.1	4.8	5.5	6.1	n.d.	n.d.
Biomass	14.7	14.7	14.9	15.0	15.2	15.4	15.5	15.7	15.9	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Electricity balance of trade*	0.3	0.4	0.3	0.1	0.2	0.1	0.1	0.2	0.2	n.d.	n.d.
Total final consumption, by source	44.7	48.2	48.7	49.4	51.7	55.1	58.4	64.9	66.5	n.d.	100.0
Oil	14.6	16.6	15.7	15.1	15.4	16.5	18.0	20.5	21.5	n.d.	n.d.
Gas	0.6	0.5	0.8	1.4	1.5	1.6	1.7	1.6	1.5	n.d.	n.d.
Coal	8.9	9.8	10.1	9.7	10.5	11.4	11.8	14.4	13.7	n.d.	n.d.
Electricity	6.6	7.5	8.1	9.1	10.0	11.0	12.3	13.7	14.9	n.d.	n.d.
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Biomass	13.8	13.8	14.0	14.1	14.3	14.4	14.6	14.7	14.9	n.d.	n.d.
Electricity generation, by source	7.2	8.2	9.0	10.1	10.4	11.9	13.5	14.2	15.5	n.d.	100.0
Oil	0.2	0.3	0.2	0.0	0.0	0.0	0.1	0.1	0.1	n.d.	n.d.
Gas	3.1	3.8	3.3	3.4	3.5	3.7	3.9	3.9	3.9	n.d.	n.d.
Coal	1.3	1.7	1.9	2.1	2.3	3.0	4.6	4.6	5.4	n.d.	n.d.
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Hydro	2.6	2.4	3.5	4.5	4.5	5.1	4.8	5.5	6.1	n.d.	n.d.
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Total final consumption, by sector	44.7	48.2	48.7	49.4	51.7	55.1	58.4	64.9	66.5	n.d.	100.0
Industry	16.4	17.4	18.2	18.7	19.8	21.8	23.0	26.6	26.7	n.d.	n.d.
Transport	9.5	10.1	10.0	9.8	9.6	9.8	10.7	12.3	12.9	n.d.	n.d.
Residential/Comercial	17.1	17.8	18.2	18.6	19.3	19.7	20.5	21.8	22.4	n.d.	n.d.
Oil final consumption, by sector	14.6	16.6	15.7	15.1	15.4	16.5	18.0	20.5	21.5	n.d.	100.0
Industry	2.1	2.1	1.9	1.6	1.4	1.6	1.7	2.0	2.1	n.d.	n.d.
Transport	9.5	10.1	10.0	9.8	9.6	9.8	10.7	12.3	12.9	n.d.	n.d.
Residential/Comercial	1.5	1.6	1.6	1.5	1.5	1.6	1.7	2.1	2.2	n.d.	n.d.
Natural gas final consumption, by sector	0.6	0.5	0.8	1.4	1.5	1.6	1.7	1.6	1.5	n.d.	100.0
Industry	0.6	0.5	0.8	1.4	1.5	1.6	1.7	1.6	1.5	n.d.	n.d.
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Residential/Comercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Refined products consumption	14.6	16.6	15.7	15.1	15.4	16.5	18.0	20.5	21.5	n.d.	100.0
Gasoline	4.2	4.7	4.7	4.8	4.8	4.7	5.2	5.9	6.2	n.d.	n.d.
Diesel	7.0	7.1	7.0	6.7	6.2	6.7	7.1	8.2	8.6	n.d.	n.d.
Heating Oil	0.9	0.8	0.6	0.4	0.2	0.4	0.3	0.4	0.4	n.d.	n.d.
Aviation Jet	0.1	0.2	0.1	0.2	0.2	0.2	0.2	0.4	0.4	n.d.	n.d.
LPG	1.2	1.4	1.4	1.4	1.5	1.5	1.5	2.0	2.1	n.d.	n.d.
Imports	14.8	12.5	13.4	11.7	10.7	12.6	13.6	17.7	20.3	n.d.	100.0
Oil	14.8	12.5	13.4	11.7	10.7	12.6	13.6	17.7	20.3	n.d.	n.d.
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Gasoline	3.8	2.1	3.1	3.0	2.4	2.6	2.6	2.6	3.4	n.d.	n.d.
Diesel	6.6	5.0	5.4	4.6	3.2	4.2	4.5	6.8	7.3	n.d.	n.d.
Heating Oil	1.8	1.8	1.5	0.8	0.7	0.7	0.9	0.9	0.6	n.d.	n.d.
Aviation Jet	0.7	0.9	1.0	1.0	1.2	1.2	1.4	2.0	1.8	n.d.	n.d.
LPG	0.8	0.8	0.8	0.7	0.8	0.8	0.9	1.3	1.4	n.d.	n.d.
Exports	15.5	9.7	10.7	11.3	10.0	10.6	10.6	10.1	9.7	n.d.	100.0
Oil	15.5	9.7	10.7	11.3	10.0	10.6	10.6	10.1	9.7	n.d.	n.d.
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Gasoline	0.3	0.3	0.4	0.4	0.2	0.2	0.3	0.6	0.6	n.d.	n.d.
Diesel	0.8	1.0	1.1	0.8	0.5	0.4	0.5	1.5	1.5	n.d.	n.d.
Heating Oil	0.4	0.2	0.3	0.3	0.2	0.1	0.1	0.2	0.2	n.d.	n.d.
Aviation Jet	0.3	0.1	0.4	0.2	0.3	0.4	0.4	0.6	0.3	n.d.	n.d.
LPG	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.3	0.2	n.d.	n.d.
CO₂ Emissions (Million tons CO₂)	112.2	127.0	126.7	125.9	131.8	146.1	171.3	189.6	196.5	n.d.	-
CO₂ Intensity (tCO₂/million \$15ppp)	287.5	305.8	287.1	271.2	269.1	281.6	309.4	322.6	312.9	n.d.	-
Final energy intensity (toe/million \$15ppp)	111.9	110.7	106.6	102.8	100.7	100.2	99.0	104.4	99.9	n.d.	-
Total energy intensity (toe/million \$15ppp)	136.0	141.9	133.9	128.9	126.0	132.5	137.6	137.8	133.1	n.d.	-

*Heat is included

Primary energy demand mix

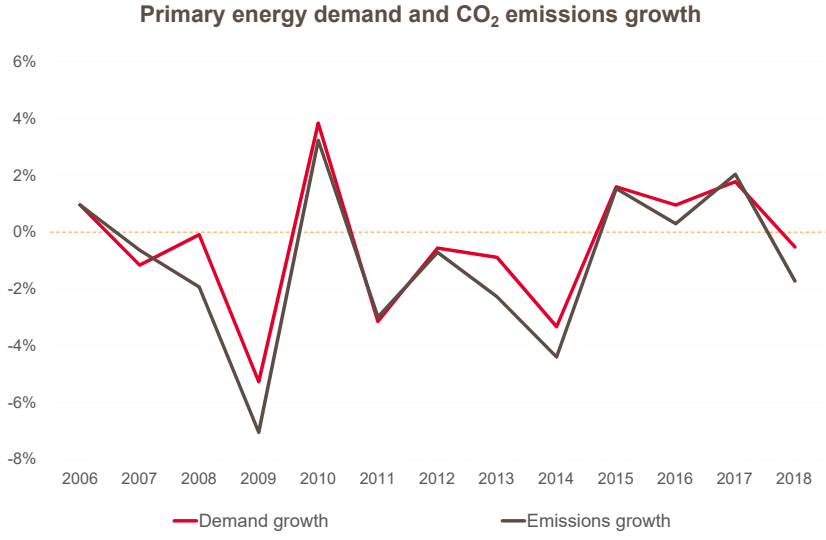
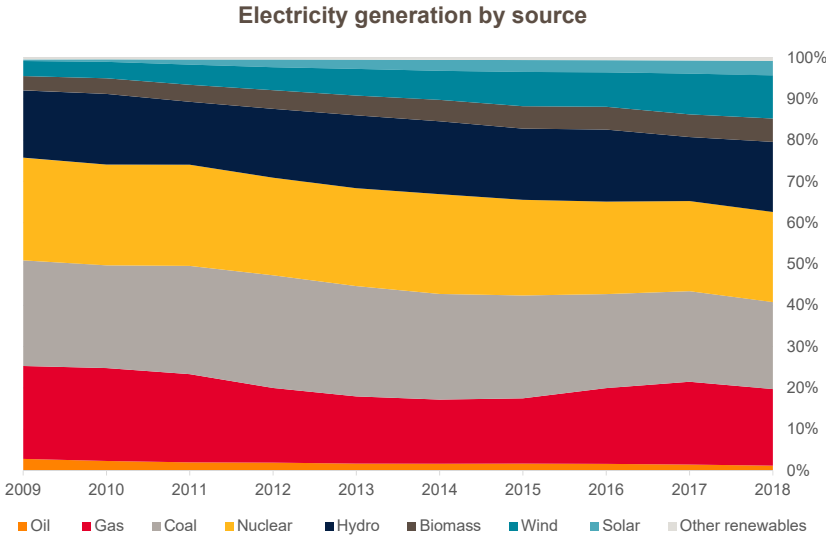
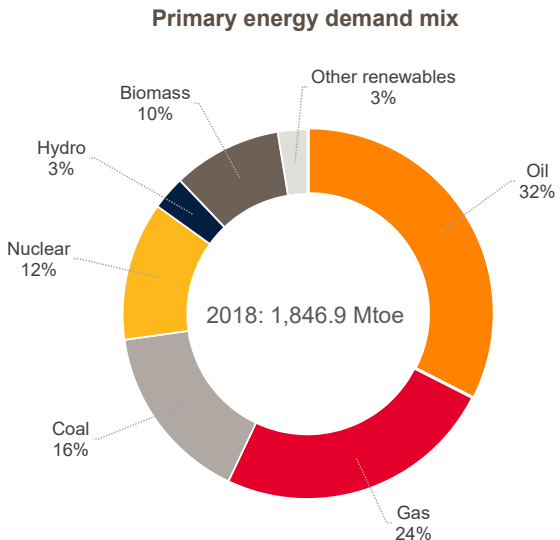


Electricity generation by source

Primary energy demand and CO₂ emissions growth

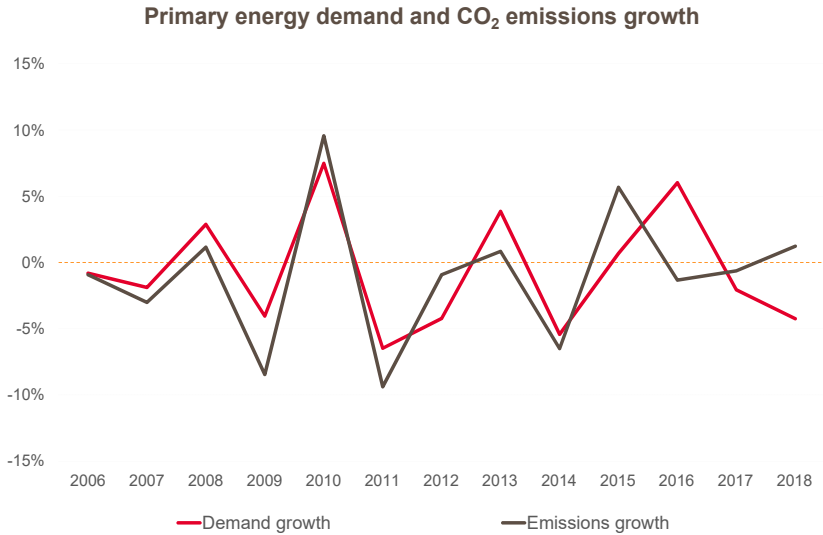
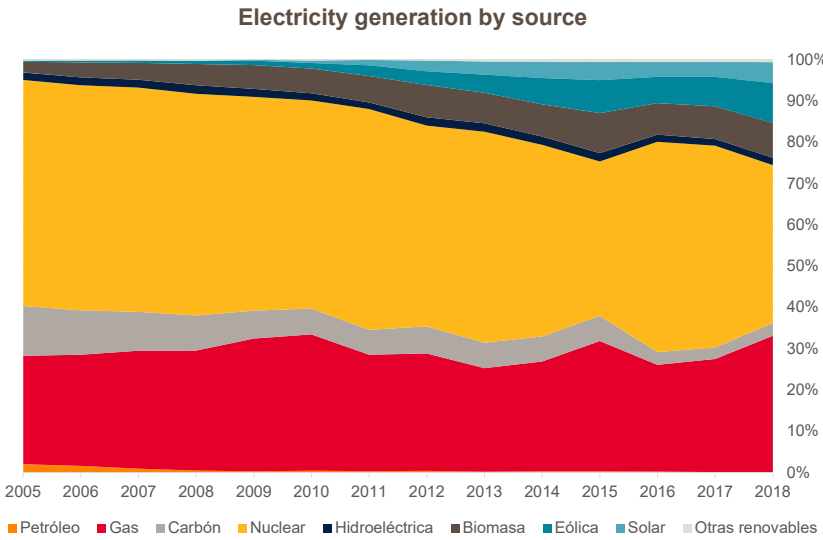
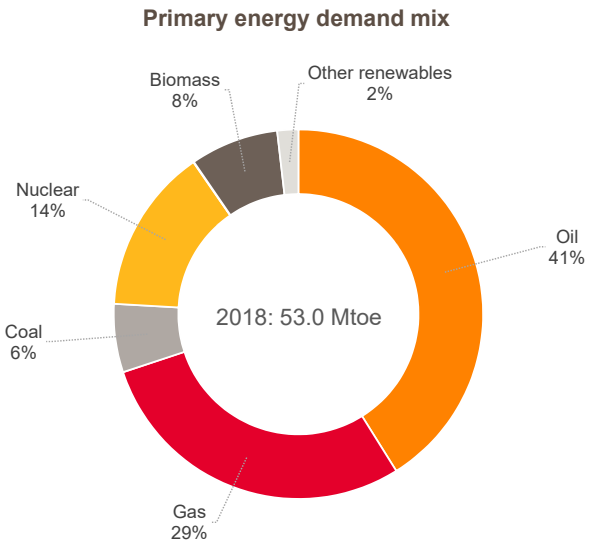
Europe (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	1,856.2	1,927.5	1,866.9	1,856.4	1,839.8	1,778.6	1,807.0	1,824.2	1,856.6	1,846.9	100.0
Oil	637.2	632.5	607.9	588.1	575.5	570.7	584.3	590.7	603.7	590.6	32.0
Gas	455.8	490.3	450.5	441.3	435.5	393.9	408.1	431.7	451.0	445.9	24.1
Coal	315.1	330.7	339.7	345.0	336.0	318.2	312.6	295.1	292.3	286.3	15.5
Nuclear	240.2	245.7	243.3	236.6	235.3	235.6	229.4	224.3	221.6	220.8	12.0
Hydro	49.1	53.9	47.3	52.2	55.0	53.9	53.5	54.8	48.9	53.8	2.9
Biomass	130.7	142.6	140.0	149.9	153.8	153.9	159.8	164.9	168.8	173.3	9.4
Other renewables	12.9	15.2	20.1	24.5	28.6	31.2	36.6	37.3	43.7	46.7	2.5
Electricity balance of trade*	15.2	16.5	18.0	18.8	20.1	21.3	22.7	25.3	26.6	29.5	1.6
Total final consumption, by source	1,306.6	1,366.5	1,310.2	1,310.4	1,306.5	1,261.0	1,290.9	1,316.2	1,342.7	1,341.3	100.0
Oil	561.5	560.8	541.4	525.4	519.4	514.9	526.0	534.2	547.0	539.9	40.3
Gas	267.8	294.4	271.7	280.0	286.0	257.5	266.9	276.2	283.8	283.3	21.1
Coal	68.0	77.7	76.2	76.2	72.3	71.5	71.3	71.0	70.9	73.6	5.5
Electricity	266.9	279.8	276.5	278.2	276.7	271.4	276.0	280.1	283.3	284.3	21.2
Heat	55.9	61.2	56.9	58.2	58.3	54.3	55.6	57.3	58.0	58.3	4.3
Biomass	86.5	92.6	87.5	92.3	93.9	91.4	95.0	97.4	99.7	101.9	7.6
Electricity generation, by source	318.9	332.5	328.0	330.4	328.0	322.0	327.0	330.6	334.9	334.0	100.0
Oil	9.0	7.7	6.4	6.3	5.5	5.2	5.5	5.3	4.8	3.9	1.2
Gas	71.7	74.8	70.0	59.6	53.3	50.1	51.6	60.6	67.2	61.9	18.5
Coal	81.6	82.7	86.0	90.1	87.7	82.3	81.5	75.2	73.3	70.4	21.1
Nuclear	79.3	81.1	80.3	78.1	77.6	77.7	75.7	74.0	73.1	72.8	21.8
Hydro	52.0	56.8	50.0	55.2	57.9	56.9	56.4	57.7	51.9	56.6	17.0
Biomass	11.0	12.6	13.4	14.9	15.7	16.7	17.7	18.2	18.4	18.9	5.7
Wind	11.7	13.2	16.0	18.4	21.2	22.7	27.2	27.6	33.0	34.9	10.4
Solar	1.2	2.0	4.1	6.1	7.4	8.5	9.4	9.7	10.7	11.9	3.6
Other renewables	1.5	1.6	1.7	1.7	1.8	1.9	2.0	2.2	2.5	2.7	0.8
Total final consumption, by sector	1,306.6	1,366.5	1,310.2	1,310.4	1,306.5	1,261.0	1,290.9	1,316.2	1,342.7	1,341.3	100.0
Industry	304.5	329.0	328.1	322.6	319.4	316.4	318.2	319.4	325.8	329.3	24.5
Transport	352.5	351.2	347.3	340.6	338.8	343.8	352.5	362.3	370.5	373.2	27.8
Residential/Comercial	501.5	531.1	483.9	501.6	505.8	458.1	479.0	491.9	497.3	495.1	36.9
Oil final consumption, by sector	561.5	560.8	541.4	525.4	519.4	514.9	526.0	534.2	547.0	539.9	100.0
Industry	38.9	37.7	35.3	33.0	29.4	27.9	29.7	28.7	28.6	27.9	5.2
Transport	333.8	330.8	326.2	318.5	317.6	321.9	330.3	339.8	346.6	348.0	64.5
Residential/Comercial	68.4	68.2	59.9	58.7	60.1	53.0	54.5	53.2	53.7	51.3	9.5
Natural gas final consumption, by sector	267.8	294.4	271.7	280.0	286.0	257.5	266.9	276.2	283.8	283.3	100.0
Industry	84.3	93.0	91.9	91.3	92.6	90.7	89.1	89.3	92.5	92.3	32.6
Transport	1.1	1.3	1.3	1.4	1.6	1.7	2.0	2.0	2.0	2.0	0.7
Residential/Comercial	164.7	179.7	158.0	167.8	172.8	145.9	157.6	166.4	170.5	170.3	60.1
Refined products consumption	558.0	557.4	537.9	522.3	516.1	511.7	523.6	531.5	544.7	537.6	100.0
Gasoline	106.8	100.3	95.8	90.2	87.0	86.6	85.3	85.5	85.6	86.1	16.0
Diesel	295.0	299.4	292.0	287.7	289.0	286.0	296.7	303.3	309.9	309.0	57.5
Heating Oil	15.5	12.8	11.9	10.5	8.9	8.0	8.2	6.9	7.3	6.0	1.1
Aviation Jet	8.2	8.1	7.8	7.5	7.8	8.0	8.4	8.8	9.0	9.3	1.7
LPG	32.9	33.3	33.1	31.3	34.5	35.8	37.4	37.3	37.4	37.7	7.0
Imports	1,348.4	1,393.1	1,368.5	1,369.2	1,362.0	1,328.0	1,409.8	1,430.0	1,499.9	1,517.8	100.0
Oil	976.5	990.1	969.8	979.6	972.3	960.7	1,021.6	1,030.0	1,053.2	1,027.7	67.7
Gas	371.8	403.0	398.7	389.6	389.7	367.4	388.2	399.9	446.7	490.1	32.3
Gasoline	30.1	30.3	30.7	32.0	29.3	28.8	31.6	32.5	32.6	29.0	1.9
Diesel	128.5	134.8	134.2	136.0	144.1	139.3	152.5	161.9	161.0	155.7	10.3
Heating Oil	65.8	66.8	68.3	63.9	65.9	66.6	69.1	67.1	51.2	48.0	3.2
Aviation Jet	34.2	33.6	32.4	33.0	34.6	33.7	35.2	37.9	39.1	41.2	2.7
LPG	20.5	21.0	21.6	20.7	24.1	26.3	28.2	28.8	27.9	29.4	1.9
Exports	619.2	633.2	619.8	644.2	643.8	637.1	687.0	694.7	724.9	745.6	100.0
Oil	459.0	457.0	447.0	459.9	458.2	455.5	492.8	509.8	522.3	505.0	67.7
Gas	160.1	176.2	172.8	184.3	185.6	181.6	194.2	184.9	202.7	240.6	32.3
Gasoline	76.4	76.7	75.7	85.9	80.7	79.7	91.7	92.4	95.2	93.7	12.6
Diesel	90.5	92.2	95.4	103.4	103.5	101.5	109.3	114.8	118.6	104.5	14.0
Heating Oil	60.2	68.0	70.3	69.9	72.7	74.6	82.9	78.6	62.4	56.0	7.5
Aviation Jet	15.5	16.3	16.7	17.9	17.6	15.3	15.6	16.8	18.2	20.6	2.8
LPG	7.3	7.4	7.7	8.6	8.5	8.0	8.9	9.6	10.1	9.4	1.3
CO ₂ Emissions (Million tons CO ₂)	4,047.0	4,177.8	4,053.0	4,024.0	3,932.4	3,759.5	3,817.1	3,828.3	3,906.3	3,838.9	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	198.4	199.9	189.5	188.1	182.1	170.5	168.7	165.7	164.1	157.5	-
Final energy intensity (toe/million \$15ppp)	58.5	59.6	55.8	56.0	55.4	52.2	52.2	52.2	51.5	50.5	-
Total energy intensity (toe/million \$15ppp)	91.0	92.2	87.3	86.8	85.2	80.7	79.8	78.9	78.0	75.8	-

*Heat is included



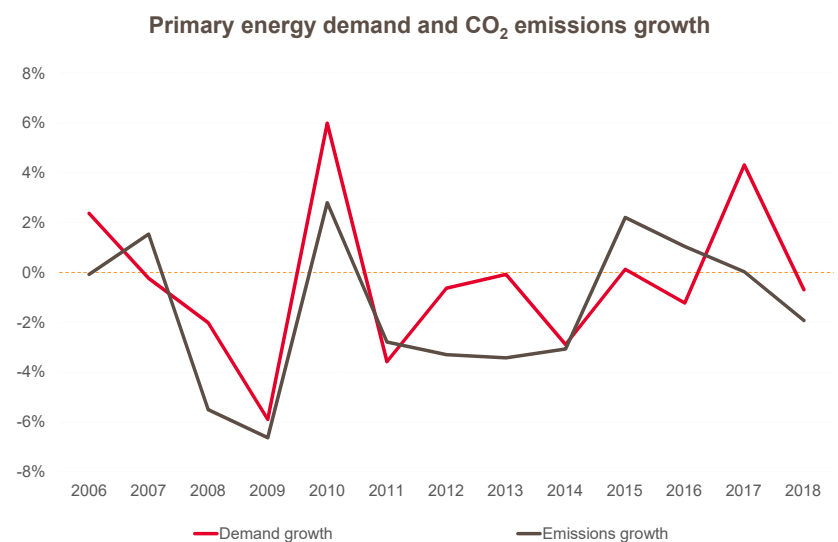
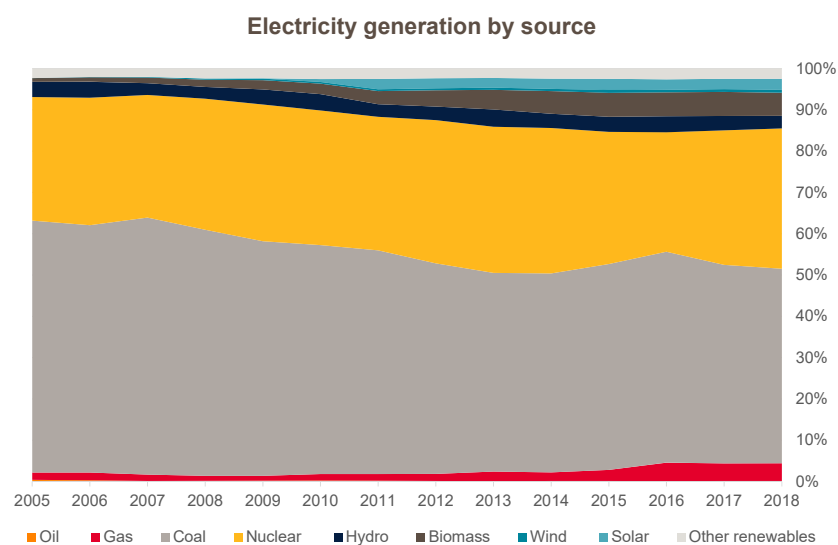
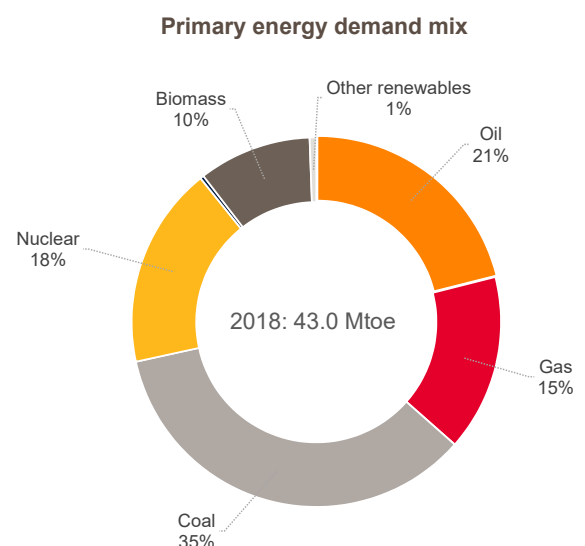
Belgium (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	55.9	60.1	56.2	53.8	55.9	52.9	53.3	56.5	55.3	53.0	100.0
Oil	22.5	23.4	21.6	20.6	21.6	22.3	22.9	22.5	21.4	21.1	39.8
Gas	15.1	16.7	14.4	14.4	14.5	12.7	14.0	14.3	14.4	14.8	27.9
Coal	3.2	3.8	3.5	3.3	3.4	3.3	3.2	2.9	3.0	3.1	5.8
Nuclear	12.3	12.5	12.6	10.5	11.1	8.8	6.8	11.3	11.0	7.4	14.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	2.8	3.4	3.5	3.6	3.6	3.4	3.6	3.8	4.0	4.0	7.5
Other renewables	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.7	0.8	0.9	1.8
Electricity balance of trade*	-0.1	0.1	0.3	1.0	1.1	1.8	2.1	0.8	0.8	1.7	3.3
Total final consumption, by source	40.3	43.4	40.5	41.0	42.9	41.2	42.8	43.3	42.5	42.8	100.0
Oil	20.4	20.9	19.7	19.8	20.6	20.5	21.6	21.2	20.2	19.9	46.5
Gas	9.8	10.9	9.6	10.0	10.6	9.1	9.9	10.3	10.3	10.6	24.7
Coal	1.5	2.1	2.0	1.9	2.1	2.2	2.1	2.2	2.3	2.4	5.7
Electricity	6.6	7.2	6.9	7.0	7.1	7.0	7.0	7.0	7.1	7.1	16.7
Heat	0.6	0.7	0.6	0.5	0.6	0.5	0.5	0.5	0.5	0.5	1.3
Biomass	1.3	1.7	1.6	1.7	1.9	1.8	1.7	2.0	2.1	2.2	5.2
Electricity generation, by source	7.8	8.2	7.8	7.1	7.2	6.2	6.0	7.4	7.4	6.4	100.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Gas	2.5	2.7	2.2	2.0	1.8	1.7	1.9	1.9	2.0	2.1	33.0
Coal	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.2	0.2	0.2	3.1
Nuclear	4.1	4.1	4.1	3.5	3.7	2.9	2.2	3.7	3.6	2.4	38.2
Hydro	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.8
Biomass	0.5	0.5	0.5	0.6	0.5	0.5	0.6	0.6	0.6	0.5	8.4
Wind	0.1	0.1	0.2	0.2	0.3	0.4	0.5	0.5	0.5	0.6	9.6
Solar	0.0	0.0	0.1	0.2	0.2	0.2	0.3	0.3	0.3	0.3	5.1
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.7
Total final consumption, by sector	40.3	43.4	40.5	41.0	42.9	41.2	42.8	43.3	42.5	42.8	100.0
Industry	9.6	10.9	10.5	10.5	10.8	10.6	10.6	10.9	11.0	11.3	26.5
Transport	9.0	8.9	8.8	8.6	8.4	8.6	9.0	9.1	9.1	9.1	21.3
Residential/Comercial	13.1	14.4	12.4	12.8	13.9	11.6	12.7	12.8	12.8	12.9	30.2
Oil final consumption, by sector	20.4	20.9	19.7	19.8	20.6	20.5	21.6	21.2	20.2	19.9	100.0
Industry	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	3.0
Transport	8.7	8.4	8.3	8.1	7.9	8.0	8.6	8.5	8.5	8.5	42.7
Residential/Comercial	3.7	4.1	3.5	3.4	3.7	3.1	3.6	3.1	3.1	3.0	15.2
Natural gas final consumption, by sector	9.8	10.9	9.6	10.0	10.6	9.1	9.9	10.3	10.3	10.6	100.0
Industry	3.8	3.8	3.7	3.8	3.8	3.7	3.7	3.8	3.8	3.9	37.2
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Residential/Comercial	5.0	5.9	4.7	5.0	5.7	4.4	4.9	5.3	5.3	5.5	51.7
Refined products consumption	20.4	20.9	19.7	19.8	20.6	20.5	21.6	21.2	20.2	19.9	100.0
Gasoline	1.4	1.3	1.2	1.2	1.2	1.3	1.4	1.5	1.6	1.7	8.7
Diesel	11.2	11.6	10.8	10.6	10.9	10.1	11.1	10.4	10.2	10.0	50.2
Heating Oil	0.6	0.4	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.4
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
LPG	1.4	1.3	1.6	1.6	1.7	2.0	2.5	2.3	2.1	2.4	12.0
Imports	72.1	76.3	72.0	69.8	72.2	72.4	75.7	74.3	77.7	78.4	100.0
Oil	54.1	56.8	54.2	54.6	56.9	58.8	60.4	59.4	62.9	64.4	82.2
Gas	18.0	19.5	17.8	15.3	15.3	13.6	15.3	15.0	14.8	14.0	17.8
Gasoline	0.5	1.1	1.4	1.0	0.7	0.9	1.3	1.5	1.3	1.6	2.1
Diesel	7.4	7.5	8.3	8.0	12.3	9.9	10.9	11.3	10.7	10.1	12.8
Heating Oil	5.7	5.4	4.7	4.2	5.1	3.6	3.7	3.9	4.8	4.9	6.3
Aviation Jet	1.1	1.8	1.9	2.2	1.6	1.0	0.8	0.5	1.5	1.6	2.1
LPG	1.9	1.9	2.0	1.8	1.9	2.0	2.7	2.5	2.3	2.4	3.0
Exports	26.5	26.7	27.6	27.8	28.0	30.2	30.5	29.7	33.6	33.4	100.0
Oil	23.5	23.9	24.2	26.7	27.2	29.4	29.0	29.1	33.0	32.9	98.3
Gas	3.0	2.8	3.4	1.1	0.8	0.7	1.4	0.6	0.6	0.6	1.7
Gasoline	4.3	5.0	4.4	4.7	4.1	4.4	5.4	5.4	4.6	4.4	13.0
Diesel	8.3	6.7	8.0	9.7	11.2	12.0	11.0	11.9	12.6	11.9	35.6
Heating Oil	3.1	3.7	4.2	3.8	4.6	4.4	4.5	4.0	6.1	5.6	16.7
Aviation Jet	1.6	1.8	1.6	2.7	1.7	1.4	0.9	0.8	1.8	1.5	4.5
LPG	0.9	1.1	1.0	0.8	0.8	0.7	0.9	0.9	1.0	0.7	2.2
CO ₂ Emissions (Million tons CO ₂)	99.6	109.1	98.9	98.0	98.8	92.4	97.6	96.3	95.7	96.9	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	209.9	223.8	199.3	197.0	198.2	182.9	190.6	185.4	181.1	180.5	-
Final energy intensity (toe/million \$15ppp)	68.6	71.8	65.3	65.7	68.0	62.5	64.6	64.5	63.6	63.7	-
Total energy intensity (toe/million \$15ppp)	117.9	123.3	113.3	108.2	112.2	104.7	104.0	108.6	104.6	98.7	-

*Heat is included



Czech Republic (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	42.6	45.1	43.5	43.2	43.2	42.0	42.0	41.5	43.3	43.0	100.0
Oil	9.2	9.0	8.7	8.6	8.3	8.8	8.6	8.0	9.3	9.3	21.6
Gas	6.8	8.1	6.8	6.9	6.9	6.2	6.5	7.0	7.2	6.8	15.9
Coal	17.6	18.8	18.4	17.4	17.2	16.0	16.5	16.6	15.8	15.5	36.0
Nuclear	7.1	7.3	7.4	7.9	8.0	7.9	7.0	6.3	7.4	7.8	18.1
Hydro	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.3
Biomass	2.8	3.0	3.3	3.5	3.8	4.0	4.1	4.2	4.3	4.4	10.2
Other renewables	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.6
Electricity balance of trade*	-1.1	-1.3	-1.4	-1.5	-1.4	-1.4	-1.0	-0.9	-1.1	-1.2	-2.7
Total final consumption, by source	27.2	27.7	26.7	26.8	26.5	26.1	26.2	26.2	27.9	27.3	100.0
Oil	8.8	8.6	8.3	8.3	8.0	8.5	8.3	7.7	9.1	9.1	33.4
Gas	5.4	6.1	5.5	5.4	5.4	4.9	5.1	5.4	5.6	5.2	19.1
Coal	3.9	3.4	3.4	3.4	3.4	3.1	3.1	3.1	3.1	2.8	10.2
Electricity	4.7	4.7	4.6	4.6	4.6	4.6	4.7	4.8	4.9	5.0	18.2
Heat	2.1	2.5	2.4	2.4	2.4	2.1	2.1	2.1	2.2	2.1	7.7
Biomass	2.3	2.4	2.5	2.6	2.7	2.9	2.9	3.0	3.0	3.1	11.4
Electricity generation, by source	7.1	7.4	7.5	7.5	7.5	7.4	7.2	7.2	7.5	7.6	100.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Gas	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.3	4.3
Coal	4.0	4.1	4.1	3.8	3.6	3.6	3.6	3.7	3.6	3.6	47.1
Nuclear	2.3	2.4	2.4	2.6	2.6	2.6	2.3	2.1	2.4	2.6	34.0
Hydro	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	3.0
Biomass	0.2	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.4	5.6
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.7
Solar	0.0	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.7
Other renewables	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.5
Total final consumption, by sector	27.2	27.7	26.7	26.8	26.5	26.1	26.2	26.2	27.9	27.3	100.0
Industry	8.2	8.0	7.9	7.8	7.5	7.4	7.5	7.5	7.6	7.3	26.7
Transport	6.1	5.8	5.8	5.7	5.7	5.9	6.1	6.4	6.6	6.5	23.8
Residential/Commercial	9.7	10.6	9.9	10.0	10.1	9.3	9.6	9.9	10.1	9.9	36.3
Oil final consumption, by sector	8.8	8.6	8.3	8.3	8.0	8.5	8.3	7.7	9.1	9.1	100.0
Industry	0.4	0.4	0.3	0.3	0.2	0.3	0.3	0.1	0.1	0.1	1.5
Transport	5.8	5.4	5.4	5.3	5.2	5.4	5.6	5.9	6.0	6.0	65.6
Residential/Commercial	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.9
Natural gas final consumption, by sector	5.4	6.1	5.5	5.4	5.4	4.9	5.1	5.4	5.6	5.2	100.0
Industry	2.0	2.2	2.1	2.0	2.1	1.9	2.0	2.0	2.1	2.0	38.5
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	1.1
Residential/Commercial	3.4	3.7	3.3	3.2	3.2	2.8	2.9	3.2	3.2	3.0	58.0
Refined products consumption	8.8	8.6	8.3	8.3	8.0	8.5	8.3	7.7	9.1	9.1	100.0
Gasoline	2.0	1.9	1.8	1.7	1.6	1.5	1.6	1.6	1.6	1.6	17.2
Diesel	4.1	3.9	3.9	3.9	4.0	4.1	4.4	4.6	4.7	4.7	51.3
Heating Oil	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.3
LPG	0.2	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.5	0.5	5.5
Imports	17.5	17.6	17.9	16.3	17.0	16.8	17.3	17.0	19.1	18.4	100.0
Oil	10.4	10.6	10.2	10.2	10.0	10.9	11.2	10.3	11.8	11.8	64.1
Gas	7.1	7.0	7.6	6.1	7.0	6.0	6.2	6.7	7.3	6.6	35.9
Gasoline	0.7	0.6	0.6	0.5	0.6	0.5	0.5	0.8	0.6	0.7	3.8
Diesel	1.3	1.2	1.6	1.5	1.7	1.8	2.2	2.8	2.1	2.3	12.4
Heating Oil	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.3	0.2	0.3	1.5
LPG	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	1.2
Exports	1.2	1.8	1.7	1.7	1.8	2.0	2.4	2.2	2.4	2.2	100.0
Oil	1.1	1.6	1.6	1.7	1.8	2.0	2.4	2.2	2.4	2.2	100.0
Gas	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.2	0.3	0.3	0.3	0.3	0.5	0.6	0.4	0.6	0.6	25.8
Diesel	0.4	0.7	0.6	0.7	0.7	0.9	1.1	0.8	0.9	0.8	36.8
Heating Oil	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	6.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.1	4.7
CO₂ Emissions (Million tons CO₂)	110.1	113.2	110.0	106.4	102.8	99.6	101.8	102.9	102.9	100.9	-
CO₂ Intensity (tCO₂/million \$15ppp)	346.8	348.5	332.9	324.5	314.9	297.2	288.4	284.1	272.5	259.3	-
Final energy intensity (toe/million \$15ppp)	77.5	76.6	73.0	73.6	73.2	69.2	67.4	67.4	66.0	62.5	-
Total energy intensity (toe/million \$15ppp)	134.1	139.0	131.7	131.9	132.4	125.2	119.0	114.6	114.6	110.5	-

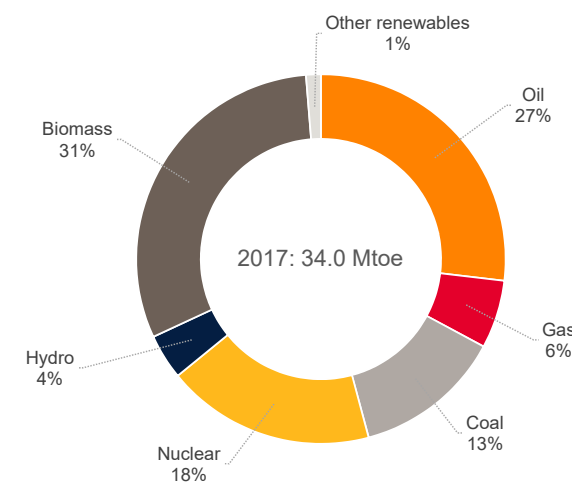
*Heat is included



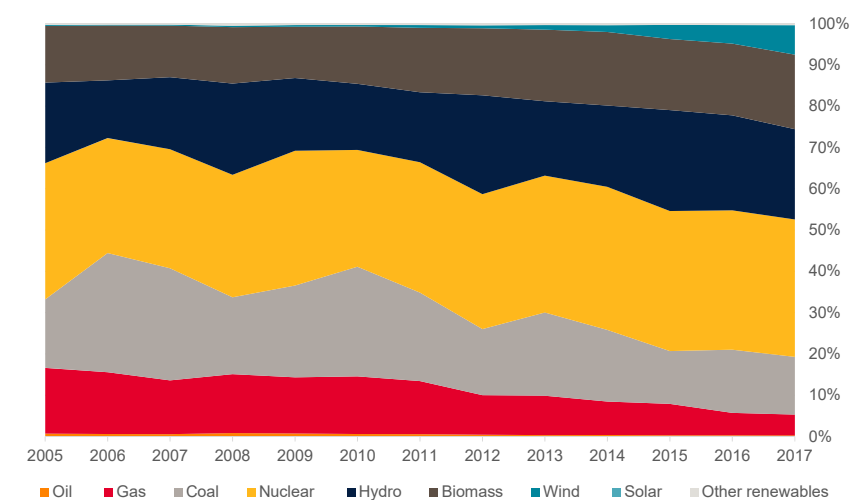
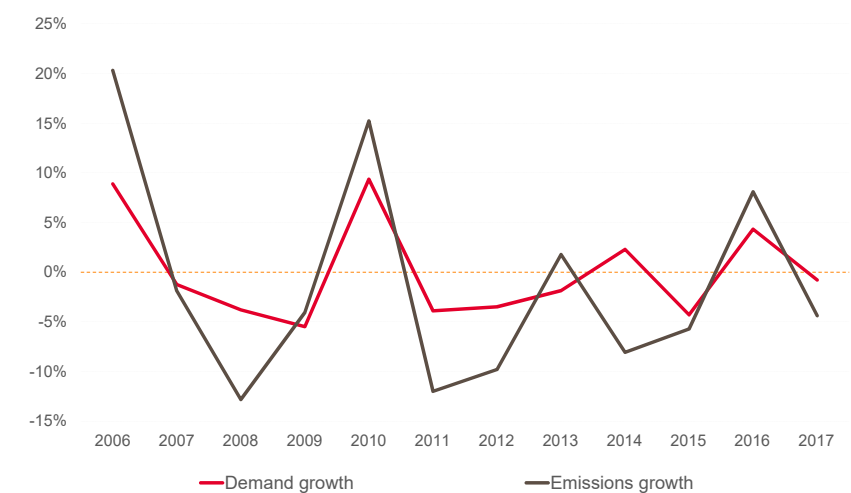
Finland (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	33.7	36.8	35.4	34.1	33.5	34.3	32.8	34.2	34.0	n.d.	100.0
Oil	9.4	9.7	9.4	8.8	7.8	8.9	8.2	8.9	8.6	n.d.	n.d.
Gas	3.5	3.8	3.4	3.0	2.9	2.5	2.2	2.1	1.9	n.d.	n.d.
Coal	5.3	6.9	6.0	4.6	5.1	4.5	4.1	4.5	4.2	n.d.	n.d.
Nuclear	6.1	5.9	6.0	6.0	6.2	6.1	6.1	6.0	5.9	n.d.	n.d.
Hydro	1.1	1.1	1.1	1.4	1.1	1.2	1.4	1.4	1.3	n.d.	n.d.
Biomass	7.1	8.4	8.2	8.7	8.9	9.3	9.1	9.3	9.8	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	n.d.	n.d.
Electricity balance of trade*	1.1	1.0	1.3	1.6	1.5	1.7	1.5	1.8	1.9	n.d.	n.d.
Total final consumption, by source	24.4	26.7	25.3	25.5	25.1	25.0	25.2	26.4	26.4	n.d.	100.0
Oil	7.8	8.2	7.8	7.6	7.6	7.2	7.7	8.3	8.0	n.d.	n.d.
Gas	0.7	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	n.d.	n.d.
Coal	0.9	1.1	1.0	0.9	0.9	0.9	0.9	1.0	0.9	n.d.	n.d.
Electricity	6.6	7.2	6.9	6.9	6.9	6.8	6.7	7.0	7.0	n.d.	n.d.
Heat	4.1	4.6	4.1	4.3	4.1	4.0	3.8	4.1	4.1	n.d.	n.d.
Biomass	4.3	4.9	4.8	5.0	5.0	5.5	5.4	5.4	5.9	n.d.	n.d.
Electricity generation, by source	6.2	6.9	6.3	6.1	6.1	5.9	5.9	5.9	5.8	n.d.	100.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Gas	0.8	1.0	0.8	0.6	0.6	0.5	0.4	0.3	0.3	n.d.	n.d.
Coal	1.4	1.8	1.4	1.0	1.2	1.0	0.8	0.9	0.8	n.d.	n.d.
Nuclear	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	n.d.	n.d.
Hydro	1.1	1.1	1.1	1.4	1.1	1.2	1.4	1.4	1.3	n.d.	n.d.
Biomass	0.8	1.0	1.0	1.0	1.1	1.0	1.0	1.0	1.0	n.d.	n.d.
Wind	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.4	n.d.	n.d.
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Total final consumption, by sector	24.4	26.7	25.3	25.5	25.1	25.0	25.2	26.4	26.4	n.d.	100.0
Industry	9.7	11.1	10.9	10.7	10.7	10.6	10.6	11.0	11.0	n.d.	n.d.
Transport	4.3	4.5	4.5	4.4	4.4	4.2	4.3	4.4	4.6	n.d.	n.d.
Residential/Commercial	8.2	8.9	7.9	8.4	8.0	7.9	7.6	8.1	8.2	n.d.	n.d.
Oil final consumption, by sector	7.8	8.2	7.8	7.6	7.6	7.2	7.7	8.3	8.0	n.d.	100.0
Industry	1.2	1.3	1.3	1.2	1.2	1.2	1.2	1.2	1.1	n.d.	n.d.
Transport	4.1	4.3	4.2	4.1	4.1	3.7	3.7	4.2	4.2	n.d.	n.d.
Residential/Commercial	0.8	0.8	0.7	0.7	0.6	0.6	0.5	0.6	0.6	n.d.	n.d.
Natural gas final consumption, by sector	0.7	0.8	0.8	0.7	0.7	0.7	0.6	0.6	0.6	n.d.	100.0
Industry	0.6	0.7	0.7	0.6	0.6	0.6	0.6	0.5	0.5	n.d.	n.d.
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Residential/Commercial	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	n.d.	n.d.
Refined products consumption	7.8	8.2	7.8	7.6	7.6	7.2	7.7	8.3	8.0	n.d.	100.0
Gasoline	1.7	1.7	1.6	1.5	1.5	1.5	1.5	1.5	1.4	n.d.	n.d.
Diesel	3.9	4.2	4.0	4.1	3.9	3.6	3.6	4.1	4.1	n.d.	n.d.
Heating Oil	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.2	n.d.	n.d.
Aviation Jet	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	n.d.	n.d.
LPG	0.4	0.5	0.5	0.5	0.5	0.5	1.1	1.1	1.0	n.d.	n.d.
Imports	20.3	20.1	20.8	19.7	21.1	20.4	18.8	20.5	19.9	n.d.	100.0
Oil	16.8	16.3	17.4	16.7	18.3	17.9	16.6	18.4	18.0	n.d.	n.d.
Gas	3.5	3.8	3.4	3.0	2.9	2.5	2.2	2.1	1.9	n.d.	n.d.
Gasoline	0.0	0.0	0.0	0.1	0.6	0.5	0.5	0.6	0.6	n.d.	n.d.
Diesel	2.3	1.9	2.5	2.4	3.1	2.2	1.8	2.0	1.8	n.d.	n.d.
Heating Oil	0.6	0.7	0.7	0.8	0.8	1.2	1.1	1.2	0.9	n.d.	n.d.
Aviation Jet	0.1	0.1	0.1	0.2	0.1	0.3	0.3	0.3	0.2	n.d.	n.d.
LPG	0.2	0.3	0.3	0.3	0.3	0.3	0.9	0.8	0.8	n.d.	n.d.
Exports	6.8	6.9	7.3	7.7	9.2	8.7	6.9	9.1	9.0	n.d.	100.0
Oil	6.8	6.9	7.3	7.7	9.2	8.7	6.9	9.1	9.0	n.d.	n.d.
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Gasoline	2.5	2.4	2.6	2.6	3.3	3.3	2.5	3.1	3.3	n.d.	n.d.
Diesel	2.6	3.0	2.9	3.2	4.1	3.7	3.0	3.9	3.8	n.d.	n.d.
Heating Oil	0.8	0.7	0.9	1.1	1.1	0.8	0.8	1.3	1.1	n.d.	n.d.
Aviation Jet	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
CO₂ Emissions (Million tons CO₂)	55.5	64.0	56.3	50.8	51.7	47.5	44.8	48.4	46.3	n.d.	-
CO₂ Intensity (tCO₂/million \$15ppp)	247.7	277.1	237.8	217.6	223.2	206.5	194.4	205.8	191.4	n.d.	-
Final energy intensity (toe/million \$15ppp)	103.5	110.3	102.0	104.6	103.4	103.5	101.9	104.4	102.4	n.d.	-
Total energy intensity (toe/million \$15ppp)	150.1	159.4	149.4	146.2	144.6	148.9	142.3	145.4	140.3	n.d.	-

