**REPSOL**

**Annual**
Energy-Statistics
2020

Economic Research Department

# Annual / Energy-Statistics 2020

Economic Research Department

# About this statistical data book

This publication has been prepared by the Economic Research Department of Repsol with the aim to provide a tool that will aid objective analysis, discussion and debate on energy markets. In this regard, the Energy Statistical Yearbook is available for access, both in Spanish and English, on the official Repsol website (repsol.com), and where it can also be downloaded in PDF and Excel formats. Further, this space provides interactive charts that may be viewed using Power BI.

The Energy Statistical Yearbook is an energy database with special emphasis on both the oil and natural gas sectors, as well as on electricity generation and sustainability indicators. It contains historical data relating to 50 countries and 10 geographical regions between 2005[1] and 2019 (the latest estimations). It represents the situation of the world energy sector covering more than 90% of global energy consumption.

With regard to the content and structure of the publication, the first section contains a brief analysis of the most important factors in the recent evolution of the international oil and gas sectors, the energy sector in Spain and $CO_2$ emissions on a global and regional scale.

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.

- $CO_2$ Emissions: emissions from fossil fuel combustion, intensity to GDP and emissions per capita.

- Primary Energy Intensity to GDP.

Finally, the Yearbook contains a dashboard for each region and country within the main magnitudes. Here you can find data on primary and final energy demand by both sources and sectors; total power generation and breakdown of sources; hydrocarbon consumption and foreign trade; and sustainability indicators.

In terms of methodology, estimations have been carried out using the most recent available data from various official sources (e.g. governmental, 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).

1 For visualization purposes, this document only represents the years from 2010 onwards. You can find the whole period in the downloadable Excel file (https://www.repsol.com/en/energy-and-innovation/energy-yearbook/index.cshtml).

# Contents

# Recent developments
in the oil sector

**Brent Crude oil averaged US$ 64/bl in 2019, a 10% reduction compared to 2018, following three differentiated dynamics.**

The first dynamic, describing an upward trend, started in January with prices hovering around US$ 53/bl and kept increasing to US$ 75/bl by mid-May. One of the key drivers that supported this rally was the decision from the OPEC+ in December 2018 to extend for six more months the supply cut agreement of 1.2 mb/d, in place since January 2017. Additionally, geopolitical situation in Venezuela and Iran got worse adding stress to global markets. From the demand side, consumption growth remained healthy during the first six months of the year.

The second dynamic saw oil prices falling more than 25% from US$ 75/bl by mid-May to US$ 55/bl by early August. The China-US trade disputes and the expectations of a global economic slowdown weighed on oil prices, even with the OPEC+ agreeing in July 2019 an extension of production cuts until March 2020.

The third dynamic reversed the previous one and took Brent prices from US$ 55/bl to US$ 68/bl by year-end. Three events outstood over others: 1) the upsurge of China-US tensions; 2) the attacks on September 14th on two Saudi Aramco facilities, taking almost 6 mb/d out of the market; and 3) the US Federal Reserve (FED) cutting interest rates for the first time in a decade, favoring the appreciation of emerging economies currencies against the US dollar.

In 2019, crude oil price registered a spread of US$ 25 between minimum and maximum. In 2020 this spread reached US$ 49. Last year, maximum price was registered on January 6th when Brent closed at US$ 69/bl. Thereafter, prices were closely linked to the development of the COVID-19 that came into scene in December 2019 in Wuhan, China's Hubei province. The impact on oil market had historic proportions with oil prices describing ups and downs typical of a roller coaster. Two periods can be identified.

The first ran from the beginning of the year until the end of April, with prices going from US$ 68/bl at the beginning of January to US$ 19/bl on April 21st. On the demand side, mobility restrictions and confinements adopted to fight the pandemic caused the largest drop in oil demand since reliable records are available. Jet kerosene was the petroleum product most severely impacted by the pandemic, followed by gasoline and diesel.

On the supply side, on March 8th, Saudi Arabia started a war price in response to Russia's refusal to reduce its production to support prices. The next day, Brent and WTI prices plummeted 24% and 25%, respectively.

Because of the previous two, an unprecedented event occurred on April 20th when WTI price closed below US$ -37/bbl. The collapse of the demand for crude oil and the excess supply, together with the particularities of the WTI futures contract and other financial factors, pushed the storage capacity at the physical delivery point to the limit, having to pay to get rid of a barrel of crude oil.

The second period, from the end of April to the end of the year, reversed the downward trend and registered a gradual recovery in crude prices, albeit with ups and downs. At the end of April, the OPEC+ agreed to a historic cut of 9.7 mb/d that began in May. This upward trend came to a halt in summer due to the increase in COVID-19 cases and, consequently, to the mobility restriction measures implemented, stabilizing prices between US$ 40 and US$ 45/bl from July to November.

In mid-November, the results of the efficacy of the COVID-19 vaccine from Pfizer and BioNTech helped Brent's barrel to exceed the US$ 45/bl range, reaching US$ 52/bl on December 18th. All this, despite the increase in infections, especially in Europe and the US.

Brent crude oil average price in 2020 was US$ 43.2/bl, a 33% drop compared to 2019.

# Recent developments in the natural gas sector

**In 2019, natural gas market registered a slowdown in demand growth after two years of very positive dynamic. By sector, the main contributor to consumption was the power sector, thanks to the switch coal-to-gas.**

On the supply side, production growth was robust exceeding demand rates, driven by supply from the U.S. This supply-demand unbalance led to very high inventory levels, not only in the U.S. but also in Europe, which became the main recipient of liquefied natural gas (LNG) given the weakness in Asia demand.

Natural gas market was also affected by the U.S.-China trade war, through tariffs affecting exports. However, the expansion of global gas markets continued thanks to global LNG, which grew by 12% in 2019, record year for investment in export projects with 95 bcm/y of new capacity signed.

In this scenario of oversupply, global gas prices fell significantly during 2019, but in relative terms, gas indexed to oil prices performed better thanks to long-term contracts. However, in Europe, prices plummeted at lows not seen since 2004.

The unbalance got even worse with the irruption of COVID-19 in China at the end of 2019 and its global expansion in 2020. The measures taken to constrain the virus and the collapse in crude oil prices in April 2020, put extra pressure on gas prices taking them to historic record lows in May.

By region, Asian demand was relatively stable but European consumption was most affected due to the oversupply inherited from 2019. Despite this, gas demand found support in two facts that prevented a major contraction. On one hand, the power sector consumption remained stable in almost all regions. On the other hand, global LNG imports kept growing but at a slower rate than in 2019. Asian LNG demand grew by 4% compared to 2019, driven by Chinese demand. Other Asian countries with high sensitivity to gas prices also increased their imports, taking advantage of low spot prices. Liquefaction capacity grew by 5% in 2020 as new plants became online, mainly in the US.

In terms of supply, global natural gas production declined in response to low prices, particularly in North America, where production fell around -50 Bcm from levels of 1,161 Bcm averaged in 2019.

A global price recovery started last October, hand in hand with the significant increase in seasonal Asian demand and influenced by supply interruptions suffered in key regions such as Australia. Prices rose significantly with Asian and European prices reaching record highs, not seen since 2018 when another cold wave hit the Asian continent. Regarding to Henry Hub, the increase was only moderate.

On average, major gas price indicators fell more than 20% below 2019 prices in 2020.

Currently, the COVID-19 remains active, creating high uncertainty in market and accelerating the energy transition in key countries for natural gas demand. The speed and effectiveness of vaccination process will mark the short-term future of the global gas market.

# Recent developments
# in the Spanish energy sector

**During 2019, there was a spectacular increase in the demand for natural gas, with most of this growth oriented to electricity generation. In 2020, higher prices and lower industrial consumption led to a contraction in gas demand, in the absence of definitive data, of more than 10%.**

In the case of petroleum products, during 2019 the growth of automotive gasoline sales continued (almost 6%) to the detriment of diesel, which showed a subtle contraction, in line with the higher sales of gasoline-powered cars. Aviation kerosene also showed robust growth, although less than in previous years. In 2020 the picture completely changed, and mobility fuels were strongly affected by traffic restrictions. Among them the most affected were kerosene, given the drastic reduction in the airline sector, whose demand contracted, in the absence of definitive data, by more than 60% compared to the previous year. Gasolines also suffered a more than 20% contraction in consumption, while diesel fell, although at a slightly slower rate (around 15%).

Focus attention on power market in Spain, the year 2019 was characterized by the sharp drop in prices and the entry of new renewable generation capacity.

Related to the wholesale market prices, these continue to be defined by gas prices, which is why they fell sharply in the second half of the year to record the lowest prices in a second half since 2009.

The reduction of the price of gas as a raw material also led to a much higher use of combined cycle plants, which almost doubled their weight in the generation structure compared to the previous year. On the contrary, the renewable generation of the mix was reduced by more than two percentage points (to 38.9%) due to a much lower production of the hydroelectric plants compared to 2018 (consequence of a year with lower rainfall).

Regarding the generation capacity, the closure of non-renewable capacity was more than offset by the entry of renewables (more than 15 times the closed capacity). This massive entry of capacity was a consequence not only of the reduction in the costs of these new technologies, but also of the contractual obligation to enter into operation before the end of the year those that were auctioned in 2017, under penalty of losing the guarantees that had been deposited. Hence, photovoltaic solar practically doubled the capacity it had in the previous year, and wind power increased almost 10%.

With this new capacity, the renewable generation park exceeded non-renewable capacity for the first time.

On the demand side, it contracted by 1.6% during 2019, which represents the first contraction in demand in the last five years. This decrease was mainly due to lower industrial consumption.

Comparing to the rest of the European markets, despite the fact that the price reduction in the Iberian market was one of the largest in the entire continent, prices in the continent's reference markets were much lower than in Spain, and while in France or Germany averaged € 39.4 and € 37.7 / MWh respectively, in Spain the average was € 47.7 / MWh, although this figure was below the British and Italian markets.

During 2020, the market experienced a drastic change with the arrival of COVID-19. The confinements affected reducing demand and consequently prices, especially with a very depressed gas market for the same reasons. But both the consumers sectors and profile of demand changed: while residential contracts increased their demand for landfills, commercial customers plummeted. This effect was much higher in Spain and Europe as a whole because their economies are more oriented to the service sector, while other economies more oriented to industrial production registered a much lower fall in electricity demand.

As a result of all this, the average price of electricity in Spain in 2020 was the lowest in the last 15 years, and it was also possible to cover more than 45% of the demand with renewable sources, almost 7 percentage points more than in 2019.

# Recent developments in CO$_2$ emissions

**$CO_2$ emissions in 2019 fell very slightly compared to the previous year (just 0.2%). China continues to be the largest carbon emitter, followed far behind by the United States and the European Union.**

Of the large emitters, the most developed countries managed to reduce their emissions in 2019, starting with the EU (-4%), Japan (-3.4%) and the US (-2.4%), while the developing most emitters increased those emissions (China +2.8%, Russia +1.7%) with the exception of India, where they fell just over 1%.

The picture is very different if emissions are analyzed over GDP, that is, the emissions intensity. In this way, it is observed that the EU is the most efficient with its emissions, well below others large emitters. Within the EU, Spain is almost 10% below the average emissions per dollar of GDP. It should be noted that in practically all the countries this indicator has improved in recent years, indicating that emission reduction measures are not negatively affecting the world economy growth.

Although there are still no reliable data on emissions in 2020, the first indicators seem to show a reduction in emissions due to the economic impact of the COVID pandemic and the different confinements and mobility restrictions in most countries. These provisional data indicate a 5% drop in emissions, with all the main emitters reducing their emissions, and with China as the country with the smallest reduction (-0.5%) due to the fact that its industrial emissions have increased around the 2%.

In the case of Spain, preliminary data indicate that it would be the country with the greatest reduction in emissions, reducing by more than 14%. It should be noted that in the Spanish case a very significant part of the reduction in emissions has come from the hand of the electricity sector, and it has not only been due to the contraction of electricity demand, but also due to the closure of most of the generation capacity with coal.

# Statistical annex

Oil

| Oil Proved Reserves *(Thousand million barrels)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **221.5** | **225.3** | **229.3** | **232.6** | **237.9** | **227.5** | **227.7** | **229.0** | **245.5** | **244.4** |
| Canada | 174.8 | 174.2 | 173.7 | 173.0 | 172.2 | 171.5 | 170.5 | 172.6 | 170.8 | 169.7 |
| Mexico | 11.7 | 11.4 | 11.4 | 11.1 | 10.8 | 8.0 | 7.2 | 6.4 | 5.8 | 5.8 |
| United States | 35.0 | 39.8 | 44.2 | 48.5 | 55.0 | 48.0 | 50.0 | 49.9 | 68.9 | 68.9 |
| **South and Central America** | **320.1** | **321.7** | **322.3** | **323.7** | **325.5** | **322.8** | **322.7** | **329.1** | **324.7** | **324.1** |
| Argentina | 2.5 | 2.5 | 2.4 | 2.3 | 2.4 | 2.4 | 2.2 | 2.0 | 2.4 | 2.4 |
| Brazil | 14.2 | 15.0 | 15.3 | 15.6 | 16.2 | 13.0 | 12.6 | 12.8 | 13.4 | 12.7 |
| Chile | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Colombia | 1.9 | 2.0 | 2.2 | 2.4 | 2.4 | 2.3 | 2.0 | 1.7 | 1.8 | 2.0 |
| Peru | 1.2 | 1.2 | 1.4 | 1.6 | 1.4 | 1.2 | 1.2 | 1.0 | 0.9 | 0.9 |
| Trinidad & Tobago | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.2 | 0.2 | 0.2 | 0.2 |
| Venezuela | 296.5 | 297.6 | 297.7 | 298.4 | 300.0 | 300.9 | 302.3 | 302.8 | 303.8 | 303.8 |
| Other | 2.8 | 2.5 | 2.4 | 2.5 | 2.3 | 2.2 | 2.1 | 8.5 | 2.0 | 2.0 |
| **Europe** | **13.6** | **13.9** | **14.2** | **13.7** | **12.9** | **13.9** | **13.2** | **13.7** | **14.6** | **14.4** |
| 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 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Italy | 0.5 | 0.5 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 |
| Netherlands | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 |
| Norway | 6.8 | 6.9 | 7.5 | 7.0 | 6.5 | 8.0 | 7.6 | 7.9 | 8.6 | 8.5 |
| Poland | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 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 | 0.4 |
| United Kingdom | 2.8 | 3.1 | 3.0 | 3.0 | 3.0 | 2.8 | 2.6 | 2.5 | 2.5 | 2.7 |
| EU | 6.0 | 6.2 | 6.0 | 5.8 | 5.6 | 5.1 | 4.7 | 4.9 | 5.1 | 5.0 |
| Other | 1.7 | 1.5 | 1.4 | 1.3 | 1.1 | 0.9 | 0.8 | 1.3 | 1.4 | 1.2 |
| **Former Soviet Union** | **144.2** | **144.2** | **143.9** | **143.5** | **141.6** | **140.8** | **144.6** | **144.7** | **145.7** | **145.7** |
| 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 | 105.8 | 105.7 | 105.5 | 105.0 | 103.2 | 102.4 | 106.2 | 106.3 | 107.2 | 107.2 |
| 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 | 0.5 | 0.5 |
| **Middle East** | **765.9** | **797.9** | **799.3** | **802.9** | **803.1** | **802.9** | **807.7** | **807.7** | **833.9** | **833.8** |
| Iran | 151.2 | 154.6 | 157.3 | 157.8 | 157.5 | 158.4 | 157.2 | 155.6 | 155.6 | 155.6 |
| Iraq | 115.0 | 143.1 | 141.4 | 140.3 | 144.2 | 143.1 | 142.5 | 148.8 | 147.2 | 145.0 |
| Kuwait | 101.5 | 101.5 | 101.5 | 101.5 | 101.5 | 101.5 | 101.5 | 101.5 | 101.5 | 101.5 |
| Qatar | 24.7 | 23.9 | 25.2 | 25.1 | 25.7 | 25.2 | 25.2 | 25.2 | 25.2 | 25.2 |
| Saudi Arabia | 264.5 | 265.4 | 265.9 | 265.8 | 266.6 | 266.5 | 266.2 | 266.2 | 297.7 | 297.6 |
| 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 | 11.7 | 10.2 | 14.6 | 9.7 | 10.5 | 17.3 | 12.6 | 8.8 | 11.1 |
| **Africa** | **124.9** | **124.6** | **127.4** | **127.5** | **126.8** | **127.6** | **127.9** | **126.6** | **125.7** | **125.7** |
| Algeria | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 | 12.2 |
| Angola | 9.1 | 9.1 | 9.1 | 9.0 | 8.4 | 9.5 | 9.5 | 9.5 | 8.2 | 8.2 |
| Egypt | 4.5 | 4.3 | 4.2 | 3.9 | 3.7 | 3.5 | 3.4 | 3.6 | 3.1 | 3.1 |
| Libya | 47.1 | 48.0 | 48.5 | 48.4 | 48.4 | 48.4 | 48.4 | 48.4 | 48.4 | 48.4 |
| Nigeria | 37.2 | 36.2 | 37.1 | 37.1 | 37.4 | 37.1 | 37.5 | 37.5 | 37.0 | 37.0 |
| Other | 14.9 | 14.8 | 16.3 | 17.0 | 16.6 | 17.0 | 17.0 | 15.4 | 16.9 | 16.9 |
| **Asia-Pacific** | **47.8** | **47.9** | **48.5** | **49.1** | **47.7** | **46.6** | **45.9** | **45.9** | **46.0** | **45.7** |
| Australia | 3.8 | 3.9 | 3.9 | 4.0 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| China | 20.4 | 20.4 | 23.7 | 24.4 | 24.6 | 25.1 | 25.6 | 25.6 | 25.9 | 26.2 |
| India | 5.8 | 5.7 | 5.7 | 5.7 | 5.7 | 4.8 | 4.7 | 4.5 | 4.5 | 4.7 |
| Indonesia | 4.2 | 3.7 | 3.7 | 3.7 | 3.6 | 3.6 | 3.3 | 3.2 | 3.2 | 2.5 |
| Malaysia | 3.6 | 3.7 | 3.7 | 3.8 | 3.6 | 3.0 | 2.8 | 2.8 | 2.8 | 2.8 |
| New Zealand | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| Thailand | 0.4 | 0.5 | 0.4 | 0.5 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 |
| Vietnam | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 | 4.4 |
| Other | 5.0 | 5.5 | 2.8 | 2.6 | 2.8 | 2.8 | 2.3 | 2.5 | 2.5 | 2.5 |
| **OECD** | **237.9** | **242.0** | **246.4** | **249.2** | **252.2** | **242.7** | **242.2** | **255.3** | **261.3** | **260.1** |
| **Non-OECD** | **1,400.2** | **1,433.5** | **1,438.5** | **1,443.8** | **1,443.3** | **1,439.5** | **1,447.6** | **1,441.4** | **1,474.6** | **1,473.7** |
| **OPEC** | **1,139.8** | **1,173.2** | **1,175.0** | **1,180.5** | **1,180.6** | **1,182.6** | **1,189.0** | **1,215.0** | **1,214.8** | **1,214.7** |
| **Non-OPEC** | **498.3** | **502.3** | **510.0** | **512.4** | **514.9** | **499.6** | **500.7** | **481.7** | **521.1** | **519.2** |
| **World** | **1,638.2** | **1,675.5** | **1,685.0** | **1,693.0** | **1,695.5** | **1,682.2** | **1,689.8** | **1,696.7** | **1,735.9** | **1,733.9** |

*Note: Proved reserves of crude and liquids on 31/12. Canadian reserves include oil sands while Venezuelan reserves include extra-heavy oil.*
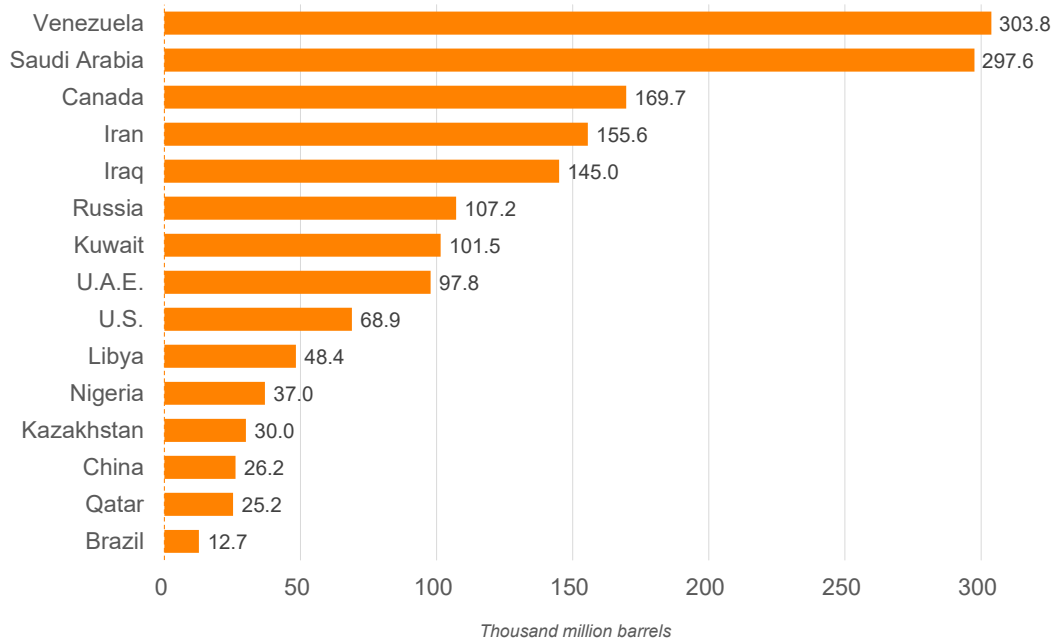
| Oil Production *(Thousand barrels per day)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **14,175** | **14,672** | **15,955** | **17,352** | **19,250** | **20,157** | **19,602** | **20,535** | **23,003** | **24,718** |
| Canada | 3,458 | 3,649 | 3,891 | 4,145 | 4,425 | 4,536 | 4,615 | 4,990 | 5,408 | 5,544 |
| Mexico | 2,959 | 2,943 | 2,920 | 2,890 | 2,799 | 2,597 | 2,474 | 2,237 | 2,084 | 1,932 |
| United States | 7,758 | 8,080 | 9,144 | 10,317 | 12,026 | 13,024 | 12,513 | 13,308 | 15,511 | 17,242 |
| **South and Central America** | **7,374** | **7,502** | **7,466** | **7,489** | **7,710** | **7,845** | **7,529** | **7,269** | **6,641** | **6,322** |
| Argentina | 734 | 674 | 674 | 649 | 659 | 650 | 625 | 595 | 621 | 639 |
| Brazil | 2,152 | 2,211 | 2,167 | 2,133 | 2,367 | 2,547 | 2,628 | 2,755 | 2,713 | 2,897 |
| Chile | 13 | 13 | 11 | 11 | 9 | 6 | 5 | 6 | 9 | 12 |
| Colombia | 788 | 918 | 953 | 1,016 | 997 | 1,014 | 906 | 862 | 873 | 893 |
| Peru | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| Trinidad & Tobago | 15 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 | 16 |
| Venezuela | 2,775 | 2,751 | 2,733 | 2,722 | 2,672 | 2,665 | 2,429 | 2,133 | 1,534 | 982 |
| Other | 897 | 919 | 912 | 942 | 990 | 947 | 920 | 902 | 875 | 882 |
| **Europe** | **4,297** | **3,978** | **3,673** | **3,467** | **3,475** | **3,632** | **3,662** | **3,616** | **3,596** | **3,456** |
| Czech Republic | 5 | 8 | 8 | 5 | 7 | 7 | 5 | 7 | 6 | 6 |
| France | 42 | 49 | 37 | 31 | 28 | 31 | 39 | 36 | 32 | 30 |
| Germany | 76 | 84 | 84 | 76 | 62 | 67 | 68 | 67 | 70 | 62 |
| Italy | 97 | 127 | 138 | 134 | 128 | 131 | 96 | 97 | 110 | 89 |
| Netherlands | 33 | 32 | 30 | 31 | 38 | 36 | 24 | 24 | 23 | 18 |
| Norway | 2,138 | 2,040 | 1,917 | 1,838 | 1,889 | 1,948 | 1,995 | 1,969 | 1,850 | 1,737 |
| Poland | 24 | 25 | 23 | 30 | 29 | 28 | 22 | 24 | 32 | 32 |
| Portugal | 1 | 1 | 0 | 1 | 1 | 0 | 1 | 1 | 1 | 2 |
| Romania | 89 | 88 | 85 | 85 | 83 | 82 | 78 | 75 | 74 | 72 |
| Spain | 12 | 20 | 32 | 10 | 6 | 5 | 3 | 2 | 2 | 1 |
| Turkey | 48 | 46 | 45 | 47 | 48 | 48 | 49 | 49 | 55 | 58 |
| United Kingdom | 1,365 | 1,123 | 955 | 887 | 873 | 972 | 1,026 | 1,009 | 1,108 | 1,134 |
| EU | 4,219 | 3,895 | 3,585 | 3,374 | 3,379 | 3,538 | 3,573 | 3,530 | 3,507 | 3,366 |
| Other | 367 | 335 | 319 | 292 | 283 | 277 | 256 | 256 | 233 | 215 |
| **Former Soviet Union** | **13,527** | **13,573** | **13,599** | **13,833** | **13,896** | **14,036** | **14,205** | **14,314** | **14,573** | **14,643** |
| Azerbaijan | 1,042 | 924 | 879 | 885 | 862 | 849 | 829 | 784 | 793 | 765 |
| Kazakhstan | 1,694 | 1,703 | 1,683 | 1,733 | 1,728 | 1,694 | 1,669 | 1,848 | 1,937 | 1,942 |
| Russia | 10,390 | 10,539 | 10,623 | 10,793 | 10,892 | 11,084 | 11,328 | 11,321 | 11,494 | 11,582 |
| Ukraine | 79 | 69 | 76 | 69 | 61 | 54 | 50 | 49 | 51 | 55 |
| Uzbekistan | 75 | 71 | 63 | 60 | 56 | 52 | 48 | 46 | 43 | 40 |
| Other | 247 | 267 | 275 | 293 | 297 | 303 | 281 | 266 | 255 | 259 |
| **Middle East** | **25,366** | **27,578** | **28,120** | **27,988** | **28,451** | **29,801** | **31,546** | **31,103** | **31,694** | **30,180** |
| Iran | 4,215 | 4,164 | 3,551 | 3,289 | 3,429 | 3,593 | 4,422 | 4,762 | 4,632 | 3,397 |
| Iraq | 2,430 | 2,741 | 3,021 | 3,146 | 3,415 | 4,078 | 4,503 | 4,563 | 4,663 | 4,812 |
| Kuwait | 2,498 | 2,771 | 2,985 | 3,109 | 3,090 | 3,097 | 3,194 | 3,014 | 3,050 | 2,987 |
| Qatar | 871 | 895 | 925 | 955 | 950 | 988 | 1,012 | 978 | 986 | 979 |
| Saudi Arabia | 9,971 | 11,217 | 11,742 | 11,513 | 11,605 | 12,045 | 12,344 | 11,876 | 12,345 | 11,782 |
| United Arab Emirates | 2,831 | 3,204 | 3,355 | 3,478 | 3,552 | 3,762 | 3,848 | 3,740 | 3,801 | 4,009 |
| Other | 2,550 | 2,586 | 2,541 | 2,498 | 2,410 | 2,238 | 2,223 | 2,170 | 2,217 | 2,214 |
| **Africa** | **10,240** | **8,823** | **9,660** | **8,820** | **8,390** | **8,323** | **7,778** | **8,175** | **8,281** | **8,419** |
| Algeria | 1,720 | 1,672 | 1,619 | 1,573 | 1,585 | 1,590 | 1,604 | 1,530 | 1,512 | 1,490 |
| Angola | 1,800 | 1,712 | 1,834 | 1,772 | 1,696 | 1,796 | 1,743 | 1,701 | 1,543 | 1,449 |
| Egypt | 700 | 689 | 694 | 696 | 709 | 696 | 664 | 639 | 649 | 633 |
| Libya | 1,661 | 485 | 1,476 | 953 | 497 | 437 | 426 | 877 | 1,029 | 1,159 |
| Nigeria | 2,535 | 2,490 | 2,482 | 2,293 | 2,330 | 2,246 | 1,928 | 1,986 | 2,030 | 2,123 |
| South Africa | 141 | 120 | 131 | 120 | 103 | 106 | 103 | 101 | 93 | 98 |
| Other | 1,683 | 1,655 | 1,424 | 1,413 | 1,470 | 1,452 | 1,310 | 1,341 | 1,425 | 1,467 |
| **Asia-Pacific** | **8,382** | **8,245** | **8,317** | **8,165** | **8,206** | **8,340** | **8,022** | **7,794** | **7,665** | **7,713** |
| Australia | 549 | 473 | 465 | 393 | 412 | 371 | 345 | 315 | 345 | 460 |
| China | 4,031 | 4,040 | 4,114 | 4,149 | 4,174 | 4,271 | 3,955 | 3,860 | 3,811 | 3,881 |
| India | 880 | 915 | 904 | 883 | 881 | 872 | 852 | 861 | 845 | 803 |
| Indonesia | 991 | 942 | 902 | 861 | 835 | 817 | 866 | 824 | 798 | 771 |
| Japan | 18 | 17 | 16 | 14 | 13 | 12 | 11 | 12 | 10 | 11 |
| Malaysia | 717 | 652 | 657 | 624 | 653 | 701 | 737 | 729 | 723 | 670 |
| New Zealand | 60 | 52 | 47 | 41 | 46 | 48 | 41 | 37 | 30 | 30 |
| South Korea | 21 | 20 | 21 | 19 | 20 | 22 | 24 | 25 | 29 | 28 |
| Thailand | 382 | 407 | 443 | 438 | 436 | 451 | 462 | 455 | 445 | 442 |
| Other | 733 | 727 | 748 | 743 | 736 | 775 | 729 | 676 | 629 | 617 |
| **OPEC** | **33,309** | **34,056** | **35,664** | **34,628** | **34,659** | **36,050** | **37,117** | **36,861** | **36,868** | **34,936** |
| **Non-OPEC** | **53,969** | **54,292** | **55,185** | **56,758** | **59,204** | **60,610** | **59,878** | **60,700** | **63,527** | **65,658** |
| **Global biofuels** | **1,834** | **1,871** | **1,924** | **2,092** | **2,270** | **2,285** | **2,383** | **2,460** | **2,620** | **2,796** |
| **Processing gains** | **2,081** | **2,108** | **2,135** | **2,178** | **2,214** | **2,240** | **2,267** | **2,294** | **2,322** | **2,349** |
| **World** | **87,278** | **88,348** | **90,849** | **91,386** | **93,863** | **96,660** | **96,995** | **97,561** | **100,395** | **100,594** |

*Note: Oil production includes production of crude, condensates and natural gas liquids (NGLs).*

| Oil Final Consumption (Thousand barrels/day) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **23,934** | **23,760** | **23,331** | **23,773** | **23,841** | **24,286** | **24,518** | **24,756** | **25,361** | **25,333** |
| Canada | 2,364 | 2,392 | 2,438 | 2,418 | 2,389 | 2,440 | 2,466 | 2,464 | 2,525 | 2,421 |
| Mexico | 2,094 | 2,120 | 2,102 | 2,090 | 2,040 | 2,006 | 2,053 | 2,019 | 2,019 | 2,049 |
| United States | 19,476 | 19,248 | 18,791 | 19,265 | 19,412 | 19,840 | 19,999 | 20,273 | 20,822 | 20,863 |
| **South and Central America** | **6,379** | **6,528** | **6,745** | **6,937** | **7,068** | **6,972** | **6,781** | **6,724** | **6,602** | **6,577** |
| Argentina | 656 | 663 | 679 | 693 | 688 | 682 | 677 | 666 | 648 | 632 |
| Brazil | 2,774 | 2,869 | 2,975 | 3,125 | 3,257 | 3,191 | 3,004 | 3,043 | 2,976 | 3,045 |
| Chile | 322 | 332 | 332 | 340 | 336 | 331 | 352 | 357 | 363 | 369 |
| Colombia | 271 | 307 | 326 | 324 | 330 | 341 | 375 | 349 | 352 | 360 |
| Peru | 200 | 212 | 219 | 225 | 223 | 235 | 246 | 260 | 265 | 269 |
| Trinidad & Tobago | 43 | 43 | 40 | 44 | 44 | 46 | 47 | 44 | 37 | 37 |
| Venezuela | 788 | 772 | 830 | 828 | 809 | 710 | 629 | 574 | 484 | 359 |
| Other | 1,325 | 1,330 | 1,344 | 1,358 | 1,381 | 1,436 | 1,451 | 1,431 | 1,477 | 1,506 |
| **Europe** | **15,463** | **15,037** | **14,557** | **14,349** | **14,253** | **14,569** | **14,777** | **15,175** | **15,075** | **15,025** |
| Belgium | 653 | 611 | 596 | 615 | 607 | 623 | 632 | 637 | 683 | 665 |
| Czech Republic | 202 | 198 | 195 | 188 | 202 | 196 | 180 | 214 | 217 | 219 |
| Finland | 214 | 208 | 200 | 211 | 207 | 207 | 210 | 208 | 211 | 204 |
| France | 1,817 | 1,824 | 1,789 | 1,764 | 1,745 | 1,746 | 1,707 | 1,736 | 1,688 | 1,690 |
| Germany | 2,467 | 2,392 | 2,389 | 2,435 | 2,374 | 2,368 | 2,383 | 2,450 | 2,333 | 2,362 |
| Italy | 1,544 | 1,494 | 1,370 | 1,260 | 1,266 | 1,274 | 1,237 | 1,244 | 1,272 | 1,205 |
| Netherlands | 985 | 991 | 963 | 940 | 932 | 921 | 937 | 946 | 931 | 899 |
| Norway | 229 | 220 | 215 | 218 | 211 | 215 | 212 | 215 | 222 | 207 |
| Poland | 568 | 558 | 533 | 505 | 504 | 541 | 584 | 658 | 680 | 694 |
| Portugal | 274 | 256 | 230 | 234 | 233 | 237 | 237 | 242 | 232 | 250 |
| Romania | 176 | 184 | 192 | 187 | 190 | 194 | 204 | 217 | 214 | 228 |
| Spain | 1,441 | 1,385 | 1,301 | 1,208 | 1,200 | 1,247 | 1,290 | 1,297 | 1,332 | 1,328 |
| Sweden | 343 | 322 | 309 | 307 | 305 | 302 | 317 | 322 | 292 | 296 |
| Turkey | 675 | 655 | 689 | 747 | 763 | 881 | 942 | 991 | 958 | 991 |
| United Kingdom | 1,624 | 1,582 | 1,534 | 1,512 | 1,560 | 1,518 | 1,596 | 1,625 | 1,608 | 1,568 |
| EU | 14,025 | 13,642 | 13,151 | 12,877 | 12,799 | 12,986 | 13,118 | 13,451 | 13,382 | 13,318 |
| Other | 2,251 | 2,157 | 2,052 | 2,018 | 1,996 | 2,057 | 2,109 | 2,173 | 2,202 | 2,219 |
| **Former Soviet Union** | **3,882** | **4,216** | **4,237** | **4,351** | **4,621** | **4,601** | **4,493** | **4,658** | **4,684** | **4,777** |
| Azerbaijan | 74 | 86 | 90 | 97 | 96 | 96 | 96 | 101 | 99 | 100 |
| Kazakhstan | 233 | 272 | 257 | 348 | 258 | 322 | 349 | 336 | 326 | 332 |
| Russia | 2,828 | 3,094 | 3,082 | 3,151 | 3,529 | 3,480 | 3,313 | 3,499 | 3,498 | 3,578 |
| Ukraine | 293 | 290 | 286 | 274 | 238 | 220 | 244 | 236 | 243 | 246 |
| Uzbekistan | 92 | 83 | 79 | 93 | 85 | 84 | 87 | 88 | 93 | 95 |
| Other | 362 | 391 | 443 | 388 | 415 | 399 | 404 | 398 | 425 | 426 |
| **Middle East** | **7,303** | **7,433** | **7,852** | **8,085** | **8,375** | **8,476** | **8,273** | **8,295** | **8,288** | **8,332** |
| Iran | 1,848 | 1,786 | 1,856 | 2,046 | 2,027 | 2,002 | 1,845 | 1,895 | 1,984 | 1,985 |
| Iraq | 658 | 690 | 785 | 861 | 879 | 802 | 845 | 826 | 878 | 864 |
| Kuwait | 450 | 449 | 461 | 446 | 449 | 445 | 437 | 435 | 434 | 444 |
| Qatar | 172 | 173 | 205 | 204 | 230 | 227 | 222 | 248 | 267 | 271 |
| Saudi Arabia | 2,674 | 2,785 | 2,979 | 2,964 | 3,196 | 3,415 | 3,301 | 3,205 | 3,065 | 3,084 |
| United Arab Emirates | 637 | 674 | 713 | 762 | 770 | 838 | 895 | 923 | 880 | 911 |
| Other | 864 | 876 | 853 | 802 | 824 | 747 | 728 | 763 | 780 | 773 |
| **Africa** | **3,592** | **3,574** | **3,805** | **4,009** | **4,152** | **4,187** | **4,142** | **4,156** | **4,251** | **4,276** |
| Algeria | 351 | 365 | 395 | 417 | 435 | 447 | 430 | 425 | 437 | 444 |
| Angola | 106 | 111 | 120 | 142 | 156 | 154 | 148 | 133 | 132 | 131 |
| Egypt | 763 | 757 | 802 | 788 | 840 | 858 | 829 | 773 | 760 | 725 |
| Libya | 304 | 187 | 262 | 280 | 270 | 228 | 208 | 217 | 227 | 235 |
| Nigeria | 293 | 310 | 337 | 414 | 454 | 415 | 427 | 431 | 457 | 504 |
| South Africa | 587 | 626 | 604 | 630 | 620 | 640 | 607 | 642 | 656 | 668 |
| Other | 1,188 | 1,218 | 1,285 | 1,338 | 1,377 | 1,445 | 1,493 | 1,535 | 1,582 | 1,569 |
| **Asia-Pacific** | **27,783** | **28,579** | **29,750** | **30,453** | **30,986** | **32,317** | **33,165** | **34,327** | **34,981** | **35,812** |
| Australia | 1,045 | 1,098 | 1,127 | 1,139 | 1,128 | 1,123 | 1,117 | 1,170 | 1,186 | 1,175 |
| China | 9,031 | 9,408 | 9,803 | 10,373 | 10,785 | 11,566 | 11,953 | 12,485 | 12,997 | 13,703 |
| India | 3,361 | 3,475 | 3,660 | 3,725 | 3,898 | 4,279 | 4,510 | 4,753 | 4,964 | 5,114 |
| Indonesia | 1,407 | 1,594 | 1,748 | 1,736 | 1,763 | 1,657 | 1,640 | 1,701 | 1,824 | 1,965 |
| Japan | 4,402 | 4,413 | 4,675 | 4,517 | 4,282 | 4,163 | 4,030 | 3,932 | 3,786 | 3,652 |
| Malaysia | 586 | 636 | 613 | 714 | 732 | 688 | 708 | 731 | 713 | 754 |
| New Zealand | 153 | 153 | 152 | 155 | 157 | 161 | 168 | 177 | 180 | 181 |
| South Korea | 2,269 | 2,259 | 2,322 | 2,328 | 2,348 | 2,473 | 2,605 | 2,630 | 2,567 | 2,546 |
| Taiwan | 1,034 | 955 | 946 | 979 | 1,019 | 1,043 | 1,048 | 1,035 | 1,038 | 987 |
| Thailand | 1,128 | 1,180 | 1,248 | 1,336 | 1,349 | 1,362 | 1,392 | 1,417 | 1,456 | 1,483 |
| Other | 3,367 | 3,408 | 3,456 | 3,451 | 3,525 | 3,802 | 3,994 | 4,296 | 4,270 | 4,252 |
| **OECD** | **47,139** | **46,600** | **46,107** | **46,162** | **45,886** | **46,633** | **47,065** | **47,675** | **47,994** | **47,746** |
| **Non-OECD** | **41,197** | **42,529** | **44,170** | **45,795** | **47,410** | **48,776** | **49,085** | **50,418** | **51,248** | **52,386** |
| **World** | **88,336** | **89,129** | **90,277** | **91,957** | **93,296** | **95,409** | **96,150** | **98,093** | **99,242** | **100,132** |

*Note: Liquids final consumption including bunker fuel.*

## Top 15 Countries - Oil Proved Reserves, 2019

| Country | Value |
|---|---|
| Venezuela | 303.8 |
| Saudi Arabia | 297.6 |
| Canada | 169.7 |
| Iran | 155.6 |
| Iraq | 145.0 |
| Russia | 107.2 |
| Kuwait | 101.5 |
| U.A.E. | 97.8 |
| U.S. | 68.9 |
| Libya | 48.4 |
| Nigeria | 37.0 |
| Kazakhstan | 30.0 |
| China | 26.2 |
| Qatar | 25.2 |
| Brazil | 12.7 |

*Thousand million barrels*

## Top 15 Countries - Oil Production, 2019

| Country | Value |
|---|---|
| U.S. | 17.2 |
| Saudi Arabia | 11.8 |
| Russia | 11.6 |
| Canada | 5.5 |
| Iraq | 4.8 |
| U.A.E. | 4.0 |
| China | 3.9 |
| Iran | 3.4 |
| Kuwait | 3.0 |
| Brazil | 2.9 |
| Nigeria | 2.1 |
| Kazakhstan | 1.9 |
| Mexico | 1.9 |
| Norway | 1.7 |
| Algeria | 1.5 |

*Million barrels per day*
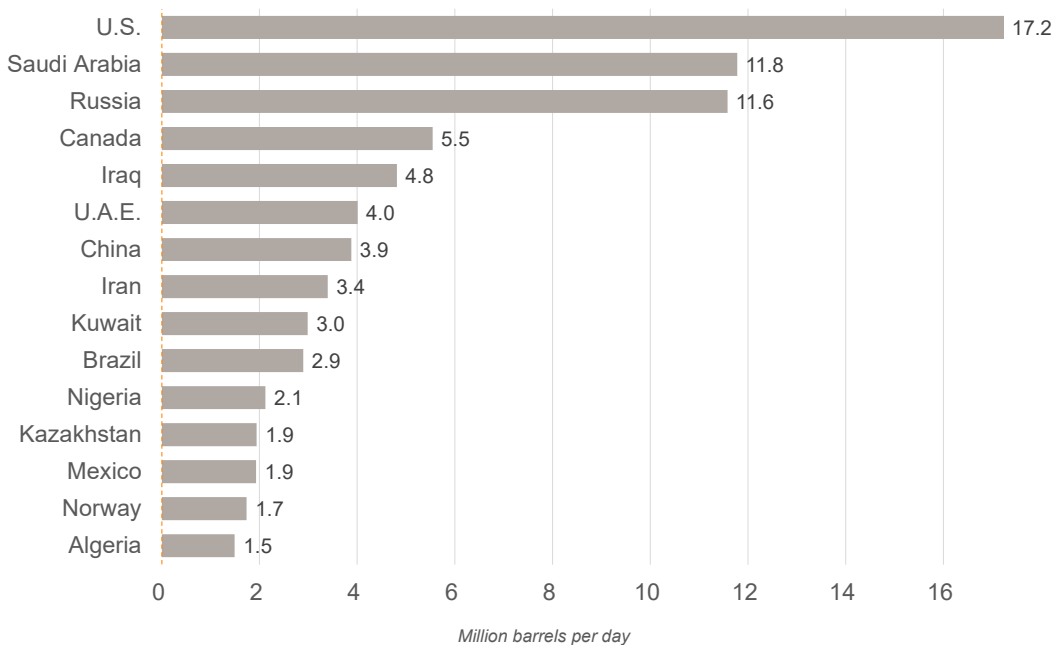
**Top 15 Countries - Oil Final Consumption, 2019**

| Country | Million barrels per day |
|---|---|
| U.S. | 20.9 |
| China | 13.7 |
| India | 5.1 |
| Japan | 3.7 |
| Russia | 3.6 |
| Saudi Arabia | 3.1 |
| Brazil | 3.0 |
| South Korea | 2.5 |
| Canada | 2.4 |
| Germany | 2.4 |
| Mexico | 2.0 |
| Iran | 2.0 |
| Indonesia | 2.0 |
| France | 1.7 |
| U.K. | 1.6 |

*Million barrels per day*
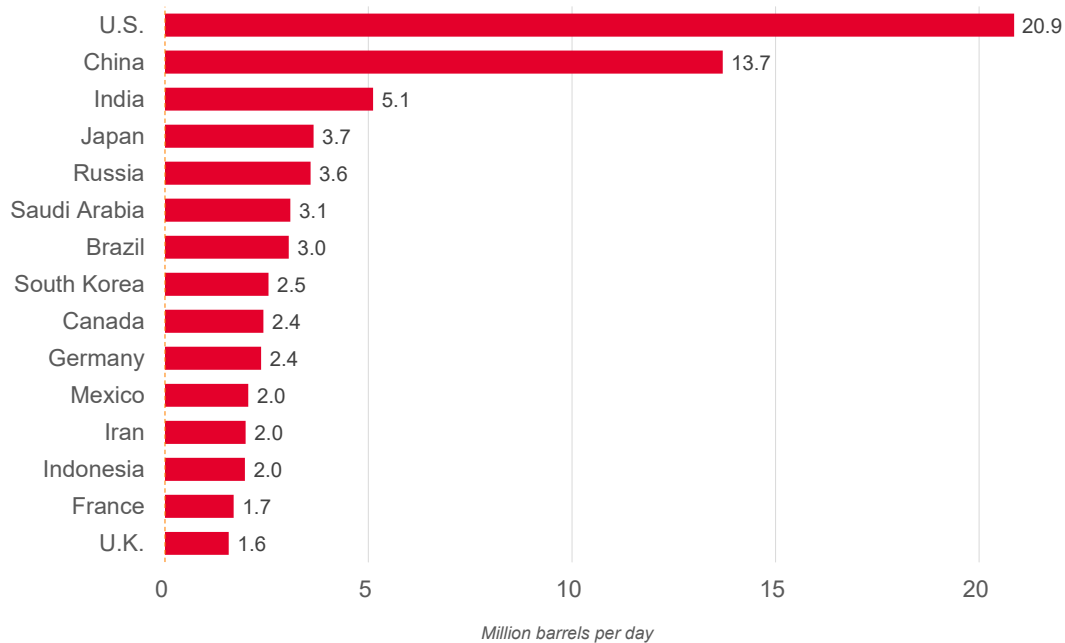
# Natural Gas

| Natural Gas Proved Reserves (Tcm) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **10.5** | **11.2** | **10.6** | **11.4** | **12.2** | **10.7** | **10.9** | **14.1** | **15.0** | **15.0** |
| Canada | 1.9 | 1.8 | 1.9 | 1.9 | 1.9 | 2.1 | 2.0 | 2.0 | 1.9 | 2.0 |
| Mexico | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| United States | 8.3 | 9.1 | 8.4 | 9.2 | 10.0 | 8.3 | 8.7 | 11.9 | 12.9 | 12.9 |
| **South and Central America** | **8.1** | **8.1** | **8.3** | **8.2** | **8.2** | **8.3** | **8.3** | **8.1** | **8.0** | **8.0** |
| Argentina | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 |
| Brazil | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 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 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Peru | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 |
| Trinidad & Tobago | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| Venezuela | 6.1 | 6.1 | 6.2 | 6.2 | 6.2 | 6.3 | 6.4 | 6.3 | 6.3 | 6.3 |
| Other | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 |
| **Europa** | **4.4** | **3.9** | **3.6** | **3.5** | **3.3** | **3.2** | **3.0** | **2.9** | **2.4** | **2.3** |
| 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Italy | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Netherlands | 1.2 | 1.1 | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.6 | 0.2 | 0.2 |
| Norway | 2.0 | 2.1 | 2.1 | 2.0 | 1.9 | 1.8 | 1.8 | 1.7 | 1.6 | 1.5 |
| Poland | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Romania | 0.6 | 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 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| EU | 2.3 | 1.8 | 1.5 | 1.4 | 1.3 | 1.3 | 1.2 | 1.2 | 0.7 | 0.7 |
| Other | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 |
| **Former Soviet Union** | **50.5** | **59.0** | **59.6** | **59.8** | **60.3** | **60.1** | **60.6** | **64.0** | **64.6** | **65.3** |
| Azerbaijan | 1.0 | 1.0 | 1.0 | 1.0 | 1.3 | 1.3 | 1.3 | 1.3 | 2.1 | 2.8 |
| Kazakhstan | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.7 | 2.7 | 2.7 | 2.7 |
| Russia | 34.1 | 34.5 | 34.6 | 34.9 | 35.0 | 35.0 | 34.8 | 38.3 | 38.0 | 38.0 |
| Turkmenistan | 11.3 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 | 19.5 |
| Ukraine | 0.7 | 0.7 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.0 | 1.1 | 1.1 |
| Uzbekistan | 1.3 | 1.3 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 |
| Other | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Middle East** | **76.8** | **77.8** | **77.4** | **77.7** | **77.6** | **77.0** | **77.6** | **75.3** | **75.6** | **75.6** |
| Iran | 31.3 | 31.8 | 31.9 | 32.1 | 32.1 | 31.6 | 31.8 | 31.9 | 32.0 | 32.0 |
| Iraq | 3.0 | 3.4 | 3.0 | 3.0 | 3.0 | 3.0 | 3.6 | 3.6 | 3.5 | 3.5 |
| Kuwait | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 |
| Qatar | 25.9 | 25.9 | 25.8 | 25.5 | 25.4 | 25.1 | 24.9 | 24.7 | 24.7 | 24.7 |
| Saudi Arabia | 7.5 | 7.6 | 7.7 | 7.8 | 7.9 | 8.0 | 8.0 | 5.7 | 5.9 | 6.0 |
| United Arab Emirates | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 | 5.9 |
| Other | 1.5 | 1.5 | 1.4 | 1.6 | 1.5 | 1.5 | 1.5 | 1.8 | 1.8 | 1.7 |
| **Africa** | **14.4** | **14.5** | **14.2** | **13.9** | **14.5** | **14.3** | **14.9** | **15.0** | **15.1** | **15.3** |
| Algeria | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 | 4.3 |
| Angola | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 |
| Egypt | 2.1 | 2.1 | 2.0 | 1.8 | 2.1 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 |
| Libya | 1.4 | 1.5 | 1.5 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 | 1.4 |
| Nigeria | 4.9 | 4.9 | 4.9 | 4.9 | 5.1 | 5.0 | 5.2 | 5.3 | 5.4 | 5.4 |
| South Africa | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Other | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.2 | 1.4 | 1.3 | 1.4 | 1.6 |
| **Asia-Pacific** | **13.5** | **13.8** | **13.9** | **14.3** | **14.1** | **14.7** | **16.2** | **16.7** | **16.9** | **17.7** |
| Australia | 2.9 | 2.8 | 2.8 | 2.8 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| China | 2.7 | 2.9 | 3.1 | 3.4 | 3.6 | 4.7 | 5.5 | 6.1 | 6.4 | 8.4 |
| India | 1.1 | 1.2 | 1.3 | 1.3 | 1.4 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 |
| Indonesia | 3.0 | 3.0 | 3.0 | 2.9 | 2.9 | 2.8 | 2.9 | 2.9 | 2.8 | 1.4 |
| Japan | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Malaysia | 1.0 | 1.1 | 1.0 | 1.0 | 1.1 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 |
| 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 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Other | 2.4 | 2.4 | 2.3 | 2.5 | 2.4 | 2.3 | 3.0 | 2.9 | 2.9 | 2.9 |
| **OECD** | **17.7** | **18.4** | **17.5** | **18.2** | **18.3** | **16.7** | **16.8** | **20.2** | **20.5** | **20.5** |
| **Non-OECD** | **160.5** | **169.9** | **170.1** | **170.7** | **171.9** | **171.6** | **174.6** | **176.0** | **177.0** | **178.7** |
| **World** | **178.2** | **188.3** | **187.6** | **188.9** | **190.2** | **188.2** | **191.5** | **196.2** | **197.5** | **199.2** |

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

| Natural Gas Production (Bcm) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **811.1** | **855.5** | **884.1** | **888.9** | **942.3** | **973.1** | **968.9** | **988.6** | **1,079.8** | **1,160.6** |
| Canada | 156.3 | 157.7 | 156.3 | 157.5 | 164.1 | 165.0 | 177.0 | 182.9 | 190.0 | 183.2 |
| Mexico | 51.0 | 49.0 | 47.0 | 45.8 | 44.8 | 41.6 | 36.7 | 32.4 | 27.3 | 26.0 |
| United States | 603.9 | 648.8 | 680.8 | 685.7 | 733.4 | 766.5 | 755.3 | 773.3 | 862.5 | 951.4 |
| **South and Central America** | **211.8** | **214.1** | **218.2** | **221.8** | **223.7** | **218.8** | **213.3** | **209.2** | **202.5** | **202.1** |
| Argentina | 42.3 | 41.7 | 40.8 | 38.7 | 38.9 | 40.1 | 43.0 | 42.8 | 45.2 | 47.4 |
| Brazil | 15.1 | 17.2 | 19.7 | 21.8 | 23.4 | 24.1 | 24.4 | 27.5 | 25.6 | 26.3 |
| Chile | 1.8 | 1.5 | 1.2 | 1.0 | 0.8 | 1.0 | 1.2 | 1.2 | 1.5 | 1.7 |
| Colombia | 12.7 | 12.3 | 12.6 | 15.3 | 14.8 | 14.0 | 12.9 | 13.2 | 13.4 | 14.0 |
| Peru | 7.3 | 11.5 | 12.0 | 12.4 | 13.1 | 12.7 | 14.0 | 13.0 | 12.8 | 13.5 |
| Trinidad & Tobago | 40.3 | 38.7 | 38.5 | 38.7 | 38.1 | 36.0 | 31.3 | 31.9 | 34.0 | 34.6 |
| Venezuela | 22.0 | 22.2 | 23.3 | 22.5 | 22.6 | 23.0 | 24.5 | 24.0 | 20.7 | 17.1 |
| Other | 70.2 | 69.2 | 70.0 | 71.4 | 72.1 | 68.0 | 62.2 | 55.5 | 49.4 | 47.5 |
| **Europa** | **317.2** | **292.4** | **294.4** | **286.9** | **269.2** | **260.6** | **259.5** | **261.1** | **246.2** | **232.2** |
| Czech Republic | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| France | 0.8 | 0.6 | 0.5 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Germany | 15.1 | 14.8 | 13.1 | 12.2 | 9.5 | 8.7 | 9.0 | 8.2 | 6.7 | 6.5 |
| Italy | 8.4 | 8.4 | 8.6 | 7.7 | 7.1 | 6.8 | 5.8 | 5.5 | 5.4 | 4.9 |
| Netherlands | 90.3 | 83.4 | 82.1 | 86.9 | 72.5 | 55.0 | 53.1 | 46.3 | 38.7 | 33.7 |
| Norway | 110.4 | 105.8 | 119.2 | 113.2 | 112.9 | 121.3 | 120.6 | 128.2 | 125.5 | 118.4 |
| Poland | 6.1 | 6.2 | 6.3 | 6.2 | 6.1 | 6.1 | 5.8 | 5.7 | 5.7 | 5.7 |
| Romania | 10.9 | 10.9 | 10.9 | 10.9 | 11.1 | 11.1 | 9.8 | 10.6 | 10.3 | 10.9 |
| Spain | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 |
| Turkey | 0.7 | 0.8 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| United Kingdom | 57.9 | 46.4 | 39.6 | 37.3 | 38.8 | 40.5 | 41.7 | 42.1 | 40.8 | 39.9 |
| EU | 205.8 | 185.4 | 174.1 | 172.6 | 155.3 | 138.3 | 138.0 | 132.0 | 119.7 | 111.3 |
| Other | 16.4 | 14.8 | 13.1 | 11.3 | 10.6 | 10.4 | 13.0 | 13.7 | 12.3 | 11.6 |
| **Former Soviet Union** | **828.1** | **867.4** | **858.8** | **885.0** | **861.2** | **860.5** | **856.6** | **913.4** | **941.1** | **973.1** |
| Azerbaijan | 16.3 | 16.0 | 16.8 | 17.4 | 18.4 | 18.8 | 18.3 | 17.8 | 19.0 | 24.3 |
| Kazakhstan | 28.3 | 28.5 | 30.7 | 33.0 | 33.6 | 37.6 | 37.7 | 42.7 | 44.1 | 44.7 |
| Russia | 657.3 | 672.8 | 658.1 | 674.5 | 646.5 | 638.0 | 644.2 | 695.1 | 715.2 | 739.8 |
| Turkmenistan | 40.1 | 56.3 | 59.0 | 59.0 | 63.5 | 65.9 | 63.2 | 58.7 | 61.5 | 63.2 |
| Ukraine | 20.2 | 20.3 | 20.1 | 21.0 | 19.7 | 19.5 | 19.7 | 20.2 | 21.5 | 21.2 |
| Uzbekistan | 60.1 | 63.0 | 62.9 | 59.6 | 61.7 | 62.2 | 56.3 | 56.6 | 60.0 | 59.6 |
| Other | 5.8 | 10.5 | 11.2 | 20.6 | 17.7 | 18.5 | 17.2 | 22.4 | 19.7 | 20.3 |
| **Middle East** | **466.6** | **497.5** | **520.6** | **551.1** | **566.3** | **587.4** | **609.4** | **632.3** | **654.4** | **674.4** |
| Iran | 143.9 | 150.4 | 156.4 | 156.7 | 174.6 | 184.1 | 199.8 | 215.7 | 227.5 | 240.0 |
| Iraq | 7.1 | 6.3 | 6.3 | 7.1 | 7.5 | 7.3 | 9.9 | 10.1 | 10.6 | 10.8 |
| Kuwait | 11.7 | 13.5 | 15.5 | 16.3 | 15.0 | 16.9 | 17.3 | 17.1 | 18.1 | 20.0 |
| Qatar | 123.1 | 150.4 | 162.5 | 168.2 | 169.5 | 174.9 | 173.6 | 168.6 | 176.5 | 178.1 |
| Saudi Arabia | 73.3 | 74.7 | 81.1 | 82.0 | 85.1 | 87.3 | 90.8 | 95.5 | 96.8 | 98.1 |
| United Arab Emirates | 51.3 | 52.3 | 54.3 | 54.6 | 54.2 | 60.2 | 61.1 | 62.1 | 62.4 | 62.7 |
| Other | 56.1 | 49.9 | 44.5 | 66.2 | 60.2 | 56.7 | 56.9 | 63.2 | 62.6 | 64.8 |
| **Africa** | **209.2** | **203.0** | **211.5** | **198.6** | **199.5** | **198.3** | **209.0** | **229.2** | **240.0** | **241.3** |
| Algeria | 0.7 | 0.8 | 0.8 | 0.9 | 0.7 | 0.8 | 1.7 | 3.4 | 4.1 | 0.0 |
| Angola | 84.6 | 81.8 | 85.3 | 81.0 | 82.6 | 84.0 | 94.7 | 96.2 | 97.1 | 90.5 |
| Egypt | 56.8 | 56.4 | 54.1 | 48.1 | 43.1 | 38.3 | 42.6 | 52.5 | 62.8 | 69.7 |
| Libya | 16.0 | 7.5 | 11.6 | 12.2 | 11.8 | 11.0 | 9.4 | 8.6 | 8.3 | 9.4 |
| Nigeria | 32.5 | 38.3 | 41.2 | 37.2 | 42.4 | 43.7 | 40.3 | 45.1 | 44.1 | 44.7 |
| South Africa | 1.5 | 1.4 | 1.2 | 1.3 | 1.1 | 1.3 | 1.1 | 0.9 | 0.7 | 0.6 |
| Other | 16.9 | 16.9 | 17.3 | 18.0 | 17.8 | 19.3 | 19.2 | 22.5 | 22.9 | 26.5 |
| **Asia-Pacific** | **483.1** | **485.9** | **483.5** | **507.6** | **524.6** | **531.0** | **547.5** | **570.1** | **590.9** | **626.9** |
| Australia | 52.7 | 56.4 | 54.0 | 62.4 | 63.3 | 67.5 | 83.6 | 103.1 | 117.8 | 138.9 |
| China | 95.8 | 105.3 | 110.6 | 120.9 | 130.2 | 134.6 | 136.9 | 148.0 | 159.1 | 175.0 |
| India | 51.2 | 46.5 | 39.8 | 34.6 | 32.7 | 31.1 | 30.8 | 31.7 | 32.1 | 30.8 |
| Indonesia | 85.7 | 81.5 | 77.1 | 76.5 | 75.3 | 75.0 | 74.0 | 71.8 | 72.1 | 65.7 |
| Japan | 3.5 | 3.5 | 3.4 | 3.1 | 2.9 | 2.8 | 2.9 | 3.0 | 2.8 | 2.6 |
| Malaysia | 60.5 | 62.4 | 61.0 | 69.0 | 69.7 | 68.6 | 67.8 | 66.5 | 64.7 | 66.4 |
| New Zealand | 4.8 | 4.4 | 4.6 | 4.8 | 5.2 | 5.0 | 5.1 | 5.0 | 4.4 | 4.7 |
| South Korea | 0.5 | 0.5 | 0.4 | 0.5 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 |
| Thailand | 31.6 | 28.1 | 33.5 | 36.3 | 37.0 | 33.0 | 32.3 | 30.2 | 29.4 | 29.8 |
| Other | 96.8 | 97.4 | 99.0 | 99.7 | 108.0 | 113.2 | 113.9 | 110.4 | 108.3 | 112.8 |
| **OECD** | **1,180.9** | **1,204.0** | **1,230.8** | **1,240.3** | **1,278.0** | **1,304.8** | **1,318.6** | **1,359.6** | **1,451.4** | **1,539.4** |
| **Non-OECD** | **2,146.2** | **2,211.9** | **2,240.2** | **2,299.5** | **2,308.9** | **2,324.7** | **2,345.8** | **2,444.1** | **2,503.4** | **2,571.2** |
| **World** | **3,327.1** | **3,415.9** | **3,471.1** | **3,539.8** | **3,586.9** | **3,629.5** | **3,664.4** | **3,803.9** | **3,954.8** | **4,110.6** |

| Natural Gas Demand (Bcm) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **850.1** | **871.4** | **909.1** | **921.0** | **938.1** | **956.8** | **964.6** | **962.5** | **1,050.2** | **1,082.1** |
| Canada | 97.4 | 107.5 | 106.6 | 111.4 | 115.6 | 114.9 | 112.1 | 114.6 | 126.7 | 128.8 |
| Mexico | 69.6 | 70.9 | 74.1 | 70.2 | 72.1 | 74.8 | 75.8 | 78.2 | 73.5 | 76.7 |
| United States | 683.1 | 693.0 | 728.3 | 739.4 | 750.5 | 767.1 | 776.7 | 769.8 | 850.1 | 876.6 |
| **South and Central America** | **222.0** | **218.6** | **229.5** | **232.1** | **239.0** | **244.2** | **238.7** | **241.2** | **231.0** | **230.9** |
| Argentina | 46.5 | 48.5 | 50.0 | 50.1 | 50.3 | 51.3 | 52.8 | 52.5 | 50.5 | 50.0 |
| Brazil | 27.9 | 28.2 | 33.1 | 38.8 | 42.4 | 42.1 | 36.3 | 38.7 | 36.8 | 36.4 |
| Chile | 5.3 | 5.7 | 4.9 | 5.0 | 4.1 | 4.4 | 4.8 | 5.0 | 5.3 | 5.9 |
| Colombia | 10.6 | 10.0 | 10.4 | 11.0 | 11.6 | 11.3 | 11.8 | 11.0 | 11.5 | 11.8 |
| Peru | 5.4 | 6.3 | 6.9 | 6.7 | 7.4 | 7.6 | 8.5 | 7.5 | 8.0 | 8.3 |
| Trinidad & Tobago | 20.7 | 20.5 | 20.2 | 20.4 | 20.5 | 19.6 | 16.9 | 18.3 | 17.4 | 17.5 |
| Venezuela | 29.2 | 21.3 | 22.7 | 22.5 | 21.9 | 24.4 | 22.6 | 22.9 | 19.7 | 16.3 |
| Other | 76.4 | 78.2 | 81.4 | 77.7 | 80.8 | 83.4 | 85.0 | 85.3 | 81.9 | 84.6 |
| **Europe** | **596.6** | **550.1** | **536.7** | **528.3** | **482.5** | **498.8** | **526.3** | **554.0** | **542.9** | **551.9** |
| Belgium | 20.6 | 17.8 | 17.9 | 18.2 | 16.0 | 17.2 | 17.5 | 17.8 | 18.2 | 18.7 |
| Czech Republic | 9.3 | 8.4 | 8.4 | 8.5 | 7.5 | 7.9 | 8.5 | 8.7 | 8.3 | 8.7 |
| Finland | 4.1 | 3.6 | 3.2 | 3.0 | 2.7 | 2.3 | 2.0 | 1.8 | 2.1 | 2.0 |
| France | 48.2 | 42.2 | 43.5 | 44.1 | 37.0 | 39.7 | 43.3 | 43.5 | 41.5 | 42.3 |
| Germany | 94.5 | 85.8 | 85.8 | 87.7 | 79.2 | 81.3 | 87.9 | 95.0 | 92.4 | 95.4 |
| Italy | 83.1 | 77.9 | 74.9 | 70.1 | 61.9 | 67.5 | 70.9 | 75.2 | 72.7 | 74.3 |
| Netherlands | 56.2 | 49.2 | 47.2 | 47.0 | 41.5 | 41.0 | 42.1 | 43.5 | 42.8 | 44.6 |
| Norway | 6.3 | 6.0 | 5.8 | 5.8 | 6.2 | 6.4 | 6.2 | 6.4 | 7.2 | 6.7 |
| Poland | 17.2 | 17.2 | 18.1 | 18.2 | 17.7 | 18.2 | 19.0 | 20.1 | 20.8 | 21.3 |
| Portugal | 5.1 | 5.2 | 4.5 | 4.3 | 4.1 | 4.7 | 5.0 | 6.3 | 5.8 | 6.1 |
| Romania | 13.6 | 13.9 | 13.5 | 12.6 | 12.0 | 11.3 | 11.3 | 11.9 | 11.9 | 12.4 |
| Spain | 35.8 | 33.3 | 32.4 | 29.6 | 27.2 | 28.2 | 28.8 | 31.1 | 31.0 | 35.4 |
| Sweden | 1.6 | 1.3 | 1.2 | 1.1 | 0.9 | 1.0 | 0.9 | 1.0 | 1.1 | 1.1 |
| Turkey | 38.1 | 44.7 | 45.3 | 45.9 | 48.7 | 48.1 | 46.5 | 54.0 | 50.1 | 45.3 |
| United Kingdom | 99.4 | 82.7 | 77.6 | 77.1 | 70.7 | 72.7 | 82.0 | 79.5 | 80.2 | 79.8 |
| EU | 545.8 | 493.3 | 479.5 | 470.1 | 422.0 | 438.2 | 467.1 | 486.6 | 478.9 | 493.9 |
| Other | 63.5 | 60.9 | 57.4 | 55.2 | 49.3 | 51.3 | 54.4 | 58.1 | 56.6 | 57.7 |
| **Former Soviet Union** | **654.6** | **674.6** | **668.1** | **653.6** | **647.9** | **615.5** | **607.9** | **625.2** | **657.4** | **668.4** |
| Azerbaijan | 8.1 | 8.9 | 9.4 | 9.4 | 9.9 | 11.1 | 10.9 | 10.6 | 10.8 | 11.8 |
| Kazakhstan | 25.6 | 25.4 | 25.2 | 27.0 | 28.6 | 29.2 | 30.1 | 30.0 | 32.2 | 30.9 |
| Russia | 465.8 | 476.2 | 471.1 | 465.9 | 464.6 | 445.4 | 444.1 | 463.0 | 489.4 | 501.2 |
| Turkmenistan | 18.3 | 20.7 | 22.9 | 19.3 | 20.0 | 25.4 | 25.1 | 24.8 | 28.4 | 31.5 |
| Ukraine | 56.7 | 58.4 | 53.5 | 49.5 | 41.0 | 33.1 | 32.2 | 31.0 | 32.1 | 29.5 |
| Uzbekistan | 47.7 | 53.3 | 55.1 | 48.1 | 49.1 | 43.3 | 37.5 | 37.1 | 39.0 | 40.9 |
| Other | 32.4 | 31.6 | 31.0 | 34.3 | 34.8 | 27.9 | 28.0 | 28.8 | 25.6 | 22.6 |
| **Middle East** | **374.4** | **394.9** | **410.8** | **424.4** | **450.8** | **479.5** | **499.2** | **515.9** | **538.2** | **556.5** |
| Iran | 144.4 | 152.8 | 151.8 | 152.9 | 172.5 | 184.1 | 196.7 | 206.5 | 216.6 | 226.4 |
| Iraq | 7.1 | 6.3 | 6.3 | 7.1 | 7.5 | 7.3 | 9.9 | 11.4 | 14.6 | 19.9 |
| Kuwait | 14.5 | 17.0 | 18.2 | 18.5 | 18.3 | 20.9 | 22.3 | 22.6 | 23.5 | 25.6 |
| Qatar | 25.4 | 28.7 | 33.6 | 35.5 | 38.5 | 42.4 | 40.2 | 39.9 | 41.4 | 41.1 |
| Saudi Arabia | 73.3 | 74.7 | 81.1 | 82.0 | 85.1 | 87.3 | 90.8 | 95.5 | 96.8 | 98.1 |
| United Arab Emirates | 60.9 | 63.0 | 66.2 | 67.5 | 66.3 | 74.2 | 74.7 | 73.5 | 74.3 | 75.1 |
| Other | 48.6 | 52.4 | 53.6 | 60.9 | 62.5 | 63.3 | 64.6 | 66.4 | 71.1 | 70.3 |
| **Africa** | **107.9** | **117.4** | **123.6** | **122.9** | **123.9** | **131.1** | **136.7** | **143.6** | **150.6** | **154.0** |
| Algeria | 27.4 | 29.6 | 33.8 | 34.6 | 37.8 | 40.6 | 40.7 | 42.1 | 45.7 | 47.9 |
| Angola | 0.7 | 0.7 | 0.7 | 0.4 | 0.3 | 0.8 | 0.8 | 0.8 | 0.0 | 0.0 |
| Egypt | 43.8 | 47.8 | 47.9 | 46.0 | 42.7 | 45.0 | 50.8 | 55.3 | 59.0 | 60.0 |
| Libya | 6.9 | 5.3 | 5.6 | 7.0 | 5.8 | 4.4 | 5.0 | 4.5 | 0.0 | 0.0 |
| Nigeria | 10.8 | 15.0 | 15.4 | 15.2 | 17.1 | 17.2 | 16.8 | 17.3 | 16.8 | 16.7 |
| South Africa | 4.7 | 4.7 | 5.0 | 5.0 | 4.8 | 5.3 | 5.4 | 5.2 | 5.1 | 4.8 |
| Other | 13.5 | 14.2 | 15.1 | 14.8 | 15.3 | 17.8 | 17.2 | 18.3 | 24.1 | 24.6 |
| **Asia-Pacific** | **599.6** | **623.2** | **649.6** | **680.5** | **700.0** | **704.1** | **733.1** | **760.9** | **820.1** | **851.1** |
| Australia | 32.1 | 32.6 | 33.8 | 35.6 | 36.4 | 37.1 | 38.8 | 39.6 | 41.1 | 47.3 |
| China | 125.1 | 131.3 | 147.2 | 167.5 | 184.3 | 191.8 | 207.9 | 237.8 | 279.9 | 304.0 |
| India | 64.1 | 64.5 | 57.3 | 51.9 | 51.3 | 52.6 | 55.9 | 59.5 | 61.1 | 63.7 |
| Indonesia | 43.5 | 41.0 | 40.8 | 41.9 | 42.9 | 42.9 | 41.6 | 39.8 | 41.7 | 40.4 |
| Japan | 102.9 | 120.1 | 124.8 | 124.3 | 125.4 | 119.5 | 121.8 | 118.7 | 113.6 | 108.2 |
| Malaysia | 37.3 | 37.5 | 38.4 | 45.2 | 45.5 | 44.5 | 42.4 | 38.2 | 39.6 | 42.2 |
| New Zealand | 4.7 | 4.3 | 4.5 | 4.8 | 5.4 | 5.1 | 5.1 | 5.2 | 4.6 | 4.8 |
| South Korea | 43.2 | 46.5 | 50.2 | 52.6 | 47.4 | 44.3 | 47.0 | 48.8 | 56.6 | 54.8 |
| Thailand | 42.1 | 39.4 | 45.0 | 48.4 | 48.4 | 48.2 | 47.3 | 44.7 | 44.1 | 44.5 |
| Other | 104.6 | 106.1 | 107.5 | 108.3 | 112.9 | 118.1 | 125.3 | 128.8 | 137.8 | 141.2 |
| **OECD** | **1,612.9** | **1,607.5** | **1,639.7** | **1,653.5** | **1,624.0** | **1,651.4** | **1,694.8** | **1,719.2** | **1,801.1** | **1,841.4** |
| **Non-OECD** | **1,792.2** | **1,842.8** | **1,887.5** | **1,909.1** | **1,958.2** | **1,978.7** | **2,011.6** | **2,084.1** | **2,189.3** | **2,253.6** |
| **World** | **3,405.1** | **3,450.3** | **3,527.3** | **3,562.6** | **3,582.2** | **3,630.1** | **3,706.4** | **3,803.3** | **3,990.3** | **4,095.0** |