*Heat is included

Primary energy demand mix



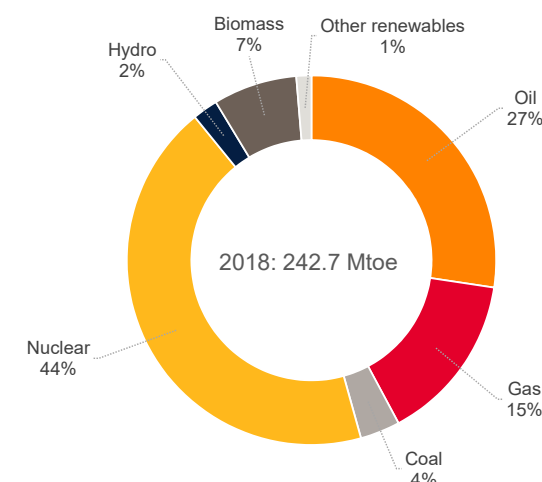
Electricity generation by source

Primary energy demand and CO₂ emissions growth

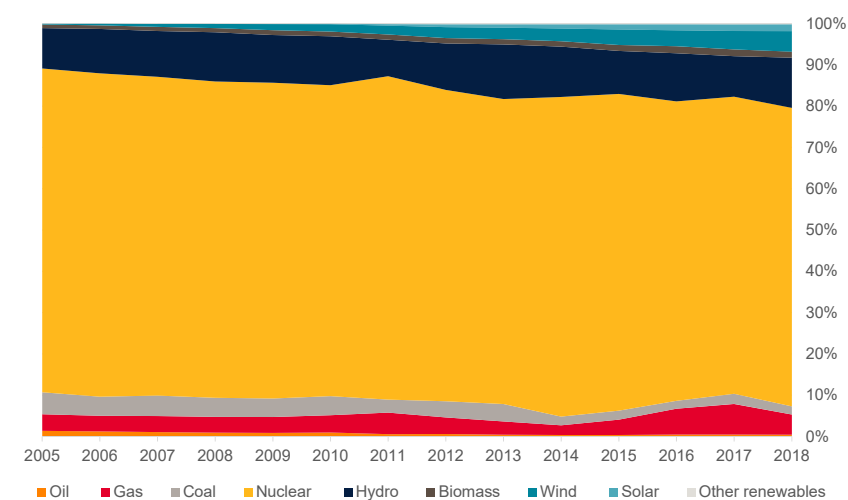
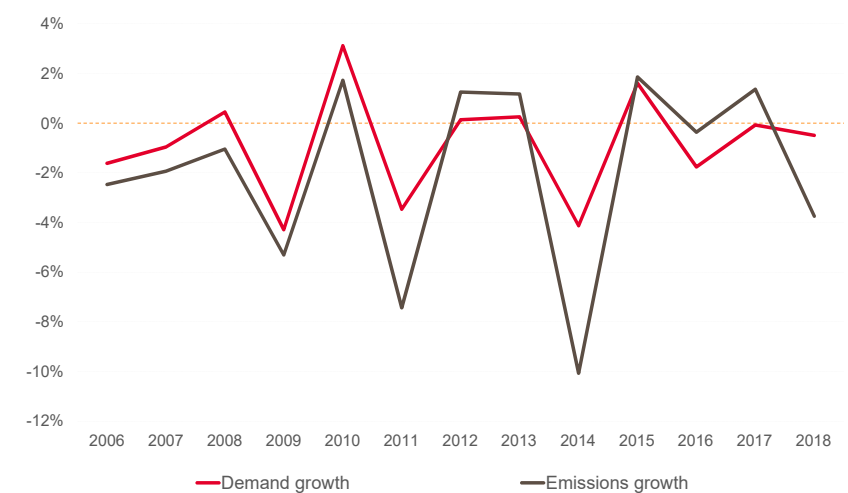
France (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	255.2	263.1	254.0	254.4	255.0	244.5	248.4	244.0	243.9	242.7	100.0
Oil	80.6	76.9	75.9	74.5	72.3	71.3	72.1	69.6	69.8	67.8	27.9
Gas	38.5	42.6	37.0	38.2	38.8	32.6	35.0	38.3	38.5	36.7	15.1
Coal	11.1	12.0	10.8	12.0	12.7	9.3	8.8	8.6	9.3	8.6	3.6
Nuclear	106.8	111.7	115.3	110.9	110.4	113.7	114.0	105.1	103.8	107.6	44.4
Hydro	4.9	5.4	3.9	5.0	6.1	5.4	4.7	5.2	4.2	5.5	2.3
Biomass	14.6	16.1	14.5	15.7	16.7	15.5	16.5	18.1	18.4	18.2	7.5
Other renewables	0.7	0.9	1.2	1.6	1.8	2.0	2.5	2.5	2.9	3.3	1.3
Electricity balance of trade*	-2.0	-2.4	-4.6	-3.5	-3.9	-5.5	-5.2	-3.2	-3.1	-5.1	-2.1
Total final consumption, by source	157.7	161.8	153.1	157.1	159.8	150.1	152.3	153.8	154.2	152.7	100.0
Oil	72.4	71.1	69.6	68.7	68.2	67.1	67.0	65.6	66.2	64.3	42.1
Gas	31.1	33.0	29.4	31.5	32.9	27.8	28.8	30.2	29.7	30.3	19.9
Coal	4.1	4.7	4.6	4.5	4.6	4.7	4.4	4.2	4.2	4.1	2.7
Electricity	35.9	38.2	36.4	38.0	38.7	36.4	37.3	38.0	37.8	37.3	24.4
Heat	3.5	3.2	3.1	3.2	3.3	3.0	3.1	3.5	3.8	4.1	2.7
Biomass	10.8	11.6	10.0	11.2	12.2	11.0	11.6	12.4	12.4	12.6	8.2
Electricity generation, by source	46.1	49.0	48.6	48.5	49.4	48.5	49.0	47.8	47.6	49.1	100.0
Oil	0.4	0.5	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.4
Gas	1.8	2.0	2.5	2.0	1.6	1.1	1.8	3.0	3.5	2.4	4.9
Coal	2.1	2.3	1.5	1.9	2.1	1.0	1.1	0.9	1.2	1.0	2.0
Nuclear	35.2	36.9	38.0	36.6	36.4	37.5	37.6	34.7	34.3	35.5	72.3
Hydro	5.3	5.8	4.3	5.5	6.5	5.9	5.1	5.6	4.7	6.0	12.1
Biomass	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.8	0.8	0.7	1.4
Wind	0.7	0.9	1.0	1.3	1.4	1.5	1.8	1.8	2.1	2.4	5.0
Solar	0.0	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.8	1.7
Other renewables	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Total final consumption, by sector	157.7	161.8	153.1	157.1	159.8	150.1	152.3	153.8	154.2	152.7	100.0
Industry	28.9	31.0	30.5	29.8	30.1	29.1	28.9	28.8	28.7	28.7	18.8
Transport	44.1	44.1	44.0	43.8	43.6	43.8	44.2	44.1	44.3	43.4	28.4
Residential/Commercial	66.0	68.3	59.9	65.0	67.8	58.3	60.9	63.1	62.7	62.9	41.2
Oil final consumption, by sector	72.4	71.1	69.6	68.7	68.2	67.1	67.0	65.6	66.2	64.3	100.0
Industry	3.1	2.9	3.1	2.8	2.6	2.2	2.3	2.2	2.0	1.9	3.0
Transport	40.7	40.8	40.7	40.2	39.9	40.0	40.3	40.1	40.1	39.3	61.1
Residential/Commercial	11.9	11.1	9.4	9.5	9.9	8.5	8.6	8.0	8.1	7.8	12.1
Natural gas final consumption, by sector	31.1	33.0	29.4	31.5	32.9	27.8	28.8	30.2	29.7	30.3	100.0
Industry	9.6	11.1	10.3	10.1	10.6	10.0	10.0	9.8	9.5	9.7	31.9
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Residential/Commercial	20.2	20.6	17.9	20.1	21.0	16.5	17.5	19.0	18.9	19.3	63.6
Refined products consumption	72.4	71.1	69.6	68.7	68.2	67.1	67.0	65.6	66.2	64.3	100.0
Gasoline	8.4	7.7	7.3	6.8	6.6	6.7	6.8	6.9	7.1	7.4	11.5
Diesel	46.0	45.9	44.8	44.8	45.1	43.8	44.4	43.7	43.8	42.2	65.6
Heating Oil	1.2	1.0	1.1	0.9	0.7	0.6	0.6	0.4	0.3	0.3	0.4
Aviation Jet	1.3	1.3	1.4	1.4	1.4	1.3	1.3	1.2	1.2	1.2	1.9
LPG	4.3	4.1	3.8	3.8	4.1	4.5	4.4	4.2	4.1	4.0	6.2
Imports	153.2	148.6	150.5	144.0	141.5	137.3	139.6	137.3	140.6	138.7	100.0
Oil	112.5	106.5	106.5	101.7	99.0	97.1	100.2	96.1	97.4	94.4	68.0
Gas	40.7	42.1	44.0	42.3	42.5	40.2	39.4	41.2	43.1	44.3	32.0
Gasoline	0.6	0.9	0.5	0.4	0.2	0.3	0.5	1.1	1.3	1.3	0.9
Diesel	18.3	19.6	20.7	23.9	23.6	22.9	24.2	21.9	21.4	22.2	16.0
Heating Oil	7.7	7.9	7.1	5.1	4.8	4.8	3.0	3.5	3.0	2.9	2.1
Aviation Jet	4.2	4.1	3.8	4.4	4.2	4.3	4.6	4.5	4.3	5.6	4.1
LPG	2.9	3.0	3.0	3.2	3.5	3.8	3.7	3.3	3.1	3.2	2.3
Exports	27.6	25.7	29.3	25.8	23.7	25.5	26.2	24.1	25.9	25.5	100.0
Oil	25.7	23.2	23.5	20.5	19.2	19.1	21.3	20.8	20.5	20.3	79.4
Gas	1.9	2.6	5.8	5.4	4.5	6.4	4.9	3.3	5.4	5.3	20.6
Gasoline	6.9	6.3	5.0	4.7	3.9	4.0	4.3	4.8	4.6	3.3	12.9
Diesel	4.7	3.6	4.0	2.8	2.0	1.8	2.8	2.1	2.6	2.1	8.3
Heating Oil	5.7	6.2	6.2	5.7	5.4	5.6	6.2	5.4	4.5	4.3	17.0
Aviation Jet	1.8	1.3	0.7	0.9	1.1	1.2	1.3	1.2	1.4	2.3	9.2
LPG	1.2	1.1	1.2	1.4	1.4	1.2	1.3	1.3	1.2	1.0	4.1
CO₂ Emissions (Million tons CO₂)	351.4	357.5	330.9	335.0	339.0	304.9	310.5	309.4	313.6	301.9	-
CO₂ Intensity (tCO₂/million \$15ppp)	139.5	139.1	126.2	127.5	128.3	114.3	115.2	113.4	112.3	106.5	-
Final energy intensity (toe/million \$15ppp)	57.0	57.6	53.0	54.5	55.3	50.9	51.3	51.5	50.2	49.1	-
Total energy intensity (toe/million \$15ppp)	101.3	102.4	96.9	96.8	96.5	91.6	92.1	89.5	87.3	85.6	-

*Heat is included

Primary energy demand mix



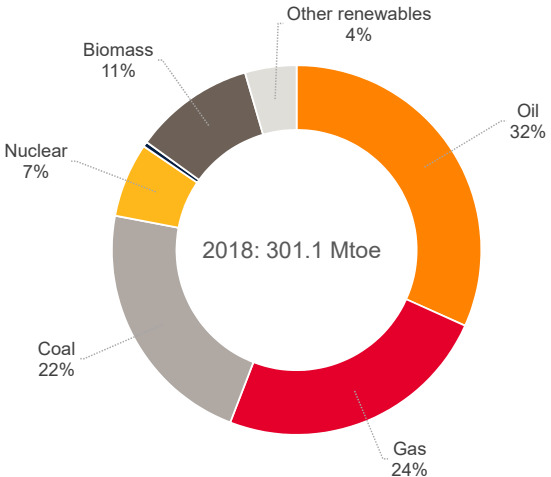
Electricity generation by source

Primary energy demand and CO₂ emissions growth

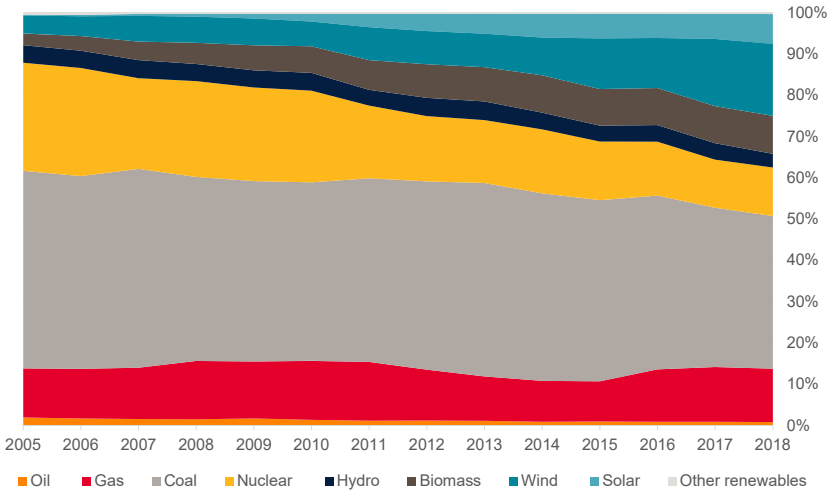
Germany (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	309.9	326.0	309.5	310.8	317.6	305.7	307.8	309.7	312.2	301.1	100.0
Oil	102.8	104.2	100.7	100.3	102.6	100.5	100.7	100.9	103.8	96.4	32.0
Gas	72.7	75.9	69.6	69.8	73.1	63.4	65.1	70.3	74.6	73.4	24.4
Coal	72.1	78.9	78.1	80.1	81.7	79.6	79.5	77.2	72.3	67.3	22.3
Nuclear	35.2	36.6	28.1	25.9	25.4	25.3	23.9	22.1	19.9	19.8	6.6
Hydro	1.6	1.8	1.5	1.9	2.0	1.7	1.6	1.8	1.7	1.3	0.4
Biomass	22.0	24.8	25.1	27.1	27.7	29.2	29.9	30.7	30.7	32.1	10.7
Other renewables	3.9	4.3	5.9	6.6	7.1	8.0	10.1	10.0	12.6	13.7	4.5
Electricity balance of trade*	-0.4	-0.5	0.5	-0.9	-1.9	-1.9	-3.1	-3.3	-3.4	-2.9	-1.0
Total final consumption, by source	218.7	234.1	223.3	225.6	231.0	222.3	226.2	229.9	236.9	229.9	100.0
Oil	93.4	94.7	91.9	91.9	94.1	92.1	92.1	92.2	95.1	89.0	38.7
Gas	50.4	55.9	50.1	51.9	54.8	49.6	51.3	54.6	58.3	57.4	25.0
Coal	10.0	12.9	13.1	13.2	13.1	13.1	14.0	13.3	13.6	14.2	6.2
Electricity	42.8	45.8	45.2	45.2	45.0	44.1	44.3	44.5	44.7	44.5	19.4
Heat	10.7	11.8	10.6	10.9	11.0	9.9	10.3	10.5	10.6	10.2	4.4
Biomass	11.5	13.1	12.5	12.5	12.9	13.5	14.2	14.7	14.6	14.5	6.3
Electricity generation, by source	51.2	54.4	52.7	54.2	54.9	54.0	55.6	55.8	56.3	55.7	100.0
Oil	0.9	0.8	0.6	0.7	0.6	0.5	0.5	0.5	0.5	0.5	0.8
Gas	7.1	7.8	7.5	6.7	5.9	5.4	5.4	7.1	7.5	7.2	12.9
Coal	22.4	23.5	23.4	24.7	25.7	24.5	24.4	23.5	21.7	20.6	37.0
Nuclear	11.6	12.1	9.3	8.6	8.4	8.4	7.9	7.3	6.6	6.5	11.7
Hydro	2.1	2.4	2.0	2.4	2.5	2.2	2.1	2.2	2.2	1.8	3.3
Biomass	3.1	3.5	3.8	4.4	4.6	4.9	4.9	5.0	5.0	5.1	9.2
Wind	3.3	3.3	4.2	4.4	4.4	4.9	6.8	6.8	9.2	9.7	17.4
Solar	0.6	1.0	1.7	2.3	2.7	3.1	3.3	3.3	3.4	4.0	7.2
Other renewables	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4
Total final consumption, by sector	218.7	234.1	223.3	225.6	231.0	222.3	226.2	229.9	236.9	229.9	100.0
Industry	54.0	61.0	61.2	61.0	61.2	61.2	61.7	61.9	63.9	64.1	27.9
Transport	52.9	53.4	53.9	53.4	54.4	55.2	55.9	57.0	58.1	58.5	25.4
Residential/Comercial	89.9	96.4	85.2	88.7	93.0	83.2	86.9	88.9	91.5	87.7	38.2
Oil final consumption, by sector	93.4	94.7	91.9	91.9	94.1	92.1	92.1	92.2	95.1	89.0	100.0
Industry	4.2	4.1	3.5	3.3	3.1	2.8	3.0	2.4	2.5	2.4	2.7
Transport	48.8	49.1	49.7	49.1	50.4	51.1	52.1	53.1	54.2	54.4	61.1
Residential/Comercial	21.5	21.7	19.1	20.1	21.7	19.0	18.5	18.3	18.8	16.3	18.3
Natural gas final consumption, by sector	50.4	55.9	50.1	51.9	54.8	49.6	51.3	54.6	58.3	57.4	100.0
Industry	17.4	19.6	18.9	19.0	19.1	18.7	18.7	19.4	20.4	20.3	35.4
Transport	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2
Residential/Comercial	31.0	33.8	28.6	30.7	33.1	28.2	30.1	32.4	35.0	34.2	59.5
Refined products consumption	93.4	94.7	91.9	91.9	94.1	92.1	92.1	92.2	95.1	89.0	100.0
Gasoline	20.3	19.4	19.3	18.1	18.1	18.2	17.9	17.9	18.0	17.7	19.9
Diesel	49.5	51.1	48.8	50.3	52.9	50.5	51.2	52.0	52.7	51.1	57.4
Heating Oil	3.3	3.1	3.0	3.0	2.5	2.5	2.7	1.5	1.6	1.1	1.2
Aviation Jet	0.9	0.8	0.7	0.7	0.7	0.7	0.7	0.8	0.9	0.9	1.0
LPG	3.0	3.1	3.0	3.1	3.2	2.7	2.8	2.9	4.1	3.5	3.9
Imports	206.6	209.7	200.6	201.9	212.5	203.9	216.8	213.8	234.3	270.1	100.0
Oil	133.2	130.9	125.5	127.8	130.5	128.6	130.9	132.2	134.1	126.7	46.9
Gas	73.4	78.8	75.1	74.1	81.9	75.3	85.9	81.6	100.1	143.4	53.1
Gasoline	1.6	2.1	2.0	1.6	1.9	1.9	2.0	1.6	2.2	2.5	0.9
Diesel	14.8	15.9	13.8	13.8	18.0	17.1	18.7	19.5	19.7	18.6	6.9
Heating Oil	2.9	2.6	2.7	2.3	2.4	2.4	1.8	2.4	2.2	2.1	0.8
Aviation Jet	5.3	4.9	4.5	5.1	5.6	5.1	5.3	5.3	6.3	6.9	2.6
LPG	1.0	1.0	1.0	1.2	1.1	0.7	0.8	0.9	1.0	1.2	0.4
Exports	33.6	35.8	33.1	33.1	38.5	39.8	49.8	42.2	52.4	94.4	100.0
Oil	22.5	18.6	18.4	18.9	20.1	21.2	22.5	22.8	23.4	22.4	23.8
Gas	11.1	17.2	14.7	14.3	18.4	18.7	27.2	19.3	29.0	71.9	76.2
Gasoline	5.8	5.1	5.0	5.2	5.3	5.0	4.6	5.3	6.0	5.3	5.6
Diesel	8.9	6.8	6.5	6.3	7.0	7.7	8.4	9.5	9.0	8.1	8.6
Heating Oil	3.2	1.7	1.9	2.0	2.6	3.0	2.9	2.1	1.8	2.5	2.7
Aviation Jet	0.6	0.7	0.8	1.2	1.2	1.0	1.3	0.9	1.4	1.5	1.5
LPG	0.5	0.3	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.2	0.2
CO ₂ Emissions (Million tons CO ₂)	736.5	779.6	750.4	766.5	787.4	748.6	753.6	760.2	763.4	732.8	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	213.1	216.7	201.2	204.5	209.1	195.0	193.0	190.9	187.1	176.3	-
Final energy intensity (toe/million \$15ppp)	57.2	58.8	53.9	54.4	55.6	52.2	52.5	52.3	52.5	50.7	-
Total energy intensity (toe/million \$15ppp)	89.7	90.6	83.0	82.9	84.3	79.7	78.8	77.8	76.5	72.4	-

*Heat is included

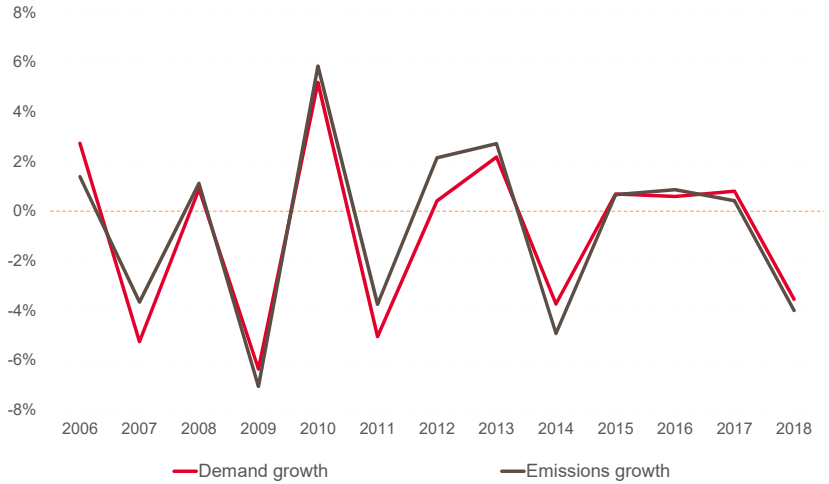
Primary energy demand mix



Electricity generation by source



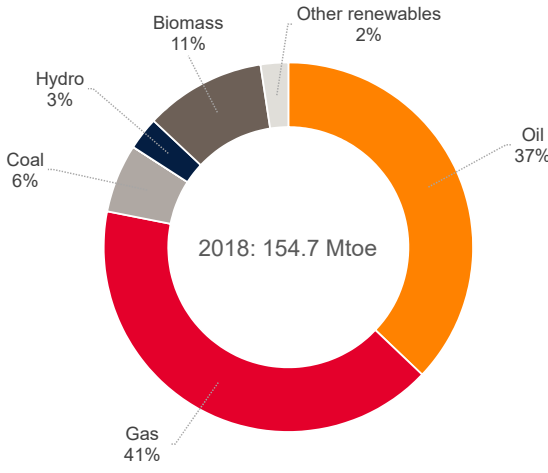
Primary energy demand and CO₂ emissions growth



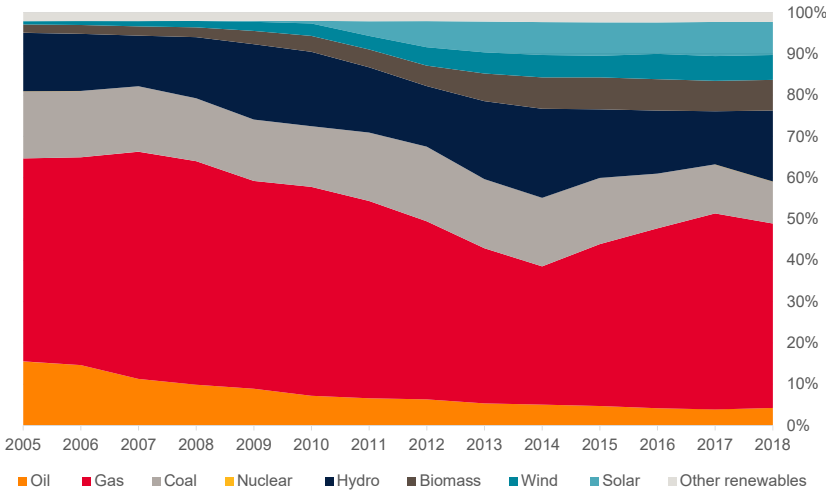
Italy (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	169.8	173.8	168.1	161.4	155.5	146.9	152.7	151.1	153.6	154.7	100.0
Oil	67.6	65.2	62.6	55.5	53.3	51.5	53.5	51.5	51.9	53.8	34.8
Gas	63.9	68.0	63.8	61.3	57.4	50.7	55.3	58.1	61.5	59.5	38.5
Coal	12.4	13.7	15.3	15.7	13.5	13.1	12.3	11.0	9.3	8.7	5.6
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	4.2	4.4	3.9	3.6	4.5	5.0	3.9	3.6	3.1	4.1	2.7
Biomass	12.1	12.7	11.3	13.5	14.6	14.0	14.6	14.4	14.9	15.4	9.9
Other renewables	0.6	0.9	1.8	2.8	3.1	3.2	3.2	3.4	3.6	3.5	2.3
Electricity balance of trade*	9.0	8.9	9.3	9.0	9.0	9.4	9.8	9.2	9.2	9.6	6.2
Total final consumption, by source	131.7	135.0	129.0	126.5	121.7	117.4	119.7	118.9	119.5	122.2	100.0
Oil	55.8	54.4	53.7	49.5	46.5	47.9	47.2	46.1	45.7	46.9	38.3
Gas	36.6	39.1	35.8	35.7	35.4	31.2	33.4	33.7	34.4	34.2	28.0
Coal	2.0	3.1	3.6	3.5	2.5	2.7	2.0	2.2	1.4	2.2	1.8
Electricity	24.9	25.7	25.9	25.5	24.7	24.2	24.7	24.6	25.1	25.2	20.6
Heat	3.4	3.6	3.5	3.7	4.0	4.0	4.2	4.3	4.5	4.6	3.8
Biomass	9.0	9.0	6.5	8.6	8.5	7.4	8.3	8.0	8.6	9.1	7.5
Electricity generation, by source	25.2	26.0	26.0	25.7	24.9	24.1	24.3	24.9	25.4	25.0	100.0
Oil	2.2	1.9	1.7	1.6	1.3	1.2	1.2	1.0	1.0	1.1	4.2
Gas	12.7	13.1	12.4	11.1	9.4	8.1	9.5	10.8	12.1	11.2	44.7
Coal	3.7	3.8	4.3	4.7	4.2	4.0	3.9	3.3	3.0	2.5	10.2
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	4.6	4.7	4.1	3.8	4.7	5.2	4.0	3.8	3.3	4.3	17.2
Biomass	0.8	1.0	1.1	1.3	1.7	1.8	1.9	1.9	1.9	1.9	7.4
Wind	0.6	0.8	0.8	1.2	1.3	1.3	1.3	1.5	1.5	1.5	6.0
Solar	0.1	0.2	0.9	1.6	1.9	1.9	2.0	1.9	2.1	2.0	8.0
Other renewables	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.6	0.6	0.6	2.3
Total final consumption, by sector	131.7	135.0	129.0	126.5	121.7	117.4	119.7	118.9	119.5	122.2	100.0
Industry	29.6	31.2	30.2	28.7	26.6	26.0	26.0	26.2	25.5	26.5	21.7
Transport	39.5	38.9	38.6	36.8	35.9	37.2	36.3	35.9	34.6	35.5	29.0
Residential/Comercial	51.0	52.4	48.1	50.3	50.1	44.2	47.9	47.6	48.5	49.0	40.1
Oil final consumption, by sector	55.8	54.4	53.7	49.5	46.5	47.9	47.2	46.1	45.7	46.9	100.0
Industry	4.1	3.3	3.4	2.8	2.4	1.9	2.8	2.5	1.9	1.9	4.0
Transport	36.9	35.9	35.6	33.8	32.9	34.4	33.4	33.0	31.7	32.6	69.6
Residential/Comercial	4.6	4.2	3.8	3.4	3.3	2.8	2.9	2.8	2.6	2.6	5.6
Natural gas final consumption, by sector	36.6	39.1	35.8	35.7	35.4	31.2	33.4	33.7	34.4	34.2	100.0
Industry	9.9	10.3	9.3	9.0	8.7	8.5	8.3	8.4	8.9	8.8	25.8
Transport	0.6	0.7	0.7	0.8	0.8	0.9	0.9	0.9	0.9	0.9	2.5
Residential/Comercial	25.4	27.3	25.2	25.4	25.3	21.2	23.5	23.6	23.8	23.8	69.4
Refined products consumption	55.8	54.4	53.7	49.5	46.5	47.9	47.2	46.1	45.7	46.9	100.0
Gasoline	11.2	10.5	10.0	9.3	8.7	8.8	8.2	7.8	7.4	7.5	16.0
Diesel	29.1	28.7	28.4	26.7	25.8	26.8	26.2	26.1	24.7	25.7	54.9
Heating Oil	2.5	1.5	1.4	1.2	1.2	1.2	1.5	1.7	1.3	1.1	2.4
Aviation Jet	0.8	0.9	0.9	0.8	0.8	0.8	0.9	0.9	0.9	1.0	2.2
LPG	3.6	3.7	3.6	3.6	3.6	3.5	3.6	3.6	3.7	3.6	7.7
Imports	150.9	158.6	147.5	140.9	128.8	117.0	131.0	135.3	142.1	136.3	100.0
Oil	94.2	96.9	89.9	85.5	78.0	71.3	80.8	81.9	85.1	80.7	59.2
Gas	56.7	61.7	57.6	55.5	50.7	45.7	50.2	53.5	57.0	55.6	40.8
Gasoline	0.2	0.1	0.1	0.0	0.4	0.4	0.5	0.4	0.1	0.4	0.3
Diesel	2.0	2.5	2.6	2.1	3.1	3.2	3.1	4.5	5.1	5.1	3.7
Heating Oil	1.8	0.9	0.8	0.6	0.5	0.3	0.3	0.8	0.8	1.7	1.3
Aviation Jet	0.8	1.0	1.4	1.1	1.5	1.7	2.0	2.2	2.4	2.5	1.8
LPG	2.0	2.3	2.2	2.3	2.6	2.4	2.5	2.6	2.6	2.5	1.8
Exports	27.2	30.2	27.6	30.5	25.1	21.4	28.5	30.1	32.4	30.0	100.0
Oil	27.1	30.1	27.5	30.4	24.9	21.2	28.3	29.9	32.1	29.7	98.9
Gas	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	1.1
Gasoline	8.1	9.4	8.9	9.7	8.3	7.4	9.0	8.5	8.9	8.8	29.4
Diesel	9.4	10.8	9.5	10.9	8.6	5.6	9.1	9.5	10.4	9.1	30.4
Heating Oil	3.0	3.2	2.7	3.0	2.1	2.7	3.9	4.5	5.0	4.2	13.9
Aviation Jet	0.2	0.1	0.2	0.1	0.0	0.0	0.0	0.1	0.2	0.4	1.4
LPG	0.4	0.5	0.4	0.4	0.5	0.2	0.3	0.4	0.3	0.2	0.8
CO₂ Emissions (Million tons CO₂)	393.6	402.2	393.7	375.1	343.8	328.2	336.1	333.2	328.9	326.6	-
CO₂ Intensity (tCO₂/million \$15ppp)	174.6	175.5	170.8	167.4	156.2	148.9	151.0	148.5	144.4	141.7	-
Final energy intensity (toe/million \$15ppp)	54.7	54.7	52.0	52.9	52.4	50.0	50.8	50.2	49.0	49.5	-
Total energy intensity (toe/million \$15ppp)	75.3	75.8	72.9	72.1	70.6	66.6	68.6	67.3	67.4	67.1	-

*Heat is included

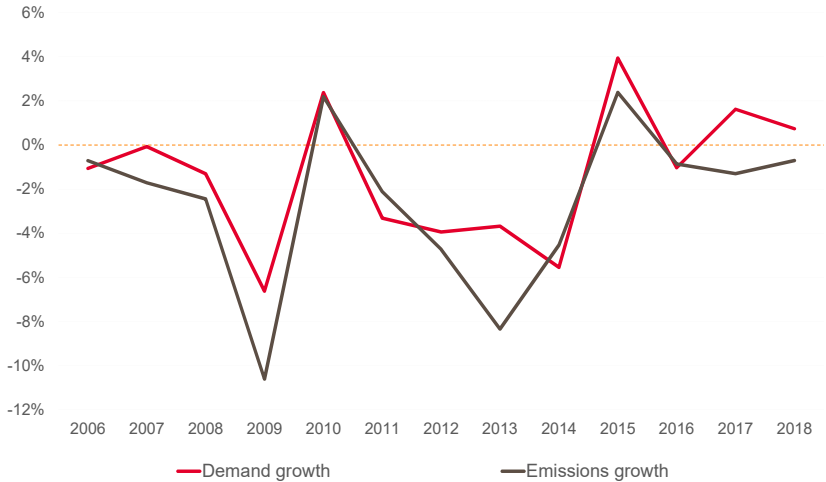
Primary energy demand mix



Electricity generation by source



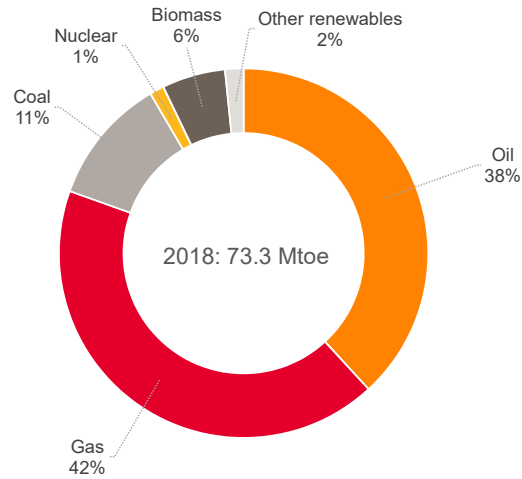
Primary energy demand and CO₂ emissions growth



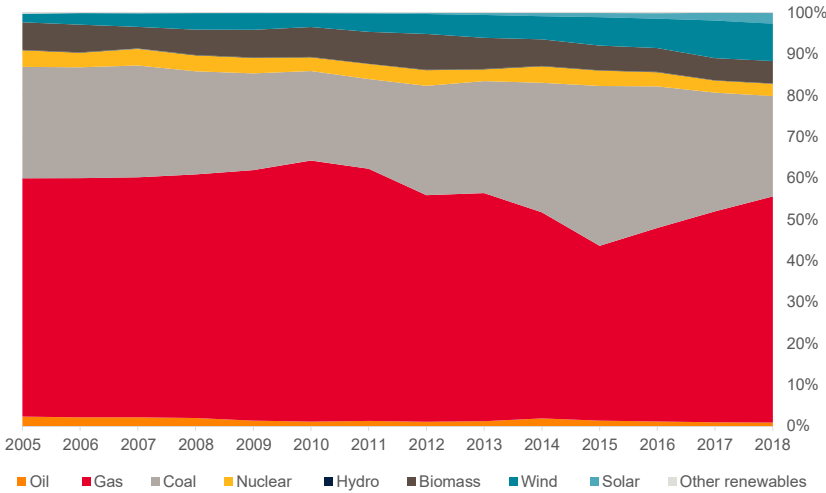
Netherlands <i>(Million toe)</i>	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	78.3	84.0	77.9	78.2	77.2	73.1	73.2	74.2	74.5	73.3	100.0
Oil	29.8	31.2	29.4	29.9	29.1	28.4	27.4	27.8	28.2	27.7	37.8
Gas	35.5	40.1	35.0	33.5	33.4	29.1	28.6	30.0	30.9	30.7	41.8
Coal	7.5	7.5	7.4	8.1	8.1	9.0	10.9	10.2	9.1	8.1	11.0
Nuclear	1.1	1.0	1.1	1.0	0.8	1.1	1.1	1.0	0.9	0.9	1.2
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	3.6	3.6	3.6	3.8	3.7	3.6	3.7	3.7	3.8	4.0	5.5
Other renewables	0.4	0.3	0.4	0.4	0.5	0.6	0.7	0.8	1.1	1.2	1.6
Electricity balance of trade*	0.5	0.3	0.8	1.5	1.6	1.3	0.9	0.5	0.4	0.8	1.1
Total final consumption, by source	62.7	68.2	63.1	63.3	62.9	58.5	57.9	59.2	59.7	59.4	100.0
Oil	26.7	28.2	26.6	26.8	26.4	25.5	24.5	25.3	25.6	25.7	43.3
Gas	21.2	24.7	21.1	21.6	21.6	18.3	18.8	19.3	19.5	18.7	31.6
Coal	1.8	2.0	2.2	2.2	2.1	2.1	2.1	2.1	2.2	2.1	3.6
Electricity	9.0	9.3	9.3	8.9	9.0	8.7	8.9	9.1	9.1	9.5	15.9
Heat	2.9	3.0	2.9	2.7	2.7	2.5	2.2	2.2	2.1	2.0	3.4
Biomass	1.1	1.0	1.1	1.1	1.1	1.2	1.2	1.1	1.2	1.3	2.2
Electricity generation, by source	9.8	10.3	9.8	8.9	8.7	8.9	9.5	9.9	10.0	10.1	100.0
Oil	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.1	0.8
Gas	5.9	6.5	6.0	4.9	4.8	4.4	4.0	4.6	5.1	5.5	54.7
Coal	2.3	2.2	2.1	2.3	2.4	2.8	3.7	3.4	2.9	2.4	24.3
Nuclear	0.4	0.3	0.4	0.3	0.2	0.4	0.4	0.3	0.3	0.3	3.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Biomass	0.7	0.7	0.8	0.8	0.7	0.6	0.6	0.6	0.5	0.5	5.4
Wind	0.4	0.3	0.4	0.4	0.5	0.5	0.6	0.7	0.9	0.9	9.0
Solar	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	2.6
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total final consumption, by sector	62.7	68.2	63.1	63.3	62.9	58.5	57.9	59.2	59.7	59.4	100.0
Industry	14.7	15.8	15.6	15.1	14.9	14.7	14.6	15.0	15.2	14.8	24.9
Transport	11.7	11.7	11.8	11.4	11.0	10.3	10.5	10.4	10.7	11.4	19.1
Residential/Comercial	18.3	20.3	17.2	18.1	18.6	15.5	16.1	16.7	16.7	16.6	27.9
Oil final consumption, by sector	26.7	28.2	26.6	26.8	26.4	25.5	24.5	25.3	25.6	25.7	100.0
Industry	3.0	3.1	2.9	3.0	2.8	2.9	2.8	3.2	3.3	3.1	12.2
Transport	11.1	11.3	10.9	10.9	10.6	9.8	10.0	10.0	10.2	10.8	42.0
Residential/Comercial	0.2	0.2	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.8
Natural gas final consumption, by sector	21.2	24.7	21.1	21.6	21.6	18.3	18.8	19.3	19.5	18.7	100.0
Industry	4.5	5.0	4.9	4.7	4.8	4.5	4.7	4.9	4.9	4.7	25.2
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Residential/Comercial	11.9	13.8	10.8	11.7	12.2	9.3	9.8	10.3	10.3	10.0	53.1
Refined products consumption	23.2	24.8	23.2	23.6	23.1	22.4	22.1	22.7	23.3	23.4	100.0
Gasoline	4.2	4.2	4.2	4.0	3.9	3.8	3.9	4.0	4.1	4.4	18.8
Diesel	7.6	7.8	7.8	7.4	7.4	6.8	7.0	6.9	7.1	7.4	31.7
Heating Oil	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7
Aviation Jet	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	1.8	1.8	2.0	1.4	3.2	4.2	4.0	2.9	2.3	2.7	11.5
Imports	156.9	166.2	161.9	170.0	168.6	166.2	185.6	189.6	191.1	187.0	100.0
Oil	138.5	147.7	144.7	149.9	146.8	143.9	156.4	156.7	152.5	146.4	78.3
Gas	18.4	18.4	17.2	20.1	21.8	22.3	29.1	32.9	38.5	40.6	21.7
Gasoline	10.7	9.9	10.8	12.5	10.2	10.0	10.5	10.4	11.3	8.5	4.5
Diesel	16.8	19.2	18.7	18.5	18.2	15.7	16.6	19.2	17.0	12.8	6.8
Heating Oil	26.9	29.1	32.9	31.9	32.6	33.7	37.0	30.4	15.0	12.6	6.7
Aviation Jet	4.5	4.0	2.8	2.8	4.1	2.8	3.3	4.8	3.9	3.1	1.7
LPG	1.9	1.8	2.5	1.9	3.9	5.3	5.2	4.1	3.6	4.4	2.3
Exports	131.3	144.5	141.3	149.1	153.7	146.4	151.4	156.9	153.5	148.4	100.0
Oil	91.5	101.8	100.2	103.6	102.9	102.3	111.7	114.2	113.4	110.7	74.6
Gas	39.8	42.6	41.1	45.5	50.8	44.1	39.6	42.7	40.1	37.7	25.4
Gasoline	16.9	17.1	15.6	20.2	18.2	19.8	21.9	20.6	21.3	24.7	16.7
Diesel	27.9	31.7	31.4	29.7	30.0	28.2	27.2	30.7	29.8	24.3	16.4
Heating Oil	21.4	25.8	26.5	27.1	27.1	28.3	34.4	29.9	14.4	11.2	7.5
Aviation Jet	6.8	7.1	6.7	6.2	7.2	6.4	6.9	8.7	8.0	8.9	6.0
LPG	1.1	1.1	1.6	1.7	1.6	1.8	2.0	2.1	2.1	2.5	1.7
CO₂ Emissions (Million tons CO₂)	180.0	192.4	180.1	177.3	176.1	169.0	174.1	175.2	177.3	179.6	-
CO₂ Intensity (tCO₂/million \$15ppp)	226.5	238.8	219.9	218.8	217.7	206.0	207.5	204.4	201.0	198.0	-
Final energy intensity (toe/million \$15ppp)	60.8	64.5	59.0	59.6	59.7	53.6	53.5	53.5	52.7	51.5	-
Total energy intensity (toe/million \$15ppp)	98.6	104.3	95.1	96.5	95.4	89.1	87.3	86.5	84.4	80.8	-

*Heat is included

Primary energy demand mix



Electricity generation by source

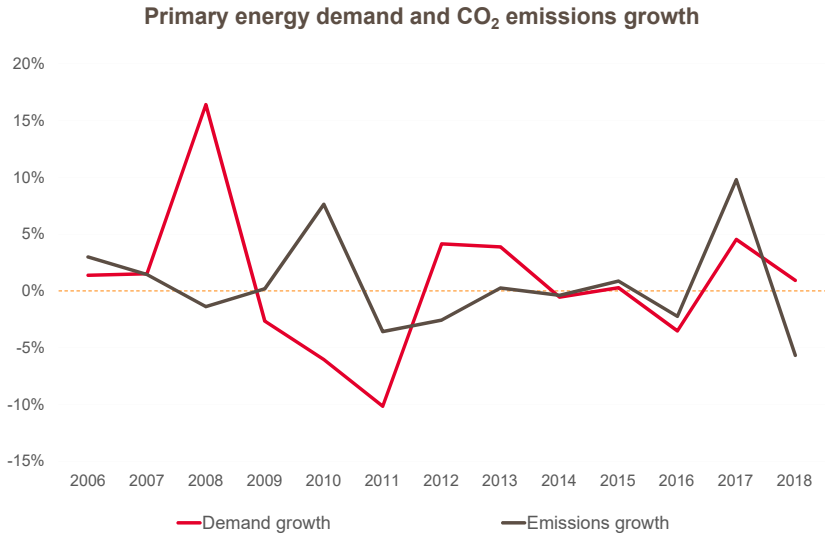
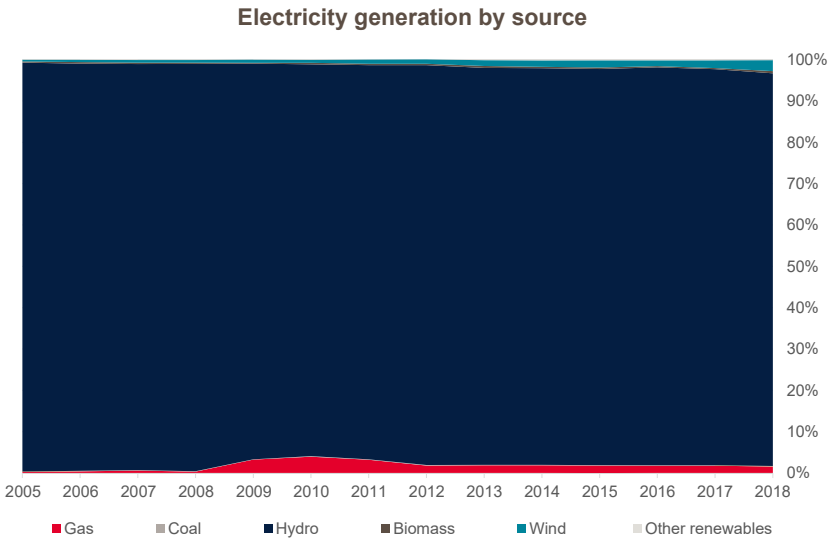
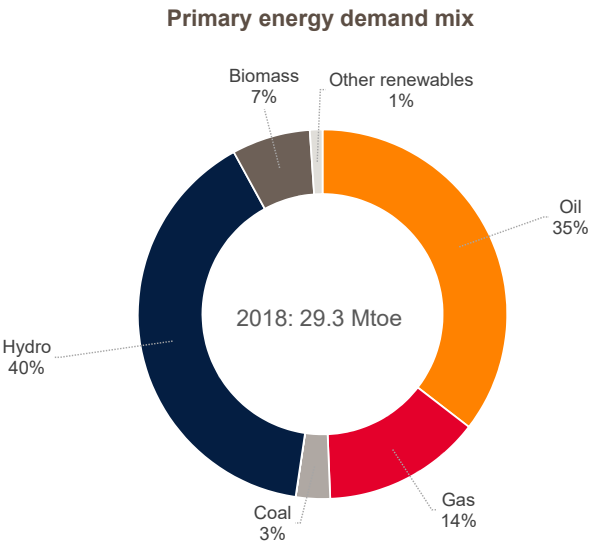


Primary energy demand and CO₂ emissions growth



Norway (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	31.6	29.7	26.7	27.8	28.8	28.7	28.8	27.7	29.0	29.3	100.0
Oil	12.5	10.1	8.7	9.0	10.0	10.1	9.5	8.6	10.6	10.7	36.5
Gas	7.0	6.3	5.1	5.4	5.6	5.8	6.1	5.6	4.4	4.2	14.3
Coal	0.6	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.9	3.1
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	10.8	10.0	10.3	12.2	11.0	11.7	11.8	12.3	12.3	12.0	40.8
Biomass	1.4	1.8	1.8	1.7	1.6	1.4	1.5	1.7	1.9	2.1	7.1
Other renewables	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	1.1
Electricity balance of trade*	-0.7	0.7	-0.2	-1.5	-0.4	-1.3	-1.2	-1.4	-1.3	-0.8	-2.9
Total final consumption, by source	20.1	21.4	20.8	20.9	20.7	20.2	20.5	20.7	20.8	20.7	100.0
Oil	8.2	8.4	8.3	8.2	8.0	7.8	7.8	7.7	7.5	7.6	36.4
Gas	0.7	0.8	0.9	0.9	0.9	0.9	1.0	0.9	1.0	0.9	4.3
Coal	0.5	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.8	0.8	3.9
Electricity	9.2	9.7	9.3	9.5	9.5	9.3	9.6	9.8	9.7	9.6	46.2
Heat	0.3	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.5	2.4
Biomass	1.1	1.4	1.4	1.3	1.2	1.0	1.0	1.2	1.4	1.4	6.7
Electricity generation, by source	11.3	10.6	11.0	12.7	11.5	12.2	12.4	12.9	12.9	12.7	100.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gas	0.4	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.5
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	10.8	10.1	10.5	12.3	11.1	11.7	11.9	12.4	12.4	12.1	95.0
Biomass	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.1	0.5
Wind	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	2.6
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Total final consumption, by sector	20.1	21.4	20.8	20.9	20.7	20.2	20.5	20.7	20.8	20.7	100.0
Industry	5.5	6.2	6.3	6.0	6.0	5.9	6.0	6.0	6.1	6.1	29.4
Transport	4.7	5.1	5.1	5.2	5.0	5.0	5.0	5.0	5.0	5.0	24.1
Residential/Comercial	6.8	7.3	6.7	7.0	7.0	6.5	6.7	7.0	6.9	6.9	33.2
Oil final consumption, by sector	8.2	8.4	8.3	8.2	8.0	7.8	7.8	7.7	7.5	7.6	100.0
Industry	0.9	1.0	0.9	0.8	0.9	0.8	0.8	0.8	0.8	0.8	10.7
Transport	4.5	4.9	4.9	4.9	4.7	4.7	4.6	4.5	4.3	4.3	57.2
Residential/Comercial	0.4	0.6	0.4	0.4	0.4	0.4	0.3	0.4	0.4	0.4	5.4
Natural gas final consumption, by sector	0.7	0.8	0.9	0.9	0.9	0.9	1.0	0.9	1.0	0.9	100.0
Industry	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	29.1
Transport	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	9.5
Residential/Comercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	5.5
Refined products consumption	8.2	8.4	8.3	8.2	8.0	7.8	7.8	7.7	7.5	7.6	100.0
Gasoline	1.3	1.3	1.1	1.1	1.0	1.0	0.9	0.8	0.8	0.8	10.6
Diesel	4.0	4.3	4.3	4.3	4.3	4.1	4.1	4.1	3.9	3.9	52.3
Heating Oil	0.2	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.4
Aviation Jet	0.4	0.4	0.4	0.5	0.4	0.5	0.4	0.4	0.5	0.5	6.3
LPG	0.8	1.1	1.1	1.0	1.1	1.1	0.6	0.4	0.4	0.5	6.8
Imports	5.8	6.3	5.5	5.7	6.8	5.5	6.4	6.7	8.5	9.5	100.0
Oil	5.8	6.3	5.5	5.7	6.8	5.5	6.4	6.7	8.5	9.4	99.7
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Gasoline	0.3	0.3	0.2	0.2	0.2	0.2	0.3	0.4	0.3	0.3	3.6
Diesel	1.7	1.2	1.2	1.5	1.3	1.1	1.7	1.8	1.8	1.7	17.6
Heating Oil	1.4	1.7	1.3	1.2	1.9	1.1	1.6	1.3	1.8	1.4	14.7
Aviation Jet	0.2	0.4	0.3	0.4	0.5	0.4	0.4	0.4	0.2	0.2	2.2
LPG	0.2	0.4	0.3	0.3	0.3	0.2	0.2	0.9	0.5	0.6	6.8
Exports	189.9	179.4	172.3	175.8	167.5	170.2	179.3	185.2	193.2	185.2	100.0
Oil	104.0	90.9	86.9	79.8	76.8	80.2	82.6	88.4	89.1	82.4	44.5
Gas	85.9	88.5	85.4	96.0	90.7	90.0	96.7	96.7	104.1	102.8	55.5
Gasoline	2.9	2.1	3.0	2.8	2.6	2.3	3.3	3.5	3.6	3.7	2.0
Diesel	2.3	2.1	3.0	2.6	2.7	2.8	3.4	2.7	5.0	4.6	2.5
Heating Oil	2.0	1.7	1.8	1.6	1.8	1.5	1.4	1.0	1.4	1.3	0.7
Aviation Jet	0.1	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CO ₂ Emissions (Million tons CO ₂)	37.4	40.2	38.8	37.8	37.9	37.7	38.0	37.2	40.8	38.5	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	128.0	136.8	130.6	123.9	122.9	120.1	118.8	114.8	123.7	114.3	-
Final energy intensity (toe/million \$15ppp)	61.3	65.3	62.4	61.2	60.0	56.7	56.5	56.8	55.8	54.5	-
Total energy intensity (toe/million \$15ppp)	108.2	100.9	89.8	91.0	93.6	91.3	89.8	85.7	87.9	86.9	-

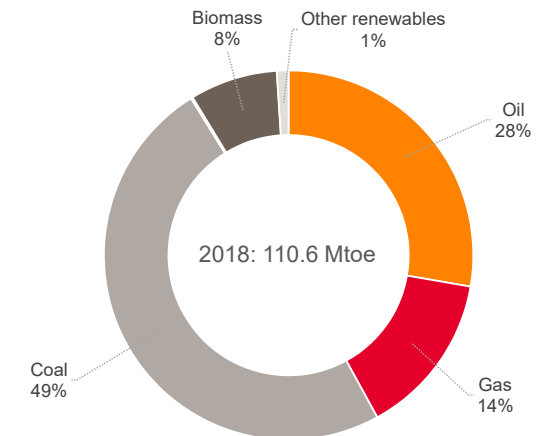
*Heat is included



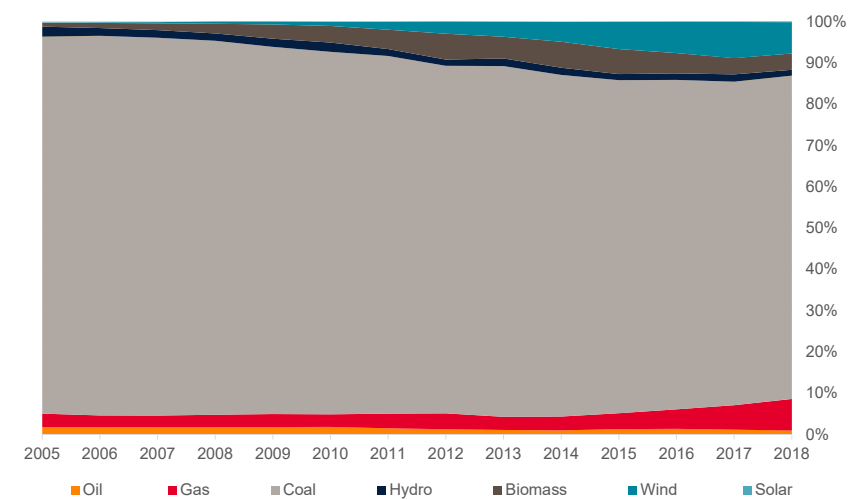
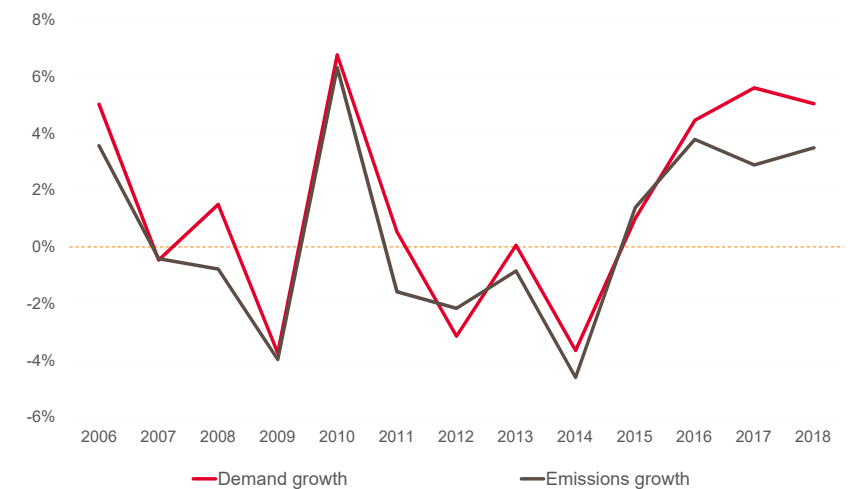
Poland (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	94.3	100.6	101.2	98.0	98.1	94.5	95.4	99.7	105.3	110.6	100.0
Oil	24.2	25.7	25.8	24.7	22.7	22.5	23.9	26.3	29.6	30.5	27.6
Gas	12.1	12.8	12.8	13.7	13.7	13.4	13.8	14.6	15.4	15.7	14.2
Coal	51.5	54.6	54.6	50.8	52.9	49.2	48.3	49.0	50.3	54.0	48.9
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Biomass	6.3	7.3	7.9	8.4	8.2	8.2	8.3	8.2	8.2	8.4	7.6
Other renewables	0.1	0.1	0.3	0.4	0.5	0.7	0.9	1.1	1.3	1.1	1.0
Electricity balance of trade*	-0.2	-0.1	-0.4	-0.2	-0.3	0.3	0.1	0.3	0.3	0.6	0.5
Total final consumption, by source	65.3	70.3	68.8	68.3	67.2	65.7	67.1	71.2	76.3	79.0	100.0
Oil	22.4	23.2	23.1	21.8	20.8	20.9	22.2	24.4	28.2	29.4	37.2
Gas	9.4	10.1	10.0	10.3	10.3	9.9	10.1	10.8	11.3	11.5	14.6
Coal	12.9	14.6	13.6	13.9	13.5	12.9	12.5	12.7	12.7	13.4	17.0
Electricity	9.6	10.2	10.4	10.5	10.6	10.8	11.0	11.4	11.7	11.8	15.0
Heat	6.0	6.6	5.8	6.0	6.0	5.5	5.5	5.7	5.9	6.1	7.7
Biomass	4.9	5.6	5.9	5.8	6.0	5.7	5.9	6.1	6.5	6.7	8.5
Electricity generation, by source	13.0	13.6	14.1	13.9	14.2	13.7	14.2	14.3	14.7	14.6	100.0
Oil	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	0.2	0.1	1.0
Gas	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.7	0.9	1.1	7.6
Coal	11.6	11.9	12.2	11.7	12.0	11.3	11.4	11.4	11.5	11.4	78.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.3	0.3	0.2	0.2	0.3	0.2	0.2	0.2	0.3	0.2	1.4
Biomass	0.5	0.5	0.7	0.9	0.7	0.9	0.9	0.7	0.6	0.6	3.9
Wind	0.1	0.1	0.3	0.4	0.5	0.7	0.9	1.1	1.3	1.1	7.5
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	65.3	70.3	68.8	68.3	67.2	65.7	67.1	71.2	76.3	79.0	100.0
Industry	13.4	14.2	14.8	14.6	15.1	15.2	15.2	15.7	17.1	17.7	22.4
Transport	15.7	16.7	16.9	16.2	15.1	15.3	16.2	18.1	21.3	22.5	28.4
Residential/Comercial	27.9	30.7	28.4	29.0	28.4	26.6	26.7	28.1	27.9	28.6	36.2
Oil final consumption, by sector	22.4	23.2	23.1	21.8	20.8	20.9	22.2	24.4	28.2	29.4	100.0
Industry	1.3	1.1	0.9	0.8	0.8	0.7	0.6	0.6	0.8	0.8	2.8
Transport	14.8	15.6	15.7	15.1	14.1	14.3	15.3	17.4	20.5	21.3	72.4
Residential/Comercial	1.4	1.4	1.3	1.2	1.0	1.0	1.0	1.0	1.0	1.0	3.5
Natural gas final consumption, by sector	9.4	10.1	10.0	10.3	10.3	9.9	10.1	10.8	11.3	11.5	100.0
Industry	2.9	3.0	3.1	3.1	3.2	3.1	3.2	3.4	3.9	4.0	34.8
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Residential/Comercial	5.0	5.4	5.0	5.2	5.2	4.7	4.8	5.3	5.1	5.2	45.2
Refined products consumption	22.4	23.2	23.1	21.8	20.8	20.9	22.2	24.4	28.2	29.4	100.0
Gasoline	4.2	4.2	3.9	3.8	3.6	3.5	3.7	4.0	4.3	4.6	15.8
Diesel	11.6	12.5	12.9	12.2	11.3	11.4	12.1	14.0	16.8	17.4	59.2
Heating Oil	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
LPG	2.7	2.7	2.6	2.6	2.6	2.6	2.7	2.7	2.9	3.0	10.1
Imports	35.6	38.1	39.9	40.2	38.7	38.9	42.5	44.8	48.2	50.1	100.0
Oil	27.4	29.2	30.2	30.2	28.4	29.2	32.5	32.7	35.2	37.0	73.8
Gas	8.2	8.9	9.7	10.0	10.3	9.7	10.0	12.2	13.0	13.1	26.2
Gasoline	0.5	0.4	0.6	0.5	0.4	0.4	0.4	0.4	0.5	0.5	0.9
Diesel	2.2	2.2	2.0	1.4	0.9	1.5	2.1	3.8	5.3	5.0	9.9
Heating Oil	0.0	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.1
Aviation Jet	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
LPG	2.2	2.2	2.2	2.1	2.3	2.2	2.2	2.4	2.7	2.8	5.6
Exports	2.8	3.6	4.9	6.0	7.0	7.6	8.5	8.1	6.5	7.2	100.0
Oil	2.7	3.5	4.8	6.0	7.0	7.5	8.5	7.3	5.4	6.2	85.9
Gas	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.7	1.0	1.0	14.1
Gasoline	0.4	0.5	0.5	0.7	0.9	0.7	0.8	0.5	0.2	0.4	5.7
Diesel	0.1	0.0	0.1	0.3	0.6	1.0	1.8	1.1	0.2	0.0	0.6
Heating Oil	1.0	1.5	1.9	2.2	2.5	2.8	2.6	2.4	2.4	2.7	36.8
Aviation Jet	0.2	0.2	0.4	0.5	0.4	0.6	0.5	0.5	0.3	0.3	4.6
LPG	0.0	0.1	0.1	0.1	0.3	0.2	0.2	0.3	0.5	0.6	8.4
CO₂ Emissions (Million tons CO₂)	303.4	322.5	317.4	310.6	307.9	293.8	297.9	309.1	318.1	329.1	-
CO₂ Intensity (tCO₂/million \$15ppp)	361.1	370.5	347.2	334.3	326.9	302.0	294.8	297.5	292.5	290.0	-
Final energy intensity (toe/million \$15ppp)	72.1	75.0	69.7	68.2	65.9	62.1	60.7	63.0	64.5	64.0	-
Total energy intensity (toe/million \$15ppp)	112.2	115.6	110.7	105.5	104.1	97.1	94.5	95.9	96.8	97.4	-

*Heat is included

Primary energy demand mix



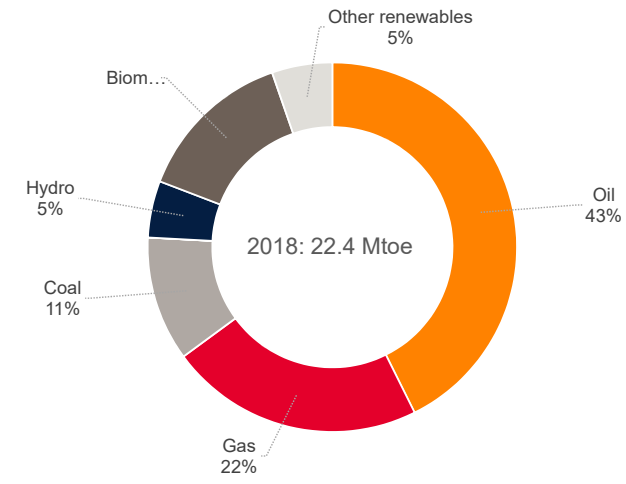
Electricity generation by source

Primary energy demand and CO₂ emissions growth

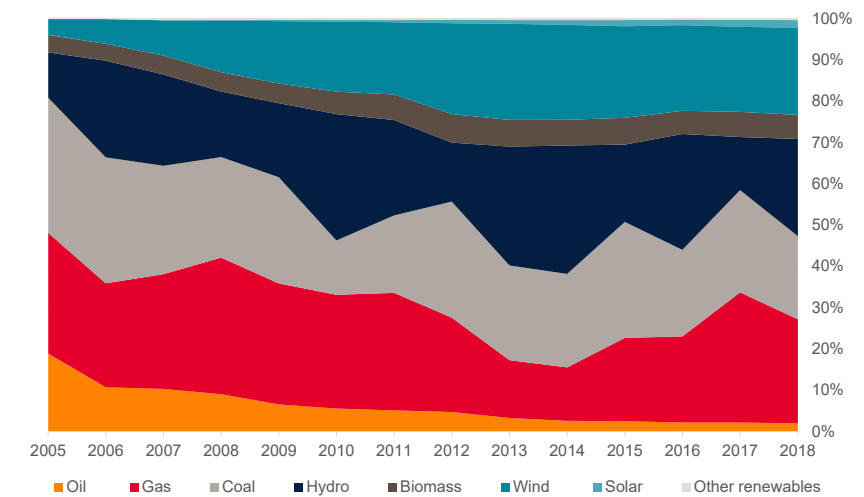
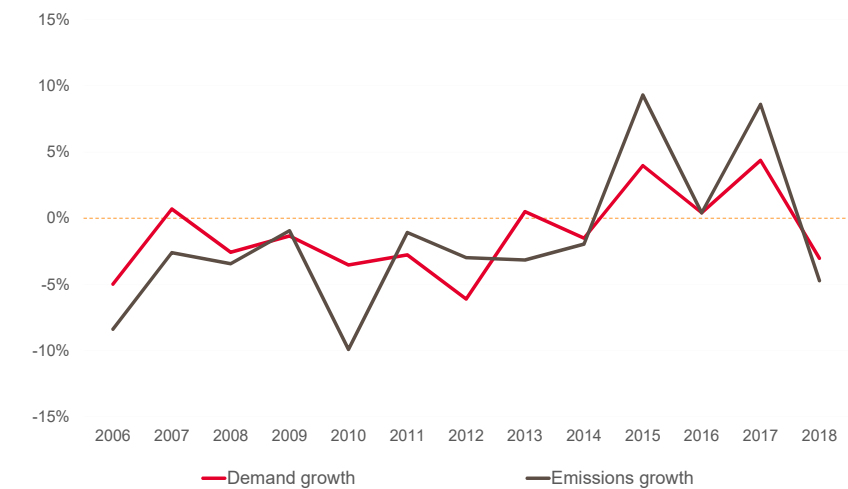
Portugal (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	24.3	23.5	22.8	21.4	21.5	21.2	22.0	22.1	23.1	22.4	100.0
Oil	11.9	11.5	10.6	9.4	9.4	9.3	9.4	9.6	9.7	9.5	42.5
Gas	4.2	4.5	4.5	3.9	3.8	3.5	4.1	4.3	5.4	5.0	22.2
Coal	2.9	1.7	2.2	2.9	2.7	2.7	3.3	2.8	3.2	2.4	10.9
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.7	1.4	1.0	0.5	1.2	1.3	0.7	1.4	0.5	1.1	4.9
Biomass	3.3	3.2	3.3	2.9	3.0	3.0	3.0	3.1	3.1	3.1	13.9
Other renewables	0.7	0.8	0.8	0.9	1.1	1.1	1.1	1.1	1.1	1.2	5.3
Electricity balance of trade*	0.6	0.4	0.5	0.9	0.5	0.3	0.5	-0.2	0.0	0.1	0.3
Total final consumption, by source	18.9	19.0	18.2	16.4	16.2	16.2	16.3	16.1	16.4	15.9	100.0
Oil	10.2	10.1	9.4	8.2	8.1	8.3	8.2	8.0	8.3	7.9	49.8
Gas	1.4	1.6	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.4	9.1
Coal	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Electricity	4.1	4.3	4.2	4.0	3.9	3.9	3.9	4.0	4.0	4.1	25.5
Heat	0.3	0.4	0.4	0.4	0.4	0.3	0.3	0.3	0.3	0.3	1.9
Biomass	2.8	2.5	2.5	2.1	2.2	2.1	2.2	2.2	2.1	2.2	13.6
Electricity generation, by source	4.3	4.7	4.5	4.0	4.4	4.5	4.5	5.2	5.1	5.1	100.0
Oil	0.3	0.3	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	2.0
Gas	1.3	1.3	1.3	0.9	0.6	0.6	0.9	1.1	1.6	1.3	25.2
Coal	1.1	0.6	0.8	1.1	1.0	1.0	1.3	1.1	1.3	1.0	20.1
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.8	1.4	1.0	0.6	1.3	1.4	0.8	1.5	0.7	1.2	23.5
Biomass	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	5.8
Wind	0.7	0.8	0.8	0.9	1.0	1.0	1.0	1.1	1.1	1.1	21.1
Solar	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	1.9
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Total final consumption, by sector	18.9	19.0	18.2	16.4	16.2	16.2	16.3	16.1	16.4	15.9	100.0
Industry	5.2	5.4	5.3	4.6	4.6	4.4	4.4	4.3	4.4	4.2	26.3
Transport	6.5	6.5	6.0	5.5	5.4	5.5	5.6	5.6	5.7	5.8	36.2
Residential/Comercial	5.2	4.9	4.6	4.5	4.4	4.5	4.5	4.6	4.5	4.5	28.0
Oil final consumption, by sector	10.2	10.1	9.4	8.2	8.1	8.3	8.2	8.0	8.3	7.9	100.0
Industry	1.1	1.0	0.9	0.7	0.7	0.7	0.7	0.6	0.7	0.6	7.2
Transport	6.2	6.1	5.7	5.2	5.1	5.2	5.2	5.3	5.4	5.5	68.7
Residential/Comercial	1.0	0.9	0.8	0.7	0.6	0.6	0.6	0.6	0.6	0.5	6.2
Natural gas final consumption, by sector	1.4	1.6	1.6	1.6	1.6	1.5	1.6	1.6	1.6	1.4	100.0
Industry	1.0	1.1	1.2	1.1	1.1	1.1	1.1	1.1	1.1	1.0	68.8
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2
Residential/Comercial	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.4	29.7
Refined products consumption	10.2	10.1	9.4	8.2	8.1	8.3	8.2	8.0	8.3	7.9	100.0
Gasoline	1.5	1.5	1.3	1.2	1.2	1.1	1.1	1.1	1.1	1.1	13.3
Diesel	5.3	5.2	4.8	4.4	4.3	4.4	4.5	4.5	4.6	4.7	59.2
Heating Oil	0.5	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	3.0
Aviation Jet	0.1	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.2	2.9
LPG	0.8	0.8	0.8	0.6	0.9	1.1	0.9	0.9	0.9	0.7	9.1
Imports	19.7	19.9	19.6	18.5	20.0	18.8	22.2	22.2	23.9	21.7	100.0
Oil	15.5	15.4	15.1	14.6	16.2	15.3	18.1	18.0	18.2	16.5	76.1
Gas	4.3	4.5	4.5	3.9	3.8	3.5	4.1	4.3	5.6	5.2	23.9
Gasoline	0.3	0.2	0.2	0.2	0.1	0.2	0.1	0.2	0.1	0.2	0.7
Diesel	1.5	1.2	1.4	0.9	0.6	0.7	0.8	1.0	0.9	0.8	3.9
Heating Oil	0.4	0.3	0.4	0.2	0.2	0.2	0.3	0.2	0.3	0.3	1.2
Aviation Jet	0.2	0.1	0.3	0.2	0.0	0.1	0.0	0.0	0.1	0.1	0.7
LPG	0.5	0.5	0.5	0.5	0.7	0.9	0.8	0.8	0.7	0.6	2.9
Exports	2.3	2.9	2.9	3.7	5.6	4.8	6.9	6.8	7.3	5.7	100.0
Oil	2.3	2.9	2.9	3.7	5.6	4.8	6.9	6.8	7.3	5.7	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.9	1.1	0.8	0.9	1.4	1.0	1.9	1.8	2.2	2.0	34.0
Diesel	0.1	0.0	0.1	0.4	1.7	1.3	2.3	2.1	2.1	1.2	20.2
Heating Oil	0.6	0.9	1.2	1.4	1.5	1.5	1.6	1.6	1.5	1.2	21.6
Aviation Jet	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
LPG	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.0	0.1	1.2
CO₂ Emissions (Million tons CO₂)	53.8	48.5	48.0	46.5	45.1	44.2	48.3	48.5	52.7	50.2	-
CO₂ Intensity (tCO₂/million \$15ppp)	171.6	151.7	152.9	154.5	151.4	147.1	157.9	156.0	165.0	153.7	-
Final energy intensity (toe/million \$15ppp)	55.4	53.9	52.3	50.1	49.9	49.1	48.8	48.0	47.0	45.6	-
Total energy intensity (toe/million \$15ppp)	77.5	73.4	72.7	71.1	72.3	70.5	72.0	71.2	72.4	68.6	-

*Heat is included

Primary energy demand mix



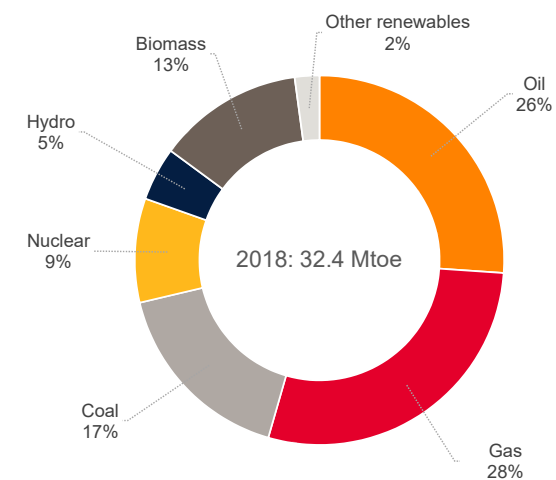
Electricity generation by source

Primary energy demand and CO₂ emissions growth

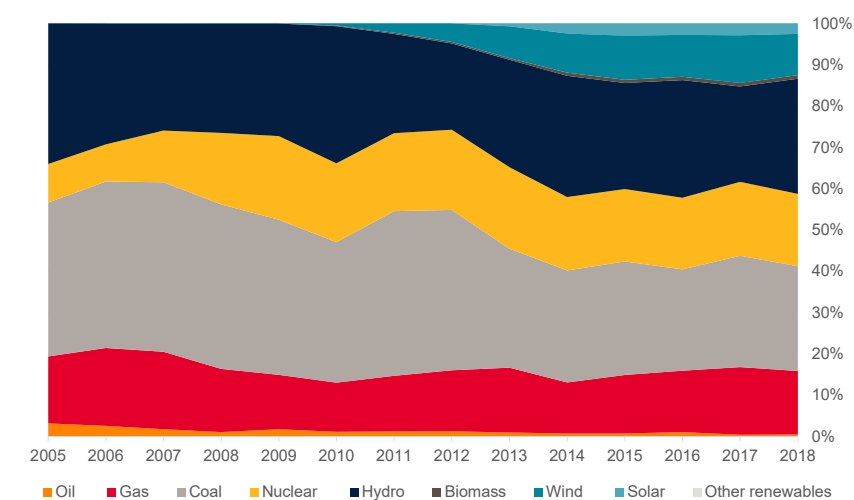
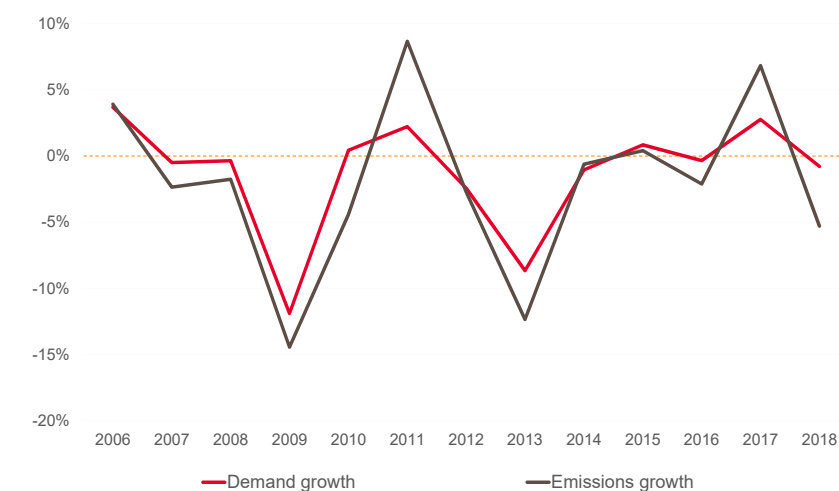
Romania (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	34.9	35.1	35.9	35.0	32.0	31.6	31.9	31.8	32.7	32.4	100.0
Oil	8.7	8.6	8.6	8.4	8.0	8.0	8.6	8.7	8.7	8.5	26.2
Gas	10.6	10.8	11.1	10.8	9.8	9.3	8.9	9.0	9.5	9.2	28.5
Coal	7.5	7.0	8.1	7.6	5.7	5.7	5.9	5.3	5.6	5.5	16.9
Nuclear	3.1	3.0	3.1	3.0	3.0	3.0	3.0	2.9	3.0	3.0	9.1
Hydro	1.3	1.7	1.3	1.0	1.3	1.6	1.4	1.6	1.2	1.5	4.7
Biomass	3.9	4.1	3.7	3.9	3.9	3.9	3.8	4.0	4.1	4.2	12.8
Other renewables	0.0	0.0	0.1	0.2	0.4	0.7	0.8	0.7	0.8	0.7	2.2
Electricity balance of trade*	-0.2	-0.2	-0.1	0.0	-0.1	-0.6	-0.6	-0.4	-0.2	-0.2	-0.5
Total final consumption, by source	23.6	23.7	24.0	24.4	23.1	23.0	22.8	23.2	23.8	23.6	100.0
Oil	7.2	6.6	7.1	7.6	7.1	7.3	7.6	8.0	8.2	7.9	33.6
Gas	6.6	6.8	7.0	6.9	6.4	6.3	5.6	5.5	5.9	5.8	24.4
Coal	1.0	1.1	1.0	0.9	0.9	0.9	1.0	0.9	0.8	0.8	3.3
Electricity	3.2	3.6	3.7	3.6	3.5	3.6	3.7	3.7	3.8	3.9	16.7
Heat	1.7	1.7	1.7	1.5	1.4	1.3	1.3	1.3	1.3	1.2	5.3
Biomass	3.9	4.1	3.6	3.8	3.8	3.7	3.6	3.8	3.9	4.0	16.8
Electricity generation, by source	5.0	5.2	5.4	5.1	5.1	5.6	5.7	5.6	5.5	5.6	100.0
Oil	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.1	0.0	0.0	0.5
Gas	0.7	0.6	0.7	0.7	0.8	0.7	0.8	0.8	0.9	0.9	15.4
Coal	1.9	1.8	2.1	2.0	1.5	1.5	1.6	1.4	1.5	1.4	25.4
Nuclear	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	17.5
Hydro	1.4	1.7	1.3	1.1	1.3	1.7	1.5	1.6	1.3	1.6	27.9
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9
Wind	0.0	0.0	0.1	0.2	0.4	0.5	0.6	0.6	0.6	0.6	10.0
Solar	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.1	2.5
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	23.6	23.7	24.0	24.4	23.1	23.0	22.8	23.2	23.8	23.6	100.0
Industry	6.5	6.8	7.1	6.7	6.3	6.4	6.4	6.3	6.3	6.3	26.9
Transport	5.2	4.8	5.0	5.4	5.3	5.3	5.4	5.8	5.9	5.8	24.7
Residential/Commercial	9.8	10.1	9.6	9.8	9.5	9.2	9.2	9.3	9.6	9.5	40.4
Oil final consumption, by sector	7.2	6.6	7.1	7.6	7.1	7.3	7.6	8.0	8.2	7.9	100.0
Industry	0.8	0.6	0.8	0.9	0.8	0.9	0.9	0.9	0.9	0.8	10.3
Transport	4.9	4.6	4.7	5.1	5.0	5.1	5.1	5.5	5.5	5.5	68.8
Residential/Commercial	0.3	0.3	0.3	0.2	0.2	0.3	0.3	0.3	0.3	0.3	3.7
Natural gas final consumption, by sector	6.6	6.8	7.0	6.9	6.4	6.3	5.6	5.5	5.9	5.8	100.0
Industry	2.7	2.8	2.9	2.6	2.4	2.5	2.2	2.1	2.2	2.1	37.2
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Commercial	3.1	3.1	3.1	3.3	3.2	2.9	3.0	3.0	3.2	3.2	55.1
Refined products consumption	7.2	6.6	7.1	7.6	7.1	7.3	7.6	8.0	8.1	7.9	100.0
Gasoline	1.6	1.4	1.3	1.4	1.3	1.4	1.3	1.4	1.4	1.3	16.0
Diesel	3.7	3.6	3.9	4.4	4.2	4.2	4.4	4.7	4.8	4.9	61.9
Heating Oil	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Aviation Jet	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
LPG	0.6	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.5	0.4	5.5
Imports	10.3	10.0	10.3	10.2	8.9	9.6	9.8	11.6	11.7	12.5	100.0
Oil	8.7	8.2	7.9	7.9	7.7	9.2	9.6	10.4	10.7	11.3	89.9
Gas	1.6	1.8	2.5	2.3	1.2	0.5	0.2	1.2	1.0	1.3	10.1
Gasoline	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.9
Diesel	0.8	1.3	1.3	1.6	1.1	1.0	1.2	1.3	1.4	1.5	11.8
Heating Oil	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.6
LPG	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.3	0.3	2.0
Exports	4.2	3.6	3.8	3.5	3.9	4.8	4.9	5.3	5.3	5.4	100.0
Oil	4.2	3.6	3.8	3.5	3.9	4.8	4.9	5.3	5.2	5.4	99.6
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.4
Gasoline	1.8	1.4	1.8	1.6	1.8	1.8	1.9	2.2	2.2	2.5	45.0
Diesel	1.1	0.8	0.7	0.7	0.9	1.7	1.6	1.7	1.6	1.6	29.4
Heating Oil	0.4	0.4	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.1	2.0
Aviation Jet	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	5.9
LPG	0.3	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	6.3
CO₂ Emissions (Million tons CO₂)	78.3	74.9	81.4	79.1	69.4	69.0	69.2	67.8	72.4	68.6	-
CO₂ Intensity (tCO₂/million \$15ppp)	205.2	197.7	212.6	205.5	174.0	167.8	162.0	151.6	151.5	138.0	-
Final energy intensity (toe/million \$15ppp)	57.5	58.6	58.1	58.7	54.3	52.3	50.6	49.1	47.1	45.1	-
Total energy intensity (toe/million \$15ppp)	91.5	92.6	93.7	90.9	80.2	77.0	74.7	71.1	68.4	65.2	-

*Heat is included

Primary energy demand mix



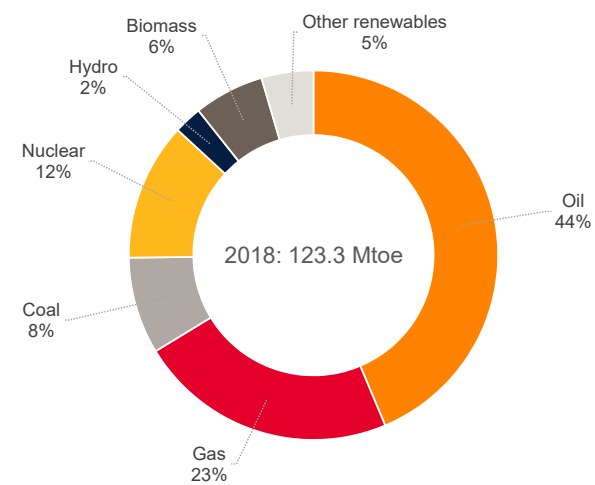
Electricity generation by source

Primary energy demand and CO₂ emissions growth

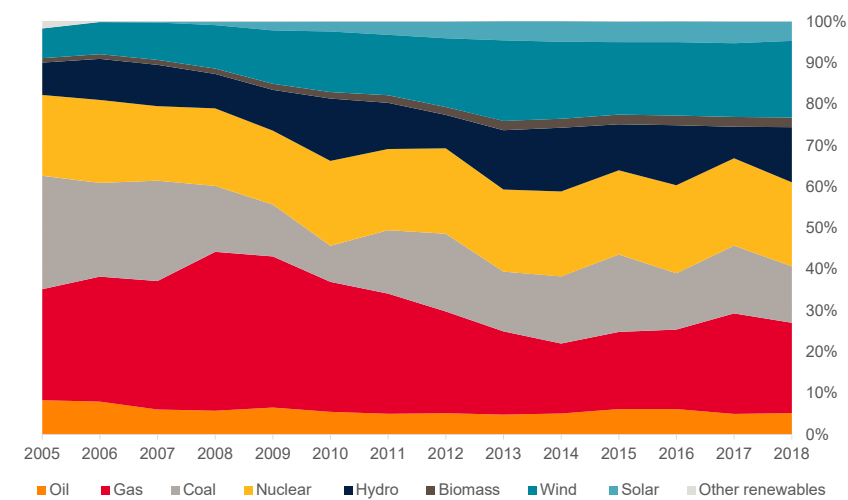
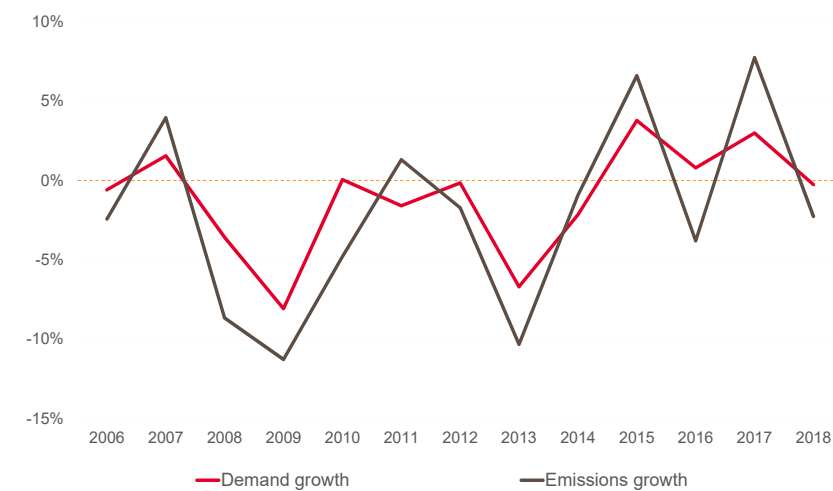
Spain (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	127.9	127.9	125.9	125.7	117.3	114.8	119.1	120.1	123.7	123.3	100.0
Oil	60.3	58.1	54.8	50.4	47.8	46.8	49.2	50.7	51.0	52.5	42.5
Gas	31.2	31.1	28.9	28.6	26.2	23.7	24.5	25.0	27.4	27.2	22.1
Coal	10.3	7.8	12.4	15.2	11.0	11.4	13.3	10.5	12.6	10.2	8.3
Nuclear	13.7	16.2	15.0	16.0	14.8	14.9	14.9	15.3	15.1	14.5	11.8
Hydro	2.3	3.6	2.6	1.8	3.2	3.4	2.4	3.1	1.6	2.9	2.4
Biomass	6.6	6.7	7.3	7.9	7.1	7.0	7.0	7.1	7.3	7.4	6.0
Other renewables	3.8	4.4	4.5	5.3	5.9	5.6	5.4	5.4	5.5	5.5	4.4
Electricity balance of trade*	-0.5	-0.1	0.3	0.7	1.4	1.9	2.3	3.0	3.2	3.1	2.5
Total final consumption, by source	91.5	92.8	89.5	85.3	81.8	79.4	80.6	83.1	84.7	86.9	100.0
Oil	51.1	50.1	46.4	41.9	39.9	38.5	40.2	42.0	43.1	44.3	51.0
Gas	13.4	14.8	14.5	15.0	15.3	14.8	13.6	13.9	14.1	14.8	17.0
Coal	1.3	1.5	1.9	1.5	1.8	1.5	1.5	1.7	1.7	1.6	1.8
Electricity	20.6	21.1	20.9	20.7	19.8	19.5	20.0	20.0	20.3	20.4	23.5
Heat	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.4
Biomass	4.8	5.2	5.6	6.1	4.8	4.8	5.0	5.2	5.3	5.4	6.3
Electricity generation, by source	25.3	25.9	25.3	25.6	24.6	24.0	24.2	23.6	23.7	23.5	100.0
Oil	1.7	1.4	1.3	1.3	1.2	1.2	1.5	1.5	1.2	1.2	5.2
Gas	9.3	8.2	7.4	6.3	4.9	4.1	4.5	4.5	5.8	5.1	21.9
Coal	3.2	2.3	3.9	4.8	3.6	3.9	4.5	3.2	3.9	3.2	13.7
Nuclear	4.5	5.3	5.0	5.3	4.9	4.9	4.9	5.0	5.0	4.8	20.3
Hydro	2.5	3.9	2.8	2.1	3.5	3.7	2.7	3.4	1.8	3.1	13.3
Biomass	0.4	0.4	0.5	0.5	0.6	0.5	0.6	0.6	0.6	0.6	2.4
Wind	3.3	3.8	3.7	4.3	4.8	4.5	4.2	4.2	4.2	4.4	18.6
Solar	0.5	0.6	0.8	1.0	1.1	1.2	1.2	1.2	1.2	1.1	4.6
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total final consumption, by sector	91.5	92.8	89.5	85.3	81.8	79.4	80.6	83.1	84.7	86.9	100.0
Industry	21.2	21.5	21.3	20.7	20.6	20.0	18.9	18.9	19.1	19.5	22.5
Transport	34.5	34.0	32.2	29.7	28.2	28.3	29.6	30.8	31.9	32.9	37.8
Residential/Comercial	25.4	27.0	26.1	25.7	24.8	23.9	25.1	25.8	26.0	26.7	30.7
Oil final consumption, by sector	51.1	50.1	46.4	41.9	39.9	38.5	40.2	42.0	43.1	44.3	100.0
Industry	4.7	4.9	4.3	3.5	2.7	2.5	2.7	2.8	2.8	2.9	6.5
Transport	33.1	32.2	30.0	27.1	26.8	26.9	27.8	28.8	29.8	30.6	69.0
Residential/Comercial	4.7	4.8	4.2	4.0	4.2	3.9	4.0	4.0	4.1	4.3	9.7
Natural gas final consumption, by sector	13.4	14.8	14.5	15.0	15.3	14.8	13.6	13.9	14.1	14.8	100.0
Industry	7.5	7.8	7.7	8.4	9.0	8.8	6.9	6.5	6.6	7.0	47.0
Transport	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.4	2.5
Residential/Comercial	4.6	5.3	5.2	5.1	4.7	4.5	5.6	6.5	6.6	6.9	46.6
Refined products consumption	51.1	50.0	46.4	41.9	39.9	38.5	40.2	42.0	43.1	44.3	100.0
Gasoline	6.1	5.6	5.2	4.8	4.6	4.5	4.6	4.8	4.9	5.1	11.6
Diesel	30.3	29.7	27.5	25.2	25.7	25.5	26.8	27.4	28.2	28.9	65.1
Heating Oil	1.4	1.1	1.1	0.7	0.8	0.6	0.5	0.6	1.1	1.2	2.7
Aviation Jet	2.2	2.4	2.2	1.9	1.7	1.8	1.9	2.0	2.1	2.2	5.1
LPG	2.0	2.0	1.8	1.7	1.7	1.8	2.1	2.8	2.5	2.9	6.5
Imports	114.3	113.1	110.9	110.3	109.9	112.1	112.9	114.6	120.0	120.8	100.0
Oil	82.6	81.1	80.0	79.8	79.0	80.5	84.7	86.5	89.9	90.5	74.9
Gas	31.8	31.9	30.9	30.5	30.9	31.6	28.2	28.2	30.1	30.3	25.1
Gasoline	0.3	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.4	0.4	0.3
Diesel	11.5	11.0	8.7	6.8	4.7	3.9	4.7	4.9	5.0	5.2	4.3
Heating Oil	4.1	3.3	3.6	3.1	4.2	5.3	4.3	5.9	6.7	6.5	5.4
Aviation Jet	2.6	2.6	2.9	2.5	2.0	2.1	2.4	2.3	2.4	1.7	1.4
LPG	1.0	0.9	0.6	0.4	0.4	0.7	0.9	1.6	1.4	1.5	1.2
Exports	12.0	12.6	14.5	21.8	26.9	28.3	27.2	28.0	29.8	28.1	100.0
Oil	11.1	11.5	13.0	19.4	21.8	21.1	22.8	24.6	27.3	25.3	90.0
Gas	0.9	1.0	1.5	2.4	5.1	7.1	4.4	3.5	2.5	2.8	10.0
Gasoline	4.0	3.6	3.5	3.6	3.6	3.4	5.0	4.7	4.8	4.6	16.2
Diesel	0.8	1.2	2.4	6.3	5.5	5.2	5.5	5.5	6.8	6.7	23.7
Heating Oil	1.8	2.1	2.1	1.4	2.9	2.9	2.2	2.9	3.5	3.2	11.4
Aviation Jet	0.1	0.1	0.3	0.2	0.4	0.4	0.5	0.7	0.6	0.6	2.0
LPG	0.3	0.3	0.3	0.3	0.4	0.5	0.4	0.5	0.6	0.5	1.9
CO₂ Emissions (Million tons CO₂)	280.2	266.8	270.3	265.7	238.3	236.1	251.7	242.1	260.9	255.0	-
CO₂ Intensity (tCO₂/million \$15ppp)	171.7	163.4	167.3	169.3	154.5	151.0	155.6	145.0	151.7	144.4	-
Final energy intensity (toe/million \$15ppp)	51.7	52.5	51.2	50.6	49.8	48.2	47.2	46.8	46.5	46.4	-
Total energy intensity (toe/million \$15ppp)	78.3	78.4	77.9	80.1	76.1	73.4	73.7	71.9	71.9	69.9	-

*Heat is included

Primary energy demand mix



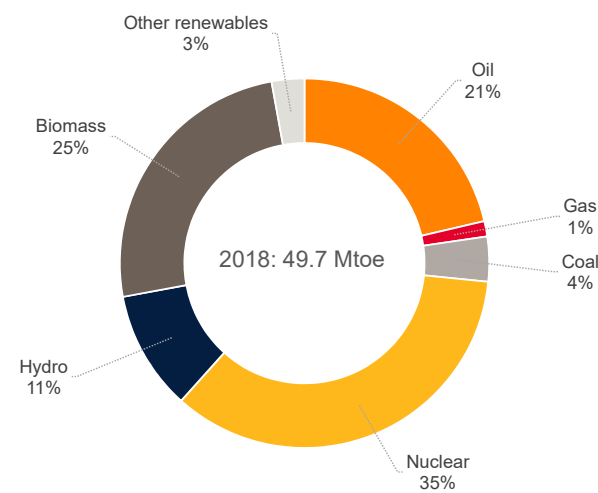
Electricity generation by source

Primary energy demand and CO₂ emissions growth

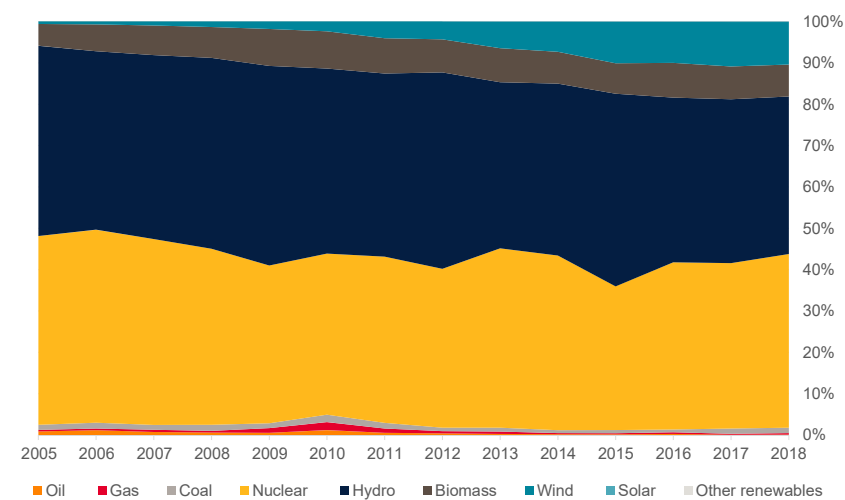
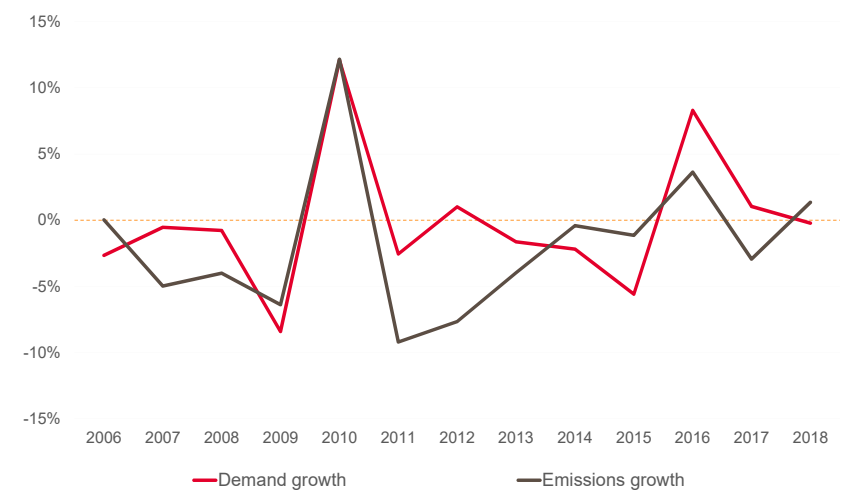
Sweden (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	45.4	50.9	49.6	50.1	49.2	48.2	45.5	49.3	49.8	49.7	100.0
Oil	11.8	13.9	13.7	12.6	11.9	11.6	10.0	11.7	11.4	10.9	21.9
Gas	1.1	1.5	1.2	1.0	1.0	0.8	0.7	0.8	0.7	0.7	1.4
Coal	1.9	2.5	2.5	2.2	2.2	2.1	2.1	2.1	2.1	2.0	4.0
Nuclear	13.6	15.1	15.8	16.7	17.3	16.9	14.7	16.4	17.1	17.9	36.0
Hydro	5.7	5.7	5.7	6.8	5.3	5.5	6.5	5.3	5.6	5.3	10.7
Biomass	10.4	11.5	10.6	11.6	11.4	11.4	11.8	12.4	12.9	12.8	25.7
Other renewables	0.2	0.3	0.5	0.6	0.8	1.0	1.4	1.3	1.5	1.5	2.9
Electricity balance of trade*	0.6	0.4	-0.4	-1.4	-0.7	-1.1	-1.7	-0.8	-1.5	-1.4	-2.7
Total final consumption, by source	32.4	35.5	33.5	33.4	32.9	32.4	32.7	34.0	33.9	34.1	100.0
Oil	10.6	11.2	10.7	9.9	9.8	9.7	9.4	9.9	9.7	9.9	29.0
Gas	0.6	0.7	0.7	0.7	0.6	0.6	0.7	0.6	0.5	0.4	1.3
Coal	0.9	1.4	1.4	1.3	1.3	1.3	1.3	1.3	1.3	1.3	3.7
Electricity	10.6	11.3	10.7	10.9	10.8	10.5	10.7	11.0	11.0	11.1	32.4
Heat	4.3	5.2	4.1	4.5	4.5	4.2	4.2	4.4	4.4	4.5	13.1
Biomass	5.5	5.7	5.9	6.1	6.0	6.1	6.5	6.7	7.0	7.0	20.5
Electricity generation, by source	11.8	12.8	12.9	14.3	13.2	13.2	13.9	13.4	14.1	14.0	100.0
Oil	0.1	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Gas	0.1	0.2	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.1	0.4
Coal	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.2	1.3
Nuclear	4.5	5.0	5.2	5.5	5.7	5.6	4.8	5.4	5.6	5.9	42.0
Hydro	5.7	5.7	5.7	6.8	5.3	5.5	6.5	5.3	5.6	5.3	38.1
Biomass	1.0	1.2	1.1	1.1	1.1	1.0	1.0	1.1	1.1	1.1	7.8
Wind	0.2	0.3	0.5	0.6	0.8	1.0	1.4	1.3	1.5	1.4	10.3
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other renewables	-0.0	0.0	-0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	-0.0	-0.0
Total final consumption, by sector	32.4	35.5	33.5	33.4	32.9	32.4	32.7	34.0	33.9	34.1	100.0
Industry	11.1	12.3	11.9	11.7	11.6	11.3	11.6	11.5	11.4	11.2	32.8
Transport	7.7	7.8	7.7	7.5	7.5	7.7	7.8	8.2	8.1	8.0	23.4
Residential/Comercial	11.2	12.6	11.5	11.9	11.4	11.1	11.2	11.8	11.8	12.3	36.0
Oil final consumption, by sector	10.6	11.2	10.7	9.9	9.8	9.7	9.4	9.9	9.7	9.9	100.0
Industry	1.1	1.2	1.1	1.0	0.9	0.8	0.8	0.8	0.7	0.8	8.1
Transport	7.1	7.2	7.0	6.7	6.5	6.6	6.5	6.6	6.4	6.1	62.0
Residential/Comercial	0.6	0.7	0.6	0.4	0.3	0.4	0.3	0.4	0.4	0.6	6.4
Natural gas final consumption, by sector	0.6	0.7	0.7	0.7	0.6	0.6	0.7	0.6	0.5	0.4	100.0
Industry	0.3	0.3	0.3	0.4	0.3	0.3	0.4	0.3	0.3	0.2	54.3
Transport	0.0	0.0	0.0	0.1	0.1	0.1	0.0	0.0	0.0	0.0	2.3
Residential/Comercial	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	27.8
Refined products consumption	10.6	11.2	10.7	9.9	9.8	9.7	9.4	9.9	9.7	9.9	100.0
Gasoline	3.5	3.3	3.0	2.7	2.6	2.8	2.5	2.4	2.3	2.0	20.2
Diesel	4.3	4.7	4.7	4.4	4.3	4.2	4.4	4.7	4.6	5.0	50.2
Heating Oil	0.7	0.8	0.6	0.5	0.5	0.4	0.3	0.2	0.2	0.2	2.0
Aviation Jet	0.1	0.2	0.2	0.2	0.1	0.1	0.1	0.2	0.2	0.2	2.1
LPG	0.6	0.9	1.0	0.9	1.1	1.0	1.0	1.2	1.1	1.2	12.2
Imports	28.1	29.8	28.7	28.9	25.3	27.9	29.1	31.8	30.9	30.8	100.0
Oil	27.0	28.3	27.6	27.9	24.4	27.1	28.4	30.9	30.3	30.1	97.8
Gas	1.1	1.5	1.2	1.0	1.0	0.8	0.7	0.8	0.7	0.7	2.2
Gasoline	1.7	2.0	1.6	1.2	1.3	1.9	1.8	2.0	1.6	0.8	2.5
Diesel	2.0	2.2	2.2	2.1	2.2	2.4	2.6	3.1	3.0	3.1	10.0
Heating Oil	1.2	1.0	1.2	0.8	0.7	0.4	0.7	2.0	1.5	1.7	5.6
Aviation Jet	0.8	0.7	0.9	0.7	0.6	0.9	0.8	1.0	1.0	1.1	3.5
LPG	0.8	1.0	1.3	0.9	1.1	1.2	1.1	1.5	1.3	1.2	4.0
Exports	12.1	12.8	11.6	13.6	10.0	12.8	15.3	17.0	18.7	15.9	100.0
Oil	12.1	12.8	11.6	13.6	10.0	12.8	15.3	17.0	18.7	15.9	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	2.7	2.2	2.4	3.0	2.1	3.7	4.1	3.8	3.9	3.0	18.5
Diesel	5.0	4.7	4.0	5.2	3.6	4.9	5.7	5.4	7.1	6.3	39.5
Heating Oil	2.4	3.5	3.2	3.1	2.3	1.7	2.7	4.4	4.0	4.2	26.3
Aviation Jet	0.0	0.0	0.1	0.0	0.0	0.1	0.0	0.1	0.0	0.2	1.1
LPG	0.4	0.5	0.3	0.6	0.3	0.4	0.6	0.8	0.7	0.6	3.8
CO₂ Emissions (Million tons CO₂)	43.3	48.5	44.1	40.7	39.1	38.9	38.5	39.9	38.7	39.2	-
CO₂ Intensity (tCO₂/million \$15ppp)	108.6	114.9	101.7	94.1	89.3	86.7	82.0	82.3	78.2	77.4	-
Final energy intensity (toe/million \$15ppp)	77.0	79.0	72.9	73.2	70.4	67.9	66.0	65.6	63.9	62.9	-
Total energy intensity (toe/million \$15ppp)	113.9	120.5	114.3	115.8	112.5	107.3	96.9	101.7	100.6	98.0	-