*Note: Natural gas primary demand including power generation feedstock.*

**Top 15 Countries - Natural Gas Proved Reserves, 2019**

| Country | Tcm |
|---|---|
| Russia | 38.0 |
| Iran | 32.0 |
| Qatar | 24.7 |
| Turkmenistan | 19.5 |
| U.S. | 12.9 |
| China | 8.4 |
| Venezuela | 6.3 |
| Saudi Arabia | 6.0 |
| U.A.E. | 5.9 |
| Nigeria | 5.4 |
| Algeria | 4.3 |
| Iraq | 3.5 |
| Azerbaijan | 2.8 |
| Kazakhstan | 2.7 |
| Australia | 2.4 |

*Tcm*
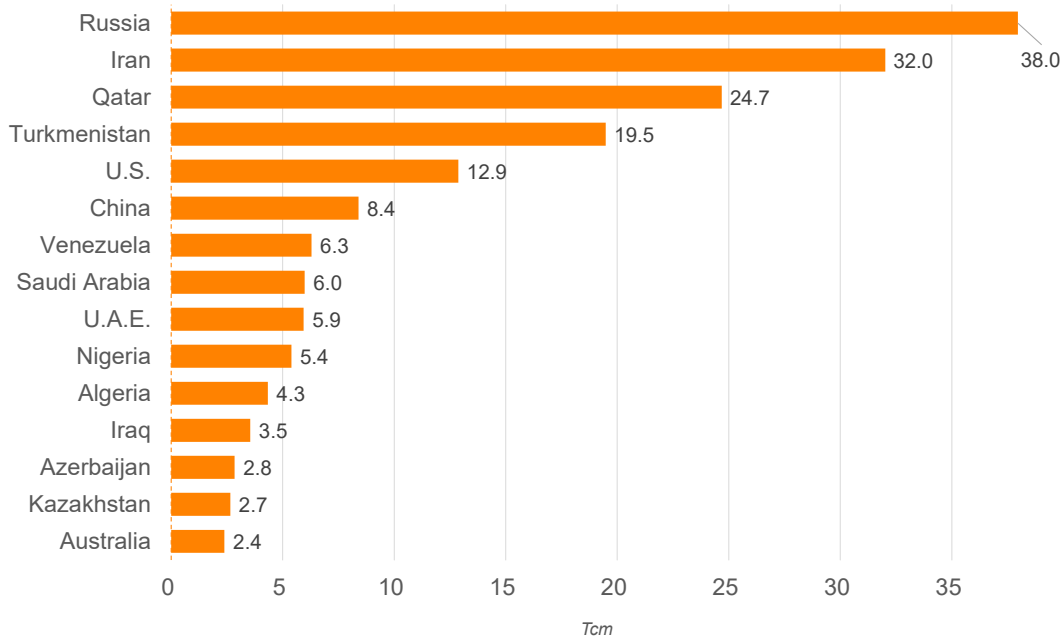
**Top 15 Countries - Natural Gas Production, 2019**

| Country | Bcm |
|---|---|
| U.S. | 951.4 |
| Russia | 739.8 |
| Iran | 240.0 |
| Canada | 183.2 |
| Qatar | 178.1 |
| China | 175.0 |
| Australia | 138.9 |
| Norway | 118.4 |
| Saudi Arabia | 98.1 |
| Angola | 90.5 |
| Egypt | 69.7 |
| Malaysia | 66.4 |
| Indonesia | 65.7 |
| Turkmenistan | 63.2 |
| U.A.E. | 62.7 |

*Bcm*
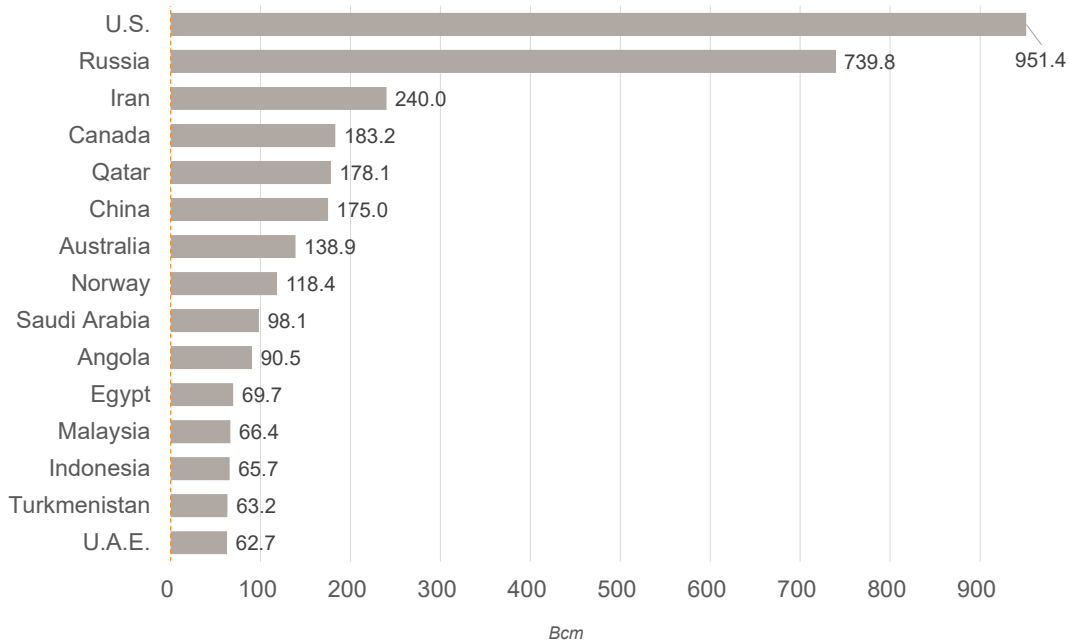
**Top 15 Countries - Natural Gas Demand, 2019**

| Country | Bcm |
|---|---|
| U.S. | 876.6 |
| Russia | 501.2 |
| China | 304.0 |
| Iran | 226.4 |
| Canada | 128.8 |
| Japan | 108.2 |
| Saudi Arabia | 98.1 |
| Germany | 95.4 |
| U.K. | 79.8 |
| Mexico | 76.7 |
| U.A.E. | 75.1 |
| Italy | 74.3 |
| India | 63.7 |
| Egypt | 60.0 |
| South Korea | 54.8 |

*Bcm*
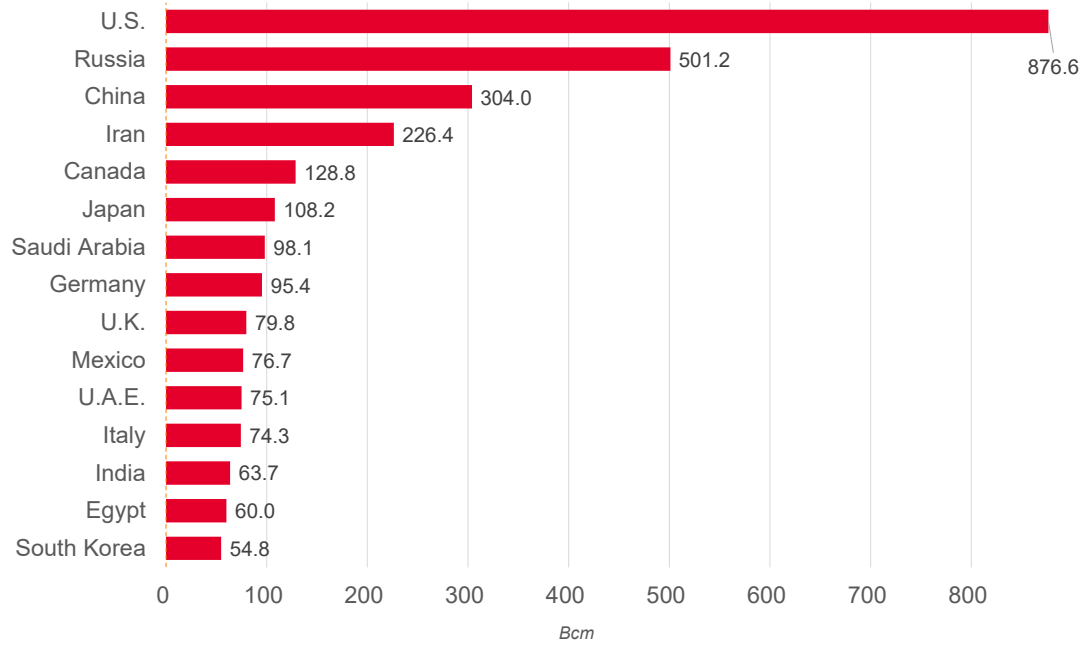
# Oil and Natural Gas prices

| Oil and Natural Gas Prices | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **Crude oil ($ per barrel)** | | | | | | | | | | |
| Brent | 79.5 | 111.2 | 111.8 | 108.7 | 99.0 | 52.3 | 43.7 | 54.2 | 71.3 | 64.3 |
| WTI | 79.5 | 94.9 | 94.1 | 98.0 | 93.0 | 48.7 | 43.3 | 50.8 | 65.2 | 57.0 |
| Dubai | 77.7 | 105.7 | 109.1 | 105.6 | 96.5 | 50.9 | 41.6 | 53.1 | 69.3 | 63.2 |
| **Natural gas (dollar per million Btu)** | | | | | | | | | | |
| Henry Hub (HH) | 4.4 | 4.0 | 2.8 | 3.7 | 4.3 | 2.6 | 2.5 | 3.0 | 3.2 | 2.6 |
| National Balancing Point (NBP) | 6.5 | 9.0 | 9.5 | 10.6 | 8.2 | 6.5 | 4.7 | 5.8 | 8.0 | 4.5 |
| Japan Korea Marker (JKM) | 9.6 | 13.2 | 16.2 | 15.2 | 15.2 | 7.5 | 5.7 | 7.2 | 9.8 | 5.6 |
| Title Transfer Facility (TTF) | 6.7 | 9.1 | 9.3 | 10.4 | 8.1 | 6.4 | 4.5 | 5.7 | 7.8 | 4.4 |

*Source: Thomson Reuters*



**Crude Oil Price Benchmarks**
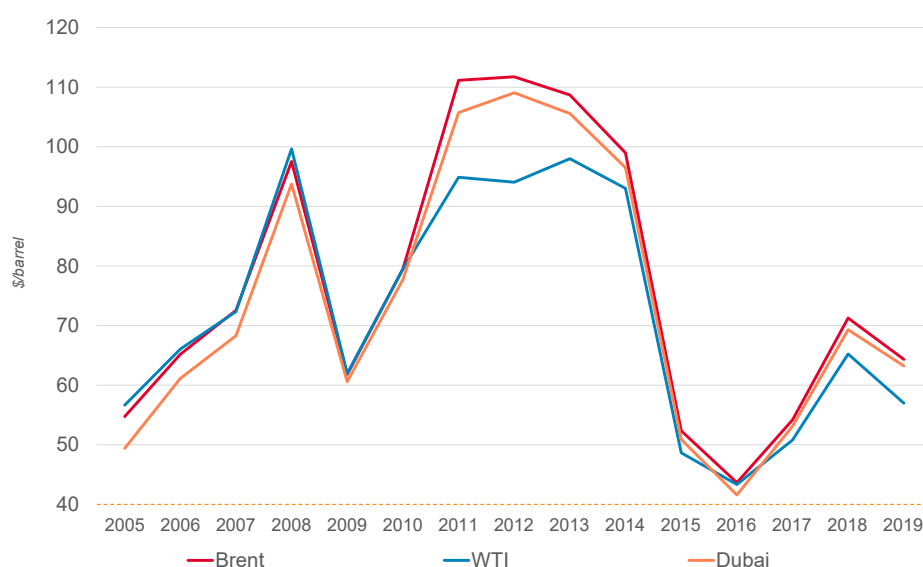


**Natural Gas Price Benchmarks**
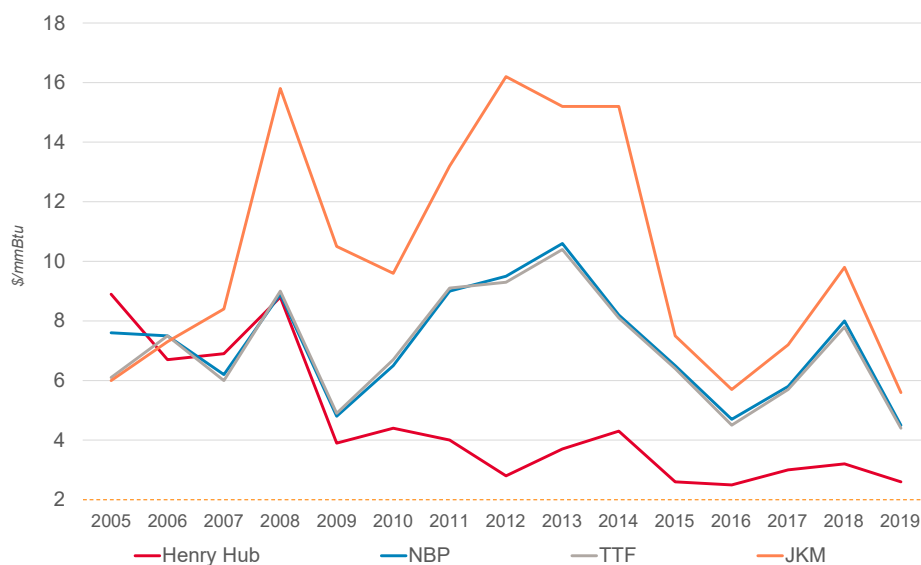
Power
Generation

| Total Power Generation (TWh) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **5,258** | **5,286** | **5,231** | **5,262** | **5,303** | **5,294** | **5,309** | **5,267** | **5,421** | **5,380** |
| Canada | 604 | 633 | 633 | 659 | 661 | 667 | 667 | 658 | 650 | 649 |
| Mexico | 276 | 303 | 307 | 297 | 301 | 311 | 321 | 322 | 332 | 346 |
| United States | 4,378 | 4,349 | 4,291 | 4,306 | 4,340 | 4,317 | 4,322 | 4,286 | 4,439 | 4,385 |
| **South and Central America** | **1,099** | **1,142** | **1,188** | **1,235** | **1,231** | **1,270** | **1,273** | **1,286** | **1,293** | **1,299** |
| Argentina | 126 | 130 | 136 | 139 | 139 | 145 | 147 | 146 | 147 | 140 |
| Brazil | 516 | 532 | 553 | 571 | 591 | 582 | 579 | 589 | 601 | 615 |
| Chile | 60 | 66 | 70 | 73 | 71 | 75 | 79 | 79 | 81 | 83 |
| Colombia | 59 | 61 | 62 | 74 | 71 | 78 | 77 | 79 | 82 | 78 |
| Peru | 36 | 39 | 40 | 44 | 46 | 48 | 52 | 53 | 55 | n.d. |
| Trinidad & Tobago | 8 | 9 | 9 | 10 | 10 | 10 | 11 | 11 | 11 | n.d. |
| Venezuela | 114 | 118 | 122 | 123 | 103 | 123 | 108 | 107 | 91 | 89 |
| Other | 180 | 187 | 197 | 201 | 201 | 209 | 221 | 221 | 225 | n.d. |
| **Europe** | **3,866** | **3,822** | **3,850** | **3,822** | **3,752** | **3,812** | **3,852** | **3,900** | **3,902** | **3,831** |
| Belgium | 95 | 90 | 83 | 83 | 73 | 70 | 86 | 87 | 75 | 94 |
| Czech Republic | 86 | 87 | 87 | 87 | 86 | 84 | 83 | 87 | 88 | 87 |
| Finland | 81 | 74 | 70 | 71 | 68 | 69 | 69 | 68 | 70 | 69 |
| France | 569 | 573 | 573 | 582 | 572 | 579 | 564 | 562 | 582 | 570 |
| Germany | 633 | 613 | 630 | 639 | 628 | 647 | 649 | 654 | 647 | 616 |
| Italy | 302 | 303 | 299 | 290 | 280 | 283 | 290 | 296 | 290 | 293 |
| Netherlands | 119 | 114 | 103 | 102 | 103 | 110 | 115 | 117 | 114 | 120 |
| Norway | 124 | 128 | 148 | 134 | 142 | 145 | 150 | 149 | 147 | 135 |
| Poland | 158 | 164 | 162 | 165 | 159 | 165 | 167 | 170 | 170 | 164 |
| Portugal | 54 | 52 | 47 | 52 | 53 | 52 | 60 | 59 | 60 | 53 |
| Romania | 61 | 62 | 59 | 59 | 66 | 66 | 65 | 64 | 65 | 60 |
| Spain | 302 | 294 | 298 | 286 | 279 | 281 | 275 | 276 | 274 | 274 |
| Sweden | 149 | 150 | 167 | 153 | 154 | 162 | 156 | 164 | 163 | 157 |
| Turkey | 211 | 229 | 239 | 240 | 252 | 262 | 274 | 297 | 305 | 304 |
| United Kingdom | 382 | 368 | 364 | 358 | 338 | 339 | 339 | 338 | 333 | 324 |
| EU | 3,367 | 3,310 | 3,304 | 3,279 | 3,199 | 3,244 | 3,267 | 3,299 | 3,281 | 3,229 |
| Other | 541 | 520 | 521 | 522 | 500 | 498 | 510 | 511 | 520 | 511 |
| **Former Soviet Union** | **1,483** | **1,514** | **1,543** | **1,538** | **1,542** | **1,532** | **1,558** | **1,555** | **1,592** | **1,596** |
| Azerbaijan | 19 | 20 | 23 | 23 | 25 | 25 | 25 | 24 | 25 | n.d. |
| Kazakhstan | 83 | 87 | 93 | 103 | 105 | 106 | 107 | 103 | 107 | 108 |
| Russia | 1,038 | 1,055 | 1,071 | 1,059 | 1,064 | 1,068 | 1,091 | 1,094 | 1,112 | 1,122 |
| Ukraine | 189 | 195 | 199 | 194 | 183 | 164 | 165 | 156 | 160 | 152 |
| Uzbekistan | 52 | 53 | 53 | 55 | 56 | 58 | 59 | 62 | 64 | 65 |
| Other | 103 | 104 | 104 | 104 | 109 | 111 | 111 | 115 | 124 | n.d. |
| **Middle East** | **892** | **916** | **958** | **989** | **1,057** | **1,113** | **1,148** | **1,194** | **1,227** | **1,243** |
| Iran | 233 | 240 | 254 | 262 | 275 | 281 | 289 | 308 | 311 | 315 |
| Iraq | 49 | 54 | 46 | 58 | 68 | 69 | 80 | 87 | 103 | 108 |
| Kuwait | 57 | 57 | 63 | 61 | 65 | 68 | 70 | 73 | 75 | 76 |
| Qatar | 28 | 31 | 35 | 35 | 39 | 41 | 42 | 46 | 49 | n.d. |
| Saudi Arabia | 240 | 250 | 272 | 284 | 312 | 338 | 345 | 348 | 352 | 350 |
| United Arab Emirates | 98 | 99 | 103 | 106 | 117 | 127 | 130 | 135 | 136 | 138 |
| Other | 187 | 185 | 186 | 182 | 182 | 188 | 192 | 198 | 201 | n.d. |
| **Africa** | **675** | **699** | **727** | **749** | **778** | **802** | **810** | **831** | **854** | **858** |
| Algeria | 48 | 56 | 62 | 65 | 71 | 75 | 78 | 83 | 84 | 90 |
| Angola | 5 | 6 | 6 | 8 | 9 | 10 | 10 | 11 | 11 | n.d. |
| Egypt | 147 | 157 | 165 | 168 | 175 | 186 | 186 | 188 | 194 | 195 |
| Libya | 33 | 26 | 34 | 38 | 38 | 38 | 36 | 37 | 38 | n.d. |
| Nigeria | 26 | 27 | 29 | 29 | 32 | 32 | 32 | 32 | 31 | 32 |
| South Africa | 260 | 263 | 258 | 256 | 253 | 250 | 253 | 255 | 256 | 252 |
| Other | 156 | 164 | 173 | 185 | 200 | 211 | 215 | 225 | 239 | n.d. |
| **Asia-Pacific** | **8,317** | **8,922** | **9,303** | **9,884** | **10,259** | **10,558** | **11,126** | **11,686** | **12,360** | **12,706** |
| Australia | 253 | 254 | 251 | 249 | 247 | 251 | 257 | 258 | 261 | 263 |
| China | 4,208 | 4,716 | 4,994 | 5,447 | 5,679 | 5,860 | 6,218 | 6,635 | 7,146 | 7,482 |
| India | 982 | 1,074 | 1,125 | 1,193 | 1,295 | 1,374 | 1,457 | 1,532 | 1,610 | 1,614 |
| Indonesia | 170 | 183 | 200 | 216 | 228 | 234 | 248 | 255 | 267 | 279 |
| Japan | 1,171 | 1,111 | 1,099 | 1,104 | 1,076 | 1,059 | 1,061 | 1,068 | 1,048 | 1,013 |
| Malaysia | 125 | 129 | 134 | 138 | 147 | 150 | 157 | 165 | 171 | 177 |
| New Zealand | 45 | 44 | 44 | 43 | 44 | 44 | 44 | 44 | 44 | 45 |
| South Korea | 500 | 523 | 535 | 542 | 551 | 553 | 563 | 567 | 584 | 576 |
| Taiwan | 248 | 253 | 251 | 253 | 261 | 259 | 265 | 268 | 274 | 272 |
| Thailand | 160 | 156 | 167 | 170 | 172 | 177 | 191 | 187 | 187 | 197 |
| Other | 458 | 478 | 503 | 528 | 559 | 597 | 666 | 707 | 767 | 789 |
| **OECD** | **10,989** | **10,950** | **10,936** | **10,943** | **10,892** | **10,935** | **11,012** | **11,039** | **11,189** | **11,047** |
| **Non-OECD** | **10,600** | **11,350** | **11,864** | **12,537** | **13,029** | **13,446** | **14,065** | **14,679** | **15,461** | **15,865** |
| **World** | **21,589** | **22,300** | **22,800** | **23,480** | **23,922** | **24,381** | **25,077** | **25,719** | **26,650** | **26,913** |

| Renewables in Power Generation<br>(%) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **16.8%** | **19.0%** | **19.0%** | **19.8%** | **20.0%** | **20.3%** | **21.9%** | **23.7%** | **23.5%** | **23.9%** |
| Canada | 61.4% | 62.6% | 63.6% | 63.9% | 63.5% | 63.7% | 65.1% | 65.7% | 65.2% | 64.9% |
| Mexico | 16.6% | 14.9% | 13.8% | 13.3% | 17.5% | 15.3% | 15.3% | 16.0% | 16.3% | 17.5% |
| United States | 10.6% | 12.7% | 12.4% | 13.0% | 13.4% | 13.6% | 15.3% | 17.3% | 17.4% | 17.9% |
| **South and Central America** | **67.8%** | **70.0%** | **66.7%** | **63.8%** | **62.6%** | **61.2%** | **64.2%** | **66.5%** | **68.9%** | **168.9%** |
| Argentina | 28.8% | 32.5% | 29.5% | 31.7% | 31.8% | 28.4% | 27.2% | 29.5% | 29.8% | 31.7% |
| Brazil | 84.7% | 87.1% | 82.4% | 76.7% | 73.1% | 74.0% | 80.3% | 79.1% | 82.3% | 82.3% |
| Chile | 40.2% | 39.6% | 36.4% | 35.7% | 42.9% | 43.6% | 43.3% | 43.9% | 46.3% | 45.1% |
| Colombia | 72.1% | 83.5% | 79.6% | 69.4% | 69.3% | 64.0% | 65.9% | 79.6% | 76.0% | 72.6% |
| Peru | 57.7% | 56.8% | 55.3% | 53.9% | 52.4% | 52.7% | 50.5% | 59.4% | 61.2% | n.d. |
| Trinidad & Tobago | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | n.d. |
| Venezuela | 67.5% | 70.9% | 67.4% | 67.9% | 62.3% | 61.1% | 58.4% | 60.7% | 65.0% | 73.7% |
| **Europe** | **25.2%** | **25.2%** | **28.4%** | **30.9%** | **32.3%** | **33.6%** | **34.0%** | **33.8%** | **36.4%** | **38.7%** |
| Belgium | 8.2% | 10.6% | 14.2% | 15.6% | 18.4% | 22.3% | 18.0% | 19.6% | 24.5% | 21.3% |
| Czech Republic | 7.6% | 9.1% | 10.1% | 11.8% | 11.9% | 12.8% | 12.7% | 12.4% | 11.9% | 12.8% |
| Finland | 30.0% | 32.9% | 40.6% | 36.0% | 38.6% | 44.5% | 44.2% | 46.6% | 45.8% | n.d. |
| France | 14.6% | 12.4% | 15.7% | 17.9% | 17.4% | 16.7% | 18.4% | 17.4% | 20.4% | 20.5% |
| Germany | 17.6% | 21.1% | 23.7% | 24.8% | 26.8% | 29.9% | 29.9% | 34.0% | 36.0% | 41.2% |
| Italy | 26.6% | 28.1% | 31.5% | 39.3% | 43.7% | 39.0% | 37.9% | 35.7% | 40.3% | 40.5% |
| Netherlands | 9.4% | 10.8% | 12.1% | 11.9% | 11.3% | 12.4% | 12.8% | 14.9% | 16.0% | 17.4% |
| Norway | 95.7% | 96.6% | 98.0% | 97.7% | 97.7% | 97.7% | 98.0% | 97.8% | 97.7% | 97.6% |
| Poland | 7.3% | 8.3% | 10.7% | 10.7% | 12.8% | 14.1% | 14.0% | 14.4% | 12.9% | 15.8% |
| Portugal | 53.2% | 47.1% | 43.8% | 59.2% | 61.4% | 48.7% | 55.5% | 40.9% | 52.2% | 55.0% |
| Romania | 33.9% | 26.6% | 25.7% | 34.8% | 42.0% | 40.1% | 42.2% | 38.3% | 41.0% | 41.2% |
| Spain | 33.5% | 30.6% | 30.4% | 40.5% | 40.9% | 35.7% | 39.3% | 32.9% | 39.5% | 38.0% |
| Sweden | 55.3% | 56.0% | 59.1% | 54.1% | 55.9% | 63.3% | 57.2% | 57.9% | 55.7% | 58.7% |
| Turkey | 26.4% | 25.3% | 27.2% | 28.8% | 20.9% | 32.0% | 32.9% | 29.3% | 32.1% | 44.2% |
| United Kingdom | 7.7% | 10.4% | 12.2% | 15.7% | 19.9% | 25.4% | 25.4% | 30.2% | 33.9% | 37.5% |
| EU | 21.1% | 21.4% | 24.2% | 27.2% | 29.2% | 29.8% | 30.1% | 30.5% | 33.1% | 34.7% |
| **Former Soviet Union** | **16.3%** | **15.6%** | **15.3%** | **16.6%** | **15.9%** | **15.5%** | **16.7%** | **17.2%** | **17.3%** | **17.6%** |
| Azerbaijan | 18.4% | 13.2% | 7.9% | 6.7% | 5.6% | 7.0% | 8.4% | 7.8% | 7.8% | n.d. |
| Kazakhstan | 9.7% | 9.1% | 8.2% | 7.5% | 7.9% | 8.9% | 11.2% | 11.3% | 10.3% | 10.1% |
| Russia | 16.3% | 15.9% | 15.7% | 17.3% | 16.7% | 16.0% | 17.2% | 17.2% | 17.4% | 17.9% |
| Ukraine | 7.1% | 5.7% | 5.9% | 8.1% | 6.0% | 5.3% | 6.6% | 8.0% | 9.0% | 7.2% |
| Uzbekistan | 15.8% | 10.8% | 12.6% | 10.4% | 10.9% | 12.3% | 12.4% | 13.6% | 11.8% | 11.2% |
| **Middle East** | **2.0%** | **2.2%** | **2.3%** | **2.5%** | **2.0%** | **1.8%** | **2.2%** | **1.9%** | **2.1%** | **3.8%** |
| Iran | 4.2% | 5.1% | 5.0% | 5.7% | 5.2% | 5.1% | 5.8% | 5.0% | 5.4% | 9.4% |
| Iraq | 9.7% | 6.3% | 9.5% | 8.1% | 4.3% | 3.7% | 4.2% | 1.7% | 1.4% | 1.8% |
| 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% | 0.1% | 0.3% |
| United Arab Emirates | 0.0% | 0.0% | 0.0% | 0.1% | 0.3% | 0.2% | 0.3% | 0.6% | 1.0% | 3.2% |
| **Africa** | **17.5%** | **17.2%** | **16.7%** | **17.2%** | **18.0%** | **17.7%** | **17.6%** | **18.3%** | **19.5%** | **20.2%** |
| Algeria | 0.4% | 0.9% | 1.0% | 0.5% | 0.4% | 0.3% | 0.4% | 0.8% | 0.9% | 0.9% |
| Angola | 68.0% | 70.9% | 60.8% | 58.0% | 53.2% | 53.2% | 56.1% | 71.4% | 72.4% | n.d. |
| Egypt | 10.0% | 9.3% | 8.9% | 8.8% | 8.9% | 8.5% | 8.4% | 8.6% | 9.0% | 10.0% |
| Libya | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | 0.0% | n.d. |
| Nigeria | 24.4% | 21.8% | 19.8% | 18.5% | 16.6% | 17.7% | 17.6% | 17.2% | 17.5% | 20.3% |
| South Africa | 2.1% | 2.0% | 1.7% | 1.7% | 2.6% | 3.5% | 4.4% | 5.5% | 6.3% | 6.5% |
| **Asia-Pacific** | **15.8%** | **15.3%** | **17.0%** | **17.7%** | **19.1%** | **19.9%** | **21.1%** | **21.7%** | **22.5%** | **122.5%** |
| Australia | 8.6% | 10.4% | 10.5% | 13.2% | 14.6% | 13.3% | 14.6% | 15.7% | 17.1% | 18.2% |
| China | 18.8% | 17.0% | 20.1% | 20.5% | 22.8% | 24.1% | 25.3% | 25.5% | 25.9% | 27.0% |
| India | 16.2% | 17.3% | 15.9% | 17.5% | 16.3% | 15.6% | 16.7% | 17.2% | 18.5% | 20.7% |
| Indonesia | 15.9% | 12.0% | 11.2% | 12.3% | 11.5% | 10.7% | 12.6% | 12.5% | 11.8% | 11.9% |
| Japan | 10.2% | 10.9% | 10.5% | 11.3% | 12.8% | 14.7% | 14.7% | 16.4% | 17.4% | 18.0% |
| Malaysia | 6.0% | 6.7% | 7.4% | 8.6% | 9.7% | 10.0% | 13.5% | 16.9% | 16.1% | 16.1% |
| New Zealand | 73.3% | 76.2% | 71.9% | 74.3% | 79.2% | 80.1% | 84.3% | 81.2% | 83.4% | 81.9% |
| South Korea | 1.8% | 2.0% | 2.0% | 2.4% | 2.5% | 2.6% | 3.5% | 4.0% | 4.5% | 4.8% |
| Taiwan | 4.2% | 4.1% | 4.8% | 4.9% | 4.4% | 4.7% | 5.4% | 5.2% | 5.2% | 6.1% |
| Thailand | 5.6% | 8.0% | 8.3% | 8.1% | 8.4% | 8.4% | 15.1% | 16.4% | 20.1% | 20.1% |
| **OECD** | **18.1%** | **19.4%** | **20.4%** | **21.6%** | **22.4%** | **23.2%** | **24.1%** | **25.2%** | **26.1%** | **27.2%** |
| **Non-OECD** | **21.7%** | **21.0%** | **21.9%** | **22.3%** | **22.7%** | **22.9%** | **24.1%** | **24.5%** | **25.2%** | **26.2%** |
| **World** | **19.9%** | **20.2%** | **21.2%** | **22.0%** | **22.6%** | **23.1%** | **24.1%** | **24.8%** | **25.5%** | **26.6%** |

# CO₂ Emissions
from Fossil Fuels

| Total CO₂ Emissions (Million tonnes of carbon dioxide) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **6,696** | **6,519** | **6,337** | **6,447** | **6,484** | **6,357** | **6,248** | **6,179** | **6,333** | **6,198** |
| Canada | 597 | 613 | 618 | 626 | 626 | 628 | 616 | 614 | 623 | 619 |
| Mexico | 484 | 495 | 494 | 483 | 472 | 486 | 493 | 485 | 474 | 469 |
| United States | 5,614 | 5,411 | 5,226 | 5,338 | 5,386 | 5,242 | 5,139 | 5,080 | 5,236 | 5,110 |
| **South and Central America** | **1,241** | **1,271** | **1,338** | **1,375** | **1,415** | **1,391** | **1,357** | **1,316** | **1,269** | **1,233** |
| Argentina | 185 | 193 | 198 | 194 | 197 | 204 | 203 | 196 | 182 | 180 |
| Brazil | 441 | 463 | 499 | 528 | 558 | 524 | 484 | 492 | 465 | 462 |
| Chile | 73 | 80 | 82 | 85 | 78 | 83 | 90 | 91 | 91 | 90 |
| Colombia | 67 | 73 | 73 | 83 | 86 | 87 | 96 | 84 | 85 | 92 |
| Peru | 46 | 49 | 50 | 50 | 54 | 55 | 58 | 55 | 55 | n.d. |
| Trinidad & Tobago | 48 | 47 | 45 | 46 | 46 | 45 | 41 | 39 | 40 | n.d. |
| Venezuela | 193 | 173 | 196 | 189 | 190 | 181 | 168 | 146 | 128 | 111 |
| Other | 188 | 194 | 196 | 200 | 205 | 212 | 217 | 213 | 223 | n.d. |
| **Europe** | **4,497** | **4,382** | **4,339** | **4,241** | **4,068** | **4,128** | **4,135** | **4,195** | **4,129** | **3,967** |
| Belgium | 122 | 112 | 110 | 111 | 105 | 110 | 109 | 108 | 111 | 111 |
| Czech Republic | 123 | 119 | 116 | 111 | 108 | 109 | 110 | 112 | 111 | 108 |
| Finland | 67 | 60 | 54 | 55 | 51 | 47 | 51 | 48 | 50 | n.d. |
| France | 387 | 368 | 371 | 370 | 338 | 343 | 343 | 349 | 334 | 326 |
| Germany | 827 | 798 | 813 | 832 | 791 | 795 | 799 | 787 | 759 | 710 |
| Italy | 430 | 422 | 399 | 365 | 348 | 355 | 352 | 347 | 342 | 335 |
| Netherlands | 201 | 188 | 186 | 185 | 178 | 185 | 185 | 184 | 177 | 180 |
| Norway | 47 | 46 | 45 | 45 | 45 | 45 | 44 | 44 | 47 | 48 |
| Poland | 339 | 337 | 331 | 328 | 316 | 321 | 331 | 345 | 349 | 327 |
| Portugal | 54 | 53 | 51 | 51 | 50 | 54 | 53 | 57 | 55 | 53 |
| Romania | 86 | 93 | 89 | 78 | 78 | 78 | 76 | 79 | 79 | 84 |
| Spain | 289 | 292 | 286 | 259 | 258 | 273 | 264 | 280 | 277 | 260 |
| Sweden | 55 | 50 | 46 | 45 | 44 | 44 | 45 | 45 | 45 | 45 |
| Turkey | 314 | 337 | 350 | 341 | 363 | 375 | 398 | 438 | 439 | 427 |
| United Kingdom | 507 | 466 | 488 | 476 | 435 | 423 | 398 | 384 | 381 | 363 |
| EU | 3,991 | 3,850 | 3,803 | 3,712 | 3,533 | 3,573 | 3,553 | 3,573 | 3,506 | 3,365 |
| Other | 649 | 640 | 604 | 590 | 560 | 570 | 576 | 587 | 574 | n.d. |
| **Former Soviet Union** | **2,604** | **2,735** | **2,738** | **2,677** | **2,602** | **2,564** | **2,548** | **2,572** | **2,727** | **2,754** |
| Azerbaijan | 27 | 30 | 32 | 32 | 34 | 33 | 34 | 33 | 33 | n.d. |
| Kazakhstan | 227 | 242 | 245 | 262 | 249 | 260 | 273 | 272 | 284 | 280 |
| Russia | 1,773 | 1,849 | 1,842 | 1,790 | 1,769 | 1,773 | 1,753 | 1,801 | 1,924 | 1,957 |
| Ukraine | 318 | 337 | 329 | 315 | 266 | 225 | 225 | 203 | 213 | 203 |
| Uzbekistan | 108 | 117 | 122 | 111 | 112 | 100 | 90 | 89 | 95 | 97 |
| Other | 152 | 159 | 169 | 167 | 172 | 172 | 173 | 174 | 178 | 217 |
| **Middle East** | **1,762** | **1,823** | **1,912** | **1,953** | **2,028** | **2,051** | **2,069** | **2,102** | **2,132** | **2,168** |
| Iran | 589 | 607 | 616 | 631 | 659 | 647 | 652 | 674 | 701 | 714 |
| Iraq | 120 | 132 | 153 | 163 | 167 | 161 | 173 | 173 | 191 | 198 |
| Kuwait | 81 | 83 | 82 | 91 | 87 | 97 | 98 | 95 | 95 | 98 |
| Qatar | 68 | 76 | 86 | 88 | 95 | 97 | 98 | 99 | 108 | n.d. |
| Saudi Arabia | 456 | 475 | 507 | 515 | 550 | 576 | 573 | 575 | 552 | 557 |
| United Arab Emirates | 166 | 170 | 180 | 189 | 191 | 202 | 207 | 212 | 212 | 212 |
| Other | 281 | 280 | 288 | 275 | 278 | 272 | 268 | 275 | 271 | n.d. |
| **Africa** | **1,197** | **1,184** | **1,253** | **1,294** | **1,341** | **1,331** | **1,345** | **1,366** | **1,408** | **1,416** |
| Algeria | 115 | 119 | 129 | 132 | 144 | 152 | 150 | 151 | 161 | 164 |
| Angola | 29 | 30 | 31 | 34 | 35 | 36 | 36 | 30 | 33 | n.d. |
| Egypt | 213 | 218 | 229 | 225 | 226 | 231 | 238 | 243 | 244 | 241 |
| Libya | 62 | 40 | 54 | 57 | 59 | 53 | 50 | 51 | 52 | n.d. |
| Nigeria | 91 | 93 | 94 | 113 | 119 | 111 | 111 | 115 | 116 | 114 |
| South Africa | 442 | 427 | 443 | 454 | 466 | 441 | 442 | 444 | 456 | 461 |
| Other | 245 | 257 | 273 | 279 | 292 | 309 | 316 | 331 | 345 | n.d. |
| **Asia-Pacific** | **15,276** | **16,346** | **16,999** | **17,650** | **17,805** | **17,811** | **17,930** | **18,267** | **18,800** | **19,016** |
| Australia | 419 | 417 | 415 | 408 | 399 | 406 | 417 | 422 | 420 | 426 |
| China | 9,388 | 10,238 | 10,610 | 11,150 | 11,104 | 11,027 | 11,042 | 11,163 | 11,482 | 11,804 |
| India | 1,762 | 1,861 | 2,022 | 2,080 | 2,246 | 2,268 | 2,295 | 2,405 | 2,505 | 2,477 |
| Indonesia | 418 | 446 | 484 | 484 | 522 | 527 | 523 | 564 | 608 | 646 |
| Japan | 1,208 | 1,260 | 1,303 | 1,312 | 1,271 | 1,232 | 1,222 | 1,206 | 1,174 | 1,134 |
| Malaysia | 209 | 215 | 219 | 238 | 246 | 246 | 243 | 244 | 254 | 260 |
| New Zealand | 34 | 33 | 35 | 35 | 36 | 36 | 35 | 36 | 36 | 36 |
| South Korea | 640 | 673 | 679 | 678 | 675 | 692 | 708 | 719 | 729 | 702 |
| Taiwan | 275 | 275 | 265 | 270 | 275 | 274 | 279 | 291 | 295 | 287 |
| Thailand | 251 | 251 | 269 | 283 | 278 | 283 | 281 | 281 | 290 | 293 |
| Other | 671 | 676 | 698 | 714 | 754 | 821 | 885 | 936 | 1,006 | 950 |
| **OECD** | **13,353** | **13,130** | **12,982** | **13,008** | **12,820** | **12,735** | **12,656** | **12,641** | **12,715** | **12,367** |
| **Non-OECD** | **19,920** | **21,129** | **21,935** | **22,629** | **22,924** | **22,898** | **22,976** | **23,356** | **24,092** | **24,396** |
| **World** | **33,273** | **34,259** | **34,917** | **35,637** | **35,744** | **35,633** | **35,632** | **35,997** | **36,789** | **36,718** |

*Note: Total CO₂ emissions includes emissions from fuel combustion, emissions from industrial process, fugitive emissions from flared gas and emissions from wastes*

| Oil CO₂ Emissions<br>*(Million tonnes of carbon dioxide)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **2,661** | **2,553** | **2,523** | **2,544** | **2,546** | **2,593** | **2,606** | **2,588** | **2,629** | **2,605** |
| Canada | 274 | 274 | 279 | 280 | 275 | 281 | 280 | 275 | 268 | 263 |
| Mexico | 254 | 261 | 263 | 259 | 247 | 245 | 254 | 247 | 249 | 241 |
| United States | 2,133 | 2,018 | 1,982 | 2,005 | 2,024 | 2,067 | 2,072 | 2,066 | 2,112 | 2,101 |
| **South and Central America** | **729** | **750** | **792** | **792** | **813** | **786** | **767** | **746** | **716** | **690** |
| Argentina | 82 | 85 | 88 | 83 | 86 | 90 | 88 | 82 | 72 | 72 |
| Brazil | 276 | 294 | 314 | 326 | 340 | 316 | 298 | 301 | 282 | 278 |
| Chile | 43 | 44 | 44 | 45 | 44 | 45 | 47 | 48 | 48 | 49 |
| Colombia | 31 | 35 | 37 | 39 | 41 | 42 | 44 | 42 | 44 | 45 |
| Peru | 25 | 27 | 26 | 27 | 26 | 28 | 30 | 30 | 30 | n.d. |
| Trinidad & Tobago | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | n.d. |
| Venezuela | 111 | 102 | 117 | 106 | 106 | 90 | 81 | 67 | 59 | 53 |
| Other | 158 | 160 | 163 | 162 | 166 | 170 | 174 | 172 | 178 | n.d. |
| **Europe** | **1,654** | **1,594** | **1,547** | **1,514** | **1,495** | **1,536** | **1,556** | **1,583** | **1,579** | **1,595** |
| Belgium | 51 | 47 | 46 | 47 | 45 | 48 | 46 | 46 | 46 | 45 |
| Czech Republic | 21 | 21 | 21 | 20 | 21 | 21 | 21 | 22 | 22 | 23 |
| Finland | 25 | 24 | 23 | 23 | 21 | 21 | 23 | 22 | 22 | n.d. |
| France | 204 | 204 | 199 | 195 | 189 | 191 | 188 | 188 | 183 | 183 |
| Germany | 267 | 256 | 258 | 264 | 255 | 257 | 257 | 259 | 252 | 256 |
| Italy | 186 | 180 | 165 | 152 | 152 | 154 | 148 | 143 | 145 | 145 |
| Netherlands | 64 | 64 | 62 | 61 | 59 | 59 | 61 | 61 | 59 | 62 |
| Norway | 22 | 22 | 21 | 21 | 20 | 20 | 20 | 19 | 19 | 21 |
| Poland | 67 | 66 | 63 | 58 | 58 | 62 | 69 | 78 | 81 | 82 |
| Portugal | 31 | 28 | 25 | 25 | 25 | 25 | 25 | 25 | 26 | 29 |
| Romania | 23 | 24 | 25 | 23 | 24 | 24 | 25 | 27 | 27 | 29 |
| Spain | 161 | 150 | 138 | 133 | 132 | 139 | 142 | 144 | 148 | 149 |
| Sweden | 33 | 30 | 28 | 27 | 27 | 27 | 28 | 27 | 27 | 28 |
| Turkey | 72 | 74 | 77 | 81 | 84 | 96 | 104 | 120 | 117 | 118 |
| United Kingdom | 167 | 160 | 155 | 160 | 155 | 155 | 163 | 164 | 165 | 159 |
| EU | 1,502 | 1,444 | 1,396 | 1,357 | 1,339 | 1,369 | 1,380 | 1,392 | 1,391 | 1,407 |
| Other | 260 | 246 | 235 | 229 | 227 | 233 | 237 | 240 | 240 | n.d. |
| **Former Soviet Union** | **447** | **479** | **478** | **477** | **481** | **480** | **469** | **479** | **486** | **497** |
| Azerbaijan | 8 | 9 | 10 | 10 | 10 | 11 | 11 | 11 | 11 | n.d. |
| Kazakhstan | 30 | 36 | 33 | 47 | 33 | 41 | 46 | 42 | 44 | 46 |
| Russia | 315 | 339 | 338 | 327 | 348 | 343 | 323 | 341 | 343 | 349 |
| Ukraine | 38 | 38 | 37 | 36 | 31 | 29 | 31 | 29 | 30 | 31 |
| Uzbekistan | 11 | 10 | 9 | 8 | 8 | 7 | 7 | 6 | 7 | 7 |
| Other | 45 | 47 | 51 | 49 | 50 | 49 | 51 | 50 | 52 | n.d. |
| **Middle East** | **859** | **878** | **925** | **946** | **973** | **945** | **922** | **919** | **907** | **904** |
| Iran | 228 | 230 | 237 | 251 | 243 | 214 | 194 | 195 | 200 | 192 |
| Iraq | 94 | 99 | 115 | 124 | 129 | 118 | 127 | 120 | 129 | 133 |
| Kuwait | 51 | 48 | 45 | 52 | 49 | 53 | 52 | 48 | 47 | 45 |
| Qatar | 13 | 12 | 15 | 14 | 17 | 16 | 17 | 17 | 19 | n.d. |
| Saudi Arabia | 298 | 311 | 330 | 335 | 364 | 387 | 376 | 372 | 348 | 350 |
| United Arab Emirates | 37 | 38 | 39 | 43 | 45 | 41 | 45 | 51 | 50 | 48 |
| Other | 138 | 140 | 145 | 126 | 126 | 115 | 111 | 117 | 114 | n.d. |
| **Africa** | **456** | **453** | **482** | **524** | **543** | **550** | **549** | **556** | **562** | **556** |
| Algeria | 44 | 47 | 50 | 52 | 55 | 58 | 56 | 55 | 57 | 56 |
| Angola | 14 | 15 | 15 | 19 | 20 | 20 | 20 | 17 | 18 | n.d. |
| Egypt | 102 | 101 | 107 | 110 | 118 | 121 | 117 | 115 | 108 | 103 |
| Libya | 39 | 26 | 34 | 37 | 37 | 31 | 28 | 29 | 29 | n.d. |
| Nigeria | 36 | 33 | 34 | 54 | 60 | 54 | 57 | 57 | 58 | 57 |
| South Africa | 63 | 68 | 68 | 73 | 70 | 73 | 69 | 72 | 73 | 73 |
| Other | 158 | 163 | 173 | 180 | 183 | 193 | 203 | 212 | 218 | n.d. |
| **Asia-Pacific** | **2,946** | **3,055** | **3,200** | **3,262** | **3,278** | **3,410** | **3,479** | **3,586** | **3,675** | **3,807** |
| Australia | 122 | 129 | 131 | 137 | 135 | 135 | 135 | 138 | 141 | 139 |
| China | 1,061 | 1,083 | 1,147 | 1,208 | 1,238 | 1,322 | 1,353 | 1,396 | 1,478 | 1,572 |
| India | 408 | 427 | 453 | 458 | 480 | 529 | 560 | 589 | 610 | 630 |
| Indonesia | 191 | 215 | 237 | 231 | 234 | 221 | 210 | 233 | 234 | 249 |
| Japan | 472 | 506 | 520 | 498 | 457 | 438 | 423 | 411 | 387 | 365 |
| Malaysia | 69 | 76 | 74 | 84 | 88 | 82 | 80 | 82 | 84 | 86 |
| New Zealand | 18 | 18 | 18 | 18 | 18 | 19 | 19 | 20 | 21 | 21 |
| South Korea | 186 | 179 | 182 | 182 | 179 | 191 | 199 | 195 | 192 | 189 |
| Taiwan | 81 | 76 | 73 | 72 | 72 | 75 | 74 | 78 | 78 | 76 |
| Thailand | 94 | 98 | 105 | 108 | 108 | 108 | 112 | 114 | 119 | 120 |
| Other | 244 | 248 | 259 | 267 | 268 | 291 | 313 | 332 | 330 | 359 |
| **OECD** | **5,097** | **4,964** | **4,914** | **4,880** | **4,812** | **4,892** | **4,919** | **4,914** | **4,929** | **4,892** |
| **Non-OECD** | **4,656** | **4,798** | **5,033** | **5,180** | **5,318** | **5,408** | **5,428** | **5,543** | **5,625** | **5,760** |
| **World** | **9,753** | **9,762** | **9,948** | **10,060** | **10,130** | **10,300** | **10,347** | **10,457** | **10,554** | **10,653** |

| Natural Gas CO₂ Emissions (Million tonnes of carbon dioxide) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **1,626** | **1,666** | **1,746** | **1,774** | **1,811** | **1,855** | **1,869** | **1,853** | **2,021** | **2,083** |
| Canada | 183 | 201 | 205 | 215 | 226 | 225 | 219 | 223 | 247 | 251 |
| Mexico | 136 | 141 | 148 | 141 | 139 | 145 | 147 | 151 | 142 | 148 |
| United States | 1,306 | 1,324 | 1,393 | 1,418 | 1,446 | 1,485 | 1,503 | 1,479 | 1,633 | 1,684 |
| **South and Central America** | **288** | **279** | **295** | **308** | **318** | **323** | **311** | **311** | **300** | **293** |
| Argentina | 90 | 94 | 96 | 97 | 97 | 99 | 102 | 101 | 97 | 96 |
| Brazil | 53 | 55 | 64 | 76 | 83 | 82 | 71 | 76 | 72 | 71 |
| Chile | 10 | 11 | 9 | 10 | 8 | 8 | 9 | 10 | 10 | 11 |
| Colombia | 19 | 17 | 18 | 19 | 20 | 20 | 21 | 19 | 20 | 21 |
| Peru | 13 | 15 | 16 | 15 | 18 | 18 | 19 | 17 | 17 | n.d. |
| Trinidad & Tobago | 33 | 33 | 33 | 33 | 34 | 32 | 29 | 28 | 29 | n.d. |
| Venezuela | 60 | 44 | 46 | 46 | 45 | 50 | 46 | 47 | 40 | 33 |
| Other | 10 | 11 | 12 | 13 | 14 | 14 | 15 | 14 | 14 | n.d. |
| **Europe** | **1,134** | **1,045** | **1,020** | **1,004** | **915** | **951** | **1,006** | **1,051** | **1,031** | **1,050** |
| Belgium | 39 | 33 | 33 | 33 | 29 | 32 | 33 | 33 | 34 | 35 |
| Czech Republic | 18 | 17 | 16 | 17 | 15 | 16 | 17 | 17 | 16 | 17 |
| Finland | 9 | 8 | 7 | 7 | 6 | 5 | 5 | 5 | 5 | n.d. |
| France | 96 | 85 | 88 | 89 | 75 | 80 | 88 | 89 | 85 | 86 |
| Germany | 180 | 164 | 164 | 168 | 151 | 156 | 169 | 174 | 169 | 176 |
| Italy | 158 | 149 | 143 | 133 | 118 | 129 | 135 | 143 | 139 | 142 |
| Netherlands | 92 | 80 | 77 | 77 | 68 | 67 | 69 | 71 | 70 | 73 |
| Norway | 13 | 13 | 12 | 12 | 13 | 14 | 13 | 14 | 16 | 15 |
| Poland | 28 | 29 | 30 | 31 | 29 | 30 | 33 | 34 | 36 | 37 |
| Portugal | 10 | 11 | 9 | 9 | 8 | 10 | 10 | 13 | 12 | 12 |
| Romania | 24 | 25 | 24 | 23 | 21 | 21 | 21 | 22 | 22 | 23 |
| Spain | 73 | 67 | 66 | 60 | 55 | 57 | 58 | 63 | 63 | 72 |
| Sweden | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Turkey | 74 | 86 | 87 | 89 | 94 | 93 | 89 | 104 | 97 | 87 |
| United Kingdom | 197 | 163 | 153 | 151 | 137 | 144 | 163 | 158 | 159 | 158 |
| EU | 1,035 | 934 | 908 | 891 | 797 | 834 | 892 | 920 | 906 | 936 |
| Other | 119 | 114 | 108 | 104 | 92 | 96 | 102 | 109 | 106 | n.d. |
| **Former Soviet Union** | **1,205** | **1,246** | **1,238** | **1,213** | **1,202** | **1,138** | **1,146** | **1,175** | **1,240** | **1,261** |
| Azerbaijan | 16 | 18 | 19 | 19 | 21 | 20 | 20 | 20 | 20 | n.d. |
| Kazakhstan | 50 | 51 | 54 | 58 | 62 | 63 | 66 | 66 | 69 | 67 |
| Russia | 856 | 878 | 869 | 861 | 856 | 817 | 833 | 864 | 920 | 943 |
| Ukraine | 102 | 105 | 96 | 88 | 73 | 58 | 57 | 55 | 57 | 53 |
| Uzbekistan | 88 | 98 | 101 | 88 | 90 | 80 | 69 | 68 | 72 | 76 |
| Other | 93 | 97 | 99 | 98 | 100 | 100 | 99 | 100 | 101 | n.d. |
| **Middle East** | **711** | **744** | **764** | **785** | **833** | **889** | **928** | **964** | **1,005** | **1,039** |
| Iran | 283 | 296 | 294 | 297 | 335 | 358 | 382 | 400 | 419 | 438 |
| Iraq | 10 | 14 | 13 | 13 | 13 | 13 | 14 | 21 | 26 | 27 |
| Kuwait | 28 | 33 | 35 | 35 | 35 | 40 | 43 | 43 | 45 | 49 |
| Qatar | 46 | 54 | 60 | 62 | 65 | 67 | 67 | 69 | 75 | n.d. |
| Saudi Arabia | 137 | 140 | 152 | 154 | 160 | 164 | 170 | 179 | 182 | 184 |
| United Arab Emirates | 116 | 120 | 126 | 129 | 126 | 141 | 142 | 140 | 141 | 143 |
| Other | 91 | 88 | 85 | 96 | 99 | 105 | 109 | 111 | 116 | n.d. |
| **Africa** | **197** | **218** | **229** | **227** | **230** | **242** | **251** | **263** | **276** | **283** |
| Algeria | 53 | 58 | 65 | 66 | 73 | 78 | 78 | 80 | 86 | 90 |
| Angola | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | n.d. |
| Egypt | 81 | 88 | 89 | 85 | 80 | 84 | 94 | 102 | 109 | 111 |
| Libya | 12 | 10 | 11 | 13 | 11 | 12 | 13 | 14 | 14 | n.d. |
| Nigeria | 20 | 28 | 29 | 28 | 31 | 31 | 30 | 31 | 30 | 30 |
| South Africa | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 4 |
| Other | 26 | 28 | 30 | 29 | 30 | 31 | 30 | 31 | 31 | n.d. |
| **Asia-Pacific** | **1,134** | **1,183** | **1,232** | **1,287** | **1,323** | **1,331** | **1,388** | **1,445** | **1,560** | **1,617** |
| Australia | 62 | 63 | 66 | 67 | 69 | 70 | 73 | 75 | 78 | 90 |
| China | 243 | 253 | 282 | 322 | 353 | 371 | 402 | 461 | 543 | 590 |
| India | 117 | 117 | 101 | 90 | 89 | 90 | 97 | 105 | 108 | 113 |
| Indonesia | 77 | 78 | 80 | 82 | 84 | 84 | 82 | 79 | 82 | 80 |
| Japan | 206 | 241 | 250 | 248 | 251 | 239 | 243 | 237 | 228 | 217 |
| Malaysia | 67 | 65 | 67 | 78 | 80 | 78 | 73 | 64 | 66 | 70 |
| New Zealand | 8 | 8 | 8 | 9 | 10 | 9 | 9 | 9 | 8 | 9 |
| South Korea | 91 | 98 | 106 | 111 | 100 | 93 | 99 | 103 | 119 | 116 |
| Taiwan | 31 | 34 | 32 | 33 | 34 | 37 | 39 | 42 | 44 | 43 |
| Thailand | 77 | 71 | 82 | 87 | 87 | 87 | 86 | 81 | 80 | 80 |
| Other | 155 | 156 | 160 | 160 | 166 | 173 | 186 | 190 | 204 | 210 |
| **OECD** | **3,099** | **3,091** | **3,162** | **3,192** | **3,136** | **3,201** | **3,286** | **3,312** | **3,472** | **3,551** |
| **Non-OECD** | **3,196** | **3,291** | **3,363** | **3,407** | **3,497** | **3,530** | **3,615** | **3,750** | **3,960** | **4,074** |
| **World** | **6,295** | **6,382** | **6,524** | **6,599** | **6,632** | **6,731** | **6,900** | **7,062** | **7,432** | **7,625** |