*Heat is included

Primary energy demand mix

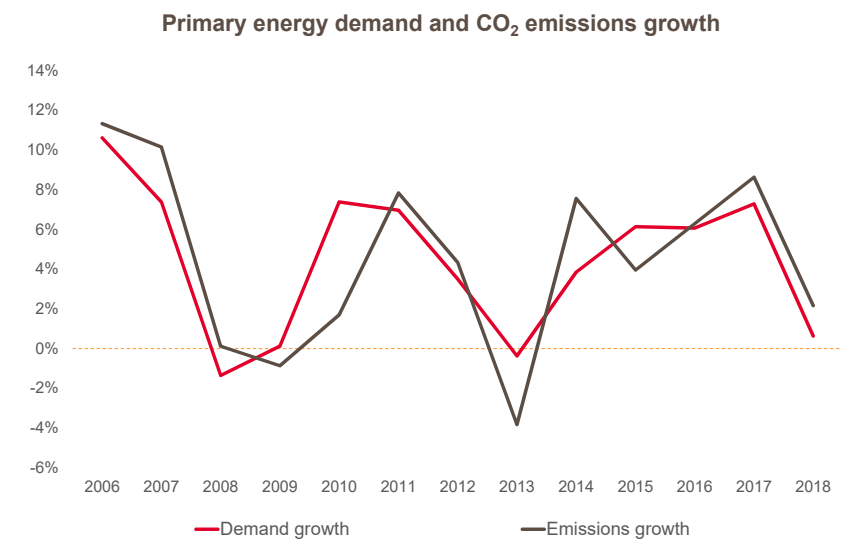
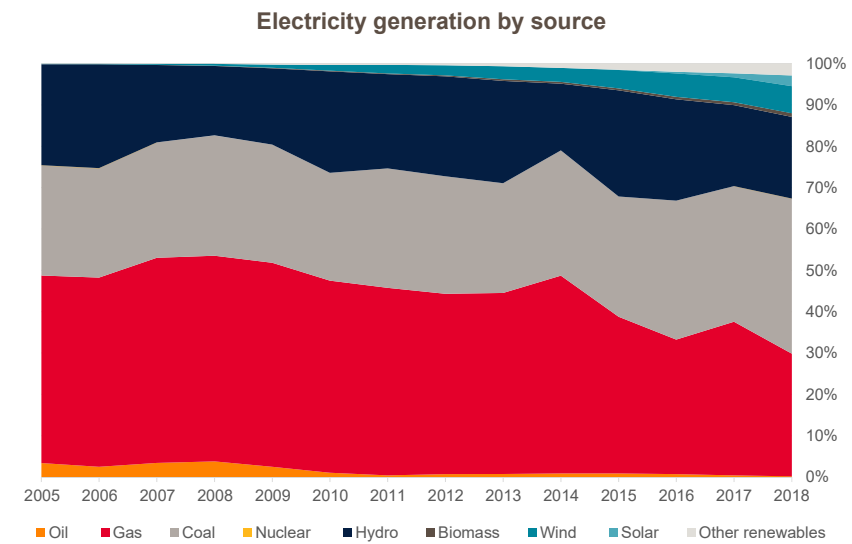
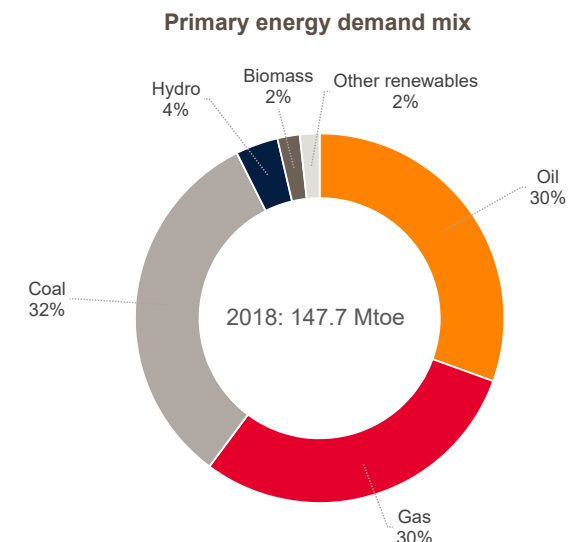


Electricity generation by source

Primary energy demand and CO₂ emissions growth

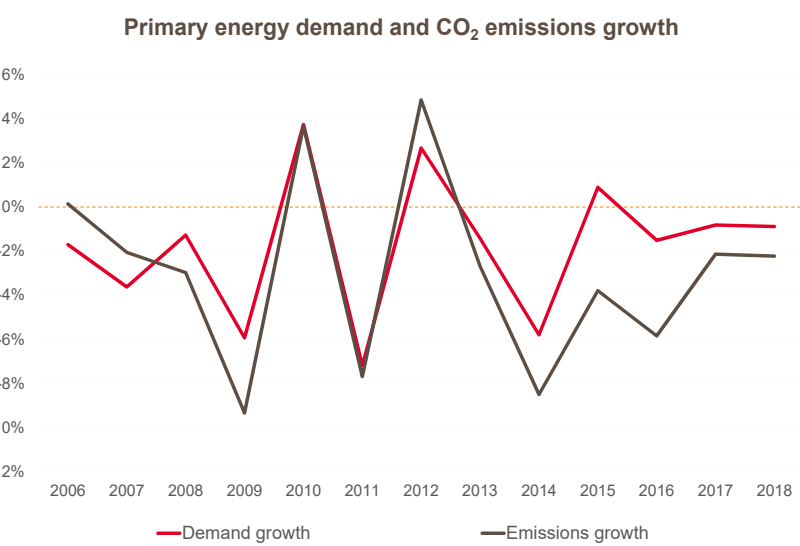
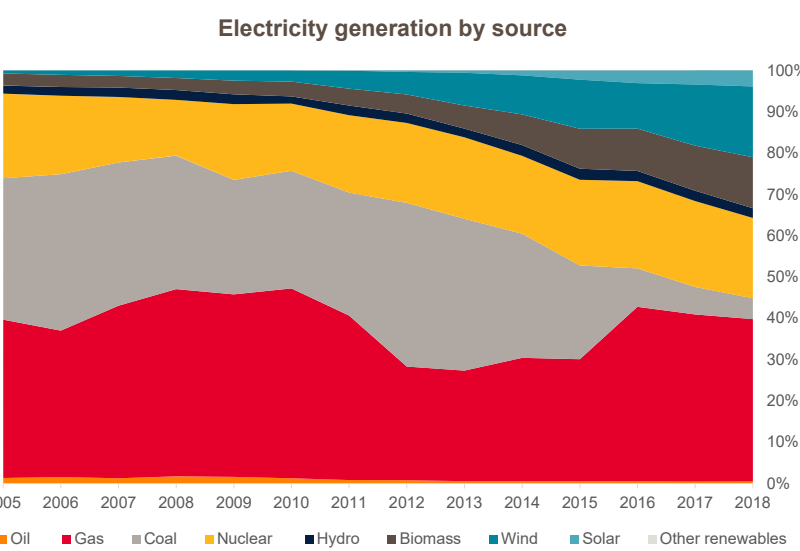
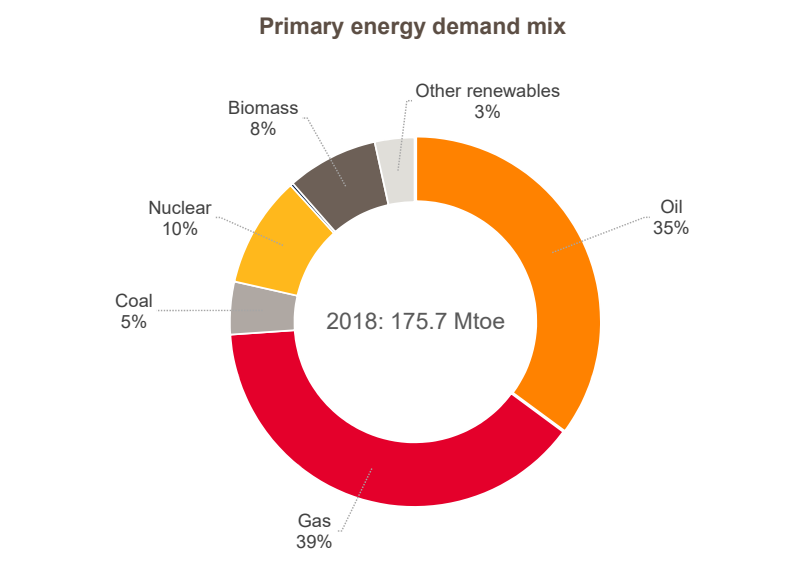
Turkey (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	98.7	106.0	113.4	117.4	117.0	121.5	128.9	136.8	146.7	147.7	100.0
Oil	29.1	31.4	31.6	33.4	33.5	32.9	39.0	42.5	44.4	42.2	28.6
Gas	28.9	31.4	36.8	37.3	37.5	40.2	39.4	38.3	44.2	41.0	27.7
Coal	30.9	31.7	33.7	34.3	32.2	35.8	34.5	38.4	40.5	44.8	30.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	3.1	4.5	4.5	5.0	5.1	3.5	5.8	5.8	5.0	5.1	3.5
Biomass	4.6	4.5	3.6	3.7	3.9	3.5	3.2	3.1	2.8	2.7	1.8
Other renewables	0.1	0.3	0.4	0.5	0.6	0.7	1.0	1.4	1.8	2.4	1.6
Electricity balance of trade*	2.0	2.3	2.8	3.3	4.0	4.8	6.0	7.3	8.1	9.5	6.5
Total final consumption, by source	75.5	79.6	83.5	87.6	86.7	87.2	95.1	99.3	104.9	104.3	100.0
Oil	28.6	28.4	28.2	29.8	31.1	30.6	35.1	37.5	39.5	39.0	37.4
Gas	11.1	13.0	17.5	18.0	18.7	19.3	21.2	21.5	23.9	22.9	21.9
Coal	15.2	16.1	15.1	16.2	12.9	13.0	13.8	14.4	14.3	15.1	14.4
Electricity	13.3	14.6	15.8	16.6	16.9	17.7	18.5	19.6	21.1	21.5	20.6
Heat	2.7	3.0	3.3	3.5	3.5	3.5	3.7	3.6	3.7	3.7	3.6
Biomass	4.6	4.4	3.5	3.5	3.7	3.3	2.9	2.7	2.4	2.1	2.0
Electricity generation, by source	16.8	18.2	19.7	20.6	20.7	21.7	22.5	23.6	25.6	26.0	100.0
Oil	0.4	0.2	0.1	0.1	0.1	0.2	0.2	0.2	0.1	0.0	0.2
Gas	8.3	8.4	8.9	9.0	9.0	10.4	8.5	7.7	9.5	7.7	29.6
Coal	4.8	4.7	5.7	5.8	5.5	6.6	6.6	7.9	8.4	9.8	37.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	3.1	4.5	4.5	5.0	5.1	3.5	5.8	5.8	5.0	5.1	19.7
Biomass	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.9
Wind	0.1	0.3	0.4	0.5	0.6	0.7	1.0	1.3	1.5	1.7	6.5
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.7	2.6
Other renewables	0.0	0.1	0.1	0.1	0.1	0.2	0.3	0.5	0.6	0.8	2.9
Total final consumption, by sector	75.5	79.6	83.5	87.6	86.7	87.2	95.1	99.3	104.9	104.3	100.0
Industry	20.9	24.4	26.6	27.8	26.0	27.1	28.3	28.5	29.9	31.4	30.1
Transport	14.8	14.5	14.8	17.1	19.4	20.3	24.1	26.2	27.8	27.5	26.4
Residential/Comercial	28.2	28.6	30.5	31.0	30.0	29.9	32.1	32.9	35.1	33.4	32.1
Oil final consumption, by sector	28.6	28.4	28.2	29.8	31.1	30.6	35.1	37.5	39.5	39.0	100.0
Industry	1.3	1.1	1.4	1.6	1.0	0.8	1.0	0.8	0.9	0.8	2.0
Transport	14.7	14.4	14.7	16.9	18.9	20.0	23.8	26.0	27.5	27.2	69.7
Residential/Comercial	1.6	1.5	1.3	0.9	1.0	0.9	1.0	0.9	0.9	0.9	2.4
Natural gas final consumption, by sector	11.1	13.0	17.5	18.0	18.7	19.3	21.2	21.5	23.9	22.9	100.0
Industry	4.4	6.3	7.9	8.0	8.0	8.8	9.0	8.6	9.0	8.6	37.5
Transport	0.0	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.4
Residential/Comercial	6.5	6.4	9.3	9.5	10.3	10.1	11.7	12.1	14.2	13.6	59.3
Refined products consumption	28.6	28.4	28.2	29.8	31.1	30.6	35.1	37.5	39.5	39.0	100.0
Gasoline	2.6	2.1	2.0	1.9	2.0	2.0	2.1	2.3	2.3	2.3	5.9
Diesel	13.8	14.7	15.4	16.0	16.7	17.8	20.2	21.7	23.5	23.2	59.4
Heating Oil	0.9	0.3	0.6	0.7	0.7	0.5	0.5	0.2	0.3	0.2	0.4
Aviation Jet	0.8	0.4	0.3	0.4	0.8	1.0	1.3	1.4	1.3	1.2	3.2
LPG	4.0	4.0	4.1	4.0	4.1	4.1	4.4	4.6	4.5	4.6	11.8
Imports	62.4	68.3	73.7	78.7	77.9	81.4	89.6	88.9	99.0	90.8	100.0
Oil	32.9	37.0	37.6	40.9	40.7	40.9	49.7	50.7	53.6	49.6	54.7
Gas	29.5	31.3	36.1	37.8	37.3	40.5	39.9	38.2	45.4	41.2	45.3
Gasoline	0.2	0.3	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	9.3	9.8	10.3	11.2	11.8	13.1	12.7	13.1	15.2	15.5	17.1
Heating Oil	0.6	0.6	0.6	0.9	0.7	1.1	1.6	1.6	2.0	2.3	2.5
Aviation Jet	0.7	0.5	0.6	0.6	0.6	0.9	0.2	0.4	0.2	0.5	0.6
LPG	3.4	3.4	3.4	3.3	3.4	3.4	3.8	3.8	3.7	3.6	4.0
Exports	5.4	7.0	8.1	8.4	8.1	7.6	8.2	7.0	7.2	5.5	100.0
Oil	4.8	6.5	7.6	7.9	7.6	7.0	7.6	6.5	6.7	4.9	89.9
Gas	0.6	0.5	0.6	0.5	0.6	0.5	0.5	0.6	0.5	0.6	10.1
Gasoline	2.1	2.1	2.5	2.8	2.6	2.2	3.3	3.0	3.3	2.6	46.8
Diesel	0.4	0.3	0.1	0.2	0.1	0.1	0.1	0.1	0.2	0.1	2.5
Heating Oil	1.1	2.2	2.1	1.2	1.8	2.5	2.4	1.6	1.4	1.1	19.4
Aviation Jet	0.7	1.4	2.1	2.6	2.2	1.0	0.3	0.2	0.3	0.1	2.2
LPG	0.1	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.3	0.1	1.8
CO₂ Emissions (Million tons CO₂)	265.3	269.8	291.0	303.6	292.0	314.1	326.5	347.1	377.1	385.3	-
CO₂ Intensity (tCO₂/million \$15ppp)	208.6	195.6	189.8	189.0	167.5	171.4	167.9	173.0	174.9	172.7	-
Final energy intensity (toe/million \$15ppp)	54.0	52.5	50.4	50.1	45.7	44.6	45.4	45.6	44.9	43.2	-
Total energy intensity (toe/million \$15ppp)	77.6	76.8	74.0	73.1	67.1	66.3	66.3	68.2	68.1	66.2	-

*Heat is included



United Kingdom (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	195.9	203.2	188.6	193.6	190.9	179.8	181.4	178.7	177.2	175.7	100.0
Oil	62.9	63.4	60.2	59.3	56.9	58.2	60.0	60.6	61.9	61.1	34.8
Gas	78.1	84.8	70.3	66.4	65.8	59.9	61.7	69.4	67.7	67.5	38.5
Coal	29.6	30.7	30.7	39.0	37.3	30.2	23.9	11.8	9.6	8.0	4.6
Nuclear	18.0	16.2	18.0	18.3	18.4	16.6	18.3	18.7	18.3	17.0	9.7
Hydro	0.4	0.3	0.5	0.5	0.4	0.5	0.5	0.5	0.5	0.5	0.3
Biomass	5.8	6.6	6.9	7.3	8.2	9.6	11.1	12.1	12.7	13.9	7.9
Other renewables	0.8	0.9	1.4	1.8	2.6	3.1	4.1	4.1	5.3	6.0	3.4
Electricity balance of trade*	0.3	0.3	0.6	1.1	1.3	1.8	1.9	1.6	1.3	1.7	1.0
Total final consumption, by source	133.7	139.4	127.7	130.5	131.8	124.9	127.8	129.5	129.5	130.3	100.0
Oil	55.4	55.4	53.3	52.3	51.6	52.0	53.8	55.0	56.6	55.8	42.8
Gas	42.7	47.1	39.1	42.6	43.1	36.8	38.2	39.4	38.4	39.5	30.4
Coal	4.3	4.5	4.1	4.2	5.2	5.2	4.7	3.6	3.3	3.2	2.5
Electricity	27.7	28.3	27.3	27.4	27.2	26.1	26.1	26.1	25.9	25.9	19.9
Heat	1.2	1.3	1.2	1.3	1.2	1.2	1.2	1.2	1.2	1.2	0.9
Biomass	2.4	2.9	2.7	2.7	3.4	3.6	3.8	4.2	4.2	4.6	3.5
Electricity generation, by source	32.4	32.9	31.6	31.3	30.8	29.1	29.1	29.2	29.1	28.7	100.0
Oil	0.5	0.4	0.3	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.5
Gas	14.3	15.1	12.6	8.6	8.2	8.7	8.6	12.3	11.8	11.3	39.3
Coal	9.0	9.4	9.4	12.4	11.3	8.7	6.6	2.7	1.9	1.4	5.0
Nuclear	5.9	5.3	5.9	6.1	6.1	5.5	6.0	6.2	6.0	5.6	19.5
Hydro	0.8	0.6	0.7	0.7	0.7	0.8	0.8	0.7	0.7	0.7	2.3
Biomass	1.1	1.2	1.3	1.4	1.7	2.2	2.8	3.0	3.2	3.5	12.3
Wind	0.8	0.9	1.4	1.7	2.4	2.7	3.5	3.2	4.3	4.9	17.1
Solar	0.0	0.0	0.0	0.1	0.2	0.3	0.6	0.9	1.0	1.1	3.9
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	133.7	139.4	127.7	130.5	131.8	124.9	127.8	129.5	129.5	130.3	100.0
Industry	26.2	27.2	25.5	25.2	25.8	25.1	25.1	24.0	24.3	24.4	18.7
Transport	40.6	40.2	39.6	39.3	39.1	39.7	40.2	41.0	41.3	41.0	31.5
Residential/Comercial	58.0	62.9	53.8	58.1	58.9	52.1	54.1	55.6	54.4	55.8	42.8
Oil final consumption, by sector	55.4	55.4	53.3	52.3	51.6	52.0	53.8	55.0	56.6	55.8	100.0
Industry	4.8	4.9	4.1	4.2	3.7	3.6	3.8	3.7	3.9	3.9	6.9
Transport	39.2	38.7	38.2	38.0	37.7	38.2	38.9	39.7	40.0	39.3	70.4
Residential/Comercial	3.7	4.1	3.5	3.4	3.5	3.6	3.8	3.8	4.4	4.7	8.3
Natural gas final consumption, by sector	42.7	47.1	39.1	42.6	43.1	36.8	38.2	39.4	38.4	39.5	100.0
Industry	8.2	8.5	8.1	7.9	8.1	7.8	7.7	7.6	7.8	8.0	20.2
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Comercial	33.8	37.9	30.4	34.1	34.5	28.5	30.1	31.4	30.1	31.1	78.6
Refined products consumption	55.4	55.4	53.3	52.3	51.6	52.0	53.8	55.0	56.6	55.8	100.0
Gasoline	16.4	15.3	14.6	13.9	13.2	13.0	12.7	12.6	12.4	12.2	21.9
Diesel	25.0	25.7	25.5	26.4	26.4	27.1	28.5	29.3	29.7	29.5	52.9
Heating Oil	0.6	0.7	0.5	0.3	0.2	0.3	0.3	0.3	0.6	0.2	0.4
Aviation Jet	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.9	0.9	0.9	1.7
LPG	3.5	3.3	3.4	2.7	2.5	2.6	3.1	3.2	3.2	3.2	5.8
Imports	114.9	128.1	129.5	132.4	131.5	122.6	123.8	127.1	132.0	131.0	100.0
Oil	79.0	81.2	83.3	89.5	89.9	85.7	85.5	86.3	91.4	91.4	69.7
Gas	35.9	46.9	46.2	42.9	41.6	36.9	38.3	40.7	40.5	39.7	30.3
Gasoline	2.9	3.0	3.4	4.4	4.7	3.7	4.1	4.1	3.4	3.6	2.7
Diesel	6.7	8.6	9.2	11.1	11.2	13.1	15.0	16.7	15.7	16.3	12.5
Heating Oil	1.2	1.0	0.8	0.6	0.6	1.0	1.0	1.2	1.4	0.7	0.5
Aviation Jet	8.0	7.8	7.3	7.6	8.8	8.7	8.8	9.4	9.7	10.1	7.7
LPG	0.6	0.4	0.2	0.3	0.5	0.5	0.8	0.9	1.0	1.3	1.0
Exports	82.9	83.1	76.8	72.7	69.4	64.2	70.2	69.4	72.9	75.5	100.0
Oil	72.8	70.1	63.0	62.5	61.7	55.2	58.3	61.0	63.4	69.3	91.7
Gas	10.0	13.0	13.7	10.2	7.7	9.0	11.9	8.4	9.5	6.2	8.3
Gasoline	8.2	9.1	9.8	11.6	11.4	9.1	10.9	11.7	11.5	10.8	14.3
Diesel	6.1	6.6	7.9	7.8	6.3	5.5	4.7	5.0	3.9	4.4	5.8
Heating Oil	5.3	4.7	4.9	5.4	4.5	4.0	3.2	3.2	2.9	2.4	3.2
Aviation Jet	1.5	1.6	1.3	1.4	1.0	1.1	1.3	1.3	1.3	1.7	2.2
LPG	0.7	0.8	0.9	1.3	1.3	1.0	0.9	1.1	1.2	1.0	1.3
CO ₂ Emissions (Million tons CO ₂)	467.0	484.1	446.9	468.6	456.1	417.3	401.5	378.1	370.0	361.8	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	194.3	198.1	180.3	186.3	177.6	157.7	148.3	137.0	131.9	127.2	-
Final energy intensity (toe/million \$15ppp)	52.3	53.7	48.4	49.1	48.7	44.6	44.5	44.1	43.2	43.0	-
Total energy intensity (toe/million \$15ppp)	81.5	83.2	76.1	77.0	74.4	68.0	67.0	64.7	63.2	61.8	-

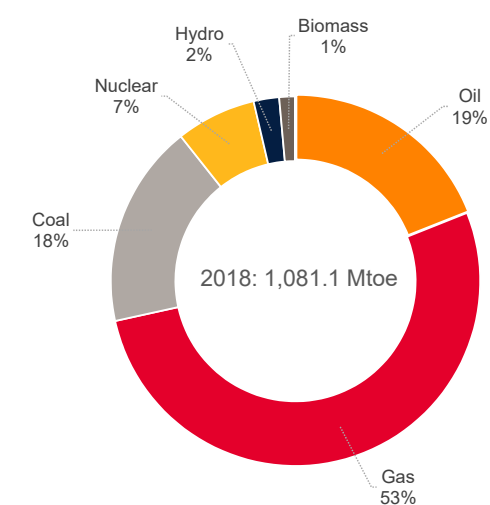
*Heat is included



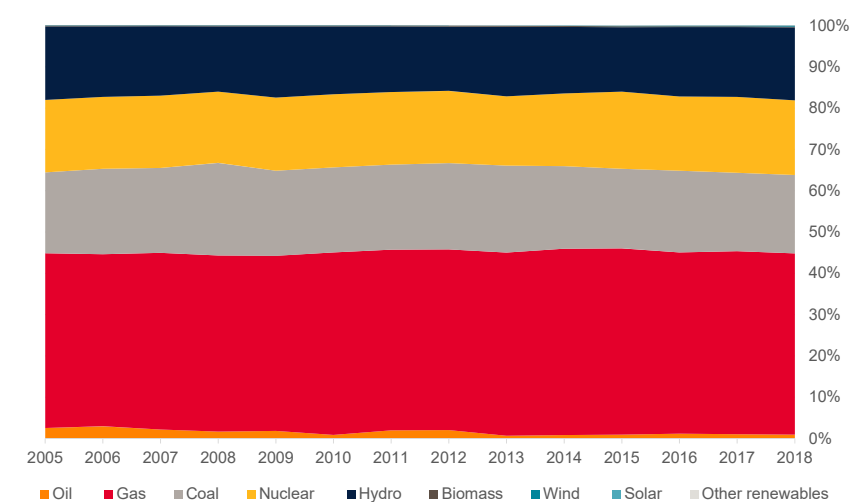
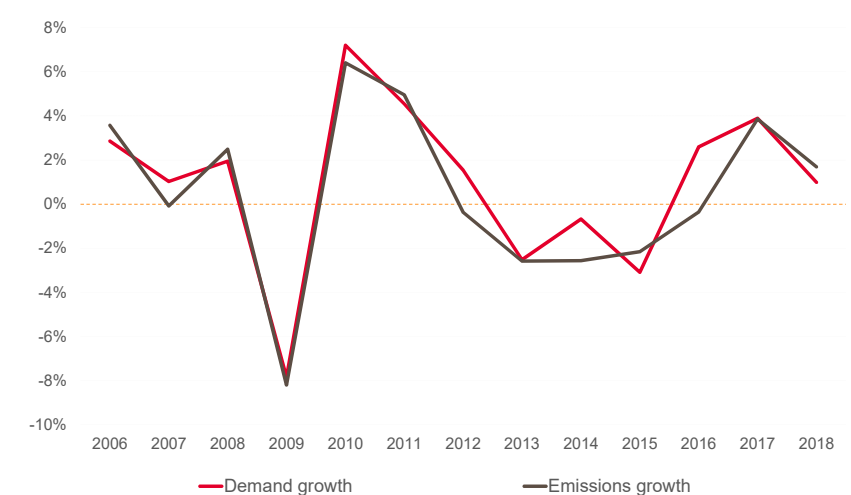
Former Soviet Union (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	940.5	1,008.3	1,054.0	1,070.3	1,043.4	1,036.3	1,004.3	1,030.4	1,070.5	1,081.1	100.0
Oil	188.0	186.5	210.3	220.4	211.1	215.7	207.7	226.0	228.8	205.3	19.0
Gas	491.9	546.5	559.0	547.2	540.1	536.3	504.5	510.9	544.3	569.1	52.6
Coal	166.1	176.5	185.5	201.8	191.3	181.0	185.1	185.4	185.1	192.6	17.8
Nuclear	64.9	68.3	69.3	70.4	67.3	70.8	74.5	73.0	75.9	76.0	7.0
Hydro	20.7	20.8	20.5	20.5	22.1	21.1	20.2	22.2	22.7	24.1	2.2
Biomass	10.0	11.1	11.4	11.8	12.0	11.8	12.6	13.8	14.5	14.9	1.4
Other renewables	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.3	0.3	0.0
Electricity balance of trade*	-1.1	-1.5	-2.1	-1.7	-0.5	-0.5	-0.5	-1.1	-1.1	-1.4	-0.1
Total final consumption, by source	582.5	623.2	651.4	652.7	631.5	644.1	627.4	640.4	653.5	664.0	100.0
Oil	142.1	151.7	162.9	165.1	171.1	178.4	178.7	179.3	180.9	183.5	27.6
Gas	162.6	176.5	178.3	172.6	165.0	172.6	167.1	175.3	185.4	191.5	28.8
Coal	55.6	58.6	63.9	66.7	63.2	62.3	59.7	59.5	59.7	61.4	9.3
Electricity	82.7	88.2	89.8	91.3	91.7	91.1	89.6	90.9	92.8	94.6	14.2
Heat	134.7	142.9	151.2	151.4	134.7	134.1	125.9	128.2	127.1	125.2	18.9
Biomass	4.8	5.3	5.4	5.7	5.8	5.7	6.4	7.2	7.7	7.9	1.2
Electricity generation, by source	121.0	127.5	130.1	132.6	132.3	132.6	131.7	133.9	136.1	138.6	100.0
Oil	2.2	1.1	2.6	2.7	0.9	1.1	1.2	1.6	1.4	1.3	0.9
Gas	51.3	56.4	56.9	58.0	58.7	59.8	59.4	58.8	60.3	60.8	43.9
Coal	24.9	26.3	26.8	27.7	27.8	26.5	25.4	26.5	25.8	26.3	19.0
Nuclear	21.4	22.5	22.9	23.2	22.2	23.4	24.6	24.1	25.1	25.1	18.1
Hydro	20.9	21.0	20.7	20.6	22.3	21.3	20.5	22.5	23.0	24.5	17.7
Biomass	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.2
Wind	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1
Solar	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.2	0.1
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0
Total final consumption, by sector	582.5	623.2	651.4	652.7	631.5	644.1	627.4	640.4	653.5	664.0	100.0
Industry	194.2	211.9	222.4	228.1	214.3	211.4	205.6	215.2	220.4	224.3	33.8
Transport	85.7	88.0	92.4	93.4	94.1	93.8	91.4	90.6	88.9	90.3	13.6
Residential/Commercial	218.0	223.7	233.3	225.3	220.2	228.6	219.4	221.6	226.9	230.3	34.7
Oil final consumption, by sector	142.1	151.7	162.9	165.1	171.1	178.4	178.7	179.3	180.9	183.5	100.0
Industry	14.6	15.3	15.4	15.2	18.7	17.4	19.5	21.2	21.8	22.2	12.1
Transport	78.9	81.0	84.8	85.7	86.5	86.1	84.1	83.3	81.4	82.7	45.1
Residential/Commercial	8.6	9.1	11.5	10.9	12.7	13.9	14.1	13.2	14.5	15.1	8.2
Natural gas final consumption, by sector	162.6	176.5	178.3	172.6	165.0	172.6	167.1	175.3	185.4	191.5	100.0
Industry	44.9	48.9	49.2	51.3	48.4	50.9	47.5	48.1	51.3	53.4	27.9
Transport	0.5	0.6	0.6	0.6	0.7	0.7	0.8	0.9	0.9	0.9	0.5
Residential/Commercial	83.5	84.8	86.4	79.3	76.7	82.1	78.7	85.1	89.4	92.2	48.1
Refined products consumption	141.6	151.1	161.2	164.6	167.6	177.9	178.1	178.7	180.2	182.8	100.0
Gasoline	47.7	49.8	50.3	52.0	52.3	52.5	50.9	50.5	49.1	50.8	27.8
Diesel	39.4	39.9	44.1	41.7	43.0	45.0	45.8	44.1	42.6	40.1	22.0
Heating Oil	5.5	5.5	5.1	4.7	4.1	3.9	3.8	2.9	3.0	2.9	1.6
Aviation Jet	5.4	5.8	7.1	7.2	6.7	6.3	5.7	5.6	5.1	5.8	3.2
LPG	13.8	13.6	15.6	16.5	18.3	19.9	19.9	23.3	27.9	30.6	16.8
Imports	110.5	104.9	121.9	113.9	103.0	91.7	92.9	83.1	89.3	70.2	100.0
Oil	51.6	46.0	53.0	54.0	47.3	42.8	45.5	39.4	41.6	23.6	33.5
Gas	58.8	59.0	68.9	59.9	55.7	48.9	47.3	43.7	47.7	46.7	66.5
Gasoline	4.3	4.8	5.6	5.6	5.4	6.4	5.5	5.1	4.7	2.9	4.2
Diesel	6.3	6.0	9.9	10.6	7.1	7.5	7.4	8.4	8.9	8.9	12.7
Heating Oil	1.8	2.0	2.7	3.6	0.3	0.3	0.7	0.7	0.7	0.1	0.2
Aviation Jet	0.9	0.6	0.4	0.4	0.5	0.4	0.4	0.6	0.9	0.9	1.3
LPG	0.4	0.5	0.7	0.8	0.9	1.1	1.3	1.9	2.2	2.4	3.5
Exports	679.1	701.5	718.2	709.2	737.9	703.7	744.8	738.0	753.7	783.5	100.0
Oil	500.0	505.7	497.5	491.1	494.5	475.7	498.6	487.0	490.7	498.5	63.6
Gas	179.1	195.8	220.7	218.2	243.4	228.0	246.2	251.0	263.0	285.0	36.4
Gasoline	8.6	7.2	8.3	7.6	8.5	8.1	9.2	9.4	8.5	8.2	1.0
Diesel	51.2	51.4	50.2	53.5	51.3	50.5	48.1	45.8	46.4	50.7	6.5
Heating Oil	65.3	70.9	65.0	65.1	71.8	72.9	75.3	57.3	52.3	51.1	6.5
Aviation Jet	0.6	0.2	0.2	0.2	2.5	3.2	3.1	3.1	2.9	3.4	0.4
LPG	4.2	6.0	5.2	5.3	5.8	6.4	6.8	7.9	7.9	8.1	1.0
CO₂ Emissions (Million tons CO₂)	2,231.7	2,374.6	2,492.2	2,483.1	2,419.1	2,357.1	2,306.3	2,298.1	2,386.8	2,427.2	-
CO₂ Intensity (tCO₂/million \$15ppp)	503.4	510.3	507.6	488.2	464.2	448.0	448.4	445.1	452.6	449.7	-
Final energy intensity (toe/million \$15ppp)	117.4	117.3	116.3	112.1	105.8	105.9	104.7	106.5	105.9	104.9	-
Total energy intensity (toe/million \$15ppp)	212.1	216.7	214.7	210.4	200.2	197.0	195.3	199.6	203.0	200.3	-

*Heat is included

Primary energy demand mix



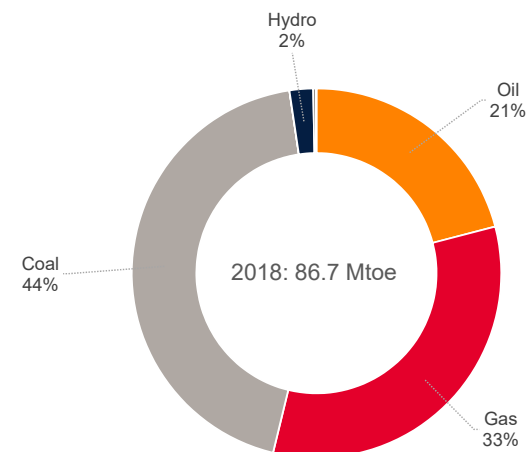
Electricity generation by source

Primary energy demand and CO₂ emissions growth

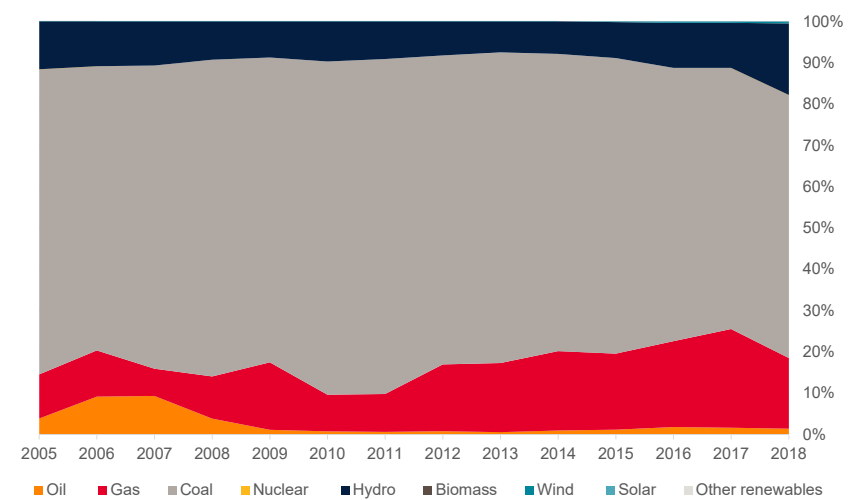
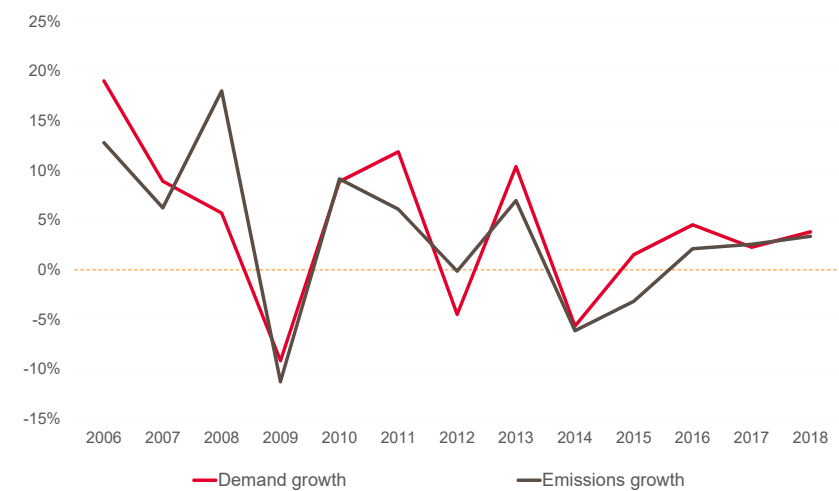
Kazakhstan (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	63.5	69.1	77.3	73.8	81.5	76.9	78.1	81.6	83.5	86.7	100.0
Oil	10.7	11.4	14.3	12.8	18.0	13.0	15.5	16.5	16.9	18.2	21.0
Gas	20.1	22.3	24.4	22.3	25.4	26.2	27.4	28.7	29.2	28.5	32.9
Coal	32.0	34.5	37.8	37.9	37.5	37.0	34.2	35.4	36.4	38.1	44.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.6	0.7	0.7	0.7	0.7	0.7	0.8	1.0	1.1	1.8	2.1
Biomass	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.2
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Electricity balance of trade*	-0.1	0.1	0.1	0.1	-0.1	-0.1	0.0	-0.1	-0.2	-0.2	-0.2
Total final consumption, by source	36.5	39.9	43.9	42.7	43.7	39.2	39.3	38.7	39.6	41.1	100.0
Oil	8.6	9.1	11.1	10.0	13.6	10.4	12.3	13.0	13.1	14.3	34.7
Gas	2.6	3.3	3.4	2.9	2.9	2.9	3.2	3.3	3.4	3.3	8.0
Coal	14.5	15.7	16.9	17.0	15.2	12.9	11.4	10.6	10.9	10.9	26.4
Electricity	4.8	5.2	5.8	6.1	5.9	6.1	5.9	5.8	6.1	6.5	15.8
Heat	5.9	6.4	6.7	6.7	6.1	6.8	6.4	5.9	6.0	6.0	14.6
Biomass	0.1	0.1	0.1	0.1	0.1	0.0	0.1	0.1	0.1	0.2	0.4
Electricity generation, by source	6.8	7.1	7.4	8.0	8.9	9.0	9.2	9.2	10.0	10.4	100.0
Oil	0.1	0.1	0.0	0.1	0.1	0.1	0.1	0.2	0.2	0.1	1.4
Gas	1.1	0.6	0.7	1.3	1.5	1.7	1.7	1.9	2.4	1.8	17.1
Coal	5.0	5.7	6.0	6.0	6.7	6.5	6.6	6.1	6.3	6.6	63.7
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.6	0.7	0.7	0.7	0.7	0.7	0.8	1.0	1.1	1.8	17.3
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	36.5	39.9	43.9	42.7	43.7	39.2	39.3	38.7	39.6	41.1	100.0
Industry	19.7	21.9	24.9	23.7	25.1	18.9	19.7	21.0	21.4	21.7	52.8
Transport	4.7	4.9	5.0	5.3	5.0	5.0	5.4	5.5	5.7	6.5	15.9
Residential/Comercial	9.0	9.8	11.5	10.0	10.7	12.2	11.7	9.4	9.7	9.9	24.2
Oil final consumption, by sector	8.6	9.1	11.1	10.0	13.6	10.4	12.3	13.0	13.1	14.3	100.0
Industry	2.0	2.2	3.2	2.3	5.1	2.1	3.5	4.4	4.3	4.5	31.6
Transport	4.2	4.5	4.6	4.9	4.6	4.7	5.0	5.2	5.4	6.2	43.4
Residential/Comercial	1.6	1.7	2.3	1.7	2.7	2.6	2.7	2.3	2.4	2.5	17.8
Natural gas final consumption, by sector	2.6	3.3	3.4	2.9	2.9	2.9	3.2	3.3	3.4	3.3	100.0
Industry	1.3	1.5	1.5	1.5	1.5	1.5	1.8	1.7	1.7	1.6	49.9
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Comercial	1.2	1.7	1.6	1.2	1.0	1.1	1.1	1.2	1.2	1.2	36.5
Refined products consumption	8.3	8.8	9.6	9.7	10.3	10.1	11.8	12.4	12.5	13.7	100.0
Gasoline	3.5	3.6	3.8	4.0	4.0	4.0	4.4	4.7	4.9	5.6	41.0
Diesel	2.9	3.1	3.5	3.3	3.9	3.9	4.6	5.5	5.1	5.4	39.8
Heating Oil	1.0	1.0	1.1	1.0	0.9	0.8	1.5	0.8	0.9	0.8	5.5
Aviation Jet	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.2	1.3
LPG	0.3	0.3	0.5	0.4	0.5	0.5	0.5	0.6	0.8	0.9	6.6
Imports	9.6	10.6	9.7	12.1	14.6	6.5	6.8	7.7	7.9	6.8	100.0
Oil	7.8	7.7	5.9	8.5	10.2	3.0	1.9	2.0	2.1	1.4	20.8
Gas	1.8	2.9	3.8	3.6	4.3	3.5	4.9	5.8	5.8	5.4	79.2
Gasoline	0.9	0.8	0.7	1.3	1.2	1.2	1.4	1.2	1.1	0.4	5.8
Diesel	0.3	0.4	0.2	0.5	0.6	0.6	0.2	0.4	0.5	0.3	4.8
Heating Oil	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.2	0.3	0.3	4.6
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	82.0	83.0	81.4	86.6	85.7	82.6	80.2	79.0	86.1	88.8	100.0
Oil	76.4	77.8	76.3	77.7	77.2	73.8	69.6	66.6	73.9	74.4	83.8
Gas	5.6	5.2	5.1	9.0	8.6	8.8	10.7	12.4	12.2	14.4	16.2
Gasoline	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Diesel	1.8	1.9	1.0	1.8	1.8	1.8	0.2	0.1	0.1	0.2	0.2
Heating Oil	2.2	2.5	2.7	2.5	2.4	2.7	1.9	1.8	1.9	1.4	1.6
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	1.6	1.9	1.8	1.9	1.8	2.1	2.2	2.1	2.2	2.0	2.2
CO₂ Emissions (Million tons CO₂)	202.5	221.1	234.6	234.3	250.6	235.3	227.9	232.7	238.7	246.8	-
CO₂ Intensity (tCO₂/million \$15ppp)	622.1	632.9	625.4	596.0	601.5	541.9	518.5	523.8	516.8	515.4	-
Final energy intensity (toe/million \$15ppp)	110.7	112.8	115.7	106.5	102.6	88.4	87.4	85.0	83.6	83.7	-
Total energy intensity (toe/million \$15ppp)	194.9	197.8	206.1	187.8	195.6	177.1	177.7	183.7	180.7	181.0	-

*Heat is included

Primary energy demand mix



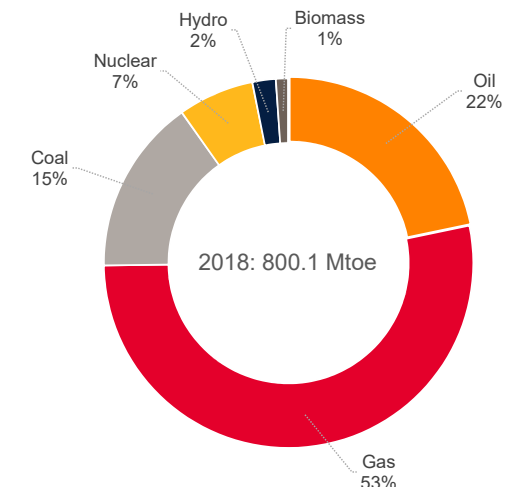
Electricity generation by source

Primary energy demand and CO₂ emissions growth

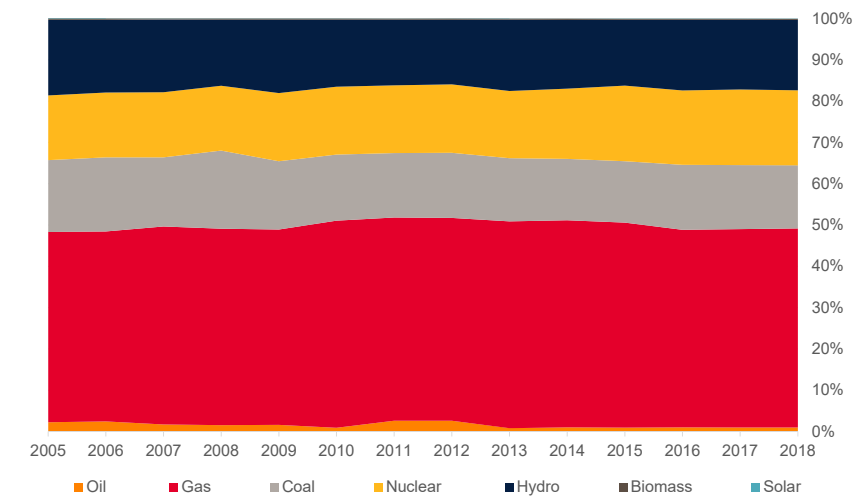
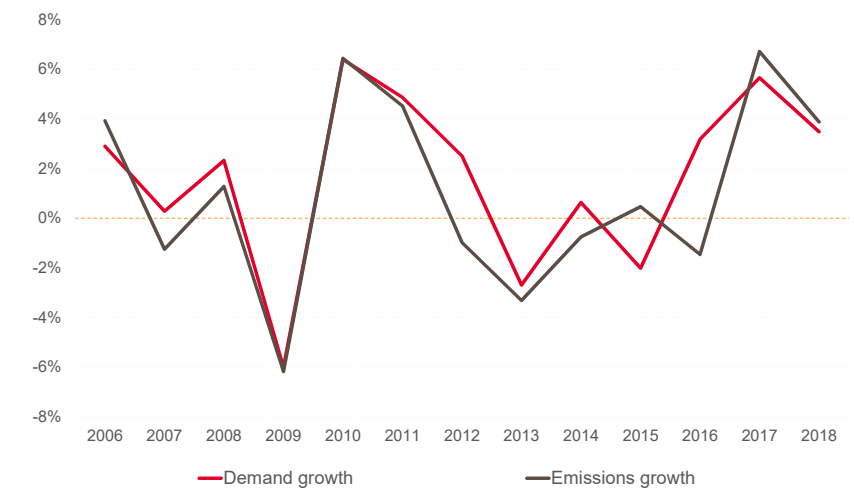
Russia (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	646.2	687.6	721.0	739.1	719.2	723.7	709.2	731.7	773.1	800.1	100.0
Oil	137.5	138.6	156.9	167.3	157.8	165.5	156.2	172.8	173.1	174.0	21.8
Gas	350.3	383.4	395.9	387.0	386.1	385.3	364.1	371.2	404.8	425.0	53.1
Coal	95.4	100.9	103.3	117.8	108.3	103.9	116.4	113.3	118.3	123.1	15.4
Nuclear	42.6	44.4	45.1	46.3	45.0	47.1	50.9	51.2	52.9	53.3	6.7
Hydro	15.0	14.3	14.3	14.3	15.6	15.1	14.4	15.9	15.9	16.4	2.0
Biomass	6.4	6.9	7.1	7.4	7.2	7.1	7.7	8.1	8.4	8.8	1.1
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.0
Electricity balance of trade*	-0.9	-1.1	-1.5	-1.0	-0.8	-0.3	-0.6	-0.9	-0.5	-0.7	-0.1
Total final consumption, by source	397.9	426.0	441.2	440.8	428.6	452.8	451.4	462.7	476.4	485.5	100.0
Oil	101.5	109.5	116.6	117.7	123.3	134.4	134.7	134.4	135.0	135.9	28.0
Gas	101.0	110.5	106.7	101.1	100.7	111.3	114.0	121.4	132.4	138.9	28.6
Coal	27.7	28.8	31.5	34.1	32.2	33.7	35.6	35.8	37.4	38.9	8.0
Electricity	56.9	60.3	60.5	61.5	61.8	61.5	60.7	62.3	63.5	64.3	13.2
Heat	108.5	114.6	123.6	123.7	108.0	109.5	103.3	105.3	104.5	103.7	21.4
Biomass	2.3	2.3	2.4	2.7	2.6	2.5	3.1	3.5	3.6	3.8	0.8
Electricity generation, by source	85.3	89.3	90.7	92.1	91.1	91.5	91.8	93.8	95.5	97.0	100.0
Oil	1.4	0.8	2.4	2.4	0.7	0.9	0.9	0.9	0.9	0.9	1.0
Gas	40.3	44.8	44.7	45.2	45.6	45.9	45.6	44.9	45.8	46.7	48.2
Coal	14.1	14.3	14.1	14.5	13.9	13.6	13.6	14.7	14.8	14.8	15.3
Nuclear	14.1	14.7	14.9	15.3	14.8	15.5	16.8	16.9	17.5	17.6	18.1
Hydro	15.1	14.5	14.4	14.4	15.7	15.2	14.6	16.1	16.1	16.5	17.1
Biomass	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	397.9	426.0	441.2	440.8	428.6	452.8	451.4	462.7	476.4	485.5	100.0
Industry	131.8	143.9	149.1	157.3	146.0	150.9	150.0	159.5	165.0	168.5	34.7
Transport	60.0	61.4	64.9	64.4	65.1	66.2	64.9	63.1	60.5	60.6	12.5
Residential/Commercial	147.4	148.4	153.3	145.7	142.0	151.9	150.5	151.7	157.7	161.0	33.2
Oil final consumption, by sector	101.5	109.5	116.6	117.7	123.3	134.4	134.7	134.4	135.0	135.9	100.0
Industry	10.8	11.1	10.2	11.3	12.0	13.7	14.4	16.0	16.5	16.7	12.3
Transport	55.0	56.2	59.3	58.6	59.4	60.3	59.6	57.6	54.8	54.9	40.4
Residential/Commercial	6.1	6.4	8.3	8.5	9.2	10.7	10.5	9.8	11.0	11.5	8.5
Natural gas final consumption, by sector	101.0	110.5	106.7	101.1	100.7	111.3	114.0	121.4	132.4	138.9	100.0
Industry	29.4	32.4	31.2	34.1	33.7	37.2	35.5	36.4	39.7	41.7	30.0
Transport	0.1	0.1	0.1	0.0	0.0	0.1	0.1	0.2	0.2	0.2	0.1
Residential/Commercial	44.3	43.5	42.2	34.6	35.8	41.7	44.5	49.3	53.8	56.5	40.7
Refined products consumption	101.5	109.4	116.5	117.6	123.2	134.3	134.6	134.4	134.9	135.9	100.0
Gasoline	32.9	34.9	35.4	36.8	37.4	38.2	37.1	36.4	35.1	36.1	26.6
Diesel	24.1	23.4	26.2	23.0	23.5	26.6	27.3	24.8	23.2	20.6	15.2
Heating Oil	2.7	2.5	2.2	2.3	2.0	1.9	1.0	0.9	0.8	0.9	0.7
Aviation Jet	5.1	5.4	6.7	6.9	6.3	5.9	5.3	5.1	4.5	5.1	3.7
LPG	11.6	11.3	12.8	13.6	14.9	16.5	16.6	19.2	23.3	25.5	18.7
Imports	9.3	7.4	11.2	9.2	9.4	10.8	12.7	9.3	9.4	9.4	100.0
Oil	2.6	3.9	4.7	2.6	2.7	3.7	5.5	1.9	2.2	1.0	11.0
Gas	6.7	3.5	6.6	6.6	6.7	7.1	7.2	7.3	7.2	8.4	89.0
Gasoline	0.2	0.5	1.1	0.2	0.6	1.1	0.9	0.2	0.2	0.1	0.8
Diesel	0.3	0.5	0.8	0.3	0.2	0.1	0.1	0.1	0.1	0.0	0.4
Heating Oil	0.3	0.8	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.1
LPG	0.0	0.1	0.2	0.2	0.1	0.2	0.1	0.1	0.2	0.1	0.5
Exports	491.8	514.7	518.2	506.8	529.7	497.0	530.7	537.7	548.0	574.5	100.0
Oil	351.5	360.5	353.0	348.0	355.7	341.3	365.8	362.6	362.8	370.6	64.5
Gas	140.2	154.1	165.3	158.8	174.1	155.7	164.9	175.1	185.2	203.9	35.5
Gasoline	4.7	3.1	4.1	3.4	4.6	3.8	5.0	5.5	4.7	4.5	0.8
Diesel	40.5	42.3	40.2	41.8	43.1	41.0	39.0	38.8	40.4	44.0	7.7
Heating Oil	54.0	60.1	53.0	54.8	61.9	63.6	65.7	50.0	45.4	44.8	7.8
Aviation Jet	0.0	0.0	0.0	0.0	2.0	2.6	2.5	2.6	2.3	2.7	0.5
LPG	2.2	3.6	2.8	2.9	3.4	3.7	4.1	5.4	4.9	5.3	0.9
CO₂ Emissions (Million tons CO₂)	1,512.4	1,609.8	1,682.6	1,666.1	1,610.8	1,598.7	1,606.2	1,582.8	1,689.1	1,754.6	-
CO₂ Intensity (tCO₂/million \$15ppp)	475.4	484.2	480.7	459.2	436.2	429.7	444.3	438.8	461.2	471.0	-
Final energy intensity (toe/million \$15ppp)	108.7	108.2	106.9	103.0	97.3	101.1	102.9	105.5	106.3	106.4	-
Total energy intensity (toe/million \$15ppp)	203.1	206.8	206.0	203.7	194.7	194.5	196.2	202.9	211.1	214.8	-

*Heat is included

Primary energy demand mix

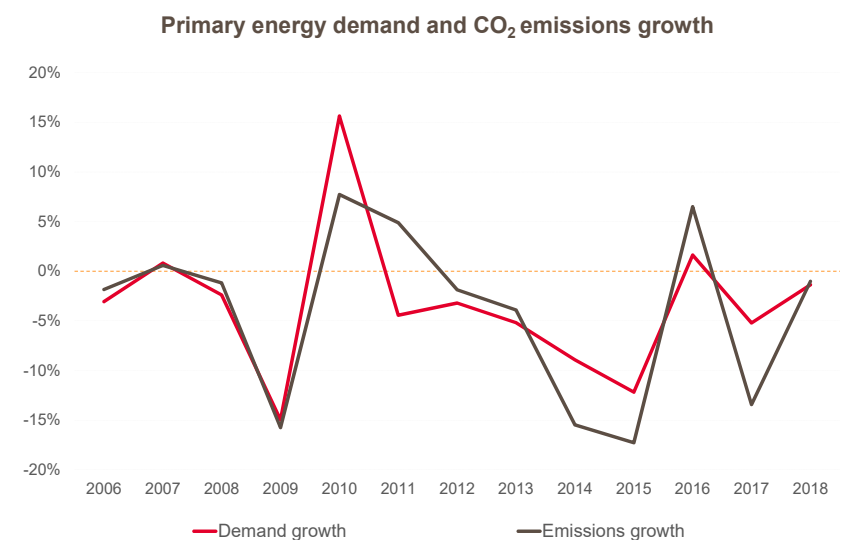
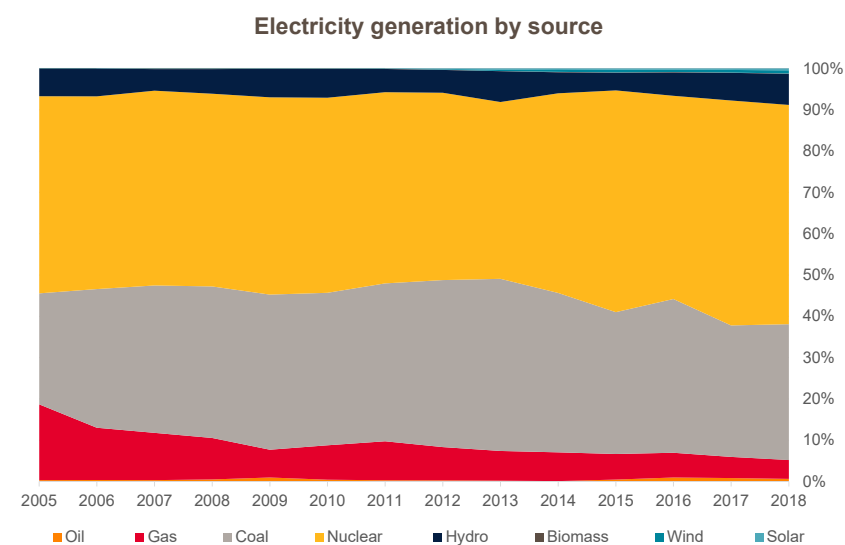
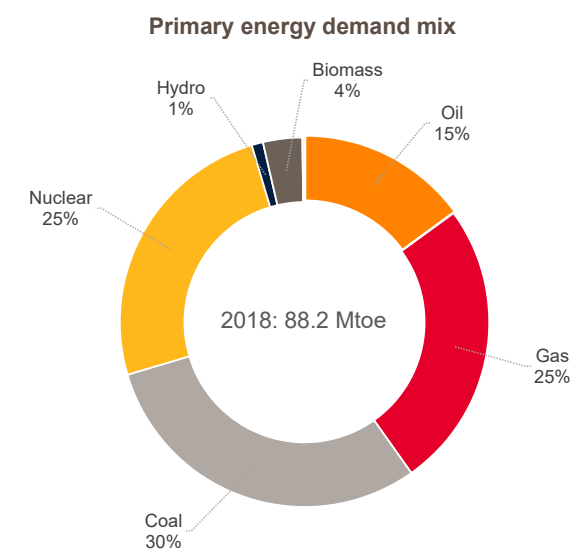


Electricity generation by source

Primary energy demand and CO₂ emissions growth

Ukraine (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	114.4	132.3	126.4	122.4	116.0	105.7	92.8	94.3	89.4	88.2	100.0
Oil	13.9	13.2	12.5	11.7	10.0	10.7	10.6	11.2	12.7	13.2	14.9
Gas	40.8	55.2	46.8	43.0	39.4	33.4	26.1	25.6	24.5	22.2	25.2
Coal	35.8	38.3	41.5	42.5	41.6	35.6	30.1	32.5	25.8	26.6	30.2
Nuclear	21.6	23.2	23.5	23.5	21.7	23.0	22.8	21.1	22.3	22.0	24.9
Hydro	1.0	1.1	0.9	0.9	1.2	0.7	0.5	0.7	0.8	0.9	1.0
Biomass	1.5	1.6	1.7	1.7	1.9	1.9	2.1	2.8	3.0	3.0	3.4
Other renewables	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.2	0.2
Electricity balance of trade*	-0.4	-0.3	-0.5	-1.0	0.2	0.0	0.5	0.3	0.1	0.1	0.1
Total final consumption, by source	68.8	75.4	77.4	75.2	72.6	63.1	53.2	54.6	52.1	50.7	100.0
Oil	12.0	12.5	12.5	12.5	11.9	10.1	9.5	9.6	9.9	10.4	20.6
Gas	22.3	25.1	25.9	24.6	22.6	18.7	14.5	14.3	13.6	12.4	24.4
Coal	12.1	12.8	14.1	13.5	13.5	13.2	10.3	10.6	8.8	9.0	17.7
Electricity	10.2	11.4	11.9	11.8	11.8	11.0	10.2	10.1	10.1	10.3	20.3
Heat	11.2	12.5	12.0	11.9	11.7	8.9	7.5	8.2	7.8	6.8	13.4
Biomass	1.0	1.0	1.0	1.0	1.1	1.2	1.3	1.7	1.9	1.9	3.7
Electricity generation, by source	14.9	16.2	16.8	17.1	16.7	15.7	14.1	14.2	13.5	13.7	100.0
Oil	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.6
Gas	1.0	1.4	1.6	1.4	1.2	1.1	0.9	0.8	0.7	0.6	4.6
Coal	5.6	6.0	6.4	6.9	7.0	6.1	4.8	5.3	4.3	4.5	32.9
Nuclear	7.1	7.7	7.8	7.8	7.2	7.6	7.5	7.0	7.4	7.3	53.1
Hydro	1.0	1.1	0.9	0.9	1.2	0.8	0.6	0.8	0.9	1.0	7.5
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Wind	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.7
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.5
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	68.8	75.4	77.4	75.2	72.6	63.1	53.2	54.6	52.1	50.7	100.0
Industry	27.1	30.1	31.3	29.1	27.0	24.8	20.6	19.5	18.9	18.4	36.3
Transport	9.5	9.5	9.5	9.7	9.5	8.0	7.2	7.8	8.0	8.4	16.5
Residential/Comercial	26.3	28.5	28.7	28.4	29.2	25.0	20.4	22.4	21.1	19.7	38.9
Oil final consumption, by sector	12.0	12.5	12.5	12.5	11.9	10.1	9.5	9.6	9.9	10.4	100.0
Industry	1.2	1.4	1.4	1.2	1.0	0.9	0.8	0.2	0.4	0.4	3.8
Transport	8.6	8.8	8.7	8.9	8.7	7.3	6.6	7.1	7.4	7.7	73.9
Residential/Comercial	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.2	0.2	0.2	2.0
Natural gas final consumption, by sector	22.3	25.1	25.9	24.6	22.6	18.7	14.5	14.3	13.6	12.4	100.0
Industry	5.6	6.4	6.6	5.3	4.4	3.3	2.8	2.5	2.6	2.4	19.2
Transport	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Residential/Comercial	13.5	14.4	14.5	14.2	14.1	12.6	9.3	9.9	9.7	8.8	71.0
Refined products consumption	12.0	12.5	12.5	12.5	11.8	10.1	9.5	9.6	9.9	10.4	100.0
Gasoline	4.9	4.9	4.6	4.5	4.2	3.3	2.5	2.3	2.1	1.8	17.4
Diesel	5.3	5.6	6.0	6.3	6.1	5.4	5.3	5.2	5.2	5.6	53.6
Heating Oil	0.2	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.9	0.8	0.8	0.9	0.9	1.0	0.9	1.5	1.7	2.1	20.1
Imports	43.4	43.5	49.7	36.6	30.7	24.0	21.4	18.5	22.1	19.8	100.0
Oil	12.7	13.9	13.5	10.0	8.1	8.3	8.1	9.7	10.8	11.4	57.3
Gas	30.7	29.6	36.2	26.6	22.6	15.7	13.3	8.8	11.3	8.5	42.7
Gasoline	1.8	2.2	2.3	2.1	1.9	2.3	1.5	1.5	1.3	1.2	6.1
Diesel	2.2	2.5	3.8	4.8	4.4	4.9	4.9	5.2	5.5	5.7	28.7
Heating Oil	0.9	0.5	0.6	0.1	0.0	0.0	0.2	0.4	0.3	0.1	0.3
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.1	0.1	0.3	0.3	0.4	0.5	0.7	1.2	1.2	1.5	7.4
Exports	2.8	4.1	4.2	1.7	1.0	0.8	0.1	0.2	0.6	0.7	100.0
Oil	2.8	4.1	4.2	1.7	1.0	0.8	0.1	0.2	0.6	0.7	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.3	0.6	1.0	0.5	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Diesel	0.9	0.7	0.9	0.5	0.1	0.1	0.0	0.0	0.2	0.2	26.4
Heating Oil	1.4	2.4	1.8	0.5	0.6	0.5	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CO₂ Emissions (Million tons CO₂)	257.1	276.9	290.5	285.0	273.9	231.5	191.5	204.0	176.6	174.8	-
CO₂ Intensity (tCO₂/million \$15ppp)	700.9	724.6	720.6	705.4	678.1	613.3	562.3	585.4	494.3	472.6	-
Final energy intensity (toe/million \$15ppp)	175.8	182.7	177.2	171.1	167.5	157.9	146.6	148.2	139.0	130.4	-
Total energy intensity (toe/million \$15ppp)	311.9	346.1	313.7	302.9	287.3	280.0	272.5	270.7	250.3	238.4	-

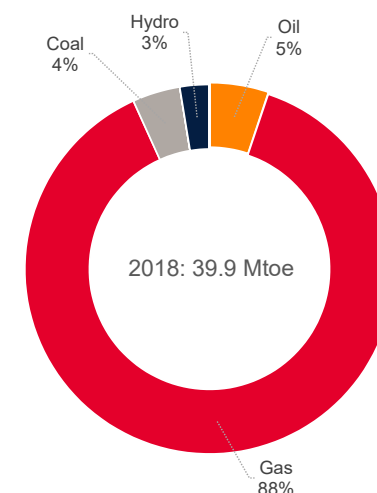
*Heat is included



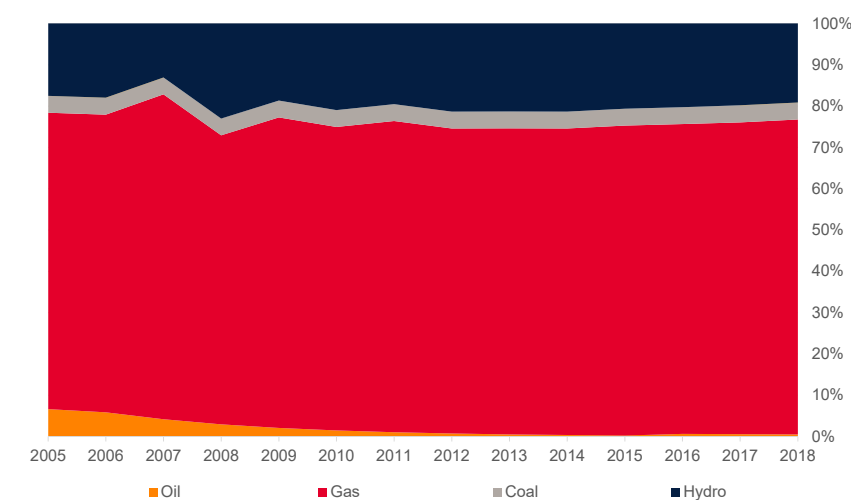
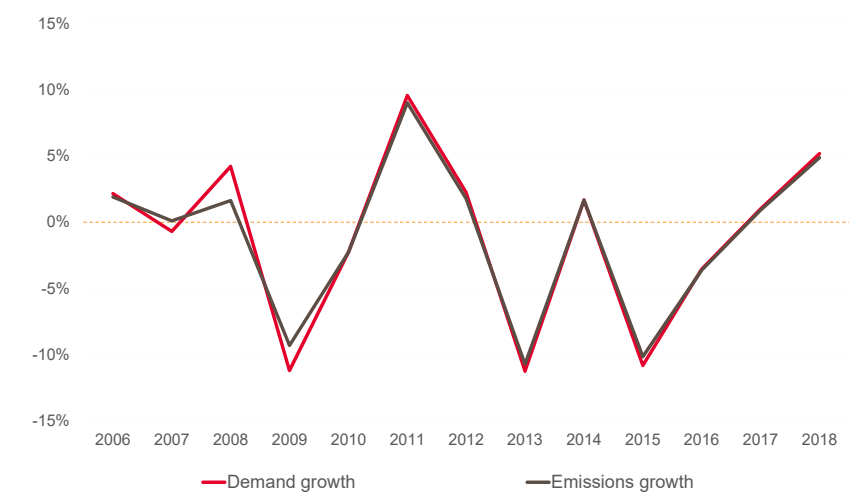
Uzbekistan (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	44.2	43.2	47.3	48.4	43.0	43.7	39.0	37.6	38.0	39.9	100.0
Oil	4.4	3.7	3.5	3.1	3.0	2.8	2.6	2.4	2.2	2.1	5.1
Gas	37.6	37.2	41.6	42.9	37.6	38.3	33.9	32.7	33.1	35.1	88.0
Coal	1.3	1.3	1.4	1.4	1.4	1.6	1.6	1.5	1.6	1.7	4.2
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.8	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	2.6
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1	0.0	0.1
Total final consumption, by source	31.3	30.5	33.7	34.7	29.8	30.2	25.8	25.9	26.0	27.1	100.0
Oil	3.7	3.4	3.2	2.8	2.7	2.6	2.4	2.2	2.1	2.0	7.3
Gas	20.6	20.1	23.4	24.8	19.9	20.3	16.1	16.3	16.5	17.5	64.6
Coal	0.4	0.4	0.4	0.4	0.5	0.6	0.5	0.5	0.5	0.5	2.0
Electricity	3.5	3.6	3.7	3.7	3.8	3.9	3.9	4.0	4.1	4.4	16.1
Heat	3.1	3.0	3.0	3.0	3.0	2.9	2.9	2.9	2.7	2.7	10.1
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity generation, by source	4.3	4.4	4.5	4.5	4.7	4.8	4.9	5.0	5.2	5.4	100.0
Oil	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Gas	3.2	3.3	3.4	3.3	3.5	3.5	3.7	3.8	3.9	4.1	76.2
Coal	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	4.1
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.8	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	19.1
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	31.3	30.5	33.7	34.7	29.8	30.2	25.8	25.9	26.0	27.1	100.0
Industry	6.8	6.7	7.6	7.9	6.8	7.0	5.9	6.0	6.1	6.4	23.8
Transport	2.2	2.0	1.8	1.7	1.6	1.5	1.4	1.3	1.3	1.2	4.6
Residential/Comercial	15.2	15.1	17.4	18.2	14.8	15.1	12.2	12.4	12.6	13.3	49.0
Oil final consumption, by sector	3.7	3.4	3.2	2.8	2.7	2.6	2.4	2.2	2.1	2.0	100.0
Industry	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.9
Transport	2.2	1.9	1.7	1.6	1.5	1.4	1.3	1.2	1.2	1.1	58.3
Residential/Comercial	0.2	0.3	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.1	4.5
Natural gas final consumption, by sector	20.6	20.1	23.4	24.8	19.9	20.3	16.1	16.3	16.5	17.5	100.0
Industry	5.2	5.1	5.9	6.3	5.0	5.1	4.1	4.1	4.2	4.4	25.3
Transport	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Residential/Comercial	14.1	13.8	16.1	17.0	13.7	13.9	11.1	11.2	11.4	12.0	68.7
Refined products consumption	3.7	3.3	3.1	2.8	2.7	2.5	2.3	2.2	2.1	1.9	100.0
Gasoline	1.7	1.5	1.3	1.3	1.1	1.1	1.0	0.9	0.9	0.9	44.2
Diesel	1.1	1.0	0.9	0.9	1.0	0.9	0.8	0.8	0.7	0.7	36.8
Heating Oil	0.1	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	3.1
Aviation Jet	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	4.9
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Imports	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	12.7	12.0	10.0	8.5	11.2	12.2	16.9	13.3	13.3	14.0	100.0
Oil	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	1.1
Gas	12.4	11.7	9.8	8.3	11.0	12.0	16.8	13.1	13.1	13.9	98.9
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Diesel	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.7
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CO₂ Emissions (Million tons CO₂)	102.1	99.7	108.7	110.7	98.8	100.4	90.3	87.0	87.8	92.0	-
CO₂ Intensity (tCO₂/million \$15ppp)	858.7	773.4	778.6	732.4	605.4	571.0	475.1	424.7	407.0	406.5	-
Final energy intensity (toe/million \$15ppp)	250.7	225.5	229.6	218.8	174.5	164.2	130.2	120.8	115.6	114.6	-
Total energy intensity (toe/million \$15ppp)	372.0	335.1	339.1	320.4	263.3	248.3	205.1	183.5	176.0	176.3	-

*Heat is included

Primary energy demand mix



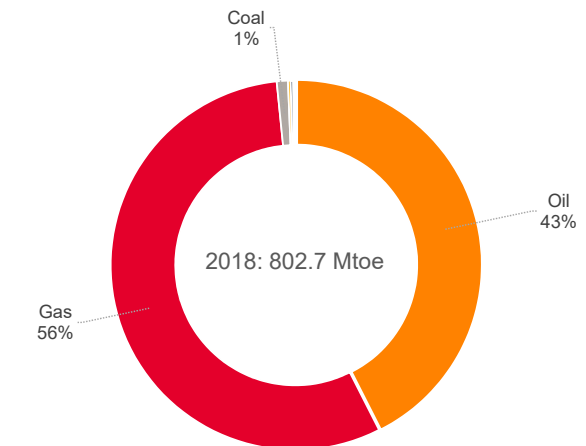
Electricity generation by source

Primary energy demand and CO₂ emissions growth

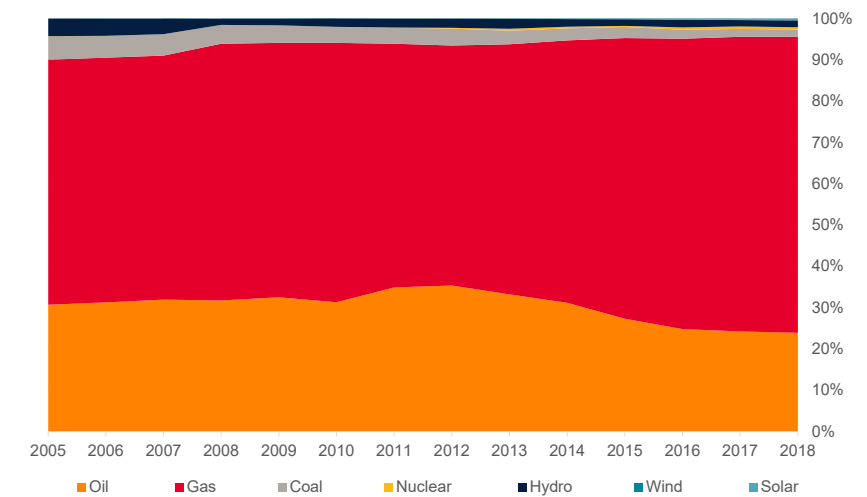
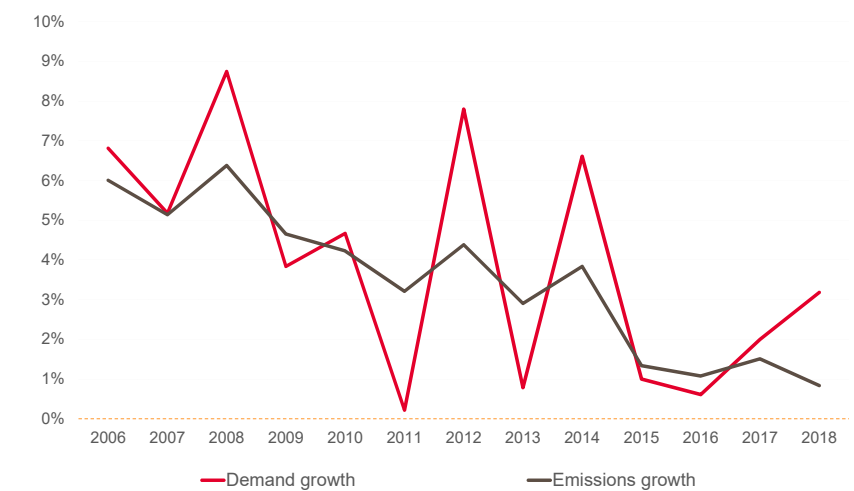
Middle East (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	617.7	646.6	648.0	698.5	704.0	750.5	758.0	762.7	777.9	802.7	100.0
Oil	320.8	321.8	304.9	341.3	334.4	360.3	344.2	332.5	335.2	340.6	42.4
Gas	284.9	311.2	329.3	342.0	354.3	375.5	399.1	415.1	428.9	447.6	55.8
Coal	8.8	9.8	9.8	11.6	10.5	10.2	10.3	9.2	7.8	7.9	1.0
Nuclear	0.0	0.0	0.1	0.5	1.2	1.2	0.8	1.7	1.9	1.9	0.2
Hydro	1.1	1.5	1.7	1.8	2.0	1.7	1.5	1.8	1.6	1.7	0.2
Biomass	1.0	1.0	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	0.1
Other renewables	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.3	0.4	0.5	0.1
Electricity balance of trade*	1.1	1.2	1.3	0.4	0.5	0.7	1.1	1.0	1.2	1.5	0.2
Total final consumption, by source	412.2	429.8	444.7	463.4	473.7	492.1	496.3	498.3	502.2	506.1	100.0
Oil	220.3	218.2	213.3	225.6	229.7	238.9	240.3	236.1	236.5	230.9	45.6
Gas	132.4	145.5	164.0	166.6	169.2	173.6	175.5	177.7	179.5	187.7	37.1
Coal	1.3	1.7	1.6	2.6	3.3	3.7	3.4	3.6	2.6	2.7	0.5
Electricity	56.1	62.3	63.8	67.3	70.2	74.5	75.7	79.6	82.2	83.3	16.5
Heat	1.2	1.3	1.2	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.1
Biomass	0.9	0.9	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.2
Electricity generation, by source	70.4	76.7	78.8	82.4	85.0	90.9	95.6	98.7	102.7	104.9	100.0
Oil	22.9	24.0	27.5	29.1	28.2	28.3	26.1	24.5	24.9	25.1	23.9
Gas	43.3	48.1	46.5	47.9	51.5	57.7	65.0	69.4	73.3	75.1	71.6
Coal	3.0	3.0	3.1	3.4	2.8	2.6	2.6	2.1	1.9	1.8	1.7
Nuclear	0.0	0.0	0.0	0.2	0.4	0.4	0.3	0.6	0.6	0.6	0.6
Hydro	1.1	1.5	1.7	1.8	2.0	1.7	1.5	1.8	1.6	1.7	1.6
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Solar	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.3	0.4	0.4
Other renewables	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0
Total final consumption, by sector	412.2	429.8	444.7	463.4	473.7	492.1	496.3	498.3	502.2	506.1	100.0
Industry	124.0	136.6	142.2	151.5	154.3	161.7	158.6	158.0	157.7	157.2	31.1
Transport	117.8	121.3	124.2	130.9	135.2	138.0	136.6	134.4	131.0	130.1	25.7
Residential/Comercial	104.7	107.3	108.8	106.6	112.1	114.3	118.4	124.8	126.8	130.6	25.8
Oil final consumption, by sector	220.3	218.2	213.3	225.6	229.7	238.9	240.3	236.1	236.5	230.9	100.0
Industry	36.1	35.5	31.0	32.5	34.9	38.7	38.6	38.8	37.4	33.7	14.6
Transport	114.9	116.6	118.9	125.0	129.6	132.0	130.3	127.9	124.5	123.1	53.3
Residential/Comercial	21.9	20.2	19.0	18.4	18.0	16.1	15.0	16.3	16.9	16.6	7.2
Natural gas final consumption, by sector	132.4	145.5	164.0	166.6	169.2	173.6	175.5	177.7	179.5	187.7	100.0
Industry	74.0	85.3	94.3	100.5	99.0	101.5	101.4	97.9	99.1	101.7	54.2
Transport	2.9	4.7	5.3	5.9	5.6	6.0	6.3	6.5	6.5	6.9	3.7
Residential/Comercial	40.0	39.7	42.9	39.1	43.4	44.1	45.4	49.1	49.0	52.4	27.9
Refined products consumption	215.3	212.0	209.1	220.9	224.7	233.7	234.9	233.3	235.3	230.1	100.0
Gasoline	61.5	62.8	64.4	68.0	72.1	73.5	74.3	74.8	77.3	79.2	34.4
Diesel	72.1	71.3	70.9	73.6	74.5	75.1	70.4	66.3	59.1	55.1	23.9
Heating Oil	20.8	18.8	16.8	16.1	17.6	21.0	22.0	25.5	26.9	24.3	10.5
Aviation Jet	1.0	1.0	1.0	1.0	1.1	1.2	1.4	1.4	1.5	1.6	0.7
LPG	14.2	12.9	13.3	15.2	14.4	14.5	17.1	14.8	15.0	15.5	6.7
Imports	116.5	114.9	113.4	117.8	133.8	136.9	145.1	143.6	137.2	168.9	100.0
Oil	90.2	84.6	82.6	93.8	108.2	109.7	113.4	111.5	106.7	134.8	79.8
Gas	26.3	30.4	30.8	24.0	25.5	27.2	31.7	32.1	30.5	34.1	20.2
Gasoline	18.8	17.8	14.2	14.9	18.8	19.5	22.7	24.9	25.7	33.5	19.8
Diesel	20.2	19.0	21.1	28.1	32.6	33.2	32.3	25.1	29.9	17.7	17.7
Heating Oil	17.4	17.4	19.9	21.8	22.5	20.9	22.1	20.6	21.3	30.1	17.8
Aviation Jet	0.5	0.8	0.8	0.4	0.6	0.6	0.7	0.8	0.9	1.1	0.7
LPG	2.0	1.7	1.8	1.9	1.9	1.6	1.6	2.2	2.1	2.0	1.2
Exports	1,026.5	1,076.3	1,200.2	1,193.0	1,216.4	1,195.5	1,255.6	1,390.6	1,361.8	1,416.2	100.0
Oil	944.1	963.3	1,078.4	1,070.9	1,078.8	1,064.5	1,126.3	1,258.2	1,227.3	1,275.1	90.0
Gas	82.4	113.0	121.8	122.1	137.6	131.0	129.3	132.3	134.5	141.1	10.0
Gasoline	5.8	5.3	4.6	3.2	2.8	5.1	9.0	13.3	13.4	21.2	1.5
Diesel	21.8	21.7	20.8	22.6	23.9	32.2	46.4	58.9	54.6	65.2	4.6
Heating Oil	28.0	27.3	25.2	24.7	26.5	20.5	24.3	20.3	20.1	23.8	1.7
Aviation Jet	8.5	11.4	11.6	11.4	11.5	9.4	9.8	9.4	10.4	10.5	0.7
LPG	39.3	45.1	52.0	52.3	50.7	54.3	53.1	61.2	62.7	59.3	4.2
CO₂ Emissions (Million tons CO₂)	1,542.8	1,608.0	1,659.6	1,732.4	1,782.7	1,851.1	1,875.8	1,896.0	1,924.6	1,940.7	-
CO₂ Intensity (tCO₂/million \$15ppp)	331.2	327.9	319.7	326.3	326.5	328.5	327.0	312.4	315.1	313.9	-
Final energy intensity (toe/million \$15ppp)	76.4	76.4	74.1	75.1	75.3	75.2	73.7	70.3	69.6	69.1	-
Total energy intensity (toe/million \$15ppp)	132.6	131.8	124.8	131.6	128.9	133.2	132.2	125.7	127.4	129.8	-

*Heat is included

Primary energy demand mix



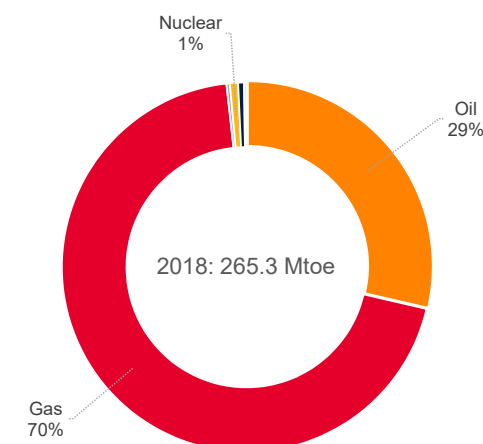
Electricity generation by source

Primary energy demand and CO₂ emissions growth

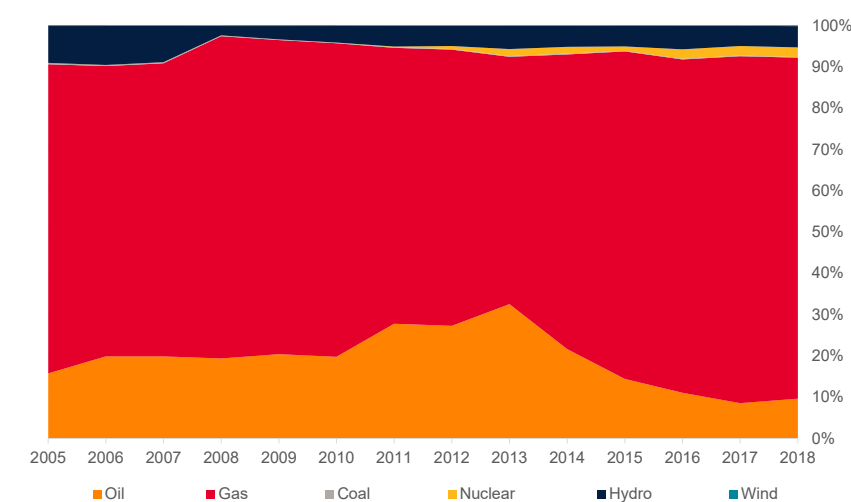
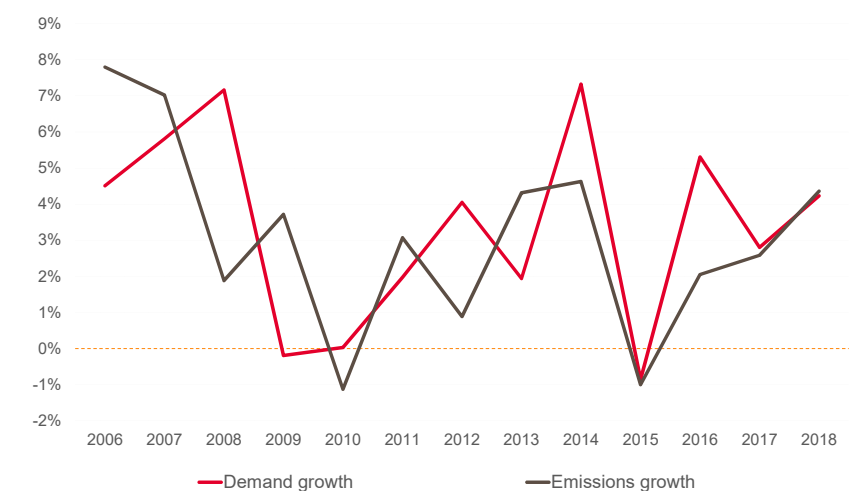
Iran (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	204.2	204.3	208.3	216.8	221.0	237.2	235.1	247.6	254.6	265.3	100.0
Oil	86.8	79.5	76.5	85.8	88.2	87.9	76.5	76.9	77.5	76.0	28.7
Gas	115.4	122.1	129.2	128.3	129.3	145.9	155.3	166.3	173.0	185.0	69.7
Coal	1.2	1.5	1.5	1.1	1.2	1.0	1.1	0.9	0.8	0.8	0.3
Nuclear	0.0	0.0	0.1	0.5	1.2	1.2	0.8	1.7	1.9	1.9	0.7
Hydro	0.6	0.8	1.0	1.1	1.3	1.2	1.2	1.4	1.3	1.4	0.5
Biomass	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.2
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	-0.4	-0.3	-0.4	-0.6	-0.7	-0.5	-0.2	-0.2	-0.4	-0.3	-0.1
Total final consumption, by source	160.5	157.6	162.6	163.3	169.6	180.7	180.7	188.5	191.7	195.9	100.0
Oil	74.4	65.0	57.3	60.2	61.6	66.6	66.0	64.8	67.2	63.9	32.6
Gas	69.8	75.2	87.5	84.7	88.9	93.5	94.9	101.4	101.2	108.2	55.3
Coal	0.9	0.8	0.9	0.7	1.0	1.1	1.1	1.1	0.9	1.0	0.5
Electricity	14.8	16.0	16.3	17.1	17.6	19.0	18.2	20.7	22.0	22.2	11.3
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.3
Electricity generation, by source	19.0	20.0	20.6	21.9	22.6	23.6	24.1	24.9	26.5	26.7	100.0
Oil	3.9	4.0	5.7	6.0	7.3	5.1	3.5	2.8	2.3	2.6	9.6
Gas	14.5	15.2	13.8	14.6	13.5	16.8	19.1	20.1	22.2	22.1	82.6
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Nuclear	0.0	0.0	0.0	0.2	0.4	0.4	0.3	0.6	0.6	0.6	2.3
Hydro	0.6	0.8	1.0	1.1	1.3	1.2	1.2	1.4	1.3	1.4	5.1
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	160.5	157.6	162.6	163.3	169.6	180.7	180.7	188.5	191.7	195.9	100.0
Industry	39.1	39.1	41.3	42.1	42.4	48.4	45.9	49.6	50.1	50.4	25.7
Transport	38.9	39.7	39.4	41.5	42.7	43.6	42.0	39.9	41.3	43.6	22.2
Residential/Commercial	59.0	57.9	58.8	55.1	59.6	60.4	62.1	66.9	67.5	70.7	36.1
Oil final consumption, by sector	74.4	65.0	57.3	60.2	61.6	66.6	66.0	64.8	67.2	63.9	100.0
Industry	11.9	7.8	5.7	5.5	5.3	8.4	8.0	8.0	8.3	6.1	9.5
Transport	36.0	35.0	34.1	35.6	37.0	37.6	35.7	33.4	34.8	36.6	57.3
Residential/Commercial	10.6	9.2	7.8	7.5	7.3	6.4	6.1	6.8	7.0	6.6	10.4
Natural gas final consumption, by sector	69.8	75.2	87.5	84.7	88.9	93.5	94.9	101.4	101.2	108.2	100.0
Industry	21.3	25.1	28.8	29.8	30.0	32.5	32.1	33.6	33.5	35.8	33.1
Transport	2.9	4.7	5.3	5.9	5.6	6.0	6.3	6.5	6.5	6.9	6.4
Residential/Commercial	39.8	39.6	42.7	39.0	43.3	44.0	45.3	49.0	48.9	52.3	48.3
Refined products consumption	74.4	65.0	57.3	60.2	61.6	66.6	66.0	64.8	67.2	63.9	100.0
Gasoline	18.6	17.6	16.8	17.8	19.2	19.5	19.9	19.0	20.1	22.3	34.8
Diesel	25.4	25.1	23.6	24.1	24.2	24.0	21.5	19.4	19.9	19.4	30.4
Heating Oil	9.9	6.0	3.8	3.7	3.3	6.3	5.8	6.1	6.3	4.1	6.5
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	2.9	2.8	2.5	2.5	2.6	2.3	2.4	3.1	3.3	3.5	5.5
Imports	20.2	16.8	13.3	6.2	7.7	10.1	11.7	10.8	10.7	12.8	100.0
Oil	15.3	9.2	3.3	2.2	3.2	3.8	4.4	5.8	8.2	7.8	61.1
Gas	4.9	7.6	10.0	3.9	4.5	6.4	7.2	5.0	2.5	5.0	38.9
Gasoline	6.0	4.3	1.4	0.4	1.0	1.3	2.8	4.2	5.9	5.5	43.1
Diesel	1.6	1.4	0.0	0.0	0.2	0.3	0.0	0.0	0.0	0.0	0.0
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.3	0.3	0.2	0.2	0.1	0.0	0.0	0.0	0.0	0.0	0.0
Exports	143.6	148.3	148.1	86.4	82.1	85.2	94.3	151.5	169.6	162.8	100.0
Oil	137.9	141.1	140.1	78.5	74.3	77.0	86.7	143.8	159.2	146.6	90.0
Gas	5.7	7.2	8.0	7.9	7.9	8.2	7.7	7.7	10.4	16.2	10.0
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.8	0.1	0.6	0.6	0.2	0.0	1.8	3.5	3.9	2.5	1.6
Heating Oil	7.4	9.7	9.9	5.5	8.1	6.1	9.1	6.9	7.0	9.1	5.6
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.1
LPG	3.4	4.1	4.1	3.0	2.0	3.3	5.2	6.2	7.8	3.9	2.4
CO₂ Emissions (Million tons CO₂)	520.5	514.7	530.5	535.2	558.2	584.1	578.3	590.1	605.4	631.8	-
CO₂ Intensity (tCO₂/million \$15ppp)	386.5	361.2	362.7	395.4	413.2	413.3	414.7	373.2	369.1	390.9	-
Final energy intensity (toe/million \$15ppp)	106.3	100.5	99.9	107.5	112.3	112.9	112.8	103.5	101.5	106.6	-
Total energy intensity (toe/million \$15ppp)	151.7	143.4	142.5	160.2	163.6	167.8	168.6	156.6	155.2	164.2	-

*Heat is included

Primary energy demand mix



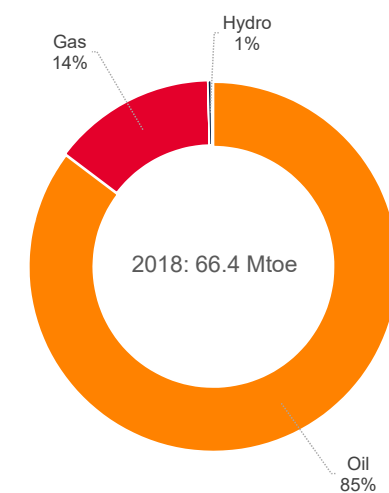
Electricity generation by source

Primary energy demand and CO₂ emissions growth

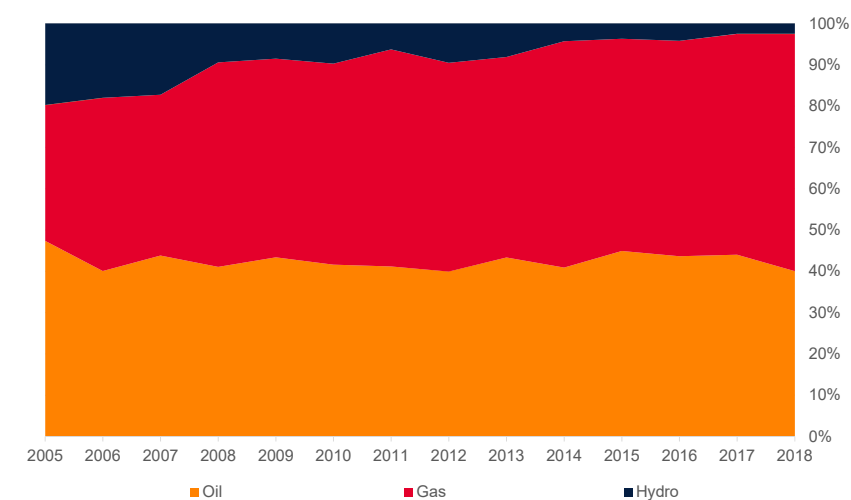
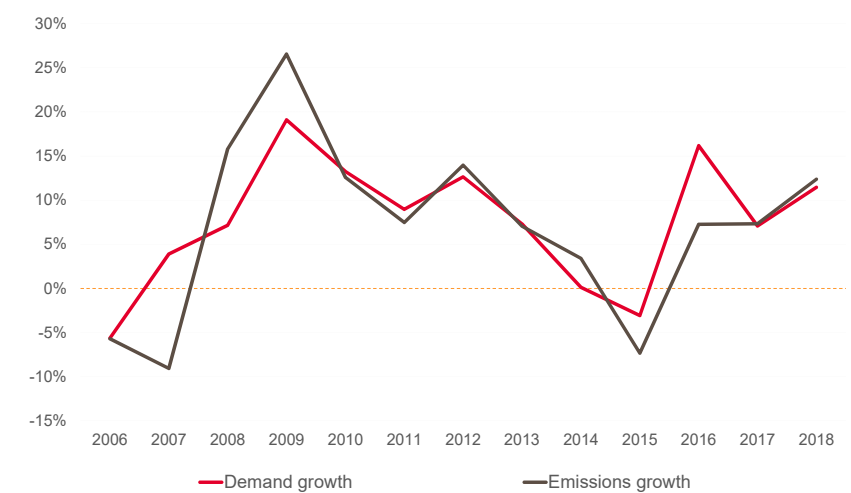
Iraq (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	33.1	37.4	40.8	46.0	49.3	49.4	47.9	55.6	59.5	66.4	100.0
Oil	28.4	32.3	33.8	38.9	42.1	42.5	40.8	48.0	50.3	55.2	83.3
Gas	3.9	4.2	6.1	5.7	5.7	5.5	5.7	6.2	7.6	9.3	13.9
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.3	0.4	0.3	0.4	0.4	0.3	0.2	0.3	0.2	0.2	0.3
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	0.5	0.5	0.6	0.9	1.0	1.1	1.1	1.0	1.4	1.6	2.4
Total final consumption, by source	17.2	19.2	23.0	26.0	26.5	21.5	17.5	18.5	20.0	22.2	100.0
Oil	14.9	15.9	18.3	20.0	20.1	16.1	13.2	13.8	14.5	15.9	71.7
Gas	0.2	0.2	1.3	3.0	2.4	1.6	1.2	1.4	2.2	2.6	11.8
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	2.2	3.0	3.3	3.0	3.9	3.8	3.1	3.3	3.3	3.6	16.3
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Electricity generation, by source	3.3	4.2	4.6	4.0	5.0	5.8	5.9	6.9	7.4	8.4	100.0
Oil	1.4	1.7	1.9	1.6	2.2	2.4	2.7	3.0	3.3	3.4	40.0
Gas	1.6	2.0	2.4	2.0	2.4	3.2	3.0	3.6	4.0	4.8	57.5
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.3	0.4	0.3	0.4	0.4	0.3	0.2	0.3	0.2	0.2	2.5
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	17.2	19.2	23.0	26.0	26.5	21.5	17.5	18.5	20.0	22.2	100.0
Industry	2.8	3.1	4.1	6.3	5.9	4.8	3.5	3.6	4.3	5.0	22.7
Transport	8.5	9.4	11.0	11.9	11.8	9.7	8.3	8.5	8.9	9.9	44.6
Residential/Comercial	5.4	6.3	6.5	6.6	7.3	6.1	5.1	6.1	6.3	6.6	29.9
Oil final consumption, by sector	14.9	15.9	18.3	20.0	20.1	16.1	13.2	13.8	14.5	15.9	100.0
Industry	2.2	2.3	2.8	3.1	3.1	2.6	2.0	2.0	2.0	2.2	14.0
Transport	8.5	9.4	11.0	11.9	11.8	9.7	8.3	8.5	8.9	9.9	62.2
Residential/Comercial	3.7	3.8	3.9	4.3	4.3	3.2	2.6	3.2	3.4	3.6	22.8
Natural gas final consumption, by sector	0.2	0.2	1.3	3.0	2.4	1.6	1.2	1.4	2.2	2.6	100.0
Industry	0.2	0.2	0.6	2.5	1.9	1.4	1.0	1.2	1.8	2.2	84.0
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Comercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refined products consumption	14.9	15.9	18.3	20.0	20.1	16.1	13.2	13.8	14.5	15.9	100.0
Gasoline	4.5	5.2	5.9	6.3	6.1	5.0	4.8	5.0	5.3	6.0	37.5
Diesel	5.9	6.2	7.7	8.4	8.5	7.0	5.3	5.2	5.3	5.8	36.5
Heating Oil	0.2	0.2	0.2	0.3	0.3	0.2	0.2	0.2	0.3	0.3	2.2
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	1.7	1.8	1.7	2.0	2.2	1.8	1.3	1.9	2.1	2.2	14.0
Imports	7.5	8.6	9.3	11.9	12.7	14.6	13.7	17.1	17.9	19.3	100.0
Oil	7.5	8.6	9.3	11.9	12.7	14.6	13.7	17.1	16.7	15.8	81.7
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	3.5	18.3
Gasoline	1.5	1.8	2.4	2.5	2.2	2.0	2.1	2.3	2.5	2.7	14.0
Diesel	4.9	5.6	5.7	8.4	9.4	11.6	10.7	13.8	13.3	11.6	60.1
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.3	0.5	0.5	0.2	0.3	0.3	0.4	0.5	0.5	0.6	3.2
LPG	0.3	0.2	0.2	0.4	0.5	0.4	0.3	0.3	0.3	0.3	1.7
Exports	97.5	95.3	109.4	122.2	120.7	126.9	151.4	192.0	191.8	194.7	100.0
Oil	97.5	95.3	109.4	122.2	120.7	126.9	151.4	192.0	191.8	194.7	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating Oil	1.4	0.2	0.1	0.1	0.5	0.4	0.4	0.3	0.2	0.1	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
CO₂ Emissions (Million tons CO₂)	92.8	104.5	112.3	128.0	137.0	141.7	131.3	140.8	151.1	169.8	-
CO₂ Intensity (tCO₂/million \$15ppp)	237.1	250.8	250.7	250.7	251.9	258.6	228.6	220.9	242.1	267.9	-
Final energy intensity (toe/million \$15ppp)	42.6	45.0	48.2	48.5	46.0	37.6	29.5	28.6	31.2	34.1	-
Total energy intensity (toe/million \$15ppp)	84.5	89.9	91.1	90.0	90.7	90.1	83.4	87.2	95.4	104.7	-