| Coal CO₂ Emissions *(Million tonnes of carbon dioxide)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **2,128** | **2,014** | **1,778** | **1,834** | **1,826** | **1,600** | **1,474** | **1,442** | **1,382** | **1,214** |
| Canada | 90 | 85 | 77 | 75 | 73 | 71 | 67 | 65 | 56 | 54 |
| Mexico | 55 | 59 | 51 | 52 | 51 | 55 | 48 | 51 | 48 | 44 |
| United States | 1,983 | 1,871 | 1,650 | 1,707 | 1,702 | 1,474 | 1,358 | 1,326 | 1,277 | 1,117 |
| **South and Central America** | **90** | **98** | **104** | **121** | **124** | **128** | **131** | **121** | **119** | **120** |
| Argentina | 3 | 4 | 5 | 4 | 4 | 4 | 3 | 3 | 4 | 2 |
| Brazil | 48 | 49 | 52 | 59 | 65 | 65 | 60 | 60 | 60 | 60 |
| Chile | 18 | 22 | 25 | 28 | 25 | 28 | 29 | 30 | 28 | 26 |
| Colombia | 12 | 13 | 11 | 17 | 17 | 17 | 23 | 15 | 13 | 17 |
| Peru | 3 | 3 | 3 | 4 | 3 | 3 | 3 | 3 | 2 | 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 | 0 | 1 | 0 | 0 |
| Other | 6 | 6 | 7 | 8 | 9 | 10 | 11 | 10 | 11 | n.d. |
| **Europe** | **1,333** | **1,362** | **1,404** | **1,357** | **1,290** | **1,272** | **1,200** | **1,180** | **1,142** | **956** |
| Belgium | 16 | 15 | 15 | 15 | 15 | 14 | 13 | 13 | 15 | 15 |
| Czech Republic | 73 | 71 | 69 | 65 | 63 | 62 | 63 | 62 | 62 | 58 |
| Finland | 29 | 24 | 20 | 22 | 19 | 17 | 19 | 18 | 19 | n.d. |
| France | 51 | 45 | 51 | 53 | 41 | 40 | 36 | 40 | 36 | 26 |
| Germany | 315 | 314 | 328 | 339 | 325 | 322 | 313 | 293 | 279 | 221 |
| Italy | 53 | 60 | 62 | 53 | 52 | 48 | 44 | 38 | 35 | 26 |
| Netherlands | 32 | 31 | 34 | 34 | 38 | 46 | 43 | 39 | 34 | 26 |
| Norway | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| Poland | 221 | 217 | 213 | 213 | 202 | 201 | 201 | 203 | 201 | 178 |
| Portugal | 7 | 9 | 12 | 11 | 11 | 13 | 11 | 13 | 11 | 5 |
| Romania | 28 | 33 | 30 | 24 | 23 | 24 | 22 | 22 | 21 | 22 |
| Spain | 33 | 53 | 61 | 45 | 49 | 55 | 41 | 50 | 43 | 17 |
| Sweden | 10 | 9 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 6 |
| Turkey | 128 | 134 | 142 | 125 | 138 | 140 | 156 | 162 | 174 | 171 |
| United Kingdom | 119 | 120 | 152 | 146 | 118 | 94 | 48 | 39 | 33 | 23 |
| EU | 1,140 | 1,155 | 1,195 | 1,165 | 1,095 | 1,069 | 979 | 953 | 904 | 726 |
| Other | 215 | 224 | 207 | 202 | 185 | 184 | 179 | 178 | n.d. | n.d. |
| **Former Soviet Union** | **696** | **734** | **733** | **702** | **639** | **670** | **654** | **638** | **700** | **693** |
| Azerbaijan | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | n.d. |
| Kazakhstan | 137 | 145 | 148 | 147 | 141 | 145 | 149 | 150 | 157 | 154 |
| Russia | 414 | 432 | 420 | 390 | 354 | 404 | 384 | 378 | 425 | 426 |
| Ukraine | 136 | 148 | 152 | 149 | 127 | 104 | 104 | 92 | 98 | 93 |
| Uzbekistan | 4 | 5 | 6 | 8 | 8 | 7 | 7 | 8 | 9 | 7 |
| Other | 4 | 5 | 7 | 8 | 10 | 10 | 10 | 11 | 12 | n.d. |
| **Middle East** | **38** | **39** | **46** | **43** | **43** | **41** | **38** | **37** | **36** | **37** |
| Iran | 5 | 6 | 5 | 6 | 6 | 7 | 6 | 7 | 7 | 7 |
| 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 | 3 | 2 | 5 | 7 | 8 | 7 | 7 | 8 | 8 | 8 |
| Other | 30 | 31 | 36 | 30 | 29 | 28 | 24 | 22 | 21 | 22 |
| **Africa** | **387** | **367** | **385** | **390** | **414** | **387** | **392** | **393** | **411** | **418** |
| Algeria | 0 | 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 | 0 | 0 | 1 | 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 | 363 | 340 | 357 | 362 | 377 | 348 | 354 | 353 | 364 | 370 |
| Other | 23 | 26 | 27 | 27 | 35 | 37 | 37 | 39 | 45 | 47 |
| **Asia-Pacific** | **9,037** | **9,765** | **10,080** | **10,456** | **10,525** | **10,442** | **10,358** | **10,551** | **10,800** | **10,796** |
| Australia | 209 | 200 | 193 | 180 | 171 | 176 | 181 | 179 | 170 | 166 |
| China | 6,474 | 7,126 | 7,293 | 7,601 | 7,466 | 7,361 | 7,254 | 7,311 | 7,410 | 7,470 |
| India | 1,057 | 1,125 | 1,255 | 1,305 | 1,445 | 1,405 | 1,392 | 1,462 | 1,528 | 1,476 |
| Indonesia | 108 | 109 | 115 | 116 | 150 | 165 | 174 | 194 | 231 | 251 |
| Japan | 406 | 391 | 410 | 440 | 440 | 435 | 429 | 429 | 431 | 424 |
| Malaysia | 59 | 59 | 63 | 60 | 61 | 69 | 75 | 82 | 87 | 87 |
| New Zealand | 4 | 4 | 5 | 5 | 4 | 4 | 3 | 3 | 3 | 3 |
| South Korea | 305 | 334 | 329 | 319 | 332 | 339 | 340 | 347 | 339 | 320 |
| Taiwan | 154 | 156 | 152 | 156 | 157 | 153 | 157 | 162 | 164 | 159 |
| Thailand | 65 | 66 | 65 | 69 | 64 | 68 | 62 | 66 | 70 | 71 |
| Other | 196 | 195 | 200 | 206 | 234 | 267 | 291 | 315 | 366 | 368 |
| **OECD** | **4,309** | **4,216** | **4,052** | **4,076** | **4,007** | **3,766** | **3,568** | **3,519** | **3,409** | **3,035** |
| **Non-OECD** | **9,399** | **10,162** | **10,478** | **10,828** | **10,854** | **10,774** | **10,677** | **10,844** | **11,182** | **11,199** |
| **World** | **13,709** | **14,379** | **14,530** | **14,904** | **14,861** | **14,539** | **14,246** | **14,362** | **14,591** | **14,234** |

| CO₂ Emissions Intensity to GDP (kCO₂/thousand $15ppp) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **337** | **321** | **304** | **304** | **299** | **284** | **274** | **265** | **265** | **254** |
| Canada | 385 | 382 | 376 | 373 | 365 | 363 | 351 | 340 | 337 | 330 |
| Mexico | 231 | 231 | 224 | 216 | 203 | 200 | 196 | 192 | 183 | 182 |
| United States | 333 | 316 | 298 | 298 | 293 | 277 | 268 | 259 | 259 | 247 |
| **South and Central America** | **185** | **181** | **183** | **180** | **180** | **178** | **177** | **172** | **165** | **161** |
| Argentina | 212 | 208 | 218 | 208 | 217 | 218 | 223 | 208 | 198 | 200 |
| Brazil | 123 | 125 | 133 | 138 | 145 | 143 | 137 | 138 | 129 | 127 |
| Chile | 209 | 214 | 209 | 211 | 192 | 200 | 209 | 207 | 200 | 196 |
| Colombia | 115 | 116 | 111 | 122 | 121 | 117 | 130 | 110 | 109 | 114 |
| Peru | 133 | 136 | 127 | 122 | 126 | 127 | 127 | 118 | 113 | n.d. |
| Trinidad & Tobago | 849 | 841 | 816 | 822 | 841 | 798 | 766 | 751 | 763 | n.d. |
| Venezuela | 335 | 273 | 291 | 267 | 276 | 273 | 298 | 316 | 344 | 459 |
| **Europe** | **198** | **188** | **187** | **181** | **169** | **168** | **164** | **162** | **156** | **147** |
| Belgium | 224 | 199 | 196 | 198 | 183 | 189 | 184 | 179 | 181 | 180 |
| Czech Republic | 348 | 331 | 323 | 313 | 296 | 284 | 281 | 273 | 263 | 249 |
| Finland | 277 | 238 | 218 | 224 | 207 | 192 | 201 | 185 | 191 | n.d. |
| France | 138 | 128 | 130 | 129 | 116 | 117 | 116 | 115 | 108 | 104 |
| Germany | 217 | 201 | 205 | 209 | 195 | 193 | 189 | 182 | 173 | 161 |
| Italy | 174 | 170 | 166 | 155 | 148 | 150 | 147 | 143 | 140 | 137 |
| Netherlands | 232 | 214 | 214 | 213 | 201 | 206 | 202 | 194 | 182 | 182 |
| Norway | 136 | 132 | 126 | 124 | 122 | 120 | 116 | 114 | 120 | 121 |
| Poland | 362 | 340 | 328 | 321 | 297 | 291 | 292 | 290 | 279 | 251 |
| Portugal | 151 | 152 | 154 | 151 | 146 | 157 | 152 | 161 | 150 | 141 |
| Romania | 202 | 216 | 205 | 174 | 167 | 162 | 151 | 148 | 141 | 143 |
| Spain | 163 | 167 | 169 | 154 | 150 | 155 | 145 | 149 | 144 | 133 |
| Sweden | 113 | 100 | 93 | 88 | 86 | 81 | 82 | 80 | 78 | 76 |
| Turkey | 192 | 186 | 184 | 164 | 167 | 164 | 168 | 173 | 169 | 163 |
| United Kingdom | 197 | 178 | 184 | 175 | 155 | 147 | 136 | 129 | 126 | 119 |
| EU | 200 | 189 | 188 | 183 | 171 | 169 | 165 | 161 | 155 | 146 |
| **Former Soviet Union** | **519** | **515** | **495** | **472** | **454** | **458** | **453** | **448** | **461** | **456** |
| Azerbaijan | 155 | 174 | 186 | 179 | 183 | 182 | 191 | 188 | 186 | n.d. |
| Kazakhstan | 620 | 616 | 594 | 601 | 543 | 564 | 585 | 556 | 558 | 527 |
| Russia | 497 | 491 | 468 | 445 | 437 | 452 | 447 | 452 | 471 | 473 |
| Ukraine | 722 | 719 | 704 | 676 | 611 | 561 | 549 | 493 | 499 | 462 |
| Uzbekistan | 792 | 800 | 761 | 642 | 600 | 492 | 403 | 382 | 383 | 372 |
| **Middle East** | **324** | **315** | **324** | **323** | **327** | **325** | **309** | **312** | **317** | **326** |
| Iran | 361 | 362 | 395 | 409 | 413 | 414 | 367 | 366 | 402 | 443 |
| Iraq | 249 | 250 | 250 | 249 | 256 | 232 | 220 | 224 | 248 | 247 |
| Kuwait | 328 | 304 | 283 | 308 | 293 | 324 | 318 | 314 | 314 | 320 |
| Qatar | 249 | 247 | 264 | 258 | 268 | 263 | 260 | 259 | 280 | n.d. |
| Saudi Arabia | 327 | 308 | 312 | 308 | 319 | 322 | 314 | 320 | 300 | 302 |
| United Arab Emirates | 308 | 296 | 302 | 301 | 289 | 290 | 290 | 295 | 290 | 286 |
| **Africa** | **210** | **207** | **207** | **208** | **209** | **201** | **199** | **196** | **195** | **190** |
| Algeria | 196 | 205 | 218 | 218 | 226 | 232 | 221 | 220 | 231 | 234 |
| Angola | 96 | 99 | 93 | 104 | 107 | 110 | 112 | 94 | 105 | n.d. |
| Egypt | 207 | 211 | 213 | 208 | 204 | 203 | 200 | 198 | 188 | 176 |
| Libya | 264 | 482 | 274 | 349 | 447 | 437 | 432 | 346 | 301 | n.d. |
| Nigeria | 66 | 68 | 67 | 82 | 85 | 77 | 80 | 81 | 80 | 77 |
| South Africa | 655 | 611 | 622 | 620 | 627 | 584 | 583 | 578 | 589 | 594 |
| **Asia-Pacific** | **377** | **380** | **373** | **364** | **347** | **331** | **314** | **304** | **297** | **288** |
| Australia | 411 | 400 | 383 | 367 | 349 | 346 | 345 | 340 | 330 | 328 |
| China | 573 | 570 | 544 | 529 | 489 | 457 | 426 | 406 | 391 | 379 |
| India | 270 | 270 | 278 | 268 | 271 | 252 | 236 | 232 | 227 | 216 |
| Indonesia | 172 | 173 | 176 | 166 | 172 | 165 | 155 | 161 | 165 | 167 |
| Japan | 226 | 238 | 243 | 240 | 231 | 221 | 217 | 211 | 204 | 196 |
| Malaysia | 307 | 300 | 289 | 301 | 293 | 278 | 266 | 252 | 250 | 246 |
| New Zealand | 202 | 192 | 199 | 195 | 194 | 184 | 175 | 178 | 171 | 169 |
| South Korea | 377 | 383 | 378 | 366 | 352 | 350 | 349 | 344 | 340 | 321 |
| Taiwan | 579 | 558 | 528 | 524 | 510 | 507 | 510 | 517 | 511 | 483 |
| Thailand | 243 | 241 | 241 | 246 | 239 | 236 | 225 | 217 | 215 | 212 |
| **OECD** | **263** | **253** | **247** | **244** | **235** | **227** | **222** | **216** | **212** | **203** |
| **Non-OECD** | **355** | **355** | **349** | **342** | **330** | **318** | **305** | **297** | **293** | **286** |
| **World** | **310** | **305** | **300** | **296** | **286** | **276** | **267** | **261** | **258** | **250** |

Note: CO₂ Emissions Intensity to GDP is calculatesd with CO₂ emissions from fuel combustion only.

| CO₂ Emissions per capita (tCO₂ per capita) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **14.5** | **14.0** | **13.5** | **13.6** | **13.6** | **13.2** | **12.8** | **12.6** | **12.8** | **12.4** |
| Canada | 17.6 | 17.8 | 17.8 | 17.8 | 17.6 | 17.5 | 17.0 | 16.7 | 16.8 | 16.5 |
| Mexico | 4.1 | 4.2 | 4.1 | 3.9 | 3.8 | 3.9 | 3.9 | 3.8 | 3.6 | 3.5 |
| United States | 18.2 | 17.4 | 16.6 | 16.9 | 16.9 | 16.3 | 15.9 | 15.6 | 16.0 | 15.5 |
| **South and Central America** | **2.6** | **2.6** | **2.8** | **2.8** | **2.9** | **2.8** | **2.7** | **2.6** | **2.5** | **2.4** |
| Argentina | 4.5 | 4.6 | 4.7 | 4.6 | 4.6 | 4.7 | 4.6 | 4.4 | 4.1 | 4.0 |
| Brazil | 2.2 | 2.3 | 2.5 | 2.6 | 2.7 | 2.5 | 2.3 | 2.4 | 2.2 | 2.2 |
| Chile | 4.3 | 4.7 | 4.7 | 4.9 | 4.4 | 4.7 | 5.0 | 5.0 | 5.0 | 4.9 |
| Colombia | 1.5 | 1.6 | 1.6 | 1.8 | 1.8 | 1.8 | 2.0 | 1.7 | 1.7 | 1.8 |
| Peru | 1.6 | 1.7 | 1.6 | 1.6 | 1.7 | 1.8 | 1.8 | 1.7 | 1.7 | n.d. |
| Trinidad & Tobago | 35.9 | 35.3 | 33.4 | 33.9 | 33.9 | 32.9 | 30.1 | 28.7 | 29.0 | n.d. |
| Venezuela | 6.7 | 5.9 | 6.5 | 6.2 | 6.2 | 5.8 | 5.3 | 4.6 | 3.9 | 3.4 |
| Other | 1.6 | 1.7 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.7 | 1.8 | n.d. |
| **Europe** | **7.4** | **7.2** | **7.1** | **6.9** | **6.6** | **6.7** | **6.6** | **6.7** | **6.6** | **6.3** |
| Belgium | 11.2 | 10.2 | 9.9 | 10.0 | 9.4 | 9.8 | 9.6 | 9.5 | 9.7 | 9.7 |
| Czech Republic | 11.7 | 11.4 | 11.0 | 10.5 | 10.3 | 10.3 | 10.4 | 10.6 | 10.4 | 10.1 |
| Finland | 12.6 | 11.1 | 10.0 | 10.1 | 9.3 | 8.7 | 9.2 | 8.7 | 9.1 | n.d. |
| France | 5.9 | 5.6 | 5.6 | 5.6 | 5.1 | 5.2 | 5.1 | 5.2 | 5.0 | 4.8 |
| Germany | 10.1 | 9.9 | 10.1 | 10.3 | 9.8 | 9.7 | 9.7 | 9.5 | 9.1 | 8.5 |
| Italy | 7.3 | 7.1 | 6.7 | 6.1 | 5.7 | 5.8 | 5.8 | 5.7 | 5.6 | 5.6 |
| Netherlands | 12.1 | 11.3 | 11.1 | 11.0 | 10.5 | 10.9 | 10.9 | 10.7 | 10.3 | 10.4 |
| Norway | 9.7 | 9.3 | 9.0 | 8.8 | 8.7 | 8.7 | 8.5 | 8.4 | 8.9 | 8.9 |
| Poland | 8.9 | 8.9 | 8.7 | 8.6 | 8.3 | 8.4 | 8.7 | 9.1 | 9.2 | 8.6 |
| Portugal | 5.1 | 5.0 | 4.9 | 4.9 | 4.8 | 5.2 | 5.1 | 5.6 | 5.3 | 5.1 |
| Romania | 4.2 | 4.6 | 4.4 | 3.9 | 3.9 | 3.9 | 3.9 | 4.1 | 4.1 | 4.3 |
| Spain | 6.2 | 6.2 | 6.1 | 5.5 | 5.5 | 5.9 | 5.7 | 6.0 | 5.9 | 5.6 |
| Sweden | 5.8 | 5.3 | 4.9 | 4.6 | 4.6 | 4.5 | 4.6 | 4.5 | 4.4 | 4.4 |
| Turkey | 4.3 | 4.6 | 4.7 | 4.5 | 4.7 | 4.8 | 5.0 | 5.4 | 5.4 | 5.1 |
| United Kingdom | 8.1 | 7.4 | 7.7 | 7.4 | 6.7 | 6.5 | 6.1 | 5.8 | 5.7 | 5.4 |
| EU | 7.9 | 7.6 | 7.5 | 7.3 | 7.0 | 7.0 | 7.0 | 7.0 | 6.8 | 6.5 |
| Other | 6.9 | 6.8 | 6.5 | 6.3 | 6.0 | 6.1 | 6.2 | 6.3 | 6.1 | n.d. |
| **Former Soviet Union** | **8.5** | **8.8** | **8.8** | **8.5** | **8.2** | **8.0** | **8.0** | **8.2** | **8.3** | **8.3** |
| Azerbaijan | 2.6 | 2.9 | 3.2 | 3.2 | 3.3 | 3.2 | 3.3 | 3.3 | n.d. | n.d. |
| Kazakhstan | 13.5 | 14.2 | 14.0 | 14.7 | 13.6 | 13.0 | 13.1 | 13.2 | 13.5 | 13.5 |
| Russia | 11.3 | 11.8 | 11.6 | 11.2 | 11.1 | 11.1 | 11.0 | 11.7 | 12.1 | 12.1 |
| Ukraine | 6.0 | 6.4 | 6.3 | 6.0 | 5.1 | 4.2 | 4.5 | 3.9 | 3.9 | 3.9 |
| Uzbekistan | 3.5 | 3.7 | 3.7 | 3.3 | 3.3 | 2.9 | 2.7 | 2.7 | 2.8 | 2.8 |
| Other | 152 | 159 | 169 | 167 | 172 | 172 | 173 | 174 | 178 | 217 |
| **Middle East** | **8.2** | **8.3** | **8.5** | **8.6** | **8.7** | **8.6** | **8.6** | **8.6** | **8.5** | **8.5** |
| Iran | 7.9 | 8.0 | 8.1 | 8.1 | 8.4 | 8.2 | 8.1 | 8.3 | 8.5 | 8.6 |
| Iraq | 3.9 | 4.2 | 4.7 | 4.8 | 4.8 | 4.4 | 4.6 | 4.5 | 4.8 | 4.9 |
| Kuwait | 27.1 | 25.9 | 24.3 | 25.2 | 23.1 | 24.7 | 24.3 | 22.8 | 22.4 | 22.4 |
| Qatar | 38.1 | 38.7 | 40.6 | 39.1 | 40.0 | 38.9 | 38.0 | 37.5 | 39.6 | n.d. |
| Saudi Arabia | 16.6 | 16.8 | 17.4 | 17.2 | 17.9 | 18.3 | 17.7 | 17.5 | 16.4 | 16.2 |
| United Arab Emirates | 20.1 | 19.6 | 20.2 | 21.0 | 21.1 | 22.0 | 22.4 | 22.5 | 22.3 | 22.0 |
| Other | 4.1 | 4.0 | 4.1 | 3.8 | 3.8 | 3.7 | 3.5 | 3.6 | 3.5 | n.d. |
| **Africa** | **1.1** | **1.1** | **1.1** | **1.1** | **1.2** | **1.1** | **1.1** | **1.1** | **1.1** | **1.1** |
| Algeria | 3.2 | 3.2 | 3.4 | 3.5 | 3.7 | 3.8 | 3.7 | 3.7 | 3.8 | 3.8 |
| Angola | 1.2 | 1.3 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.0 | 1.1 | n.d. |
| Egypt | 2.5 | 2.5 | 2.6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.4 |
| Libya | 10.0 | 6.4 | 8.7 | 9.2 | 9.5 | 8.5 | 8.0 | 8.0 | 8.1 | n.d. |
| Nigeria | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| South Africa | 8.6 | 8.2 | 8.4 | 8.4 | 8.5 | 8.0 | 7.9 | 7.8 | 7.9 | 7.9 |
| Other | 0.36 | 0.36 | 0.38 | 0.37 | 0.38 | 0.39 | 0.39 | 0.40 | 0.40 | n.d. |
| **Asia-Pacific** | **4.0** | **4.2** | **4.3** | **4.5** | **4.5** | **4.4** | **4.4** | **4.5** | **4.5** | **4.6** |
| Australia | 19.0 | 18.7 | 18.2 | 17.6 | 17.0 | 17.1 | 17.2 | 17.2 | 16.8 | 16.8 |
| China | 7.0 | 7.6 | 7.9 | 8.2 | 8.1 | 8.0 | 8.0 | 8.1 | 8.2 | 8.4 |
| India | 1.4 | 1.5 | 1.6 | 1.6 | 1.7 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 |
| Indonesia | 1.7 | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.0 | 2.1 | 2.3 | 2.4 |
| Japan | 9.4 | 9.9 | 10.2 | 10.3 | 10.0 | 9.7 | 9.6 | 9.5 | 9.3 | 9.0 |
| Malaysia | 7.5 | 7.5 | 7.5 | 8.0 | 8.1 | 8.0 | 7.8 | 7.7 | 7.9 | 8.0 |
| New Zealand | 7.8 | 7.6 | 7.9 | 7.8 | 8.0 | 7.8 | 7.5 | 7.6 | 7.4 | 7.3 |
| South Korea | 12.9 | 13.5 | 13.5 | 13.4 | 13.3 | 13.6 | 13.8 | 14.0 | 14.1 | 13.5 |
| Taiwan | 11.9 | 11.8 | 11.4 | 11.5 | 11.7 | 11.6 | 11.8 | 12.3 | 12.5 | 12.1 |
| Thailand | 3.7 | 3.7 | 4.0 | 4.1 | 4.1 | 4.1 | 4.1 | 4.1 | 4.2 | 4.2 |
| Other | 1.0 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 1.2 | 1.3 | 1.2 |
| **OECD** | **10.8** | **10.5** | **10.3** | **10.3** | **10.1** | **10.0** | **9.8** | **9.8** | **9.8** | **9.4** |
| **Non-OECD** | **3.5** | **3.7** | **3.8** | **3.8** | **3.8** | **3.8** | **3.7** | **3.8** | **3.8** | **3.8** |
| **World** | **4.8** | **4.9** | **4.9** | **5.0** | **4.9** | **4.9** | **4.8** | **4.8** | **4.8** | **4.8** |

*Note: CO₂ Emissions per capita is calculated with total CO₂ emissions.*

Primary Energy
Intensity to GDP

| Primary Energy Intensity to GDP (ktep/$15ppp) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |
|---|---|---|---|---|---|---|---|---|---|---|
| **North America** | **140** | **136** | **131** | **131** | **130** | **125** | **122** | **119** | **120** | **116** |
| Canada | 183 | 181 | 180 | 179 | 178 | 177 | 175 | 174 | 176 | 171 |
| Mexico | 93 | 94 | 93 | 92 | 87 | 83 | 81 | 77 | 75 | 74 |
| United States | 136 | 132 | 127 | 127 | 125 | 120 | 117 | 114 | 115 | 111 |
| **South and Central America** | **94** | **92** | **92** | **92** | **91** | **90** | **90** | **88** | **86** | **85** |
| Argentina | 96 | 92 | 94 | 94 | 97 | 97 | 99 | 95 | 96 | 97 |
| Brazil | 87 | 85 | 87 | 88 | 90 | 92 | 92 | 92 | 90 | 89 |
| Chile | 92 | 94 | 99 | 98 | 87 | 87 | 92 | 92 | 89 | 89 |
| Colombia | 59 | 55 | 53 | 63 | 60 | 58 | 60 | 56 | 55 | 55 |
| Peru | 63 | 65 | 65 | 60 | 61 | 60 | 60 | 59 | 57 | n.d. |
| Trinidad & Tobago | 446 | 446 | 432 | 425 | 435 | 414 | 390 | 398 | 412 | n.d. |
| Venezuela | 141 | 126 | 130 | 120 | 119 | 116 | 130 | 138 | 151 | 205 |
| **Europe** | **92** | **87** | **86** | **85** | **80** | **79** | **78** | **77** | **75** | **73** |
| Belgium | 123 | 113 | 107 | 112 | 104 | 102 | 107 | 104 | 98 | 100 |
| Czech Republic | 138 | 131 | 131 | 132 | 124 | 118 | 114 | 114 | 111 | 108 |
| Finland | 159 | 150 | 146 | 145 | 149 | 141 | 143 | 137 | 139 | n.d. |
| France | 102 | 97 | 97 | 97 | 92 | 93 | 90 | 88 | 86 | 83 |
| Germany | 91 | 83 | 83 | 84 | 80 | 79 | 77 | 76 | 73 | 71 |
| Italy | 76 | 73 | 72 | 70 | 66 | 68 | 67 | 67 | 65 | 64 |
| Netherlands | 101 | 92 | 93 | 92 | 85 | 85 | 85 | 83 | 80 | 76 |
| Norway | 103 | 92 | 93 | 96 | 93 | 92 | 87 | 89 | 86 | 82 |
| Poland | 115 | 110 | 105 | 103 | 96 | 94 | 95 | 95 | 92 | 85 |
| Portugal | 73 | 72 | 71 | 72 | 70 | 72 | 70 | 71 | 67 | 65 |
| Romania | 95 | 95 | 91 | 80 | 77 | 74 | 71 | 69 | 67 | 65 |
| Spain | 78 | 78 | 80 | 76 | 73 | 73 | 72 | 73 | 71 | 69 |
| Sweden | 119 | 113 | 115 | 111 | 106 | 94 | 101 | 99 | 96 | 91 |
| Turkey | 74 | 71 | 71 | 64 | 63 | 64 | 66 | 66 | 63 | 64 |
| United Kingdom | 82 | 75 | 76 | 74 | 67 | 66 | 64 | 62 | 61 | 59 |
| EU | 93 | 88 | 88 | 86 | 82 | 81 | 79 | 79 | 76 | 73 |
| **Former Soviet Union** | **220** | **216** | **212** | **201** | **197** | **195** | **198** | **198** | **201** | **200** |
| Azerbaijan | 75 | 81 | 87 | 83 | 84 | 83 | 85 | 86 | 85 | n.d. |
| Kazakhstan | 197 | 206 | 187 | 195 | 177 | 177 | 183 | 184 | 186 | 176 |
| Russia | 212 | 208 | 206 | 196 | 195 | 197 | 203 | 205 | 209 | 210 |
| Ukraine | 345 | 313 | 302 | 287 | 279 | 272 | 262 | 249 | 250 | 232 |
| Uzbekistan | 329 | 332 | 316 | 262 | 246 | 202 | 165 | 156 | 156 | 152 |
| **Middle East** | **130** | **123** | **131** | **128** | **133** | **132** | **125** | **126** | **128** | **128** |
| Iran | 143 | 142 | 160 | 163 | 167 | 170 | 154 | 159 | 174 | 179 |
| Iraq | 88 | 91 | 92 | 90 | 89 | 82 | 87 | 98 | 101 | 99 |
| Kuwait | 133 | 118 | 122 | 119 | 112 | 120 | 122 | 118 | 117 | 120 |
| Qatar | 121 | 123 | 149 | 153 | 162 | 157 | 147 | 144 | 153 | n.d. |
| Saudi Arabia | 139 | 121 | 129 | 121 | 130 | 130 | 121 | 123 | 116 | 117 |
| United Arab Emirates | 121 | 112 | 113 | 113 | 120 | 120 | 117 | 100 | 99 | 100 |
| **Africa** | **134** | **138** | **134** | **131** | **132** | **127** | **128** | **128** | **127** | **126** |
| Algeria | 81 | 82 | 87 | 88 | 92 | 93 | 89 | 91 | 95 | 99 |
| Angola | 71 | 71 | 73 | 71 | 89 | 77 | 76 | 76 | 77 | n.d. |
| Egypt | 82 | 85 | 85 | 82 | 82 | 78 | 81 | 84 | 81 | 77 |
| Libya | 102 | 227 | 101 | 103 | 180 | 153 | 141 | 110 | n.d. | n.d. |
| Nigeria | 148 | 153 | 148 | 142 | 137 | 132 | 138 | 144 | 149 | 148 |
| South Africa | 201 | 199 | 187 | 181 | 189 | 174 | 177 | 177 | 178 | 180 |
| **Asia-Pacific** | **143** | **140** | **136** | **132** | **128** | **122** | **117** | **114** | **111** | **112** |
| Australia | 133 | 131 | 124 | 122 | 118 | 115 | 113 | 110 | 108 | 113 |
| China | 186 | 183 | 175 | 168 | 160 | 151 | 140 | 135 | 132 | 128 |
| India | 119 | 119 | 118 | 113 | 111 | 104 | 98 | 95 | 92 | 89 |
| Indonesia | 94 | 86 | 85 | 82 | 82 | 79 | 77 | 77 | 78 | 77 |
| Japan | 103 | 95 | 92 | 90 | 87 | 84 | 83 | 82 | 81 | 79 |
| Malaysia | 116 | 114 | 110 | 119 | 114 | 104 | 103 | 94 | 94 | 94 |
| New Zealand | 125 | 121 | 124 | 122 | 125 | 121 | 115 | 113 | 107 | 104 |
| South Korea | 162 | 163 | 162 | 158 | 156 | 155 | 156 | 153 | 151 | 147 |
| Taiwan | 239 | 227 | 217 | 216 | 211 | 207 | 205 | 200 | 199 | 189 |
| Thailand | 122 | 121 | 121 | 126 | 124 | 121 | 120 | 115 | 113 | 111 |
| **OECD** | **113** | **109** | **107** | **106** | **103** | **100** | **99** | **97** | **96** | **93** |
| **Non-OECD** | **145** | **142** | **140** | **136** | **133** | **128** | **124** | **121** | **119** | **117** |
| **World** | **133** | **130** | **128** | **125** | **122** | **119** | **116** | **114** | **112** | **110** |

Regional
and country
data

| World<br>(Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **12,842.9** | **13,039.5** | **13,244.6** | **13,415.7** | **13,595.4** | **13,637.2** | **13,720.3** | **13,970.0** | **14,287.1** | **14,378.2** | **100.0** |
| Oil | 4,135.4 | 4,129.6 | 4,204.0 | 4,205.1 | 4,287.6 | 4,340.2 | 4,383.8 | 4,462.5 | 4,493.3 | 4,489.9 | 31.2 |
| Gas | 2,732.2 | 2,790.3 | 2,844.2 | 2,897.0 | 2,915.8 | 2,946.7 | 3,025.4 | 3,100.1 | 3,266.8 | 3,356.0 | 23.3 |
| Coal | 3,650.7 | 3,804.2 | 3,850.3 | 3,905.1 | 3,935.2 | 3,851.0 | 3,741.8 | 3,780.0 | 3,812.9 | 3,732.0 | 26.0 |
| Nuclear | 718.3 | 673.1 | 641.2 | 646.1 | 660.8 | 669.8 | 679.7 | 687.0 | 706.4 | 731.8 | 5.1 |
| Hydro | 296.4 | 302.6 | 316.6 | 328.0 | 334.4 | 335.4 | 348.6 | 350.9 | 363.4 | 368.7 | 2.6 |
| Biomass | 1,194.2 | 1,207.7 | 1,240.7 | 1,261.3 | 1,270.5 | 1,281.5 | 1,308.5 | 1,325.6 | 1,350.3 | 1,374.6 | 9.6 |
| Other renewables | 32.2 | 43.2 | 54.0 | 68.1 | 78.8 | 94.4 | 111.6 | 136.0 | 159.2 | 184.4 | 1.3 |
| Electricity balance of trade* | 83.5 | 88.9 | 93.5 | 104.9 | 112.5 | 118.1 | 121.0 | 127.8 | 134.8 | 140.9 | 1.0 |
| **Total final consumption, by source** | **8,945.4** | **9,064.8** | **9,181.4** | **9,349.2** | **9,447.1** | **9,543.1** | **9,657.3** | **9,842.0** | **10,069.5** | **10,149.9** | **100.0** |
| Oil | 3,589.4 | 3,568.0 | 3,610.4 | 3,671.3 | 3,730.5 | 3,822.8 | 3,883.7 | 3,980.4 | 4,032.5 | 4,052.1 | 39.9 |
| Gas | 1,295.9 | 1,309.9 | 1,315.5 | 1,360.9 | 1,363.6 | 1,355.6 | 1,384.3 | 1,440.9 | 1,522.6 | 1,553.2 | 15.3 |
| Coal | 1,247.1 | 1,304.3 | 1,317.0 | 1,326.1 | 1,329.7 | 1,310.6 | 1,265.8 | 1,230.5 | 1,228.0 | 1,216.4 | 12.0 |
| Electricity | 1,536.8 | 1,586.2 | 1,625.0 | 1,674.1 | 1,706.4 | 1,732.8 | 1,787.0 | 1,834.3 | 1,903.0 | 1,915.8 | 18.9 |
| Heat | 295.3 | 307.9 | 317.3 | 310.8 | 311.5 | 311.9 | 326.8 | 334.8 | 345.3 | 354.5 | 3.5 |
| Biomass | 980.8 | 988.4 | 996.2 | 1,006.1 | 1,005.5 | 1,009.3 | 1,009.6 | 1,021.2 | 1,038.1 | 1,057.9 | 10.4 |
| **Electricity generation, by source** | **1,856.7** | **1,917.8** | **1,960.8** | **2,019.3** | **2,057.3** | **2,096.8** | **2,156.6** | **2,211.8** | **2,291.9** | **2,314.5** | **100.0** |
| Oil | 81.1 | 90.0 | 94.8 | 88.8 | 84.8 | 81.2 | 76.3 | 70.9 | 66.2 | 62.8 | 2.7 |
| Gas | 416.7 | 423.1 | 441.1 | 436.9 | 446.8 | 480.9 | 502.8 | 507.5 | 526.9 | 543.6 | 23.5 |
| Coal | 744.9 | 786.7 | 790.0 | 828.2 | 834.5 | 821.3 | 824.1 | 847.9 | 870.4 | 839.9 | 36.3 |
| Nuclear | 237.0 | 222.1 | 211.6 | 213.2 | 218.1 | 221.0 | 224.3 | 226.7 | 233.1 | 241.5 | 10.4 |
| Hydro | 303.9 | 309.8 | 323.8 | 335.1 | 341.8 | 343.0 | 357.9 | 360.8 | 373.1 | 378.1 | 16.3 |
| Biomass | 31.8 | 33.8 | 36.4 | 39.2 | 42.4 | 44.7 | 49.1 | 51.2 | 51.9 | 51.9 | 2.2 |
| Wind | 29.3 | 37.5 | 45.0 | 55.6 | 61.7 | 72.1 | 82.4 | 96.9 | 108.5 | 121.6 | 5.3 |
| Solar | 2.9 | 5.7 | 8.9 | 12.5 | 17.1 | 22.4 | 29.2 | 39.1 | 50.7 | 62.8 | 2.7 |
| Other renewables | 9.0 | 9.2 | 9.2 | 9.6 | 10.1 | 10.3 | 10.4 | 10.7 | 11.2 | 12.3 | 0.5 |
| **Total final consumption, by sector** | **8,945.4** | **9,064.8** | **9,181.4** | **9,349.2** | **9,447.1** | **9,543.1** | **9,657.3** | **9,842.0** | **10,069.5** | **10,149.9** | **100.0** |
| Industry | 2,836.4 | 2,926.1 | 2,966.5 | 2,991.6 | 3,006.7 | 3,001.4 | 2,996.1 | 3,031.0 | 3,095.0 | 3,110.4 | 30.6 |
| Transport | 2,370.7 | 2,406.6 | 2,442.1 | 2,510.6 | 2,555.3 | 2,633.2 | 2,693.1 | 2,755.5 | 2,803.7 | 2,824.4 | 27.8 |
| Residential/Comercial | 2,728.2 | 2,721.9 | 2,727.6 | 2,799.1 | 2,800.2 | 2,815.8 | 2,858.5 | 2,909.9 | 3,004.4 | 3,044.4 | 30.0 |
| **Oil final consumption, by sector** | **3,589.4** | **3,568.0** | **3,610.4** | **3,671.3** | **3,730.5** | **3,822.8** | **3,883.7** | **3,980.4** | **4,032.5** | **4,052.1** | **100.0** |
| Industry | 308.5 | 284.9 | 288.4 | 287.9 | 284.1 | 294.8 | 297.8 | 302.7 | 300.7 | 301.8 | 7.4 |
| Transport | 2,263.3 | 2,289.4 | 2,315.7 | 2,376.5 | 2,414.2 | 2,485.3 | 2,539.4 | 2,597.1 | 2,633.3 | 2,649.1 | 65.4 |
| Residential/Comercial | 295.8 | 284.9 | 279.3 | 284.8 | 279.7 | 288.5 | 290.5 | 297.1 | 302.5 | 306.7 | 7.6 |
| **Natural gas final consumption, by sector** | **1,295.9** | **1,309.9** | **1,315.5** | **1,360.9** | **1,363.6** | **1,355.6** | **1,384.3** | **1,440.9** | **1,522.6** | **1,553.2** | **100.0** |
| Industry | 513.0 | 518.7 | 533.9 | 537.9 | 545.3 | 536.0 | 542.2 | 569.8 | 600.4 | 612.6 | 39.4 |
| Transport | 27.5 | 31.8 | 33.7 | 35.6 | 38.7 | 41.2 | 42.3 | 44.0 | 48.6 | 51.0 | 3.3 |
| Residential/Comercial | 603.1 | 594.5 | 578.5 | 617.1 | 609.7 | 606.0 | 618.9 | 632.3 | 671.4 | 681.4 | 43.9 |
| **Refined products consumption** | **3,567.5** | **3,553.3** | **3,595.4** | **3,654.2** | **3,713.7** | **3,804.2** | **3,867.5** | **3,965.9** | **4,018.8** | **4,038.8** | **100.0** |
| Gasoline | 974.3 | 962.4 | 981.3 | 1,012.9 | 1,023.7 | 1,058.4 | 1,083.4 | 1,095.1 | 1,110.4 | 1,124.7 | 27.8 |
| Diesel | 1,166.3 | 1,189.0 | 1,210.8 | 1,227.3 | 1,251.8 | 1,270.1 | 1,264.6 | 1,290.6 | 1,297.9 | 1,318.5 | 32.6 |
| Heating Oil | 292.9 | 282.9 | 264.8 | 255.7 | 251.5 | 248.0 | 252.1 | 260.8 | 258.2 | 236.7 | 5.9 |
| Aviation Jet | 251.2 | 257.7 | 260.6 | 268.0 | 277.1 | 292.6 | 306.1 | 324.2 | 338.6 | 341.3 | 8.5 |
| LPG | 240.8 | 233.0 | 237.7 | 251.9 | 259.7 | 269.1 | 278.3 | 286.1 | 296.5 | 299.3 | 7.4 |
| **Imports** | **4,208.0** | **4,277.3** | **4,304.1** | **4,299.8** | **4,263.8** | **4,451.7** | **4,621.1** | **4,799.5** | **4,850.4** | **4,791.6** | **100.0** |
| Oil | 3,383.8 | 3,406.7 | 3,443.3 | 3,427.0 | 3,418.3 | 3,574.0 | 3,708.9 | 3,814.9 | 3,836.0 | 3,783.6 | 79.0 |
| Gas | 824.2 | 870.6 | 860.8 | 872.8 | 845.6 | 877.7 | 912.3 | 984.6 | 1,014.5 | 1,008.1 | 21.0 |
| Gasoline | 190.1 | 197.6 | 202.3 | 206.0 | 207.2 | 221.8 | 237.9 | 244.3 | 244.8 | 239.4 | 5.0 |
| Diesel | 309.3 | 319.7 | 331.1 | 351.3 | 361.3 | 377.3 | 402.4 | 407.4 | 404.2 | 396.5 | 8.3 |
| Heating Oil | 241.0 | 254.9 | 249.1 | 250.0 | 238.6 | 243.4 | 236.9 | 223.3 | 213.7 | 182.7 | 3.8 |
| Aviation Jet | 68.8 | 67.7 | 67.0 | 71.9 | 70.6 | 77.4 | 85.9 | 90.7 | 91.8 | 89.6 | 1.9 |
| LPG | 78.9 | 85.0 | 86.5 | 92.1 | 100.1 | 109.4 | 124.9 | 129.3 | 136.6 | 140.0 | 2.9 |
| **Exports** | **4,129.0** | **4,238.3** | **4,293.8** | **4,329.8** | **4,289.3** | **4,521.9** | **4,710.8** | **4,870.3** | **4,940.7** | **4,878.6** | **100.0** |
| Oil | 3,313.1 | 3,393.8 | 3,442.1 | 3,444.0 | 3,432.9 | 3,624.2 | 3,779.4 | 3,850.9 | 3,898.8 | 3,815.3 | 78.2 |
| Gas | 815.9 | 844.5 | 851.8 | 885.9 | 856.4 | 897.7 | 931.4 | 1,019.4 | 1,041.9 | 1,063.3 | 21.8 |
| Gasoline | 176.3 | 183.1 | 195.7 | 190.4 | 197.7 | 224.7 | 239.4 | 243.4 | 241.4 | 240.5 | 4.9 |
| Diesel | 313.9 | 325.5 | 346.4 | 355.3 | 358.2 | 385.3 | 410.8 | 429.6 | 429.5 | 421.3 | 8.6 |
| Heating Oil | 288.6 | 294.6 | 283.7 | 299.8 | 291.7 | 302.8 | 286.2 | 272.5 | 253.6 | 223.7 | 4.6 |
| Aviation Jet | 75.2 | 76.5 | 80.1 | 87.1 | 84.5 | 90.3 | 92.2 | 97.2 | 108.4 | 109.2 | 2.2 |
| LPG | 76.5 | 84.1 | 83.5 | 81.9 | 104.6 | 108.6 | 123.6 | 128.0 | 133.2 | 120.6 | 2.5 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **29,918.0** | **30,699.4** | **31,184.1** | **31,748.2** | **31,811.3** | **31,758.9** | **31,703.6** | **32,099.2** | **32,805.0** | **32,741.4** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million $15ppp)** | **309.6** | **305.4** | **300.4** | **295.7** | **286.2** | **276.4** | **267.1** | **260.8** | **257.5** | **250.0** | **-** |
| **Final energy intensity (toe/million $15ppp)** | **84.5** | **82.5** | **80.7** | **79.6** | **77.5** | **75.7** | **74.1** | **72.7** | **71.9** | **70.5** | **-** |
| **Total energy intensity (toe/million $15ppp)** | **132.9** | **129.7** | **127.6** | **124.9** | **122.3** | **118.7** | **115.6** | **113.5** | **112.1** | **109.8** | **-** |

*Heat is included

## Primary energy demand mix

Biomass
10%

Other renewables
1%

Hydro
3%

Nuclear
5%

Oil
31%

2019: 14,378.24 Mtoe

Coal
26%

Gas
24%

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil  ■ Gas  ■ Coal  ■ Nuclear  ■ Hydro  ■ Biomass  ■ Wind  ■ Solar  ■ Other renewables

## Primary energy demand and CO$_2$ emissions growth

6%
5%
4%
3%
2%
1%
0%
-1%
-2%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
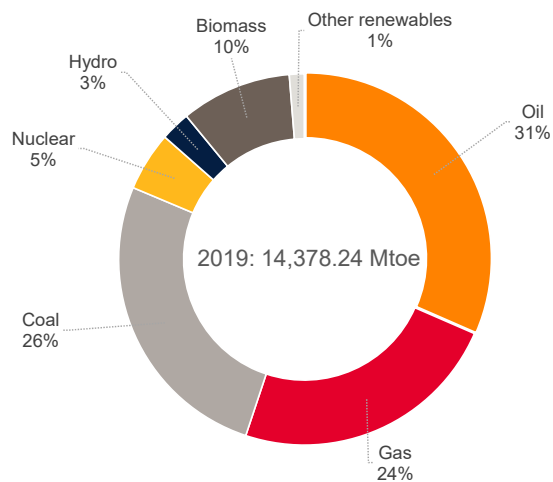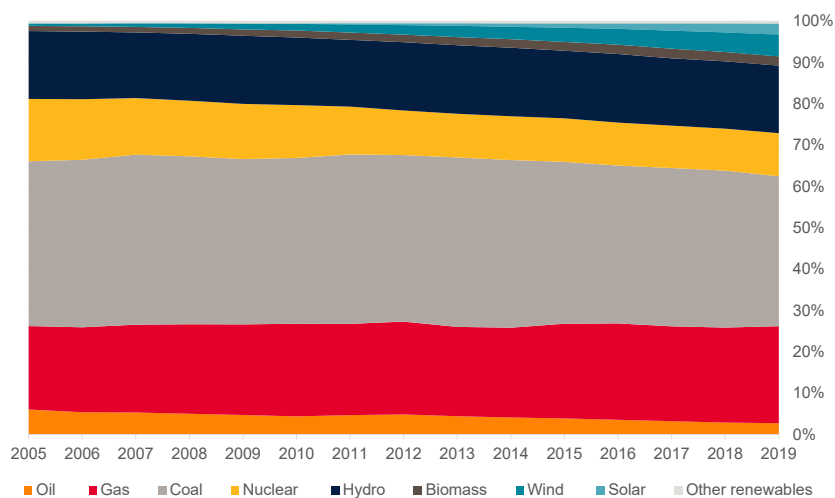
— Demand growth  — Emissions growth
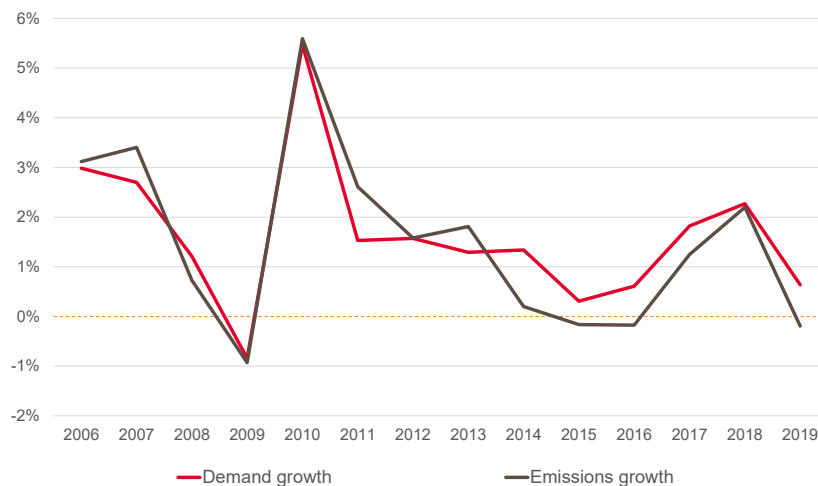
| OECD (Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **5,433.8** | **5,337.5** | **5,298.1** | **5,330.8** | **5,287.1** | **5,288.7** | **5,292.1** | **5,320.0** | **5,385.0** | **5,338.4** | **100.0** |
| Oil | 1,968.5 | 1,933.7 | 1,921.3 | 1,894.4 | 1,877.5 | 1,903.6 | 1,899.1 | 1,914.2 | 1,909.4 | 1,890.8 | 35.4 |
| Gas | 1,319.8 | 1,319.4 | 1,346.1 | 1,369.2 | 1,348.5 | 1,375.7 | 1,418.8 | 1,431.9 | 1,505.2 | 1,550.0 | 29.0 |
| Coal | 1,091.3 | 1,069.3 | 1,025.0 | 1,028.9 | 1,009.6 | 946.8 | 897.3 | 879.8 | 849.0 | 759.9 | 14.2 |
| Nuclear | 596.4 | 543.9 | 508.6 | 511.4 | 516.1 | 513.6 | 512.2 | 509.5 | 516.1 | 521.5 | 9.8 |
| Hydro | 116.5 | 119.6 | 119.7 | 121.7 | 120.7 | 118.9 | 121.3 | 120.1 | 122.5 | 118.0 | 2.2 |
| Biomass | 273.9 | 275.7 | 295.0 | 310.3 | 311.8 | 316.3 | 321.4 | 330.7 | 336.3 | 338.0 | 6.3 |
| Other renewables | 25.9 | 33.7 | 40.7 | 48.9 | 55.3 | 64.3 | 71.4 | 83.1 | 91.3 | 103.6 | 1.9 |
| Electricity balance of trade* | 41.5 | 42.3 | 41.7 | 45.9 | 47.8 | 49.5 | 50.5 | 50.6 | 55.2 | 56.7 | 1.1 |
| **Total final consumption, by source** | **3,736.0** | **3,653.6** | **3,629.5** | **3,684.1** | **3,651.1** | **3,674.3** | **3,707.0** | **3,746.8** | **3,797.9** | **3,774.3** | **100.0** |
| Oil | 1,772.3 | 1,713.5 | 1,689.3 | 1,694.8 | 1,689.3 | 1,719.7 | 1,736.0 | 1,749.3 | 1,760.3 | 1,753.3 | 46.5 |
| Gas | 707.1 | 690.6 | 687.3 | 724.8 | 710.8 | 702.6 | 710.9 | 728.2 | 755.1 | 753.1 | 20.0 |
| Coal | 181.2 | 180.2 | 176.0 | 173.8 | 171.4 | 168.1 | 161.2 | 162.2 | 159.3 | 159.0 | 4.2 |
| Electricity | 812.4 | 809.5 | 807.5 | 809.8 | 804.8 | 805.2 | 815.0 | 816.4 | 827.4 | 812.1 | 21.5 |
| Heat | 71.5 | 67.7 | 68.3 | 68.2 | 64.9 | 65.8 | 69.0 | 69.1 | 69.8 | 69.3 | 1.8 |
| Biomass | 191.5 | 192.2 | 201.2 | 212.8 | 209.8 | 212.9 | 214.9 | 221.7 | 225.9 | 227.4 | 6.0 |
| **Electricity generation, by source** | **945.0** | **941.7** | **940.5** | **941.1** | **936.8** | **940.4** | **947.0** | **949.4** | **962.2** | **950.1** | **100.0** |
| Oil | 26.8 | 30.6 | 34.2 | 29.6 | 24.1 | 22.4 | 21.1 | 19.2 | 16.8 | 13.7 | 1.4 |
| Gas | 222.2 | 229.7 | 239.4 | 228.3 | 225.9 | 244.7 | 258.9 | 256.3 | 269.0 | 282.2 | 29.7 |
| Coal | 321.7 | 312.3 | 300.7 | 304.4 | 299.4 | 278.4 | 261.7 | 258.0 | 247.3 | 214.6 | 22.6 |
| Nuclear | 196.8 | 179.5 | 167.8 | 168.8 | 170.3 | 169.5 | 169.0 | 168.2 | 170.3 | 172.1 | 18.1 |
| Hydro | 122.1 | 125.0 | 125.0 | 127.0 | 125.9 | 124.0 | 126.8 | 125.9 | 128.0 | 123.2 | 13.0 |
| Biomass | 22.8 | 24.0 | 25.8 | 26.9 | 28.5 | 29.6 | 30.4 | 30.9 | 31.6 | 31.5 | 3.3 |
| Wind | 23.1 | 28.3 | 32.7 | 38.5 | 42.0 | 47.9 | 52.0 | 59.8 | 64.0 | 72.1 | 7.6 |
| Solar | 2.8 | 5.3 | 8.0 | 10.4 | 13.3 | 16.4 | 19.4 | 23.4 | 27.3 | 31.6 | 3.3 |
| Other renewables | 6.8 | 6.9 | 6.9 | 7.2 | 7.4 | 7.5 | 7.6 | 7.7 | 7.9 | 9.1 | 1.0 |
| **Total final consumption, by sector** | **3,736.0** | **3,653.6** | **3,629.5** | **3,684.1** | **3,651.1** | **3,674.3** | **3,707.0** | **3,746.8** | **3,797.9** | **3,774.3** | **100.0** |
| Industry | 864.0 | 867.7 | 866.1 | 867.0 | 861.7 | 858.3 | 859.8 | 873.0 | 880.9 | 871.3 | 23.1 |
| Transport | 1,180.9 | 1,160.2 | 1,148.9 | 1,168.0 | 1,171.2 | 1,204.2 | 1,223.4 | 1,232.7 | 1,246.6 | 1,244.2 | 33.0 |
| Residential/Comercial | 1,247.9 | 1,193.0 | 1,175.9 | 1,218.7 | 1,177.7 | 1,176.1 | 1,183.3 | 1,186.0 | 1,215.9 | 1,206.9 | 32.0 |
| **Oil final consumption, by sector** | **1,772.3** | **1,713.5** | **1,689.3** | **1,694.8** | **1,689.3** | **1,719.7** | **1,736.0** | **1,749.3** | **1,760.3** | **1,753.3** | **100.0** |
| Industry | 100.2 | 92.8 | 88.7 | 84.5 | 79.5 | 81.6 | 82.8 | 82.1 | 81.3 | 79.8 | 4.6 |
| Transport | 1,130.9 | 1,105.7 | 1,088.0 | 1,104.5 | 1,106.4 | 1,137.4 | 1,153.5 | 1,160.7 | 1,172.9 | 1,170.0 | 66.7 |
| Residential/Comercial | 152.4 | 137.5 | 130.3 | 132.4 | 120.7 | 123.3 | 121.9 | 120.1 | 119.3 | 119.1 | 6.8 |
| **Natural gas final consumption, by sector** | **707.1** | **690.6** | **687.3** | **724.8** | **710.8** | **702.6** | **710.9** | **728.2** | **755.1** | **753.1** | **100.0** |
| Industry | 249.3 | 253.0 | 260.1 | 263.4 | 265.1 | 261.9 | 266.3 | 271.7 | 279.5 | 278.8 | 37.0 |
| Transport | 3.1 | 3.3 | 3.5 | 3.6 | 3.9 | 4.3 | 4.4 | 4.5 | 4.6 | 4.6 | 0.6 |
| Residential/Comercial | 416.8 | 396.3 | 384.7 | 418.7 | 402.1 | 396.3 | 396.4 | 402.4 | 422.9 | 421.9 | 56.0 |
| **Refined products consumption** | **1,765.4** | **1,708.1** | **1,684.1** | **1,689.3** | **1,683.8** | **1,713.0** | **1,730.6** | **1,742.4** | **1,753.8** | **1,747.2** | **100.0** |
| Gasoline | 626.5 | 598.5 | 589.7 | 592.1 | 591.3 | 602.5 | 611.2 | 607.5 | 611.0 | 609.7 | 34.9 |
| Diesel | 598.8 | 591.6 | 584.2 | 588.1 | 591.1 | 598.9 | 602.1 | 610.2 | 619.3 | 613.4 | 35.1 |
| Heating Oil | 36.5 | 31.9 | 27.6 | 21.4 | 18.7 | 20.3 | 19.0 | 18.1 | 17.7 | 17.7 | 1.0 |
| Aviation Jet | 68.5 | 68.0 | 68.2 | 71.0 | 73.0 | 76.3 | 78.9 | 82.0 | 83.6 | 85.0 | 4.9 |
| LPG | 117.4 | 103.5 | 102.6 | 111.0 | 107.6 | 108.8 | 107.8 | 105.3 | 106.9 | 105.8 | 6.1 |
| **Imports** | **2,748.0** | **2,733.5** | **2,706.8** | **2,637.1** | **2,555.9** | **2,658.9** | **2,734.3** | **2,809.9** | **2,793.2** | **2,722.3** | **100.0** |
| Oil | 2,105.2 | 2,076.3 | 2,058.1 | 1,987.2 | 1,935.7 | 2,024.3 | 2,073.4 | 2,101.2 | 2,081.9 | 2,016.3 | 74.1 |
| Gas | 642.7 | 657.2 | 648.7 | 649.9 | 620.2 | 634.6 | 660.9 | 708.8 | 711.4 | 706.0 | 25.9 |
| Gasoline | 93.1 | 92.5 | 91.3 | 84.8 | 82.1 | 92.1 | 99.7 | 97.8 | 100.8 | 105.6 | 3.9 |
| Diesel | 156.3 | 155.8 | 159.8 | 169.6 | 168.1 | 182.2 | 194.4 | 195.6 | 196.4 | 190.8 | 7.0 |
| Heating Oil | 89.9 | 94.8 | 92.6 | 91.6 | 87.4 | 86.8 | 84.2 | 67.0 | 66.5 | 54.4 | 2.0 |
| Aviation Jet | 41.1 | 40.0 | 40.4 | 44.1 | 44.3 | 49.5 | 54.4 | 57.0 | 59.8 | 63.5 | 2.3 |
| LPG | 47.0 | 50.2 | 50.3 | 51.4 | 52.3 | 54.4 | 59.7 | 59.4 | 62.1 | 61.9 | 2.3 |
| **Exports** | **1,155.6** | **1,188.2** | **1,227.9** | **1,252.9** | **1,285.4** | **1,379.7** | **1,447.0** | **1,578.3** | **1,655.3** | **1,692.3** | **100.0** |
| Oil | 852.9 | 880.7 | 911.1 | 935.2 | 976.9 | 1,049.4 | 1,097.1 | 1,171.1 | 1,235.1 | 1,259.1 | 74.4 |
| Gas | 302.8 | 307.5 | 316.8 | 317.7 | 308.5 | 330.2 | 349.9 | 407.2 | 420.2 | 433.2 | 25.6 |
| Gasoline | 100.8 | 107.6 | 119.1 | 114.2 | 118.0 | 134.7 | 140.9 | 148.6 | 153.8 | 152.4 | 9.0 |
| Diesel | 157.0 | 169.1 | 188.1 | 196.3 | 191.1 | 201.8 | 206.9 | 220.3 | 204.6 | 206.2 | 12.2 |
| Heating Oil | 103.2 | 107.1 | 102.8 | 105.0 | 107.3 | 113.4 | 108.9 | 92.3 | 88.3 | 71.3 | 4.2 |
| Aviation Jet | 32.5 | 34.2 | 38.1 | 39.7 | 37.7 | 40.4 | 42.6 | 45.3 | 53.4 | 51.6 | 3.0 |
| LPG | 9.2 | 9.5 | 10.2 | 10.3 | 26.9 | 35.5 | 42.3 | 47.1 | 50.2 | 57.7 | 3.4 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **12,615.7** | **12,391.5** | **12,251.6** | **12,269.6** | **12,076.4** | **11,983.5** | **11,914.3** | **11,891.3** | **11,960.9** | **11,633.6** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million \$15ppp)** | **263.2** | **253.4** | **247.2** | **243.8** | **234.8** | **227.1** | **221.7** | **216.0** | **212.4** | **203.2** | **-** |
| **Final energy intensity (toe/million \$15ppp)** | **70.2** | **67.3** | **65.8** | **66.1** | **63.8** | **62.7** | **62.1** | **61.1** | **60.7** | **59.3** | **-** |
| **Total energy intensity (toe/million \$15ppp)** | **113.3** | **109.1** | **106.9** | **105.9** | **102.8** | **100.2** | **98.5** | **96.6** | **95.6** | **93.2** | **-** |

*Heat is included

**Primary energy demand mix**



2019: 5,338.42 Mtoe

Oil 36%
Gas 29%
Coal 14%
Nuclear 10%
Hydro 2%
Biomass 7%
Other renewables 2%

**Electricity generation by source**



Oil | Gas | Coal | Nuclear | Hydro | Biomass | Wind | Solar | Other renewables
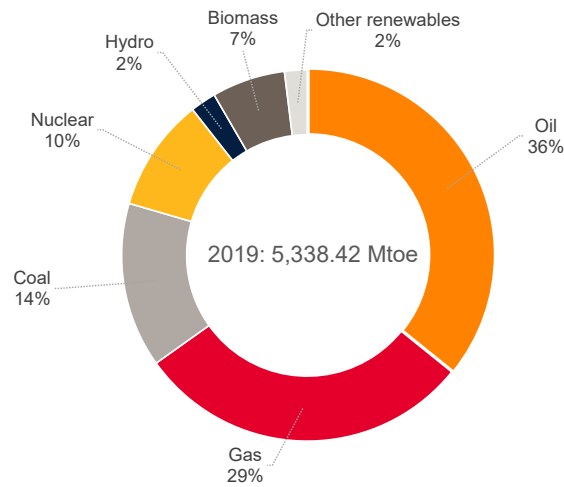
**Primary energy demand and CO$_2$ emissions growth**
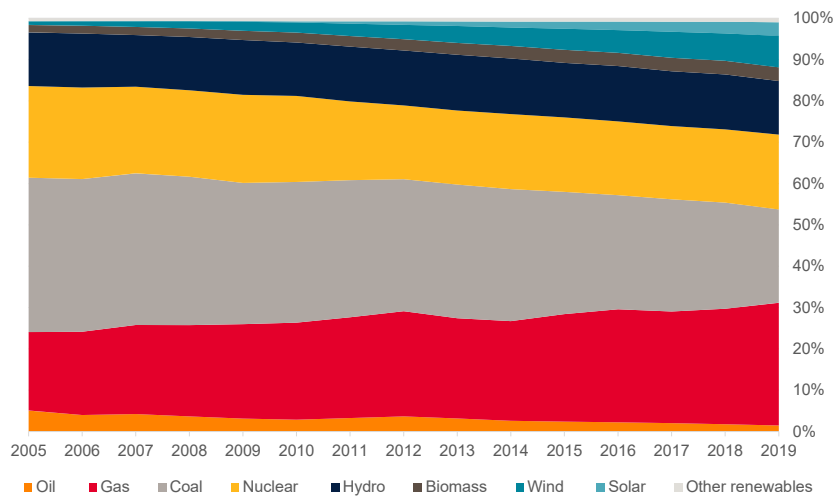