*Heat is included

Primary energy demand mix



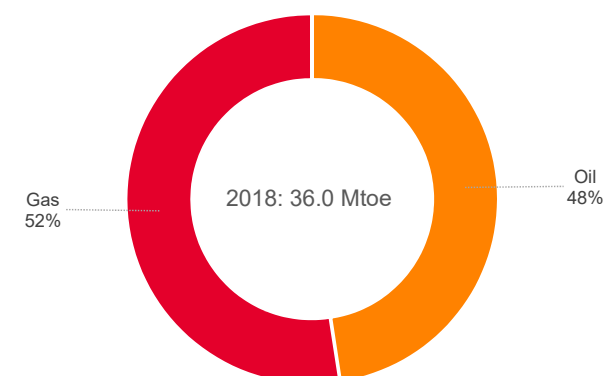
Electricity generation by source

Primary energy demand and CO₂ emissions growth

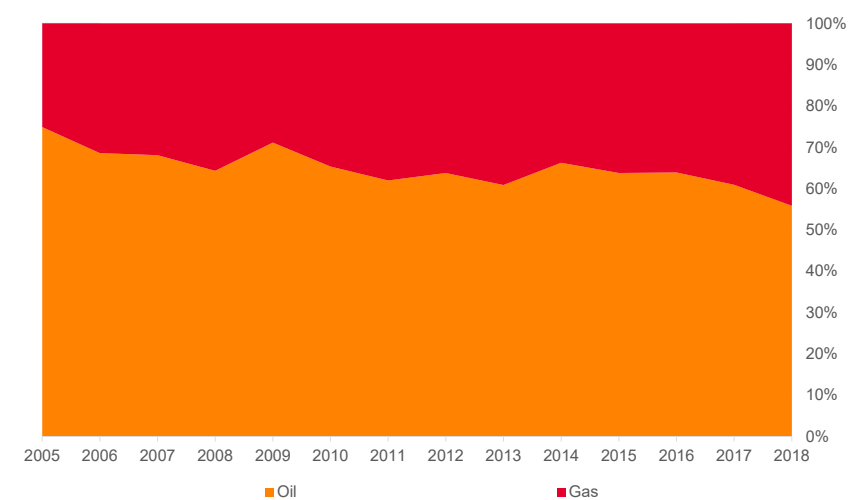
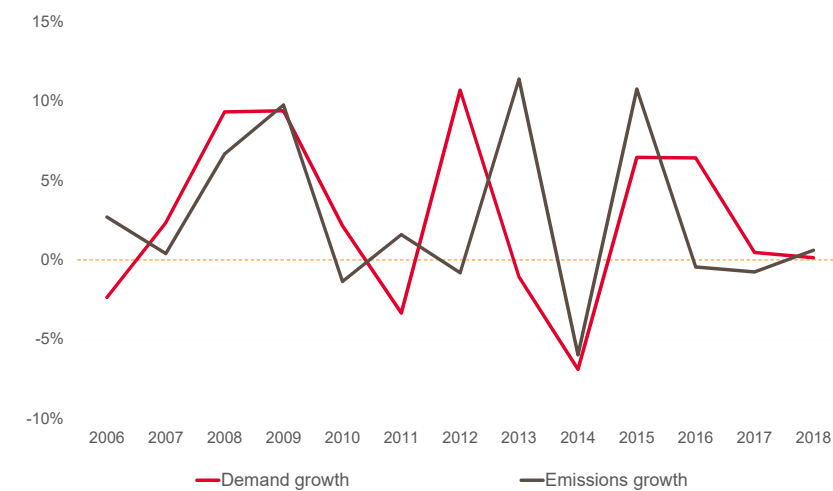
Kuwait (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	31.4	32.1	31.0	34.3	34.0	31.6	33.7	35.8	36.0	36.0	100.0
Oil	21.3	20.2	17.1	19.5	18.9	16.6	16.6	17.7	17.5	17.1	47.6
Gas	10.1	11.9	13.9	14.8	15.1	15.0	17.1	18.2	18.5	18.9	52.4
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0
Total final consumption, by source	13.5	15.1	15.6	17.1	15.9	17.0	18.1	19.2	19.4	19.7	100.0
Oil	7.6	8.6	8.2	9.3	8.5	8.5	8.8	8.8	8.7	8.8	44.6
Gas	3.0	3.3	4.2	4.3	4.1	4.8	5.6	6.5	6.6	6.7	34.1
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	3.0	3.2	3.2	3.4	3.4	3.7	3.7	3.9	4.1	4.2	21.4
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity generation, by source	4.6	4.9	4.9	5.4	5.2	5.6	5.9	6.0	6.3	6.4	100.0
Oil	3.3	3.2	3.1	3.4	3.2	3.7	3.7	3.9	3.8	3.6	55.9
Gas	1.3	1.7	1.9	2.0	2.1	1.9	2.1	2.2	2.4	2.8	44.1
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	13.5	15.1	15.6	17.1	15.9	17.0	18.1	19.2	19.4	19.7	100.0
Industry	4.4	4.7	5.6	5.8	5.5	6.3	7.1	8.0	8.1	8.2	41.6
Transport	3.9	4.2	3.9	4.2	4.4	4.5	4.7	4.8	4.7	4.8	24.4
Residential/Comercial	2.7	2.9	2.9	3.1	3.1	3.3	3.4	3.6	3.7	3.8	19.2
Oil final consumption, by sector	7.6	8.6	8.2	9.3	8.5	8.5	8.8	8.8	8.7	8.8	100.0
Industry	0.9	0.9	0.8	0.9	0.9	0.9	0.9	0.8	0.8	0.7	8.4
Transport	3.9	4.2	3.9	4.2	4.4	4.5	4.7	4.8	4.7	4.8	54.8
Residential/Comercial	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	3.7
Natural gas final consumption, by sector	3.0	3.3	4.2	4.3	4.1	4.8	5.6	6.5	6.6	6.7	100.0
Industry	3.0	3.3	4.2	4.3	4.1	4.8	5.6	6.5	6.6	6.7	100.0
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Comercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refined products consumption	7.6	8.6	8.2	9.3	8.5	8.5	8.8	8.8	8.7	8.8	100.0
Gasoline	2.6	2.9	2.7	2.8	3.0	3.1	3.3	3.2	3.2	3.4	38.2
Diesel	2.2	2.2	2.1	2.4	2.3	2.3	2.3	2.4	2.3	2.2	25.0
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	2.6
Imports	0.7	2.3	2.8	2.2	1.8	2.7	3.3	4.1	4.2	3.8	100.0
Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gas	0.7	2.3	2.8	2.2	1.8	2.7	3.3	4.1	4.2	3.8	100.0
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	98.3	104.0	124.7	139.7	136.9	136.1	136.6	141.4	129.8	136.8	100.0
Oil	98.3	104.0	124.7	139.7	136.9	136.1	136.6	141.4	129.8	136.8	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.0
Diesel	7.7	7.3	7.3	7.8	7.0	7.6	7.4	6.4	5.0	3.9	2.9
Heating Oil	1.5	3.6	4.3	5.2	3.3	3.6	4.9	4.4	3.4	3.3	2.4
Aviation Jet	1.8	2.0	2.0	2.2	2.0	1.8	1.9	1.4	1.1	0.6	0.4
LPG	3.5	4.2	4.6	5.1	4.9	5.0	5.4	6.3	6.4	6.5	4.8
CO₂ Emissions (Million tons CO₂)	79.9	78.9	80.1	79.5	88.5	83.2	92.2	91.8	91.1	91.6	-
CO₂ Intensity (tCO₂/million \$15ppp)	325.1	328.4	304.4	283.2	311.8	291.7	321.2	308.8	317.0	311.7	-
Final energy intensity (toe/million \$15ppp)	44.6	49.1	47.0	46.8	45.8	49.6	53.1	54.9	57.5	57.2	-
Total energy intensity (toe/million \$15ppp)	127.7	133.6	117.8	122.3	119.6	110.9	117.3	120.6	125.3	122.6	-

*Heat is included

Primary energy demand mix



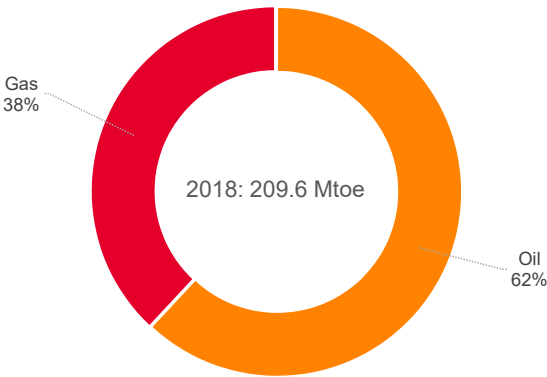
Electricity generation by source

Primary energy demand and CO₂ emissions growth

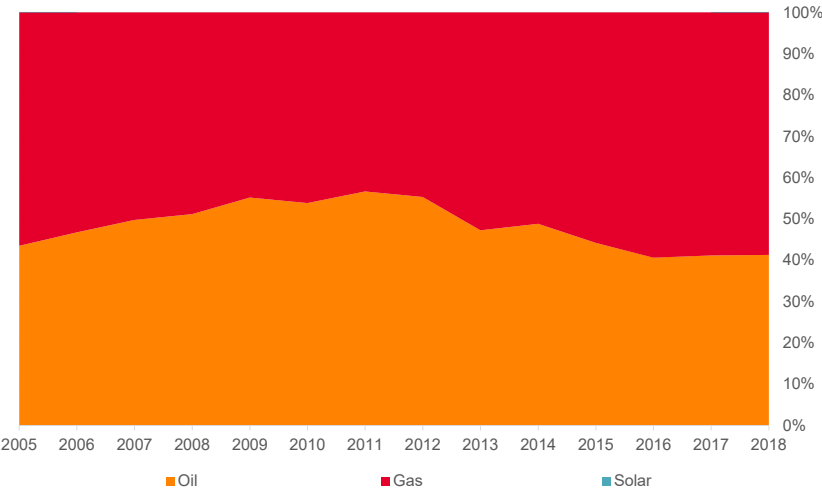
Saudi Arabia (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	166.6	185.5	176.7	199.4	191.4	213.4	221.7	210.4	212.4	209.6	100.0
Oil	114.4	125.6	115.7	133.1	124.4	143.8	150.4	136.3	134.7	129.9	62.0
Gas	52.2	59.9	61.0	66.2	66.9	69.5	71.3	74.1	77.7	79.7	38.0
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	0.0	-0.0	0.0	0.0	0.0	0.0	-0.0	0.0	-0.0	0.0	0.0
Total final consumption, by source	108.7	120.6	123.4	133.7	133.4	141.4	144.2	139.6	139.7	138.0	100.0
Oil	70.4	75.9	76.5	82.9	85.1	90.3	98.7	93.9	91.5	88.0	63.8
Gas	22.5	27.3	28.9	30.5	26.6	28.0	21.2	21.3	23.7	25.4	18.4
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity	15.8	17.4	18.1	20.3	21.7	23.1	24.3	24.4	24.5	24.5	17.8
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity generation, by source	18.7	20.6	21.5	23.4	24.4	26.8	29.1	29.7	30.1	30.2	100.0
Oil	10.3	11.1	12.2	12.9	11.5	13.1	12.9	12.1	12.4	12.5	41.3
Gas	8.4	9.5	9.3	10.4	12.9	13.7	16.2	17.6	17.7	17.7	58.7
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	108.7	120.6	123.4	133.7	133.4	141.4	144.2	139.6	139.7	138.0	100.0
Industry	35.6	43.8	43.9	46.5	46.0	48.5	43.0	42.3	43.0	42.8	31.0
Transport	33.9	35.2	37.0	40.3	41.6	43.9	47.5	45.8	40.6	36.2	26.2
Residential/Comercial	14.9	16.3	16.9	18.5	18.9	20.4	22.6	22.7	22.7	22.7	16.4
Oil final consumption, by sector	70.4	75.9	76.5	82.9	85.1	90.3	98.7	93.9	91.5	88.0	100.0
Industry	15.4	18.2	16.7	17.5	20.2	21.1	23.1	23.0	21.7	20.3	23.0
Transport	33.9	35.2	37.0	40.3	41.6	43.9	47.5	45.8	40.6	36.2	41.1
Residential/Comercial	1.6	1.6	1.9	1.7	1.6	1.5	1.7	1.8	1.8	1.7	1.9
Natural gas final consumption, by sector	22.5	27.3	28.9	30.5	26.6	28.0	21.2	21.3	23.7	25.4	100.0
Industry	18.1	23.2	24.4	25.8	21.8	23.4	16.6	15.9	17.8	19.1	74.9
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Comercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refined products consumption	65.4	69.7	72.2	78.2	80.1	85.1	93.2	91.1	90.3	87.2	100.0
Gasoline	18.2	19.0	20.4	22.1	23.1	23.9	25.6	25.5	26.1	24.4	28.0
Diesel	18.3	18.9	19.3	21.2	21.7	23.2	25.3	23.0	16.1	12.8	14.7
Heating Oil	7.1	8.7	9.2	9.0	11.2	11.9	13.4	16.5	17.9	17.4	20.0
Aviation Jet	0.7	0.7	0.7	0.7	0.8	0.8	0.9	1.0	1.0	1.0	1.2
LPG	4.6	3.7	3.7	5.1	4.3	4.7	7.7	4.1	4.0	3.9	4.5
Imports	11.0	9.7	10.4	16.9	24.8	24.2	30.2	28.9	23.9	44.4	100.0
Oil	11.0	9.7	10.4	16.9	24.8	24.2	30.2	28.9	23.9	44.4	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	4.7	3.9	2.4	4.2	6.1	7.2	10.1	9.4	9.1	15.0	33.9
Diesel	4.4	4.2	6.1	8.5	12.5	11.9	12.6	11.1	4.5	9.9	22.3
Heating Oil	0.3	0.0	1.2	3.2	5.4	3.2	5.2	7.2	10.1	16.0	36.1
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	365.0	358.7	415.0	441.5	443.6	431.3	453.3	475.8	454.6	503.7	100.0
Oil	365.0	358.7	415.0	441.5	443.6	431.3	453.3	475.8	454.6	503.7	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	3.1	3.0	2.0	1.2	1.1	3.7	7.2	9.6	10.9	18.8	3.7
Diesel	6.0	6.0	4.1	5.0	5.3	12.3	20.3	29.1	30.6	41.8	8.3
Heating Oil	12.5	9.3	5.8	9.8	9.6	5.6	4.8	3.6	3.8	5.1	1.0
Aviation Jet	0.6	0.2	0.2	0.3	0.3	0.7	0.2	0.7	0.6	0.8	0.2
LPG	21.2	24.1	25.4	26.1	25.1	25.8	22.9	28.4	28.4	31.9	6.3
CO ₂ Emissions (Million tons CO ₂)	395.0	435.1	451.2	481.7	488.6	524.3	550.7	546.6	550.1	535.7	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	312.8	328.0	309.2	313.2	309.3	320.2	323.1	315.2	320.0	304.8	-
Final energy intensity (toe/million \$15ppp)	67.2	72.1	67.3	68.7	67.7	69.1	66.4	63.9	61.8	57.9	-
Total energy intensity (toe/million \$15ppp)	132.0	139.8	121.1	129.6	121.2	130.3	130.1	121.3	123.6	119.2	-

*Heat is included

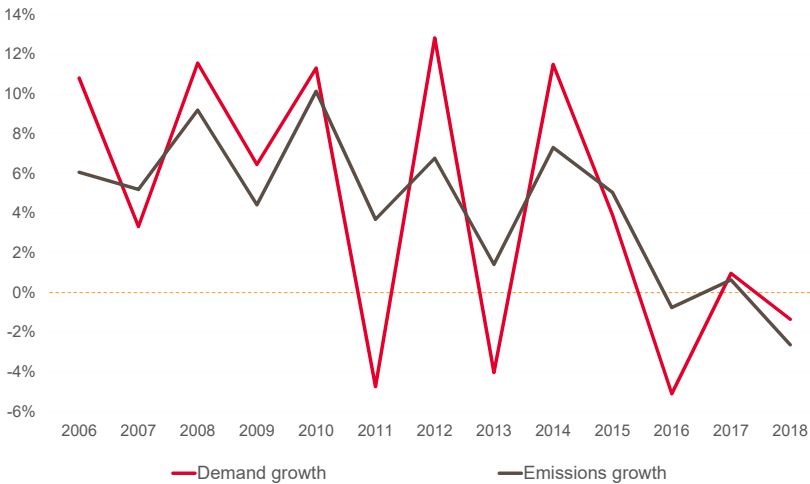
Primary energy demand mix



Electricity generation by source



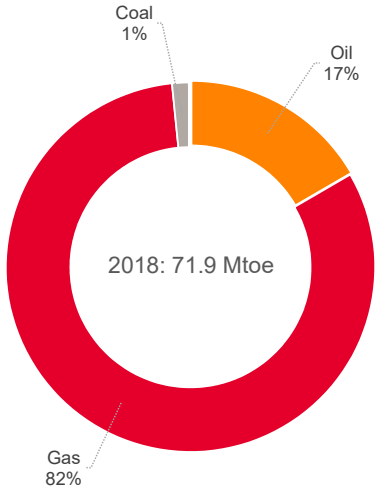
Primary energy demand and CO₂ emissions growth



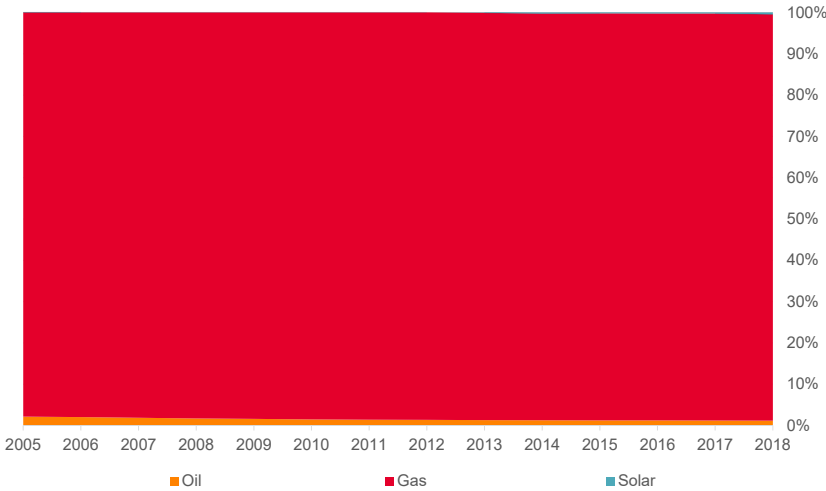
United Arab Emirates (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	63.8	60.9	60.2	63.7	67.1	74.2	76.8	74.2	72.9	71.9	100.0
Oil	15.3	10.9	8.8	8.8	10.7	18.5	15.0	11.8	11.6	12.0	16.6
Gas	48.2	49.3	51.0	53.5	54.6	53.6	60.0	60.4	60.2	58.7	81.7
Coal	0.3	0.7	0.4	1.4	1.8	2.0	1.7	1.8	1.0	1.1	1.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Electricity balance of trade*	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.1
Total final consumption, by source	43.3	44.9	47.4	49.0	52.2	51.0	56.0	52.6	50.3	49.0	100.0
Oil	12.6	12.5	13.8	14.2	15.7	16.6	15.2	16.6	16.4	16.9	34.5
Gas	23.7	24.4	25.8	25.7	26.7	23.7	29.5	24.2	22.7	20.7	42.3
Coal	0.3	0.7	0.4	1.4	1.8	2.0	1.7	1.8	1.0	1.1	2.1
Electricity	6.7	7.3	7.4	7.6	7.9	8.7	9.5	9.8	10.1	10.3	21.0
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Electricity generation, by source	7.8	8.4	8.5	8.8	9.1	10.0	11.0	11.1	11.6	11.8	100.0
Oil	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.2
Gas	7.7	8.3	8.4	8.7	9.0	9.9	10.8	11.0	11.4	11.6	98.4
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.4
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	43.3	44.9	47.4	49.0	52.2	51.0	56.0	52.6	50.3	49.0	100.0
Industry	25.6	26.6	28.0	28.8	30.4	27.6	33.4	28.4	26.0	24.1	49.2
Transport	9.6	10.0	10.1	10.3	11.7	12.0	10.4	11.7	12.0	12.5	25.4
Residential/Comercial	6.2	6.8	6.8	7.1	7.3	8.0	8.8	8.9	9.1	9.3	19.0
Oil final consumption, by sector	12.6	12.5	13.8	14.2	15.7	16.6	15.2	16.6	16.4	16.9	100.0
Industry	1.1	1.1	1.2	1.2	1.2	1.3	1.3	1.4	1.3	1.3	7.9
Transport	9.6	10.0	10.1	10.3	11.7	12.0	10.4	11.7	12.0	12.5	73.6
Residential/Comercial	0.2	0.2	0.3	0.2	0.3	0.3	0.4	0.3	0.3	0.3	1.8
Natural gas final consumption, by sector	23.7	24.4	25.8	25.7	26.7	23.7	29.5	24.2	22.7	20.7	100.0
Industry	23.5	24.2	25.6	25.5	26.5	23.5	29.2	24.0	22.5	20.5	98.9
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Residential/Comercial	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Refined products consumption	12.6	12.5	13.8	14.2	15.7	16.6	15.2	16.6	16.4	16.9	100.0
Gasoline	5.2	5.4	5.5	5.9	7.3	7.7	7.2	8.0	8.4	8.7	51.2
Diesel	4.2	4.4	4.4	4.2	4.1	4.0	2.9	3.4	3.2	3.3	19.5
Heating Oil	1.1	1.1	1.2	1.2	1.2	1.2	1.3	1.4	1.2	1.3	7.6
Aviation Jet	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.4	0.5	2.9
LPG	0.9	0.6	1.2	1.3	1.4	1.7	1.8	1.8	1.8	1.8	10.9
Imports	30.3	30.3	32.9	33.3	36.9	35.9	37.4	35.2	30.9	32.8	100.0
Oil	15.9	16.1	18.2	17.7	20.7	19.8	20.0	18.1	14.8	18.0	55.0
Gas	14.3	14.1	14.7	15.6	16.2	16.1	17.4	17.0	16.1	14.8	45.0
Gasoline	3.1	3.0	2.7	2.6	4.5	4.1	3.4	4.3	3.5	4.3	13.0
Diesel	0.6	0.1	0.9	0.7	1.4	0.5	2.4	0.7	0.6	0.5	1.4
Heating Oil	12.2	13.1	13.9	14.2	14.2	14.5	13.9	11.6	9.4	11.5	35.2
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.5	0.4	0.3	0.9
Exports	122.5	130.8	152.8	156.7	164.9	158.4	169.1	174.0	165.3	164.4	100.0
Oil	116.9	124.4	146.6	150.7	159.0	152.0	162.9	167.9	159.6	158.4	96.3
Gas	5.7	6.4	6.1	6.0	5.8	6.4	6.2	6.1	5.8	6.0	3.7
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.9	2.8	1.6	1.4	0.8
Diesel	0.8	0.7	1.0	0.6	1.0	0.7	5.6	9.9	4.7	4.9	3.0
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	2.6	3.9	4.0	4.0	4.5	2.6	3.9	4.1	4.1	4.5	2.7
LPG	4.1	2.6	5.8	6.2	6.4	8.0	8.2	9.0	8.6	6.2	3.8
CO ₂ Emissions (Million tons CO ₂)	149.8	155.6	159.8	170.3	178.6	178.5	188.6	194.0	189.7	188.5	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	300.2	306.8	296.2	300.3	297.7	288.1	293.3	292.8	284.1	274.2	-
Final energy intensity (toe/million \$15ppp)	83.1	85.9	83.3	81.6	82.4	77.0	81.9	74.0	70.6	66.8	-
Total energy intensity (toe/million \$15ppp)	127.9	120.1	111.7	112.4	112.0	119.8	119.4	111.9	109.2	104.6	-

*Heat is included

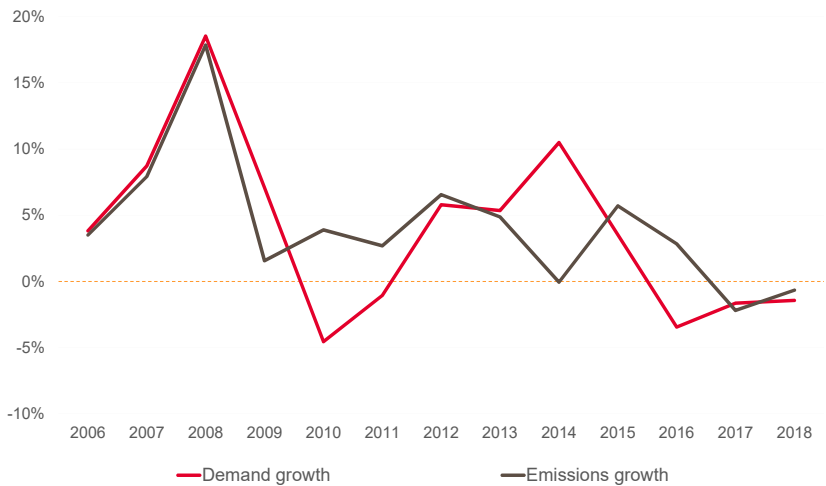
Primary energy demand mix



Electricity generation by source

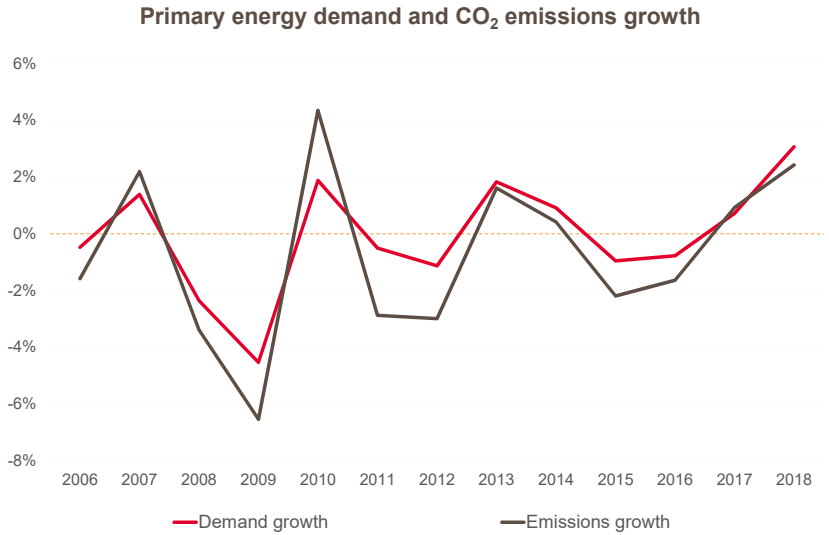
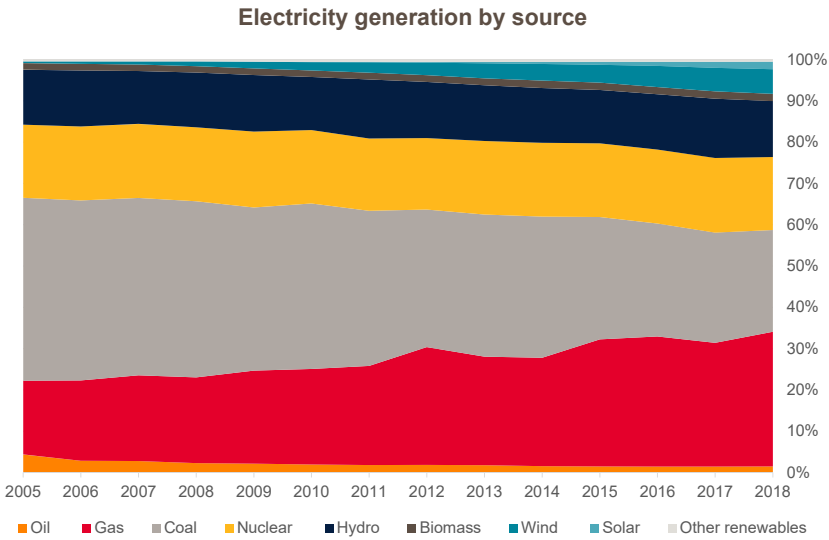
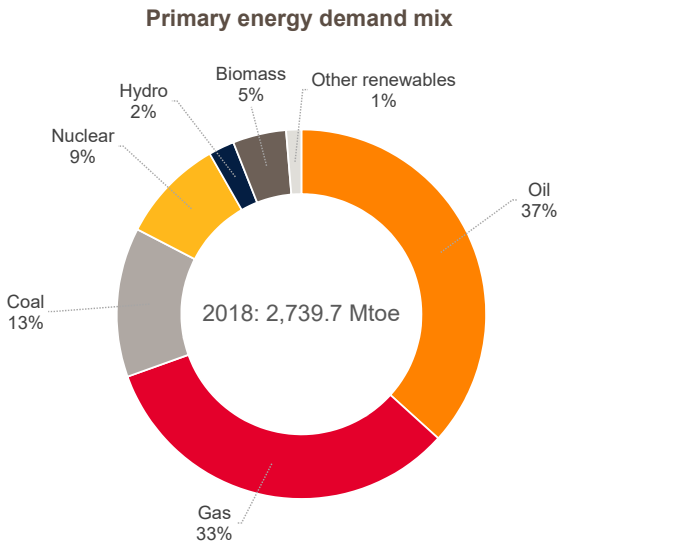


Primary energy demand and CO₂ emissions growth



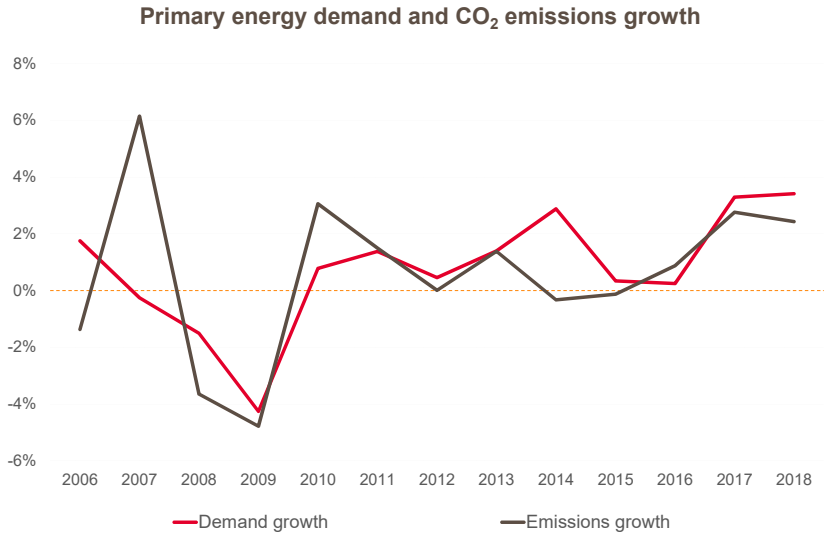
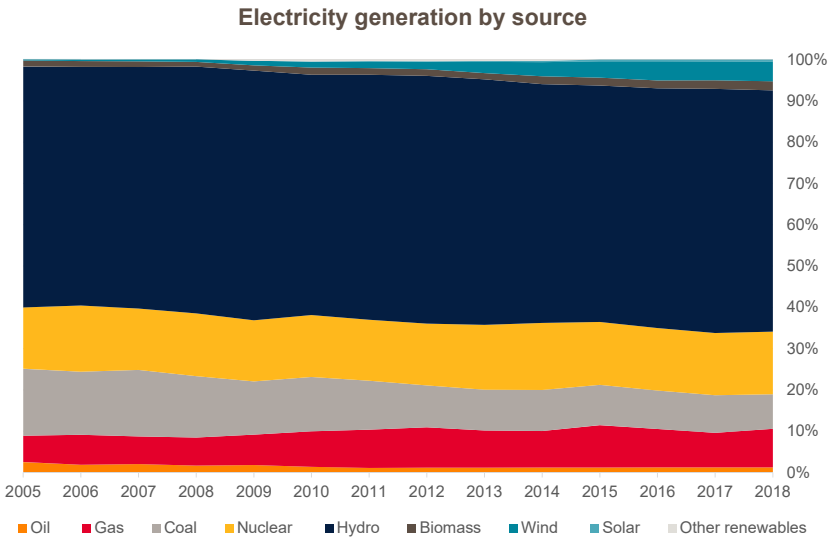
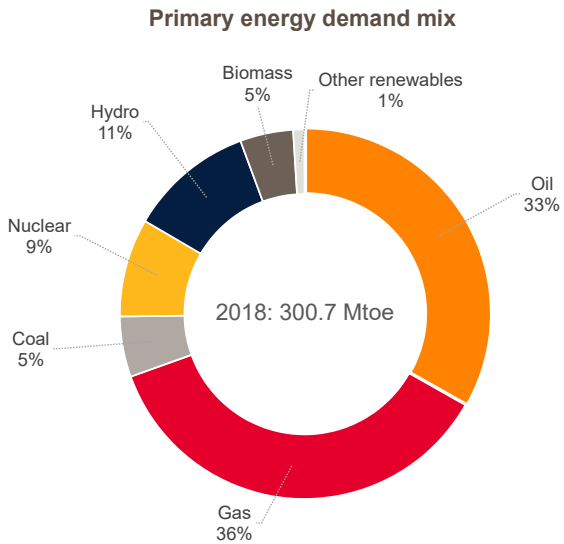
North America <i>(Million toe)</i>	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	2,606.7	2,655.8	2,642.4	2,612.6	2,660.5	2,685.0	2,659.4	2,638.9	2,658.1	2,739.7	100.0
Oil	994.9	993.1	974.6	975.7	977.5	973.0	988.7	978.6	987.0	999.4	36.5
Gas	667.7	688.8	709.1	737.2	755.2	776.3	798.5	813.6	812.1	892.4	32.6
Coal	517.3	538.5	513.8	456.8	463.1	463.7	403.6	372.2	372.9	356.1	13.0
Nuclear	242.6	243.8	241.1	235.8	244.3	246.9	245.9	248.0	247.9	249.0	9.1
Hydro	57.7	56.0	63.1	59.4	59.4	58.7	57.1	59.1	62.8	61.3	2.2
Biomass	104.7	110.6	112.8	117.5	125.9	128.4	125.2	123.5	125.7	127.3	4.6
Other renewables	7.2	9.4	12.0	14.4	18.0	20.7	23.0	27.9	32.3	36.2	1.3
Electricity balance of trade*	14.6	15.6	15.8	15.8	17.0	17.3	17.4	16.0	17.3	18.0	0.7
Total final consumption, by source	1,737.6	1,807.9	1,779.9	1,748.9	1,796.4	1,816.1	1,806.5	1,813.1	1,829.4	1,882.8	100.0
Oil	894.2	926.0	886.7	875.2	883.7	887.7	905.4	911.8	917.1	930.3	49.4
Gas	343.1	358.6	364.1	350.7	379.0	394.5	375.5	376.0	384.4	417.0	22.1
Coal	32.7	39.7	39.6	35.2	35.2	33.9	31.4	27.0	30.3	27.9	1.5
Electricity	375.3	388.5	390.5	385.8	388.8	390.6	387.4	391.0	388.5	396.3	21.1
Heat	9.4	9.4	9.7	9.7	9.2	9.0	9.0	9.8	9.9	10.2	0.5
Biomass	82.8	85.6	89.4	92.3	100.4	100.4	97.9	97.5	99.2	101.1	5.4
Electricity generation, by source	435.7	452.2	454.6	449.9	452.6	456.1	455.5	456.6	452.5	465.5	100.0
Oil	9.3	8.7	8.2	8.3	8.0	7.0	6.8	6.6	6.6	6.8	1.5
Gas	98.1	104.6	109.1	128.3	119.0	119.7	140.0	143.8	135.4	151.8	32.6
Coal	172.1	181.1	170.7	149.8	155.6	155.9	135.0	124.8	120.8	114.7	24.6
Nuclear	80.0	80.5	79.6	77.8	80.6	81.5	81.2	81.8	81.8	82.2	17.7
Hydro	59.7	58.0	65.1	61.1	61.1	60.5	58.8	61.1	64.8	63.1	13.6
Biomass	6.9	7.2	7.3	7.5	7.7	8.2	8.1	8.0	8.1	8.2	1.8
Wind	7.0	9.0	11.4	13.5	16.5	18.3	19.6	23.3	25.6	27.7	5.9
Solar	0.2	0.4	0.6	1.0	1.5	2.4	3.3	4.6	6.7	8.5	1.8
Other renewables	2.3	2.7	2.7	2.7	2.7	2.7	2.6	2.6	2.6	2.6	0.6
Total final consumption, by sector	1,737.6	1,807.9	1,779.9	1,748.9	1,796.4	1,816.1	1,806.5	1,813.1	1,829.4	1,882.8	100.0
Industry	321.3	350.2	350.0	352.2	352.0	348.7	345.1	348.2	357.7	362.8	19.3
Transport	671.3	693.3	677.4	671.2	689.8	689.7	710.9	719.7	722.9	728.0	38.7
Residential/Commercial	561.9	571.4	564.5	530.9	567.5	581.1	559.6	551.7	553.0	589.3	31.3
Oil final consumption, by sector	894.2	926.0	886.7	875.2	883.7	887.7	905.4	911.8	917.1	930.3	100.0
Industry	34.5	36.9	30.6	30.3	30.1	27.2	29.8	31.9	32.2	32.6	3.5
Transport	646.8	667.3	647.6	635.9	651.2	650.7	670.3	676.3	679.4	684.8	73.6
Residential/Commercial	50.3	49.3	42.8	37.4	38.6	36.5	38.8	37.9	38.2	39.7	4.3
Natural gas final consumption, by sector	343.1	358.6	364.1	350.7	379.0	394.5	375.5	376.0	384.4	417.0	100.0
Industry	115.3	134.0	137.3	143.3	143.2	147.1	144.3	149.9	153.2	161.9	38.8
Transport	0.7	0.7	0.7	0.8	0.7	0.9	1.0	1.0	1.1	1.2	0.3
Residential/Commercial	208.8	206.6	207.7	186.8	215.2	226.4	208.8	200.4	204.9	227.5	54.6
Refined products consumption	891.3	922.4	884.7	873.1	881.3	885.2	901.1	908.8	914.1	927.2	100.0
Gasoline	445.6	457.0	433.1	429.4	434.8	436.2	448.2	456.1	454.0	451.7	48.7
Diesel	216.6	227.8	227.5	223.3	223.1	230.3	225.2	221.4	224.5	232.5	25.1
Heating Oil	11.2	11.0	8.1	6.7	3.4	2.5	5.0	4.2	4.2	4.2	0.5
Aviation Jet	51.7	52.6	52.8	53.1	54.6	55.7	58.1	60.6	63.2	64.5	7.0
LPG	57.3	59.2	45.7	46.8	52.1	48.4	49.8	48.5	50.0	54.1	5.8
Imports	815.8	826.7	807.1	759.1	703.2	663.0	691.1	741.9	764.7	753.7	100.0
Oil	700.6	708.4	686.1	641.4	591.9	559.1	581.5	619.9	632.5	623.5	82.7
Gas	115.2	118.3	121.1	117.7	111.2	103.9	109.6	122.1	132.1	130.2	17.3
Gasoline	59.0	58.1	56.7	53.1	50.3	48.8	55.0	60.7	61.0	63.5	8.4
Diesel	12.7	15.5	15.3	14.4	15.5	18.8	20.5	19.3	22.7	24.9	3.3
Heating Oil	22.1	22.7	21.1	19.3	16.4	12.9	13.2	14.0	13.6	14.1	1.9
Aviation Jet	5.4	6.7	6.5	5.8	6.9	8.1	11.0	12.1	12.4	12.2	1.6
LPG	4.3	4.5	7.0	7.2	7.3	7.2	8.3	10.4	11.2	11.7	1.5
Exports	405.1	427.6	465.8	484.2	503.4	540.9	577.5	621.8	719.8	822.2	100.0
Oil	301.1	321.5	354.2	373.6	398.5	440.8	471.0	500.4	576.0	672.0	81.7
Gas	104.0	106.1	111.5	110.6	104.9	100.1	106.4	121.4	143.8	150.2	18.3
Gasoline	16.2	22.4	29.6	29.7	29.8	31.8	35.9	43.1	39.6	43.7	5.3
Diesel	37.5	40.3	50.0	58.3	64.8	61.5	65.7	66.2	76.6	70.8	8.6
Heating Oil	31.9	32.0	31.4	28.3	29.0	30.6	27.3	25.4	25.2	25.2	3.1
Aviation Jet	4.4	5.3	5.6	7.0	8.3	8.5	8.8	9.2	10.0	11.9	1.4
LPG	0.3	0.4	0.5	0.6	0.7	17.6	24.8	31.4	36.4	41.2	5.0
CO₂ Emissions (Million tons CO₂)	6,156.3	6,424.3	6,239.8	6,053.4	6,151.3	6,177.4	6,042.0	5,943.1	5,998.2	6,144.0	-
CO₂ Intensity (tCO₂/million \$15ppp)	323.7	328.6	313.0	296.7	296.4	290.2	276.4	267.7	264.2	263.4	-
Final energy intensity (toe/million \$15ppp)	91.4	92.5	89.3	85.7	86.6	85.3	82.6	81.7	80.6	80.7	-
Total energy intensity (toe/million \$15ppp)	137.1	135.8	132.6	128.0	128.2	126.2	121.7	118.9	117.1	117.5	-

*Heat is included



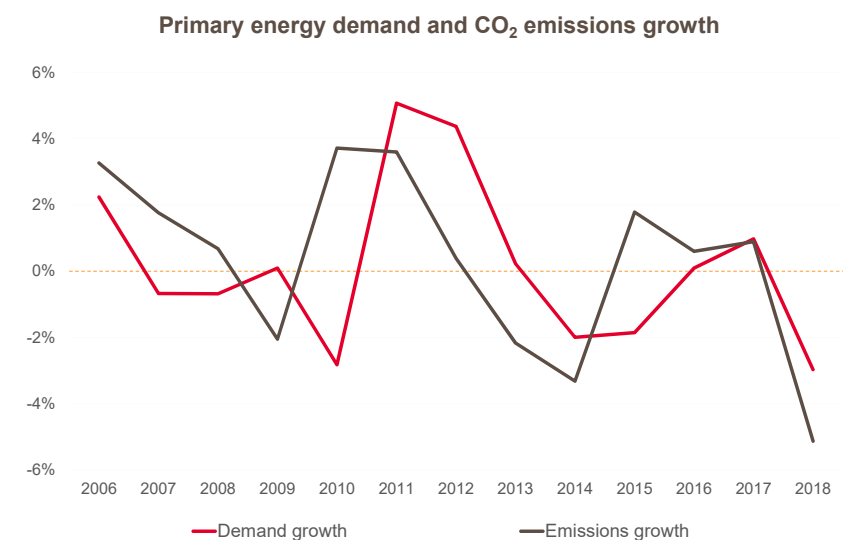
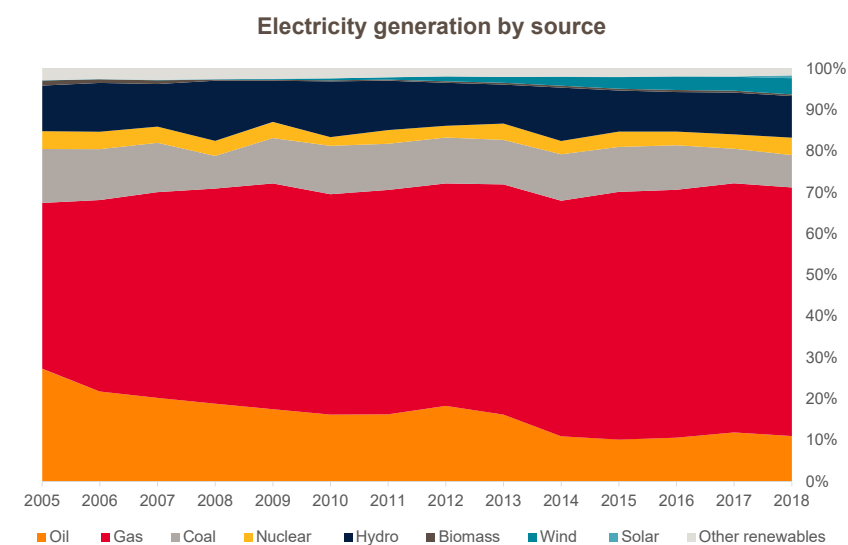
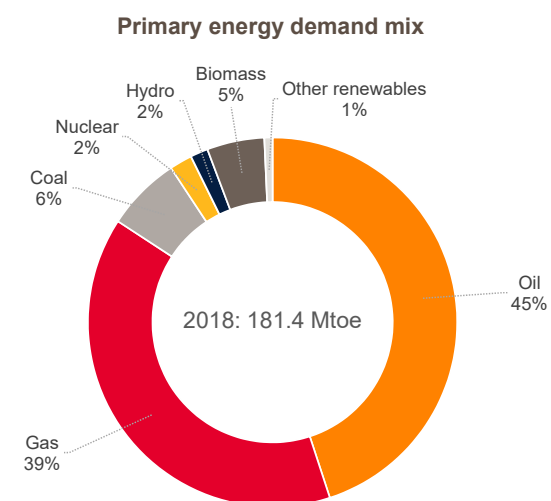
Canada (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	261.3	263.4	267.0	268.2	272.0	279.8	280.8	281.5	290.7	300.7	100.0
Oil	95.8	96.3	95.4	97.4	94.9	98.7	104.5	98.5	99.9	100.8	33.5
Gas	78.4	78.7	83.4	83.1	86.7	88.4	87.3	94.7	100.2	110.4	36.7
Coal	21.2	22.5	20.1	19.4	18.1	19.3	18.0	18.3	18.0	16.1	5.4
Nuclear	23.5	23.6	24.4	24.7	27.0	28.0	26.5	26.4	26.4	26.2	8.7
Hydro	31.7	30.2	32.3	32.7	33.7	32.9	32.9	33.3	34.1	33.3	11.1
Biomass	12.9	13.1	13.4	13.5	14.2	14.2	14.1	12.8	13.6	14.1	4.7
Other renewables	0.6	0.8	0.9	1.0	1.7	2.1	2.5	2.9	2.9	3.0	1.0
Electricity balance of trade*	-2.7	-1.9	-2.9	-3.8	-4.2	-3.7	-5.1	-5.5	-4.3	-3.3	-1.1
Total final consumption, by source	185.0	188.4	195.7	194.3	195.3	193.2	189.8	188.1	191.9	196.4	100.0
Oil	85.1	89.5	90.9	92.7	91.2	89.6	90.7	92.2	93.4	93.8	47.8
Gas	40.4	39.7	43.5	41.6	43.9	44.9	44.0	42.1	43.4	46.6	23.7
Coal	3.6	4.0	4.5	4.3	3.7	3.7	3.3	3.2	3.2	3.2	1.6
Electricity	44.1	44.2	45.4	44.0	44.1	43.1	40.1	40.3	41.2	41.7	21.2
Heat	0.9	0.5	0.7	0.7	0.7	0.8	0.7	0.7	0.7	0.6	0.3
Biomass	10.9	10.5	10.8	11.0	11.7	11.1	10.9	9.6	10.1	10.5	5.4
Electricity generation, by source	52.5	52.0	54.5	54.5	56.7	56.9	57.5	57.4	57.7	57.0	100.0
Oil	0.9	0.7	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	1.2
Gas	3.9	4.5	5.0	5.3	5.1	5.0	5.9	5.3	4.8	5.3	9.3
Coal	6.8	6.8	6.5	5.5	5.6	5.7	5.6	5.3	5.3	4.8	8.4
Nuclear	7.7	7.8	8.0	8.2	8.9	9.2	8.8	8.7	8.7	8.6	15.1
Hydro	31.7	30.2	32.3	32.7	33.7	32.9	32.9	33.3	34.1	33.3	58.4
Biomass	0.7	0.9	0.9	0.9	0.9	1.1	1.1	1.1	1.2	1.3	2.2
Wind	0.6	0.8	0.9	1.0	1.5	1.9	2.3	2.6	2.6	2.7	4.8
Solar	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.5
Other renewables	0.2	0.3	0.2	0.2	0.2	0.2	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	185.0	188.4	195.7	194.3	195.3	193.2	189.8	188.1	191.9	196.4	100.0
Industry	42.4	42.7	44.0	43.7	44.1	43.0	42.8	41.9	42.0	43.7	22.2
Transport	54.9	57.3	57.9	58.7	60.1	59.4	58.8	58.7	60.5	61.8	31.5
Residential/Comercial	62.1	60.4	63.9	60.6	61.9	62.5	58.6	56.8	59.7	61.7	31.4
Oil final consumption, by sector	85.1	89.5	90.9	92.7	91.2	89.6	90.7	92.2	93.4	93.8	100.0
Industry	4.5	4.6	4.6	4.6	4.3	4.0	4.4	4.9	5.3	5.1	5.5
Transport	53.9	56.0	56.2	56.9	58.2	57.5	56.9	56.9	58.5	59.7	63.6
Residential/Comercial	5.5	5.3	5.7	5.4	4.9	4.6	4.8	4.6	4.9	4.8	5.1
Natural gas final consumption, by sector	40.4	39.7	43.5	41.6	43.9	44.9	44.0	42.1	43.4	46.6	100.0
Industry	11.8	12.7	13.8	13.7	14.4	14.1	14.1	13.9	13.3	14.7	31.6
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Residential/Comercial	25.1	23.5	25.5	23.6	25.4	27.2	25.8	24.2	26.0	27.7	59.4
Refined products consumption	85.1	89.5	90.9	92.7	91.2	89.6	90.7	92.2	93.4	93.8	100.0
Gasoline	33.3	34.2	33.8	33.9	34.8	34.1	34.9	36.0	36.1	35.6	37.9
Diesel	24.4	26.5	28.0	27.1	27.3	27.2	25.4	26.7	27.4	29.1	31.0
Heating Oil	2.9	2.7	2.2	2.2	1.8	1.7	1.5	1.5	1.7	1.8	1.9
Aviation Jet	4.2	4.0	4.2	5.0	5.4	5.3	5.4	5.8	6.0	6.4	6.9
LPG	3.4	3.1	3.5	3.6	3.1	2.8	2.7	2.8	2.8	2.4	2.6
Imports	75.2	74.1	81.3	84.1	79.0	74.3	80.0	81.8	85.6	80.1	100.0
Oil	58.2	55.3	55.3	58.0	56.5	56.3	63.4	64.8	65.3	62.0	77.5
Gas	17.1	18.8	26.0	26.1	22.5	18.0	16.5	17.0	20.3	18.0	22.5
Gasoline	4.2	3.7	4.4	3.1	2.6	2.6	3.1	4.0	5.9	5.4	6.8
Diesel	1.6	0.7	1.7	0.7	1.2	1.5	1.9	1.5	1.3	2.1	2.6
Heating Oil	0.7	0.9	0.4	0.7	1.1	1.0	0.6	0.8	0.8	0.7	0.9
Aviation Jet	2.5	2.6	3.3	2.5	2.4	2.6	3.0	2.8	2.0	2.9	3.7
LPG	0.2	0.2	0.4	0.2	0.1	0.2	0.1	0.3	0.2	0.0	0.0
Exports	199.0	202.7	212.7	223.6	232.5	238.1	249.0	256.9	278.3	290.9	100.0
Oil	120.4	123.6	135.9	150.1	163.6	172.8	183.0	188.1	207.3	223.5	76.9
Gas	78.7	79.1	76.8	73.5	68.8	65.3	66.0	68.7	71.0	67.3	23.1
Gasoline	6.2	6.8	6.0	6.3	6.6	6.5	7.7	7.8	8.6	7.1	2.4
Diesel	7.7	7.1	6.4	8.0	8.1	6.5	6.8	6.7	7.3	5.5	1.9
Heating Oil	2.8	2.7	2.8	3.7	4.4	3.5	3.0	2.9	2.8	3.1	1.1
Aviation Jet	0.3	0.4	0.3	0.4	0.5	0.4	0.5	0.5	0.8	0.9	0.3
LPG	0.3	0.4	0.5	0.5	0.6	0.7	0.4	0.2	0.2	0.1	0.0
CO ₂ Emissions (Million tons CO ₂)	531.9	548.1	556.4	556.4	564.1	562.3	561.6	566.5	582.1	596.3	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	382.9	382.8	376.7	370.3	366.3	355.0	351.0	349.2	348.2	349.4	-
Final energy intensity (toe/million \$15ppp)	118.2	115.9	116.5	112.5	112.1	108.3	104.4	101.3	101.3	102.2	-
Total energy intensity (toe/million \$15ppp)	188.1	183.9	180.8	178.5	176.6	176.7	175.5	173.5	173.9	176.2	-

*Heat is included



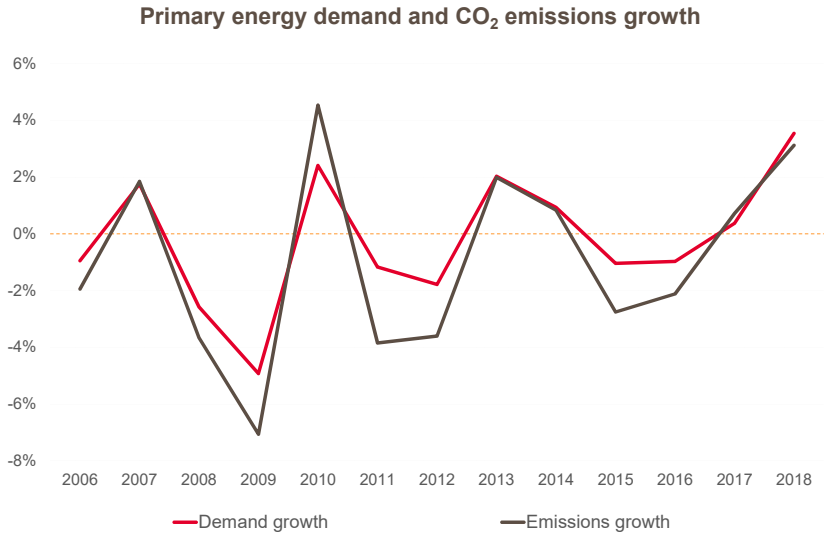
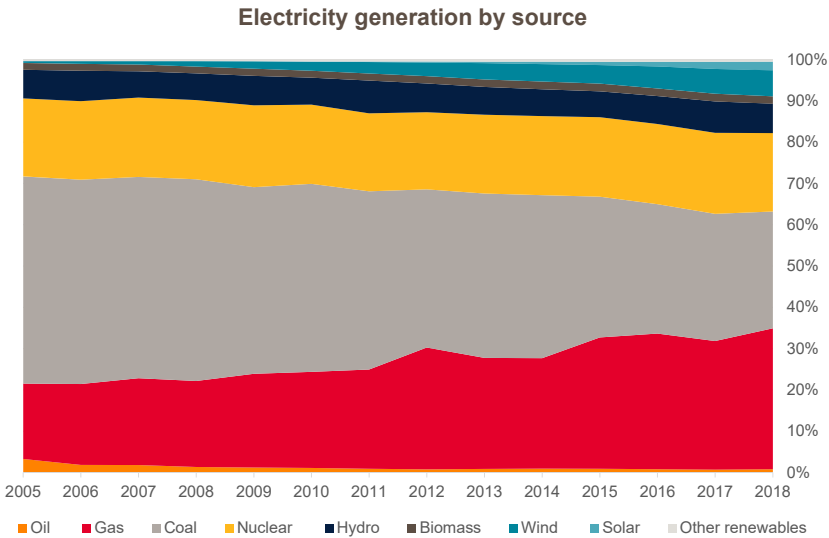
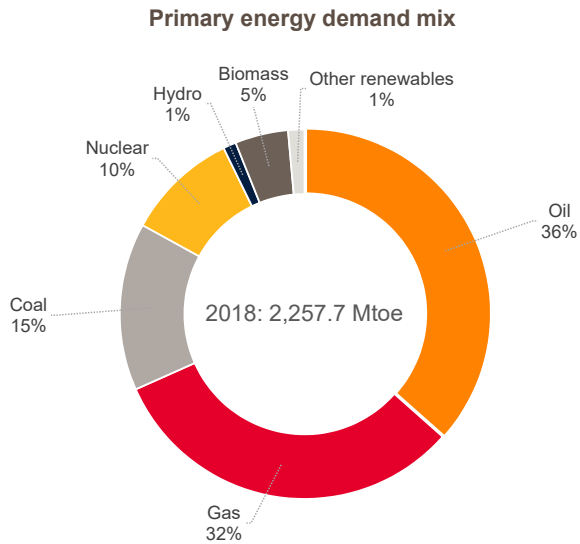
Mexico (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	180.0	174.9	183.8	191.8	192.3	188.4	185.0	185.1	186.9	181.4	100.0
Oil	98.5	90.7	94.5	102.6	99.1	96.8	90.4	88.2	85.8	80.3	44.2
Gas	53.9	54.2	57.1	59.3	62.2	60.5	64.6	66.2	67.3	70.0	38.6
Coal	10.7	13.4	14.7	12.8	12.9	12.7	11.5	12.4	15.2	11.6	6.4
Nuclear	2.7	1.5	2.6	2.3	3.1	2.5	3.0	2.8	2.8	3.5	2.0
Hydro	2.3	3.2	3.1	2.7	2.4	3.3	2.7	2.6	2.7	2.8	1.5
Biomass	8.0	8.1	8.0	8.4	9.0	8.7	8.6	8.7	8.8	9.0	4.9
Other renewables	0.1	0.1	0.1	0.3	0.4	0.6	0.8	0.9	0.9	1.3	0.7
Electricity balance of trade*	3.9	3.7	3.6	3.4	3.3	3.2	3.4	3.4	3.3	3.0	1.6
Total final consumption, by source	111.6	118.1	121.2	120.0	120.4	119.6	120.6	122.5	122.3	117.0	100.0
Oil	72.3	74.5	74.2	73.3	72.3	73.1	72.7	75.2	70.6	66.1	56.5
Gas	11.5	12.9	13.7	14.3	14.9	14.2	13.9	14.3	14.8	15.4	13.2
Coal	2.7	4.9	5.8	3.8	4.6	3.5	4.7	2.6	6.2	4.0	3.4
Electricity	17.7	18.5	20.1	21.3	20.8	21.7	22.1	23.3	23.2	23.8	20.3
Heat	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.2
Biomass	7.2	7.1	7.2	7.1	7.6	7.0	6.9	6.9	7.2	7.5	6.4
Electricity generation, by source	23.0	23.7	26.0	26.4	25.6	25.9	26.7	27.6	26.9	27.5	100.0
Oil	4.0	3.8	4.2	4.8	4.1	2.8	2.7	2.9	3.2	3.0	11.0
Gas	12.6	12.6	14.1	14.2	14.3	14.8	16.0	16.5	16.3	16.6	60.2
Coal	2.5	2.8	2.9	2.9	2.7	2.9	2.9	3.0	2.3	2.1	7.8
Nuclear	0.9	0.5	0.9	0.8	1.0	0.8	1.0	0.9	0.9	1.2	4.2
Hydro	2.3	3.2	3.1	2.7	2.4	3.3	2.7	2.6	2.7	2.8	10.1
Biomass	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
Wind	0.1	0.1	0.1	0.3	0.4	0.6	0.8	0.9	0.9	1.1	3.9
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.7
Other renewables	0.6	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	1.7
Total final consumption, by sector	111.6	118.1	121.2	120.0	120.4	119.6	120.6	122.5	122.3	117.0	100.0
Industry	29.5	33.6	36.3	35.9	36.8	34.6	36.2	35.8	39.7	37.8	32.3
Transport	50.1	51.1	51.4	51.7	51.1	51.3	51.1	52.9	50.0	47.1	40.3
Residential/Commercial	22.1	22.5	22.7	23.0	22.9	23.5	24.0	24.2	23.8	24.1	20.6
Oil final consumption, by sector	72.3	74.5	74.2	73.3	72.3	73.1	72.7	75.2	70.6	66.1	100.0
Industry	6.2	5.8	5.9	5.9	5.8	5.7	6.2	7.0	6.3	5.7	8.5
Transport	50.0	51.0	51.3	51.6	51.0	51.2	51.0	52.8	49.8	47.0	71.1
Residential/Commercial	7.9	8.1	8.0	8.1	7.7	7.7	7.6	7.4	7.3	7.0	10.6
Natural gas final consumption, by sector	11.5	12.9	13.7	14.3	14.9	14.2	13.9	14.3	14.8	15.4	100.0
Industry	9.9	11.5	12.1	12.7	13.3	12.4	12.4	12.7	13.4	14.0	90.7
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Residential/Commercial	0.9	1.0	0.9	1.0	1.0	1.1	1.0	1.0	0.9	1.0	6.3
Refined products consumption	72.3	74.5	74.2	73.3	72.3	73.1	72.7	75.2	70.6	66.1	100.0
Gasoline	35.4	35.8	35.7	35.9	35.2	34.7	35.4	36.8	34.2	32.8	49.6
Diesel	17.8	18.4	19.0	19.6	19.0	19.5	19.0	19.6	18.5	16.8	25.3
Heating Oil	1.7	1.4	1.1	1.2	0.6	0.5	0.5	0.8	0.7	0.6	0.9
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	9.7	10.0	9.9	9.8	10.1	10.1	9.9	9.9	9.9	9.6	14.4
Imports	35.8	42.8	47.4	51.7	51.2	54.1	65.2	78.9	91.5	97.0	100.0
Oil	24.7	30.1	32.9	32.8	29.2	30.5	35.1	43.3	50.0	52.1	53.7
Gas	11.1	12.6	14.5	18.9	22.0	23.6	30.2	35.5	41.6	44.9	46.3
Gasoline	14.2	16.6	17.6	17.3	15.5	16.1	18.6	22.0	23.9	24.9	25.6
Diesel	2.9	6.0	6.8	6.7	5.4	6.7	7.4	9.5	12.7	12.8	13.2
Heating Oil	2.1	0.6	1.4	2.4	1.7	0.7	0.9	1.7	2.1	1.4	1.5
Aviation Jet	0.1	0.2	0.0	0.2	0.2	0.6	1.1	1.6	2.1	2.6	2.7
LPG	3.0	2.9	3.0	3.3	3.0	3.3	3.9	5.1	5.6	6.3	6.5
Exports	81.4	83.8	81.5	78.7	76.5	74.1	72.0	75.1	72.1	71.4	100.0
Oil	80.7	83.0	81.4	78.7	76.5	74.0	72.0	75.1	72.0	71.4	100.0
Gas	0.7	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.2	0.1	0.2	0.1	0.5	0.1	0.3	0.8	0.5	0.5	0.7
Heating Oil	6.6	6.7	5.5	3.8	5.2	7.0	6.8	6.2	5.5	4.8	6.7
Aviation Jet	0.2	0.1	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.1
CO₂ Emissions (Million tons CO₂)	429.9	445.9	462.0	463.8	453.7	438.7	446.5	449.2	453.2	429.9	-
CO₂ Intensity (tCO₂/million \$15ppp)	243.4	240.2	239.1	230.8	222.8	210.6	208.8	205.4	203.1	188.5	-
Final energy intensity (toe/million \$15ppp)	59.7	59.7	59.2	57.0	56.3	54.4	53.9	53.6	52.7	49.5	-
Total energy intensity (toe/million \$15ppp)	101.9	94.2	95.2	95.5	94.4	90.5	86.5	84.7	83.8	79.5	-

*Heat is included



United States <i>(Million toe)</i>	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	2,165.3	2,217.5	2,191.6	2,152.5	2,196.2	2,216.8	2,193.7	2,172.3	2,180.4	2,257.7	100.0
Oil	800.7	806.1	784.7	775.7	783.5	777.5	793.8	791.8	801.3	818.4	36.2
Gas	535.4	555.9	568.6	594.7	606.4	627.4	646.6	652.7	644.6	712.0	31.5
Coal	485.4	502.6	479.1	424.5	432.1	431.7	374.1	341.5	339.7	328.3	14.5
Nuclear	216.4	218.6	214.1	208.8	214.2	216.5	216.4	218.9	218.7	219.3	9.7
Hydro	23.7	22.6	27.7	24.0	23.3	22.5	21.6	23.2	26.0	25.3	1.1
Biomass	83.8	89.3	91.5	95.6	102.7	105.5	102.5	102.0	103.3	104.2	4.6
Other renewables	6.6	8.5	10.9	13.1	16.0	18.0	19.7	24.1	28.5	31.9	1.4
Electricity balance of trade*	13.4	13.9	15.1	16.1	18.0	17.7	19.1	18.1	18.3	18.3	0.8
Total final consumption, by source	1,441.0	1,501.3	1,463.1	1,434.6	1,480.7	1,503.4	1,496.1	1,502.4	1,515.2	1,569.4	100.0
Oil	736.8	762.0	721.6	709.2	720.1	725.0	742.0	744.4	753.1	770.4	49.1
Gas	291.1	305.9	306.9	294.8	320.3	335.4	317.5	319.6	326.2	355.0	22.6
Coal	26.5	30.8	29.3	27.1	26.9	26.7	23.4	21.1	20.9	20.7	1.3
Electricity	313.4	325.8	325.0	320.5	324.0	325.9	325.2	327.5	324.1	330.9	21.1
Heat	8.4	8.8	8.9	8.8	8.3	8.1	8.0	8.9	9.0	9.3	0.6
Biomass	64.7	68.0	71.4	74.2	81.2	82.3	80.1	80.9	82.0	83.1	5.3
Electricity generation, by source	360.2	376.5	374.1	369.0	370.3	373.3	371.3	371.7	367.8	380.9	100.0
Oil	4.3	4.1	3.4	2.8	3.2	3.4	3.3	3.0	2.6	3.0	0.8
Gas	81.7	87.5	89.9	108.8	99.6	99.9	118.0	122.0	114.4	129.9	34.1
Coal	162.8	171.5	161.3	141.3	147.3	147.3	126.5	116.4	113.3	107.7	28.3
Nuclear	71.4	72.1	70.6	68.9	70.7	71.4	71.4	72.2	72.2	72.4	19.0
Hydro	25.7	24.6	29.6	25.7	24.9	24.2	23.3	25.1	28.0	27.0	7.1
Biomass	6.2	6.2	6.4	6.5	6.7	7.0	6.9	6.8	6.8	6.8	1.8
Wind	6.4	8.2	10.4	12.2	14.6	15.8	16.6	19.7	22.1	23.9	6.3
Solar	0.2	0.3	0.5	0.9	1.4	2.2	3.1	4.3	6.4	8.0	2.1
Other renewables	1.5	1.8	1.9	1.9	2.0	2.0	2.1	2.1	2.1	2.1	0.6
Total final consumption, by sector	1,441.0	1,501.3	1,463.1	1,434.6	1,480.7	1,503.4	1,496.1	1,502.4	1,515.2	1,569.4	100.0
Industry	249.4	273.9	269.8	272.6	271.0	271.1	266.2	270.5	276.0	281.3	17.9
Transport	566.2	585.0	568.0	560.8	578.6	579.0	601.0	608.0	612.4	619.1	39.4
Residential/Comercial	477.6	488.5	477.8	447.2	482.7	495.1	477.0	470.6	469.5	503.5	32.1
Oil final consumption, by sector	736.8	762.0	721.6	709.2	720.1	725.0	742.0	744.4	753.1	770.4	100.0
Industry	23.8	26.5	20.1	19.8	20.1	17.5	19.2	19.9	20.6	21.8	2.8
Transport	542.8	560.4	540.1	527.5	542.0	542.1	562.5	566.6	571.0	578.1	75.0
Residential/Comercial	37.0	35.8	29.2	24.0	26.0	24.2	26.4	26.0	26.0	27.9	3.6
Natural gas final consumption, by sector	291.1	305.9	306.9	294.8	320.3	335.4	317.5	319.6	326.2	355.0	100.0
Industry	93.6	109.9	111.3	117.0	115.5	120.6	117.9	123.3	126.5	133.2	37.5
Transport	0.7	0.7	0.7	0.7	0.7	0.8	0.9	1.0	1.0	1.1	0.3
Residential/Comercial	182.7	182.1	181.3	162.3	188.9	198.1	181.9	175.2	178.0	198.9	56.0
Refined products consumption	733.9	758.4	719.5	707.1	717.7	722.5	737.7	741.4	750.1	767.3	100.0
Gasoline	376.9	387.0	363.6	359.6	364.8	367.4	377.9	383.3	383.7	383.4	50.0
Diesel	174.5	182.9	180.5	176.7	176.9	183.7	179.5	176.5	178.6	186.7	24.3
Heating Oil	6.5	6.9	4.9	3.3	1.0	0.3	2.9	1.8	1.9	1.8	0.2
Aviation Jet	47.4	48.6	48.6	48.1	49.2	50.4	52.8	54.8	57.1	58.1	7.6
LPG	44.2	46.2	32.3	33.3	38.9	35.6	37.3	35.7	37.3	42.1	5.5
Imports	704.7	709.9	678.4	623.4	573.0	534.6	545.9	581.3	587.6	576.6	100.0
Oil	617.7	623.0	597.9	550.7	506.3	472.4	483.0	511.8	517.3	509.3	88.3
Gas	87.0	86.9	80.6	72.7	66.7	62.3	62.9	69.5	70.3	67.3	11.7
Gasoline	40.5	37.8	34.7	32.8	32.2	30.0	33.3	34.6	31.2	33.2	5.8
Diesel	8.2	8.8	6.8	6.9	8.9	10.6	11.2	8.4	8.6	10.0	1.7
Heating Oil	19.3	21.3	19.3	16.2	13.6	11.2	11.7	11.6	10.7	11.9	2.1
Aviation Jet	2.8	3.9	3.1	3.1	4.4	4.9	6.9	7.6	8.3	6.6	1.1
LPG	1.1	1.4	3.5	3.7	4.2	3.7	4.3	5.0	5.4	5.4	0.9
Exports	124.7	141.0	171.5	181.9	194.4	228.7	256.4	289.8	369.4	459.9	100.0
Oil	100.0	114.9	136.9	144.9	158.3	194.0	216.0	237.2	296.6	377.1	82.0
Gas	24.6	26.1	34.6	37.1	36.0	34.7	40.4	52.7	72.8	82.9	18.0
Gasoline	10.0	15.5	23.7	23.3	23.2	25.3	28.3	35.3	30.9	36.6	8.0
Diesel	29.6	33.2	43.3	50.1	56.3	54.9	58.5	58.7	68.8	64.8	14.1
Heating Oil	22.5	22.6	23.1	20.7	19.4	20.1	17.5	16.3	16.9	17.3	3.8
Aviation Jet	3.9	4.8	5.3	6.6	7.8	8.1	8.3	8.7	9.1	11.0	2.4
LPG	0.0	0.0	0.0	0.0	0.0	17.0	24.4	31.0	36.0	41.0	8.9
CO₂ Emissions (Million tons CO₂)	5,194.6	5,430.3	5,221.5	5,033.2	5,133.4	5,176.4	5,033.9	4,927.4	4,962.9	5,117.8	-
CO₂ Intensity (tCO₂/million \$15ppp)	327.5	333.9	316.0	298.0	298.9	293.8	277.8	267.9	264.0	264.6	-
Final energy intensity (toe/million \$15ppp)	82.6	84.0	80.7	76.8	78.6	77.3	75.1	74.3	73.1	73.5	-
Total energy intensity (toe/million \$15ppp)	136.5	136.4	132.6	127.4	127.9	125.8	121.1	118.1	116.0	116.7	-

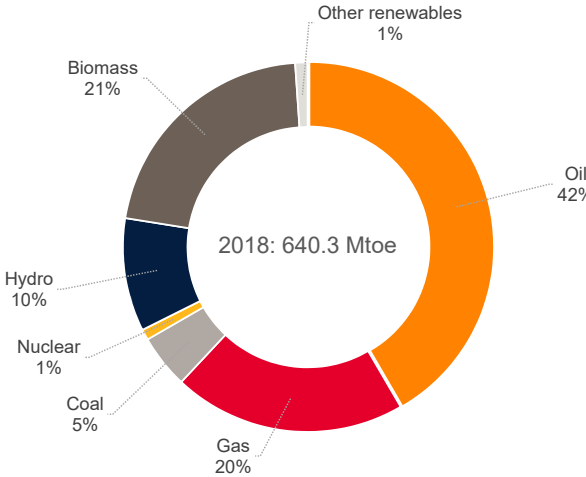
*Heat is included



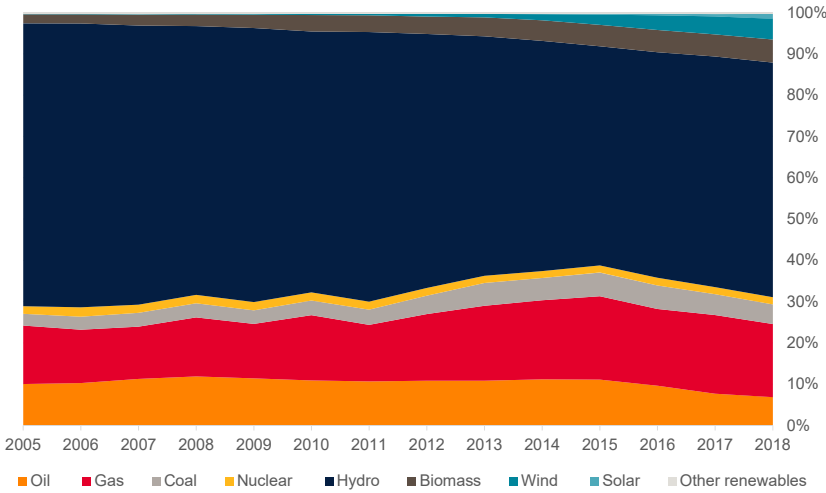
South and Central America (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	562.0	608.9	616.8	639.7	658.4	666.9	660.2	651.7	650.2	640.3	100.0
Oil	249.8	270.2	270.6	283.0	286.9	290.1	279.1	270.4	266.9	264.4	41.3
Gas	110.0	122.9	125.6	132.7	138.8	143.7	143.7	140.8	140.4	129.6	20.2
Coal	20.6	25.6	28.0	28.1	31.9	32.8	33.7	32.5	30.5	29.9	4.7
Nuclear	5.5	5.7	5.7	5.8	5.6	5.5	5.7	6.3	5.7	5.9	0.9
Hydro	59.4	59.7	64.1	62.8	61.6	60.1	57.9	60.0	62.1	63.0	9.8
Biomass	112.8	121.2	119.0	122.7	128.6	128.9	132.9	132.9	134.6	136.0	21.2
Other renewables	0.2	0.3	0.4	0.7	0.9	1.7	2.9	4.3	5.5	6.8	1.1
Electricity balance of trade*	3.6	3.3	3.5	3.8	4.1	4.2	4.2	4.5	4.6	4.7	0.7
Total final consumption, by source	427.8	462.7	471.3	484.4	492.2	498.1	492.4	487.2	491.9	488.2	100.0
Oil	198.0	214.1	221.3	233.3	233.0	238.4	229.3	227.9	230.6	226.3	46.3
Gas	59.5	65.4	61.6	61.1	61.5	60.8	61.2	58.7	57.8	57.0	11.7
Coal	12.0	15.4	17.7	15.8	16.4	16.7	16.4	14.9	14.6	15.0	3.1
Electricity	72.1	76.0	79.3	82.4	86.1	87.0	87.4	87.6	88.4	88.9	18.2
Heat	0.3	0.4	0.4	0.5	0.6	0.7	0.8	0.8	1.0	1.1	0.2
Biomass	85.9	91.4	91.0	91.3	94.6	94.6	97.3	97.2	99.4	99.9	20.5
Electricity generation, by source	89.6	94.5	98.2	102.2	106.3	107.9	109.3	110.0	111.3	111.0	100.0
Oil	10.2	10.3	10.5	11.1	11.5	12.1	12.1	10.6	8.6	7.6	6.9
Gas	11.8	14.9	13.4	16.5	19.3	20.6	22.1	20.4	21.2	19.6	17.7
Coal	2.9	3.4	3.6	4.5	5.9	5.8	6.3	6.3	5.6	5.3	4.8
Nuclear	1.8	1.9	1.9	1.9	1.9	1.8	1.9	2.1	1.9	1.9	1.8
Hydro	59.5	59.7	64.1	62.8	61.6	60.1	58.0	60.0	62.1	63.0	56.8
Biomass	2.9	3.7	4.0	4.3	4.9	5.4	5.7	5.9	6.0	6.2	5.6
Wind	0.2	0.3	0.4	0.7	0.9	1.6	2.7	3.9	4.8	5.6	5.0
Solar	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.4	0.6	1.3	1.2
Other renewables	0.4	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4
Total final consumption, by sector	427.8	462.7	471.3	484.4	492.2	498.1	492.4	487.2	491.9	488.2	100.0
Industry	147.3	162.8	164.0	163.6	165.0	163.3	157.5	154.0	154.8	152.6	31.3
Transport	133.5	144.5	152.0	161.3	162.9	169.4	170.2	169.7	172.3	170.9	35.0
Residential/Comercial	95.2	100.0	101.5	104.4	108.4	108.6	109.5	110.7	110.7	110.7	22.7
Oil final consumption, by sector	198.0	214.1	221.3	233.3	233.0	238.4	229.3	227.9	230.6	226.3	100.0
Industry	33.6	37.6	37.3	38.0	37.6	37.2	32.9	31.2	30.9	31.1	13.8
Transport	114.0	123.4	131.8	141.4	140.8	145.6	143.1	144.3	146.6	142.1	62.8
Residential/Comercial	17.0	17.5	17.4	17.3	17.9	18.0	17.5	18.2	18.1	17.7	7.8
Natural gas final consumption, by sector	59.5	65.4	61.6	61.1	61.5	60.8	61.2	58.7	57.8	57.0	100.0
Industry	29.9	33.8	30.5	29.7	29.2	28.8	28.9	27.0	26.8	26.1	45.8
Transport	5.1	5.2	5.3	5.5	5.7	5.8	5.9	5.7	5.5	5.7	10.0
Residential/Comercial	11.6	12.4	12.7	13.3	13.8	13.5	13.6	14.1	13.5	13.6	23.8
Refined products consumption	197.1	213.0	220.5	232.7	232.7	237.8	228.6	227.5	230.2	225.9	100.0
Gasoline	49.4	54.0	57.4	64.5	62.6	66.2	65.6	66.6	67.6	62.1	27.5
Diesel	79.2	85.2	88.7	91.8	94.9	97.1	94.4	93.3	94.0	94.9	42.0
Heating Oil	11.1	13.3	13.2	13.0	12.5	10.9	8.7	8.3	7.7	7.7	3.4
Aviation Jet	3.9	4.3	4.6	4.8	4.8	5.0	5.1	4.8	4.9	5.2	2.3
LPG	20.0	20.5	20.9	21.9	22.9	23.3	21.4	22.2	22.0	21.3	9.4
Imports	138.0	151.0	160.0	166.7	178.2	176.0	170.7	163.2	164.3	160.9	100.0
Oil	125.7	132.0	139.8	142.4	148.6	145.6	141.5	140.1	141.7	139.6	86.8
Gas	12.3	19.0	20.2	24.3	29.6	30.4	29.2	23.1	22.6	21.3	13.2
Gasoline	8.1	9.7	12.1	14.2	12.9	13.0	14.3	15.7	17.4	16.2	10.1
Diesel	24.2	32.7	32.6	34.6	40.1	39.8	37.0	40.6	42.5	40.5	25.2
Heating Oil	12.1	13.9	14.8	13.7	12.5	12.6	12.4	13.6	13.4	10.9	6.8
Aviation Jet	2.8	3.9	4.0	4.3	4.3	4.3	4.8	4.7	4.2	5.5	3.4
LPG	6.3	6.7	6.8	6.4	7.3	7.7	7.1	7.7	7.9	9.2	5.7
Exports	272.8	274.1	289.6	280.1	279.3	285.0	293.9	277.7	266.8	242.0	100.0
Oil	245.0	243.1	256.0	244.5	240.8	247.8	259.4	245.6	235.7	202.2	83.6
Gas	27.8	31.0	33.6	35.6	38.5	37.2	34.5	32.1	31.0	39.8	16.4
Gasoline	9.8	7.2	7.8	6.9	7.0	6.3	8.1	7.3	6.1	7.3	3.0
Diesel	12.5	7.6	12.0	7.0	5.1	5.5	4.5	4.5	4.1	5.8	2.4
Heating Oil	29.4	25.8	29.9	29.8	28.4	28.0	26.4	28.4	26.7	24.6	10.2
Aviation Jet	6.2	5.1	6.0	5.2	4.6	5.0	4.6	3.6	2.3	3.6	1.5
LPG	5.4	5.1	5.6	5.1	5.0	4.6	2.5	1.8	2.0	2.2	0.9
CO₂ Emissions (Million tons CO₂)	1,028.2	1,105.7	1,125.1	1,188.6	1,219.1	1,253.3	1,234.9	1,201.2	1,171.1	1,141.7	-
CO₂ Intensity (tCO₂/million \$15ppp)	169.6	171.5	166.5	171.4	170.0	173.4	172.4	171.4	165.7	1.7	-
Final energy intensity (toe/million \$15ppp)	70.6	71.8	69.8	69.8	68.6	68.9	68.7	69.5	69.6	68.7	-
Total energy intensity (toe/million \$15ppp)	92.7	94.5	91.3	92.2	91.8	92.3	92.2	93.0	92.0	90.1	-

*Heat is included

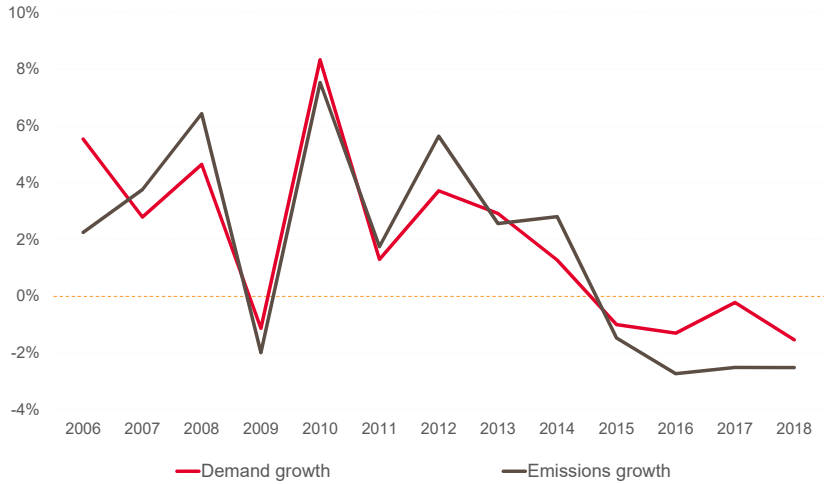
Primary energy demand mix



Electricity generation by source



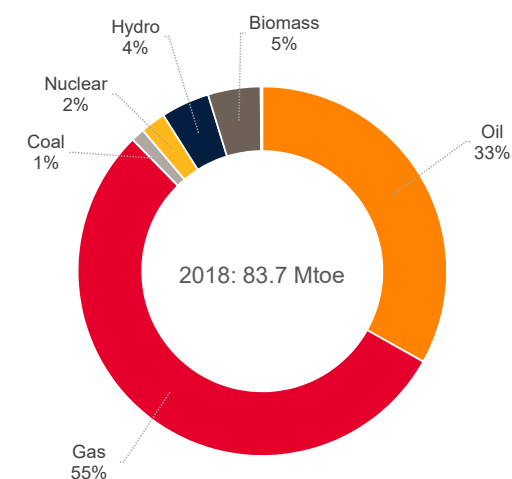
Primary energy demand and CO₂ emissions growth



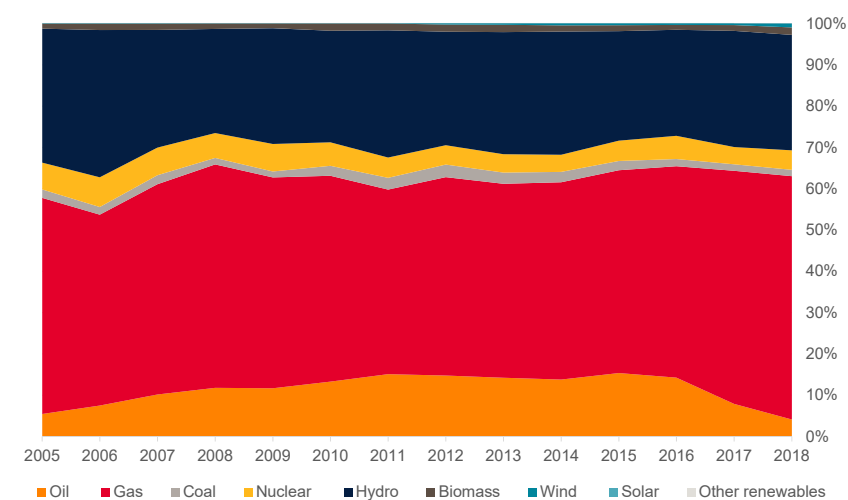
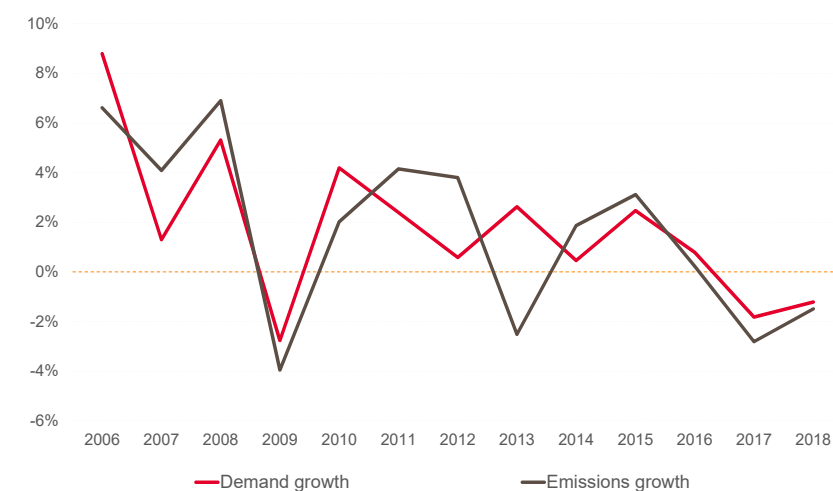
Argentina (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	75.5	78.7	80.6	81.0	83.1	83.5	85.6	86.3	84.7	83.7	100.0
Oil	28.4	31.5	30.0	29.2	30.9	30.8	32.1	31.2	29.2	27.4	32.8
Gas	38.4	38.0	40.4	41.7	41.9	42.2	42.9	44.6	44.7	45.1	53.9
Coal	0.8	1.0	1.2	1.2	1.2	1.1	1.0	0.8	0.9	1.0	1.2
Nuclear	2.1	1.9	1.7	1.7	1.6	1.5	1.9	2.2	1.6	1.8	2.2
Hydro	2.9	2.9	3.4	3.2	3.5	3.5	3.3	3.2	3.5	3.5	4.2
Biomass	2.3	2.8	3.1	3.3	3.3	3.5	3.5	3.4	3.9	3.8	4.6
Other renewables	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.1
Electricity balance of trade*	0.5	0.7	0.8	0.7	0.7	0.8	0.8	0.8	0.9	0.9	1.0
Total final consumption, by source	53.9	56.0	57.6	58.6	59.1	59.9	61.3	61.2	60.9	59.8	100.0
Oil	24.2	24.6	24.7	25.5	25.0	25.3	25.8	25.6	26.5	26.2	43.7
Gas	18.3	19.0	20.0	19.9	20.9	20.6	21.0	21.1	19.8	19.2	32.1
Coal	0.6	0.7	0.8	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.9
Electricity	9.1	9.7	10.0	10.3	10.4	10.9	11.4	11.3	11.1	11.1	18.6
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	1.6	1.9	2.2	2.4	2.3	2.7	2.6	2.7	3.0	2.8	4.6
Electricity generation, by source	10.5	10.8	11.2	11.7	12.0	11.9	12.5	12.7	12.6	12.7	100.0
Oil	1.2	1.4	1.7	1.7	1.7	1.6	1.9	1.8	1.0	0.5	4.1
Gas	5.4	5.4	5.0	5.6	5.6	5.7	6.1	6.5	7.1	7.5	58.9
Coal	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.2	0.2	0.2	1.6
Nuclear	0.7	0.6	0.5	0.5	0.5	0.5	0.6	0.7	0.5	0.6	4.7
Hydro	2.9	2.9	3.4	3.2	3.5	3.6	3.3	3.3	3.6	3.6	28.0
Biomass	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.2	0.2	1.8
Wind	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.9
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Other renewables	0.0	0.0	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	53.9	56.0	57.6	58.6	59.1	59.9	61.3	61.2	60.9	59.8	100.0
Industry	16.4	16.6	16.8	16.3	16.2	17.0	17.0	16.4	16.1	15.3	25.6
Transport	13.2	14.8	17.0	17.0	16.2	16.1	16.8	16.8	17.4	17.5	29.2
Residential/Comercial	15.5	16.4	16.2	17.2	17.9	18.1	18.5	19.2	18.3	18.2	30.4
Oil final consumption, by sector	24.2	24.6	24.7	25.5	25.0	25.3	25.8	25.6	26.5	26.2	100.0
Industry	4.5	4.3	3.8	4.3	3.7	4.1	3.9	3.7	3.6	3.3	12.6
Transport	10.9	11.9	13.8	13.7	12.8	12.5	13.1	13.1	13.8	14.0	53.7
Residential/Comercial	1.9	2.0	1.4	1.5	1.6	1.8	1.8	1.7	1.6	1.6	6.0
Natural gas final consumption, by sector	18.3	19.0	20.0	19.9	20.9	20.6	21.0	21.1	19.8	19.2	100.0
Industry	6.2	6.5	6.9	6.3	6.9	7.0	7.2	6.9	6.6	6.2	32.5
Transport	2.2	2.2	2.3	2.3	2.3	2.4	2.5	2.4	2.1	2.1	10.8
Residential/Comercial	8.2	8.7	9.0	9.5	9.9	9.6	9.7	10.2	9.6	9.5	49.7
Refined products consumption	24.2	24.6	24.7	25.5	25.0	25.3	25.8	25.6	26.5	26.2	100.0
Gasoline	4.4	4.8	5.3	5.7	5.9	5.8	6.0	6.1	6.6	6.6	25.4
Diesel	9.9	10.1	10.9	10.3	9.6	10.0	10.3	10.2	10.5	10.7	40.7
Heating Oil	0.6	0.5	0.2	0.2	0.1	0.4	0.4	0.3	0.1	0.1	0.5
Aviation Jet	0.4	0.4	0.3	0.4	0.5	0.5	0.5	0.6	0.6	0.7	2.7
LPG	1.6	1.8	1.3	1.9	2.0	1.9	1.8	1.9	1.8	1.7	6.4
Imports	4.8	7.5	10.8	12.5	16.3	16.8	16.0	16.0	15.7	13.4	100.0
Oil	2.8	4.5	5.1	4.9	6.7	7.1	6.6	7.3	6.9	6.1	45.6
Gas	2.1	3.0	5.7	7.6	9.6	9.7	9.4	8.7	8.7	7.3	54.4
Gasoline	0.0	0.1	0.1	0.0	0.3	0.3	0.0	0.2	0.3	0.6	4.5
Diesel	1.2	1.3	1.8	1.2	3.8	3.2	3.3	3.6	3.1	3.1	23.4
Heating Oil	0.6	0.7	0.7	0.7	0.3	0.5	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	1.3
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	9.3	6.6	5.8	5.7	3.5	4.1	3.6	3.9	3.1	4.9	100.0
Oil	8.5	6.2	5.7	5.6	3.5	4.0	3.6	3.9	3.1	4.8	98.7
Gas	0.8	0.4	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.3
Gasoline	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.0	0.0	0.1	0.1	0.3	0.1	0.1	0.1	0.4	8.7
Heating Oil	0.4	0.6	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.5
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	1.7	1.3	1.3	1.0	0.8	1.0	0.9	1.0	1.0	1.2	25.3
CO₂ Emissions (Million tons CO₂)	171.1	174.6	181.8	188.7	184.0	187.4	193.2	193.7	188.2	185.4	-
CO₂ Intensity (tCO₂/million \$15ppp)	229.5	212.6	208.8	219.0	208.5	217.8	218.8	224.3	212.0	214.5	-
Final energy intensity (toe/million \$15ppp)	66.0	62.5	61.0	62.3	60.8	64.0	63.8	65.2	62.9	63.7	-
Total energy intensity (toe/million \$15ppp)	101.3	95.8	92.5	94.0	94.2	97.1	96.9	99.9	95.4	96.8	-

*Heat is included

Primary energy demand mix

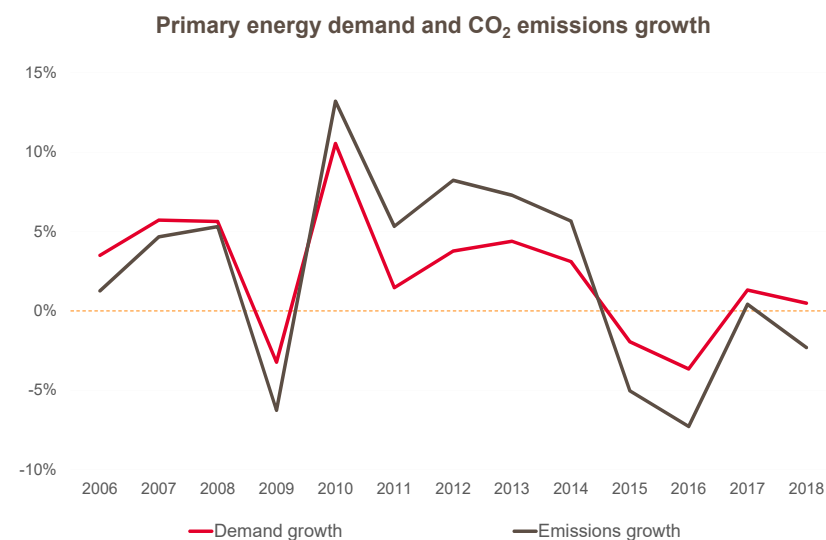
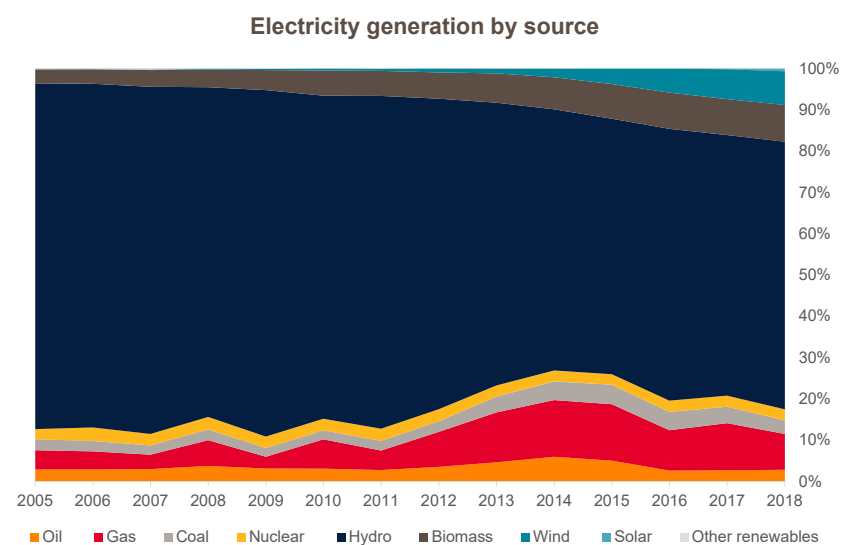
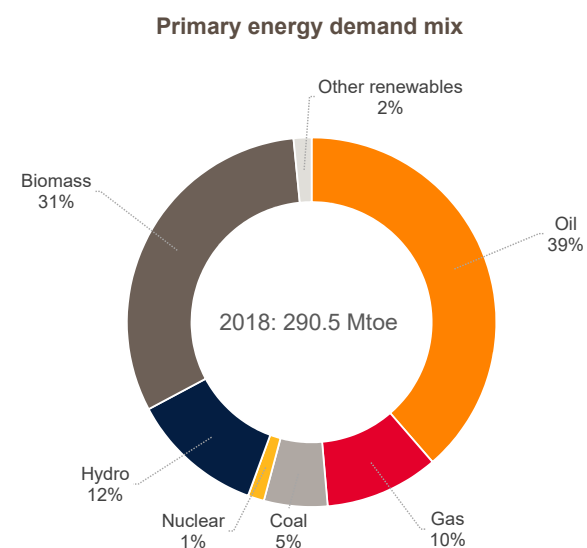