Demand growth | Emissions growth
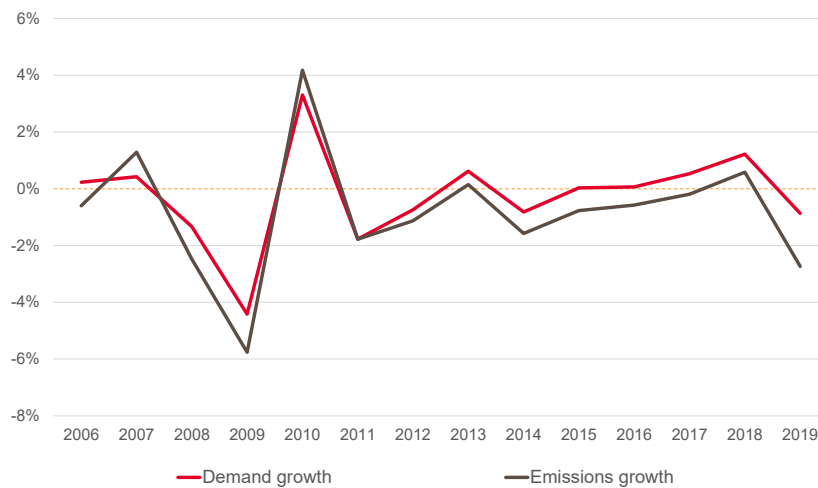
| Non-OECD *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **7,051.3** | **7,338.9** | **7,597.0** | **7,733.2** | **7,944.4** | **7,967.2** | **8,033.7** | **8,239.4** | **8,483.2** | **8,636.3** | **100.0** |
| Oil | 1,809.1 | 1,832.8 | 1,933.2 | 1,959.0 | 2,046.1 | 2,055.3 | 2,090.1 | 2,137.8 | 2,165.1 | 2,195.6 | 25.4 |
| Gas | 1,412.4 | 1,470.9 | 1,498.0 | 1,527.8 | 1,567.3 | 1,571.0 | 1,606.6 | 1,668.2 | 1,761.5 | 1,806.0 | 20.9 |
| Coal | 2,559.4 | 2,734.9 | 2,825.4 | 2,876.2 | 2,925.6 | 2,904.2 | 2,844.5 | 2,900.2 | 2,963.9 | 2,972.1 | 34.4 |
| Nuclear | 121.9 | 129.2 | 132.6 | 134.7 | 144.7 | 156.2 | 167.5 | 177.4 | 190.3 | 210.3 | 2.4 |
| Hydro | 179.9 | 183.0 | 197.0 | 206.3 | 213.7 | 216.5 | 227.2 | 230.8 | 240.9 | 250.7 | 2.9 |
| Biomass | 920.3 | 932.0 | 945.7 | 951.1 | 958.7 | 965.3 | 987.1 | 994.9 | 1,014.0 | 1,036.6 | 12.0 |
| Other renewables | 6.3 | 9.5 | 13.3 | 19.2 | 23.5 | 30.1 | 40.1 | 52.9 | 67.9 | 80.8 | 0.9 |
| Electricity balance of trade* | 42.0 | 46.5 | 51.8 | 59.0 | 64.7 | 68.6 | 70.5 | 77.1 | 79.6 | 84.2 | 1.0 |
| **Total final consumption, by source** | **4,851.6** | **5,048.0** | **5,202.4** | **5,313.4** | **5,432.1** | **5,487.5** | **5,555.7** | **5,684.7** | **5,852.8** | **5,972.1** | **100.0** |
| Oil | 1,459.3 | 1,491.4 | 1,571.7 | 1,624.9 | 1,677.2 | 1,721.8 | 1,753.2 | 1,820.6 | 1,853.4 | 1,895.2 | 31.7 |
| Gas | 588.8 | 619.3 | 628.2 | 636.0 | 652.7 | 653.0 | 673.4 | 712.7 | 767.5 | 800.1 | 13.4 |
| Coal | 1,065.9 | 1,124.1 | 1,141.0 | 1,152.3 | 1,158.3 | 1,142.5 | 1,104.6 | 1,068.3 | 1,068.6 | 1,057.4 | 17.7 |
| Electricity | 724.5 | 776.7 | 817.5 | 864.3 | 901.6 | 927.6 | 972.0 | 1,017.9 | 1,075.6 | 1,103.8 | 18.5 |
| Heat | 223.8 | 240.2 | 249.0 | 242.6 | 246.6 | 246.2 | 257.7 | 265.7 | 275.5 | 285.2 | 4.8 |
| Biomass | 789.3 | 796.2 | 795.0 | 793.2 | 795.7 | 796.4 | 794.8 | 799.5 | 812.3 | 830.5 | 13.9 |
| **Electricity generation, by source** | **911.6** | **976.1** | **1,020.3** | **1,078.2** | **1,120.5** | **1,156.4** | **1,209.6** | **1,262.4** | **1,329.6** | **1,364.4** | **100.0** |
| Oil | 54.2 | 59.3 | 60.6 | 59.2 | 60.7 | 58.8 | 55.3 | 51.7 | 49.5 | 49.2 | 3.6 |
| Gas | 194.6 | 193.4 | 201.7 | 208.6 | 220.9 | 236.2 | 243.9 | 251.2 | 257.9 | 261.4 | 19.2 |
| Coal | 423.2 | 474.3 | 489.4 | 523.8 | 535.1 | 542.8 | 562.4 | 589.9 | 623.1 | 625.3 | 45.8 |
| Nuclear | 40.2 | 42.6 | 43.7 | 44.4 | 47.8 | 51.5 | 55.3 | 58.5 | 62.8 | 69.4 | 5.1 |
| Hydro | 181.8 | 184.8 | 198.7 | 208.1 | 215.9 | 219.0 | 231.1 | 234.9 | 245.0 | 254.9 | 18.7 |
| Biomass | 9.0 | 9.8 | 10.6 | 12.3 | 13.9 | 15.0 | 18.7 | 20.3 | 20.2 | 20.4 | 1.5 |
| Wind | 6.2 | 9.1 | 12.3 | 17.1 | 19.8 | 24.2 | 30.3 | 37.2 | 44.5 | 49.5 | 3.6 |
| Solar | 0.1 | 0.4 | 1.0 | 2.1 | 3.8 | 5.9 | 9.8 | 15.7 | 23.4 | 31.3 | 2.3 |
| Other renewables | 2.2 | 2.2 | 2.3 | 2.4 | 2.7 | 2.8 | 2.8 | 3.0 | 3.1 | 3.1 | 0.2 |
| **Total final consumption, by sector** | **4,851.6** | **5,048.0** | **5,202.4** | **5,313.4** | **5,432.1** | **5,487.5** | **5,555.7** | **5,684.7** | **5,852.8** | **5,972.1** | **100.0** |
| Industry | 1,972.3 | 2,058.4 | 2,100.5 | 2,124.6 | 2,145.1 | 2,143.1 | 2,136.3 | 2,158.0 | 2,214.1 | 2,239.6 | 37.5 |
| Transport | 832.0 | 883.3 | 943.7 | 990.9 | 1,020.2 | 1,047.8 | 1,075.1 | 1,112.3 | 1,138.2 | 1,176.8 | 19.7 |
| Residential/Comercial | 1,480.3 | 1,528.9 | 1,551.7 | 1,580.4 | 1,622.4 | 1,639.8 | 1,675.2 | 1,724.0 | 1,788.5 | 1,837.4 | 30.8 |
| **Oil final consumption, by sector** | **1,459.3** | **1,491.4** | **1,571.7** | **1,624.9** | **1,677.2** | **1,721.8** | **1,753.2** | **1,820.6** | **1,853.4** | **1,895.2** | **100.0** |
| Industry | 208.3 | 192.1 | 199.7 | 203.4 | 204.6 | 213.2 | 215.0 | 220.6 | 219.4 | 222.0 | 11.7 |
| Transport | 774.5 | 820.5 | 878.2 | 920.2 | 943.8 | 966.6 | 991.3 | 1,025.9 | 1,041.6 | 1,075.5 | 56.8 |
| Residential/Comercial | 143.4 | 147.3 | 148.9 | 152.4 | 159.0 | 165.2 | 168.6 | 177.0 | 183.3 | 187.6 | 9.9 |
| **Natural gas final consumption, by sector** | **588.8** | **619.3** | **628.2** | **636.0** | **652.7** | **653.0** | **673.4** | **712.7** | **767.5** | **800.1** | **100.0** |
| Industry | 263.6 | 265.7 | 273.8 | 274.5 | 280.2 | 274.2 | 276.0 | 298.0 | 320.9 | 333.9 | 41.7 |
| Transport | 24.4 | 28.6 | 30.2 | 32.0 | 34.8 | 37.0 | 37.9 | 39.5 | 44.0 | 46.5 | 5.8 |
| Residential/Comercial | 186.3 | 198.2 | 193.8 | 198.4 | 207.5 | 209.7 | 222.5 | 229.9 | 248.5 | 259.4 | 32.4 |
| **Refined products consumption** | **1,444.4** | **1,482.1** | **1,561.8** | **1,613.3** | **1,665.9** | **1,709.9** | **1,742.4** | **1,812.9** | **1,846.1** | **1,888.1** | **100.0** |
| Gasoline | 347.8 | 363.8 | 391.6 | 420.8 | 432.3 | 455.9 | 472.3 | 487.6 | 499.4 | 514.9 | 27.3 |
| Diesel | 538.9 | 570.2 | 605.7 | 617.9 | 628.7 | 628.7 | 622.4 | 639.3 | 637.9 | 662.4 | 35.1 |
| Heating Oil | 79.7 | 72.8 | 67.4 | 65.4 | 67.6 | 65.3 | 62.8 | 67.7 | 65.5 | 61.1 | 3.2 |
| Aviation Jet | 30.6 | 32.3 | 33.9 | 35.8 | 37.6 | 40.4 | 43.4 | 48.1 | 52.2 | 54.1 | 2.9 |
| LPG | 123.4 | 129.5 | 135.1 | 140.9 | 152.1 | 160.3 | 170.5 | 180.8 | 189.6 | 193.5 | 10.2 |
| **Imports** | **1,460.0** | **1,543.8** | **1,597.3** | **1,662.7** | **1,708.0** | **1,792.8** | **1,886.8** | **1,989.5** | **2,057.2** | **2,069.3** | **100.0** |
| Oil | 1,278.6 | 1,330.4 | 1,385.2 | 1,439.8 | 1,482.6 | 1,549.7 | 1,635.5 | 1,713.7 | 1,754.1 | 1,767.3 | 85.4 |
| Gas | 181.4 | 213.4 | 212.1 | 222.9 | 225.4 | 243.1 | 251.4 | 275.8 | 303.1 | 302.0 | 14.6 |
| Gasoline | 97.0 | 105.1 | 111.1 | 121.2 | 125.1 | 129.7 | 138.2 | 146.5 | 144.0 | 133.8 | 6.5 |
| Diesel | 153.0 | 163.9 | 171.4 | 181.7 | 193.2 | 195.1 | 208.1 | 211.9 | 207.8 | 205.7 | 9.9 |
| Heating Oil | 151.1 | 160.1 | 156.5 | 158.4 | 151.2 | 156.5 | 152.6 | 156.3 | 147.2 | 128.3 | 6.2 |
| Aviation Jet | 27.7 | 27.7 | 26.6 | 27.8 | 26.3 | 27.9 | 31.5 | 33.7 | 32.0 | 26.0 | 1.3 |
| LPG | 31.9 | 34.8 | 36.2 | 40.7 | 47.8 | 55.0 | 65.2 | 69.9 | 74.5 | 78.1 | 3.8 |
| **Exports** | **2,973.4** | **3,050.1** | **3,066.0** | **3,077.0** | **3,003.9** | **3,142.2** | **3,263.8** | **3,292.0** | **3,285.4** | **3,186.3** | **100.0** |
| Oil | 2,460.3 | 2,513.1 | 2,531.0 | 2,508.8 | 2,456.0 | 2,574.8 | 2,682.2 | 2,679.9 | 2,663.7 | 2,556.2 | 80.2 |
| Gas | 513.1 | 537.0 | 535.0 | 568.2 | 547.9 | 567.4 | 581.6 | 612.1 | 621.7 | 630.2 | 19.8 |
| Gasoline | 75.6 | 75.5 | 76.6 | 76.2 | 79.7 | 90.0 | 98.6 | 94.8 | 87.6 | 88.1 | 2.8 |
| Diesel | 156.8 | 156.4 | 158.3 | 159.0 | 167.1 | 183.5 | 203.9 | 209.3 | 224.9 | 215.4 | 6.7 |
| Heating Oil | 185.4 | 187.5 | 180.9 | 194.8 | 184.5 | 189.4 | 177.4 | 180.2 | 165.3 | 152.4 | 4.8 |
| Aviation Jet | 42.7 | 42.3 | 42.0 | 47.5 | 46.8 | 49.9 | 49.6 | 51.9 | 55.0 | 57.6 | 1.8 |
| LPG | 67.4 | 74.6 | 73.3 | 71.6 | 77.7 | 73.1 | 81.3 | 80.8 | 83.0 | 62.8 | 2.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **17,302.4** | **18,307.9** | **18,932.5** | **19,478.7** | **19,734.8** | **19,775.4** | **19,789.2** | **20,207.9** | **20,844.2** | **21,107.8** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **355.3** | **354.8** | **348.9** | **341.5** | **330.4** | **318.2** | **304.7** | **297.0** | **293.2** | **286.3** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **91.3** | **89.8** | **87.9** | **85.4** | **83.2** | **80.6** | **78.0** | **76.1** | **74.9** | **73.8** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **144.8** | **142.2** | **140.0** | **135.6** | **133.0** | **128.2** | **123.7** | **121.1** | **119.3** | **117.1** | **-** |

*Heat is included*

**Primary energy demand mix**



Biomass
12%

Hydro
3%

Nuclear
2%

Other renewables
1%

Oil
26%

2019: 8,636.34 Mtoe

Coal
35%

Gas
21%

**Electricity generation by source**



Oil    Gas    Coal    Nuclear    Hydro    Biomass    Wind    Solar    Other renewables
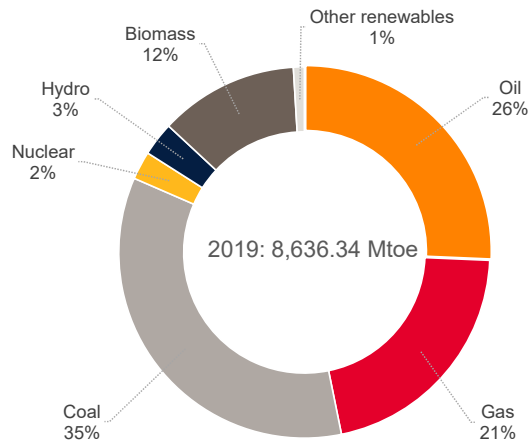
**Primary energy demand and CO$_2$ emissions growth**
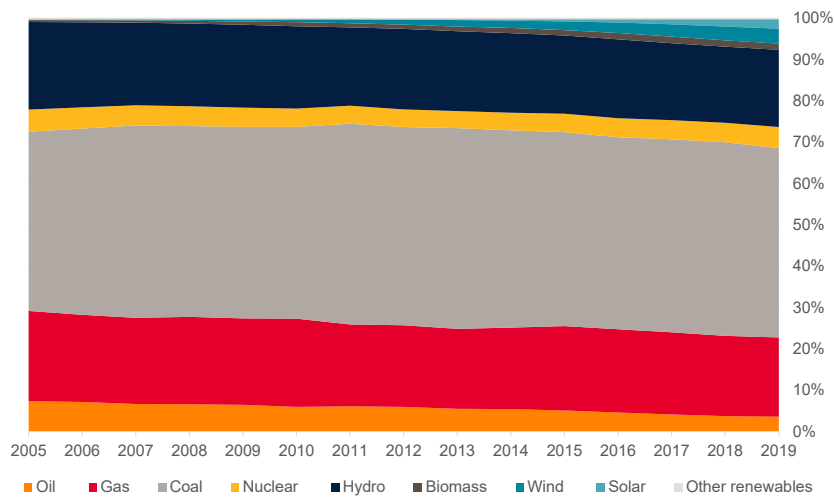


Demand growth          Emissions growth
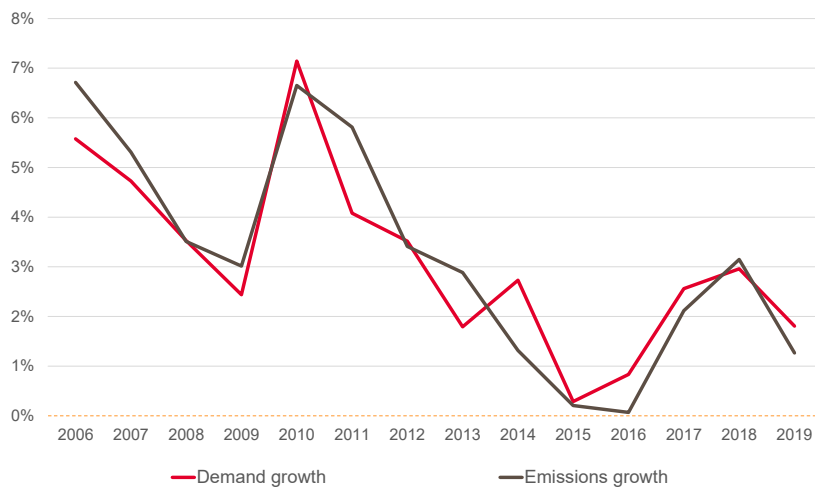
| **Africa** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **664.1** | **691.3** | **706.6** | **717.5** | **753.8** | **748.2** | **765.6** | **791.5** | **814.3** | **829.4** | **100.0** |
| Oil | 159.3 | 169.4 | 165.2 | 170.5 | 190.9 | 180.6 | 182.5 | 191.9 | 194.5 | 194.9 | 23.5 |
| Gas | 89.5 | 96.8 | 101.7 | 101.3 | 103.0 | 107.1 | 111.6 | 119.3 | 125.7 | 127.6 | 15.4 |
| Coal | 107.5 | 105.8 | 104.8 | 103.7 | 111.8 | 105.0 | 108.2 | 109.2 | 113.1 | 115.6 | 13.9 |
| Nuclear | 3.2 | 3.5 | 3.1 | 3.7 | 3.6 | 3.2 | 3.9 | 3.7 | 2.6 | 3.3 | 0.4 |
| Hydro | 9.4 | 9.5 | 9.6 | 10.1 | 10.6 | 10.3 | 10.0 | 10.5 | 11.3 | 11.5 | 1.4 |
| Biomass | 293.2 | 304.0 | 319.6 | 325.1 | 328.9 | 336.2 | 343.5 | 350.2 | 359.8 | 368.9 | 44.5 |
| Other renewables | 0.2 | 0.2 | 0.3 | 0.4 | 0.6 | 1.0 | 1.3 | 1.5 | 1.9 | 2.2 | 0.3 |
| Electricity balance of trade* | 1.9 | 1.9 | 2.3 | 2.8 | 4.4 | 4.8 | 4.5 | 5.2 | 5.4 | 5.3 | 0.6 |
| **Total final consumption, by source** | **468.0** | **479.9** | **496.0** | **516.4** | **526.8** | **534.9** | **542.9** | **560.8** | **578.1** | **582.8** | **100.0** |
| Oil | 135.7 | 136.3 | 143.2 | 154.2 | 159.1 | 159.0 | 162.8 | 165.8 | 167.9 | 163.8 | 28.1 |
| Gas | 28.7 | 32.3 | 32.8 | 33.4 | 31.4 | 34.0 | 35.5 | 37.4 | 41.6 | 42.4 | 7.3 |
| Coal | 17.3 | 15.4 | 18.0 | 19.7 | 20.8 | 18.5 | 18.3 | 21.3 | 22.8 | 23.7 | 4.1 |
| Electricity | 46.3 | 48.4 | 49.9 | 50.7 | 52.5 | 54.0 | 54.6 | 56.3 | 57.6 | 57.5 | 9.9 |
| Heat | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0 |
| Biomass | 239.9 | 247.4 | 252.0 | 258.3 | 262.7 | 269.2 | 271.6 | 279.8 | 287.9 | 295.2 | 50.6 |
| **Electricity generation, by source** | **58.0** | **60.1** | **62.5** | **64.4** | **66.9** | **69.0** | **69.7** | **71.5** | **73.4** | **73.8** | **100.0** |
| Oil | 5.5 | 4.8 | 6.1 | 6.7 | 7.1 | 7.8 | 7.0 | 6.6 | 6.3 | 6.0 | 8.2 |
| Gas | 19.1 | 21.3 | 22.8 | 23.3 | 24.4 | 26.0 | 27.3 | 28.7 | 29.4 | 29.9 | 40.5 |
| Coal | 22.1 | 22.4 | 22.2 | 22.0 | 22.0 | 21.9 | 21.7 | 21.8 | 22.4 | 21.8 | 29.5 |
| Nuclear | 1.0 | 1.2 | 1.0 | 1.2 | 1.2 | 1.1 | 1.3 | 1.2 | 0.9 | 1.1 | 1.5 |
| Hydro | 9.7 | 9.8 | 9.9 | 10.4 | 10.9 | 10.6 | 10.3 | 10.9 | 11.8 | 12.0 | 16.3 |
| Biomass | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Wind | 0.2 | 0.2 | 0.2 | 0.3 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 1.4 | 2.0 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 1.0 |
| Other renewables | 0.2 | 0.2 | 0.2 | 0.3 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.9 |
| **Total final consumption, by sector** | **468.0** | **479.9** | **496.0** | **516.4** | **526.8** | **534.9** | **542.9** | **560.8** | **578.1** | **582.8** | **100.0** |
| Industry | 84.1 | 86.9 | 84.8 | 87.4 | 81.5 | 83.7 | 84.3 | 87.4 | 90.1 | 87.9 | 15.1 |
| Transport | 86.3 | 88.1 | 94.5 | 105.4 | 109.8 | 111.2 | 115.8 | 117.3 | 119.3 | 119.6 | 20.5 |
| Residential/Comercial | 268.8 | 277.4 | 287.7 | 296.7 | 308.9 | 312.9 | 313.8 | 326.2 | 337.0 | 343.8 | 59.0 |
| **Oil final consumption, by sector** | **135.7** | **136.3** | **143.2** | **154.2** | **159.1** | **159.0** | **162.8** | **165.8** | **167.9** | **163.8** | **100.0** |
| Industry | 16.6 | 16.5 | 15.4 | 17.0 | 17.9 | 17.4 | 17.5 | 18.1 | 18.1 | 14.9 | 9.1 |
| Transport | 85.6 | 87.3 | 93.6 | 104.6 | 109.0 | 110.4 | 115.0 | 116.5 | 118.4 | 118.8 | 72.5 |
| Residential/Comercial | 17.8 | 17.6 | 18.1 | 18.7 | 18.5 | 18.1 | 16.7 | 16.7 | 16.9 | 16.1 | 9.9 |
| **Natural gas final consumption, by sector** | **28.7** | **32.3** | **32.8** | **33.4** | **31.4** | **34.0** | **35.5** | **37.4** | **41.6** | **42.4** | **100.0** |
| Industry | 15.2 | 18.5 | 18.0 | 17.7 | 15.5 | 16.1 | 16.1 | 17.2 | 17.9 | 18.1 | 42.6 |
| Transport | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.8 |
| Residential/Comercial | 4.9 | 5.6 | 6.6 | 7.5 | 8.1 | 8.9 | 9.3 | 10.0 | 11.9 | 12.3 | 28.9 |
| **Refined products consumption** | **135.7** | **136.3** | **143.2** | **154.2** | **159.1** | **159.0** | **162.8** | **165.8** | **167.9** | **163.8** | **100.0** |
| Gasoline | 38.5 | 39.7 | 42.7 | 48.6 | 50.4 | 51.8 | 54.5 | 54.6 | 56.4 | 57.2 | 35.0 |
| Diesel | 57.8 | 59.9 | 62.9 | 69.0 | 71.3 | 72.0 | 74.2 | 75.9 | 75.7 | 75.6 | 46.1 |
| Heating Oil | 8.4 | 7.6 | 6.6 | 6.8 | 7.3 | 6.1 | 5.9 | 6.5 | 6.7 | 2.9 | 1.7 |
| Aviation Jet | 2.0 | 2.1 | 1.9 | 2.0 | 2.0 | 2.0 | 1.9 | 2.3 | 2.3 | 2.3 | 1.4 |
| LPG | 12.5 | 12.5 | 13.0 | 12.8 | 12.8 | 13.1 | 13.5 | 13.8 | 13.8 | 13.5 | 8.2 |
| **Imports** | **124.6** | **135.3** | **138.8** | **146.7** | **159.8** | **161.1** | **168.0** | **173.2** | **175.7** | **165.3** | **100.0** |
| Oil | 119.1 | 129.2 | 131.9 | 140.0 | 152.6 | 148.1 | 152.7 | 158.7 | 164.6 | 156.4 | 94.6 |
| Gas | 5.5 | 6.1 | 6.9 | 6.8 | 7.2 | 13.0 | 15.3 | 14.5 | 11.1 | 8.9 | 5.4 |
| Gasoline | 25.1 | 30.2 | 28.4 | 30.8 | 33.0 | 32.5 | 37.2 | 42.0 | 43.9 | 39.8 | 24.1 |
| Diesel | 30.4 | 35.4 | 38.7 | 43.8 | 47.5 | 52.6 | 52.5 | 54.2 | 52.7 | 52.1 | 31.6 |
| Heating Oil | 6.2 | 5.7 | 6.3 | 8.1 | 9.2 | 8.9 | 7.4 | 7.5 | 6.5 | 4.8 | 2.9 |
| Aviation Jet | 3.8 | 4.0 | 4.2 | 3.9 | 3.9 | 4.5 | 5.2 | 5.7 | 5.9 | 3.2 | 2.0 |
| LPG | 6.1 | 6.0 | 6.3 | 6.3 | 6.9 | 7.3 | 7.8 | 8.4 | 8.6 | 8.3 | 5.0 |
| **Exports** | **542.9** | **452.9** | **498.2** | **451.1** | **422.2** | **427.7** | **407.3** | **431.3** | **440.1** | **439.2** | **100.0** |
| Oil | 452.6 | 374.5 | 416.9 | 380.2 | 351.9 | 356.3 | 329.1 | 345.2 | 354.9 | 357.1 | 81.3 |
| Gas | 90.3 | 78.4 | 81.3 | 70.9 | 70.4 | 71.3 | 78.1 | 86.1 | 85.2 | 82.1 | 18.7 |
| Gasoline | 1.4 | 1.2 | 1.5 | 1.8 | 1.8 | 1.9 | 2.4 | 2.0 | 2.1 | 2.1 | 0.5 |
| Diesel | 1.7 | 1.5 | 1.8 | 2.4 | 2.8 | 2.8 | 3.3 | 3.1 | 3.0 | 2.9 | 0.7 |
| Heating Oil | 10.8 | 9.1 | 8.5 | 10.7 | 9.5 | 9.7 | 10.4 | 9.7 | 8.9 | 7.7 | 1.8 |
| Aviation Jet | 3.5 | 2.6 | 3.3 | 4.2 | 3.7 | 4.4 | 2.9 | 3.5 | 3.8 | 3.4 | 0.8 |
| LPG | 8.4 | 8.4 | 7.5 | 7.1 | 9.3 | 9.6 | 9.5 | 9.3 | 9.0 | 9.3 | 2.1 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **1,040.1** | **1,038.2** | **1,096.5** | **1,142.1** | **1,187.6** | **1,178.8** | **1,192.5** | **1,212.6** | **1,249.9** | **1,256.6** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **209.7** | **206.6** | **207.2** | **207.7** | **208.5** | **200.5** | **198.8** | **195.6** | **195.0** | **190.2** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **90.6** | **92.2** | **90.4** | **90.9** | **89.6** | **88.2** | **87.5** | **87.6** | **87.1** | **85.3** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **133.9** | **137.6** | **133.5** | **130.5** | **132.4** | **127.3** | **127.6** | **127.7** | **127.0** | **125.5** | **-** |

*Heat is included

**Primary energy demand mix**



Oil
24%

Biomass
45%

2019: 829.38 Mtoe

Gas
16%

Hydro
1%

Nuclear
0%

Coal
14%

**Electricity generation by source**



Oil   Gas   Coal   Nuclear   Hydro   Biomass   Wind   Solar   Other renewables
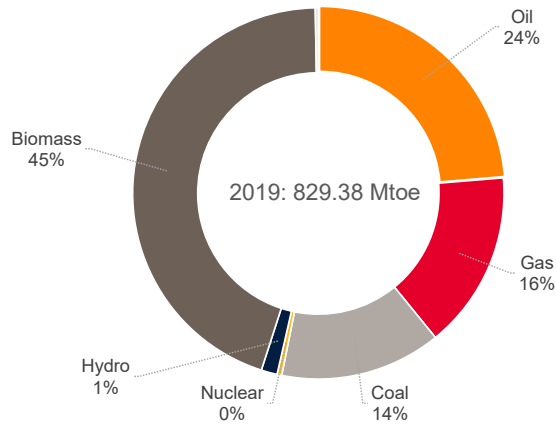
**Primary energy demand and CO$_2$ emissions growth**
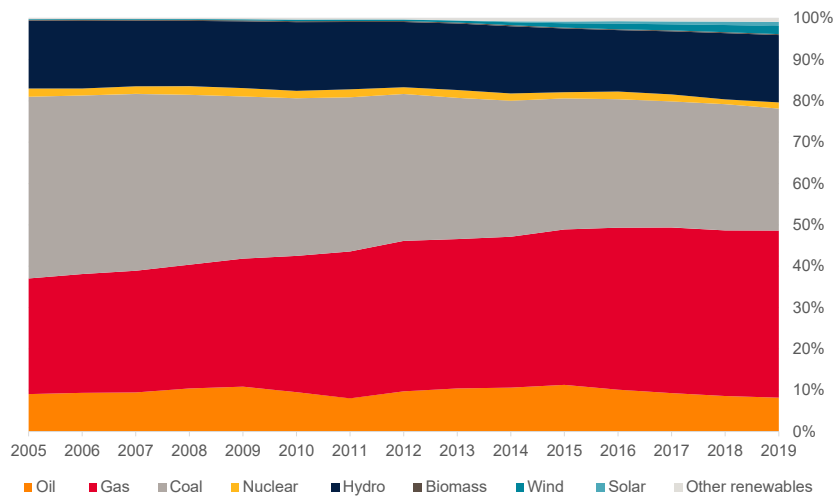


Demand growth          Emissions growth
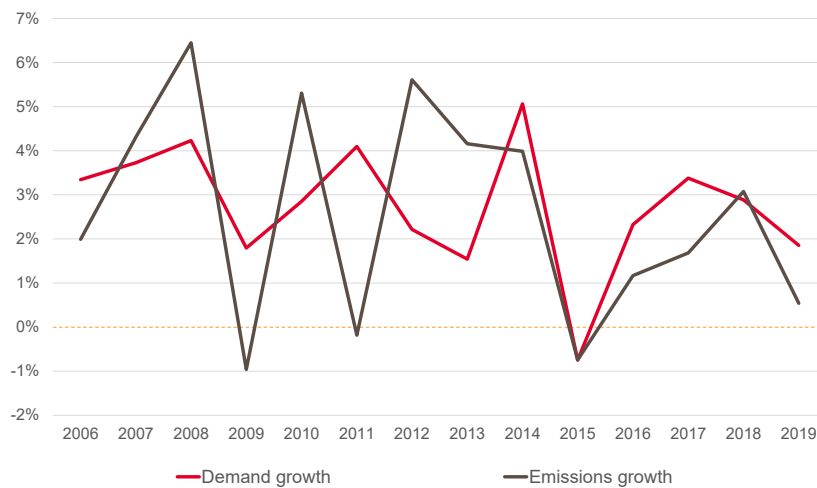
| **Algeria** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **40.1** | **41.8** | **46.0** | **47.6** | **51.8** | **54.3** | **53.7** | **55.5** | **59.3** | **62.0** | **100.0** |
| Oil | 16.4 | 16.7 | 17.6 | 18.7 | 19.3 | 19.7 | 19.1 | 19.4 | 19.9 | 20.7 | 33.4 |
| Gas | 23.3 | 24.8 | 28.0 | 28.6 | 32.3 | 34.4 | 34.7 | 35.9 | 39.0 | 40.8 | 65.9 |
| Coal | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.0 | 0.2 | 0.4 | 0.4 | 0.6 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 0.1 | 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 | 0.1 | 0.1 | 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 | -0.0 |
| **Total final consumption, by source** | **26.0** | **27.5** | **30.7** | **32.3** | **34.6** | **36.9** | **37.1** | **37.7** | **41.8** | **43.2** | **100.0** |
| Oil | 14.3 | 15.0 | 16.5 | 17.4 | 18.1 | 18.4 | 17.8 | 17.7 | 18.1 | 18.6 | 43.0 |
| Gas | 8.5 | 9.1 | 10.5 | 11.0 | 12.5 | 14.1 | 14.8 | 15.0 | 18.4 | 19.1 | 44.3 |
| Coal | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 | 0.2 | 0.3 | 0.3 | 0.7 |
| Electricity | 2.9 | 3.1 | 3.5 | 3.7 | 3.9 | 4.3 | 4.5 | 4.8 | 4.9 | 5.2 | 12.0 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| **Electricity generation, by source** | **4.1** | **4.8** | **5.3** | **5.6** | **6.1** | **6.5** | **6.7** | **7.2** | **7.3** | **7.7** | **100.0** |
| Oil | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.4 |
| Gas | 4.0 | 4.7 | 5.2 | 5.5 | 6.0 | 6.4 | 6.6 | 7.1 | 7.2 | 7.6 | 98.7 |
| 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 | 0.1 | 0.0 | 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 | 0.0 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.8 |
| 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** | **26.0** | **27.5** | **30.7** | **32.3** | **34.6** | **36.9** | **37.1** | **37.7** | **41.8** | **43.2** | **100.0** |
| Industry | 5.3 | 5.4 | 5.3 | 5.4 | 5.5 | 5.9 | 6.0 | 6.6 | 7.0 | 7.3 | 16.9 |
| Transport | 10.1 | 10.9 | 12.3 | 13.0 | 14.1 | 15.0 | 14.5 | 14.3 | 14.6 | 14.9 | 34.5 |
| Residential/Comercial | 7.7 | 8.5 | 9.5 | 10.7 | 10.5 | 11.6 | 11.8 | 12.6 | 14.6 | 15.2 | 35.2 |
| **Oil final consumption, by sector** | **14.3** | **15.0** | **16.5** | **17.4** | **18.1** | **18.4** | **17.8** | **17.7** | **18.1** | **18.6** | **100.0** |
| Industry | 0.9 | 1.0 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.6 | 0.6 | 3.4 |
| Transport | 10.1 | 10.9 | 12.3 | 12.9 | 14.0 | 14.9 | 14.4 | 14.3 | 14.5 | 14.8 | 79.8 |
| Residential/Comercial | 2.3 | 2.4 | 2.4 | 2.6 | 1.9 | 2.0 | 1.9 | 2.1 | 2.3 | 2.4 | 12.8 |
| **Natural gas final consumption, by sector** | **8.5** | **9.1** | **10.5** | **11.0** | **12.5** | **14.1** | **14.8** | **15.0** | **18.4** | **19.1** | **100.0** |
| Industry | 3.0 | 3.0 | 3.0 | 3.1 | 3.2 | 3.4 | 3.6 | 3.9 | 4.3 | 4.5 | 23.5 |
| 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 | 3.7 | 4.2 | 5.1 | 5.8 | 6.2 | 7.0 | 7.2 | 7.7 | 9.3 | 9.7 | 50.6 |
| **Refined products consumption** | **14.3** | **15.0** | **16.5** | **17.4** | **18.1** | **18.4** | **17.8** | **17.7** | **18.1** | **18.6** | **100.0** |
| Gasoline | 2.9 | 3.2 | 3.7 | 4.1 | 4.4 | 4.7 | 4.6 | 4.4 | 4.2 | 4.2 | 22.9 |
| Diesel | 8.2 | 8.8 | 9.3 | 9.8 | 9.9 | 10.5 | 10.3 | 10.2 | 10.5 | 10.8 | 58.0 |
| 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 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.4 |
| LPG | 2.3 | 2.4 | 2.5 | 2.4 | 2.2 | 2.2 | 2.2 | 2.3 | 2.6 | 2.6 | 14.2 |
| **Imports** | **1.3** | **2.4** | **4.9** | **5.5** | **3.5** | **4.4** | **3.9** | **3.8** | **1.0** | **2.3** | **100.0** |
| Oil | 1.3 | 2.4 | 4.9 | 5.5 | 3.5 | 4.4 | 3.9 | 3.8 | 1.0 | 2.3 | 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 | 0.4 | 1.3 | 1.7 | 1.1 | 1.7 | 1.7 | 1.7 | 0.1 | 0.7 | 28.7 |
| Diesel | 0.4 | 1.3 | 2.9 | 2.8 | 1.1 | 1.8 | 1.5 | 1.5 | 0.3 | 0.7 | 29.0 |
| Heating Oil | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.1 | 0.2 | 7.1 |
| 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Exports** | **111.0** | **105.9** | **102.3** | **94.9** | **93.3** | **93.3** | **102.8** | **100.4** | **93.5** | **85.1** | **100.0** |
| Oil | 62.4 | 61.1 | 57.8 | 54.6 | 55.4 | 56.3 | 56.9 | 54.5 | 49.8 | 48.8 | 57.3 |
| Gas | 48.6 | 44.8 | 44.5 | 40.3 | 37.9 | 37.0 | 45.9 | 45.9 | 43.7 | 36.3 | 42.7 |
| 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 | 5.4 | 5.5 | 4.9 | 5.1 | 6.2 | 6.4 | 6.7 | 6.1 | 5.6 | 4.9 | 5.8 |
| Aviation Jet | 1.0 | 0.8 | 0.7 | 1.2 | 1.6 | 1.1 | 1.2 | 1.2 | 1.0 | 0.9 | 1.0 |
| LPG | 7.0 | 7.1 | 6.5 | 6.3 | 8.5 | 8.9 | 8.6 | 8.2 | 7.8 | 8.0 | 9.4 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **97.5** | **104.7** | **115.2** | **118.2** | **127.4** | **135.4** | **133.2** | **134.6** | **143.5** | **146.7** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **196.3** | **205.0** | **218.1** | **217.8** | **226.2** | **231.7** | **220.6** | **219.5** | **230.7** | **234.2** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **48.0** | **50.1** | **53.0** | **54.8** | **55.0** | **56.8** | **54.8** | **56.2** | **59.7** | **61.2** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **80.7** | **81.9** | **87.1** | **87.7** | **91.9** | **92.9** | **89.0** | **90.5** | **95.3** | **98.9** | **-** |

*Heat is included

**Primary energy demand mix**



2019: 61.96 Mtoe

Oil 33%

Gas 66%

**Electricity generation by source**



Oil · Gas · Coal · Hydro · Wind · Solar
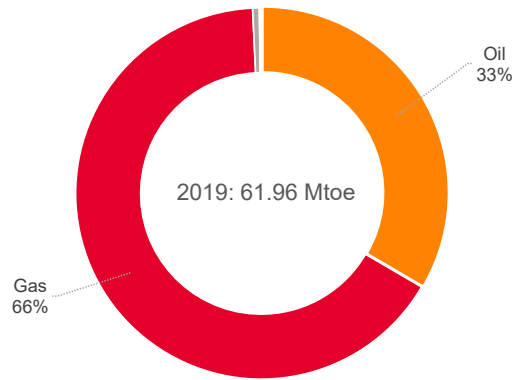
**Primary energy demand and CO$_2$ emissions growth**
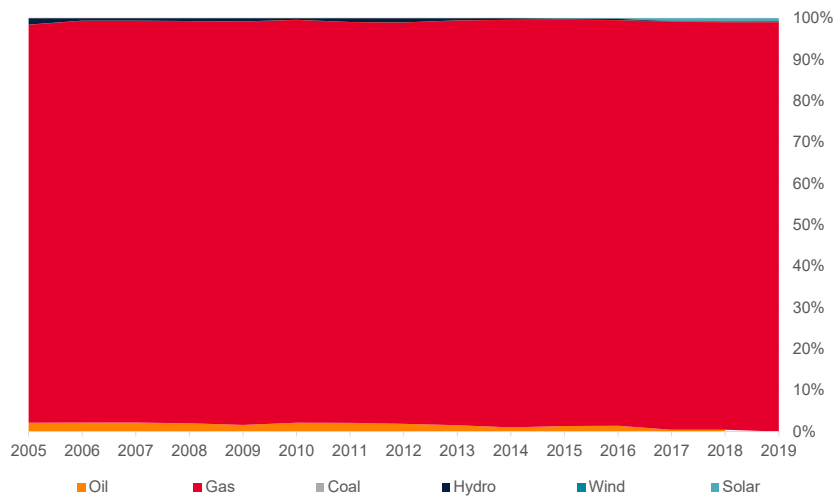


Demand growth · Emissions growth
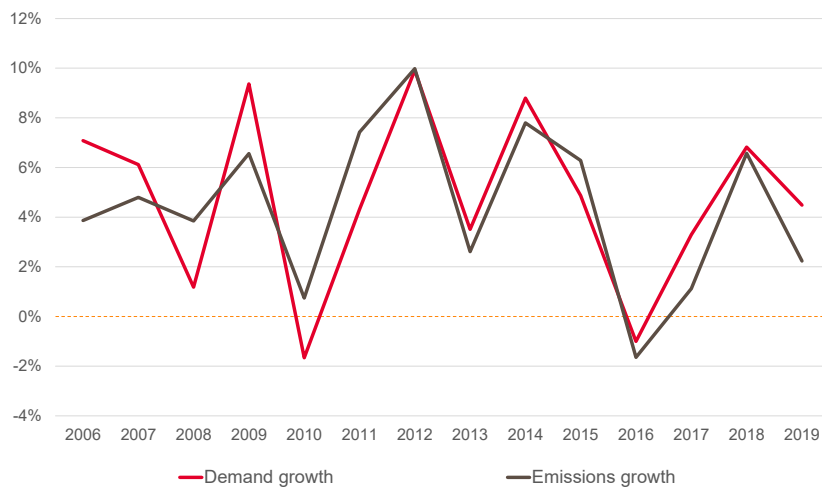
| **Angola** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **11.2** | **11.6** | **13.1** | **13.2** | **17.4** | **15.3** | **14.7** | **14.7** | **15.4** | **15.6** | **100.0** |
| Oil | 4.7 | 4.9 | 6.3 | 6.5 | 10.7 | 8.1 | 7.4 | 7.1 | 7.6 | 7.6 | 49.0 |
| Gas | 0.6 | 0.6 | 0.6 | 0.3 | 0.3 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 4.7 |
| 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 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.7 | 0.8 | 0.8 | 4.8 |
| Biomass | 5.6 | 5.7 | 5.8 | 5.9 | 6.0 | 6.1 | 6.2 | 6.3 | 6.4 | 6.5 | 41.4 |
| 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** | **9.1** | **9.6** | **9.8** | **10.4** | **10.5** | **10.7** | **10.7** | **9.7** | **9.8** | **10.0** | **100.0** |
| Oil | 3.8 | 4.2 | 4.3 | 5.0 | 5.0 | 4.7 | 4.6 | 3.8 | 3.8 | 3.9 | 38.8 |
| Gas | 0.6 | 0.6 | 0.6 | 0.3 | 0.2 | 0.6 | 0.6 | 0.3 | 0.3 | 0.3 | 3.4 |
| Coal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Electricity | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 8.7 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 4.3 | 4.3 | 4.4 | 4.5 | 4.6 | 4.6 | 4.7 | 4.8 | 4.8 | 4.9 | 49.1 |
| **Electricity generation, by source** | **0.5** | **0.5** | **0.5** | **0.7** | **0.8** | **0.8** | **0.9** | **0.9** | **1.0** | **1.0** | **100.0** |
| Oil | 0.2 | 0.1 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 25.6 |
| Gas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| 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 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 0.7 | 0.8 | 0.8 | 74.4 |
| 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** | **9.1** | **9.6** | **9.8** | **10.4** | **10.5** | **10.7** | **10.7** | **9.7** | **9.8** | **10.0** | **100.0** |
| Industry | 1.1 | 1.2 | 1.1 | 0.9 | 0.9 | 1.2 | 1.3 | 0.9 | 0.9 | 0.9 | 9.4 |
| Transport | 2.2 | 2.5 | 2.3 | 2.6 | 2.7 | 2.7 | 2.7 | 2.3 | 2.4 | 2.4 | 24.1 |
| Residential/Comercial | 5.6 | 5.8 | 6.1 | 6.6 | 6.6 | 6.5 | 6.5 | 6.3 | 6.4 | 6.4 | 64.6 |
| **Oil final consumption, by sector** | **3.8** | **4.2** | **4.3** | **5.0** | **5.0** | **4.7** | **4.6** | **3.8** | **3.8** | **3.9** | **100.0** |
| Industry | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 5.0 |
| Transport | 2.2 | 2.5 | 2.3 | 2.6 | 2.7 | 2.7 | 2.7 | 2.3 | 2.4 | 2.4 | 62.1 |
| Residential/Comercial | 1.2 | 1.3 | 1.4 | 1.8 | 1.7 | 1.5 | 1.4 | 1.1 | 1.1 | 1.1 | 28.0 |
| **Natural gas final consumption, by sector** | **0.6** | **0.6** | **0.6** | **0.3** | **0.2** | **0.6** | **0.6** | **0.3** | **0.3** | **0.3** | **100.0** |
| Industry | 0.6 | 0.6 | 0.6 | 0.3 | 0.2 | 0.6 | 0.6 | 0.3 | 0.3 | 0.3 | 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** | **3.8** | **4.2** | **4.3** | **5.0** | **5.0** | **4.7** | **4.6** | **3.8** | **3.8** | **3.9** | **100.0** |
| Gasoline | 1.0 | 1.1 | 1.1 | 1.0 | 1.1 | 1.0 | 0.9 | 0.7 | 0.7 | 0.7 | 18.2 |
| Diesel | 2.2 | 2.4 | 2.5 | 3.2 | 3.2 | 3.1 | 3.0 | 2.4 | 2.4 | 2.4 | 62.7 |
| Heating Oil | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.2 | 0.1 | 0.1 | 0.1 | 2.2 |
| Aviation Jet | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 |
| LPG | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 10.5 |
| **Imports** | **3.5** | **3.7** | **4.8** | **4.9** | **5.8** | **5.4** | **5.5** | **5.2** | **3.9** | **3.6** | **100.0** |
| Oil | 3.5 | 3.7 | 4.8 | 4.9 | 5.8 | 5.4 | 5.5 | 5.2 | 3.9 | 3.6 | 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 | 0.9 | 1.0 | 1.4 | 1.1 | 1.5 | 1.3 | 1.1 | 1.1 | 1.2 | 1.1 | 30.8 |
| Diesel | 2.1 | 2.3 | 3.0 | 3.3 | 3.7 | 3.6 | 3.6 | 3.0 | 2.0 | 1.8 | 50.5 |
| 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 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 | 0.4 | 0.1 | 0.1 | 3.8 |
| LPG | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.4 | 0.4 | 0.4 | 9.8 |
| **Exports** | **88.1** | **79.8** | **85.6** | **86.4** | **83.2** | **88.3** | **85.3** | **81.5** | **74.2** | **69.7** | **100.0** |
| Oil | 88.1 | 79.8 | 85.6 | 86.0 | 82.9 | 88.3 | 84.6 | 77.5 | 69.8 | 64.9 | 93.1 |
| Gas | 0.0 | 0.0 | 0.0 | 0.4 | 0.4 | 0.0 | 0.7 | 4.1 | 4.4 | 4.8 | 6.9 |
| Gasoline | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Diesel | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Heating Oil | 0.1 | 0.2 | 0.2 | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.4 | 0.3 | 0.4 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| LPG | 0.5 | 0.5 | 0.1 | 0.1 | 0.2 | 0.1 | 0.0 | 0.2 | 0.4 | 0.3 | 0.5 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **15.2** | **16.2** | **16.6** | **19.4** | **21.0** | **21.7** | **21.6** | **19.0** | **18.9** | **19.8** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **92.9** | **95.7** | **90.0** | **100.4** | **103.8** | **105.9** | **108.3** | **95.5** | **97.1** | **102.8** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **54.6** | **55.6** | **51.6** | **52.3** | **50.5** | **51.2** | **52.5** | **47.7** | **49.5** | **50.7** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **68.4** | **68.5** | **71.0** | **68.1** | **85.8** | **74.7** | **73.9** | **73.8** | **79.0** | **80.7** | **-** |

*Heat is included

**Primary energy demand mix**



Biomass
41%

Oil
49%

2019: 15.57 Mtoe

Hydro
5%

Gas
5%

**Electricity generation by source**



■ Oil          ■ Hydro
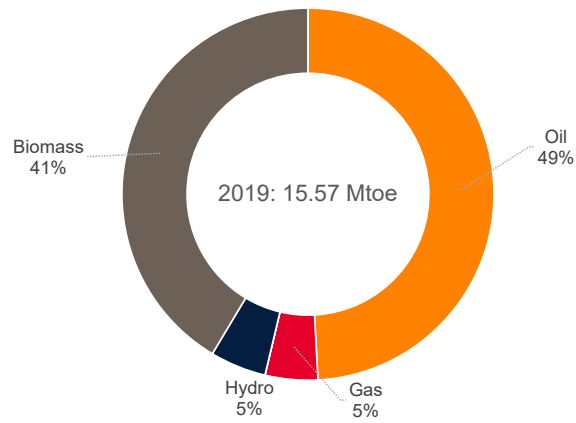
**Primary energy demand and CO$_2$ emissions growth**
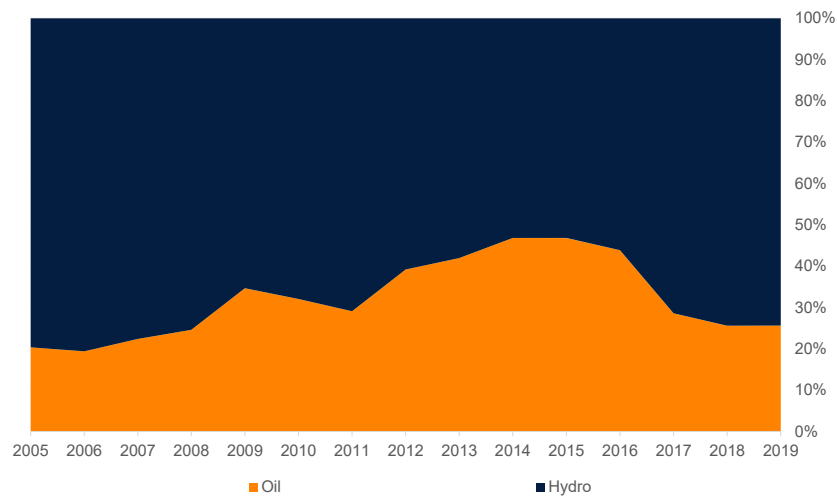


Demand growth          Emissions growth
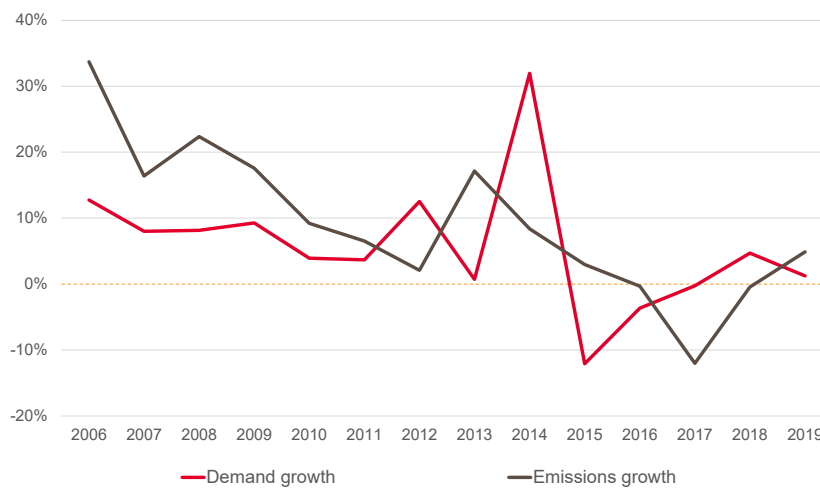
| Egypt *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **73.0** | **76.2** | **78.5** | **77.0** | **79.6** | **79.3** | **85.8** | **92.8** | **93.6** | **94.6** | **100.0** |
| Oil | 34.0 | 34.0 | 36.1 | 36.1 | 41.4 | 39.1 | 40.9 | 41.8 | 39.1 | 38.8 | 41.0 |
| Gas | 35.8 | 39.0 | 39.1 | 37.6 | 34.9 | 36.8 | 41.5 | 47.4 | 50.5 | 51.4 | 54.3 |
| Coal | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.4 | 0.7 | 0.9 | 0.9 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 |
| Biomass | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 2.0 |
| Other renewables | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.5 | 0.5 |
| Electricity balance of trade* | -0.1 | -0.1 | -0.0 | -0.0 | -0.1 | -0.1 | -0.0 | -0.0 | -0.0 | -0.0 | -0.0 |
| **Total final consumption, by source** | **52.9** | **55.4** | **56.1** | **54.5** | **53.9** | **55.7** | **58.5** | **60.9** | **60.4** | **59.2** | **100.0** |
| Oil | 29.4 | 29.7 | 30.1 | 28.7 | 30.1 | 30.0 | 31.0 | 31.7 | 29.7 | 28.0 | 47.2 |
| Gas | 11.0 | 11.8 | 12.0 | 11.9 | 9.0 | 10.0 | 11.8 | 13.5 | 14.3 | 14.5 | 24.5 |
| Coal | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.6 | 0.8 | 1.3 |
| Electricity | 10.6 | 11.9 | 12.1 | 11.9 | 12.7 | 13.5 | 13.5 | 13.7 | 14.0 | 14.1 | 23.7 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 1.6 | 1.6 | 1.6 | 1.7 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 | 1.9 | 3.2 |
| **Electricity generation, by source** | **12.6** | **13.5** | **14.2** | **14.5** | **15.0** | **16.0** | **16.0** | **16.2** | **16.7** | **16.8** | **100.0** |
| Oil | 1.7 | 1.5 | 2.1 | 2.5 | 2.9 | 3.3 | 2.5 | 2.1 | 2.0 | 1.9 | 11.5 |
| Gas | 9.7 | 10.8 | 10.8 | 10.6 | 10.8 | 11.4 | 12.1 | 12.7 | 13.2 | 13.2 | 78.5 |
| 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 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.1 | 1.2 | 1.2 | 1.2 | 7.0 |
| Biomass | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Wind | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 2.3 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.7 |
| Other renewables | 0.0 | 0.0 | 0.0 | -0.0 | 0.0 | -0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total final consumption, by sector** | **52.9** | **55.4** | **56.1** | **54.5** | **53.9** | **55.7** | **58.5** | **60.9** | **60.4** | **59.2** | **100.0** |
| Industry | 14.6 | 15.5 | 13.7 | 14.6 | 13.3 | 13.1 | 14.2 | 15.4 | 15.8 | 14.8 | 25.0 |
| Transport | 14.9 | 15.6 | 17.0 | 17.1 | 17.9 | 18.3 | 19.1 | 19.5 | 18.6 | 18.6 | 31.4 |
| Residential/Comercial | 14.2 | 14.9 | 15.6 | 15.7 | 16.7 | 17.7 | 17.6 | 17.7 | 17.7 | 17.7 | 29.8 |
| **Oil final consumption, by sector** | **29.4** | **29.7** | **30.1** | **28.7** | **30.1** | **30.0** | **31.0** | **31.7** | **29.7** | **28.0** | **100.0** |
| Industry | 5.3 | 5.1 | 3.7 | 4.9 | 5.4 | 4.8 | 5.0 | 5.3 | 4.9 | 3.6 | 12.8 |
| Transport | 14.5 | 15.2 | 16.5 | 16.7 | 17.5 | 18.0 | 18.8 | 19.1 | 18.2 | 18.2 | 65.0 |
| Residential/Comercial | 5.0 | 5.0 | 4.8 | 4.7 | 4.7 | 4.8 | 4.8 | 4.7 | 4.4 | 4.2 | 15.0 |
| **Natural gas final consumption, by sector** | **11.0** | **11.8** | **12.0** | **11.9** | **9.0** | **10.0** | **11.8** | **13.5** | **14.3** | **14.5** | **100.0** |
| Industry | 5.4 | 5.9 | 6.2 | 6.1 | 4.2 | 4.7 | 5.3 | 6.1 | 6.4 | 6.6 | 45.2 |
| Transport | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 2.4 |
| Residential/Comercial | 0.9 | 1.0 | 1.1 | 1.3 | 1.5 | 1.5 | 1.7 | 2.0 | 2.1 | 2.1 | 14.5 |
| **Refined products consumption** | **29.4** | **29.7** | **30.1** | **28.7** | **30.1** | **30.0** | **31.0** | **31.7** | **29.7** | **28.0** | **100.0** |
| Gasoline | 5.5 | 6.1 | 6.5 | 6.3 | 6.8 | 7.3 | 7.8 | 7.6 | 7.4 | 7.4 | 26.6 |
| Diesel | 12.2 | 12.5 | 12.9 | 12.9 | 13.3 | 13.3 | 14.0 | 14.6 | 13.6 | 13.6 | 48.6 |
| Heating Oil | 3.8 | 3.3 | 2.5 | 2.6 | 3.1 | 2.4 | 2.3 | 2.5 | 2.3 | 0.8 | 2.9 |
| Aviation Jet | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.7 | 0.8 | 2.8 |
| LPG | 4.9 | 4.9 | 4.8 | 4.7 | 4.7 | 4.8 | 4.8 | 4.7 | 4.4 | 4.2 | 15.1 |
| **Imports** | **12.0** | **12.1** | **13.0** | **15.9** | **20.6** | **25.5** | **30.3** | **28.1** | **25.6** | **22.3** | **100.0** |
| Oil | 12.0 | 12.1 | 13.0 | 15.9 | 20.6 | 19.8 | 22.5 | 21.6 | 23.2 | 21.0 | 94.1 |
| Gas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 5.7 | 7.8 | 6.4 | 2.4 | 1.3 | 5.9 |
| Gasoline | 0.7 | 1.3 | 1.3 | 1.7 | 2.3 | 2.7 | 3.1 | 3.0 | 2.6 | 2.4 | 10.6 |
| Diesel | 3.5 | 4.7 | 5.2 | 6.0 | 6.5 | 7.3 | 8.1 | 8.0 | 7.2 | 7.0 | 31.3 |
| Heating Oil | 1.4 | 0.7 | 1.0 | 2.9 | 4.1 | 3.7 | 2.2 | 1.4 | 0.1 | 0.0 | 0.0 |
| Aviation Jet | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| LPG | 2.6 | 2.5 | 2.3 | 2.3 | 2.5 | 2.6 | 2.8 | 2.8 | 2.7 | 2.6 | 11.9 |
| **Exports** | **23.9** | **20.0** | **17.1** | **15.6** | **14.3** | **15.3** | **14.4** | **13.2** | **19.4** | **20.4** | **100.0** |
| Oil | 13.3 | 13.0 | 12.0 | 13.9 | 14.0 | 15.1 | 13.2 | 11.3 | 16.1 | 13.4 | 65.5 |
| Gas | 10.6 | 7.0 | 5.1 | 1.7 | 0.3 | 0.2 | 1.1 | 1.9 | 3.2 | 7.0 | 34.5 |
| Gasoline | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.1 | 0.2 | 0.3 | 1.3 |
| 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 | 0.4 | 0.3 | 1.7 |
| Aviation Jet | 0.4 | 0.2 | 0.3 | 0.5 | 0.5 | 1.0 | 0.9 | 0.8 | 1.1 | 1.1 | 5.2 |
| 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 $CO_2$)*** | **183.6** | **190.0** | **196.4** | **195.6** | **198.1** | **205.1** | **211.1** | **217.2** | **217.8** | **214.8** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million $15ppp)*** | **207.3** | **210.8** | **213.2** | **207.8** | **204.4** | **202.8** | **200.1** | **197.5** | **188.1** | **175.8** | **-** |
| **Final energy intensity *(toe/million $15ppp)*** | **52.4** | **54.0** | **53.4** | **51.9** | **50.9** | **50.1** | **49.8** | **49.3** | **46.4** | **43.0** | **-** |
| **Total energy intensity *(toe/million $15ppp)*** | **82.5** | **84.5** | **85.2** | **81.8** | **82.2** | **78.4** | **81.3** | **84.4** | **80.9** | **77.4** | **-** |

*Heat is included*

**Primary energy demand mix**

Hydro
1%

Biomass
2%

Coal
1%

Oil
41%

2019: 94.57 Mtoe

Gas
54%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil   ■ Gas   ■ Hydro   ■ Wind   ■ Solar

**Primary energy demand and CO$_2$ emissions growth**

10%

8%

6%

4%

2%

0%

-2%

-4%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
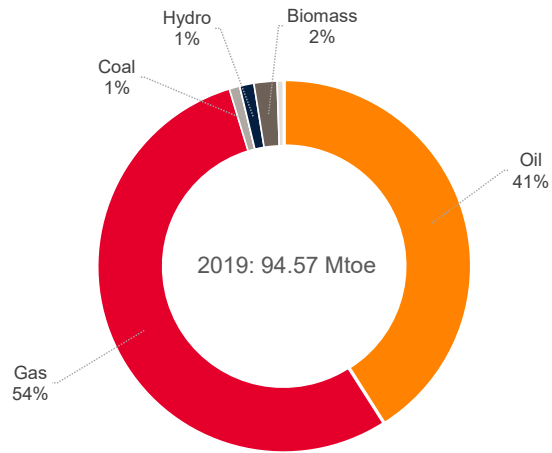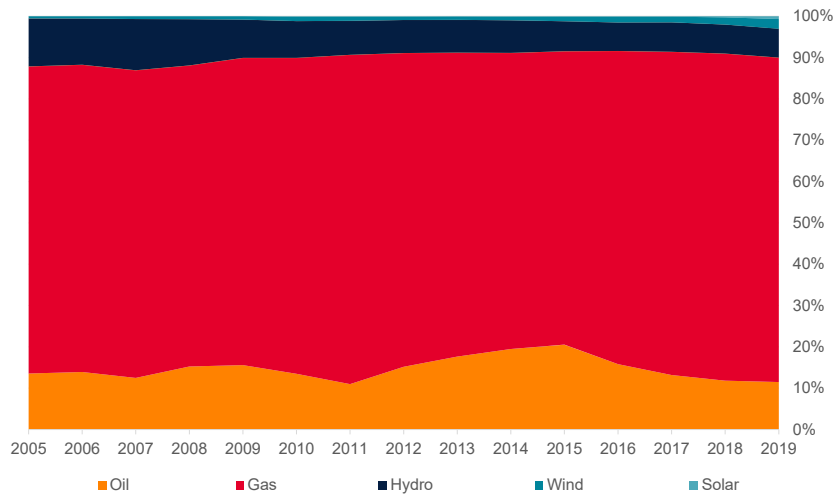
—— Demand growth          —— Emissions growth
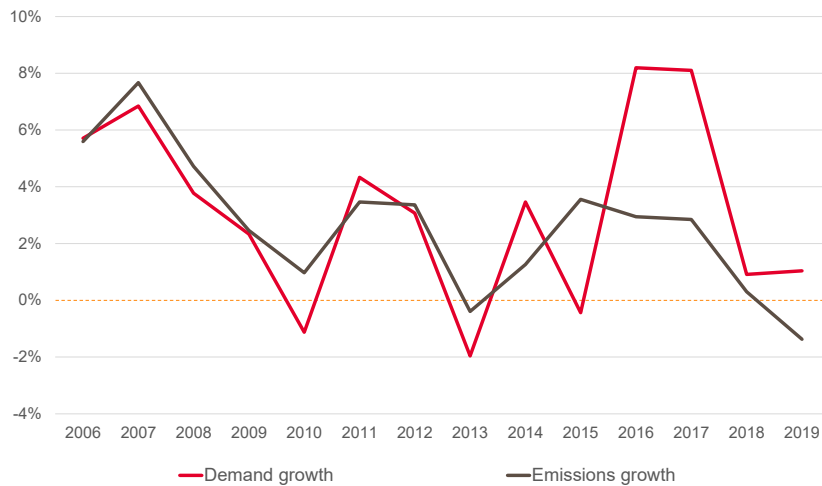
| Libya<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **20.4** | **17.2** | **17.0** | **15.1** | **23.3** | **18.8** | **18.6** | **18.0** | **17.9** | **18.5** | **100.0** |
| Oil | 14.1 | 12.2 | 11.8 | 8.7 | 14.5 | 11.3 | 9.2 | 9.5 | 9.6 | 9.7 | 52.3 |
| Gas | 5.8 | 4.4 | 4.7 | 5.8 | 8.2 | 6.8 | 8.8 | 7.9 | 7.7 | 8.2 | 44.2 |
| 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 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 3.2 |
| 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 | 0.0 | 0.0 | 0.0 | 0.2 |
| **Total final consumption, by source** | **13.4** | **8.3** | **9.9** | **11.2** | **13.7** | **11.2** | **12.0** | **12.7** | **13.4** | **14.0** | **100.0** |
| Oil | 9.2 | 5.8 | 8.0 | 8.7 | 8.5 | 6.5 | 7.5 | 7.3 | 7.4 | 7.8 | 56.0 |
| Gas | 2.2 | 0.9 | 0.1 | 0.7 | 3.5 | 3.1 | 3.1 | 3.9 | 4.2 | 4.3 | 30.8 |
| Coal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Electricity | 1.7 | 1.4 | 1.6 | 1.6 | 1.5 | 1.3 | 1.2 | 1.2 | 1.5 | 1.6 | 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 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 1.9 |
| **Electricity generation, by source** | **2.8** | **2.2** | **2.9** | **3.3** | **3.2** | **3.2** | **2.7** | **2.9** | **2.9** | **3.0** | **100.0** |
| Oil | 1.5 | 0.9 | 1.2 | 1.4 | 1.5 | 1.5 | 0.7 | 0.9 | 1.0 | 0.9 | 29.9 |
| Gas | 1.3 | 1.3 | 1.8 | 1.9 | 1.7 | 1.7 | 2.0 | 2.0 | 1.9 | 2.1 | 70.1 |
| 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** | **13.4** | **8.3** | **9.9** | **11.2** | **13.7** | **11.2** | **12.0** | **12.7** | **13.4** | **14.0** | **100.0** |
| Industry | 1.5 | 0.6 | 0.5 | 1.1 | 2.1 | 1.7 | 1.6 | 1.9 | 2.1 | 2.2 | 15.7 |
| Transport | 6.1 | 4.6 | 5.7 | 6.0 | 6.6 | 5.1 | 6.2 | 5.8 | 5.7 | 6.0 | 42.8 |
| Residential/Comercial | 2.3 | 1.7 | 2.3 | 2.3 | 2.0 | 1.7 | 1.7 | 1.7 | 2.0 | 2.1 | 14.9 |
| **Oil final consumption, by sector** | **9.2** | **5.8** | **8.0** | **8.7** | **8.5** | **6.5** | **7.5** | **7.3** | **7.4** | **7.8** | **100.0** |
| Industry | 0.5 | 0.2 | 0.4 | 0.7 | 0.7 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 7.2 |
| Transport | 6.1 | 4.6 | 5.7 | 6.0 | 6.6 | 5.1 | 6.2 | 5.8 | 5.7 | 6.0 | 76.5 |
| Residential/Comercial | 0.7 | 0.4 | 0.7 | 0.7 | 0.6 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 5.8 |
| **Natural gas final consumption, by sector** | **2.2** | **0.9** | **0.1** | **0.7** | **3.5** | **3.1** | **3.1** | **3.9** | **4.2** | **4.3** | **100.0** |
| Industry | 0.8 | 0.3 | 0.0 | 0.2 | 1.2 | 1.1 | 1.1 | 1.4 | 1.5 | 1.5 | 35.3 |
| 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Refined products consumption** | **9.2** | **5.8** | **8.0** | **8.7** | **8.5** | **6.5** | **7.5** | **7.3** | **7.4** | **7.8** | **100.0** |
| Gasoline | 3.3 | 2.7 | 3.7 | 4.1 | 4.1 | 4.0 | 4.2 | 4.2 | 4.2 | 4.3 | 54.6 |
| Diesel | 2.8 | 1.8 | 2.0 | 1.9 | 2.5 | 1.1 | 1.9 | 1.6 | 1.4 | 1.7 | 21.8 |
| Heating Oil | 0.5 | 0.2 | 0.4 | 0.7 | 0.7 | 0.4 | 0.4 | 0.4 | 0.5 | 0.6 | 7.2 |
| 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 | 0.4 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 4.1 |
| **Imports** | **3.9** | **4.0** | **5.1** | **5.9** | **8.2** | **6.9** | **6.2** | **6.0** | **5.8** | **5.8** | **100.0** |
| Oil | 3.9 | 4.0 | 5.1 | 5.9 | 8.2 | 6.9 | 6.2 | 6.0 | 5.8 | 5.8 | 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 | 2.6 | 2.1 | 3.0 | 3.4 | 3.5 | 3.5 | 3.8 | 3.7 | 3.8 | 3.9 | 65.9 |
| Diesel | 1.0 | 1.8 | 1.7 | 2.2 | 4.4 | 3.3 | 2.2 | 2.1 | 1.9 | 1.9 | 32.5 |
| Heating Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 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** | **85.6** | **19.7** | **75.2** | **54.5** | **24.9** | **23.3** | **21.6** | **46.3** | **57.8** | **62.4** | **100.0** |
| Oil | 77.6 | 17.8 | 69.9 | 49.9 | 19.6 | 17.5 | 17.7 | 42.6 | 54.1 | 57.7 | 92.5 |
| Gas | 8.0 | 2.0 | 5.3 | 4.7 | 5.3 | 5.8 | 3.9 | 3.8 | 3.7 | 4.7 | 7.5 |
| 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 | 2.5 | 0.4 | 0.3 | 2.1 | 0.0 | 0.3 | 0.4 | 0.3 | 0.2 | 0.2 | 0.3 |
| Aviation Jet | 1.2 | 0.7 | 0.8 | 1.1 | 0.4 | 0.3 | 0.2 | 0.4 | 0.6 | 0.6 | 1.0 |
| LPG | 0.2 | 0.0 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **51.6** | **35.7** | **45.2** | **49.8** | **54.7** | **48.8** | **47.3** | **49.3** | **50.4** | **52.3** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **332.9** | **607.8** | **344.8** | **440.0** | **635.5** | **622.3** | **620.2** | **510.5** | **483.4** | **456.3** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **65.2** | **120.5** | **65.9** | **83.4** | **125.5** | **110.0** | **125.5** | **99.0** | **94.4** | **90.5** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **131.7** | **292.8** | **130.1** | **133.5** | **270.8** | **239.2** | **243.7** | **186.9** | **171.6** | **161.7** | **-** |

*Heat is included

## Primary energy demand mix

Biomass
3%

Gas
43%

Oil
54%

2019: 18.53 Mtoe

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005  2006  2007  2008  2009  2010  2011  2012  2013  2014  2015  2016  2017  2018  2019

■ Oil          ■ Gas

## Primary energy demand and CO$_2$ emissions growth

60%
50%
40%
30%
20%
10%
0%
-10%
-20%
-30%
-40%

2006  2007  2008  2009  2010  2011  2012  2013  2014  2015  2016  2017  2018  2019
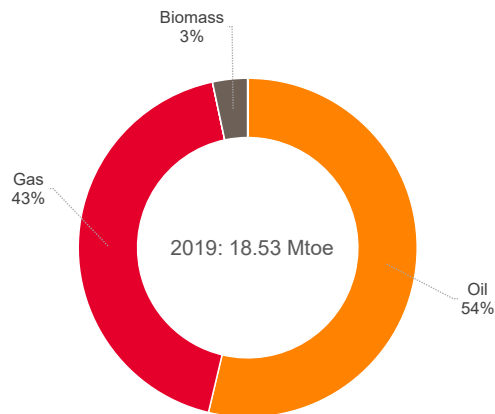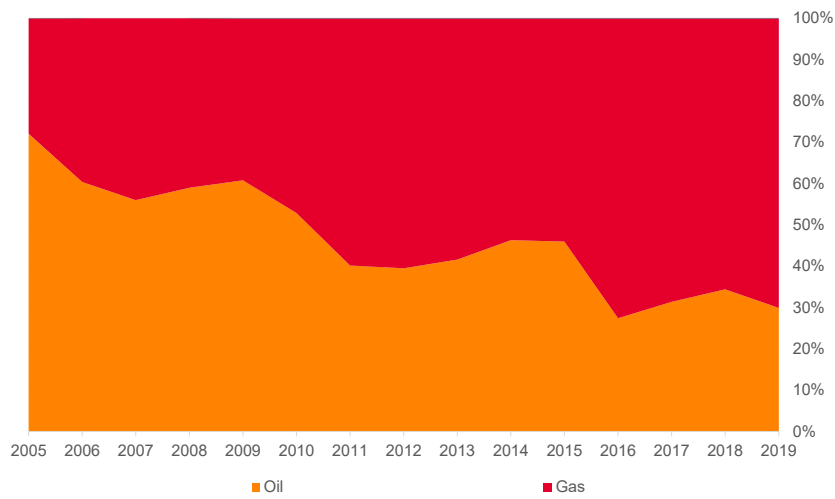
—— Demand growth          —— Emissions growth
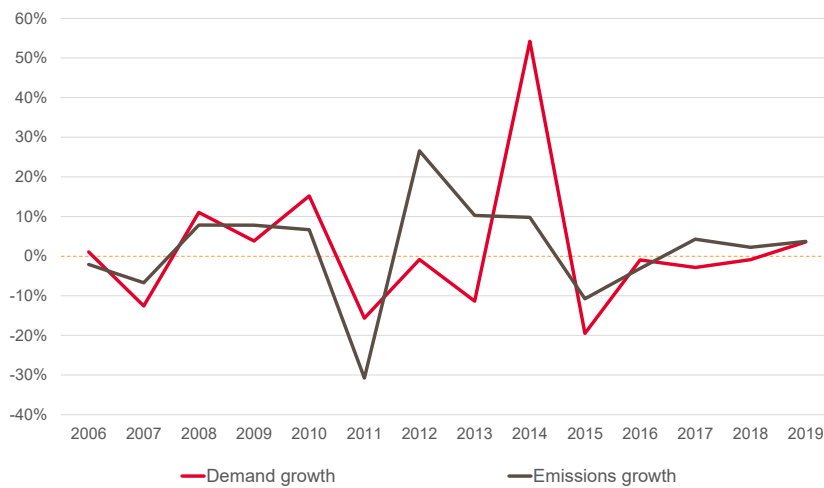
| Nigeria *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **127.4** | **138.9** | **140.3** | **142.9** | **146.6** | **145.2** | **149.8** | **157.3** | **165.2** | **167.8** | **100.0** |
| Oil | 20.3 | 24.0 | 19.3 | 21.4 | 23.2 | 19.1 | 21.3 | 25.7 | 28.1 | 27.5 | 16.4 |
| Gas | 8.8 | 12.2 | 12.6 | 12.5 | 14.3 | 14.2 | 13.9 | 14.2 | 13.7 | 13.7 | 8.2 |
| 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 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 |
| Biomass | 97.7 | 102.1 | 107.9 | 108.5 | 108.6 | 111.5 | 114.1 | 116.9 | 122.9 | 125.9 | 75.0 |
| 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** | **105.9** | **110.9** | **115.6** | **123.6** | **126.0** | **126.9** | **129.7** | **132.4** | **138.2** | **140.7** | **100.0** |
| Oil | 11.9 | 11.0 | 11.3 | 18.0 | 20.1 | 18.2 | 19.0 | 18.9 | 19.4 | 19.0 | 13.5 |
| Gas | 1.2 | 3.5 | 3.1 | 3.3 | 3.8 | 3.8 | 3.4 | 3.5 | 3.4 | 3.4 | 2.4 |
| Coal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Electricity | 1.8 | 2.0 | 2.2 | 2.0 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 1.5 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 91.0 | 94.4 | 99.0 | 100.2 | 100.0 | 102.7 | 105.1 | 107.8 | 113.3 | 116.1 | 82.5 |
| **Electricity generation, by source** | **2.2** | **2.3** | **2.5** | **2.5** | **2.8** | **2.8** | **2.7** | **2.8** | **2.7** | **2.7** | **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 | 1.7 | 1.8 | 2.0 | 2.0 | 2.3 | 2.3 | 2.3 | 2.3 | 2.2 | 2.2 | 79.7 |
| 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 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 20.2 |
| 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 | 0.0 |
| 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** | **105.9** | **110.9** | **115.6** | **123.6** | **126.0** | **126.9** | **129.7** | **132.4** | **138.2** | **140.7** | **100.0** |
| Industry | 7.1 | 9.8 | 10.1 | 9.9 | 7.3 | 7.4 | 7.1 | 7.2 | 7.1 | 7.1 | 5.1 |
| Transport | 9.6 | 8.7 | 9.0 | 15.2 | 16.7 | 15.2 | 17.4 | 17.4 | 18.1 | 18.0 | 12.8 |
| Residential/Comercial | 88.5 | 91.4 | 95.4 | 97.2 | 100.4 | 102.7 | 103.7 | 106.4 | 111.7 | 114.2 | 81.2 |
| **Oil final consumption, by sector** | **11.9** | **11.0** | **11.3** | **18.0** | **20.1** | **18.2** | **19.0** | **18.9** | **19.4** | **19.0** | **100.0** |
| Industry | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.1 | 0.6 |
| Transport | 9.6 | 8.7 | 9.0 | 15.2 | 16.7 | 15.2 | 17.4 | 17.4 | 18.1 | 18.0 | 94.7 |
| Residential/Comercial | 1.9 | 1.9 | 1.9 | 2.3 | 2.7 | 2.3 | 0.8 | 0.9 | 0.9 | 0.7 | 3.8 |
| **Natural gas final consumption, by sector** | **1.2** | **3.5** | **3.1** | **3.3** | **3.8** | **3.8** | **3.4** | **3.5** | **3.4** | **3.4** | **100.0** |
| Industry | 0.6 | 2.6 | 2.0 | 2.1 | 2.5 | 2.4 | 2.2 | 2.3 | 2.2 | 2.2 | 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/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** | **11.9** | **11.0** | **11.3** | **18.0** | **20.1** | **18.2** | **19.0** | **18.9** | **19.4** | **19.0** | **100.0** |
| Gasoline | 8.2 | 7.9 | 8.2 | 12.5 | 13.7 | 12.5 | 13.7 | 13.7 | 15.2 | 15.9 | 83.6 |
| Diesel | 1.3 | 0.7 | 0.6 | 2.5 | 2.9 | 2.6 | 3.5 | 3.5 | 2.8 | 2.1 | 10.9 |
| Heating Oil | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.1 | 0.6 |
| Aviation Jet | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.0 | 0.1 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.2 |
| **Imports** | **17.3** | **20.2** | **15.9** | **17.7** | **20.6** | **17.3** | **19.9** | **23.6** | **28.0** | **24.6** | **100.0** |
| Oil | 17.3 | 20.2 | 15.9 | 17.7 | 20.6 | 17.3 | 19.9 | 23.6 | 28.0 | 24.6 | 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 | 12.7 | 16.3 | 12.1 | 13.3 | 14.5 | 11.1 | 14.5 | 18.6 | 21.9 | 19.7 | 80.0 |
| Diesel | 2.7 | 2.1 | 1.9 | 2.2 | 3.4 | 3.9 | 4.0 | 3.8 | 3.9 | 3.8 | 15.3 |
| Heating Oil | 0.2 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.3 | 0.3 | 0.4 | 0.2 | 0.9 |
| Aviation Jet | 0.5 | 0.5 | 0.6 | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.1 | 0.6 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Exports** | **143.5** | **139.4** | **142.6** | **125.4** | **129.4** | **129.7** | **109.5** | **114.4** | **116.9** | **122.8** | **100.0** |
| Oil | 125.7 | 120.3 | 121.6 | 107.6 | 109.1 | 108.2 | 90.5 | 91.8 | 94.7 | 100.0 | 81.5 |
| Gas | 17.7 | 19.1 | 21.0 | 17.8 | 20.4 | 21.5 | 19.0 | 22.7 | 22.3 | 22.8 | 18.5 |
| 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 | 0.5 | 0.7 | 0.4 | 0.3 | 0.3 | 0.1 | 0.2 | 0.5 | 0.1 | 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 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **56.4** | **61.7** | **63.4** | **82.7** | **91.3** | **85.0** | **87.0** | **88.1** | **88.3** | **86.9** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **65.6** | **68.0** | **67.1** | **82.1** | **85.2** | **77.3** | **80.4** | **80.8** | **79.5** | **76.5** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **122.2** | **121.3** | **121.2** | **121.4** | **116.2** | **113.9** | **118.5** | **120.1** | **123.1** | **122.6** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **148.0** | **153.2** | **148.5** | **141.8** | **136.8** | **132.0** | **138.4** | **144.2** | **148.6** | **147.6** | **-** |

*Heat is included

**Primary energy demand mix**

Oil
17%

Gas
8%

2019: 167.78 Mtoe

Biomass
75%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Gas          ■ Hydro

**Primary energy demand and CO$_2$ emissions growth**

40%
30%
20%
10%
0%
-10%
-20%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
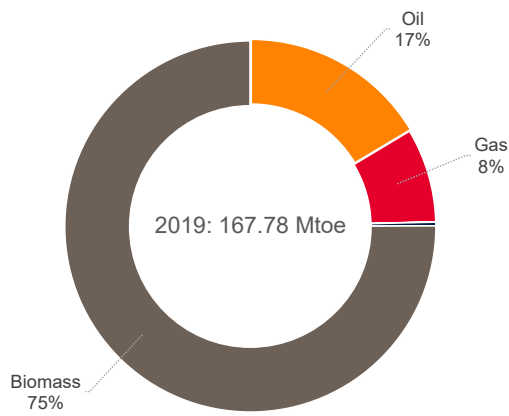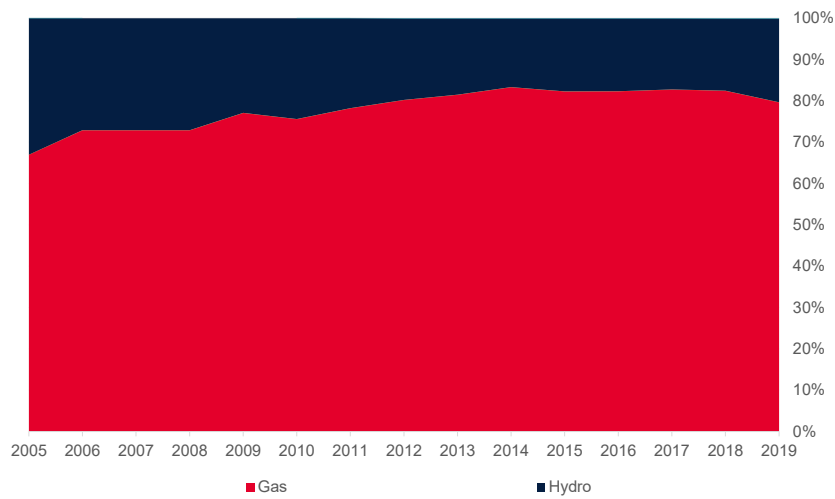
— Demand growth          — Emissions growth
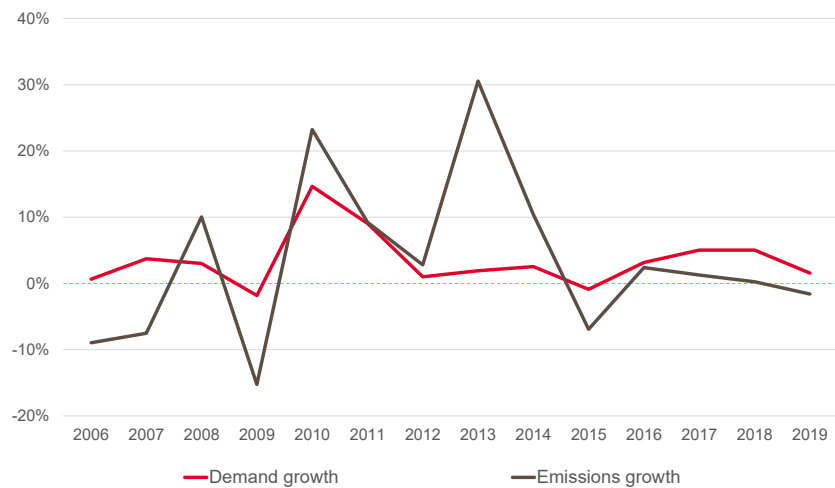
| South Africa *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **131.8** | **134.6** | **129.1** | **128.4** | **136.3** | **127.0** | **130.2** | **132.1** | **133.3** | **135.3** | **100.0** |
| Oil | 17.7 | 22.2 | 18.4 | 18.2 | 19.9 | 18.2 | 16.8 | 18.8 | 18.8 | 18.7 | 13.8 |
| Gas | 3.9 | 3.8 | 4.0 | 4.1 | 3.9 | 4.4 | 4.4 | 4.3 | 4.1 | 3.9 | 2.9 |
| Coal | 100.5 | 98.5 | 97.1 | 95.8 | 101.8 | 94.2 | 98.1 | 98.2 | 100.2 | 101.6 | 75.1 |
| Nuclear | 3.2 | 3.5 | 3.1 | 3.7 | 3.6 | 3.2 | 3.9 | 3.7 | 2.6 | 3.3 | 2.5 |
| Hydro | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| Biomass | 6.6 | 6.6 | 6.7 | 6.8 | 6.9 | 6.6 | 6.7 | 6.7 | 6.9 | 7.2 | 5.3 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.4 | 0.6 | 0.7 | 0.8 | 0.9 | 0.6 |
| Electricity balance of trade* | -0.1 | -0.2 | -0.4 | -0.3 | -0.1 | -0.0 | -0.4 | -0.4 | -0.2 | -0.3 | -0.2 |
| **Total final consumption, by source** | **61.8** | **62.8** | **64.5** | **67.7** | **67.4** | **65.8** | **64.4** | **68.3** | **69.5** | **69.6** | **100.0** |
| Oil | 22.2 | 24.0 | 23.8 | 25.2 | 24.3 | 25.2 | 24.2 | 25.3 | 25.3 | 25.2 | 36.2 |
| Gas | 1.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.8 |
| Coal | 15.3 | 13.3 | 15.8 | 17.6 | 18.4 | 16.1 | 15.8 | 18.4 | 19.2 | 19.8 | 28.5 |
| Electricity | 17.4 | 17.6 | 17.0 | 16.9 | 16.8 | 16.7 | 16.6 | 16.7 | 17.0 | 16.5 | 23.6 |
| Heat | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 |
| Biomass | 5.5 | 5.5 | 5.6 | 5.6 | 5.7 | 5.5 | 5.6 | 5.6 | 5.8 | 5.9 | 8.5 |
| **Electricity generation, by source** | **22.3** | **22.6** | **22.2** | **22.0** | **21.7** | **21.5** | **21.7** | **21.9** | **22.0** | **21.7** | **100.0** |
| Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Gas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Coal | 20.8 | 20.9 | 20.7 | 20.4 | 20.0 | 19.6 | 19.5 | 19.5 | 19.8 | 19.2 | 88.4 |
| Nuclear | 1.0 | 1.2 | 1.0 | 1.2 | 1.2 | 1.1 | 1.3 | 1.2 | 0.9 | 1.1 | 5.1 |
| Hydro | 0.4 | 0.4 | 0.4 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 2.3 |
| 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 | 0.2 | 0.3 | 0.4 | 0.5 | 0.5 | 2.4 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 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** | **61.8** | **62.8** | **64.5** | **67.7** | **67.4** | **65.8** | **64.4** | **68.3** | **69.5** | **69.6** | **100.0** |
| Industry | 25.5 | 24.4 | 24.3 | 25.8 | 26.4 | 25.3 | 25.1 | 24.6 | 25.2 | 25.1 | 36.1 |
| Transport | 15.9 | 16.8 | 16.9 | 18.4 | 17.4 | 18.1 | 17.3 | 18.3 | 18.4 | 18.4 | 26.4 |
| Residential/Comercial | 14.0 | 14.7 | 16.6 | 16.9 | 17.0 | 16.0 | 15.6 | 18.8 | 19.4 | 19.6 | 28.2 |
| **Oil final consumption, by sector** | **22.2** | **24.0** | **23.8** | **25.2** | **24.3** | **25.2** | **24.2** | **25.3** | **25.3** | **25.2** | **100.0** |
| Industry | 1.5 | 1.7 | 1.9 | 2.0 | 2.1 | 2.3 | 2.1 | 2.1 | 2.2 | 2.1 | 8.4 |
| Transport | 15.6 | 16.5 | 16.5 | 18.0 | 17.1 | 17.8 | 17.0 | 18.0 | 18.1 | 18.1 | 71.7 |
| Residential/Comercial | 0.8 | 0.9 | 0.8 | 0.8 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 3.0 |
| **Natural gas final consumption, by sector** | **1.2** | **2.2** | **2.2** | **2.2** | **2.2** | **2.2** | **2.2** | **2.2** | **2.1** | **2.0** | **100.0** |
| Industry | 1.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.1 | 2.0 | 98.8 |
| 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 | 1.1 |
| **Refined products consumption** | **22.2** | **24.0** | **23.8** | **25.2** | **24.3** | **25.2** | **24.2** | **25.3** | **25.3** | **25.2** | **100.0** |
| Gasoline | 8.7 | 9.2 | 9.1 | 9.4 | 8.5 | 8.9 | 8.9 | 9.2 | 9.2 | 8.9 | 35.2 |
| Diesel | 8.7 | 9.9 | 10.0 | 11.4 | 11.4 | 12.0 | 10.8 | 11.5 | 11.8 | 12.2 | 48.3 |
| Heating Oil | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.4 | 1.4 |
| Aviation Jet | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.7 | 0.6 | 0.7 | 2.6 |
| LPG | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 1.2 |
| **Imports** | **27.9** | **30.9** | **28.9** | **29.2** | **31.5** | **30.4** | **28.4** | **29.9** | **31.5** | **30.9** | **100.0** |
| Oil | 25.3 | 28.2 | 25.8 | 26.1 | 28.4 | 27.0 | 24.9 | 26.4 | 28.0 | 27.5 | 88.9 |
| Gas | 2.6 | 2.7 | 3.1 | 3.1 | 3.1 | 3.3 | 3.5 | 3.5 | 3.5 | 3.4 | 11.1 |
| Gasoline | 1.6 | 1.9 | 1.4 | 1.2 | 0.9 | 1.5 | 1.1 | 1.6 | 1.7 | 1.1 | 3.7 |
| Diesel | 2.1 | 3.3 | 3.3 | 4.4 | 4.5 | 5.8 | 3.9 | 5.4 | 5.4 | 5.2 | 16.9 |
| Heating Oil | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 |
| Aviation Jet | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.3 | 0.3 | 0.4 | 1.2 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.2 | 0.7 |
| **Exports** | **2.3** | **2.0** | **2.8** | **3.6** | **3.3** | **4.4** | **4.1** | **4.0** | **4.4** | **3.8** | **100.0** |
| Oil | 2.3 | 2.0 | 2.8 | 3.6 | 3.3 | 4.4 | 4.1 | 4.0 | 4.4 | 3.8 | 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 | 0.3 | 0.2 | 0.3 | 0.7 | 0.8 | 0.8 | 0.9 | 0.8 | 1.0 | 0.9 | 24.3 |
| Diesel | 0.6 | 0.5 | 0.8 | 1.4 | 1.3 | 1.4 | 1.7 | 1.6 | 1.6 | 1.6 | 42.2 |
| Heating Oil | 0.9 | 1.0 | 1.2 | 1.1 | 0.9 | 1.2 | 1.0 | 0.9 | 1.0 | 0.8 | 20.4 |
| Aviation Jet | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.7 | 0.3 | 0.3 | 0.4 | 0.3 | 7.0 |
| LPG | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 3.3 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **428.7** | **413.1** | **430.0** | **439.6** | **452.2** | **426.6** | **428.4** | **430.2** | **442.1** | **446.7** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **654.6** | **610.7** | **622.0** | **620.4** | **626.7** | **583.7** | **582.8** | **577.6** | **589.0** | **594.2** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **88.1** | **86.7** | **87.8** | **90.3** | **88.3** | **85.3** | **82.5** | **87.1** | **88.2** | **88.1** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **201.3** | **199.0** | **186.7** | **181.2** | **188.9** | **173.8** | **177.1** | **177.3** | **177.6** | **180.0** | **-** |

*Heat is included*

**Primary energy demand mix**

Biomass
5%

Nuclear
2%

Oil
14%

Gas
3%

2019: 135.31 Mtoe

Coal
75%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil ■ Coal ■ Nuclear ■ Hydro ■ Biomass ■ Wind ■ Solar ■ Other renewables

**Primary energy demand and CO$_2$ emissions growth**

10%
8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
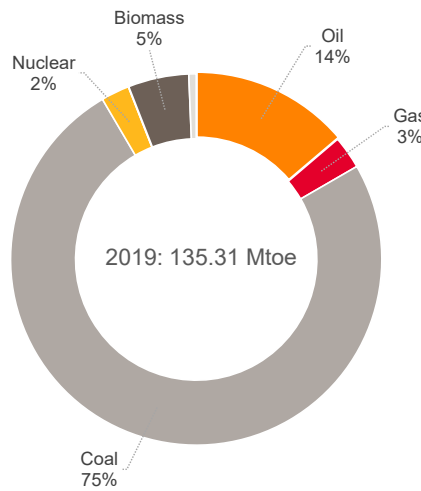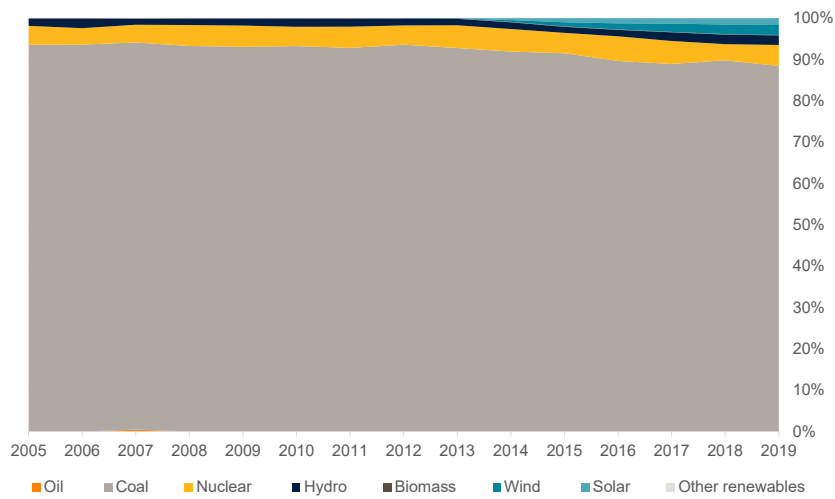
——Demand growth ——Emissions growth
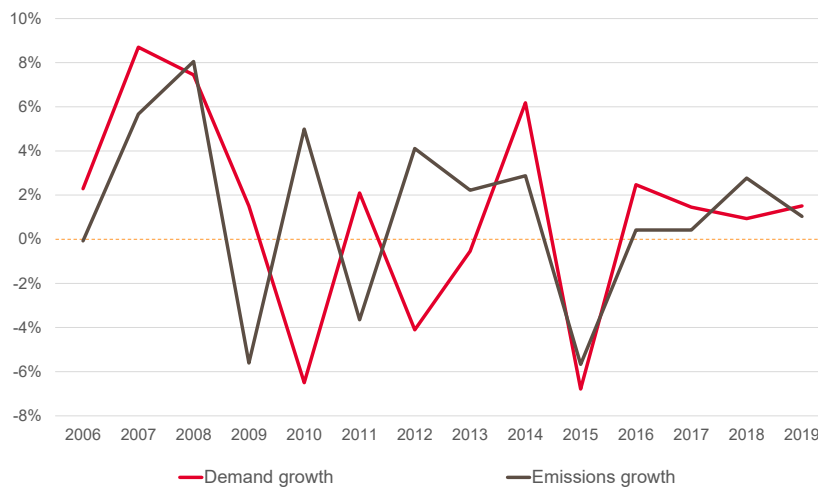
| **Asia-Pacific** _(Million toe)_ | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **4,974.7** | **5,161.9** | **5,316.4** | **5,456.9** | **5,577.7** | **5,630.2** | **5,672.0** | **5,824.3** | **6,001.1** | **6,150.2** | **100.0** |
| Oil | 1,210.4 | 1,230.9 | 1,287.5 | 1,314.2 | 1,338.2 | 1,386.0 | 1,423.6 | 1,462.8 | 1,492.6 | 1,545.5 | 25.1 |
| Gas | 485.3 | 520.0 | 540.8 | 569.5 | 585.2 | 584.4 | 604.8 | 629.0 | 676.8 | 707.3 | 11.5 |
| Coal | 2,462.7 | 2,622.4 | 2,701.5 | 2,769.2 | 2,818.9 | 2,800.0 | 2,739.2 | 2,796.2 | 2,844.6 | 2,847.5 | 46.3 |
| Nuclear | 151.7 | 110.1 | 89.0 | 88.8 | 97.3 | 110.4 | 122.5 | 130.3 | 148.7 | 175.7 | 2.9 |
| Hydro | 95.3 | 96.7 | 110.7 | 118.3 | 130.8 | 135.1 | 141.4 | 144.3 | 150.3 | 158.3 | 2.6 |
| Biomass | 515.3 | 520.6 | 518.7 | 515.6 | 517.8 | 515.0 | 529.5 | 532.9 | 540.4 | 552.0 | 9.0 |
| Other renewables | 7.1 | 10.5 | 13.9 | 20.0 | 24.3 | 30.6 | 40.2 | 52.7 | 67.4 | 78.7 | 1.3 |
| Electricity balance of trade* | 46.9 | 50.7 | 54.3 | 61.1 | 65.3 | 68.6 | 71.0 | 76.0 | 80.3 | 85.1 | 1.4 |
| **Total final consumption, by source** | **3,431.2** | **3,577.2** | **3,687.8** | **3,797.5** | **3,866.2** | **3,928.4** | **3,981.5** | **4,067.4** | **4,199.4** | **4,291.7** | **100.0** |
| Oil | 1,026.9 | 1,056.2 | 1,106.1 | 1,146.1 | 1,170.7 | 1,223.9 | 1,258.5 | 1,309.3 | 1,348.2 | 1,394.0 | 32.5 |
| Gas | 226.0 | 237.4 | 250.3 | 265.8 | 272.5 | 271.8 | 285.9 | 312.5 | 343.3 | 359.6 | 8.4 |
| Coal | 1,035.8 | 1,089.2 | 1,101.7 | 1,114.9 | 1,119.8 | 1,107.1 | 1,066.1 | 1,027.3 | 1,024.3 | 1,012.3 | 23.6 |
| Electricity | 596.3 | 638.4 | 670.5 | 710.4 | 740.3 | 761.9 | 803.4 | 845.5 | 897.9 | 921.8 | 21.5 |
| Heat | 80.8 | 89.0 | 97.5 | 108.0 | 113.2 | 120.7 | 129.9 | 137.8 | 146.3 | 154.6 | 3.6 |
| Biomass | 465.4 | 467.1 | 461.6 | 452.2 | 449.7 | 443.1 | 437.7 | 435.0 | 439.4 | 449.4 | 10.5 |
| **Electricity generation, by source** | **715.2** | **767.3** | **800.1** | **850.0** | **882.3** | **908.0** | **956.8** | **1,005.0** | **1,063.0** | **1,092.8** | **100.0** |
| Oil | 23.8 | 29.6 | 30.8 | 27.7 | 23.6 | 21.2 | 20.6 | 18.8 | 15.1 | 14.1 | 1.3 |
| Gas | 98.5 | 105.4 | 107.6 | 111.5 | 114.0 | 116.6 | 121.8 | 121.2 | 126.3 | 126.6 | 11.6 |
| Coal | 426.4 | 473.8 | 492.1 | 526.2 | 539.2 | 548.5 | 567.4 | 597.6 | 627.3 | 628.9 | 57.5 |
| Nuclear | 50.1 | 36.3 | 29.4 | 29.3 | 32.1 | 36.4 | 40.4 | 43.0 | 49.1 | 58.0 | 5.3 |
| Hydro | 97.4 | 98.8 | 112.7 | 120.4 | 132.9 | 137.4 | 145.2 | 148.4 | 154.5 | 162.6 | 14.9 |
| Biomass | 7.8 | 8.6 | 9.2 | 10.5 | 11.6 | 12.7 | 16.5 | 18.4 | 18.4 | 18.4 | 1.7 |
| Wind | 6.6 | 9.5 | 12.3 | 16.6 | 18.5 | 21.7 | 26.6 | 32.4 | 39.0 | 42.8 | 3.9 |
| Solar | 0.5 | 1.0 | 1.7 | 3.4 | 5.8 | 8.9 | 13.6 | 20.3 | 28.4 | 35.9 | 3.3 |
| Other renewables | 4.2 | 4.3 | 4.3 | 4.4 | 4.6 | 4.7 | 4.7 | 4.8 | 4.9 | 5.5 | 0.5 |
| **Total final consumption, by sector** | **3,431.2** | **3,577.2** | **3,687.8** | **3,797.5** | **3,866.2** | **3,928.4** | **3,981.5** | **4,067.4** | **4,199.4** | **4,291.7** | **100.0** |
| Industry | 1,563.6 | 1,634.5 | 1,665.5 | 1,701.6 | 1,726.0 | 1,731.5 | 1,716.6 | 1,733.7 | 1,783.7 | 1,803.2 | 42.0 |
| Transport | 527.9 | 560.4 | 598.7 | 631.5 | 646.0 | 677.6 | 700.7 | 731.7 | 761.1 | 793.2 | 18.5 |
| Residential/Comercial | 923.1 | 949.5 | 966.6 | 986.9 | 997.8 | 1,012.2 | 1,042.7 | 1,072.2 | 1,112.4 | 1,143.0 | 26.6 |
| **Oil final consumption, by sector** | **1,026.9** | **1,056.2** | **1,106.1** | **1,146.1** | **1,170.7** | **1,223.9** | **1,258.5** | **1,309.3** | **1,348.2** | **1,394.0** | **100.0** |
| Industry | 128.6 | 118.2 | 122.9 | 119.5 | 116.9 | 126.3 | 130.3 | 132.5 | 134.2 | 139.4 | 10.0 |
| Transport | 500.5 | 528.1 | 564.1 | 593.5 | 604.3 | 634.1 | 653.1 | 681.5 | 704.7 | 733.3 | 52.6 |
| Residential/Comercial | 113.9 | 117.0 | 118.1 | 121.5 | 124.5 | 131.1 | 135.9 | 142.3 | 146.8 | 151.6 | 10.9 |
| **Natural gas final consumption, by sector** | **226.0** | **237.4** | **250.3** | **265.8** | **272.5** | **271.8** | **285.9** | **312.5** | **343.3** | **359.6** | **100.0** |
| Industry | 104.2 | 99.4 | 102.5 | 110.7 | 113.5 | 109.2 | 116.4 | 134.8 | 150.2 | 157.6 | 43.8 |
| Transport | 14.7 | 18.2 | 19.0 | 20.8 | 23.3 | 25.0 | 25.9 | 27.4 | 30.9 | 32.6 | 9.1 |
| Residential/Comercial | 72.4 | 78.0 | 81.5 | 84.0 | 86.4 | 89.4 | 93.5 | 99.8 | 108.7 | 112.5 | 31.3 |
| **Refined products consumption** | **1,019.2** | **1,053.1** | **1,101.6** | **1,143.0** | **1,165.3** | **1,218.5** | **1,253.4** | **1,306.6** | **1,345.4** | **1,391.1** | **100.0** |
| Gasoline | 211.9 | 221.2 | 233.7 | 255.4 | 258.0 | 281.9 | 292.7 | 304.9 | 316.4 | 329.9 | 23.7 |
| Diesel | 356.1 | 377.5 | 406.8 | 411.6 | 414.5 | 422.1 | 419.2 | 435.0 | 445.2 | 463.8 | 33.3 |
| Heating Oil | 46.7 | 42.2 | 37.4 | 33.8 | 32.9 | 32.2 | 32.9 | 32.8 | 31.5 | 30.6 | 2.2 |
| Aviation Jet | 25.1 | 24.9 | 26.5 | 29.8 | 32.6 | 36.0 | 39.5 | 42.9 | 46.0 | 47.9 | 3.4 |
| LPG | 89.3 | 92.5 | 93.3 | 99.8 | 106.3 | 111.8 | 123.5 | 131.3 | 137.7 | 143.3 | 10.3 |
| **Imports** | **1,495.1** | **1,571.3** | **1,638.0** | **1,679.2** | **1,707.9** | **1,778.8** | **1,888.1** | **1,988.7** | **2,050.2** | **2,078.2** | **100.0** |
| Oil | 1,306.4 | 1,346.8 | 1,399.8 | 1,425.1 | 1,448.3 | 1,521.1 | 1,612.6 | 1,687.3 | 1,715.0 | 1,741.1 | 83.8 |
| Gas | 188.7 | 224.5 | 238.2 | 254.1 | 259.7 | 257.7 | 275.5 | 301.4 | 335.2 | 337.1 | 16.2 |
| Gasoline | 44.3 | 48.1 | 53.8 | 58.4 | 57.5 | 60.1 | 62.0 | 61.9 | 54.0 | 58.2 | 2.8 |
| Diesel | 70.6 | 70.6 | 68.1 | 67.4 | 74.4 | 73.5 | 85.3 | 92.4 | 91.0 | 100.5 | 4.8 |
| Heating Oil | 112.3 | 121.6 | 119.5 | 124.0 | 115.7 | 116.1 | 113.9 | 117.5 | 107.6 | 88.9 | 4.3 |
| Aviation Jet | 20.5 | 20.8 | 20.1 | 22.0 | 20.5 | 21.9 | 26.0 | 28.1 | 26.3 | 22.9 | 1.1 |
| LPG | 38.7 | 41.4 | 43.1 | 44.9 | 50.1 | 56.2 | 66.3 | 69.7 | 74.1 | 80.1 | 3.9 |
| **Exports** | **468.3** | **478.5** | **472.3** | **483.9** | **485.2** | **513.3** | **550.9** | **576.5** | **556.0** | **557.7** | **100.0** |
| Oil | 364.8 | 372.9 | 372.7 | 379.0 | 377.0 | 398.3 | 422.8 | 428.7 | 403.7 | 399.6 | 71.7 |
| Gas | 103.5 | 105.6 | 99.6 | 104.9 | 108.3 | 115.0 | 128.0 | 147.8 | 152.4 | 158.1 | 28.3 |
| Gasoline | 56.0 | 56.0 | 61.2 | 60.0 | 64.9 | 69.0 | 71.2 | 71.2 | 63.0 | 63.2 | 11.3 |
| Diesel | 98.8 | 97.0 | 99.8 | 104.1 | 104.5 | 108.8 | 120.6 | 125.2 | 126.3 | 131.6 | 23.6 |
| Heating Oil | 54.3 | 64.4 | 58.1 | 61.4 | 56.2 | 56.5 | 57.3 | 60.9 | 55.9 | 50.7 | 9.1 |
| Aviation Jet | 33.9 | 34.3 | 35.8 | 39.2 | 40.1 | 44.4 | 48.3 | 50.5 | 54.5 | 54.3 | 9.7 |
| LPG | 4.1 | 4.7 | 4.2 | 4.2 | 4.4 | 4.1 | 4.2 | 4.6 | 4.9 | 5.6 | 1.0 |
| **$CO_2$ Emissions _(Million tons $CO_2$)_** | **13,175.7** | **14,071.6** | **14,584.4** | **15,082.7** | **15,202.5** | **15,257.2** | **15,311.5** | **15,677.3** | **16,133.7** | **16,318.7** | **-** |
| **$CO_2$ Intensity _(t$CO_2$/million \$15ppp)_** | **377.3** | **380.5** | **373.0** | **364.6** | **348.0** | **330.8** | **314.4** | **304.4** | **297.3** | **287.5** | **-** |
| **Final energy intensity _(toe/million \$15ppp)_** | **98.3** | **96.7** | **94.3** | **91.8** | **88.5** | **85.2** | **81.8** | **79.0** | **77.4** | **75.6** | **-** |
| **Total energy intensity _(toe/million \$15ppp)_** | **142.5** | **139.6** | **136.0** | **131.9** | **127.7** | **122.1** | **116.5** | **113.1** | **110.6** | **108.4** | **-** |

*Heat is included

## Primary energy demand mix

Other renewables
1%

Biomass
9%

Hydro
3%

Nuclear
3%

Oil
25%

2019: 6,150.16 Mtoe

Gas
12%

Coal
47%

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

█ Oil  █ Gas  █ Coal  █ Nuclear  █ Hydro  █ Biomass  █ Wind  █ Solar  █ Other renewables

## Primary energy demand and $CO_2$ emissions growth

9%
8%
7%
6%
5%
4%
3%
2%
1%
0%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
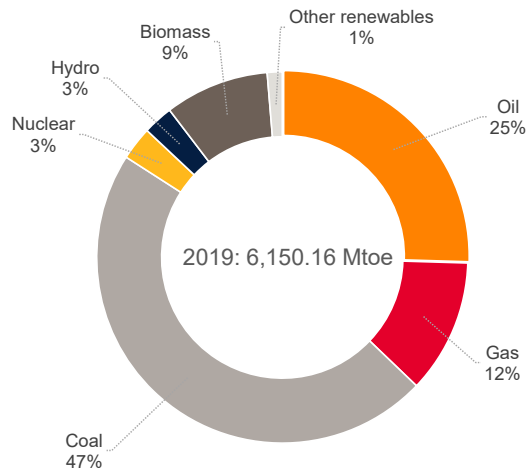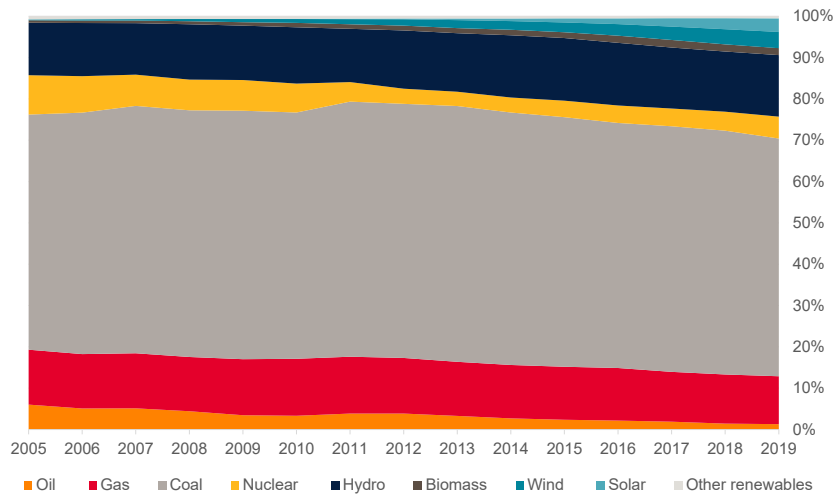
——— Demand growth        ——— Emissions growth
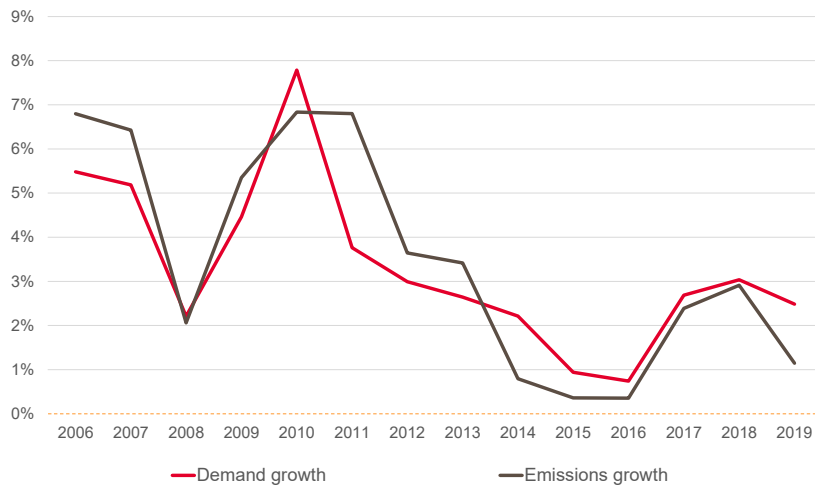
| Australia<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **127.3** | **128.2** | **126.7** | **127.5** | **126.3** | **126.7** | **128.2** | **127.0** | **127.8** | **135.9** | **100.0** |
| Oil | 41.6 | 43.2 | 44.1 | 45.1 | 44.5 | 42.5 | 43.0 | 42.9 | 44.3 | 44.1 | 32.4 |
| Gas | 28.4 | 29.9 | 28.6 | 30.9 | 32.3 | 33.1 | 32.9 | 31.3 | 32.5 | 41.8 | 30.8 |
| Coal | 50.5 | 48.1 | 47.0 | 43.7 | 41.5 | 42.9 | 44.0 | 43.9 | 42.0 | 40.9 | 30.1 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.2 | 1.4 | 1.2 | 1.6 | 1.6 | 1.1 | 1.3 | 1.4 | 1.4 | 1.1 | 0.8 |
| Biomass | 4.9 | 4.7 | 4.7 | 4.9 | 4.9 | 5.2 | 5.1 | 5.4 | 5.1 | 4.8 | 3.5 |
| Other renewables | 0.5 | 0.6 | 0.8 | 1.0 | 1.2 | 1.4 | 1.6 | 1.8 | 2.2 | 2.7 | 2.0 |
| Electricity balance of trade* | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 |
| **Total final consumption, by source** | **77.6** | **80.0** | **80.8** | **81.8** | **81.8** | **81.7** | **81.9** | **82.3** | **84.0** | **85.0** | **100.0** |
| Oil | 39.0 | 41.2 | 42.6 | 43.0 | 43.1 | 42.5 | 43.1 | 43.7 | 44.9 | 44.7 | 52.5 |
| Gas | 12.4 | 12.5 | 12.5 | 13.0 | 13.3 | 13.3 | 13.0 | 12.6 | 13.1 | 14.2 | 16.7 |
| Coal | 3.8 | 3.7 | 3.2 | 3.1 | 3.1 | 3.0 | 3.1 | 3.3 | 3.3 | 3.3 | 3.9 |
| Electricity | 18.1 | 18.2 | 18.0 | 18.0 | 17.9 | 18.2 | 18.2 | 18.1 | 18.4 | 18.6 | 21.9 |
| Heat | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 |
| Biomass | 4.2 | 4.1 | 4.1 | 4.4 | 4.2 | 4.3 | 4.2 | 4.2 | 3.9 | 3.8 | 4.5 |
| **Electricity generation, by source** | **21.7** | **21.8** | **21.6** | **21.4** | **21.3** | **21.6** | **22.1** | **22.2** | **22.5** | **22.6** | **100.0** |
| Oil | 0.5 | 0.5 | 0.3 | 0.6 | 0.4 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 1.9 |
| Gas | 3.8 | 4.2 | 4.2 | 4.4 | 4.7 | 4.5 | 4.3 | 4.3 | 4.6 | 5.1 | 22.5 |
| Coal | 15.5 | 14.8 | 14.8 | 13.7 | 13.1 | 13.6 | 14.0 | 13.9 | 13.6 | 13.0 | 57.4 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.2 | 1.4 | 1.2 | 1.6 | 1.6 | 1.2 | 1.3 | 1.4 | 1.4 | 1.1 | 4.9 |
| Biomass | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.1 |
| Wind | 0.4 | 0.5 | 0.6 | 0.7 | 0.9 | 1.0 | 1.0 | 1.1 | 1.3 | 1.6 | 7.2 |
| Solar | 0.0 | 0.1 | 0.2 | 0.3 | 0.3 | 0.4 | 0.5 | 0.7 | 0.9 | 1.1 | 4.9 |
| 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** | **77.6** | **80.0** | **80.8** | **81.8** | **81.8** | **81.7** | **81.9** | **82.3** | **84.0** | **85.0** | **100.0** |
| Industry | 24.0 | 24.6 | 24.6 | 25.1 | 24.9 | 24.0 | 23.4 | 23.2 | 23.8 | 24.9 | 29.2 |
| Transport | 29.8 | 30.6 | 30.8 | 31.3 | 31.4 | 32.2 | 32.5 | 33.1 | 33.7 | 33.3 | 39.2 |
| Residential/Comercial | 17.2 | 17.6 | 17.6 | 17.8 | 17.7 | 18.3 | 18.5 | 18.6 | 18.7 | 18.9 | 22.2 |
| **Oil final consumption, by sector** | **39.0** | **41.2** | **42.6** | **43.0** | **43.1** | **42.5** | **43.1** | **43.7** | **44.9** | **44.7** | **100.0** |
| Industry | 3.2 | 3.9 | 4.5 | 4.6 | 4.5 | 3.9 | 3.6 | 3.6 | 3.8 | 3.9 | 8.7 |
| Transport | 29.1 | 29.9 | 30.1 | 30.6 | 30.6 | 31.3 | 31.7 | 32.4 | 33.0 | 32.6 | 73.0 |
| Residential/Comercial | 1.0 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 | 2.7 |
| **Natural gas final consumption, by sector** | **12.4** | **12.5** | **12.5** | **13.0** | **13.3** | **13.3** | **13.0** | **12.6** | **13.1** | **14.2** | **100.0** |
| Industry | 7.4 | 7.5 | 7.5 | 7.8 | 7.8 | 7.7 | 7.2 | 7.0 | 7.4 | 8.4 | 59.2 |
| Transport | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.7 |
| Residential/Comercial | 4.2 | 4.3 | 4.3 | 4.4 | 4.5 | 4.7 | 4.8 | 4.8 | 4.9 | 4.9 | 34.8 |
| **Refined products consumption** | **39.0** | **41.2** | **42.6** | **43.0** | **43.1** | **42.5** | **43.0** | **43.6** | **44.9** | **44.7** | **100.0** |
| Gasoline | 14.9 | 15.1 | 14.8 | 14.8 | 14.3 | 14.4 | 14.3 | 14.8 | 14.4 | 14.0 | 31.3 |
| Diesel | 14.9 | 15.4 | 16.3 | 17.3 | 17.8 | 18.4 | 18.9 | 19.6 | 21.2 | 21.3 | 47.7 |
| Heating Oil | 0.9 | 0.9 | 0.9 | 0.8 | 0.6 | 0.3 | 0.2 | 0.1 | 0.1 | 0.2 | 0.5 |
| Aviation Jet | 2.4 | 2.6 | 2.7 | 2.9 | 3.0 | 3.0 | 3.1 | 3.0 | 2.9 | 2.9 | 6.4 |
| LPG | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 2.1 | 2.0 | 1.7 | 1.6 | 1.6 | 3.5 |
| **Imports** | **42.9** | **46.4** | **47.3** | **49.5** | **49.1** | **48.1** | **49.1** | **50.2** | **52.8** | **50.7** | **100.0** |
| Oil | 38.0 | 40.8 | 42.3 | 44.6 | 43.9 | 43.3 | 43.7 | 45.3 | 48.4 | 46.8 | 92.3 |
| Gas | 4.9 | 5.6 | 5.0 | 4.9 | 5.2 | 4.8 | 5.4 | 4.9 | 4.4 | 3.9 | 7.7 |
| Gasoline | 3.0 | 2.1 | 2.9 | 2.9 | 2.8 | 4.3 | 5.2 | 5.4 | 5.0 | 5.5 | 10.8 |
| Diesel | 7.4 | 7.5 | 9.6 | 10.6 | 11.4 | 12.7 | 15.2 | 15.7 | 17.1 | 17.2 | 34.0 |
| Heating Oil | 1.7 | 1.5 | 1.6 | 1.6 | 1.3 | 0.2 | 0.3 | 0.2 | 0.6 | 0.5 | 1.0 |
| Aviation Jet | 1.8 | 1.8 | 1.9 | 2.7 | 2.9 | 3.6 | 4.7 | 4.9 | 5.2 | 4.9 | 9.7 |
| LPG | 0.6 | 0.5 | 0.6 | 0.5 | 0.4 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 1.0 |
| **Exports** | **38.5** | **42.0** | **39.0** | **43.0** | **41.7** | **44.0** | **56.8** | **74.4** | **86.6** | **96.7** | **100.0** |
| Oil | 17.6 | 18.7 | 17.0 | 15.5 | 14.5 | 14.6 | 13.4 | 13.0 | 13.5 | 15.6 | 16.1 |
| Gas | 20.9 | 23.3 | 22.1 | 27.5 | 27.2 | 29.4 | 43.4 | 61.4 | 73.1 | 81.1 | 83.9 |
| Gasoline | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 |
| Diesel | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 |
| Heating Oil | 0.1 | 0.2 | 0.5 | 0.2 | 0.0 | 0.1 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 |
| Aviation Jet | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 |
| LPG | 1.7 | 1.5 | 1.3 | 1.5 | 1.5 | 1.3 | 1.2 | 1.4 | 1.4 | 1.8 | 1.8 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **394.2** | **392.6** | **390.9** | **384.2** | **375.0** | **381.0** | **389.9** | **392.3** | **390.6** | **395.4** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **410.9** | **399.6** | **382.9** | **366.6** | **349.0** | **346.4** | **344.7** | **340.2** | **329.7** | **327.7** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **76.3** | **76.3** | **73.6** | **72.9** | **71.0** | **69.9** | **68.0** | **67.2** | **66.5** | **66.1** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **132.7** | **130.5** | **124.1** | **121.7** | **117.5** | **115.2** | **113.4** | **110.2** | **107.9** | **112.6** | **-** |

*Heat is included*

**Primary energy demand mix**



Hydro
1%

Biomass
4%

Other renewables
2%

Oil
32%

Coal
30%

2019: 135.91 Mtoe

Gas
31%

**Electricity generation by source**



Oil　Gas　Coal　Hydro　Biomass　Wind　Solar
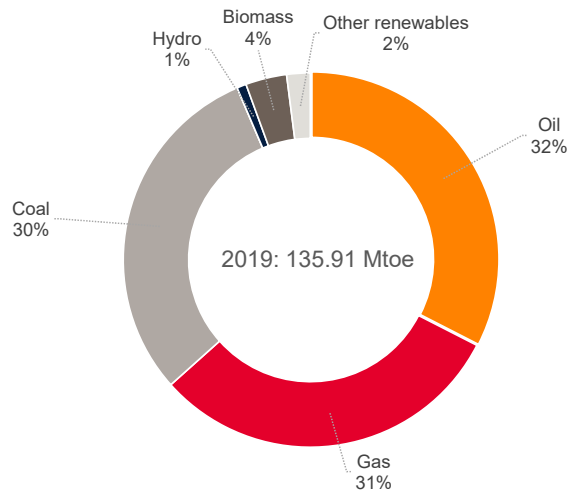
**Primary energy demand and CO$_2$ emissions growth**
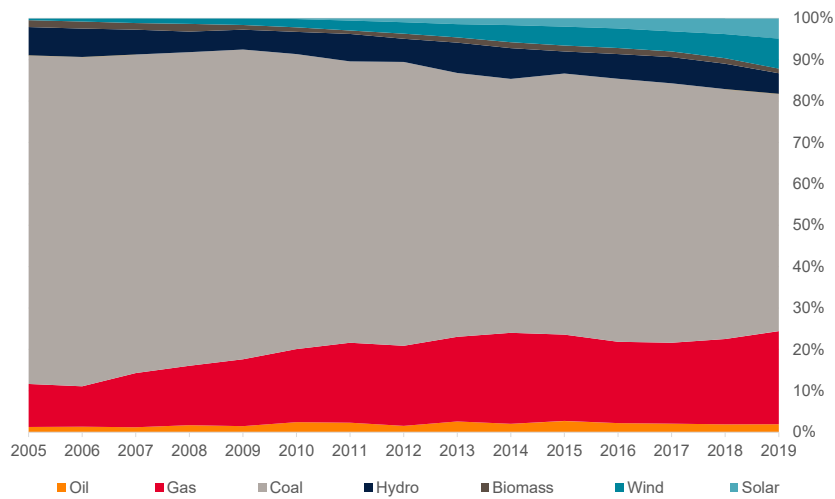


Demand growth　　　Emissions growth
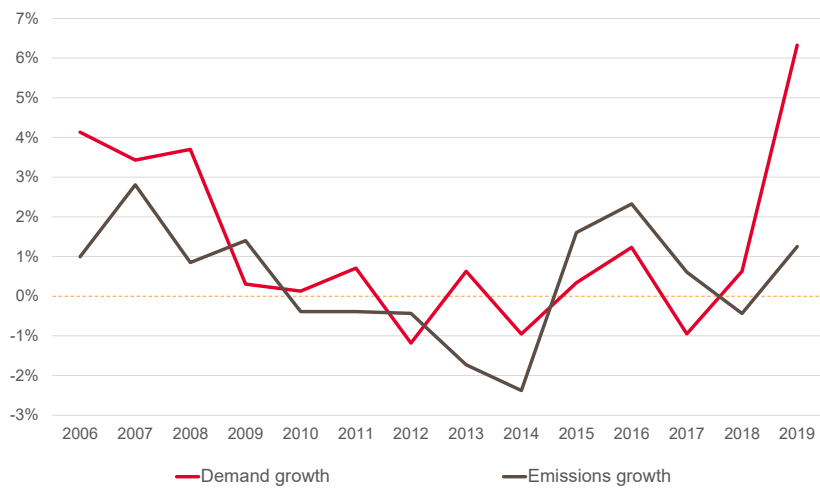
| China *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **2,536.4** | **2,722.6** | **2,820.7** | **2,911.6** | **2,966.0** | **2,993.7** | **2,977.4** | **3,068.6** | **3,183.0** | **3,283.5** | **100.0** |
| Oil | 428.6 | 443.3 | 465.3 | 486.8 | 506.3 | 535.7 | 548.1 | 572.5 | 607.1 | 647.0 | 19.7 |
| Gas | 89.4 | 110.0 | 123.4 | 140.5 | 153.6 | 158.5 | 170.7 | 195.1 | 229.7 | 249.4 | 7.6 |
| Coal | 1,789.9 | 1,940.5 | 1,985.9 | 2,025.1 | 2,023.9 | 1,996.9 | 1,932.5 | 1,954.1 | 1,973.7 | 1,986.8 | 60.5 |
| Nuclear | 19.3 | 22.5 | 25.4 | 29.1 | 34.5 | 44.5 | 55.6 | 64.6 | 76.7 | 90.8 | 2.8 |
| Hydro | 61.2 | 59.2 | 74.2 | 78.2 | 90.4 | 95.8 | 100.0 | 99.5 | 102.5 | 108.6 | 3.3 |
| Biomass | 133.3 | 126.7 | 120.2 | 114.2 | 114.8 | 113.7 | 112.9 | 113.8 | 111.7 | 109.2 | 3.3 |
| Other renewables | 3.9 | 6.3 | 8.8 | 13.5 | 15.9 | 19.8 | 26.9 | 36.6 | 47.7 | 56.0 | 1.7 |
| Electricity balance of trade* | 10.8 | 14.3 | 17.5 | 24.3 | 26.4 | 28.7 | 30.7 | 32.3 | 33.9 | 35.7 | 1.1 |
| **Total final consumption, by source** | **1,752.7** | **1,859.1** | **1,931.5** | **2,004.0** | **2,046.1** | **2,079.9** | **2,093.3** | **2,116.1** | **2,200.0** | **2,268.1** | **100.0** |
| Oil | 369.0 | 385.5 | 408.2 | 432.7 | 451.3 | 480.4 | 494.7 | 514.3 | 545.1 | 580.1 | 25.6 |
| Gas | 76.5 | 78.8 | 88.1 | 98.8 | 108.0 | 108.1 | 117.0 | 134.2 | 160.4 | 171.3 | 7.6 |
| Coal | 816.3 | 868.7 | 885.3 | 889.1 | 882.3 | 868.8 | 829.7 | 781.8 | 761.7 | 752.8 | 33.2 |
| Electricity | 296.8 | 332.2 | 355.0 | 387.0 | 405.6 | 419.4 | 445.2 | 476.2 | 516.6 | 540.8 | 23.8 |
| Heat | 73.6 | 81.6 | 90.2 | 100.7 | 105.5 | 112.9 | 121.7 | 129.0 | 136.9 | 145.3 | 6.4 |
| Biomass | 120.5 | 112.2 | 104.6 | 95.8 | 93.5 | 90.3 | 85.1 | 80.6 | 79.2 | 77.9 | 3.4 |
| **Electricity generation, by source** | **361.9** | **405.6** | **429.5** | **468.5** | **488.4** | **503.9** | **534.7** | **570.6** | **614.5** | **643.4** | **100.0** |
| Oil | 1.3 | 1.0 | 0.9 | 0.9 | 0.8 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 | 0.1 |
| Gas | 6.7 | 8.3 | 8.5 | 9.2 | 9.8 | 12.5 | 14.7 | 15.7 | 17.4 | 20.3 | 3.1 |
| Coal | 278.6 | 319.2 | 324.3 | 352.0 | 353.9 | 353.4 | 364.8 | 385.7 | 410.6 | 417.6 | 64.9 |
| Nuclear | 6.4 | 7.4 | 8.4 | 9.6 | 11.4 | 14.7 | 18.3 | 21.3 | 25.3 | 30.0 | 4.7 |
| Hydro | 62.1 | 60.1 | 75.0 | 79.1 | 91.5 | 97.2 | 102.6 | 102.3 | 105.4 | 111.6 | 17.3 |
| Biomass | 2.9 | 3.3 | 3.5 | 4.2 | 4.9 | 5.5 | 6.5 | 8.0 | 7.3 | 7.0 | 1.1 |
| Wind | 3.8 | 6.0 | 8.3 | 12.1 | 13.4 | 16.0 | 20.4 | 25.4 | 30.7 | 33.8 | 5.3 |
| Solar | 0.1 | 0.2 | 0.5 | 1.3 | 2.5 | 3.9 | 6.5 | 11.2 | 16.9 | 22.2 | 3.4 |
| 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** | **1,752.7** | **1,859.1** | **1,931.5** | **2,004.0** | **2,046.1** | **2,079.9** | **2,093.3** | **2,116.1** | **2,200.0** | **2,268.1** | **100.0** |
| Industry | 1,032.0 | 1,089.9 | 1,120.1 | 1,142.2 | 1,143.5 | 1,136.0 | 1,117.1 | 1,106.5 | 1,130.4 | 1,146.2 | 50.5 |
| Transport | 197.1 | 216.1 | 238.2 | 257.9 | 268.6 | 288.7 | 295.9 | 310.0 | 331.1 | 351.8 | 15.5 |
| Residential/Comercial | 354.9 | 368.0 | 380.9 | 398.2 | 410.4 | 428.5 | 448.0 | 468.7 | 499.6 | 521.6 | 23.0 |
| **Oil final consumption, by sector** | **369.0** | **385.5** | **408.2** | **432.7** | **451.3** | **480.4** | **494.7** | **514.3** | **545.1** | **580.1** | **100.0** |
| Industry | 61.1 | 48.8 | 51.5 | 50.3 | 44.8 | 49.0 | 52.9 | 51.2 | 54.6 | 58.7 | 10.1 |
| Transport | 183.1 | 198.7 | 219.1 | 236.3 | 244.0 | 262.2 | 267.2 | 278.4 | 295.0 | 313.0 | 54.0 |
| Residential/Comercial | 35.9 | 38.4 | 40.1 | 42.7 | 45.9 | 51.7 | 54.8 | 58.2 | 60.9 | 64.2 | 11.1 |
| **Natural gas final consumption, by sector** | **76.5** | **78.8** | **88.1** | **98.8** | **108.0** | **108.1** | **117.0** | **134.2** | **160.4** | **171.3** | **100.0** |
| Industry | 35.8 | 29.7 | 32.8 | 39.2 | 42.1 | 40.2 | 45.7 | 58.3 | 69.7 | 74.4 | 43.4 |
| Transport | 6.7 | 9.2 | 10.2 | 11.9 | 14.6 | 16.3 | 17.1 | 18.7 | 22.4 | 23.9 | 13.9 |
| Residential/Comercial | 26.8 | 30.7 | 33.7 | 36.4 | 39.2 | 41.6 | 43.8 | 48.4 | 57.9 | 61.8 | 36.1 |
| **Refined products consumption** | **365.8** | **384.0** | **407.3** | **431.2** | **447.4** | **477.0** | **491.6** | **513.6** | **544.4** | **579.3** | **100.0** |
| Gasoline | 71.6 | 78.2 | 84.1 | 96.5 | 100.7 | 117.1 | 122.2 | 127.9 | 137.4 | 146.3 | 25.3 |
| Diesel | 145.3 | 153.8 | 168.7 | 170.8 | 171.4 | 173.1 | 167.6 | 168.3 | 175.1 | 185.7 | 32.1 |
| Heating Oil | 13.5 | 11.9 | 10.7 | 12.2 | 12.6 | 11.1 | 10.3 | 11.6 | 11.4 | 11.3 | 2.0 |
| Aviation Jet | 11.3 | 11.1 | 12.3 | 14.0 | 15.7 | 18.0 | 20.4 | 23.1 | 25.6 | 27.1 | 4.7 |
| LPG | 26.4 | 27.3 | 27.4 | 30.6 | 35.4 | 40.5 | 47.6 | 53.4 | 56.2 | 59.1 | 10.2 |
| **Imports** | **299.1** | **332.3** | **356.3** | **376.1** | **401.9** | **437.7** | **495.9** | **556.7** | **632.2** | **681.9** | **100.0** |
| Oil | 286.5 | 307.8 | 323.0 | 334.5 | 354.9 | 389.1 | 436.8 | 482.4 | 532.7 | 575.6 | 84.4 |
| Gas | 12.6 | 24.5 | 33.3 | 41.7 | 46.9 | 48.6 | 59.0 | 74.2 | 99.5 | 106.2 | 15.6 |
| Gasoline | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | 0.4 | 0.3 | 0.0 |
| Diesel | 1.8 | 2.4 | 0.9 | 0.3 | 0.5 | 0.4 | 0.9 | 0.8 | 0.8 | 1.3 | 0.2 |
| Heating Oil | 23.0 | 26.8 | 26.8 | 23.5 | 17.8 | 15.4 | 11.7 | 13.6 | 16.6 | 14.8 | 2.2 |
| Aviation Jet | 5.0 | 5.5 | 5.4 | 5.5 | 4.0 | 3.6 | 3.6 | 3.8 | 4.2 | 3.7 | 0.5 |
| LPG | 3.9 | 4.2 | 4.3 | 5.4 | 8.9 | 14.9 | 20.1 | 23.1 | 23.7 | 25.4 | 3.7 |
| **Exports** | **37.0** | **35.7** | **33.3** | **36.8** | **37.2** | **46.8** | **59.4** | **65.2** | **69.4** | **76.9** | **100.0** |
| Oil | 33.7 | 33.0 | 30.9 | 34.5 | 35.0 | 44.1 | 56.6 | 62.2 | 66.5 | 73.7 | 95.8 |
| Gas | 3.4 | 2.7 | 2.4 | 2.3 | 2.2 | 2.7 | 2.8 | 3.0 | 2.9 | 3.2 | 4.2 |
| Gasoline | 5.3 | 4.2 | 3.0 | 4.8 | 5.2 | 6.1 | 10.0 | 10.8 | 13.2 | 16.8 | 21.8 |
| Diesel | 4.7 | 2.1 | 1.9 | 2.8 | 4.2 | 7.3 | 15.7 | 17.5 | 18.8 | 21.7 | 28.3 |
| Heating Oil | 9.9 | 12.3 | 11.6 | 11.3 | 9.5 | 10.5 | 9.9 | 11.1 | 12.3 | 11.2 | 14.5 |
| Aviation Jet | 6.2 | 6.7 | 7.7 | 9.5 | 11.0 | 12.7 | 13.5 | 13.5 | 15.0 | 18.1 | 23.5 |
| LPG | 1.1 | 1.4 | 1.5 | 1.5 | 1.7 | 1.7 | 1.6 | 1.6 | 1.4 | 1.7 | 2.2 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **7,799.4** | **8,489.0** | **8,749.9** | **9,162.8** | **9,091.1** | **9,082.7** | **9,040.2** | **9,200.4** | **9,463.4** | **9,729.0** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million \$15ppp)** | **573.1** | **569.5** | **544.2** | **528.9** | **489.0** | **457.1** | **426.4** | **405.9** | **391.1** | **378.9** | **-** |
| **Final energy intensity (toe/million \$15ppp)** | **120.6** | **116.3** | **112.0** | **107.6** | **101.6** | **96.7** | **91.0** | **86.2** | **83.9** | **81.4** | **-** |
| **Total energy intensity (toe/million \$15ppp)** | **186.4** | **182.6** | **175.4** | **168.1** | **159.6** | **150.7** | **140.4** | **135.4** | **131.6** | **127.9** | **-** |