Electricity generation by source

Primary energy demand and CO₂ emissions growth

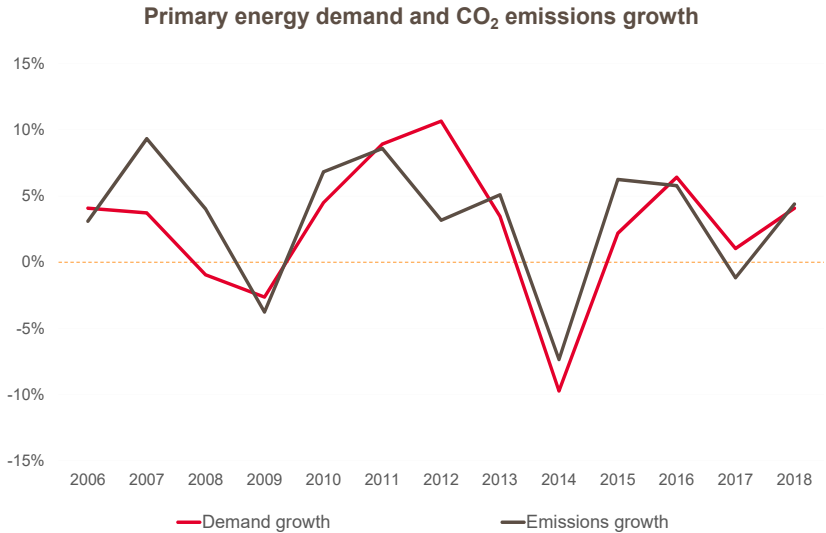
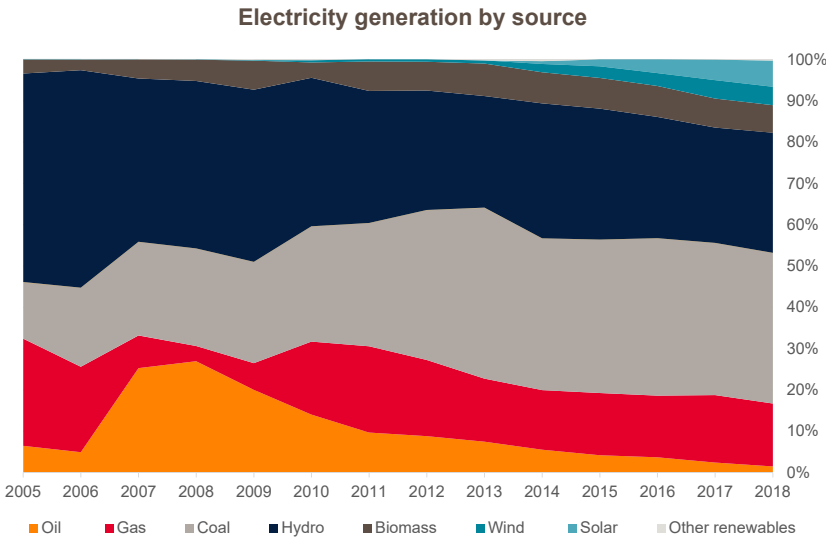
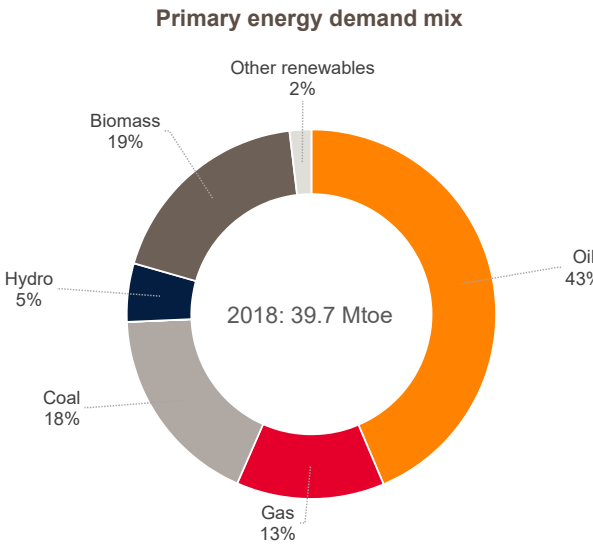
Brazil (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	241.1	266.5	270.4	280.6	292.9	302.0	296.2	285.3	289.1	290.5	100.0
Oil	95.4	104.7	108.9	115.2	120.5	124.6	115.8	109.6	110.6	110.6	38.1
Gas	17.0	23.0	22.9	27.2	32.1	35.4	35.2	29.8	30.6	28.5	9.8
Coal	11.0	14.5	15.4	15.3	16.5	17.5	17.7	15.9	16.6	15.9	5.5
Nuclear	3.4	3.8	4.1	4.2	4.0	4.0	3.8	4.1	4.1	4.1	1.4
Hydro	33.6	34.7	36.8	35.7	33.6	32.1	30.9	32.8	31.9	33.2	11.4
Biomass	76.7	82.2	78.4	78.5	81.5	83.7	87.2	85.8	87.6	89.4	30.8
Other renewables	0.1	0.2	0.2	0.4	0.6	1.1	1.9	2.9	3.7	4.5	1.5
Electricity balance of trade*	3.9	3.4	3.6	4.0	4.1	3.6	3.7	4.4	4.1	4.3	1.5
Total final consumption, by source	194.6	214.9	222.1	228.2	231.6	235.9	231.1	227.4	232.3	233.7	100.0
Oil	85.7	93.9	100.2	105.8	107.8	109.9	103.0	101.3	102.7	101.7	43.5
Gas	9.6	12.3	12.5	12.3	12.1	11.8	12.0	11.6	11.9	11.8	5.1
Coal	7.9	11.1	12.3	11.8	11.4	11.5	11.6	10.1	10.9	11.2	4.8
Electricity	35.0	37.7	39.3	40.6	41.8	43.0	42.2	42.2	42.7	43.5	18.6
Heat	0.3	0.4	0.4	0.5	0.6	0.6	0.7	0.8	0.8	0.9	0.4
Biomass	56.0	59.6	57.5	57.1	57.9	59.0	61.6	61.3	63.3	64.5	27.6
Electricity generation, by source	40.1	44.4	45.7	47.5	49.1	50.8	50.0	49.8	50.6	51.3	100.0
Oil	1.3	1.4	1.3	1.7	2.3	3.0	2.5	1.3	1.4	1.5	2.8
Gas	1.1	3.1	2.2	4.0	5.9	7.0	6.8	4.9	5.8	4.4	8.7
Coal	0.8	1.0	1.1	1.2	1.9	2.3	2.4	2.2	2.0	1.7	3.3
Nuclear	1.1	1.2	1.3	1.4	1.3	1.3	1.3	1.4	1.4	1.3	2.6
Hydro	33.6	34.7	36.8	35.7	33.6	32.1	30.9	32.8	31.9	33.2	64.8
Biomass	1.9	2.7	2.8	3.0	3.5	4.0	4.2	4.4	4.4	4.6	8.9
Wind	0.1	0.2	0.2	0.4	0.6	1.1	1.9	2.9	3.6	4.2	8.1
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.6
Other renewables	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total final consumption, by sector	194.6	214.9	222.1	228.2	231.6	235.9	231.1	227.4	232.3	233.7	100.0
Industry	74.5	83.6	86.9	86.7	85.9	84.8	82.3	81.8	83.8	83.0	35.5
Transport	63.2	70.1	74.3	79.0	83.1	86.1	84.0	82.6	84.8	85.6	36.6
Residential/Commercial	33.4	34.4	34.6	35.7	36.2	38.0	38.2	38.1	38.4	38.9	16.6
Oil final consumption, by sector	85.7	93.9	100.2	105.8	107.8	109.9	103.0	101.3	102.7	101.7	100.0
Industry	12.4	12.0	12.7	12.5	12.7	12.8	11.6	11.1	10.9	11.5	11.3
Transport	47.5	53.7	59.2	64.9	67.0	68.7	63.6	63.8	65.5	63.2	62.1
Residential/Commercial	7.0	7.1	7.2	7.1	7.2	7.3	7.2	7.3	7.3	7.2	7.1
Natural gas final consumption, by sector	9.6	12.3	12.5	12.3	12.1	11.8	12.0	11.6	11.9	11.8	100.0
Industry	6.8	8.8	9.5	9.3	9.2	9.2	9.4	9.0	9.1	8.9	75.1
Transport	1.8	1.7	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.8	15.6
Residential/Commercial	0.4	0.5	0.5	0.5	0.5	0.5	0.4	0.5	0.5	0.5	4.4
Refined products consumption	85.7	93.9	100.2	105.8	107.8	109.9	103.0	101.3	102.7	101.7	100.0
Gasoline	14.7	17.5	20.8	24.4	24.4	25.7	23.3	24.2	24.8	21.6	21.2
Diesel	35.4	38.4	40.4	42.7	45.0	45.6	43.4	42.1	42.6	43.3	42.5
Heating Oil	5.0	4.3	3.9	3.6	3.7	3.8	3.0	2.9	2.7	3.0	3.0
Aviation Jet	2.8	3.2	3.6	3.8	3.6	3.7	3.6	3.3	3.3	3.5	3.5
LPG	7.4	7.7	8.0	8.0	8.2	8.3	8.1	8.2	8.3	8.2	8.0
Imports	39.8	49.9	50.1	53.1	58.0	59.0	52.2	40.3	44.7	43.9	100.0
Oil	32.7	39.3	41.3	42.1	43.8	42.9	36.9	30.6	35.7	35.1	79.9
Gas	7.1	10.5	8.7	11.0	14.1	16.1	15.3	9.8	8.9	8.8	20.1
Gasoline	0.0	0.4	1.7	2.9	1.7	1.6	2.3	2.9	3.5	2.3	5.2
Diesel	3.0	7.6	7.9	8.2	8.5	9.6	5.9	7.2	11.0	9.9	22.5
Heating Oil	0.0	0.2	0.7	0.2	0.1	0.4	0.3	0.1	0.1	0.3	0.7
Aviation Jet	1.0	1.6	1.5	1.5	1.5	1.2	1.1	0.8	0.5	0.7	1.6
LPG	1.6	1.9	2.1	1.7	2.1	2.3	2.0	2.1	2.0	2.7	6.1
Exports	35.0	39.2	37.8	33.8	27.6	33.5	44.1	49.5	59.7	61.2	100.0
Oil	35.0	39.2	37.8	33.8	27.6	33.5	44.1	49.5	59.7	61.2	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	1.9	0.6	0.2	0.1	0.3	0.3	0.5	0.6	0.4	0.9	1.4
Diesel	1.0	0.6	0.5	0.3	0.3	0.3	0.1	0.4	0.3	0.5	0.9
Heating Oil	4.1	4.7	5.1	5.3	5.7	5.1	4.4	3.6	3.9	4.2	6.9
Aviation Jet	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.3	0.5
LPG	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0
CO₂ Emissions (Million tons CO₂)	332.0	375.8	395.8	428.4	459.6	485.6	461.2	427.6	429.4	419.5	-
CO₂ Intensity (tCO₂/million \$15ppp)	117.2	123.4	125.0	132.7	138.2	145.3	143.4	137.9	137.1	132.1	-
Final energy intensity (toe/million \$15ppp)	63.7	65.0	65.0	65.6	64.9	65.9	67.2	68.6	69.4	68.7	-
Total energy intensity (toe/million \$15ppp)	85.1	87.5	85.4	86.9	88.1	90.4	92.1	92.0	92.3	91.5	-

*Heat is included



Chile (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	29.5	30.9	33.6	37.2	38.5	34.7	35.5	37.8	38.2	39.7	100.0
Oil	15.4	15.0	15.8	15.6	15.8	15.4	15.3	16.1	16.7	17.2	43.3
Gas	2.8	4.5	4.6	4.3	4.1	3.6	4.0	4.3	4.5	5.1	12.9
Coal	3.5	4.5	5.4	6.2	6.5	6.1	6.6	7.1	6.9	7.0	17.6
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	2.2	1.9	1.8	1.7	1.7	2.0	2.1	2.0	1.9	2.0	5.1
Biomass	5.5	4.9	5.9	9.4	10.3	7.4	7.3	7.8	7.5	7.4	18.5
Other renewables	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.4	0.6	0.7	1.9
Electricity balance of trade*	0.1	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1	0.3	0.7
Total final consumption, by source	22.7	24.0	25.3	25.2	26.7	24.9	25.0	26.4	26.9	27.7	100.0
Oil	11.6	12.1	12.7	12.6	13.5	13.6	13.8	14.8	15.3	15.7	56.8
Gas	1.5	2.4	2.0	1.4	1.4	1.3	1.5	1.7	1.7	1.9	7.0
Coal	0.4	0.5	0.6	0.4	0.3	0.3	0.3	0.3	0.3	0.3	1.2
Electricity	4.6	4.7	5.0	5.4	5.6	5.8	5.8	6.0	6.0	6.1	22.1
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.3
Biomass	4.5	4.3	5.0	5.4	5.8	3.9	3.6	3.5	3.5	3.5	12.6
Electricity generation, by source	5.2	5.2	5.7	6.0	6.3	6.1	6.5	6.8	6.8	6.9	100.0
Oil	1.0	0.7	0.5	0.5	0.5	0.3	0.3	0.3	0.2	0.1	1.5
Gas	0.3	0.9	1.2	1.1	1.0	0.9	1.0	1.0	1.1	1.1	15.2
Coal	1.3	1.5	1.7	2.2	2.6	2.2	2.4	2.6	2.5	2.5	36.5
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	2.2	1.9	1.8	1.7	1.7	2.0	2.1	2.0	1.9	2.0	29.1
Biomass	0.4	0.2	0.4	0.4	0.5	0.5	0.5	0.5	0.5	0.5	6.7
Wind	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.3	0.3	4.4
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	6.4
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Total final consumption, by sector	22.7	24.0	25.3	25.2	26.7	24.9	25.0	26.4	26.9	27.7	100.0
Industry	8.4	8.8	9.8	9.3	10.0	10.5	10.6	10.7	10.8	11.2	40.4
Transport	6.9	7.1	7.3	7.5	8.2	8.1	8.5	8.9	9.1	9.3	33.5
Residential/Comercial	6.3	6.7	7.2	7.4	7.6	5.5	5.5	6.0	6.2	6.3	22.9
Oil final consumption, by sector	11.6	12.1	12.7	12.6	13.5	13.6	13.8	14.8	15.3	15.7	100.0
Industry	3.2	3.0	3.2	2.9	3.3	3.7	3.9	3.8	4.0	4.2	26.6
Transport	6.8	7.1	7.2	7.4	8.2	8.0	8.4	8.8	9.0	9.2	58.2
Residential/Comercial	1.3	1.4	1.7	1.5	1.4	1.2	1.2	1.6	1.7	1.8	11.4
Natural gas final consumption, by sector	1.5	2.4	2.0	1.4	1.4	1.3	1.5	1.7	1.7	1.9	100.0
Industry	0.2	1.1	1.0	0.6	0.7	0.6	0.8	0.8	0.8	0.9	48.3
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.4
Residential/Comercial	0.5	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7	35.0
Refined products consumption	11.6	12.1	12.7	12.6	13.5	13.6	13.8	14.8	15.3	15.7	100.0
Gasoline	2.7	2.9	2.7	2.8	3.1	3.3	3.3	3.5	3.6	3.7	23.3
Diesel	5.9	5.9	6.7	6.5	7.1	6.8	7.5	8.0	8.2	8.5	54.2
Heating Oil	0.9	1.1	1.1	1.0	1.0	0.9	0.7	0.7	0.7	0.7	4.1
Aviation Jet	0.3	0.4	0.3	0.3	0.3	0.4	0.6	0.5	0.6	0.5	3.1
LPG	1.4	1.3	1.3	1.4	1.4	1.5	1.2	1.4	1.6	1.6	10.2
Imports	18.4	19.0	19.9	19.9	20.6	19.3	19.4	20.7	21.2	21.4	100.0
Oil	17.2	16.0	16.6	16.6	17.3	16.4	16.3	17.1	17.5	17.4	81.4
Gas	1.2	3.0	3.3	3.3	3.3	2.9	3.1	3.7	3.7	4.0	18.6
Gasoline	0.6	0.8	0.7	0.6	0.6	0.5	0.5	0.5	0.6	0.6	2.7
Diesel	4.4	4.7	4.6	5.0	5.1	5.1	5.4	5.8	5.8	5.8	27.1
Heating Oil	0.5	0.4	0.6	0.4	0.1	0.1	0.0	0.0	0.0	0.0	0.2
Aviation Jet	0.2	0.3	0.2	0.5	0.5	0.4	0.5	0.6	0.4	0.4	2.1
LPG	1.0	0.9	0.9	0.9	1.2	1.1	0.9	1.2	1.3	1.3	6.3
Exports	1.1	0.6	0.6	0.9	0.9	0.6	0.5	0.7	0.7	0.3	100.0
Oil	1.1	0.6	0.6	0.9	0.9	0.6	0.5	0.4	0.5	0.3	75.4
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.2	0.1	24.6
Gasoline	0.5	0.2	0.1	0.3	0.2	0.1	0.1	0.0	0.1	0.0	8.7
Diesel	0.5	0.3	0.3	0.4	0.4	0.4	0.1	0.1	0.0	0.1	26.5
Heating Oil	0.1	0.0	0.1	0.1	0.2	0.1	0.3	0.3	0.3	0.1	21.1
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0	8.8
CO ₂ Emissions (Million tons CO ₂)	65.8	70.3	76.3	78.7	82.7	76.6	81.4	86.1	85.1	88.9	-
CO ₂ Intensity (tCO ₂ /million \$15ppp)	209.7	211.6	216.6	212.1	214.3	194.8	202.4	210.8	205.3	206.1	-
Final energy intensity (toe/million \$15ppp)	69.2	69.1	69.8	65.9	67.6	61.6	61.6	63.2	63.5	62.9	-
Total energy intensity (toe/million \$15ppp)	94.2	93.0	95.4	100.3	99.7	88.3	88.3	92.5	92.1	92.2	-

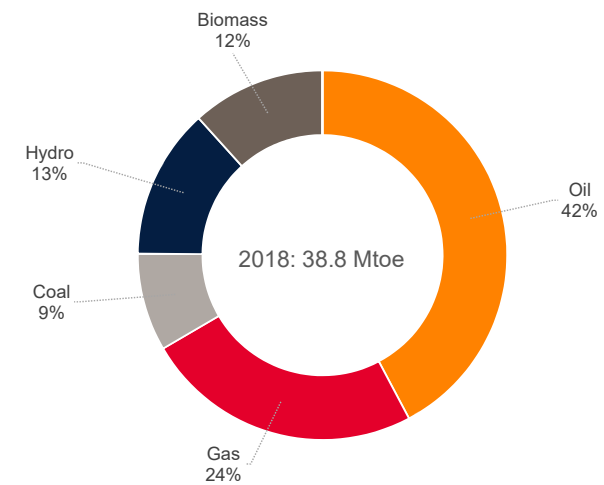
*Heat is included



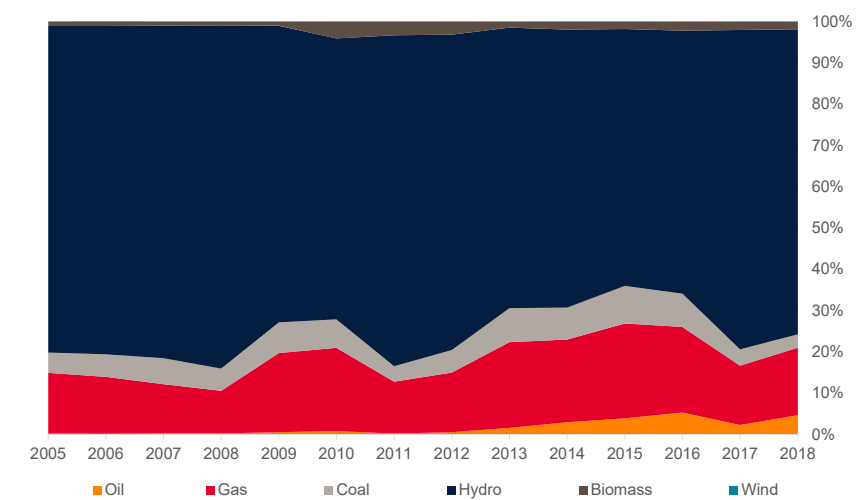
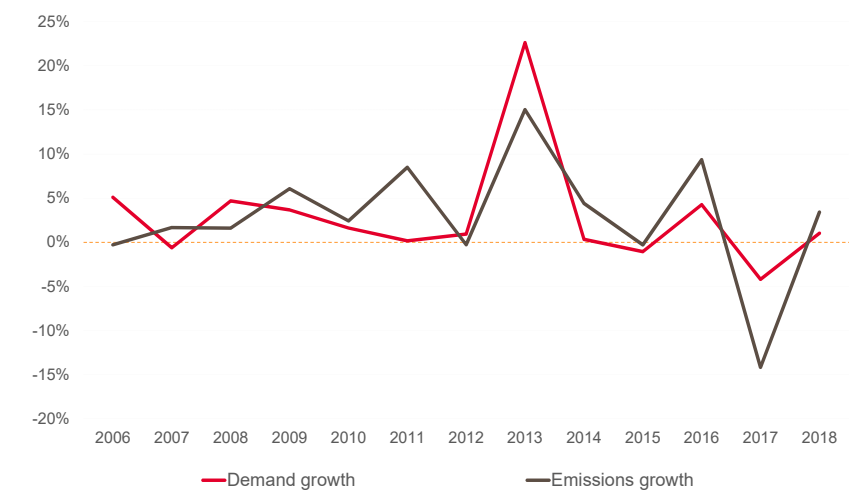
Colombia (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	30.7	31.2	31.3	31.5	38.7	38.8	38.4	40.0	38.4	38.8	100.0
Oil	13.1	12.6	12.6	13.0	14.5	14.1	13.8	15.6	16.2	16.4	42.2
Gas	7.5	8.2	7.6	7.9	9.8	10.3	10.1	9.6	9.1	9.4	24.3
Coal	3.1	3.2	3.5	2.9	4.7	4.8	5.1	5.1	2.9	3.3	8.6
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	3.5	3.5	4.2	4.1	4.3	4.1	4.2	4.2	5.2	5.1	13.2
Biomass	3.5	3.8	3.5	3.7	5.5	5.6	5.4	5.4	5.0	4.5	11.7
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.0	0.0	0.0	0.0	0.0
Total final consumption, by source	22.0	22.4	25.2	24.7	28.4	29.8	29.2	29.8	28.9	28.8	100.0
Oil	9.7	10.1	11.7	12.1	12.0	12.8	12.8	13.3	14.2	14.1	49.0
Gas	3.3	3.6	3.7	3.8	3.7	3.9	3.8	3.7	3.7	3.7	13.0
Coal	1.8	1.6	2.6	1.7	2.7	2.9	2.5	2.7	1.7	1.8	6.1
Electricity	3.9	3.9	4.2	4.2	4.8	5.0	5.1	5.2	5.3	5.5	19.2
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	3.4	3.2	3.0	3.0	5.2	5.2	5.0	5.0	4.0	3.7	12.7
Electricity generation, by source	4.9	5.1	5.2	5.4	6.4	6.1	6.7	6.6	6.7	6.9	100.0
Oil	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.4	0.2	0.3	4.7
Gas	0.9	1.0	0.7	0.8	1.3	1.2	1.5	1.4	1.0	1.1	16.3
Coal	0.4	0.4	0.2	0.3	0.5	0.5	0.6	0.5	0.3	0.2	3.3
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	3.5	3.5	4.2	4.1	4.3	4.1	4.2	4.2	5.2	5.1	73.8
Biomass	0.0	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.1	0.1	1.8
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total final consumption, by sector	22.0	22.4	25.2	24.7	28.4	29.8	29.2	29.8	28.9	28.8	100.0
Industry	6.0	6.0	7.0	6.0	7.0	7.4	7.0	7.3	6.0	6.0	20.9
Transport	7.1	7.4	9.0	9.4	9.2	9.5	10.3	10.7	11.1	11.3	39.1
Residential/Comercial	6.3	6.4	6.5	6.7	8.3	8.5	8.2	8.2	8.0	7.9	27.3
Oil final consumption, by sector	9.7	10.1	11.7	12.1	12.0	12.8	12.8	13.3	14.2	14.1	100.0
Industry	0.4	0.6	0.3	0.4	0.2	0.2	0.2	0.1	0.1	0.1	0.5
Transport	6.6	6.8	8.4	8.9	8.5	8.9	9.6	10.1	10.6	10.8	76.3
Residential/Comercial	0.7	0.8	0.8	0.7	0.5	0.5	0.5	0.5	0.5	0.5	3.3
Natural gas final consumption, by sector	3.3	3.6	3.7	3.8	3.7	3.9	3.8	3.7	3.7	3.7	100.0
Industry	1.7	1.9	2.0	2.0	1.2	1.2	1.1	1.2	1.2	1.2	33.1
Transport	0.5	0.6	0.5	0.5	0.6	0.6	0.6	0.5	0.4	0.5	12.0
Residential/Comercial	1.1	1.1	1.2	1.3	1.3	1.3	1.3	1.3	1.4	1.4	37.9
Refined products consumption	9.5	9.8	11.7	12.1	12.0	12.8	12.8	13.2	14.2	14.1	100.0
Gasoline	2.9	2.9	3.6	3.7	3.9	4.2	4.7	5.2	5.7	5.7	40.6
Diesel	4.7	4.9	6.2	6.5	6.9	7.1	6.6	6.6	6.6	6.9	48.7
Heating Oil	0.0	0.1	0.0	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.6
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.7	0.7	0.7	0.6	0.5	0.6	0.6	0.6	0.5	0.5	3.6
Imports	1.7	2.5	2.7	3.2	4.2	4.5	2.8	4.9	2.8	2.3	100.0
Oil	1.7	2.5	2.7	3.2	4.2	4.5	2.8	4.9	2.8	2.3	99.7
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Gasoline	0.0	0.0	0.3	0.5	0.6	0.6	0.6	1.6	1.5	1.3	54.0
Diesel	1.7	2.4	2.4	2.6	3.6	3.8	2.2	3.1	1.0	0.9	37.2
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.3
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.2	0.1	5.7
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	2.5
Exports	23.8	30.5	37.9	39.0	39.9	46.0	43.8	36.2	36.2	34.6	100.0
Oil	22.4	29.3	36.4	37.5	38.3	45.2	43.6	36.2	36.2	34.6	100.0
Gas	1.4	1.2	1.6	1.4	1.6	0.8	0.3	0.0	0.0	0.0	0.0
Gasoline	0.4	0.6	0.6	0.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.3	0.8	0.8	0.7	0.7	0.0	0.0	0.7	0.9	1.0	2.8
Heating Oil	3.2	3.3	3.8	3.8	3.7	3.6	2.4	2.7	2.4	2.6	7.4
Aviation Jet	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.1	0.0	0.0	0.1
CO₂ Emissions (Million tons CO₂)	59.4	60.8	66.0	65.8	75.7	79.0	78.8	86.2	74.0	76.5	-
CO₂ Intensity (tCO₂/million \$15ppp)	115.8	114.1	116.1	111.3	122.1	122.1	118.1	126.7	106.9	107.5	-
Final energy intensity (toe/million \$15ppp)	40.8	40.1	42.5	40.3	45.1	44.9	42.7	42.7	40.3	39.3	-
Total energy intensity (toe/million \$15ppp)	59.9	58.5	55.0	53.4	62.4	60.0	57.6	58.9	55.4	54.5	-

*Heat is included

Primary energy demand mix



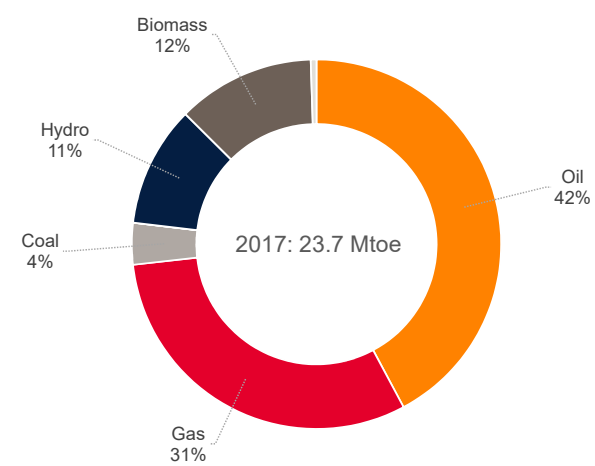
Electricity generation by source

Primary energy demand and CO₂ emissions growth

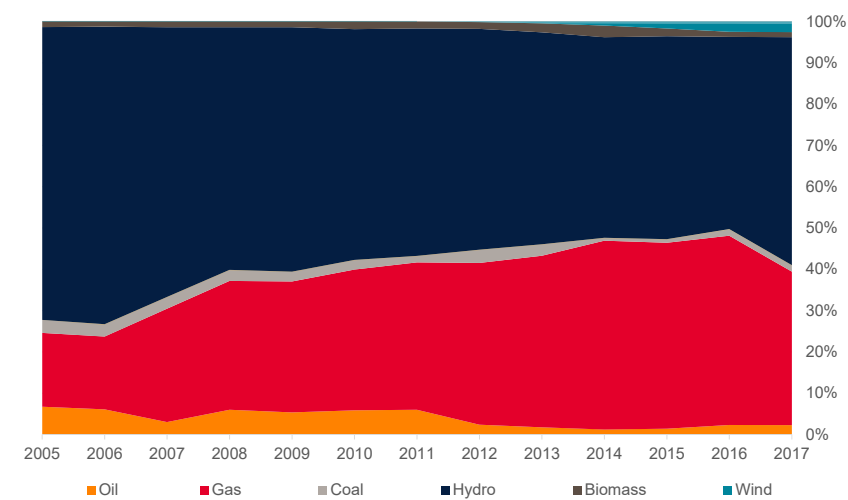
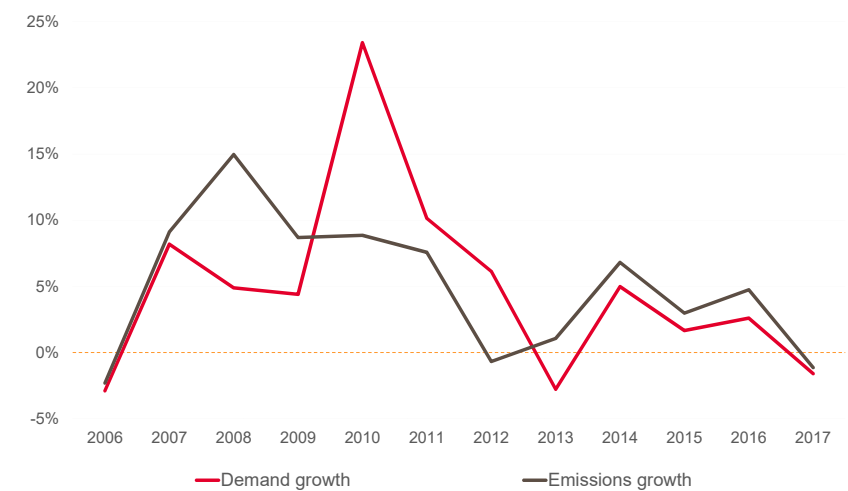
Peru (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	15.7	19.4	21.3	22.7	22.0	23.1	23.5	24.1	23.7	n.d.	100.0
Oil	6.6	8.1	9.3	10.3	9.9	9.4	9.8	9.9	10.0	n.d.	n.d.
Gas	4.1	5.5	6.5	6.8	6.4	8.0	7.9	8.3	7.4	n.d.	n.d.
Coal	0.8	0.9	0.7	0.8	0.9	0.8	0.8	0.9	0.9	n.d.	n.d.
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Hydro	1.7	1.7	1.9	1.8	1.9	1.9	2.0	2.1	2.5	n.d.	n.d.
Biomass	2.5	3.1	3.1	2.9	2.9	2.9	2.8	2.9	2.9	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	n.d.	n.d.
Electricity balance of trade*	0.0	-0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Total final consumption, by source	14.0	14.9	15.5	16.1	16.9	16.8	17.8	18.3	18.4	n.d.	100.0
Oil	7.6	7.6	7.8	8.3	8.5	8.4	9.0	9.2	9.3	n.d.	n.d.
Gas	0.9	1.1	1.4	1.4	2.0	1.9	1.9	1.9	1.9	n.d.	n.d.
Coal	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.6	0.6	n.d.	n.d.
Electricity	2.6	2.7	2.9	3.1	3.3	3.4	3.6	3.9	4.0	n.d.	n.d.
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Biomass	2.3	2.8	2.8	2.6	2.5	2.4	2.5	2.6	2.6	n.d.	n.d.
Electricity generation, by source	2.8	3.1	3.4	3.4	3.7	3.9	4.1	4.5	4.5	n.d.	100.0
Oil	0.2	0.2	0.2	0.1	0.1	0.0	0.1	0.1	0.1	n.d.	n.d.
Gas	0.9	1.1	1.2	1.3	1.6	1.8	1.9	2.0	1.7	n.d.	n.d.
Coal	0.1	0.1	0.1	0.1	0.1	0.0	0.0	0.1	0.1	n.d.	n.d.
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Hydro	1.7	1.7	1.9	1.8	1.9	1.9	2.0	2.1	2.5	n.d.	n.d.
Biomass	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	n.d.	n.d.
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	n.d.	n.d.
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Total final consumption, by sector	14.0	14.9	15.5	16.1	16.9	16.8	17.8	18.3	18.4	n.d.	100.0
Industry	4.1	3.9	4.2	4.2	4.7	4.7	5.0	4.9	4.9	n.d.	n.d.
Transport	5.1	5.6	5.9	6.2	6.6	6.7	7.3	7.9	8.0	n.d.	n.d.
Residential/Comercial	4.1	4.7	4.7	4.5	4.7	4.7	4.8	4.8	4.9	n.d.	n.d.
Oil final consumption, by sector	7.6	7.6	7.8	8.3	8.5	8.4	9.0	9.2	9.3	n.d.	100.0
Industry	1.6	1.2	1.2	1.2	1.3	1.2	1.2	0.9	0.9	n.d.	n.d.
Transport	4.8	5.1	5.3	5.3	5.7	5.7	6.3	6.9	7.0	n.d.	n.d.
Residential/Comercial	0.8	0.8	0.9	0.9	1.0	1.0	1.1	1.1	1.2	n.d.	n.d.
Natural gas final consumption, by sector	0.9	1.1	1.4	1.4	2.0	1.9	1.9	1.9	1.9	n.d.	100.0
Industry	0.6	0.7	0.8	0.8	1.2	1.0	1.1	1.1	1.1	n.d.	n.d.
Transport	0.3	0.4	0.4	0.6	0.6	0.6	0.6	0.6	0.6	n.d.	n.d.
Residential/Comercial	0.0	0.1	0.2	0.1	0.2	0.2	0.2	0.1	0.1	n.d.	n.d.
Refined products consumption	7.6	7.6	7.8	8.3	8.5	8.4	9.0	9.2	9.3	n.d.	100.0
Gasoline	1.2	1.3	1.3	1.3	1.4	1.5	1.6	1.8	1.9	n.d.	n.d.
Diesel	4.0	4.3	4.5	4.5	4.7	4.6	5.1	5.2	5.1	n.d.	n.d.
Heating Oil	0.9	0.2	0.3	0.2	0.2	0.1	0.1	0.1	0.1	n.d.	n.d.
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
LPG	1.1	1.3	1.4	1.5	1.7	1.7	1.8	1.9	1.9	n.d.	n.d.
Imports	6.2	6.7	7.1	7.3	7.4	6.9	7.6	9.3	9.7	n.d.	100.0
Oil	6.2	6.7	7.1	7.3	7.4	6.9	7.6	9.3	9.7	n.d.	n.d.
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Gasoline	0.1	0.2	0.4	0.2	0.4	0.1	0.2	0.0	0.0	n.d.	n.d.
Diesel	0.9	1.4	1.6	1.7	2.4	2.4	2.7	3.6	3.3	n.d.	n.d.
Heating Oil	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Aviation Jet	0.0	0.0	0.1	0.1	0.1	0.2	0.4	0.3	0.4	n.d.	n.d.
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	n.d.	n.d.
Exports	4.2	7.1	9.7	10.4	10.8	9.1	8.2	9.9	10.3	n.d.	100.0
Oil	4.2	5.0	4.3	5.2	4.8	4.0	3.4	4.1	4.8	n.d.	n.d.
Gas	0.0	2.1	5.3	5.2	6.0	5.1	4.8	5.8	5.5	n.d.	n.d.
Gasoline	1.6	1.8	1.6	1.9	2.0	1.6	1.6	1.7	1.8	n.d.	n.d.
Diesel	0.1	0.1	0.1	0.0	0.1	0.0	0.0	0.4	0.6	n.d.	n.d.
Heating Oil	0.9	1.2	1.1	1.6	1.2	0.8	0.7	1.2	1.7	n.d.	n.d.
Aviation Jet	0.4	0.5	0.5	0.6	0.6	0.8	0.6	0.7	0.7	n.d.	n.d.
LPG	0.3	0.4	0.2	0.1	0.3	0.0	0.0	0.0	0.0	n.d.	n.d.
CO₂ Emissions (Million tons CO₂)	37.9	41.2	44.3	44.0	44.5	47.5	49.0	51.3	50.7	n.d.	-
CO₂ Intensity (tCO₂/million \$15ppp)	131.7	132.4	133.9	125.3	119.6	124.9	124.5	125.6	121.2	n.d.	-
Final energy intensity (toe/million \$15ppp)	47.6	46.7	46.0	43.7	44.3	43.2	44.5	44.3	43.5	n.d.	-
Total energy intensity (toe/million \$15ppp)	54.6	62.2	64.5	64.5	59.2	60.7	59.8	59.1	56.7	n.d.	-

*Heat is included

Primary energy demand mix



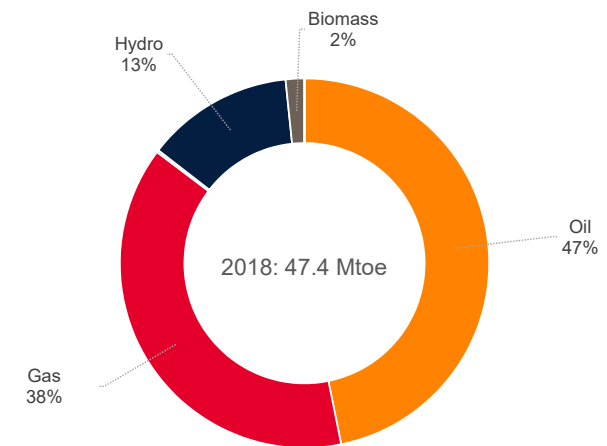
Electricity generation by source

Primary energy demand and CO₂ emissions growth

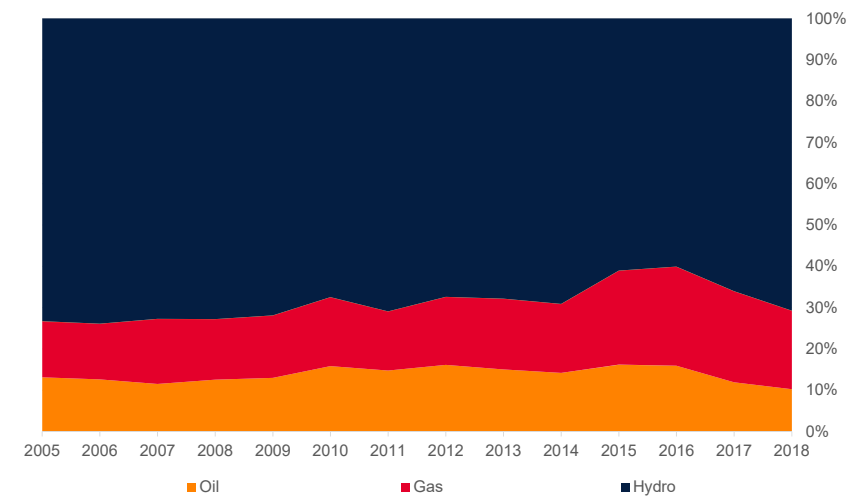
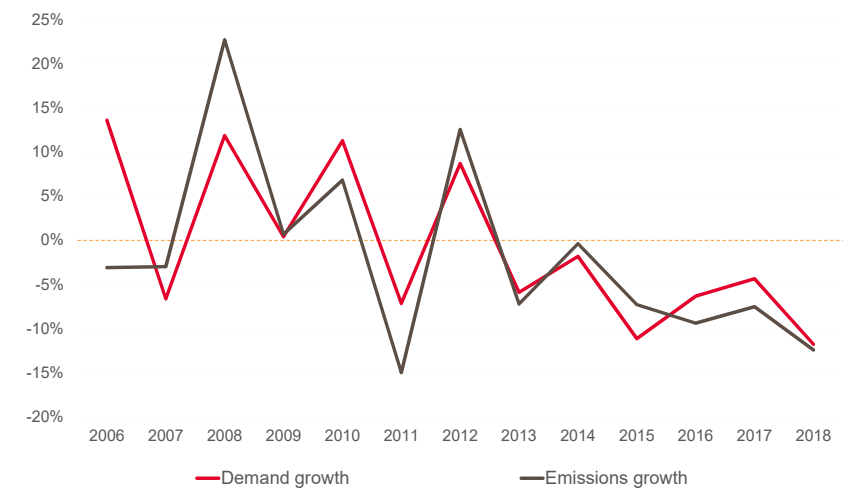
Venezuela (Million toe)	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	Share 2018 (%)
Total primary energy demand, by source	65.0	72.4	67.2	73.0	68.7	67.5	60.0	56.2	53.7	47.4	100.0
Oil	37.5	44.0	38.1	43.2	39.3	38.7	32.4	28.2	25.2	22.2	46.8
Gas	19.1	20.8	20.9	21.7	21.2	20.4	20.3	21.3	20.9	18.2	38.5
Coal	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.2
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	7.4	6.6	7.2	7.1	7.2	7.5	6.4	5.8	6.7	6.1	12.9
Biomass	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.8	0.8	1.6
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Electricity balance of trade*	-0.0	-0.0	0.0	0.0	0.1	-0.0	-0.1	0.0	-0.0	0.0	0.0
Total final consumption, by source	43.4	49.1	42.5	46.8	43.8	43.0	37.5	32.7	30.8	28.0	100.0
Oil	22.2	27.5	25.3	29.3	26.3	27.8	22.2	19.9	17.6	15.9	56.5
Gas	13.2	13.6	8.9	9.0	8.2	7.6	7.9	6.2	6.1	6.0	21.3
Coal	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.1	0.3
Electricity	7.0	7.0	7.3	7.6	8.4	6.7	6.5	5.8	6.2	5.3	19.0
Heat	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Biomass	0.8	0.8	0.8	0.8	0.8	0.7	0.8	0.7	0.8	0.8	2.8
Electricity generation, by source	10.3	9.8	10.1	10.5	10.6	10.8	10.6	9.7	10.2	8.6	100.0
Oil	1.3	1.5	1.5	1.7	1.6	1.5	1.7	1.5	1.2	0.9	10.2
Gas	1.6	1.6	1.5	1.7	1.8	1.8	2.4	2.3	2.2	1.6	19.0
Coal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Nuclear	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Hydro	7.4	6.6	7.2	7.1	7.2	7.5	6.4	5.8	6.7	6.1	70.8
Biomass	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Wind	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Solar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Other renewables	0.0	0.0	0.0	0.0	0.0	0.0	-0.0	-0.0	-0.0	0.0	0.0
Total final consumption, by sector	43.4	49.1	42.5	46.8	43.8	43.0	37.5	32.7	30.8	28.0	100.0
Industry	19.8	25.0	20.1	20.8	20.7	18.2	14.8	12.5	12.6	11.9	42.6
Transport	15.9	16.4	14.7	18.0	15.0	17.0	15.5	13.6	11.5	10.1	36.1
Residential/Comercial	6.7	6.7	6.7	7.0	7.0	6.8	6.3	5.8	5.8	5.2	18.6
Oil final consumption, by sector	22.2	27.5	25.3	29.3	26.3	27.8	22.2	19.9	17.6	15.9	100.0
Industry	4.1	8.9	8.2	8.8	8.6	8.1	4.7	4.4	4.4	4.1	26.1
Transport	15.8	16.4	14.6	17.9	15.0	17.0	15.4	13.6	11.5	10.1	63.7
Residential/Comercial	1.3	1.3	1.5	1.6	1.7	1.7	1.2	1.1	1.0	0.9	5.6
Natural gas final consumption, by sector	13.2	13.6	8.9	9.0	8.2	7.6	7.9	6.2	6.1	6.0	100.0
Industry	12.0	12.3	8.0	8.0	7.2	6.6	6.8	5.1	5.1	5.0	83.1
Transport	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Residential/Comercial	1.2	1.2	0.9	1.0	1.0	1.0	1.2	1.0	1.0	1.0	16.8
Refined products consumption	22.2	27.5	25.3	29.3	26.3	27.8	22.2	19.9	17.6	15.9	100.0
Gasoline	12.8	13.4	11.5	14.1	11.4	12.8	12.5	10.9	9.4	8.3	52.2
Diesel	4.7	6.5	4.9	6.1	5.7	6.7	4.6	4.1	3.2	2.8	17.9
Heating Oil	0.2	3.2	3.9	3.8	3.6	2.6	1.0	0.9	0.8	0.7	4.5
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	3.6	3.5	4.1	4.2	4.5	4.6	3.2	3.1	2.7	2.4	15.1
Imports	1.4	2.6	1.6	3.3	3.8	0.7	1.4	1.4	1.5	1.4	100.0
Oil	0.0	1.0	0.0	1.9	2.2	0.0	1.1	1.4	1.5	1.4	100.0
Gas	1.4	1.7	1.6	1.4	1.6	0.7	0.3	0.0	0.0	0.0	0.0
Gasoline	0.0	0.0	0.0	0.4	0.3	0.0	0.0	0.0	0.0	0.0	0.0
Diesel	0.0	0.8	0.0	1.4	1.9	0.0	1.1	1.4	1.5	1.4	100.0
Heating Oil	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Aviation Jet	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LPG	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Exports	133.0	126.2	131.0	122.0	123.7	117.5	122.7	112.0	94.7	63.7	100.0
Oil	133.0	126.2	131.0	122.0	123.7	117.5	122.7	112.0	94.7	63.7	100.0
Gas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline	0.8	0.5	1.3	0.4	0.4	0.5	1.6	0.7	0.6	0.3	0.5
Diesel	7.3	3.5	7.1	2.5	0.5	1.3	0.8	0.0	0.0	0.0	0.0
Heating Oil	10.9	9.1	11.2	10.7	8.9	10.4	11.0	12.6	10.2	8.7	13.6
Aviation Jet	3.9	3.1	3.6	3.0	2.3	2.5	2.3	1.4	0.4	0.3	0.5
LPG	1.8	1.7	2.5	2.7	2.3	2.2	0.2	0.0	0.0	0.0	0.0
CO₂ Emissions (Million tons CO₂)	160.8	171.7	146.0	164.3	152.5	151.9	140.8	127.6	117.9	103.3	-
CO₂ Intensity (tCO₂/million \$15ppp)	309.7	335.8	274.0	292.0	267.3	277.1	273.9	297.0	319.4	341.1	-
Final energy intensity (toe/million \$15ppp)	81.8	94.2	78.0	81.3	75.1	76.7	71.2	74.4	81.2	90.2	-
Total energy intensity (toe/million \$15ppp)	125.3	141.5	126.1	129.8	120.5	123.1	116.7	130.8	145.5	156.5	-

*Heat is included

Primary energy demand mix



Electricity generation by source

Primary energy demand and CO₂ emissions growth

Conversion factors

Crude oil					
To convert to:	tonnes	10^3 litres	barrels	U.S. gallons	tonnes/year
Multiply by:					
tonnes	1.00	1.17	7.33	307.86	—
10^3 litres	0.86	1.00	6.29	264.17	—
barrels	0.14	0.16	1.00	42.00	—
U.S. gallons	0.00	0.00	0.02	1.00	—
barrels per day	—	—	—	—	49.80

Note: based on worldwide average gravity.

Products				
To convert to:	barrels to tonnes	tonnes to barrels	10^3 litres to tonnes	tonnes to 10^3 litres
Multiply by:				
Liquefied petroleum gas (LPG)	0.1	11.5	0.5	1.8
Gasoline	0.1	8.3	0.8	1.3
Kerosene	0.1	7.8	0.8	1.2
Gas oil/Diesel	0.1	7.6	0.8	1.2
Fuel Oil	0.2	6.6	1.0	1.0
Product basket	0.1	8.7	0.7	1.4

Note: Approximate conversion factors.

Natural Gas an Liquefied Natural Gas (LNG)					
To convert to:	Bcm NG	Bcf NG	Million toe	Million ton. LNG	Million boe
Multiply by:					
Bcm NG	1.0	35.3	0.9	0.7	6.6
Bcf NG	0.0	1.0	0.0	0.0	0.2
Million toe	1.1	39.2	1.0	0.8	7.3
Million ton. LNG	1.4	48.0	1.2	1.0	9.0
Million boe	0.2	5.4	0.1	0.1	1.0

Note:
Bcm = billion cubic meter
Bcf = billion cubic feet
toe = tonnes oil equivalent
boe = barrels oil equivalent

Glossary

Definitions

Primary Energy Demand

Quantity of natural energy resources consumed in original state, at the site of production or elsewhere, or for later transformation into other forms.

Final Energy Consumption

Difference between domestic demand and the consumption in energy transformations, and the losses involved. Final consumption measures the needs of the final consumers of the country. For oil, marine and aviation bunkers are excluded for countries.

Industry

Includes the mining sector, manufacturing sector, construction and public works sector. It excludes the fuel consumption of all modes of transport, even those used by industry, and excludes energy products employed for non-energy uses (e.g. raw materials, lubricants). It also excludes the fuel input for autoproduction and includes the autoproduced electricity.

Transport

Includes all modes of transportation (ISIC Divisions 49 to 51), regardless of to whom they belong, and to what purpose the transport serves. Aviation and marine bunkers (international aviation and sea transport) are excluded, except at the world level.

Residential/Commercial

Final consumption of energy products used for energy uses, excluding industry, transport, and agriculture sectors. ISIC Divisions 33, 36-39, 45-47, 53, 55, 56, 58-66, 68-75, 77-82, 84 [excluding class 8422], 85-88, 90-96 and 99 [for tertiary], and 97 and 98 [for residential].

CO2 Emissions

Emissions from combustion of mainly fossil fuels, estimated using the IPCC Reference Approach.

CO2 Intensity

Amount of CO2 emitted to produce one unit of Gross Domestic Product (GDP). In this publication it is measured in terms of purchasing power parity (ppp).

Primary Energy Intensity

Primary energy consumption necessary to produce one unit of Gross Domestic Product (GDP). Non-energy uses are excluded. In this publication it is measured in terms of purchasing power parities (ppp).

Final Energy Intensity

Final energy consumption necessary to produce one unit of Gross Domestic Product (GDP). Non-energy uses are excluded. In this publication it is measured in terms of purchasing power parities (ppp).

Geographical grouping

European Union (UE28)

Austria, Belgium, Bulgaria, Croatia, Republic of Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden and United Kingdom.

OECD

Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Latvia, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

OPEC

Algeria, Angola, Ecuador, Equatorial Guinea, Gabon, Iran, Iraq, Kuwait, Libya, Nigeria, Republic of the Congo, Saudi Arabia, United Arab Emirates and Venezuela.

MORE INFORMATION

Contact

For any query related to the content of this document,
please contact Repsol's Economic Research Department:
serviciodeestudiosrepsol@repsol.com

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