*Heat is included

## Primary energy demand mix

Hydro
3%

Biomass
3%

Other renewables
2%

Nuclear
3%

Oil
20%

2019: 3,283.54 Mtoe

Gas
8%

Coal
61%

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Oil    Gas    Coal    Nuclear    Hydro    Biomass    Wind    Solar

## Primary energy demand and $CO_2$ emissions growth

12%
10%
8%
6%
4%
2%
0%
-2%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
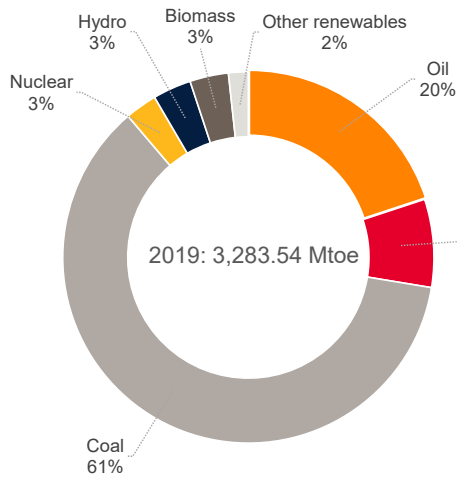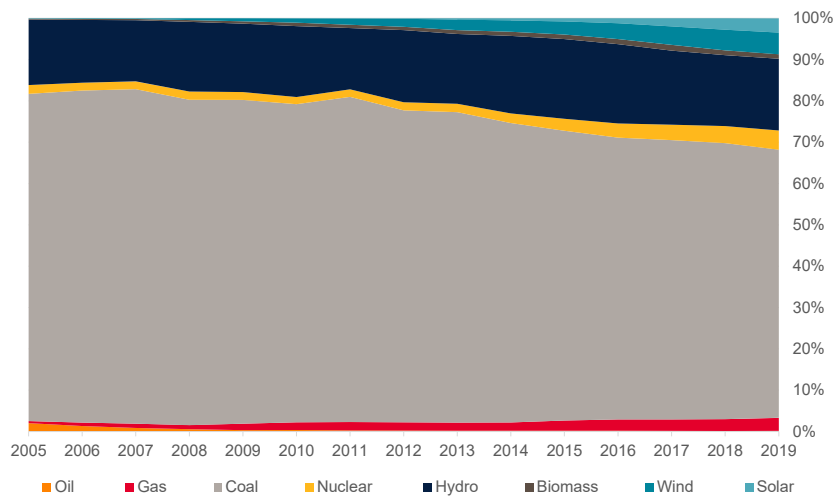
Demand growth      Emissions growth
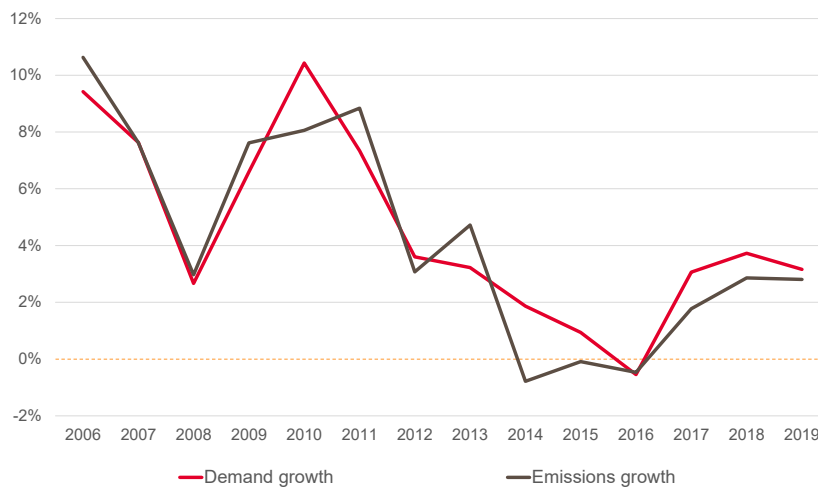
| India<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **700.8** | **733.8** | **766.5** | **779.1** | **822.5** | **835.4** | **852.8** | **881.9** | **906.3** | **913.2** | **100.0** |
| Oil | 162.1 | 166.2 | 177.2 | 176.4 | 184.3 | 206.4 | 216.7 | 223.3 | 230.3 | 236.9 | 25.9 |
| Gas | 54.4 | 55.0 | 48.9 | 44.4 | 44.0 | 45.1 | 48.0 | 51.0 | 52.4 | 54.8 | 6.0 |
| Coal | 279.0 | 295.1 | 326.3 | 344.9 | 384.1 | 377.2 | 372.3 | 390.9 | 400.4 | 386.8 | 42.4 |
| Nuclear | 6.8 | 8.4 | 8.6 | 8.9 | 9.4 | 9.8 | 9.9 | 10.0 | 9.9 | 12.2 | 1.3 |
| Hydro | 10.7 | 12.2 | 10.9 | 12.8 | 12.3 | 11.7 | 11.8 | 12.2 | 12.9 | 15.0 | 1.6 |
| Biomass | 185.2 | 193.8 | 191.0 | 187.7 | 184.1 | 180.0 | 188.0 | 187.1 | 191.0 | 196.9 | 21.6 |
| Other renewables | 1.7 | 2.2 | 2.8 | 3.2 | 3.7 | 4.5 | 5.5 | 6.6 | 8.6 | 9.6 | 1.0 |
| Electricity balance of trade* | 0.8 | 0.8 | 0.9 | 0.8 | 0.6 | 0.7 | 0.6 | 0.7 | 0.9 | 0.9 | 0.1 |
| **Total final consumption, by source** | **492.2** | **518.1** | **522.9** | **532.7** | **550.4** | **565.6** | **582.0** | **604.4** | **623.8** | **633.9** | **100.0** |
| Oil | 135.0 | 142.1 | 149.8 | 150.9 | 157.9 | 175.6 | 184.5 | 195.5 | 201.6 | 207.9 | 32.8 |
| Gas | 27.2 | 28.3 | 27.9 | 29.6 | 29.8 | 31.0 | 33.1 | 35.9 | 37.0 | 39.9 | 6.3 |
| Coal | 95.1 | 100.9 | 98.5 | 107.0 | 113.5 | 108.9 | 109.3 | 114.9 | 119.7 | 115.3 | 18.2 |
| Electricity | 62.5 | 67.9 | 71.7 | 74.9 | 83.5 | 89.0 | 95.2 | 100.1 | 105.2 | 105.5 | 16.6 |
| Heat | 0.3 | 0.4 | 0.5 | 0.4 | 0.6 | 0.7 | 0.7 | 0.8 | 1.0 | 1.1 | 0.2 |
| Biomass | 172.0 | 178.7 | 174.3 | 169.9 | 165.1 | 160.5 | 159.1 | 157.2 | 159.2 | 164.1 | 25.9 |
| **Electricity generation, by source** | **84.4** | **92.4** | **96.8** | **102.6** | **111.3** | **118.2** | **125.3** | **131.8** | **138.4** | **138.8** | **100.0** |
| Oil | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.2 | 2.2 | 2.2 | 1.6 |
| Gas | 9.7 | 9.8 | 7.4 | 5.4 | 5.2 | 5.7 | 6.0 | 6.1 | 6.2 | 5.9 | 4.2 |
| Coal | 56.6 | 61.7 | 69.2 | 74.3 | 82.9 | 88.8 | 93.0 | 97.5 | 101.2 | 97.9 | 70.5 |
| Nuclear | 2.3 | 2.8 | 2.8 | 2.9 | 3.1 | 3.2 | 3.3 | 3.3 | 3.3 | 4.0 | 2.9 |
| Hydro | 10.7 | 12.2 | 10.9 | 12.8 | 12.3 | 11.7 | 11.8 | 12.2 | 12.9 | 15.0 | 10.8 |
| Biomass | 1.3 | 1.5 | 1.8 | 2.0 | 2.2 | 2.3 | 3.7 | 3.9 | 4.2 | 4.3 | 3.1 |
| Wind | 1.7 | 2.1 | 2.6 | 2.9 | 3.2 | 3.6 | 3.8 | 4.4 | 5.2 | 5.3 | 3.8 |
| Solar | 0.0 | 0.1 | 0.2 | 0.4 | 0.5 | 0.9 | 1.6 | 2.2 | 3.4 | 4.3 | 3.1 |
| 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** | **492.2** | **518.1** | **522.9** | **532.7** | **550.4** | **565.6** | **582.0** | **604.4** | **623.8** | **633.9** | **100.0** |
| Industry | 164.4 | 174.0 | 170.2 | 181.2 | 194.0 | 194.6 | 202.4 | 215.3 | 222.1 | 220.4 | 34.8 |
| Transport | 64.8 | 70.2 | 74.2 | 76.0 | 79.2 | 86.7 | 90.8 | 97.8 | 102.6 | 106.4 | 16.8 |
| Residential/Comercial | 197.1 | 207.0 | 203.9 | 201.7 | 201.4 | 202.5 | 205.0 | 205.1 | 211.2 | 217.3 | 34.3 |
| **Oil final consumption, by sector** | **135.0** | **142.1** | **149.8** | **150.9** | **157.9** | **175.6** | **184.5** | **195.5** | **201.6** | **207.9** | **100.0** |
| Industry | 13.5 | 13.5 | 15.4 | 15.4 | 17.8 | 22.5 | 26.5 | 28.2 | 27.7 | 27.9 | 13.4 |
| Transport | 62.2 | 67.0 | 71.1 | 72.7 | 75.8 | 83.0 | 86.7 | 93.8 | 98.4 | 102.1 | 49.1 |
| Residential/Comercial | 24.4 | 24.8 | 24.5 | 25.0 | 26.7 | 28.2 | 29.0 | 29.4 | 31.4 | 33.4 | 16.1 |
| **Natural gas final consumption, by sector** | **27.2** | **28.3** | **27.9** | **29.6** | **29.8** | **31.0** | **33.1** | **35.9** | **37.0** | **39.9** | **100.0** |
| Industry | 11.0 | 8.8 | 6.5 | 7.3 | 7.5 | 6.9 | 8.9 | 12.0 | 12.4 | 13.4 | 33.6 |
| Transport | 1.4 | 1.8 | 1.6 | 1.7 | 1.8 | 2.0 | 2.2 | 2.4 | 2.5 | 2.7 | 6.7 |
| Residential/Comercial | 1.1 | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 1.6 | 1.7 | 1.8 | 1.9 | 4.7 |
| **Refined products consumption** | **135.0** | **142.1** | **149.8** | **150.9** | **157.9** | **175.6** | **184.5** | **195.5** | **201.6** | **207.9** | **100.0** |
| Gasoline | 15.2 | 16.0 | 16.8 | 18.3 | 20.4 | 23.4 | 25.4 | 28.0 | 30.3 | 32.9 | 15.8 |
| Diesel | 56.9 | 61.2 | 65.1 | 64.1 | 65.3 | 69.6 | 71.0 | 75.8 | 78.3 | 79.6 | 38.3 |
| Heating Oil | 9.1 | 7.9 | 6.4 | 5.2 | 5.1 | 5.9 | 6.5 | 6.2 | 6.0 | 5.7 | 2.7 |
| Aviation Jet | 2.2 | 2.5 | 2.4 | 2.6 | 2.8 | 3.1 | 3.6 | 4.1 | 4.5 | 4.4 | 2.1 |
| LPG | 16.2 | 17.3 | 17.6 | 18.4 | 20.3 | 22.2 | 24.4 | 26.4 | 28.1 | 30.6 | 14.7 |
| **Imports** | **196.4** | **207.9** | **220.9** | **225.5** | **231.1** | **254.7** | **275.2** | **283.9** | **289.4** | **301.1** | **100.0** |
| Oil | 184.9 | 191.8 | 205.3 | 210.1 | 214.5 | 235.7 | 253.1 | 259.5 | 263.9 | 272.0 | 90.4 |
| Gas | 11.4 | 16.0 | 15.6 | 15.4 | 16.6 | 19.0 | 22.1 | 24.4 | 25.5 | 29.0 | 9.6 |
| Gasoline | 1.8 | 0.7 | 0.2 | 0.3 | 0.4 | 1.1 | 0.5 | 0.2 | 0.7 | 2.2 | 0.7 |
| Diesel | 2.1 | 1.1 | 0.5 | 0.1 | 0.1 | 0.2 | 1.0 | 1.4 | 0.6 | 3.5 | 1.2 |
| Heating Oil | 1.0 | 1.2 | 1.0 | 1.3 | 0.9 | 1.1 | 0.9 | 1.2 | 1.4 | 2.2 | 0.7 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.4 | 0.3 | 0.3 | 0.1 | 0.0 |
| LPG | 5.1 | 6.5 | 7.1 | 7.4 | 9.4 | 10.1 | 12.5 | 12.9 | 14.9 | 17.8 | 5.9 |
| **Exports** | **61.4** | **65.2** | **67.3** | **71.7** | **68.6** | **65.2** | **70.6** | **71.8** | **65.7** | **66.6** | **100.0** |
| Oil | 61.4 | 65.2 | 67.3 | 71.7 | 68.6 | 65.2 | 70.6 | 71.8 | 65.7 | 66.6 | 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 | 14.5 | 15.5 | 17.8 | 16.3 | 17.2 | 18.0 | 16.5 | 15.0 | 13.8 | 13.4 | 20.2 |
| Diesel | 21.1 | 21.2 | 23.2 | 27.4 | 26.4 | 24.9 | 28.2 | 30.7 | 28.7 | 30.8 | 46.3 |
| Heating Oil | 6.5 | 7.6 | 5.7 | 5.9 | 4.6 | 2.7 | 2.2 | 2.4 | 2.1 | 1.6 | 2.4 |
| Aviation Jet | 4.8 | 4.9 | 5.0 | 6.1 | 5.9 | 6.1 | 7.7 | 7.7 | 7.9 | 7.6 | 11.4 |
| LPG | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.4 | 0.4 | 0.5 | 0.5 | 0.8 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **1,583.1** | **1,669.9** | **1,810.5** | **1,853.4** | **2,015.3** | **2,026.3** | **2,050.3** | **2,157.8** | **2,247.6** | **2,222.3** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **269.8** | **270.4** | **278.0** | **267.5** | **270.8** | **252.1** | **235.9** | **231.6** | **227.4** | **215.7** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **77.6** | **77.3** | **73.4** | **70.4** | **68.0** | **64.1** | **61.2** | **59.6** | **58.1** | **56.5** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **119.4** | **118.8** | **117.7** | **112.5** | **110.5** | **104.0** | **98.1** | **94.7** | **91.7** | **88.6** | **-** |

*Heat is included*

## Primary energy mix

Other renewables
1%

Biomass
22%

Oil
26%

Hydro
2%

Nuclear
1%

2019: 913.22 Mtoe

Gas
6%

Coal
42%

## Electricity generation by source

Oil    Gas    Coal    Nuclear    Hydro    Biomass    Wind    Solar
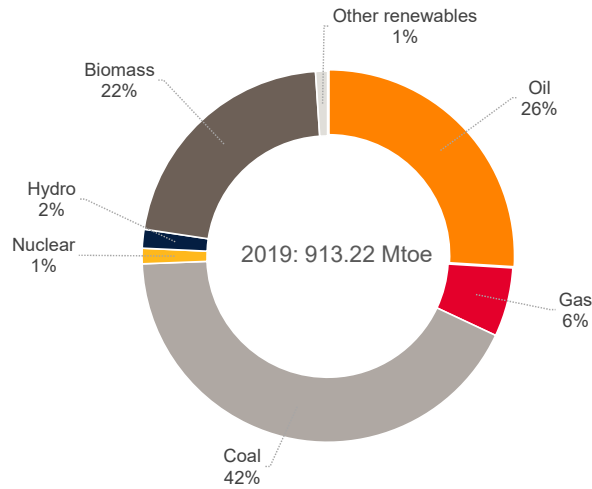
## Primary energy demand and CO$_2$ emissions growth
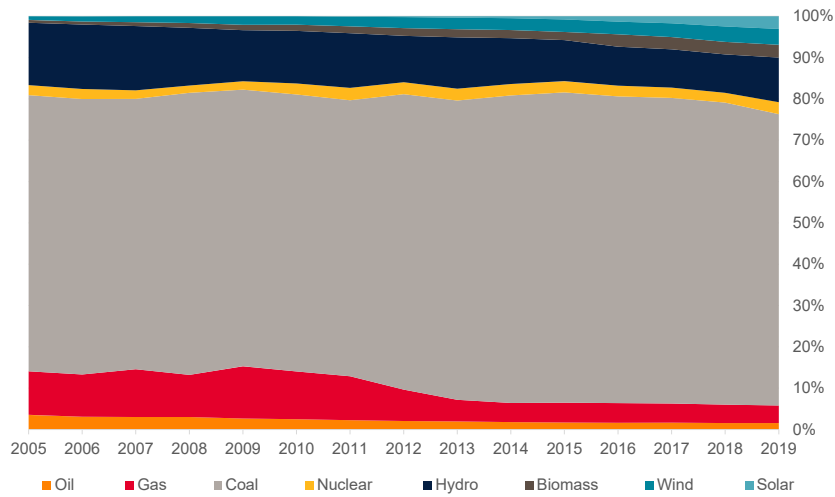
Demand growth          Emissions growth
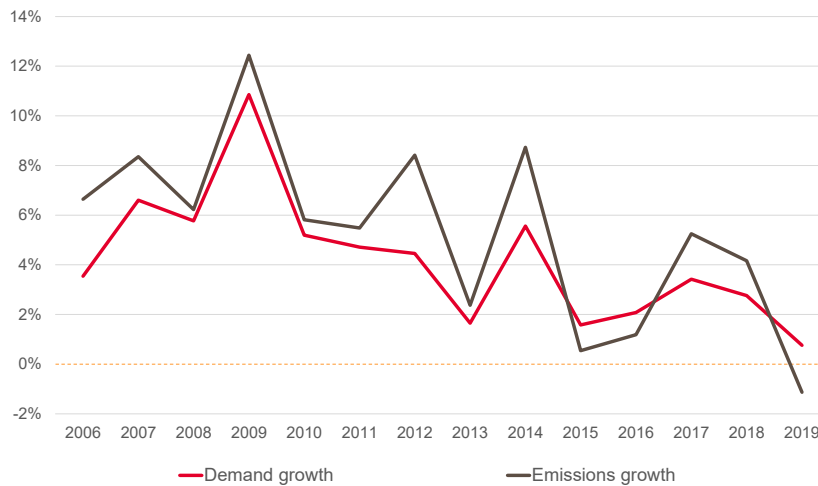
| Indonesia *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **206.3** | **198.3** | **208.2** | **213.0** | **224.3** | **224.7** | **229.6** | **244.0** | **259.9** | **269.1** | **100.0** |
| Oil | 67.4 | 66.5 | 72.4 | 74.0 | 74.7 | 70.9 | 69.6 | 75.6 | 75.8 | 75.8 | 28.2 |
| Gas | 38.8 | 35.6 | 35.0 | 36.5 | 36.6 | 37.9 | 39.1 | 38.9 | 40.8 | 39.5 | 14.7 |
| Coal | 31.8 | 26.9 | 28.5 | 28.8 | 37.2 | 41.0 | 43.3 | 48.4 | 57.4 | 62.5 | 23.2 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.5 | 1.1 | 1.1 | 1.5 | 1.3 | 1.2 | 1.6 | 1.6 | 1.4 | 1.5 | 0.5 |
| Biomass | 50.6 | 52.1 | 54.9 | 56.0 | 57.2 | 56.5 | 57.6 | 57.5 | 60.3 | 63.3 | 23.5 |
| 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* | 16.1 | 16.1 | 16.2 | 16.2 | 17.3 | 17.3 | 18.4 | 22.0 | 24.2 | 26.5 | 9.8 |
| **Total final consumption, by source** | **141.4** | **148.8** | **163.0** | **164.6** | **169.5** | **167.9** | **165.0** | **173.7** | **184.2** | **194.3** | **100.0** |
| Oil | 55.0 | 61.9 | 72.1 | 71.1 | 71.5 | 68.6 | 66.7 | 72.5 | 72.9 | 77.9 | 40.1 |
| Gas | 15.9 | 16.7 | 17.3 | 17.3 | 17.1 | 17.0 | 13.9 | 14.7 | 16.8 | 17.0 | 8.7 |
| Coal | 8.0 | 5.1 | 4.5 | 4.9 | 7.6 | 9.6 | 9.5 | 11.1 | 16.8 | 18.0 | 9.3 |
| Electricity | 12.7 | 13.7 | 15.1 | 16.1 | 17.1 | 17.4 | 18.6 | 19.2 | 20.2 | 21.1 | 10.9 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 49.9 | 51.3 | 54.1 | 55.2 | 56.2 | 55.2 | 56.3 | 56.1 | 57.5 | 60.3 | 31.0 |
| **Electricity generation, by source** | **14.6** | **15.8** | **17.2** | **18.6** | **19.6** | **20.1** | **21.3** | **21.9** | **23.0** | **24.0** | **100.0** |
| Oil | 2.9 | 3.6 | 2.6 | 2.3 | 2.2 | 1.7 | 1.4 | 1.7 | 1.6 | 1.7 | 7.1 |
| Gas | 3.5 | 3.3 | 3.9 | 4.4 | 4.8 | 5.1 | 5.7 | 4.8 | 4.9 | 4.4 | 18.4 |
| Coal | 5.9 | 7.0 | 8.8 | 9.6 | 10.3 | 11.2 | 11.6 | 12.7 | 13.7 | 15.0 | 62.6 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.5 | 1.1 | 1.1 | 1.5 | 1.3 | 1.2 | 1.6 | 1.6 | 1.4 | 1.5 | 6.1 |
| Biomass | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.3 |
| 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 | 0.9 | 0.9 | 0.9 | 1.1 | 1.2 | 1.3 | 5.5 |
| **Total final consumption, by sector** | **141.4** | **148.8** | **163.0** | **164.6** | **169.5** | **167.9** | **165.0** | **173.7** | **184.2** | **194.3** | **100.0** |
| Industry | 39.9 | 39.5 | 40.0 | 39.5 | 43.3 | 46.3 | 38.7 | 45.0 | 52.0 | 54.7 | 28.2 |
| Transport | 30.1 | 36.6 | 43.8 | 46.3 | 47.0 | 41.7 | 46.9 | 49.3 | 52.1 | 56.4 | 29.0 |
| Residential/Comercial | 58.6 | 60.7 | 64.9 | 66.6 | 68.1 | 68.7 | 69.1 | 70.3 | 71.3 | 74.1 | 38.1 |
| **Oil final consumption, by sector** | **55.0** | **61.9** | **72.1** | **71.1** | **71.5** | **68.6** | **66.7** | **72.5** | **72.9** | **77.9** | **100.0** |
| Industry | 9.4 | 10.7 | 11.1 | 9.5 | 10.5 | 11.9 | 7.4 | 10.2 | 9.5 | 10.2 | 13.2 |
| Transport | 30.0 | 36.3 | 43.3 | 45.5 | 45.7 | 41.2 | 44.8 | 47.5 | 48.9 | 52.9 | 67.9 |
| Residential/Comercial | 7.0 | 7.1 | 7.7 | 8.2 | 8.4 | 8.7 | 8.4 | 9.1 | 9.5 | 9.5 | 12.1 |
| **Natural gas final consumption, by sector** | **15.9** | **16.7** | **17.3** | **17.3** | **17.1** | **17.0** | **13.9** | **14.7** | **16.8** | **17.0** | **100.0** |
| Industry | 11.8 | 12.5 | 13.0 | 13.1 | 12.9 | 12.7 | 9.8 | 11.3 | 13.1 | 13.2 | 77.8 |
| Transport | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Residential/Comercial | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1.1 |
| **Refined products consumption** | **51.5** | **61.3** | **69.4** | **70.1** | **70.4** | **67.5** | **65.4** | **71.3** | **71.6** | **76.6** | **100.0** |
| Gasoline | 18.3 | 20.3 | 22.4 | 24.1 | 24.4 | 24.9 | 25.7 | 26.5 | 27.2 | 28.7 | 37.4 |
| Diesel | 16.2 | 22.5 | 29.8 | 29.7 | 28.5 | 25.5 | 22.8 | 25.3 | 23.8 | 26.6 | 34.8 |
| Heating Oil | 3.2 | 3.4 | 3.1 | 1.8 | 1.7 | 1.5 | 1.8 | 1.9 | 2.0 | 1.9 | 2.5 |
| Aviation Jet | 1.7 | 1.8 | 2.0 | 2.2 | 2.2 | 2.3 | 2.6 | 2.9 | 3.1 | 3.5 | 4.5 |
| LPG | 4.2 | 4.9 | 5.7 | 6.3 | 6.9 | 7.2 | 7.5 | 8.1 | 8.5 | 8.7 | 11.3 |
| **Imports** | **41.6** | **44.1** | **48.6** | **53.1** | **55.4** | **51.9** | **49.2** | **54.6** | **49.1** | **39.6** | **100.0** |
| Oil | 41.6 | 44.1 | 48.6 | 53.1 | 55.4 | 51.9 | 49.2 | 54.6 | 49.1 | 39.6 | 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 | 10.0 | 12.3 | 14.1 | 14.7 | 15.4 | 14.4 | 12.4 | 13.9 | 14.5 | 15.2 | 38.5 |
| Diesel | 9.3 | 8.5 | 10.9 | 10.4 | 10.0 | 6.4 | 5.0 | 6.0 | 5.7 | 2.7 | 6.8 |
| Heating Oil | 0.5 | 0.9 | 0.4 | 0.1 | 0.2 | 0.1 | 0.3 | 0.6 | 0.8 | 0.4 | 1.1 |
| Aviation Jet | 0.5 | 0.7 | 0.6 | 0.8 | 0.8 | 1.0 | 0.8 | 1.6 | 0.7 | 0.1 | 0.3 |
| LPG | 1.8 | 2.3 | 2.9 | 3.7 | 4.1 | 4.8 | 5.1 | 6.2 | 6.3 | 6.5 | 16.4 |
| **Exports** | **57.2** | **58.0** | **52.1** | **50.6** | **49.1** | **47.3** | **46.4** | **41.2** | **35.1** | **24.8** | **100.0** |
| Oil | 21.2 | 22.5 | 19.8 | 20.4 | 20.0 | 19.7 | 20.9 | 17.5 | 12.9 | 7.0 | 28.2 |
| Gas | 36.0 | 35.4 | 32.3 | 30.2 | 29.1 | 27.6 | 25.5 | 23.8 | 22.2 | 17.8 | 71.8 |
| 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Heating Oil | 4.3 | 4.3 | 3.8 | 4.2 | 4.3 | 3.8 | 3.9 | 3.5 | 2.8 | 3.4 | 13.9 |
| 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 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **376.5** | **401.1** | **432.0** | **429.5** | **468.3** | **470.4** | **466.1** | **506.6** | **546.8** | **581.0** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **172.3** | **173.0** | **175.7** | **165.5** | **171.8** | **164.5** | **155.2** | **160.6** | **164.8** | **166.7** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **60.1** | **60.4** | **62.1** | **60.2** | **59.3** | **56.2** | **52.4** | **53.0** | **53.5** | **53.8** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **94.4** | **85.5** | **84.7** | **82.0** | **82.3** | **78.6** | **76.5** | **77.4** | **78.4** | **77.2** | **-** |

*Heat is included

**Primary energy demand mix**



Biomass
26%

Oil
31%

Hydro
1%

2019: 269.08 Mtoe

Coal
26%

Gas
16%

**Electricity generation by source**



■ Oil  ■ Gas  ■ Coal  ■ Hydro  ■ Biomass  ■ Wind  ■ Other renewables
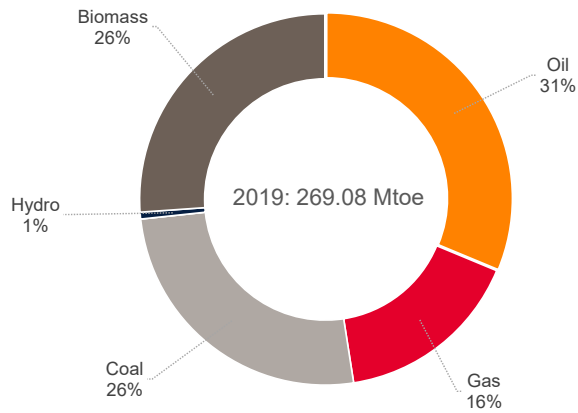
**Primary energy demand and CO$_2$ emissions growth**
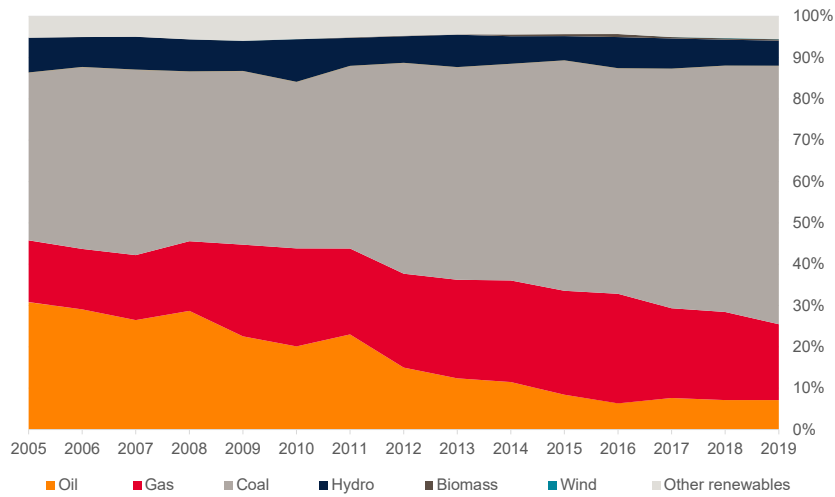


— Demand growth  — Emissions growth
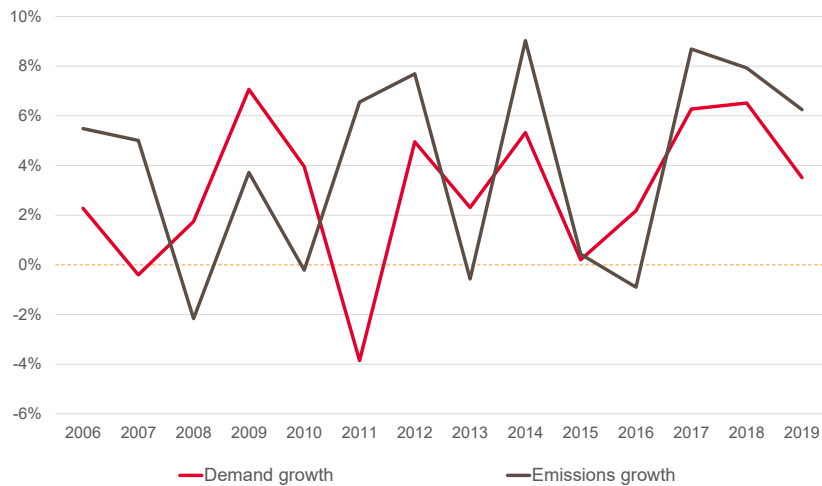
| Japan<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **503.2** | **465.7** | **455.8** | **456.5** | **441.6** | **433.9** | **429.0** | **433.8** | **427.7** | **420.9** | **100.0** |
| Oil | 202.7 | 206.8 | 209.7 | 200.6 | 190.4 | 183.7 | 176.9 | 176.0 | 167.3 | 160.4 | 38.1 |
| Gas | 85.9 | 99.7 | 104.9 | 105.1 | 106.6 | 100.2 | 101.7 | 100.9 | 96.5 | 91.9 | 21.8 |
| Coal | 115.4 | 107.9 | 112.8 | 122.5 | 117.8 | 119.1 | 116.4 | 116.5 | 114.1 | 112.6 | 26.7 |
| Nuclear | 75.1 | 26.5 | 4.2 | 2.4 | 0.0 | 2.5 | 4.7 | 8.6 | 17.0 | 22.7 | 5.4 |
| Hydro | 7.2 | 7.3 | 6.6 | 6.8 | 7.2 | 7.5 | 6.8 | 7.1 | 6.9 | 6.0 | 1.4 |
| Biomass | 11.6 | 12.0 | 12.1 | 13.0 | 12.8 | 13.1 | 13.8 | 15.2 | 15.8 | 15.8 | 3.8 |
| Other renewables | 0.7 | 0.8 | 1.0 | 1.6 | 2.4 | 3.5 | 4.5 | 5.3 | 6.1 | 6.9 | 1.6 |
| Electricity balance of trade* | 4.6 | 4.6 | 4.5 | 4.6 | 4.5 | 4.4 | 4.3 | 4.2 | 4.1 | 4.7 | 1.1 |
| **Total final consumption, by source** | **332.6** | **325.7** | **324.0** | **326.4** | **317.6** | **313.2** | **309.7** | **312.5** | **306.3** | **299.4** | **100.0** |
| Oil | 164.3 | 160.8 | 159.6 | 161.1 | 155.1 | 153.8 | 150.7 | 151.1 | 147.4 | 144.0 | 48.1 |
| Gas | 28.9 | 29.8 | 29.3 | 28.7 | 28.4 | 28.6 | 28.6 | 29.9 | 28.6 | 27.9 | 9.3 |
| Coal | 43.6 | 42.4 | 43.0 | 44.4 | 43.6 | 42.2 | 41.7 | 41.6 | 42.1 | 42.5 | 14.2 |
| Electricity | 89.0 | 85.7 | 85.3 | 85.1 | 83.7 | 81.7 | 81.7 | 82.9 | 81.3 | 77.7 | 26.0 |
| Heat | 1.1 | 1.0 | 1.0 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.8 | 0.3 |
| Biomass | 5.6 | 5.9 | 5.8 | 6.2 | 5.9 | 6.0 | 6.1 | 6.2 | 6.2 | 6.5 | 2.2 |
| **Electricity generation, by source** | **100.7** | **95.5** | **94.5** | **95.0** | **92.5** | **91.1** | **91.2** | **91.9** | **90.2** | **87.1** | **100.0** |
| Oil | 8.2 | 13.5 | 16.2 | 13.5 | 9.9 | 8.4 | 7.1 | 6.0 | n.d. | n.d. | #¡VALOR! |
| Gas | 28.0 | 34.5 | 36.6 | 36.9 | 37.7 | 35.2 | 35.9 | 34.2 | 32.4 | 29.5 | 33.9 |
| Coal | 26.7 | 25.6 | 27.6 | 30.2 | 30.3 | 30.4 | 30.0 | 30.3 | 29.1 | 27.8 | 31.9 |
| Nuclear | 24.8 | 8.8 | 1.4 | 0.8 | 0.0 | 0.8 | 1.6 | 2.8 | 5.6 | 7.5 | 8.6 |
| Hydro | 7.8 | 7.9 | 7.2 | 7.3 | 7.5 | 7.8 | 7.3 | 7.8 | 7.5 | 6.7 | 7.7 |
| Biomass | 2.4 | 2.5 | 2.6 | 2.7 | 2.7 | 2.9 | 2.9 | 3.5 | 3.8 | 3.6 | 4.2 |
| Wind | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.8 |
| Solar | 0.3 | 0.4 | 0.6 | 1.1 | 2.0 | 3.0 | 3.9 | 4.7 | 5.5 | 6.2 | 7.1 |
| Other renewables | 2.0 | 2.0 | 2.0 | 2.1 | 2.0 | 2.0 | 2.0 | 2.0 | 5.7 | 5.1 | 5.8 |
| **Total final consumption, by sector** | **332.6** | **325.7** | **324.0** | **326.4** | **317.6** | **313.2** | **309.7** | **312.5** | **306.3** | **299.4** | **100.0** |
| Industry | 104.2 | 103.9 | 103.2 | 103.9 | 101.4 | 97.7 | 97.7 | 96.7 | 97.0 | 95.7 | 32.0 |
| Transport | 77.1 | 74.9 | 74.8 | 74.8 | 73.4 | 73.1 | 72.3 | 71.4 | 70.4 | 69.5 | 23.2 |
| Residential/Comercial | 100.8 | 99.3 | 98.3 | 98.4 | 95.4 | 92.5 | 92.2 | 94.8 | 91.8 | 88.7 | 29.6 |
| **Oil final consumption, by sector** | **164.3** | **160.8** | **159.6** | **161.1** | **155.1** | **153.8** | **150.7** | **151.1** | **147.4** | **144.0** | **100.0** |
| Industry | 14.3 | 15.9 | 14.8 | 14.0 | 13.2 | 11.7 | 12.3 | 11.7 | 11.2 | 10.9 | 7.6 |
| Transport | 75.3 | 73.1 | 73.0 | 73.0 | 71.5 | 71.2 | 70.4 | 69.5 | 68.5 | 67.5 | 46.9 |
| Residential/Comercial | 26.0 | 26.1 | 25.7 | 26.5 | 24.7 | 22.6 | 22.2 | 22.8 | 22.1 | 21.5 | 15.0 |
| **Natural gas final consumption, by sector** | **28.9** | **29.8** | **29.3** | **28.7** | **28.4** | **28.6** | **28.6** | **29.9** | **28.6** | **27.9** | **100.0** |
| Industry | 10.9 | 11.5 | 11.4 | 11.2 | 11.0 | 11.0 | 11.2 | 11.3 | 11.3 | 11.0 | 39.5 |
| Transport | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.2 |
| Residential/Comercial | 17.6 | 17.9 | 17.5 | 17.0 | 17.0 | 17.4 | 17.1 | 18.2 | 17.0 | 16.6 | 59.5 |
| **Refined products consumption** | **163.8** | **160.4** | **159.1** | **160.8** | **154.8** | **153.5** | **150.6** | **150.8** | **147.1** | **143.7** | **100.0** |
| Gasoline | 42.6 | 42.3 | 42.7 | 42.1 | 40.5 | 40.2 | 39.9 | 39.3 | 38.4 | 37.3 | 25.9 |
| Diesel | 40.3 | 39.7 | 39.2 | 39.8 | 38.5 | 38.3 | 37.9 | 38.0 | 38.0 | 38.1 | 26.5 |
| Heating Oil | 6.5 | 6.6 | 6.1 | 5.6 | 5.1 | 4.5 | 5.3 | 5.1 | 5.1 | 5.4 | 3.8 |
| Aviation Jet | 4.3 | 3.5 | 3.3 | 4.2 | 4.4 | 4.5 | 4.4 | 4.2 | 4.1 | 4.2 | 2.9 |
| LPG | 13.5 | 13.9 | 13.9 | 14.4 | 14.0 | 12.4 | 11.7 | 11.8 | 11.1 | 10.2 | 7.1 |
| **Imports** | **312.1** | **327.8** | **335.8** | **329.4** | **317.2** | **308.8** | **303.5** | **301.6** | **289.9** | **274.5** | **100.0** |
| Oil | 229.5 | 230.4 | 234.1 | 226.7 | 212.9 | 211.0 | 204.3 | 203.4 | 195.6 | 186.6 | 68.0 |
| Gas | 82.6 | 97.4 | 101.7 | 102.7 | 104.3 | 97.8 | 99.2 | 98.2 | 94.3 | 87.9 | 32.0 |
| Gasoline | 0.9 | 2.3 | 2.3 | 1.3 | 1.2 | 0.9 | 0.7 | 1.0 | 1.7 | 1.9 | 0.7 |
| Diesel | 0.5 | 0.8 | 0.6 | 0.3 | 0.6 | 0.5 | 0.4 | 0.5 | 0.7 | 0.7 | 0.2 |
| Heating Oil | 3.2 | 7.0 | 8.7 | 6.4 | 4.5 | 3.2 | 2.3 | 2.2 | 1.8 | 0.6 | 0.2 |
| Aviation Jet | 0.3 | 1.1 | 1.3 | 0.8 | 0.5 | 0.7 | 0.7 | 1.3 | 1.1 | 1.0 | 0.4 |
| LPG | 14.3 | 14.4 | 15.1 | 13.7 | 13.3 | 12.4 | 12.0 | 12.2 | 12.4 | 12.2 | 4.5 |
| **Exports** | **17.5** | **13.9** | **13.0** | **17.0** | **15.8** | **18.5** | **18.5** | **17.7** | **17.9** | **19.2** | **100.0** |
| Oil | 17.5 | 13.9 | 13.0 | 17.0 | 15.8 | 18.5 | 18.5 | 17.7 | 17.9 | 19.2 | 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 | 1.7 | 1.0 | 0.9 | 1.4 | 2.4 | 3.1 | 2.4 | 3.0 | 2.6 | 2.7 | 14.1 |
| Diesel | 10.0 | 6.8 | 6.1 | 9.2 | 7.8 | 8.8 | 8.3 | 8.7 | 8.1 | 8.6 | 44.7 |
| Heating Oil | 2.5 | 2.6 | 2.7 | 1.9 | 1.7 | 2.2 | 3.1 | 2.5 | 2.6 | 2.5 | 13.0 |
| Aviation Jet | 2.2 | 2.1 | 2.3 | 2.9 | 2.4 | 2.8 | 2.9 | 2.2 | 2.4 | 2.7 | 13.8 |
| LPG | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **1,103.7** | **1,160.8** | **1,204.2** | **1,210.6** | **1,171.2** | **1,135.4** | **1,127.1** | **1,112.0** | **1,082.2** | **1,045.0** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **225.8** | **237.7** | **243.0** | **239.5** | **230.8** | **220.8** | **217.2** | **210.6** | **204.3** | **196.0** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **58.9** | **58.1** | **56.8** | **55.8** | **54.2** | **52.3** | **51.6** | **51.0** | **50.0** | **48.6** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **102.9** | **95.4** | **92.0** | **90.3** | **87.0** | **84.4** | **82.6** | **82.1** | **80.7** | **78.9** | **-** |

*Heat is included

**Primary energy demand mix**

Hydro
1%

Biomass
4%

Other renewables
2%

Nuclear
5%

Coal
27%

2019: 420.92 Mtoe

Oil
39%

Gas
22%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil  ■ Gas  ■ Coal  ■ Nuclear  ■ Hydro  ■ Biomass  ■ Wind  ■ Solar  ■ Other renewables

**Primary energy demand and CO$_2$ emissions growth**

8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%
-10%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
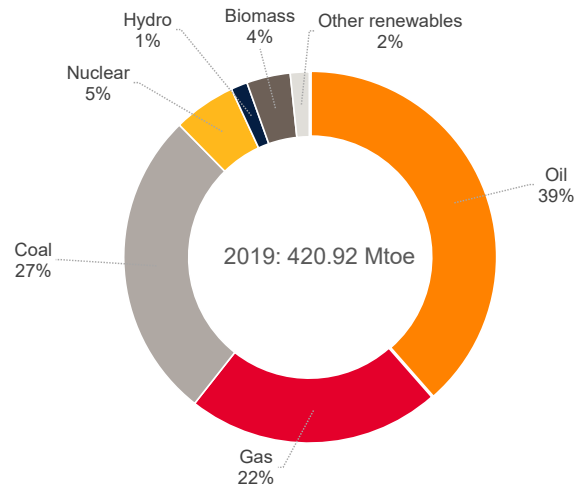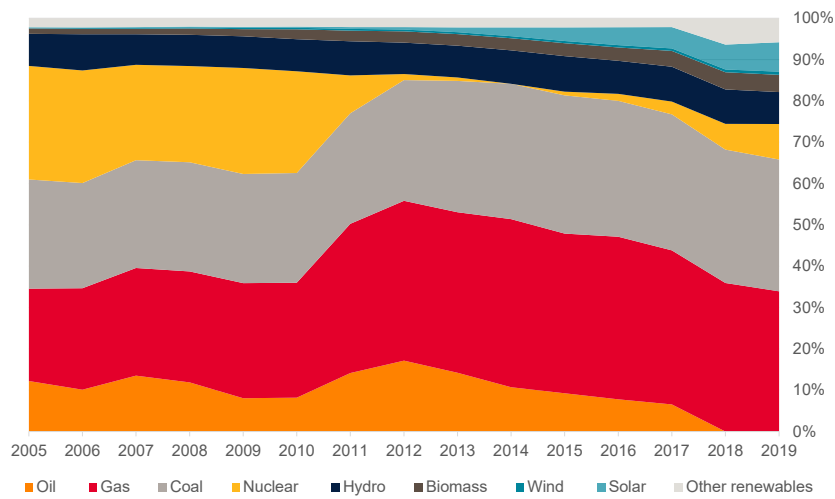
—— Demand growth  —— Emissions growth
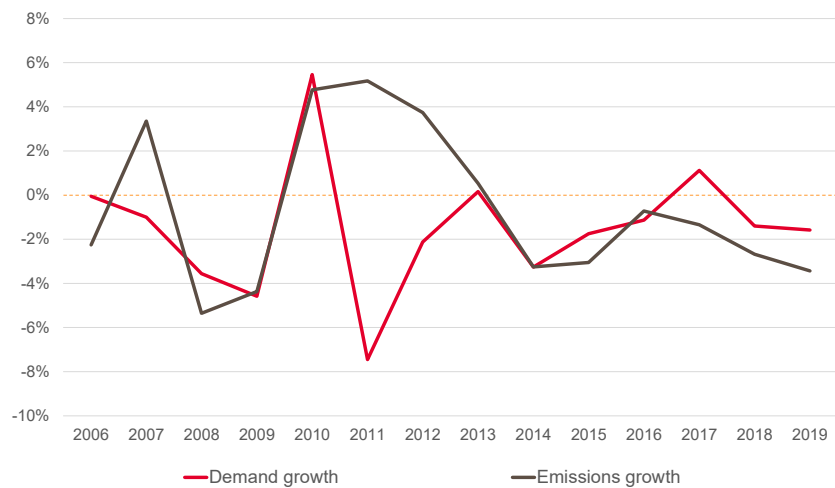
| Malaysia<br>(Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **73.4** | **76.1** | **77.5** | **87.3** | **89.0** | **85.1** | **88.3** | **85.3** | **89.1** | **92.8** | **100.0** |
| Oil | 26.2 | 27.4 | 27.8 | 32.2 | 33.6 | 28.1 | 31.3 | 29.6 | 30.3 | 30.9 | 33.3 |
| Gas | 31.2 | 31.6 | 32.4 | 38.1 | 38.4 | 37.5 | 35.8 | 32.2 | 33.4 | 35.6 | 38.3 |
| Coal | 14.6 | 15.6 | 15.8 | 15.3 | 15.3 | 17.5 | 18.8 | 20.7 | 22.7 | 23.6 | 25.4 |
| 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 | 0.8 | 0.9 | 1.2 | 1.2 | 1.7 | 2.3 | 2.3 | 2.3 | 2.5 |
| Biomass | 0.8 | 0.8 | 0.7 | 0.8 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.7 |
| 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 | -0.1 | -0.1 | -0.1 | -0.1 | -0.2 |
| **Total final consumption, by source** | **41.7** | **43.7** | **46.7** | **53.0** | **52.1** | **50.7** | **55.1** | **60.6** | **62.5** | **64.4** | **100.0** |
| Oil | 24.0 | 23.6 | 24.2 | 28.2 | 29.4 | 27.6 | 28.3 | 29.0 | 29.9 | 30.1 | 46.7 |
| Gas | 6.3 | 8.6 | 10.2 | 12.0 | 9.6 | 9.6 | 12.3 | 16.8 | 17.4 | 18.6 | 28.9 |
| Coal | 1.8 | 1.8 | 1.7 | 1.5 | 1.7 | 1.8 | 1.8 | 1.8 | 1.9 | 2.0 | 3.1 |
| Electricity | 9.5 | 9.6 | 10.4 | 11.0 | 11.0 | 11.4 | 12.4 | 12.6 | 13.0 | 13.3 | 20.7 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.6 |
| **Electricity generation, by source** | **10.7** | **11.1** | **11.6** | **11.9** | **12.7** | **12.9** | **13.5** | **14.1** | **14.7** | **15.2** | **100.0** |
| Oil | 0.3 | 0.8 | 0.5 | 0.5 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 1.3 |
| Gas | 6.1 | 5.0 | 5.4 | 5.8 | 6.3 | 6.0 | 5.6 | 5.4 | 5.7 | 6.0 | 39.5 |
| Coal | 3.7 | 4.6 | 4.8 | 4.6 | 4.8 | 5.5 | 5.9 | 6.2 | 6.6 | 6.5 | 43.1 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.6 | 0.7 | 0.8 | 0.9 | 1.2 | 1.2 | 1.7 | 2.3 | 2.3 | 2.3 | 15.2 |
| 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 | 0.1 | 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** | **41.7** | **43.7** | **46.7** | **53.0** | **52.1** | **50.7** | **55.1** | **60.6** | **62.5** | **64.4** | **100.0** |
| Industry | 14.8 | 14.1 | 15.6 | 15.0 | 14.8 | 15.0 | 16.2 | 17.6 | 18.3 | 19.0 | 29.6 |
| Transport | 15.0 | 15.2 | 15.4 | 20.2 | 22.6 | 21.3 | 21.7 | 21.1 | 21.9 | 22.1 | 34.2 |
| Residential/Comercial | 7.1 | 7.1 | 7.2 | 7.5 | 7.5 | 7.6 | 8.1 | 8.3 | 8.5 | 8.7 | 13.5 |
| **Oil final consumption, by sector** | **24.0** | **23.6** | **24.2** | **28.2** | **29.4** | **27.6** | **28.3** | **29.0** | **29.9** | **30.1** | **100.0** |
| Industry | 4.2 | 3.6 | 4.4 | 3.8 | 3.1 | 3.2 | 2.6 | 2.8 | 2.9 | 2.9 | 9.5 |
| Transport | 14.7 | 14.9 | 15.0 | 19.7 | 22.0 | 20.6 | 21.1 | 20.6 | 21.3 | 21.5 | 71.4 |
| Residential/Comercial | 2.0 | 1.8 | 1.6 | 1.7 | 1.5 | 1.5 | 1.5 | 1.9 | 2.0 | 2.0 | 6.7 |
| **Natural gas final consumption, by sector** | **6.3** | **8.6** | **10.2** | **12.0** | **9.6** | **9.6** | **12.3** | **16.8** | **17.4** | **18.6** | **100.0** |
| Industry | 4.3 | 4.3 | 4.6 | 4.5 | 4.9 | 4.8 | 6.0 | 6.8 | 7.0 | 7.5 | 40.5 |
| Transport | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.1 | 0.2 | 0.2 | 0.9 |
| Residential/Comercial | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| **Refined products consumption** | **24.0** | **23.6** | **24.2** | **28.2** | **29.4** | **27.6** | **28.3** | **29.0** | **29.9** | **30.1** | **100.0** |
| Gasoline | 9.6 | 8.2 | 8.9 | 12.7 | 12.7 | 12.8 | 13.4 | 13.4 | 14.3 | 14.3 | 47.6 |
| Diesel | 8.4 | 8.7 | 8.8 | 9.6 | 10.6 | 9.4 | 9.3 | 9.7 | 9.6 | 9.7 | 32.2 |
| Heating Oil | 0.5 | 0.4 | 0.8 | 0.3 | 0.3 | 0.7 | 0.5 | 0.6 | 0.5 | 0.5 | 1.7 |
| Aviation Jet | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 2.4 |
| LPG | 2.9 | 2.9 | 2.9 | 2.9 | 2.6 | 2.3 | 3.5 | 3.5 | 3.7 | 3.8 | 12.6 |
| **Imports** | **25.5** | **27.9** | **30.8** | **37.1** | **37.8** | **30.5** | **33.1** | **30.5** | **29.4** | **33.3** | **100.0** |
| Oil | 18.5 | 20.9 | 22.9 | 28.6 | 29.3 | 22.7 | 26.2 | 23.5 | 22.7 | 24.2 | 72.7 |
| Gas | 7.0 | 7.0 | 7.9 | 8.5 | 8.5 | 7.8 | 6.8 | 7.0 | 6.6 | 9.1 | 27.3 |
| Gasoline | 4.3 | 4.2 | 5.9 | 8.8 | 8.3 | 7.6 | 8.6 | 5.1 | 5.1 | 4.2 | 12.6 |
| Diesel | 3.2 | 3.8 | 3.5 | 5.1 | 6.2 | 4.6 | 3.9 | 5.2 | 5.5 | 5.4 | 16.3 |
| Heating Oil | 1.2 | 1.5 | 0.8 | 3.0 | 3.1 | 1.0 | 0.1 | 0.2 | 0.2 | 0.1 | 0.4 |
| Aviation Jet | 0.4 | 0.5 | 0.3 | 0.9 | 0.5 | 0.5 | 1.4 | 1.2 | 0.6 | 0.9 | 2.7 |
| LPG | 0.5 | 0.5 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | 0.4 | 0.6 | 0.5 | 1.4 |
| **Exports** | **52.5** | **48.9** | **53.0** | **51.4** | **52.5** | **54.5** | **57.2** | **56.9** | **54.6** | **52.7** | **100.0** |
| Oil | 25.7 | 21.0 | 26.1 | 22.8 | 23.5 | 26.3 | 28.9 | 26.0 | 26.8 | 23.2 | 43.9 |
| Gas | 26.8 | 28.0 | 26.9 | 28.6 | 29.0 | 28.1 | 28.3 | 30.9 | 27.9 | 29.5 | 56.1 |
| Gasoline | 0.0 | 0.0 | 2.1 | 0.1 | 0.0 | 0.4 | 0.5 | 0.3 | 0.2 | 0.2 | 0.4 |
| Diesel | 2.5 | 4.4 | 5.3 | 5.3 | 5.3 | 5.4 | 4.8 | 5.1 | 5.4 | 5.6 | 10.7 |
| Heating Oil | 0.9 | 0.3 | 1.0 | 3.0 | 4.3 | 1.4 | 0.6 | 0.6 | 0.7 | 0.6 | 1.2 |
| Aviation Jet | 0.7 | 0.7 | 1.0 | 0.6 | 0.5 | 0.5 | 1.1 | 1.3 | 0.7 | 0.7 | 1.3 |
| LPG | 0.7 | 1.0 | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.2 | 0.3 | 0.2 | 0.5 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **194.8** | **199.8** | **203.2** | **222.1** | **228.9** | **228.5** | **227.5** | **228.2** | **237.4** | **243.6** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million \$15ppp)** | **307.4** | **299.5** | **288.8** | **301.4** | **293.1** | **278.4** | **266.0** | **251.9** | **250.2** | **246.1** | **-** |
| **Final energy intensity (toe/million \$15ppp)** | **60.0** | **55.9** | **55.7** | **59.4** | **58.8** | **54.6** | **54.2** | **53.1** | **52.4** | **51.3** | **-** |
| **Total energy intensity (toe/million \$15ppp)** | **115.8** | **114.1** | **110.1** | **118.5** | **114.0** | **103.6** | **103.2** | **94.2** | **93.9** | **93.8** | **-** |

*Heat is included

**Primary energy demand mix**

Hydro
3%

Biomass
1%

Coal
25%

Oil
33%

2019: 92.84 Mtoe

Gas
38%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil ■ Gas ■ Coal ■ Hydro ■ Biomass ■ Solar

**Primary energy demand and CO$_2$ emissions growth**

15%
10%
5%
0%
-5%
-10%
-15%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
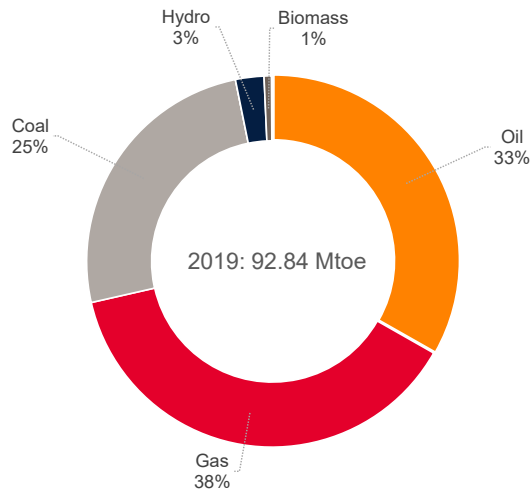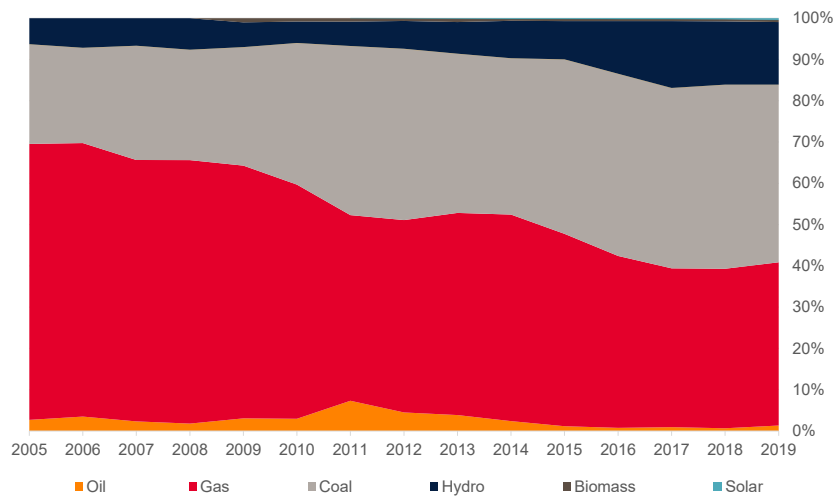
— Demand growth — Emissions growth
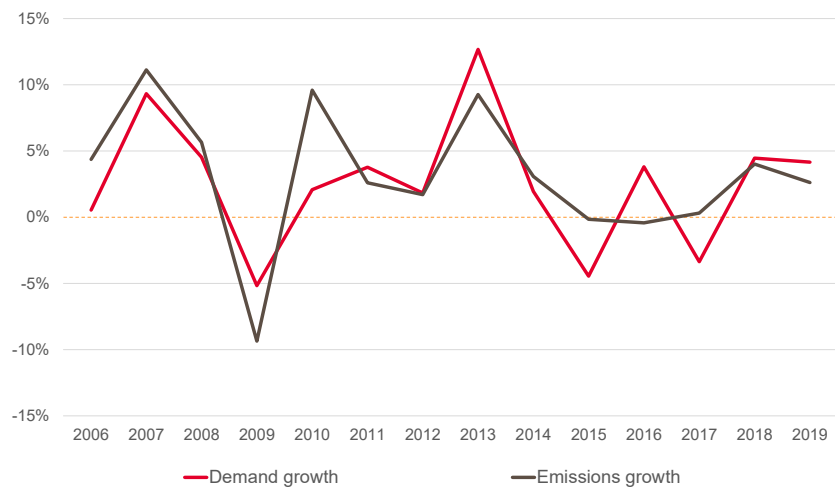
| New Zealand *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **18.6** | **18.5** | **19.4** | **19.5** | **20.7** | **20.8** | **20.6** | **20.7** | **20.3** | **20.2** | **100.0** |
| Oil | 6.2 | 6.1 | 6.5 | 6.4 | 6.5 | 6.8 | 6.7 | 6.8 | 6.7 | 6.2 | 30.5 |
| Gas | 3.7 | 3.4 | 3.8 | 4.0 | 4.4 | 4.1 | 4.2 | 4.2 | 3.7 | 4.0 | 19.7 |
| Coal | 1.3 | 1.4 | 1.6 | 1.4 | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 | 1.4 | 6.8 |
| 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 | 2.2 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.2 | 10.9 |
| Biomass | 1.2 | 1.3 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.2 | 1.2 | 6.2 |
| Other renewables | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1.0 |
| Electricity balance of trade* | 3.9 | 4.0 | 4.1 | 4.4 | 4.9 | 5.1 | 4.9 | 4.9 | 5.0 | 5.0 | 24.9 |
| **Total final consumption, by source** | **13.3** | **13.2** | **13.3** | **13.7** | **14.6** | **14.5** | **14.8** | **15.0** | **14.7** | **15.2** | **100.0** |
| Oil | 5.9 | 5.9 | 5.8 | 5.9 | 6.1 | 6.2 | 6.4 | 6.6 | 6.7 | 6.8 | 44.8 |
| Gas | 1.8 | 1.7 | 1.9 | 2.3 | 3.0 | 2.7 | 2.9 | 2.8 | 2.5 | 2.8 | 18.4 |
| Coal | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 6.1 |
| Electricity | 3.4 | 3.4 | 3.4 | 3.3 | 3.4 | 3.4 | 3.3 | 3.3 | 3.4 | 3.4 | 22.4 |
| Heat | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1.3 |
| Biomass | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 7.0 |
| **Electricity generation, by source** | **3.9** | **3.8** | **3.8** | **3.7** | **3.7** | **3.8** | **3.8** | **3.8** | **3.8** | **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 | 0.7 | 0.8 | 0.7 | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 12.9 |
| Coal | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 5.1 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 2.1 | 2.2 | 2.0 | 2.0 | 2.1 | 2.1 | 2.2 | 2.2 | 2.3 | 2.2 | 57.2 |
| Biomass | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.3 |
| Wind | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 5.2 |
| 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 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 18.0 |
| **Total final consumption, by sector** | **13.3** | **13.2** | **13.3** | **13.7** | **14.6** | **14.5** | **14.8** | **15.0** | **14.7** | **15.2** | **100.0** |
| Industry | 4.4 | 4.3 | 4.2 | 4.4 | 4.8 | 4.7 | 4.7 | 4.8 | 4.7 | 4.8 | 31.5 |
| Transport | 4.6 | 4.6 | 4.5 | 4.6 | 4.6 | 4.8 | 4.9 | 5.3 | 5.4 | 5.4 | 35.8 |
| Residential/Comercial | 2.7 | 2.7 | 2.8 | 2.7 | 2.7 | 2.8 | 2.7 | 2.8 | 2.8 | 2.9 | 19.1 |
| **Oil final consumption, by sector** | **5.9** | **5.9** | **5.8** | **5.9** | **6.1** | **6.2** | **6.4** | **6.6** | **6.7** | **6.8** | **100.0** |
| Industry | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 6.5 |
| Transport | 4.6 | 4.6 | 4.5 | 4.6 | 4.6 | 4.8 | 4.9 | 5.2 | 5.4 | 5.4 | 79.7 |
| Residential/Comercial | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 3.6 |
| **Natural gas final consumption, by sector** | **1.8** | **1.7** | **1.9** | **2.3** | **3.0** | **2.7** | **2.9** | **2.8** | **2.5** | **2.8** | **100.0** |
| Industry | 0.9 | 0.9 | 0.9 | 1.1 | 1.4 | 1.2 | 1.3 | 1.3 | 1.2 | 1.3 | 45.2 |
| 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 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 15.3 |
| **Refined products consumption** | **5.9** | **5.9** | **5.8** | **5.9** | **6.1** | **6.2** | **6.4** | **6.6** | **6.7** | **6.8** | **100.0** |
| Gasoline | 2.5 | 2.4 | 2.4 | 2.4 | 2.4 | 2.5 | 2.5 | 2.6 | 2.6 | 2.6 | 37.7 |
| Diesel | 2.5 | 2.6 | 2.6 | 2.7 | 2.8 | 2.9 | 2.9 | 3.1 | 3.2 | 3.3 | 48.7 |
| Heating Oil | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| Aviation Jet | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 5.0 |
| LPG | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 3.2 |
| **Imports** | **7.1** | **7.3** | **7.5** | **7.6** | **7.6** | **7.6** | **8.2** | **8.1** | **8.6** | **8.3** | **100.0** |
| Oil | 7.1 | 7.3 | 7.5 | 7.6 | 7.6 | 7.6 | 8.2 | 8.1 | 8.6 | 8.3 | 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 | 1.2 | 1.2 | 1.2 | 1.1 | 1.0 | 1.1 | 1.1 | 1.0 | 12.3 |
| Diesel | 0.6 | 0.7 | 0.5 | 0.7 | 0.8 | 0.7 | 1.1 | 1.0 | 1.3 | 1.3 | 16.0 |
| 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 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 0.2 | 2.5 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| **Exports** | **2.6** | **2.4** | **2.1** | **1.8** | **2.0** | **2.0** | **1.8** | **1.6** | **1.4** | **1.4** | **100.0** |
| Oil | 2.6 | 2.4 | 2.1 | 1.8 | 2.0 | 2.0 | 1.8 | 1.6 | 1.4 | 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 | 0.0 |
| Diesel | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 |
| Heating Oil | 0.1 | 0.3 | 0.3 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 15.5 |
| 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 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **30.1** | **29.4** | **31.1** | **31.2** | **32.1** | **31.7** | **31.2** | **32.7** | **32.4** | **32.8** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **202.5** | **192.4** | **198.8** | **195.2** | **194.0** | **183.5** | **174.9** | **178.3** | **170.9** | **169.3** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **83.1** | **80.4** | **78.6** | **78.3** | **78.6** | **75.7** | **73.6** | **73.5** | **71.4** | **71.1** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **125.1** | **121.4** | **124.0** | **122.2** | **125.2** | **120.6** | **115.3** | **112.8** | **107.0** | **104.2** | **-** |

*Heat is included

**Primary energy demand mix**

Other renewables
1%

Biomass
8%

Hydro
15%

Coal
9%

Gas
26%

Oil
41%

2019: 20.17 Mtoe

**Electricity generation by source**

Gas   Coal   Hydro   Biomass   Wind   Solar   Other renewables
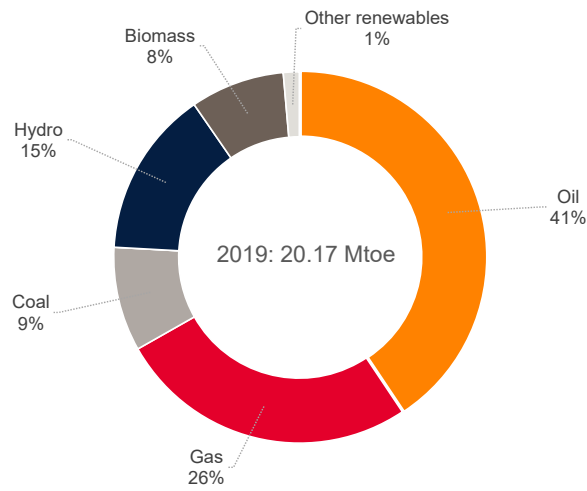
**Primary energy demand and CO$_2$ emissions growth**
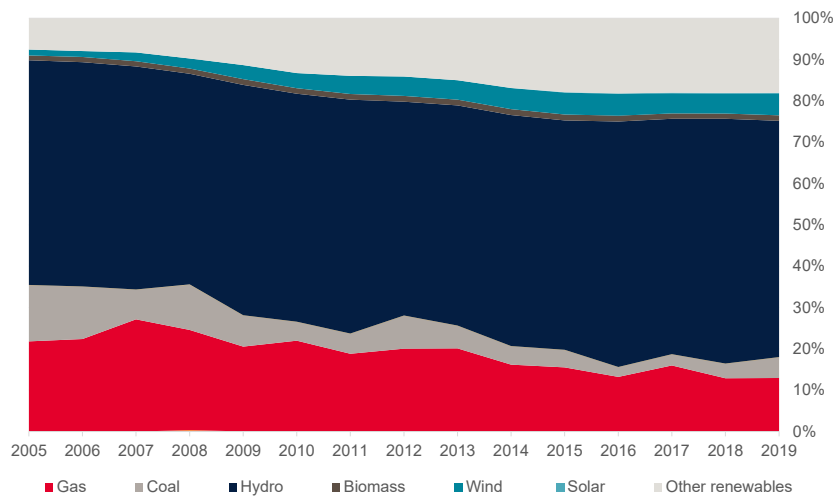
Demand growth   Emissions growth
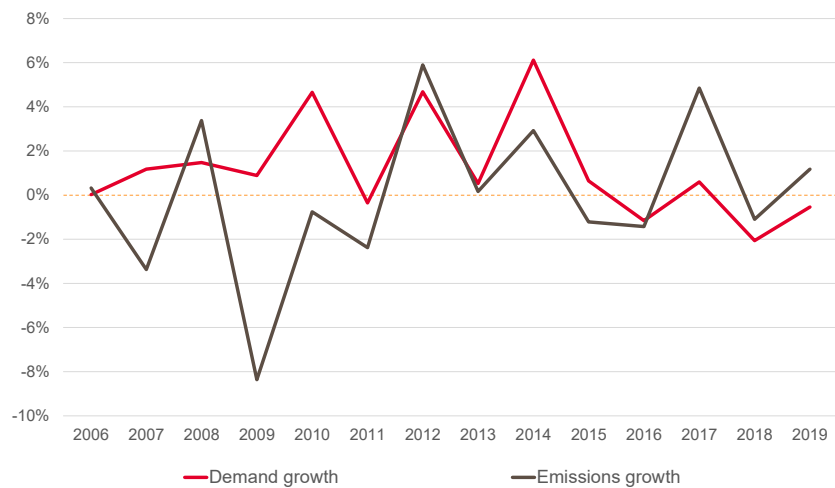
| South Korea *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **255.6** | **266.5** | **270.5** | **271.5** | **276.8** | **283.0** | **293.3** | **295.0** | **300.6** | **298.1** | **100.0** |
| Oil | 95.1 | 93.7 | 97.2 | 96.6 | 96.3 | 102.7 | 109.8 | 109.1 | 108.3 | 107.4 | 36.0 |
| Gas | 38.6 | 41.6 | 45.0 | 47.6 | 43.1 | 39.3 | 41.3 | 43.2 | 50.2 | 48.6 | 16.3 |
| Coal | 73.5 | 80.3 | 77.1 | 77.9 | 81.7 | 80.8 | 81.5 | 82.6 | 83.1 | 78.7 | 26.4 |
| Nuclear | 38.7 | 40.3 | 39.2 | 36.2 | 40.8 | 42.9 | 42.2 | 38.7 | 34.8 | 38.0 | 12.8 |
| Hydro | 0.3 | 0.4 | 0.3 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.1 |
| Biomass | 9.0 | 9.9 | 11.4 | 12.4 | 14.0 | 16.2 | 17.4 | 20.0 | 22.5 | 23.5 | 7.9 |
| Other renewables | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.5 | 0.6 | 0.8 | 1.0 | 1.1 | 0.4 |
| Electricity balance of trade* | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.2 |
| **Total final consumption, by source** | **171.7** | **177.6** | **182.8** | **185.6** | **187.9** | **193.7** | **199.7** | **206.0** | **210.1** | **209.1** | **100.0** |
| Oil | 81.9 | 82.1 | 84.4 | 84.6 | 86.5 | 90.3 | 94.1 | 97.4 | 96.6 | 97.1 | 46.4 |
| Gas | 20.5 | 21.5 | 22.7 | 24.1 | 22.2 | 20.5 | 21.5 | 22.2 | 23.8 | 22.8 | 10.9 |
| Coal | 18.1 | 20.2 | 19.8 | 19.6 | 20.1 | 21.0 | 19.5 | 18.6 | 18.2 | 17.9 | 8.6 |
| Electricity | 38.6 | 40.5 | 41.4 | 41.9 | 41.9 | 42.6 | 44.5 | 45.0 | 46.6 | 46.1 | 22.1 |
| Heat | 4.4 | 4.6 | 4.4 | 4.4 | 4.7 | 4.5 | 5.0 | 5.3 | 5.8 | 5.6 | 2.7 |
| Biomass | 8.2 | 8.8 | 10.1 | 11.0 | 12.5 | 14.8 | 15.2 | 17.5 | 19.0 | 19.5 | 9.3 |
| **Electricity generation, by source** | **43.0** | **45.0** | **46.0** | **46.6** | **47.4** | **47.5** | **48.4** | **48.8** | **50.3** | **49.5** | **100.0** |
| Oil | 1.6 | 1.4 | 1.8 | 1.8 | 1.5 | 1.1 | 1.5 | 1.0 | 0.7 | 0.7 | 1.5 |
| Gas | 8.9 | 10.0 | 9.6 | 12.5 | 11.2 | 10.6 | 10.9 | 10.8 | 13.1 | 12.8 | 25.8 |
| Coal | 18.9 | 19.3 | 20.6 | 19.2 | 19.9 | 20.3 | 20.2 | 22.0 | 22.0 | 20.9 | 42.2 |
| Nuclear | 12.8 | 13.3 | 12.9 | 11.9 | 13.5 | 14.2 | 13.9 | 12.8 | 11.5 | 12.5 | 25.3 |
| Hydro | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 1.1 |
| Biomass | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.5 | 0.6 | 0.7 | 0.8 | 1.5 |
| Wind | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.5 |
| Solar | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.6 | 0.8 | 0.9 | 1.8 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.4 |
| **Total final consumption, by sector** | **171.7** | **177.6** | **182.8** | **185.6** | **187.9** | **193.7** | **199.7** | **206.0** | **210.1** | **209.1** | **100.0** |
| Industry | 58.4 | 63.0 | 63.9 | 64.0 | 65.6 | 67.1 | 66.2 | 68.3 | 71.1 | 70.5 | 33.7 |
| Transport | 30.4 | 29.9 | 30.7 | 31.9 | 32.4 | 34.4 | 35.4 | 36.1 | 36.4 | 36.8 | 17.6 |
| Residential/Comercial | 41.5 | 41.6 | 41.7 | 42.8 | 41.1 | 42.2 | 45.4 | 46.4 | 47.7 | 46.7 | 22.3 |
| **Oil final consumption, by sector** | **81.9** | **82.1** | **84.4** | **84.6** | **86.5** | **90.3** | **94.1** | **97.4** | **96.6** | **97.1** | **100.0** |
| Industry | 5.9 | 5.2 | 4.1 | 3.5 | 3.5 | 3.4 | 3.6 | 3.6 | 3.6 | 3.8 | 3.9 |
| Transport | 28.9 | 28.4 | 29.1 | 30.1 | 30.6 | 32.6 | 33.4 | 34.1 | 34.1 | 34.6 | 35.6 |
| Residential/Comercial | 6.9 | 6.8 | 6.3 | 5.7 | 5.4 | 6.2 | 6.4 | 6.4 | 6.1 | 5.9 | 6.1 |
| **Natural gas final consumption, by sector** | **20.5** | **21.5** | **22.7** | **24.1** | **22.2** | **20.5** | **21.5** | **22.2** | **23.8** | **22.8** | **100.0** |
| Industry | 7.1 | 8.2 | 9.2 | 9.8 | 8.8 | 7.4 | 7.5 | 7.5 | 8.5 | 8.0 | 35.1 |
| Transport | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 | 5.0 |
| Residential/Comercial | 12.4 | 12.2 | 12.4 | 13.1 | 12.2 | 11.9 | 12.8 | 13.5 | 14.2 | 13.7 | 59.9 |
| **Refined products consumption** | **81.9** | **82.1** | **84.4** | **84.6** | **86.5** | **90.3** | **94.1** | **97.4** | **96.6** | **97.1** | **100.0** |
| Gasoline | 8.6 | 8.7 | 8.6 | 9.2 | 9.2 | 9.6 | 9.9 | 9.9 | 9.9 | 10.3 | 10.7 |
| Diesel | 18.6 | 18.3 | 18.9 | 19.8 | 20.1 | 21.7 | 22.1 | 22.9 | 22.6 | 23.2 | 23.9 |
| Heating Oil | 4.4 | 3.6 | 2.6 | 1.8 | 1.6 | 1.7 | 1.9 | 1.6 | 1.5 | 1.2 | 1.2 |
| Aviation Jet | 0.8 | 1.0 | 1.3 | 1.2 | 1.5 | 1.7 | 1.7 | 1.8 | 1.8 | 1.6 | 1.7 |
| LPG | 9.5 | 9.1 | 8.3 | 8.6 | 8.3 | 8.7 | 9.5 | 9.2 | 9.5 | 10.7 | 11.0 |
| **Imports** | **193.9** | **202.8** | **211.3** | **213.6** | **212.4** | **218.6** | **229.4** | **234.5** | **244.7** | **236.0** | **100.0** |
| Oil | 154.6 | 160.9 | 168.5 | 165.9 | 168.3 | 179.7 | 189.8 | 190.9 | 194.5 | 189.5 | 80.3 |
| Gas | 39.3 | 41.9 | 42.8 | 47.7 | 44.0 | 38.9 | 39.6 | 43.6 | 50.2 | 46.5 | 19.7 |
| Gasoline | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 |
| Diesel | 0.3 | 0.4 | 0.9 | 1.4 | 0.8 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.1 |
| Heating Oil | 2.7 | 2.4 | 4.2 | 7.1 | 8.0 | 7.2 | 7.2 | 6.1 | 6.5 | 4.8 | 2.0 |
| 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 | 7.1 | 7.3 | 7.1 | 6.4 | 6.1 | 6.0 | 8.3 | 7.2 | 7.8 | 9.3 | 3.9 |
| **Exports** | **45.8** | **54.9** | **58.8** | **56.9** | **59.0** | **62.8** | **64.3** | **66.8** | **70.4** | **69.2** | **100.0** |
| Oil | 45.8 | 54.9 | 58.8 | 56.9 | 59.0 | 62.8 | 64.3 | 66.8 | 70.4 | 69.2 | 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 | 4.9 | 6.7 | 7.9 | 8.0 | 9.1 | 9.9 | 9.5 | 10.2 | 10.9 | 10.9 | 15.8 |
| Diesel | 17.8 | 21.7 | 24.1 | 22.3 | 23.8 | 23.5 | 23.9 | 24.0 | 26.0 | 26.6 | 38.4 |
| Heating Oil | 4.0 | 5.3 | 4.3 | 3.4 | 2.1 | 1.6 | 2.0 | 2.5 | 3.9 | 2.7 | 3.8 |
| Aviation Jet | 9.6 | 10.9 | 12.3 | 12.0 | 12.6 | 14.4 | 14.9 | 16.1 | 20.1 | 17.1 | 24.7 |
| LPG | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.5 | 0.6 | 0.8 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **593.9** | **625.6** | **630.8** | **628.2** | **624.3** | **638.4** | **655.9** | **665.3** | **674.5** | **649.9** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **377.4** | **383.4** | **378.0** | **365.8** | **351.8** | **350.0** | **349.3** | **343.8** | **339.5** | **320.9** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **84.7** | **84.3** | **83.5** | **82.6** | **79.9** | **80.2** | **79.7** | **79.3** | **79.4** | **77.4** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **162.4** | **163.3** | **162.1** | **158.1** | **156.0** | **155.1** | **156.2** | **152.5** | **151.3** | **147.2** | **-** |

*Heat is included

**Primary energy demand mix**

Biomass
8%

Nuclear
13%

Oil
36%

2019: 298.13 Mtoe

Coal
27%

Gas
16%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005  2006  2007  2008  2009  2010  2011  2012  2013  2014  2015  2016  2017  2018  2019

■ Oil   ■ Gas   ■ Coal   ■ Nuclear   ■ Hydro   ■ Biomass   ■ Wind   ■ Solar   ■ Other renewables

**Primary energy demand and CO$_2$ emissions growth**

12%
10%
8%
6%
4%
2%
0%
-2%
-4%
-6%

2006  2007  2008  2009  2010  2011  2012  2013  2014  2015  2016  2017  2018  2019
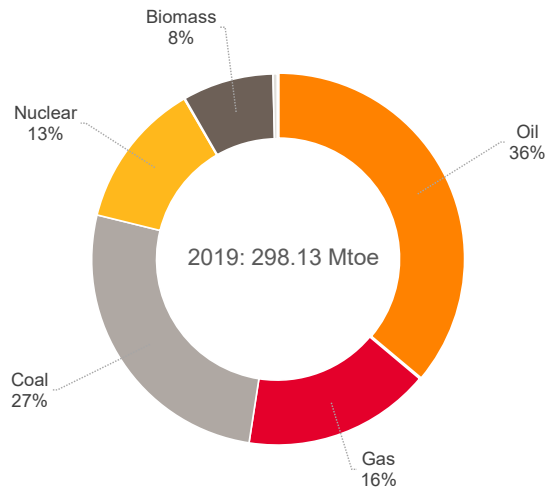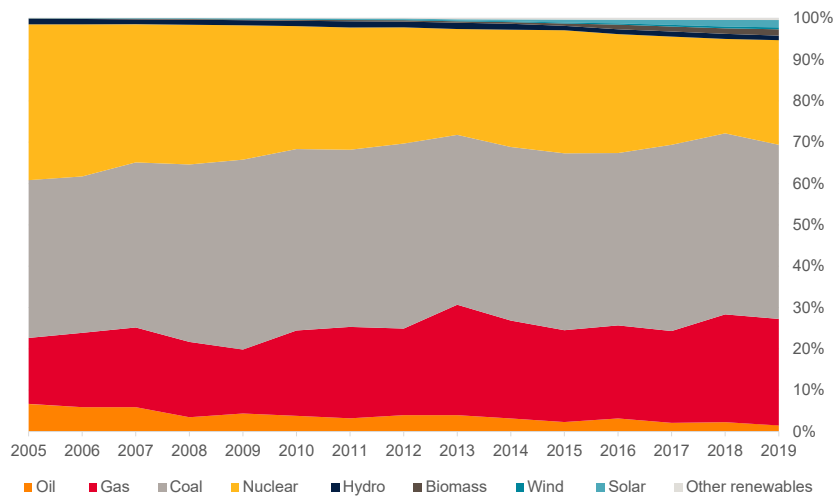
— Demand growth      — Emissions growth
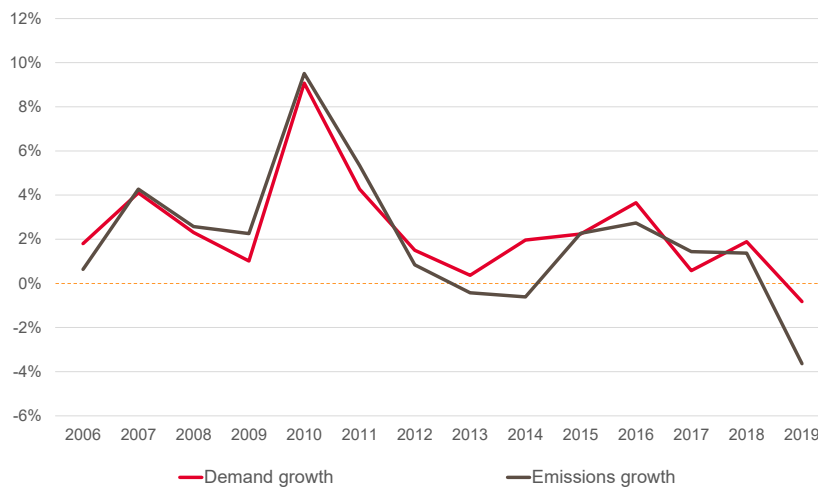
| **Taiwan** *(Million toe)* | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **Share in 2019 (%)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **110.8** | **109.4** | **106.5** | **108.3** | **110.3** | **109.1** | **109.7** | **110.1** | **112.4** | **109.7** | **100.0** |
| Oil | 44.2 | 41.2 | 40.8 | 41.6 | 42.4 | 42.6 | 42.9 | 42.5 | 42.5 | 39.4 | 36.0 |
| Gas | 13.3 | 14.0 | 13.2 | 13.1 | 13.6 | 14.8 | 15.4 | 17.9 | 18.1 | 17.8 | 16.3 |
| Coal | 40.6 | 40.9 | 39.6 | 40.3 | 40.9 | 39.7 | 40.7 | 41.5 | 42.2 | 41.3 | 37.7 |
| Nuclear | 10.8 | 11.0 | 10.5 | 10.9 | 11.0 | 9.5 | 8.3 | 5.8 | 7.2 | 8.4 | 7.7 |
| Hydro | 0.4 | 0.3 | 0.5 | 0.5 | 0.4 | 0.4 | 0.6 | 0.5 | 0.4 | 0.5 | 0.4 |
| Biomass | 1.3 | 1.7 | 1.7 | 1.7 | 1.7 | 1.8 | 1.5 | 1.5 | 1.6 | 1.6 | 1.4 |
| Other renewables | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.5 |
| Electricity balance of trade* | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| **Total final consumption, by source** | **70.5** | **69.0** | **68.2** | **71.5** | **72.5** | **72.6** | **73.6** | **73.2** | **72.8** | **70.5** | **100.0** |
| Oil | 39.6 | 36.1 | 36.1 | 37.5 | 37.8 | 38.3 | 38.2 | 37.7 | 38.2 | 35.9 | 50.9 |
| Gas | 2.1 | 2.4 | 2.4 | 2.5 | 2.7 | 2.8 | 3.0 | 3.2 | 3.5 | 3.6 | 5.0 |
| Coal | 9.8 | 11.0 | 10.2 | 11.7 | 11.7 | 11.3 | 11.8 | 10.9 | 9.3 | 9.4 | 13.3 |
| Electricity | 18.8 | 19.2 | 19.1 | 19.5 | 20.0 | 19.8 | 20.3 | 20.8 | 21.3 | 21.2 | 30.0 |
| Heat | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Biomass | 0.0 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.4 | 0.4 | 0.4 | 0.6 |
| **Electricity generation, by source** | **21.3** | **21.7** | **21.6** | **21.8** | **22.4** | **22.3** | **22.8** | **23.1** | **23.5** | **23.4** | **100.0** |
| Oil | 0.9 | 0.8 | 0.7 | 0.6 | 0.7 | 1.1 | 1.0 | 1.1 | 0.7 | 0.5 | 2.2 |
| Gas | 4.9 | 5.3 | 5.5 | 5.7 | 6.1 | 6.5 | 7.2 | 7.9 | 7.9 | 7.8 | 33.4 |
| Coal | 10.8 | 11.0 | 10.8 | 10.7 | 10.9 | 10.3 | 10.5 | 10.8 | 11.1 | 10.7 | 45.8 |
| Nuclear | 3.6 | 3.6 | 3.5 | 3.6 | 3.6 | 3.1 | 2.7 | 1.9 | 2.4 | 2.8 | 11.9 |
| Hydro | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.6 | 0.8 | 0.8 | 0.7 | 0.8 | 3.2 |
| 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 | 0.2 | 0.7 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 1.5 |
| 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** | **70.5** | **69.0** | **68.2** | **71.5** | **72.5** | **72.6** | **73.6** | **73.2** | **72.8** | **70.5** | **100.0** |
| Industry | 25.0 | 26.4 | 25.2 | 26.7 | 26.8 | 26.1 | 26.7 | 26.9 | 25.9 | 25.7 | 36.4 |
| Transport | 12.3 | 12.5 | 12.2 | 12.2 | 12.4 | 12.7 | 13.0 | 12.9 | 12.6 | 12.6 | 17.9 |
| Residential/Comercial | 10.8 | 10.9 | 10.7 | 10.7 | 11.0 | 11.0 | 11.3 | 11.2 | 11.1 | 11.0 | 15.6 |
| **Oil final consumption, by sector** | **39.6** | **36.1** | **36.1** | **37.5** | **37.8** | **38.3** | **38.2** | **37.7** | **38.2** | **35.9** | **100.0** |
| Industry | 3.7 | 3.2 | 2.7 | 2.4 | 2.1 | 1.8 | 1.7 | 1.7 | 1.5 | 1.2 | 3.4 |
| Transport | 12.2 | 12.3 | 12.0 | 12.0 | 12.2 | 12.6 | 12.9 | 12.8 | 12.5 | 12.5 | 34.7 |
| Residential/Comercial | 1.8 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 | 1.6 | 1.5 | 4.2 |
| **Natural gas final consumption, by sector** | **2.1** | **2.4** | **2.4** | **2.5** | **2.7** | **2.8** | **3.0** | **3.2** | **3.5** | **3.6** | **100.0** |
| Industry | 1.0 | 1.2 | 1.3 | 1.4 | 1.5 | 1.6 | 1.7 | 2.2 | 2.5 | 2.5 | 71.4 |
| 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 | 1.1 | 1.2 | 1.1 | 1.1 | 1.2 | 1.2 | 1.3 | 1.0 | 1.0 | 1.0 | 28.3 |
| **Refined products consumption** | **39.6** | **36.1** | **36.1** | **37.5** | **37.8** | **38.3** | **38.2** | **37.7** | **38.2** | **35.9** | **100.0** |
| Gasoline | 7.8 | 7.8 | 7.7 | 7.7 | 7.8 | 8.1 | 8.4 | 8.2 | 8.0 | 8.0 | 22.3 |
| Diesel | 4.7 | 4.8 | 4.8 | 4.7 | 4.8 | 4.9 | 4.9 | 4.9 | 4.9 | 4.8 | 13.3 |
| Heating Oil | 3.7 | 3.3 | 2.7 | 2.4 | 2.1 | 1.9 | 1.7 | 1.7 | 1.5 | 1.2 | 3.2 |
| Aviation Jet | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.8 |
| LPG | 3.0 | 2.4 | 2.1 | 2.8 | 2.8 | 2.5 | 3.1 | 2.4 | 2.9 | 2.9 | 8.2 |
| **Imports** | **77.3** | **71.9** | **74.6** | **75.1** | **78.9** | **78.6** | **80.1** | **81.4** | **82.6** | **80.6** | **100.0** |
| Oil | 64.4 | 57.6 | 61.1 | 61.5 | 64.5 | 63.2 | 64.1 | 63.6 | 64.6 | 62.8 | 77.9 |
| Gas | 12.9 | 14.2 | 13.5 | 13.6 | 14.3 | 15.3 | 16.0 | 17.8 | 18.1 | 17.8 | 22.1 |
| Gasoline | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 |
| Diesel | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Heating Oil | 2.2 | 1.3 | 1.0 | 1.4 | 1.7 | 1.0 | 1.6 | 2.4 | 2.1 | 1.2 | 1.5 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.1 | 0.2 | 0.0 | 0.0 |
| LPG | 1.0 | 1.3 | 0.8 | 1.3 | 1.9 | 1.5 | 1.9 | 1.4 | 2.0 | 2.0 | 2.4 |
| **Exports** | **16.4** | **14.0** | **17.1** | **17.8** | **17.7** | **17.1** | **17.5** | **17.3** | **18.5** | **19.0** | **100.0** |
| Oil | 16.4 | 14.0 | 17.1 | 17.8 | 17.7 | 17.1 | 17.5 | 17.3 | 18.5 | 19.0 | 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 | 3.9 | 2.9 | 3.4 | 4.4 | 4.3 | 4.4 | 4.8 | 4.5 | 4.2 | 3.8 | 19.8 |
| Diesel | 8.9 | 7.9 | 9.6 | 10.2 | 10.1 | 9.3 | 9.2 | 8.5 | 9.7 | 9.2 | 48.5 |
| Heating Oil | 0.7 | 0.9 | 1.3 | 0.6 | 0.7 | 0.9 | 1.2 | 1.5 | 1.8 | 1.7 | 8.9 |
| Aviation Jet | 1.6 | 1.2 | 1.4 | 1.3 | 1.1 | 1.1 | 1.0 | 0.9 | 1.0 | 1.0 | 5.2 |
| LPG | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.2 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **268.4** | **268.5** | **259.2** | **262.8** | **266.6** | **267.1** | **272.2** | **284.1** | **288.7** | **280.3** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **578.8** | **557.8** | **527.6** | **523.5** | **510.4** | **507.2** | **509.7** | **517.1** | **511.4** | **483.4** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **105.2** | **104.9** | **99.2** | **100.3** | **97.5** | **96.0** | **97.0** | **94.1** | **89.1** | **86.1** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **238.9** | **227.3** | **216.9** | **215.7** | **211.1** | **207.2** | **205.4** | **200.4** | **199.2** | **189.2** | **-** |

*Heat is included

**Primary energy demand mix**



Biomass
1%

Nuclear
8%

Oil
36%

2019: 109.69 Mtoe

Coal
38%

Gas
16%

**Electricity generation by source**



■ Oil　■ Gas　■ Coal　■ Nuclear　■ Hydro　■ Biomass　■ Wind　■ Solar
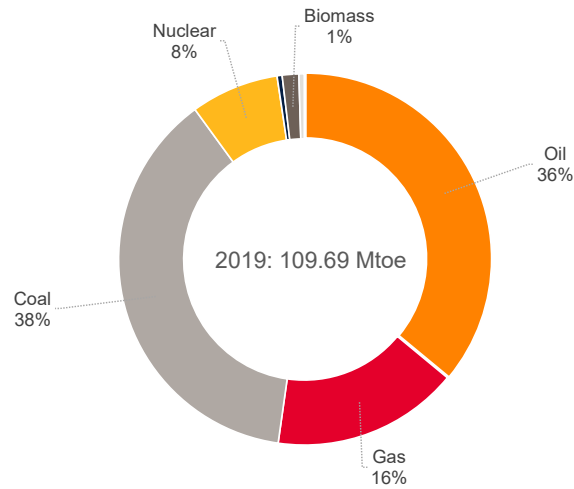
**Primary energy demand and CO$_2$ emissions growth**
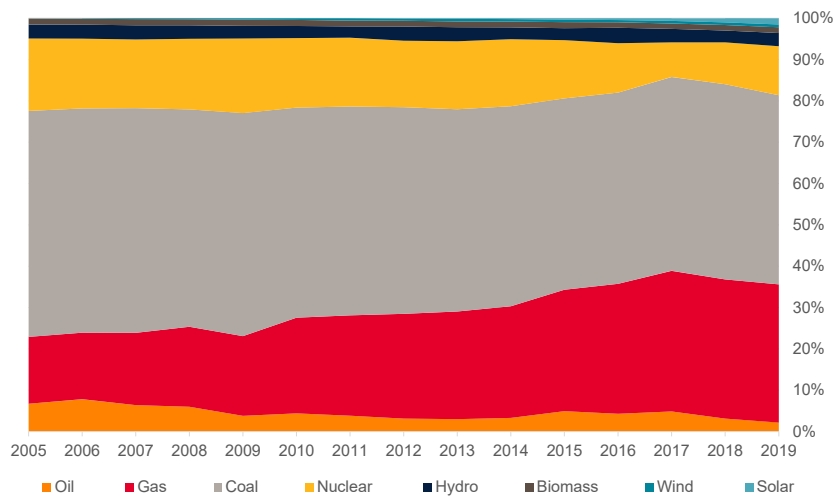


— Demand growth　　— Emissions growth
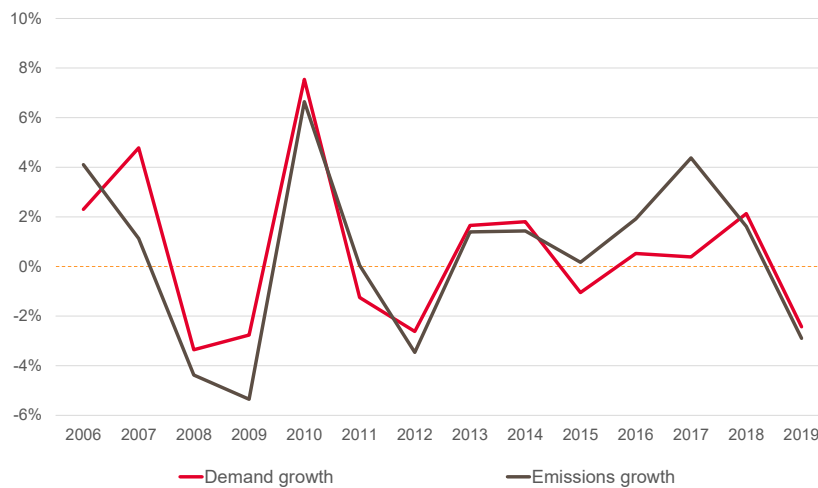
| Thailand<br>(Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **117.8** | **117.7** | **126.2** | **135.7** | **134.8** | **135.4** | **138.9** | **138.1** | **141.3** | **142.5** | **100.0** |
| Oil | 44.9 | 47.2 | 49.5 | 54.3 | 53.8 | 53.8 | 55.9 | 56.1 | 58.8 | 58.0 | 40.7 |
| Gas | 33.0 | 30.8 | 35.2 | 37.8 | 37.8 | 37.7 | 36.9 | 36.0 | 35.6 | 35.9 | 25.2 |
| Coal | 16.4 | 16.4 | 16.5 | 17.2 | 15.9 | 16.9 | 15.4 | 16.4 | 17.0 | 17.0 | 12.0 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.5 | 0.7 | 0.8 | 0.5 | 0.5 | 0.4 | 0.6 | 0.8 | 1.3 | 1.1 | 0.8 |
| Biomass | 22.6 | 21.8 | 23.5 | 24.7 | 25.7 | 25.3 | 28.2 | 26.3 | 25.8 | 27.8 | 19.5 |
| Other renewables | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.5 | 0.5 | 0.8 | 0.5 |
| Electricity balance of trade* | 0.5 | 0.8 | 0.7 | 1.0 | 0.9 | 1.1 | 1.6 | 2.0 | 2.2 | 2.0 | 1.4 |
| **Total final consumption, by source** | **84.9** | **85.7** | **91.9** | **95.9** | **96.7** | **98.1** | **97.2** | **99.0** | **105.5** | **107.8** | **100.0** |
| Oil | 43.8 | 45.4 | 48.3 | 51.8 | 51.8 | 51.9 | 53.5 | 53.8 | 57.0 | 57.8 | 53.7 |
| Gas | 4.6 | 5.8 | 6.1 | 7.1 | 7.4 | 7.2 | 7.2 | 7.0 | 7.3 | 7.1 | 6.6 |
| Coal | 9.2 | 7.5 | 7.8 | 7.3 | 6.4 | 8.2 | 6.1 | 7.5 | 9.6 | 9.9 | 9.2 |
| Electricity | 12.8 | 12.8 | 13.9 | 14.1 | 14.5 | 15.0 | 15.9 | 15.9 | 16.2 | 16.7 | 15.5 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 14.4 | 14.2 | 15.7 | 15.5 | 16.5 | 15.9 | 14.5 | 14.7 | 15.3 | 16.2 | 15.1 |
| **Electricity generation, by source** | **13.7** | **13.4** | **14.3** | **14.6** | **14.8** | **15.3** | **16.4** | **16.0** | **16.1** | **17.0** | **100.0** |
| Oil | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 |
| Gas | 10.3 | 9.2 | 10.1 | 10.1 | 10.2 | 10.9 | 10.7 | 10.3 | 10.2 | 10.9 | 64.3 |
| Coal | 2.6 | 3.0 | 2.9 | 3.2 | 3.2 | 3.0 | 3.2 | 3.1 | 2.7 | 2.6 | 15.5 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.5 | 0.7 | 0.8 | 0.5 | 0.5 | 0.4 | 0.6 | 0.8 | 1.3 | 1.1 | 6.4 |
| Biomass | 0.3 | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 1.6 | 1.3 | 1.4 | 1.6 | 9.1 |
| Wind | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 1.9 |
| Solar | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 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** | **84.9** | **85.7** | **91.9** | **95.9** | **96.7** | **98.1** | **97.2** | **99.0** | **105.5** | **107.8** | **100.0** |
| Industry | 26.5 | 25.1 | 28.2 | 28.4 | 30.6 | 31.2 | 29.8 | 29.8 | 32.7 | 33.7 | 31.3 |
| Transport | 19.9 | 21.1 | 22.4 | 22.7 | 22.4 | 23.8 | 25.2 | 27.3 | 27.7 | 28.7 | 26.6 |
| Residential/Comercial | 17.0 | 16.9 | 18.1 | 17.5 | 16.6 | 16.6 | 16.3 | 16.3 | 16.5 | 16.8 | 15.6 |
| **Oil final consumption, by sector** | **43.8** | **45.4** | **48.3** | **51.8** | **51.8** | **51.9** | **53.5** | **53.8** | **57.0** | **57.8** | **100.0** |
| Industry | 2.8 | 2.9 | 3.7 | 5.0 | 6.3 | 4.8 | 5.5 | 4.0 | 3.8 | 3.7 | 6.5 |
| Transport | 17.8 | 18.5 | 19.2 | 19.0 | 18.4 | 19.8 | 21.3 | 23.6 | 23.9 | 24.9 | 43.1 |
| Residential/Comercial | 2.9 | 3.1 | 3.6 | 2.8 | 2.6 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 4.3 |
| **Natural gas final consumption, by sector** | **4.6** | **5.8** | **6.1** | **7.1** | **7.4** | **7.2** | **7.2** | **7.0** | **7.3** | **7.1** | **100.0** |
| Industry | 2.0 | 2.2 | 2.4 | 2.4 | 2.5 | 3.0 | 3.3 | 3.3 | 3.6 | 3.7 | 51.4 |
| Transport | 1.5 | 1.9 | 2.3 | 2.5 | 2.6 | 2.5 | 2.3 | 2.0 | 1.8 | 1.6 | 22.1 |
| 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** | **43.4** | **45.0** | **47.8** | **51.6** | **51.7** | **51.3** | **52.9** | **53.2** | **56.5** | **57.2** | **100.0** |
| Gasoline | 5.2 | 5.2 | 5.4 | 5.5 | 5.6 | 6.3 | 7.0 | 7.1 | 7.4 | 7.6 | 13.3 |
| Diesel | 15.7 | 16.6 | 17.9 | 18.1 | 18.3 | 18.0 | 18.6 | 19.0 | 19.3 | 20.2 | 35.4 |
| Heating Oil | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 0.6 | 0.9 | 0.8 | 0.7 | 0.7 | 1.3 |
| Aviation Jet | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.8 |
| LPG | 6.8 | 7.9 | 8.6 | 8.7 | 8.7 | 7.7 | 7.1 | 7.3 | 8.2 | 7.7 | 13.5 |
| **Imports** | **53.0** | **52.7** | **56.9** | **59.9** | **57.8** | **62.8** | **62.8** | **66.1** | **70.3** | **67.6** | **100.0** |
| Oil | 44.8 | 43.9 | 47.9 | 50.4 | 49.0 | 50.8 | 51.2 | 53.7 | 57.7 | 55.1 | 81.5 |
| Gas | 8.2 | 8.8 | 9.0 | 9.5 | 8.8 | 12.0 | 11.6 | 12.4 | 12.6 | 12.5 | 18.5 |
| Gasoline | 0.0 | 0.0 | 0.3 | 0.2 | 0.7 | 0.6 | 1.2 | 1.3 | 1.2 | 1.7 | 2.5 |
| Diesel | 0.1 | 0.0 | 0.0 | 0.2 | 0.3 | 0.1 | 0.7 | 0.7 | 0.5 | 2.1 | 3.1 |
| Heating Oil | 0.1 | 0.3 | 0.3 | 0.3 | 0.4 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.3 | 0.5 |
| LPG | 1.9 | 1.7 | 2.0 | 2.3 | 2.5 | 1.6 | 0.5 | 0.8 | 0.8 | 0.5 | 0.7 |
| **Exports** | **12.8** | **11.6** | **14.2** | **14.3** | **12.6** | **14.1** | **12.9** | **14.1** | **14.8** | **11.6** | **100.0** |
| Oil | 12.8 | 11.6 | 14.2 | 14.3 | 12.6 | 14.1 | 12.9 | 14.1 | 14.8 | 11.6 | 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 | 1.0 | 0.7 | 1.2 | 1.2 | 1.0 | 1.1 | 1.1 | 1.2 | 1.3 | 0.9 | 7.9 |
| Diesel | 4.8 | 3.5 | 4.7 | 4.2 | 3.8 | 5.4 | 4.2 | 4.6 | 4.8 | 3.3 | 28.2 |
| Heating Oil | 3.1 | 3.3 | 3.7 | 3.6 | 3.6 | 3.5 | 3.1 | 3.3 | 3.3 | 3.1 | 26.2 |
| Aviation Jet | 1.1 | 1.0 | 0.6 | 1.2 | 1.0 | 1.2 | 0.4 | 0.6 | 0.8 | 0.7 | 5.7 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.5 | 0.4 | 3.1 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **235.4** | **235.0** | **252.1** | **263.9** | **259.8** | **263.8** | **260.1** | **260.2** | **268.8** | **271.4** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million $15ppp)** | **243.2** | **240.8** | **240.8** | **245.5** | **239.3** | **235.9** | **225.2** | **216.8** | **215.0** | **212.1** | **-** |
| **Final energy intensity (toe/million $15ppp)** | **69.1** | **68.4** | **69.2** | **67.6** | **67.9** | **67.5** | **64.3** | **63.4** | **63.8** | **64.2** | **-** |
| **Total energy intensity (toe/million $15ppp)** | **121.7** | **120.6** | **120.6** | **126.2** | **124.1** | **121.1** | **120.3** | **115.1** | **113.0** | **111.3** | **-** |

*Heat is included

**Primary energy demand mix**

Biomass
20%

Hydro
1%

Coal
12%

2019: 142.46 Mtoe

Oil
41%

Gas
25%

**Electricity generation by source**

Oil    Gas    Coal    Hydro    Biomass    Wind    Solar
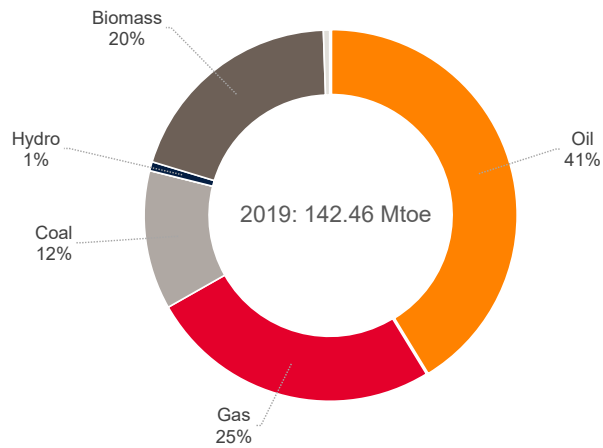
**Primary energy demand and CO$_2$ emissions growth**
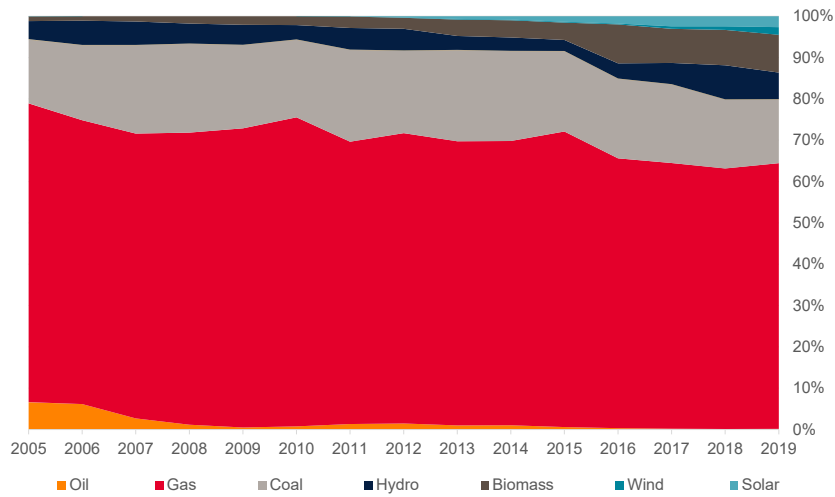
Demand growth          Emissions growth
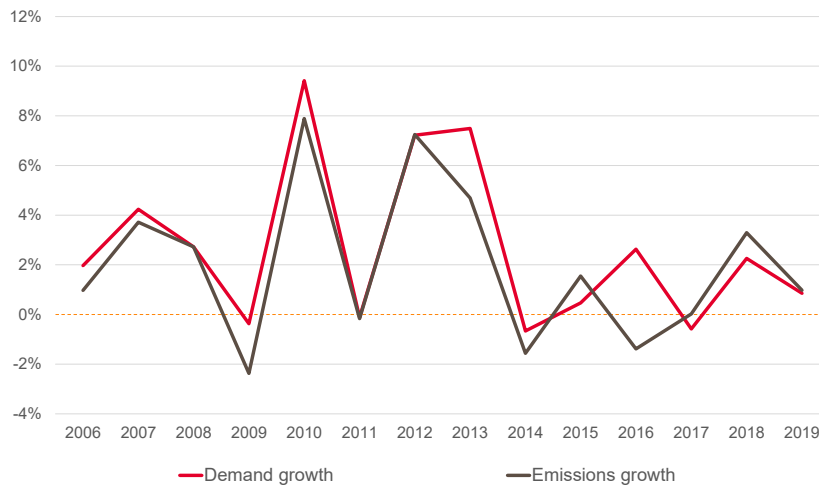
| Vietnam<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **58.6** | **58.8** | **59.7** | **61.5** | **68.9** | **73.0** | **77.2** | **78.0** | **83.5** | **91.9** | **100.0** |
| Oil | 18.3 | 17.0 | 16.0 | 15.9 | 19.2 | 18.0 | 19.5 | 19.8 | 22.5 | 23.5 | 25.5 |
| Gas | 8.1 | 7.6 | 8.3 | 8.5 | 9.1 | 8.8 | 8.8 | 7.8 | 7.9 | 8.1 | 8.8 |
| Coal | 14.7 | 15.6 | 15.8 | 17.2 | 19.9 | 26.8 | 28.5 | 28.2 | 36.7 | 45.6 | 49.6 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 2.4 | 3.5 | 4.5 | 4.5 | 5.1 | 4.9 | 5.7 | 7.7 | 7.2 | 5.6 | 6.1 |
| Biomass | 14.7 | 14.9 | 15.0 | 15.2 | 15.3 | 14.4 | 14.7 | 14.4 | 8.9 | 8.9 | 9.7 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 |
| Electricity balance of trade* | 0.4 | 0.3 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| **Total final consumption, by source** | **48.5** | **49.0** | **49.6** | **52.0** | **55.4** | **58.7** | **61.4** | **64.1** | **60.3** | **64.5** | **100.0** |
| Oil | 16.8 | 15.8 | 15.3 | 15.6 | 16.7 | 17.8 | 19.1 | 19.8 | 20.7 | 21.4 | 33.2 |
| Gas | 0.5 | 0.8 | 1.4 | 1.5 | 1.6 | 1.1 | 1.1 | 1.0 | 1.0 | 0.9 | 1.4 |
| Coal | 9.8 | 10.1 | 9.6 | 10.5 | 11.4 | 14.2 | 13.8 | 14.8 | 14.2 | 16.7 | 25.9 |
| Electricity | 7.5 | 8.1 | 9.1 | 10.0 | 11.0 | 12.1 | 13.5 | 14.9 | 16.3 | 17.4 | 27.0 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 13.9 | 14.1 | 14.2 | 14.4 | 14.5 | 13.6 | 13.9 | 13.6 | 8.1 | 8.1 | 12.5 |
| **Electricity generation, by source** | **8.2** | **9.0** | **10.1** | **10.4** | **11.9** | **14.0** | **15.7** | **17.1** | **20.7** | **22.5** | **100.0** |
| Oil | 0.3 | 0.2 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.1 | 0.0 | 0.1 | 0.5 |
| Gas | 3.8 | 3.3 | 3.4 | 3.5 | 3.7 | 4.1 | 4.0 | 3.5 | 3.6 | 3.8 | 16.8 |
| Coal | 1.7 | 1.9 | 2.1 | 2.3 | 3.0 | 4.9 | 5.9 | 5.8 | 9.8 | 12.9 | 57.1 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 2.4 | 3.5 | 4.5 | 4.5 | 5.1 | 4.9 | 5.7 | 7.7 | 7.2 | 5.6 | 24.9 |
| 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 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** | **48.5** | **49.0** | **49.6** | **52.0** | **55.4** | **58.7** | **61.4** | **64.1** | **60.3** | **64.5** | **100.0** |
| Industry | 17.4 | 18.2 | 18.7 | 19.8 | 21.8 | 31.8 | 33.4 | 34.4 | 31.5 | 34.5 | 53.5 |
| Transport | 10.3 | 10.1 | 10.0 | 9.8 | 10.0 | 12.4 | 13.3 | 13.9 | 13.4 | 13.9 | 21.5 |
| Residential/Comercial | 17.9 | 18.3 | 18.7 | 19.4 | 19.8 | 12.8 | 13.1 | 14.0 | 12.6 | 13.5 | 21.0 |
| **Oil final consumption, by sector** | **16.8** | **15.8** | **15.3** | **15.6** | **16.7** | **17.8** | **19.1** | **19.8** | **20.7** | **21.4** | **100.0** |
| Industry | 2.1 | 1.9 | 1.6 | 1.4 | 1.6 | 2.6 | 2.9 | 2.9 | 3.6 | 3.9 | 18.2 |
| Transport | 10.3 | 10.1 | 10.0 | 9.8 | 10.0 | 12.4 | 13.3 | 13.9 | 13.4 | 13.9 | 64.9 |
| Residential/Comercial | 1.6 | 1.6 | 1.5 | 1.5 | 1.6 | 1.7 | 1.9 | 1.9 | 1.8 | 1.9 | 8.9 |
| **Natural gas final consumption, by sector** | **0.5** | **0.8** | **1.4** | **1.5** | **1.6** | **1.1** | **1.1** | **1.0** | **1.0** | **0.9** | **100.0** |
| Industry | 0.5 | 0.8 | 1.4 | 1.5 | 1.6 | 1.1 | 1.1 | 1.0 | 1.0 | 0.9 | 99.5 |
| Transport | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 |
| 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** | **16.8** | **15.8** | **15.3** | **15.6** | **16.7** | **17.8** | **19.1** | **19.8** | **20.7** | **21.4** | **100.0** |
| Gasoline | 4.7 | 4.7 | 4.8 | 4.8 | 4.7 | 6.3 | 6.1 | 6.5 | 6.7 | 7.0 | 32.6 |
| Diesel | 7.1 | 7.0 | 6.7 | 6.2 | 6.7 | 7.9 | 9.1 | 9.4 | 9.9 | 10.2 | 47.8 |
| Heating Oil | 0.8 | 0.6 | 0.4 | 0.2 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.6 |
| Aviation Jet | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.6 | 0.7 | 0.7 | 0.8 | 0.8 | 3.7 |
| LPG | 1.4 | 1.4 | 1.4 | 1.5 | 1.5 | 2.1 | 2.2 | 2.3 | 1.7 | 2.0 | 9.2 |
| **Imports** | **12.5** | **13.4** | **11.7** | **10.7** | **12.6** | **12.2** | **14.2** | **16.4** | **18.9** | **19.8** | **100.0** |
| Oil | 12.5 | 13.4 | 11.7 | 10.7 | 12.6 | 12.2 | 14.2 | 16.4 | 18.9 | 19.8 | 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 | 2.1 | 3.1 | 3.0 | 2.4 | 2.6 | 2.8 | 2.6 | 3.3 | 2.1 | 2.1 | 10.5 |
| Diesel | 5.0 | 5.4 | 4.6 | 3.2 | 4.2 | 5.3 | 6.8 | 7.4 | 6.4 | 4.8 | 24.0 |
| Heating Oil | 1.8 | 1.5 | 0.8 | 0.7 | 0.7 | 0.7 | 0.9 | 0.6 | 0.7 | 0.8 | 4.2 |
| Aviation Jet | 0.9 | 1.0 | 1.0 | 1.2 | 1.2 | 1.4 | 1.6 | 1.8 | 2.1 | 2.1 | 10.5 |
| LPG | 0.8 | 0.8 | 0.7 | 0.8 | 0.8 | 1.2 | 1.3 | 1.5 | 0.9 | 0.9 | 4.8 |
| **Exports** | **9.7** | **10.6** | **11.1** | **9.8** | **10.6** | **10.6** | **8.4** | **8.6** | **5.7** | **5.9** | **100.0** |
| Oil | 9.7 | 10.6 | 11.1 | 9.8 | 10.6 | 10.6 | 8.4 | 8.6 | 5.7 | 5.9 | 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 | 0.3 | 0.4 | 0.4 | 0.2 | 0.2 | 0.3 | 0.2 | 0.3 | 0.2 | 0.2 | 3.7 |
| Diesel | 1.0 | 1.1 | 0.8 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 10.8 |
| Heating Oil | 0.2 | 0.3 | 0.3 | 0.2 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 7.9 |
| Aviation Jet | 0.1 | 0.4 | 0.2 | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.7 | 11.6 |
| LPG | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.3 | 5.6 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **127.5** | **127.0** | **126.3** | **132.2** | **146.6** | **183.2** | **194.3** | **192.0** | **228.3** | **267.6** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **300.6** | **281.8** | **266.3** | **264.3** | **276.5** | **324.0** | **323.4** | **299.2** | **332.3** | **363.9** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **109.0** | **104.8** | **101.1** | **99.1** | **98.5** | **102.6** | **101.2** | **98.9** | **85.6** | **86.0** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **138.1** | **130.5** | **125.9** | **122.9** | **129.9** | **129.2** | **128.6** | **121.5** | **121.5** | **125.0** | **-** |

*Heat is included*

**Primary energy demand mix**

Biomass
11%

Oil
27%

Hydro
9%

2019: 91.87 Mtoe

Gas
9%

Coal

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

Oil     Gas     Coal     Hydro

**Primary energy demand and CO$_2$ emissions growth**

30%
25%
20%
15%
10%
5%
0%
-5%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
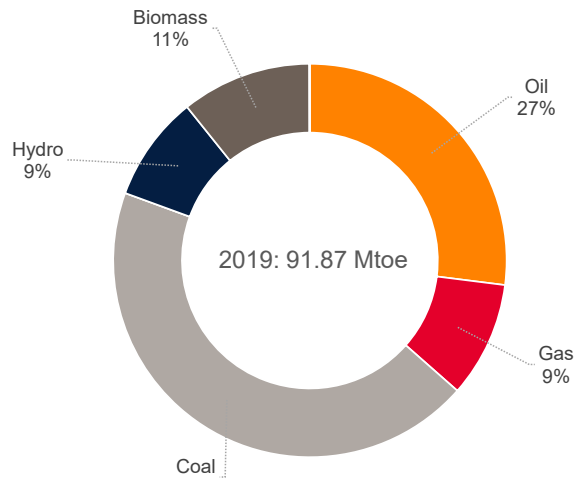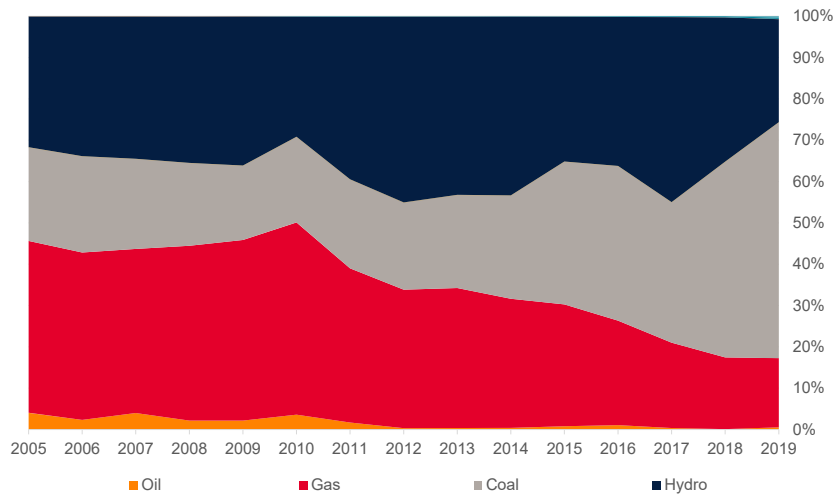
Demand growth     Emissions growth
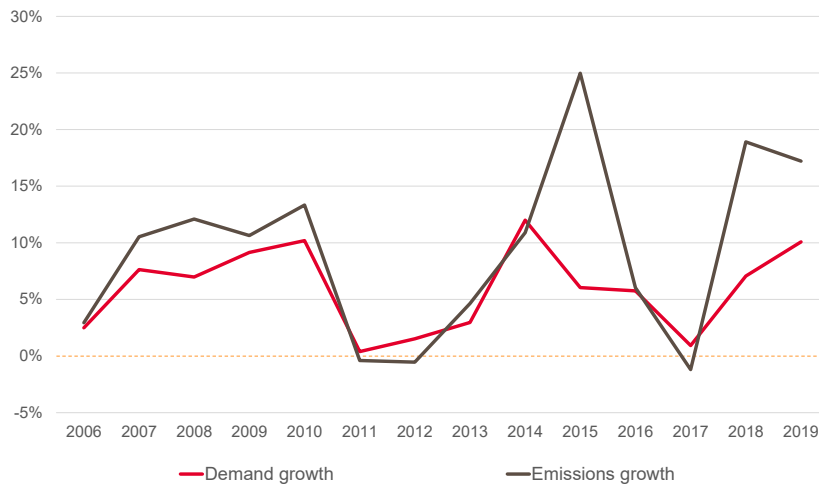
| Europe<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **1,926.3** | **1,868.6** | **1,858.5** | **1,840.0** | **1,778.5** | **1,808.3** | **1,826.4** | **1,858.2** | **1,839.6** | **1,809.8** | **100.0** |
| Oil | 632.2 | 610.9 | 589.7 | 577.3 | 572.0 | 585.1 | 592.5 | 606.0 | 592.9 | 591.8 | 32.7 |
| Gas | 490.3 | 450.6 | 441.3 | 435.5 | 393.9 | 408.2 | 431.7 | 452.8 | 443.9 | 449.8 | 24.9 |
| Coal | 330.6 | 339.2 | 345.8 | 334.9 | 316.6 | 313.4 | 296.3 | 290.1 | 279.6 | 237.5 | 13.1 |
| Nuclear | 245.7 | 243.3 | 236.6 | 235.3 | 235.6 | 229.4 | 224.3 | 221.5 | 222.2 | 218.5 | 12.1 |
| Hydro | 53.9 | 47.3 | 52.3 | 55.1 | 54.0 | 53.6 | 54.8 | 48.9 | 54.2 | 53.1 | 2.9 |
| Biomass | 142.0 | 139.3 | 149.6 | 153.5 | 154.0 | 159.3 | 164.3 | 168.6 | 170.9 | 175.1 | 9.7 |
| Other renewables | 15.2 | 20.1 | 24.5 | 28.6 | 31.2 | 36.6 | 37.4 | 43.7 | 46.6 | 52.6 | 2.9 |
| Electricity balance of trade* | 16.3 | 17.9 | 18.6 | 20.0 | 21.1 | 22.6 | 25.1 | 26.6 | 29.2 | 31.4 | 1.7 |
| **Total final consumption, by source** | **1,364.4** | **1,309.6** | **1,310.2** | **1,306.6** | **1,260.5** | **1,291.0** | **1,315.8** | **1,340.2** | **1,334.7** | **1,327.7** | **100.0** |
| Oil | 558.7 | 540.8 | 524.9 | 518.6 | 513.6 | 524.7 | 533.2 | 544.0 | 538.8 | 541.2 | 40.8 |
| Gas | 294.6 | 271.8 | 280.3 | 286.6 | 257.6 | 268.0 | 276.1 | 282.7 | 281.3 | 274.9 | 20.7 |
| Coal | 78.3 | 76.7 | 76.7 | 73.2 | 72.4 | 72.3 | 72.0 | 72.4 | 70.7 | 70.4 | 5.3 |
| Electricity | 279.8 | 276.4 | 278.1 | 276.6 | 271.2 | 275.9 | 279.9 | 283.0 | 284.2 | 279.9 | 21.1 |
| Heat | 60.5 | 56.4 | 57.7 | 57.8 | 54.0 | 55.1 | 57.2 | 57.8 | 57.4 | 56.6 | 4.3 |
| Biomass | 92.5 | 87.5 | 92.5 | 93.9 | 91.7 | 95.0 | 97.3 | 100.2 | 102.4 | 104.8 | 7.9 |
| **Electricity generation, by source** | **332.5** | **328.7** | **331.1** | **328.7** | **322.7** | **327.8** | **331.3** | **335.4** | **335.6** | **329.5** | **100.0** |
| Oil | 7.7 | 6.8 | 6.7 | 5.8 | 5.6 | 5.9 | 5.7 | 5.4 | 4.9 | 5.6 | 1.7 |
| Gas | 74.8 | 70.0 | 59.6 | 53.3 | 50.1 | 51.6 | 60.6 | 66.9 | 62.0 | 66.2 | 20.1 |
| Coal | 82.7 | 86.2 | 90.3 | 87.9 | 82.5 | 81.7 | 75.4 | 73.5 | 70.2 | 54.9 | 16.7 |
| Nuclear | 81.1 | 80.3 | 78.1 | 77.6 | 77.7 | 75.7 | 74.0 | 73.1 | 73.3 | 72.1 | 21.9 |
| Hydro | 56.8 | 50.1 | 55.3 | 58.0 | 56.9 | 56.5 | 57.7 | 52.0 | 57.0 | 55.7 | 16.9 |
| Biomass | 12.6 | 13.5 | 14.9 | 15.7 | 16.7 | 17.7 | 18.3 | 18.6 | 19.2 | 19.5 | 5.9 |
| Wind | 13.2 | 16.0 | 18.4 | 21.2 | 22.7 | 27.2 | 27.6 | 33.0 | 34.8 | 39.7 | 12.1 |
| Solar | 2.0 | 4.1 | 6.2 | 7.4 | 8.5 | 9.4 | 9.8 | 10.7 | 11.8 | 12.8 | 3.9 |
| Other renewables | 1.6 | 1.7 | 1.7 | 1.8 | 1.9 | 2.1 | 2.2 | 2.3 | 2.5 | 2.9 | 0.9 |
| **Total final consumption, by sector** | **1,364.4** | **1,309.6** | **1,310.2** | **1,306.6** | **1,260.5** | **1,291.0** | **1,315.8** | **1,340.2** | **1,334.7** | **1,327.7** | **100.0** |
| Industry | 329.1 | 328.6 | 323.6 | 320.4 | 317.8 | 318.9 | 320.5 | 332.3 | 333.9 | 329.8 | 24.8 |
| Transport | 351.1 | 348.2 | 341.5 | 339.6 | 344.7 | 353.7 | 363.5 | 370.4 | 374.6 | 376.6 | 28.4 |
| Residential/Comercial | 531.3 | 483.4 | 501.1 | 505.6 | 457.2 | 479.1 | 491.0 | 492.4 | 487.0 | 482.6 | 36.3 |
| **Oil final consumption, by sector** | **558.7** | **540.8** | **524.9** | **518.6** | **513.6** | **524.7** | **533.2** | **544.0** | **538.8** | **541.2** | **100.0** |
| Industry | 38.0 | 36.0 | 33.8 | 30.1 | 28.7 | 30.2 | 29.3 | 31.9 | 31.0 | 31.8 | 5.9 |
| Transport | 330.7 | 327.1 | 319.5 | 318.5 | 322.7 | 331.4 | 341.0 | 346.3 | 348.6 | 350.1 | 64.7 |
| Residential/Comercial | 68.1 | 59.4 | 58.5 | 59.7 | 52.5 | 53.9 | 53.2 | 52.6 | 51.4 | 51.4 | 9.5 |
| **Natural gas final consumption, by sector** | **294.6** | **271.8** | **280.3** | **286.6** | **257.6** | **268.0** | **276.1** | **282.7** | **281.3** | **274.9** | **100.0** |
| Industry | 93.0 | 91.9 | 91.3 | 92.8 | 90.7 | 89.1 | 89.5 | 94.9 | 95.7 | 93.3 | 33.9 |
| Transport | 1.3 | 1.3 | 1.5 | 1.6 | 1.4 | 2.0 | 2.0 | 1.9 | 2.0 | 1.9 | 0.7 |
| Residential/Comercial | 179.9 | 158.0 | 167.7 | 172.8 | 145.6 | 158.3 | 165.8 | 166.0 | 164.5 | 161.1 | 58.6 |
| **Refined products consumption** | **555.9** | **537.9** | **522.3** | **515.9** | **510.9** | **522.5** | **530.9** | **541.9** | **537.0** | **539.7** | **100.0** |
| Gasoline | 100.3 | 96.1 | 90.5 | 87.2 | 86.9 | 85.6 | 86.0 | 86.2 | 89.3 | 91.3 | 16.9 |
| Diesel | 299.5 | 292.8 | 288.8 | 289.8 | 286.8 | 297.5 | 304.2 | 310.0 | 308.0 | 307.2 | 56.9 |
| Heating Oil | 12.6 | 11.8 | 10.4 | 8.8 | 8.0 | 8.1 | 6.9 | 6.5 | 6.5 | 6.2 | 1.1 |
| Aviation Jet | 7.9 | 7.6 | 7.3 | 7.5 | 7.7 | 8.1 | 8.4 | 8.4 | 8.6 | 8.9 | 1.6 |
| LPG | 32.7 | 32.4 | 30.8 | 33.7 | 34.6 | 36.0 | 36.1 | 36.4 | 36.7 | 36.3 | 6.7 |
| **Imports** | **1,390.3** | **1,367.5** | **1,368.3** | **1,361.6** | **1,328.0** | **1,410.8** | **1,431.0** | **1,496.2** | **1,477.9** | **1,469.8** | **100.0** |
| Oil | 987.2 | 968.9 | 978.3 | 972.0 | 960.5 | 1,022.2 | 1,030.9 | 1,053.6 | 1,036.3 | 1,031.3 | 70.2 |
| Gas | 403.0 | 398.7 | 389.5 | 389.7 | 367.5 | 388.6 | 400.1 | 442.7 | 441.6 | 438.5 | 29.8 |
| Gasoline | 30.3 | 30.6 | 32.0 | 29.5 | 29.0 | 31.7 | 32.8 | 32.6 | 29.4 | 29.6 | 2.0 |
| Diesel | 135.1 | 134.6 | 136.1 | 145.1 | 140.5 | 153.6 | 163.1 | 161.3 | 155.6 | 151.6 | 10.3 |
| Heating Oil | 66.5 | 69.0 | 64.8 | 66.2 | 66.9 | 69.4 | 67.2 | 51.3 | 49.1 | 42.4 | 2.9 |
| Aviation Jet | 32.5 | 31.3 | 31.9 | 33.8 | 32.8 | 34.3 | 36.8 | 37.7 | 40.4 | 40.9 | 2.8 |
| LPG | 20.7 | 21.2 | 20.5 | 23.5 | 25.6 | 27.6 | 28.7 | 27.5 | 28.8 | 27.8 | 1.9 |
| **Exports** | **632.7** | **617.4** | **643.3** | **643.3** | **637.1** | **688.9** | **696.2** | **723.4** | **702.7** | **670.0** | **100.0** |
| Oil | 456.5 | 444.6 | 459.0 | 457.8 | 455.6 | 494.3 | 511.1 | 522.9 | 507.5 | 490.5 | 73.2 |
| Gas | 176.2 | 172.8 | 184.3 | 185.6 | 181.5 | 194.6 | 185.1 | 200.5 | 195.1 | 179.4 | 26.8 |
| Gasoline | 76.7 | 75.6 | 85.6 | 80.5 | 79.7 | 91.7 | 92.5 | 95.3 | 93.0 | 94.0 | 14.0 |
| Diesel | 92.2 | 93.9 | 103.5 | 103.6 | 101.5 | 109.4 | 114.8 | 117.5 | 105.1 | 103.9 | 15.5 |
| Heating Oil | 67.7 | 69.9 | 69.5 | 72.4 | 74.3 | 83.4 | 79.0 | 62.2 | 56.8 | 47.7 | 7.1 |
| Aviation Jet | 15.8 | 16.2 | 17.3 | 16.9 | 14.7 | 15.0 | 16.1 | 17.4 | 19.3 | 20.2 | 3.0 |
| LPG | 7.4 | 7.8 | 8.6 | 8.5 | 8.0 | 9.8 | 10.2 | 10.3 | 9.4 | 9.5 | 1.4 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **4,175.9** | **4,058.0** | **4,028.6** | **3,933.9** | **3,761.6** | **3,824.2** | **3,833.4** | **3,884.5** | **3,823.5** | **3,672.9** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **198.4** | **188.3** | **186.9** | **180.7** | **169.2** | **167.5** | **164.2** | **161.8** | **155.8** | **147.3** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **59.2** | **55.4** | **55.6** | **55.0** | **51.8** | **51.8** | **51.7** | **51.1** | **50.1** | **49.0** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **91.5** | **86.7** | **86.2** | **84.5** | **80.0** | **79.2** | **78.3** | **77.4** | **74.9** | **72.6** | **-** |

*Heat is included

## Primary energy demand mix



Other renewables
3%

Biomass
10%

Hydro
3%

Nuclear
12%

Coal
14%

Oil
33%

Gas
25%

2019: 1,809.81 Mtoe

## Electricity generation by source



Oil   Gas   Coal   Nuclear   Hydro   Biomass   Wind   Solar   Other renewables
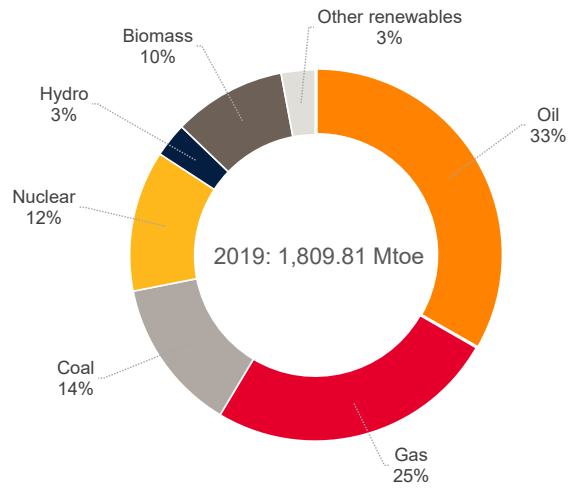
## Primary energy demand and CO$_2$ emissions growth
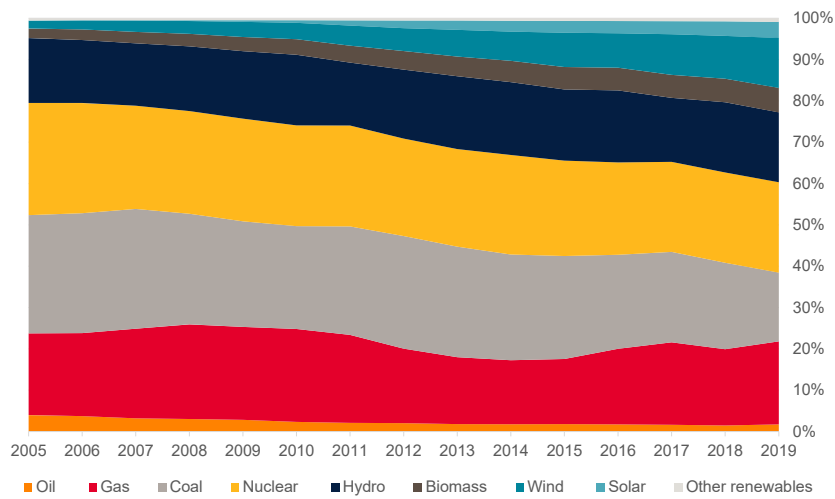


Demand growth     Emissions growth
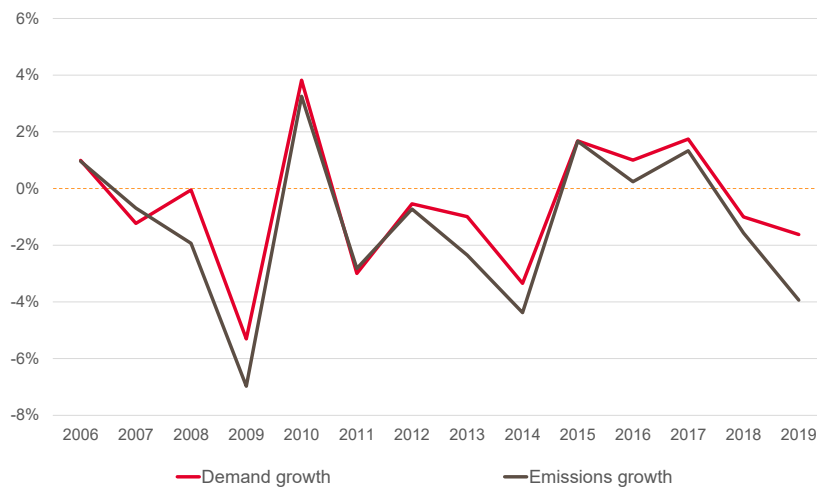
| **Belgium** _(Million toe)_ | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **Share in 2019 (%)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **59.8** | **56.0** | **53.5** | **55.6** | **52.6** | **52.5** | **55.6** | **55.2** | **52.8** | **54.8** | **100.0** |
| Oil | 23.1 | 21.3 | 20.3 | 21.3 | 22.0 | 22.0 | 21.4 | 21.2 | 20.9 | 20.2 | 36.8 |
| Gas | 16.7 | 14.4 | 14.4 | 14.5 | 12.7 | 14.0 | 14.3 | 14.5 | 14.8 | 15.2 | 27.7 |
| Coal | 3.8 | 3.5 | 3.2 | 3.5 | 3.3 | 3.4 | 3.2 | 3.1 | 3.1 | 3.0 | 5.6 |
| Nuclear | 12.5 | 12.6 | 10.5 | 11.1 | 8.8 | 6.8 | 11.3 | 11.0 | 7.4 | 11.4 | 20.7 |
| Hydro | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 3.4 | 3.5 | 3.6 | 3.6 | 3.4 | 3.6 | 3.8 | 3.8 | 3.7 | 3.6 | 6.6 |
| Other renewables | 0.2 | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 0.7 | 0.8 | 1.0 | 1.2 | 2.1 |
| Electricity balance of trade* | 0.1 | 0.3 | 1.0 | 1.1 | 1.8 | 2.1 | 0.8 | 0.8 | 1.8 | 0.2 | 0.4 |
| **Total final consumption, by source** | **43.1** | **40.3** | **40.6** | **42.6** | **40.9** | **41.9** | **42.3** | **41.7** | **41.9** | **41.3** | **100.0** |
| Oil | 20.7 | 19.4 | 19.4 | 20.2 | 20.1 | 20.5 | 20.1 | 19.4 | 19.3 | 18.6 | 45.0 |
| Gas | 10.9 | 9.6 | 9.9 | 10.6 | 9.2 | 9.9 | 10.2 | 10.5 | 10.7 | 10.9 | 26.4 |
| Coal | 2.1 | 2.1 | 1.9 | 2.1 | 2.2 | 2.2 | 2.4 | 2.4 | 2.4 | 2.3 | 5.6 |
| Electricity | 7.2 | 6.9 | 7.0 | 7.1 | 7.0 | 7.0 | 7.1 | 7.0 | 7.1 | 7.0 | 17.0 |
| Heat | 0.7 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 | 0.5 | 1.2 |
| Biomass | 1.7 | 1.6 | 1.7 | 1.9 | 1.8 | 1.8 | 2.0 | 2.0 | 2.0 | 2.0 | 4.8 |
| **Electricity generation, by source** | **8.2** | **7.8** | **7.1** | **7.2** | **6.2** | **6.0** | **7.4** | **7.4** | **6.4** | **8.1** | **100.0** |
| Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Gas | 2.7 | 2.2 | 2.0 | 1.8 | 1.7 | 1.9 | 1.9 | 2.0 | 2.0 | 2.2 | 27.3 |
| Coal | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 0.2 | 2.7 |
| Nuclear | 4.1 | 4.1 | 3.5 | 3.7 | 2.9 | 2.2 | 3.7 | 3.6 | 2.4 | 3.7 | 46.5 |
| Hydro | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.2 |
| Biomass | 0.5 | 0.5 | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 6.8 |
| Wind | 0.1 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.5 | 0.6 | 0.6 | 0.8 | 10.3 |
| Solar | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 4.3 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.7 |
| **Total final consumption, by sector** | **43.1** | **40.3** | **40.6** | **42.6** | **40.9** | **41.9** | **42.3** | **41.7** | **41.9** | **41.3** | **100.0** |
| Industry | 10.9 | 10.6 | 10.6 | 10.8 | 10.7 | 10.6 | 10.8 | 11.0 | 11.1 | 11.1 | 26.8 |
| Transport | 9.0 | 8.8 | 8.6 | 8.4 | 8.6 | 8.9 | 9.0 | 8.9 | 8.9 | 8.9 | 21.5 |
| Residential/Comercial | 14.4 | 12.3 | 12.8 | 13.9 | 11.7 | 12.8 | 12.9 | 12.6 | 12.7 | 12.7 | 30.8 |
| **Oil final consumption, by sector** | **20.7** | **19.4** | **19.4** | **20.2** | **20.1** | **20.5** | **20.1** | **19.4** | **19.3** | **18.6** | **100.0** |
| Industry | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 2.1 |
| Transport | 8.4 | 8.3 | 8.1 | 7.9 | 8.0 | 8.5 | 8.5 | 8.3 | 8.3 | 8.2 | 44.3 |
| Residential/Comercial | 4.1 | 3.5 | 3.4 | 3.8 | 3.0 | 3.6 | 3.3 | 3.3 | 3.2 | 3.1 | 16.8 |
| **Natural gas final consumption, by sector** | **10.9** | **9.6** | **9.9** | **10.6** | **9.2** | **9.9** | **10.2** | **10.5** | **10.7** | **10.9** | **100.0** |
| Industry | 3.8 | 3.7 | 3.8 | 3.8 | 3.7 | 3.7 | 3.8 | 4.0 | 4.1 | 4.2 | 38.2 |
| 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 | 5.9 | 4.7 | 5.0 | 5.7 | 4.5 | 4.9 | 5.3 | 5.1 | 5.2 | 5.3 | 49.0 |
| **Refined products consumption** | **20.7** | **19.4** | **19.4** | **20.2** | **20.1** | **20.5** | **20.1** | **19.4** | **19.3** | **18.6** | **100.0** |
| Gasoline | 1.3 | 1.2 | 1.2 | 1.2 | 1.3 | 1.4 | 1.5 | 1.5 | 1.6 | 1.8 | 9.9 |
| Diesel | 11.6 | 10.8 | 10.6 | 10.8 | 10.0 | 10.9 | 10.5 | 10.3 | 10.0 | 9.7 | 52.1 |
| Heating Oil | 0.4 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 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 | 0.2 |
| LPG | 1.3 | 1.5 | 1.6 | 1.7 | 2.0 | 2.0 | 1.7 | 1.7 | 2.0 | 2.1 | 11.5 |
| **Imports** | **76.3** | **72.0** | **69.8** | **72.2** | **72.4** | **75.2** | **73.8** | **78.4** | **80.4** | **80.2** | **100.0** |
| Oil | 56.8 | 54.2 | 54.6 | 56.9 | 58.8 | 59.8 | 58.8 | 63.5 | 64.4 | 63.5 | 79.2 |
| Gas | 19.5 | 17.8 | 15.3 | 15.3 | 13.6 | 15.3 | 15.0 | 14.9 | 16.0 | 16.7 | 20.8 |
| Gasoline | 1.1 | 1.4 | 1.0 | 0.7 | 0.9 | 1.3 | 1.5 | 0.9 | 1.6 | 1.4 | 1.7 |
| Diesel | 7.5 | 8.3 | 8.0 | 12.3 | 10.0 | 10.9 | 11.3 | 10.8 | 10.1 | 8.1 | 10.1 |
| Heating Oil | 5.3 | 4.7 | 4.2 | 5.0 | 3.5 | 3.7 | 3.9 | 4.8 | 4.9 | 5.5 | 6.9 |
| Aviation Jet | 1.8 | 1.9 | 2.2 | 1.6 | 1.0 | 0.8 | 0.5 | 1.5 | 1.7 | 1.5 | 1.8 |
| LPG | 1.9 | 2.0 | 1.8 | 1.9 | 2.0 | 2.1 | 1.8 | 1.8 | 1.9 | 1.9 | 2.3 |
| **Exports** | **27.0** | **27.8** | **28.1** | **28.3** | **30.6** | **30.9** | **30.2** | **34.7** | **34.9** | **34.2** | **100.0** |
| Oil | 24.2 | 24.5 | 27.0 | 27.5 | 29.8 | 29.5 | 29.6 | 34.1 | 33.7 | 33.0 | 96.7 |
| Gas | 2.8 | 3.4 | 1.1 | 0.8 | 0.7 | 1.4 | 0.6 | 0.6 | 1.1 | 1.1 | 3.3 |
| Gasoline | 5.0 | 4.4 | 4.7 | 4.1 | 4.4 | 5.4 | 5.4 | 4.9 | 4.4 | 4.7 | 13.8 |
| Diesel | 6.7 | 8.0 | 9.7 | 11.2 | 12.0 | 11.0 | 11.9 | 12.5 | 11.9 | 10.7 | 31.2 |
| Heating Oil | 3.7 | 4.1 | 3.8 | 4.6 | 4.3 | 4.5 | 4.0 | 6.0 | 5.5 | 4.2 | 12.3 |
| Aviation Jet | 1.8 | 1.6 | 2.7 | 1.7 | 1.4 | 0.9 | 0.8 | 1.8 | 1.6 | 2.2 | 6.5 |
| LPG | 1.1 | 1.0 | 0.8 | 0.8 | 0.7 | 0.8 | 0.9 | 0.9 | 0.7 | 0.7 | 2.1 |
| **$CO_2$ Emissions _(Million tons $CO_2$)_** | **109.2** | **98.8** | **97.6** | **98.7** | **92.4** | **97.0** | **95.9** | **95.1** | **97.6** | **98.0** | **-** |
| **$CO_2$ Intensity _(t$CO_2$/million $15ppp)_** | **223.7** | **198.8** | **196.0** | **197.9** | **182.9** | **188.7** | **183.8** | **179.3** | **181.4** | **179.7** | **-** |
| **Final energy intensity _(toe/million $15ppp)_** | **71.9** | **65.3** | **65.5** | **68.0** | **62.6** | **64.3** | **64.3** | **62.7** | **62.2** | **61.3** | **-** |
| **Total energy intensity _(toe/million $15ppp)_** | **122.6** | **112.7** | **107.4** | **111.5** | **104.1** | **102.1** | **106.6** | **104.2** | **98.2** | **100.4** | **-** |

_*Heat is included_

**Primary energy demand mix**



Biomass
7%

Other renewables
2%

Nuclear
21%

Oil
37%

2019: 54.75 Mtoe

Coal
5%

Gas
28%

**Electricity generation by source**



Oil    Gas    Coal    Nuclear    Hydro    Biomass    Wind    Solar    Other renewables
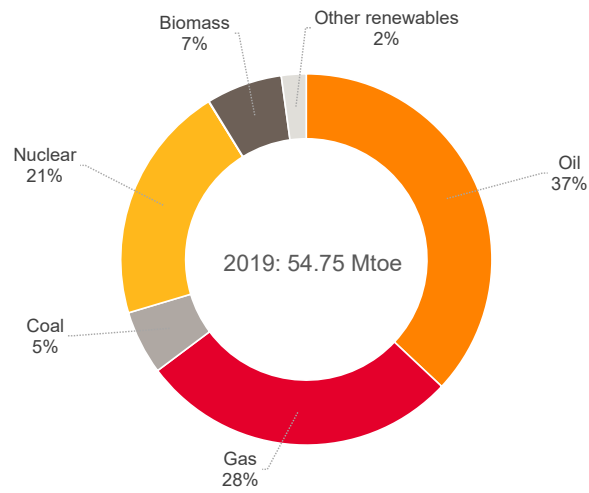
**Primary energy demand and CO$_2$ emissions growth**
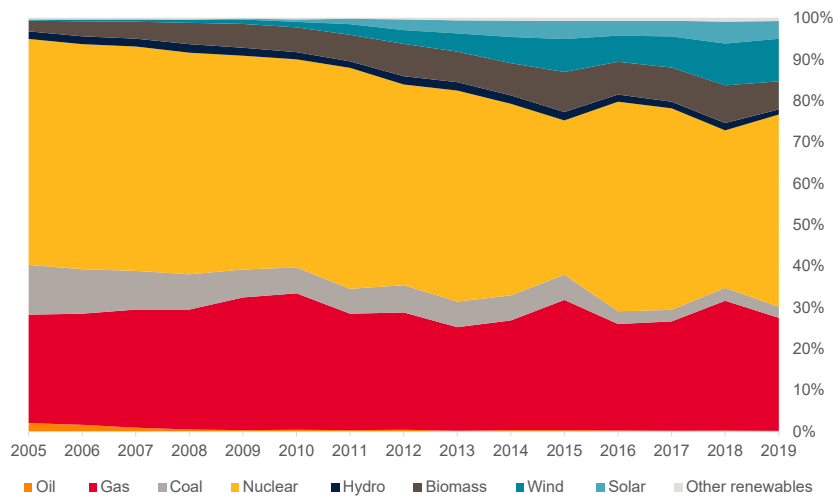


Demand growth          Emissions growth
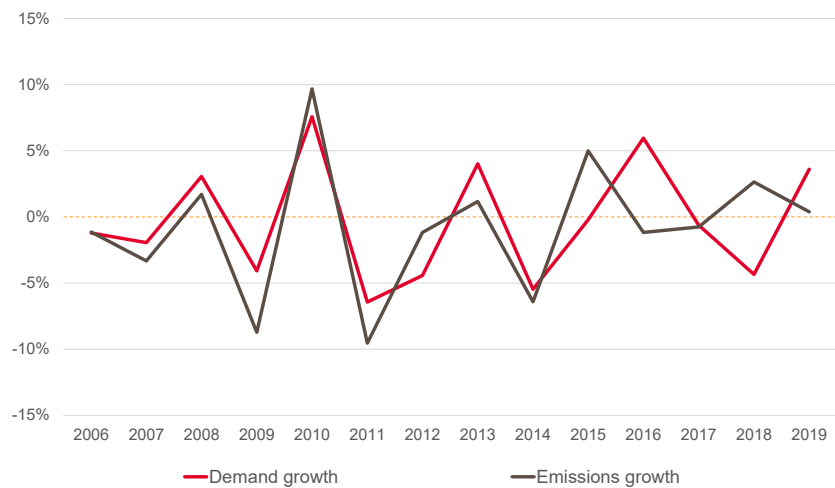
| Czech Republic (Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **45.1** | **43.5** | **43.2** | **43.2** | **41.9** | **42.0** | **41.5** | **43.3** | **43.4** | **43.1** | **100.0** |
| Oil | 9.0 | 8.7 | 8.6 | 8.3 | 8.8 | 8.6 | 8.0 | 9.3 | 9.5 | 9.5 | 22.1 |
| Gas | 8.1 | 6.8 | 6.9 | 6.9 | 6.2 | 6.5 | 7.0 | 7.2 | 6.9 | 7.2 | 16.6 |
| Coal | 18.7 | 18.4 | 17.4 | 17.1 | 16.0 | 16.4 | 16.5 | 15.8 | 15.7 | 14.7 | 34.1 |
| Nuclear | 7.3 | 7.4 | 7.9 | 8.0 | 7.9 | 7.0 | 6.3 | 7.4 | 7.8 | 7.9 | 18.3 |
| Hydro | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.4 |
| Biomass | 3.0 | 3.3 | 3.5 | 3.8 | 4.0 | 4.1 | 4.2 | 4.3 | 4.4 | 4.5 | 10.4 |
| Other renewables | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.6 |
| Electricity balance of trade* | -1.3 | -1.4 | -1.5 | -1.4 | -1.4 | -1.0 | -0.9 | -1.1 | -1.2 | -1.1 | -2.5 |
| **Total final consumption, by source** | **27.7** | **26.7** | **26.8** | **26.6** | **26.1** | **26.3** | **26.3** | **28.0** | **27.9** | **27.9** | **100.0** |
| Oil | 8.6 | 8.3 | 8.3 | 8.0 | 8.5 | 8.3 | 7.7 | 9.1 | 9.2 | 9.3 | 33.2 |
| Gas | 6.1 | 5.5 | 5.4 | 5.4 | 4.9 | 5.1 | 5.4 | 5.6 | 5.3 | 5.1 | 18.3 |
| Coal | 3.5 | 3.5 | 3.5 | 3.5 | 3.3 | 3.2 | 3.2 | 3.3 | 3.3 | 3.4 | 12.3 |
| Electricity | 4.7 | 4.6 | 4.6 | 4.6 | 4.6 | 4.7 | 4.8 | 4.9 | 4.9 | 5.0 | 17.8 |
| Heat | 2.4 | 2.3 | 2.3 | 2.3 | 2.0 | 2.0 | 2.1 | 2.2 | 2.0 | 1.9 | 7.0 |
| Biomass | 2.4 | 2.5 | 2.6 | 2.7 | 2.9 | 2.9 | 3.0 | 3.0 | 3.2 | 3.2 | 11.5 |
| **Electricity generation, by source** | **7.4** | **7.5** | **7.5** | **7.5** | **7.4** | **7.2** | **7.2** | **7.5** | **7.6** | **7.5** | **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 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.5 | 6.2 |
| Coal | 4.1 | 4.1 | 3.8 | 3.6 | 3.6 | 3.6 | 3.7 | 3.6 | 3.6 | 3.2 | 42.9 |
| Nuclear | 2.4 | 2.4 | 2.6 | 2.6 | 2.6 | 2.3 | 2.1 | 2.4 | 2.6 | 2.6 | 34.8 |
| Hydro | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 3.6 |
| Biomass | 0.2 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 5.9 |
| Wind | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.8 |
| Solar | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 2.6 |
| Other renewables | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 3.1 |
| **Total final consumption, by sector** | **27.7** | **26.7** | **26.8** | **26.6** | **26.1** | **26.3** | **26.3** | **28.0** | **27.9** | **27.9** | **100.0** |
| Industry | 7.8 | 7.7 | 7.7 | 7.4 | 7.3 | 7.4 | 7.4 | 7.6 | 7.5 | 7.5 | 26.9 |
| Transport | 5.8 | 5.8 | 5.7 | 5.7 | 5.9 | 6.1 | 6.4 | 6.6 | 6.6 | 6.6 | 23.8 |
| Residential/Comercial | 10.7 | 10.0 | 10.2 | 10.3 | 9.5 | 9.7 | 10.1 | 10.3 | 10.2 | 10.1 | 36.0 |
| **Oil final consumption, by sector** | **8.6** | **8.3** | **8.3** | **8.0** | **8.5** | **8.3** | **7.7** | **9.1** | **9.2** | **9.3** | **100.0** |
| Industry | 0.4 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 1.5 |
| Transport | 5.4 | 5.4 | 5.3 | 5.2 | 5.4 | 5.6 | 5.9 | 6.0 | 6.1 | 6.1 | 66.0 |
| Residential/Comercial | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.8 |
| **Natural gas final consumption, by sector** | **6.1** | **5.5** | **5.4** | **5.4** | **4.9** | **5.1** | **5.4** | **5.6** | **5.3** | **5.1** | **100.0** |
| Industry | 2.2 | 2.0 | 2.0 | 2.1 | 1.9 | 2.0 | 2.0 | 2.1 | 2.0 | 1.9 | 38.2 |
| Transport | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 1.0 |
| Residential/Comercial | 3.7 | 3.3 | 3.2 | 3.2 | 2.8 | 2.9 | 3.2 | 3.3 | 3.1 | 3.0 | 58.1 |
| **Refined products consumption** | **8.6** | **8.3** | **8.3** | **8.0** | **8.5** | **8.3** | **7.7** | **9.1** | **9.2** | **9.3** | **100.0** |
| Gasoline | 1.9 | 1.8 | 1.7 | 1.6 | 1.5 | 1.6 | 1.6 | 1.6 | 1.6 | 1.6 | 17.1 |
| Diesel | 3.9 | 3.9 | 3.9 | 4.0 | 4.1 | 4.4 | 4.6 | 4.7 | 4.8 | 4.8 | 51.9 |
| Heating Oil | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| LPG | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.5 | 0.5 | 0.5 | 5.4 |
| **Imports** | **17.6** | **17.9** | **16.3** | **17.0** | **16.8** | **17.3** | **17.0** | **19.1** | **18.5** | **19.7** | **100.0** |
| Oil | 10.6 | 10.2 | 10.2 | 10.0 | 10.9 | 11.2 | 10.3 | 11.8 | 11.9 | 11.9 | 60.3 |
| Gas | 7.0 | 7.6 | 6.1 | 7.0 | 6.0 | 6.2 | 6.7 | 7.3 | 6.6 | 7.8 | 39.7 |
| Gasoline | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.8 | 0.6 | 0.7 | 0.6 | 2.9 |
| Diesel | 1.2 | 1.6 | 1.5 | 1.7 | 1.8 | 2.2 | 2.8 | 2.1 | 2.4 | 2.2 | 11.0 |
| Heating Oil | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Aviation Jet | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.3 | 0.2 | 0.3 | 0.3 | 1.3 |
| LPG | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 1.2 |
| **Exports** | **1.8** | **1.7** | **1.7** | **1.8** | **2.0** | **2.4** | **2.2** | **2.4** | **2.2** | **2.2** | **100.0** |
| Oil | 1.6 | 1.6 | 1.7 | 1.8 | 2.0 | 2.4 | 2.2 | 2.4 | 2.2 | 2.2 | 100.0 |
| Gas | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gasoline | 0.3 | 0.3 | 0.3 | 0.3 | 0.5 | 0.6 | 0.4 | 0.6 | 0.6 | 0.6 | 26.3 |
| Diesel | 0.7 | 0.6 | 0.7 | 0.7 | 0.9 | 1.1 | 0.8 | 0.9 | 0.8 | 0.8 | 36.7 |
| Heating Oil | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 5.1 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| LPG | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.1 | 0.1 | 0.2 | 7.2 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **113.7** | **110.1** | **106.7** | **102.6** | **100.0** | **100.9** | **102.3** | **103.8** | **102.7** | **99.7** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million \$15ppp)** | **347.7** | **330.9** | **323.3** | **312.5** | **296.4** | **284.0** | **281.1** | **273.3** | **262.9** | **248.8** | **-** |
| **Final energy intensity (toe/million \$15ppp)** | **76.2** | **72.3** | **73.0** | **72.8** | **68.9** | **67.2** | **67.3** | **66.1** | **63.7** | **62.1** | **-** |
| **Total energy intensity (toe/million \$15ppp)** | **137.9** | **130.7** | **130.9** | **131.5** | **124.3** | **118.2** | **113.9** | **114.0** | **111.2** | **107.7** | **-** |

*Heat is included

**Primary energy demand mix**



Biomass
10%

Other renewables
1%

Oil
22%

Nuclear
18%

2019: 43.15 Mtoe

Gas
16%

Coal
33%

**Electricity generation by source**



Oil    Gas    Coal    Nuclear    Hydro    Biomass    Wind    Solar    Other renewables
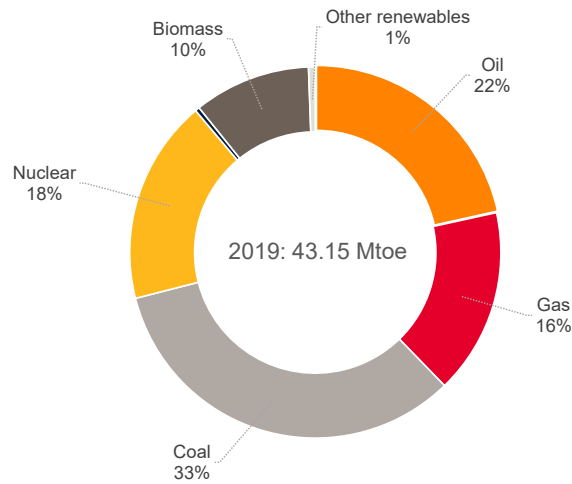
**Primary energy demand and CO$_2$ emissions growth**
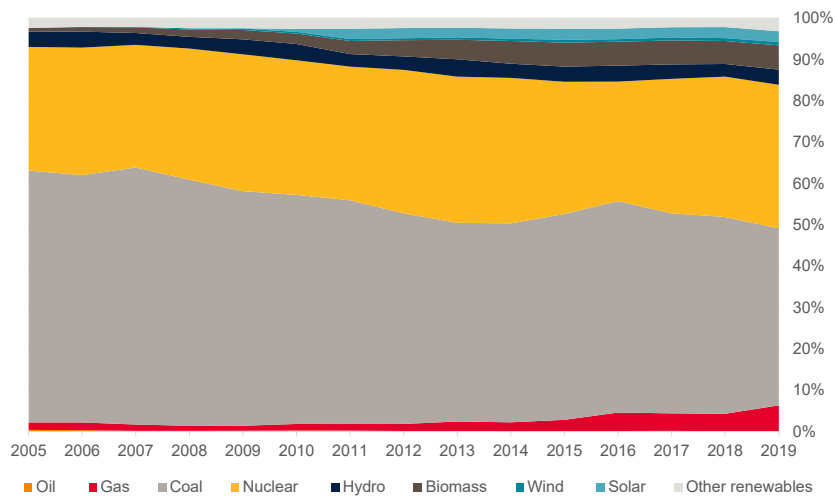


Demand growth          Emissions growth
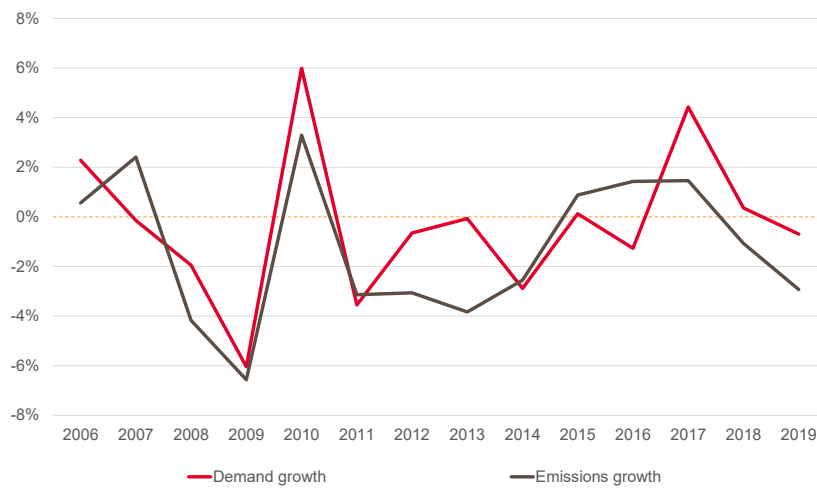
| Finland<br>(Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **36.8** | **35.4** | **34.2** | **33.7** | **34.3** | **32.6** | **34.1** | **33.7** | **34.2** | **34.5** | **100.0** |
| Oil | 9.7 | 9.4 | 8.8 | 7.9 | 8.9 | 8.0 | 8.7 | 8.3 | 8.2 | 9.0 | 26.2 |
| Gas | 3.8 | 3.4 | 3.0 | 2.9 | 2.5 | 2.2 | 2.1 | 1.9 | 2.2 | 2.1 | 6.1 |
| Coal | 6.9 | 6.0 | 4.6 | 5.1 | 4.5 | 4.1 | 4.5 | 4.1 | 4.2 | 3.4 | 9.9 |
| Nuclear | 5.9 | 6.0 | 6.0 | 6.2 | 6.1 | 6.1 | 6.0 | 5.9 | 5.9 | 6.2 | 18.0 |
| Hydro | 1.1 | 1.1 | 1.4 | 1.1 | 1.2 | 1.4 | 1.4 | 1.3 | 1.1 | 1.1 | 3.1 |
| Biomass | 8.4 | 8.2 | 8.7 | 8.9 | 9.3 | 9.1 | 9.3 | 9.8 | 10.1 | 10.3 | 29.7 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.5 | 1.5 |
| Electricity balance of trade* | 1.0 | 1.3 | 1.6 | 1.5 | 1.7 | 1.5 | 1.8 | 1.9 | 1.9 | 1.9 | 5.4 |
| **Total final consumption, by source** | **26.7** | **25.3** | **25.5** | **25.4** | **25.3** | **24.8** | **25.9** | **25.9** | **26.4** | **25.9** | **100.0** |
| Oil | 8.2 | 7.7 | 7.6 | 7.9 | 7.5 | 7.2 | 7.8 | 7.4 | 7.5 | 7.2 | 27.6 |
| Gas | 0.8 | 0.8 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 2.9 |
| Coal | 1.1 | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 0.9 | 1.0 | 1.0 | 3.7 |
| Electricity | 7.2 | 6.9 | 6.9 | 6.9 | 6.8 | 6.8 | 7.0 | 7.0 | 7.1 | 7.0 | 27.0 |
| Heat | 4.6 | 4.1 | 4.3 | 4.1 | 4.0 | 3.8 | 4.1 | 4.0 | 4.0 | 3.9 | 15.0 |
| Biomass | 4.9 | 4.8 | 5.0 | 5.0 | 5.5 | 5.4 | 5.5 | 5.9 | 6.1 | 6.2 | 23.7 |
| **Electricity generation, by source** | **6.9** | **6.3** | **6.1** | **6.1** | **5.9** | **5.9** | **5.9** | **5.8** | **6.0** | **5.9** | **100.0** |
| Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.4 |
| Gas | 1.0 | 0.8 | 0.6 | 0.6 | 0.5 | 0.4 | 0.3 | 0.3 | 0.4 | 0.3 | 5.6 |
| Coal | 1.8 | 1.4 | 1.0 | 1.2 | 1.0 | 0.8 | 0.9 | 0.8 | 0.9 | 0.7 | 12.2 |
| Nuclear | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 2.0 | 1.9 | 2.0 | 2.1 | 34.8 |
| Hydro | 1.1 | 1.1 | 1.4 | 1.1 | 1.2 | 1.4 | 1.4 | 1.3 | 1.1 | 1.1 | 18.1 |
| Biomass | 1.0 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 1.1 | 19.5 |
| Wind | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 0.5 | 8.7 |
| 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 | 0.4 |
| **Total final consumption, by sector** | **26.7** | **25.3** | **25.5** | **25.4** | **25.3** | **24.8** | **25.9** | **25.9** | **26.4** | **25.9** | **100.0** |
| Industry | 11.1 | 10.9 | 10.7 | 10.6 | 10.6 | 10.5 | 10.9 | 11.1 | 11.6 | 11.4 | 43.8 |
| Transport | 4.5 | 4.5 | 4.4 | 4.3 | 4.2 | 4.2 | 4.3 | 4.3 | 4.3 | 4.3 | 16.7 |
| Residential/Comercial | 8.9 | 7.9 | 8.4 | 8.0 | 7.9 | 7.6 | 8.2 | 8.1 | 8.1 | 8.0 | 31.0 |
| **Oil final consumption, by sector** | **8.2** | **7.7** | **7.6** | **7.9** | **7.5** | **7.2** | **7.8** | **7.4** | **7.5** | **7.2** | **100.0** |
| Industry | 1.3 | 1.3 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.1 | 15.1 |
| Transport | 4.3 | 4.2 | 4.1 | 4.0 | 3.6 | 3.6 | 4.0 | 3.8 | 3.9 | 3.9 | 53.7 |
| Residential/Comercial | 0.8 | 0.7 | 0.7 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.5 | 0.5 | 7.3 |
| **Natural gas final consumption, by sector** | **0.8** | **0.8** | **0.7** | **0.7** | **0.7** | **0.6** | **0.6** | **0.7** | **0.7** | **0.7** | **100.0** |
| Industry | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 0.5 | 0.6 | 75.8 |
| 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 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 7.1 |
| **Refined products consumption** | **8.2** | **7.7** | **7.6** | **7.9** | **7.5** | **7.2** | **7.8** | **7.4** | **7.5** | **7.2** | **100.0** |
| Gasoline | 1.7 | 1.6 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.4 | 1.4 | 1.3 | 18.8 |
| Diesel | 4.2 | 4.0 | 4.1 | 3.9 | 3.6 | 3.6 | 4.0 | 3.8 | 3.8 | 3.8 | 53.1 |
| Heating Oil | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 3.8 |
| Aviation Jet | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.7 |
| LPG | 0.5 | 0.5 | 0.5 | 1.1 | 1.2 | 1.1 | 1.1 | 1.0 | 1.2 | 0.8 | 11.5 |
| **Imports** | **20.1** | **20.8** | **19.7** | **21.3** | **20.5** | **18.7** | **20.5** | **19.9** | **20.1** | **20.6** | **100.0** |
| Oil | 16.3 | 17.4 | 16.7 | 18.5 | 18.0 | 16.5 | 18.4 | 17.9 | 18.0 | 18.5 | 89.8 |
| Gas | 3.8 | 3.4 | 3.0 | 2.9 | 2.5 | 2.2 | 2.1 | 1.9 | 2.2 | 2.1 | 10.2 |
| Gasoline | 0.0 | 0.0 | 0.1 | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 3.1 |
| Diesel | 1.9 | 2.5 | 2.4 | 3.1 | 2.2 | 1.8 | 2.0 | 1.8 | 1.6 | 1.6 | 7.9 |
| Heating Oil | 0.7 | 0.7 | 0.8 | 0.8 | 1.2 | 1.1 | 1.2 | 0.9 | 0.4 | 0.6 | 2.8 |
| Aviation Jet | 0.1 | 0.1 | 0.2 | 0.1 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 1.3 |
| LPG | 0.3 | 0.3 | 0.3 | 0.8 | 0.9 | 0.9 | 0.8 | 0.8 | 0.9 | 0.8 | 4.0 |
| **Exports** | **6.9** | **7.3** | **7.7** | **9.2** | **8.7** | **7.0** | **9.2** | **9.2** | **9.0** | **9.0** | **100.0** |
| Oil | 6.9 | 7.3 | 7.7 | 9.2 | 8.7 | 7.0 | 9.2 | 9.2 | 9.0 | 9.0 | 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 | 2.4 | 2.6 | 2.6 | 3.3 | 3.3 | 2.5 | 3.1 | 3.3 | 3.2 | 3.5 | 39.1 |
| Diesel | 3.0 | 2.9 | 3.2 | 4.1 | 3.7 | 3.0 | 3.9 | 3.8 | 3.6 | 3.8 | 42.8 |
| Heating Oil | 0.7 | 0.9 | 1.0 | 1.0 | 0.8 | 0.7 | 1.3 | 1.1 | 1.1 | 0.5 | 5.0 |
| Aviation Jet | 0.0 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **64.0** | **56.3** | **50.8** | **51.8** | **47.7** | **44.4** | **47.7** | **45.0** | **46.4** | **42.5** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million \$15ppp)** | **275.5** | **236.4** | **216.3** | **222.7** | **205.7** | **190.4** | **199.4** | **182.7** | **185.0** | **167.6** | **-** |
| **Final energy intensity (toe/million \$15ppp)** | **109.7** | **101.4** | **104.1** | **102.6** | **102.5** | **100.2** | **101.9** | **99.1** | **99.3** | **97.0** | **-** |
| **Total energy intensity (toe/million \$15ppp)** | **158.6** | **148.7** | **145.5** | **144.8** | **148.1** | **139.9** | **142.4** | **136.5** | **136.3** | **136.2** | **-** |

*Heat is included

## Mix de energía primaria

Other renewables
2%

Oil
25%

Biomass
31%

2019: 34.51 Mtoe

Gas
7%

Hydro
4%

Coal
13%

Nuclear
18%

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil   ■ Gas   ■ Coal   ■ Nuclear   ■ Hydro   ■ Biomass   ■ Wind   ■ Solar   ■ Other renewables

## Primary energy demand and CO$_2$ emissions growth

25%
20%
15%
10%
5%
0%
-5%
-10%
-15%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
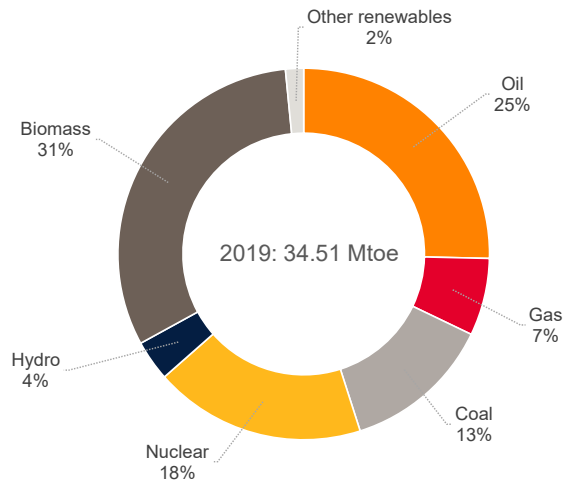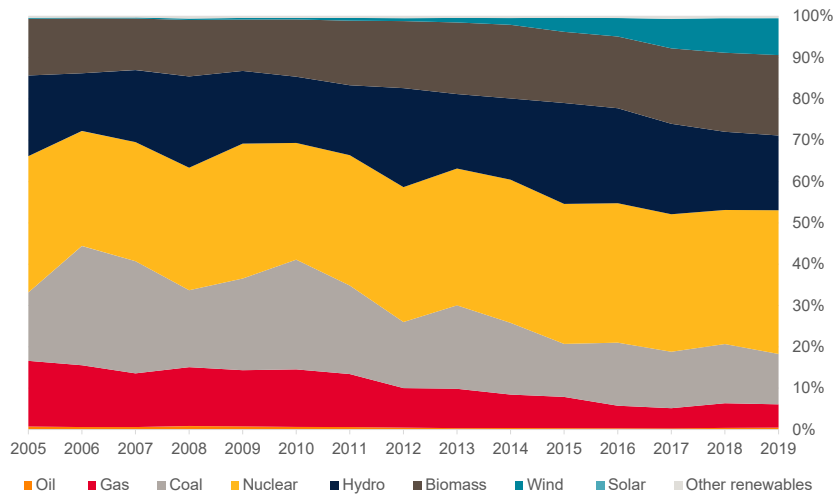
— Demand growth          — Emissions growth
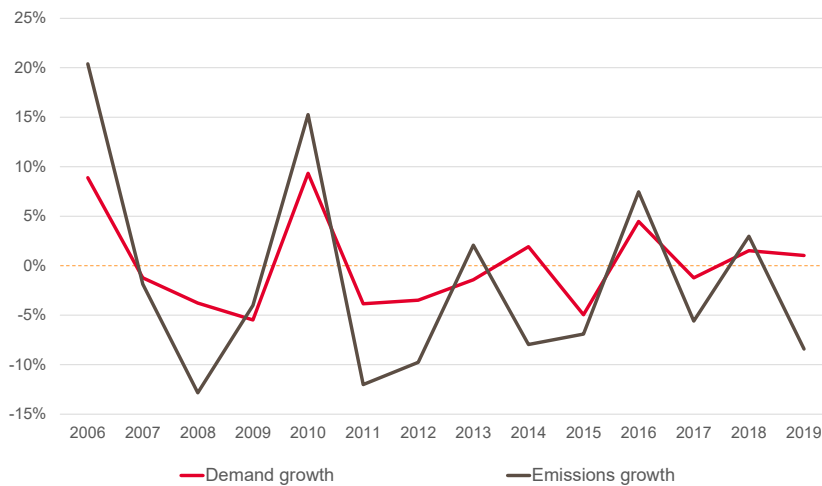
| France<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **262.8** | **257.0** | **257.1** | **258.1** | **248.0** | **251.8** | **247.3** | **247.0** | **245.9** | **241.4** | **100.0** |
| Oil | 77.0 | 78.9 | 76.5 | 74.7 | 74.1 | 74.8 | 72.3 | 72.6 | 70.1 | 69.9 | 28.9 |
| Gas | 42.6 | 37.0 | 38.2 | 38.8 | 32.6 | 35.0 | 38.3 | 38.5 | 36.7 | 37.4 | 15.5 |
| Coal | 12.0 | 11.3 | 12.5 | 13.2 | 9.8 | 9.3 | 9.1 | 9.9 | 9.0 | 7.2 | 3.0 |
| Nuclear | 111.7 | 115.3 | 110.9 | 110.4 | 113.7 | 114.0 | 105.1 | 103.8 | 107.6 | 104.0 | 43.1 |
| Hydro | 5.4 | 3.9 | 5.1 | 6.2 | 5.5 | 4.8 | 5.2 | 4.3 | 5.6 | 4.9 | 2.0 |
| Biomass | 15.7 | 13.9 | 15.6 | 16.6 | 15.6 | 16.4 | 17.8 | 17.9 | 18.3 | 18.2 | 7.5 |
| Other renewables | 0.9 | 1.2 | 1.7 | 1.8 | 2.0 | 2.5 | 2.6 | 2.9 | 3.4 | 4.1 | 1.7 |
| Electricity balance of trade* | -2.4 | -4.5 | -3.4 | -3.7 | -5.3 | -5.0 | -3.1 | -2.9 | -4.8 | -4.3 | -1.8 |
| **Total final consumption, by source** | **161.6** | **154.4** | **158.7** | **161.1** | **151.4** | **153.4** | **155.2** | **156.0** | **153.3** | **152.5** | **100.0** |
| Oil | 71.1 | 70.8 | 70.1 | 69.5 | 68.3 | 68.3 | 66.9 | 67.6 | 65.2 | 64.9 | 42.6 |
| Gas | 33.0 | 29.5 | 31.4 | 32.9 | 27.9 | 28.8 | 30.2 | 29.7 | 29.4 | 28.5 | 18.7 |
| Coal | 4.7 | 4.6 | 4.5 | 4.6 | 4.7 | 4.4 | 4.3 | 4.8 | 4.9 | 5.1 | 3.4 |
| Electricity | 38.2 | 36.3 | 37.9 | 38.5 | 36.3 | 37.1 | 37.7 | 37.5 | 37.3 | 36.9 | 24.2 |
| Heat | 2.9 | 3.0 | 3.1 | 3.2 | 3.0 | 3.1 | 3.6 | 3.9 | 4.0 | 4.0 | 2.6 |
| Biomass | 11.7 | 10.2 | 11.7 | 12.5 | 11.2 | 11.7 | 12.5 | 12.5 | 12.6 | 13.0 | 8.6 |
| **Electricity generation, by source** | **49.0** | **49.3** | **49.2** | **50.0** | **49.2** | **49.8** | **48.5** | **48.3** | **50.1** | **49.1** | **100.0** |
| Oil | 0.5 | 0.6 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 1.2 |
| Gas | 2.0 | 2.5 | 2.0 | 1.6 | 1.1 | 1.8 | 3.0 | 3.5 | 2.6 | 3.5 | 7.2 |
| Coal | 2.3 | 1.7 | 2.1 | 2.3 | 1.2 | 1.3 | 1.1 | 1.3 | 0.9 | 0.3 | 0.7 |
| Nuclear | 36.9 | 38.0 | 36.6 | 36.4 | 37.5 | 37.6 | 34.7 | 34.3 | 35.5 | 34.3 | 69.9 |
| Hydro | 5.8 | 4.4 | 5.6 | 6.6 | 6.0 | 5.2 | 5.6 | 4.7 | 6.1 | 5.3 | 10.9 |
| Biomass | 0.6 | 0.7 | 0.7 | 0.6 | 0.7 | 0.7 | 0.9 | 0.9 | 0.9 | 0.8 | 1.6 |
| Wind | 0.9 | 1.0 | 1.3 | 1.4 | 1.5 | 1.8 | 1.8 | 2.1 | 2.5 | 3.0 | 6.2 |
| Solar | 0.1 | 0.2 | 0.4 | 0.4 | 0.5 | 0.7 | 0.7 | 0.8 | 0.9 | 1.0 | 2.1 |
| 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** | **161.6** | **154.4** | **158.7** | **161.1** | **151.4** | **153.4** | **155.2** | **156.0** | **153.3** | **152.5** | **100.0** |
| Industry | 30.6 | 30.9 | 30.4 | 30.6 | 29.7 | 29.0 | 29.7 | 29.9 | 30.5 | 30.6 | 20.1 |
| Transport | 44.1 | 45.1 | 44.9 | 44.6 | 44.9 | 45.3 | 45.2 | 45.6 | 44.9 | 44.7 | 29.3 |
| Residential/Comercial | 68.4 | 59.6 | 64.8 | 67.5 | 57.9 | 60.6 | 62.7 | 62.2 | 60.8 | 60.5 | 39.7 |
| **Oil final consumption, by sector** | **71.1** | **70.8** | **70.1** | **69.5** | **68.3** | **68.3** | **66.9** | **67.6** | **65.2** | **64.9** | **100.0** |
| Industry | 2.9 | 3.6 | 3.2 | 2.9 | 2.7 | 2.7 | 2.7 | 2.5 | 2.3 | 2.7 | 4.1 |
| Transport | 40.7 | 41.8 | 41.3 | 41.0 | 41.0 | 41.3 | 41.2 | 41.3 | 40.6 | 40.4 | 62.2 |
| Residential/Comercial | 11.1 | 9.0 | 9.5 | 9.6 | 8.1 | 8.3 | 8.0 | 8.1 | 7.8 | 7.7 | 11.9 |
| **Natural gas final consumption, by sector** | **33.0** | **29.5** | **31.4** | **32.9** | **27.9** | **28.8** | **30.2** | **29.7** | **29.4** | **28.5** | **100.0** |
| Industry | 11.1 | 10.3 | 10.1 | 10.6 | 10.0 | 9.7 | 10.1 | 9.7 | 10.1 | 9.8 | 34.3 |
| Transport | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 |
| Residential/Comercial | 20.6 | 17.9 | 20.0 | 21.0 | 16.5 | 17.7 | 18.7 | 18.6 | 17.8 | 17.3 | 60.7 |
| **Refined products consumption** | **71.1** | **70.8** | **70.1** | **69.5** | **68.3** | **68.3** | **66.9** | **67.6** | **65.2** | **64.9** | **100.0** |
| Gasoline | 7.7 | 7.6 | 7.2 | 7.0 | 7.0 | 7.1 | 7.2 | 7.5 | 7.8 | 8.2 | 12.6 |
| Diesel | 45.9 | 45.6 | 45.9 | 46.0 | 44.6 | 45.3 | 44.5 | 44.5 | 43.1 | 42.3 | 65.1 |
| Heating Oil | 1.0 | 1.0 | 0.9 | 0.7 | 0.6 | 0.6 | 0.5 | 0.3 | 0.2 | 0.2 | 0.3 |
| Aviation Jet | 1.3 | 1.4 | 1.3 | 1.3 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.2 | 1.8 |
| LPG | 4.1 | 3.9 | 3.9 | 4.2 | 4.5 | 4.4 | 4.3 | 4.2 | 4.0 | 4.0 | 6.1 |
| **Imports** | **148.4** | **151.8** | **145.9** | **144.1** | **140.4** | **142.5** | **140.4** | **143.8** | **140.8** | **139.8** | **100.0** |
| Oil | 106.3 | 107.8 | 103.5 | 101.6 | 100.2 | 103.1 | 99.2 | 100.7 | 97.1 | 95.5 | 68.3 |
| Gas | 42.1 | 44.0 | 42.3 | 42.5 | 40.2 | 39.4 | 41.2 | 43.1 | 43.7 | 44.3 | 31.7 |
| Gasoline | 0.9 | 0.5 | 0.4 | 0.4 | 0.5 | 0.7 | 1.3 | 1.5 | 1.5 | 1.5 | 1.1 |
| Diesel | 19.7 | 20.7 | 24.0 | 24.5 | 24.0 | 25.2 | 22.8 | 22.3 | 23.1 | 25.0 | 17.9 |
| Heating Oil | 7.8 | 8.2 | 6.3 | 5.4 | 5.4 | 3.6 | 4.0 | 3.4 | 3.3 | 2.6 | 1.9 |
| Aviation Jet | 4.0 | 3.7 | 4.2 | 4.4 | 4.5 | 4.8 | 4.7 | 4.5 | 5.9 | 6.1 | 4.4 |
| LPG | 3.0 | 2.9 | 3.2 | 3.6 | 4.1 | 3.9 | 3.8 | 3.6 | 3.7 | 3.9 | 2.8 |
| **Exports** | **25.7** | **27.4** | **25.4** | **23.7** | **25.7** | **26.2** | **24.2** | **26.1** | **25.6** | **22.7** | **100.0** |
| Oil | 23.1 | 21.6 | 20.0 | 19.2 | 19.3 | 21.4 | 20.9 | 20.6 | 20.3 | 17.3 | 76.5 |
| Gas | 2.6 | 5.8 | 5.4 | 4.5 | 6.4 | 4.9 | 3.3 | 5.4 | 5.3 | 5.3 | 23.5 |
| Gasoline | 6.2 | 4.9 | 4.5 | 3.7 | 4.0 | 4.3 | 4.8 | 4.6 | 3.3 | 2.7 | 11.9 |
| Diesel | 3.6 | 2.5 | 2.9 | 2.0 | 1.8 | 2.8 | 2.1 | 2.6 | 2.2 | 2.7 | 11.9 |
| Heating Oil | 6.1 | 6.2 | 5.6 | 5.4 | 5.7 | 6.3 | 5.6 | 4.6 | 4.4 | 3.7 | 16.5 |
| Aviation Jet | 1.3 | 0.7 | 0.8 | 1.0 | 1.1 | 1.2 | 1.0 | 1.2 | 2.1 | 1.8 | 8.0 |
| LPG | 1.1 | 1.3 | 1.4 | 1.4 | 1.2 | 1.4 | 1.3 | 1.3 | 1.2 | 1.0 | 4.4 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **356.6** | **338.1** | **342.9** | **342.6** | **310.7** | **316.8** | **317.8** | **322.6** | **309.1** | **301.8** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **138.0** | **128.1** | **129.5** | **128.6** | **115.6** | **116.5** | **115.5** | **114.8** | **108.1** | **104.2** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **57.1** | **53.1** | **54.6** | **55.3** | **50.9** | **51.3** | **51.5** | **50.5** | **49.1** | **48.3** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **101.7** | **97.4** | **97.1** | **96.9** | **92.2** | **92.6** | **89.9** | **87.9** | **86.0** | **83.3** | **-** |

*Heat is included

## Primary energy demand mix

Hydro
2%

Biomass
7%

Other renewables
2%

Oil
29%

2019: 241.37 Mtoe

Nuclear
42%

Gas
15%

Coal
3%

## Electricity generation by source



Oil    Gas    Coal    Nuclear    Hydro    Biomass    Wind    Solar    Other renewables
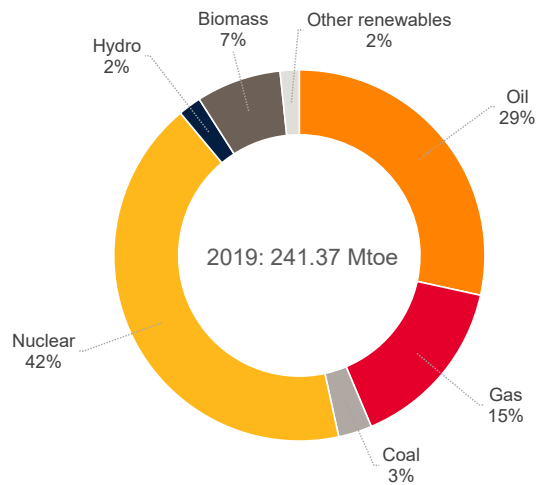
## Primary energy demand and CO$_2$ emissions growth
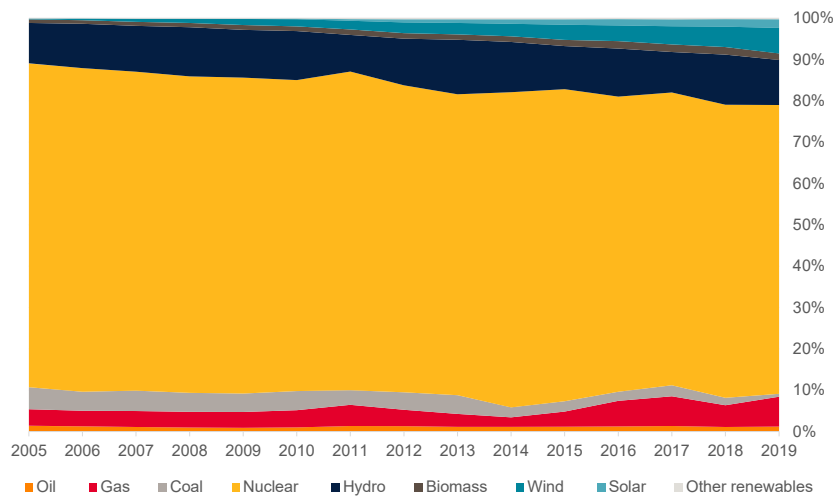


Demand growth          Emissions growth
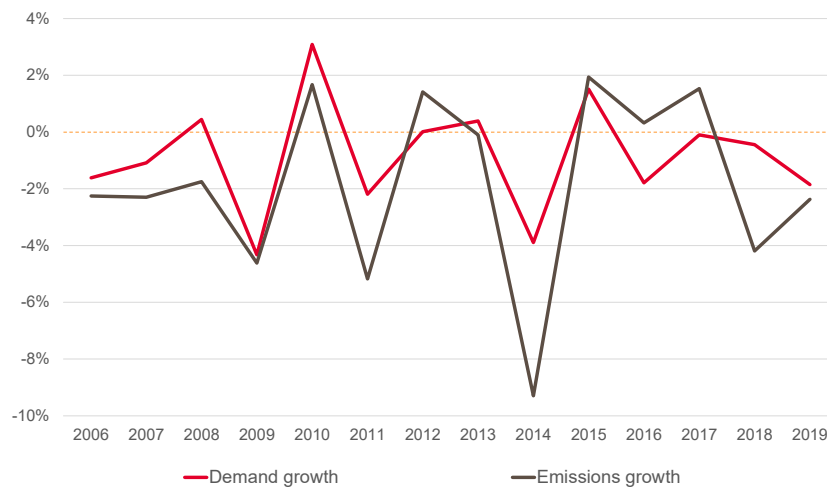
| Germany *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **326.5** | **310.1** | **311.4** | **318.1** | **306.2** | **308.3** | **310.2** | **311.4** | **301.8** | **295.5** | **100.0** |
| Oil | 104.7 | 101.2 | 100.8 | 103.2 | 101.0 | 101.2 | 101.4 | 103.0 | 97.7 | 99.6 | 33.7 |
| Gas | 75.9 | 69.6 | 69.8 | 73.1 | 63.4 | 65.1 | 70.3 | 75.3 | 73.2 | 75.6 | 25.6 |
| Coal | 78.9 | 78.1 | 80.2 | 81.6 | 79.6 | 79.4 | 77.2 | 71.4 | 68.9 | 54.9 | 18.6 |
| Nuclear | 36.6 | 28.1 | 25.9 | 25.4 | 25.3 | 23.9 | 22.1 | 19.9 | 19.8 | 19.6 | 6.6 |
| Hydro | 1.8 | 1.5 | 1.9 | 2.0 | 1.7 | 1.6 | 1.8 | 1.7 | 1.5 | 1.7 | 0.6 |
| Biomass | 24.8 | 25.1 | 27.1 | 27.7 | 29.2 | 29.9 | 30.7 | 31.0 | 30.1 | 30.6 | 10.4 |
| Other renewables | 4.3 | 5.9 | 6.6 | 7.1 | 8.0 | 10.1 | 10.0 | 12.5 | 13.6 | 15.1 | 5.1 |
| Electricity balance of trade* | -0.5 | 0.5 | -0.9 | -1.9 | -1.9 | -3.1 | -3.3 | -3.5 | -3.0 | -1.6 | -0.5 |
| **Total final consumption, by source** | **234.3** | **223.6** | **225.8** | **231.2** | **222.5** | **226.4** | **229.5** | **233.1** | **226.6** | **228.0** | **100.0** |
| Oil | 94.7 | 91.9 | 91.8 | 94.1 | 92.1 | 92.1 | 92.2 | 94.1 | 89.8 | 91.6 | 40.2 |
| Gas | 56.0 | 50.2 | 52.0 | 55.0 | 49.7 | 51.4 | 53.9 | 55.0 | 53.5 | 53.5 | 23.5 |
| Coal | 13.0 | 13.2 | 13.3 | 13.2 | 13.2 | 14.1 | 13.7 | 13.7 | 13.6 | 13.4 | 5.9 |
| Electricity | 45.8 | 45.2 | 45.2 | 45.0 | 44.1 | 44.3 | 44.5 | 44.6 | 44.1 | 43.5 | 19.1 |
| Heat | 11.8 | 10.6 | 10.9 | 11.0 | 9.9 | 10.3 | 10.5 | 10.6 | 10.4 | 10.2 | 4.5 |
| Biomass | 13.1 | 12.5 | 12.5 | 12.9 | 13.5 | 14.2 | 14.7 | 15.2 | 15.2 | 15.7 | 6.9 |
| **Electricity generation, by source** | **54.4** | **52.7** | **54.2** | **54.9** | **54.0** | **55.6** | **55.8** | **56.2** | **55.6** | **52.9** | **100.0** |
| Oil | 0.8 | 0.6 | 0.7 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.4 | 0.8 |
| Gas | 7.8 | 7.5 | 6.7 | 5.9 | 5.4 | 5.4 | 7.1 | 7.5 | 7.3 | 8.0 | 15.1 |
| Coal | 23.5 | 23.4 | 24.7 | 25.7 | 24.5 | 24.4 | 23.5 | 21.7 | 20.6 | 15.4 | 29.1 |
| Nuclear | 12.1 | 9.3 | 8.6 | 8.4 | 8.4 | 7.9 | 7.3 | 6.6 | 6.5 | 6.5 | 12.2 |
| Hydro | 2.4 | 2.0 | 2.4 | 2.5 | 2.2 | 2.1 | 2.2 | 2.2 | 2.0 | 2.3 | 4.3 |
| Biomass | 3.5 | 3.8 | 4.4 | 4.6 | 4.9 | 4.9 | 5.0 | 5.0 | 5.1 | 5.1 | 9.5 |
| Wind | 3.3 | 4.2 | 4.4 | 4.4 | 4.9 | 6.8 | 6.8 | 9.1 | 9.6 | 11.0 | 20.8 |
| Solar | 1.0 | 1.7 | 2.3 | 2.7 | 3.1 | 3.3 | 3.3 | 3.4 | 4.0 | 4.1 | 7.8 |
| 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** | **234.3** | **223.6** | **225.8** | **231.2** | **222.5** | **226.4** | **229.5** | **233.1** | **226.6** | **228.0** | **100.0** |
| Industry | 61.1 | 61.4 | 61.2 | 61.3 | 61.4 | 61.8 | 62.0 | 62.9 | 62.5 | 61.3 | 26.9 |
| Transport | 53.4 | 53.8 | 53.4 | 54.4 | 55.2 | 55.9 | 57.0 | 57.8 | 57.9 | 58.7 | 25.7 |
| Residential/Comercial | 96.5 | 85.2 | 88.8 | 93.1 | 83.2 | 86.9 | 88.5 | 88.9 | 85.7 | 86.8 | 38.1 |
| **Oil final consumption, by sector** | **94.7** | **91.9** | **91.8** | **94.1** | **92.1** | **92.1** | **92.2** | **94.1** | **89.8** | **91.6** | **100.0** |
| Industry | 4.1 | 3.5 | 3.2 | 3.1 | 2.8 | 3.0 | 2.4 | 2.2 | 2.0 | 2.1 | 2.3 |
| Transport | 49.1 | 49.7 | 49.1 | 50.4 | 51.1 | 52.0 | 53.1 | 53.9 | 53.9 | 54.6 | 59.6 |
| Residential/Comercial | 21.7 | 19.1 | 20.1 | 21.7 | 19.0 | 18.5 | 18.3 | 18.1 | 17.0 | 17.3 | 18.8 |
| **Natural gas final consumption, by sector** | **56.0** | **50.2** | **52.0** | **55.0** | **49.7** | **51.4** | **53.9** | **55.0** | **53.5** | **53.5** | **100.0** |
| Industry | 19.6 | 19.0 | 19.1 | 19.2 | 18.7 | 18.7 | 19.2 | 20.4 | 20.4 | 20.3 | 37.8 |
| Transport | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.3 |
| Residential/Comercial | 33.8 | 28.7 | 30.7 | 33.2 | 28.3 | 30.2 | 32.0 | 31.9 | 30.3 | 30.5 | 57.0 |
| **Refined products consumption** | **94.7** | **91.9** | **91.8** | **94.1** | **92.1** | **92.1** | **92.2** | **94.1** | **89.8** | **91.6** | **100.0** |
| Gasoline | 19.4 | 19.3 | 18.1 | 18.1 | 18.2 | 17.9 | 17.9 | 18.2 | 20.9 | 21.1 | 23.0 |
| Diesel | 51.1 | 48.8 | 50.3 | 52.9 | 50.5 | 51.3 | 52.0 | 52.8 | 49.1 | 49.8 | 54.3 |
| Heating Oil | 3.0 | 3.0 | 3.0 | 2.5 | 2.5 | 2.7 | 1.5 | 1.5 | 1.5 | 1.4 | 1.6 |
| Aviation Jet | 0.8 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.7 | 0.7 | 0.7 | 0.8 |
| LPG | 3.1 | 3.0 | 3.1 | 3.2 | 2.7 | 2.8 | 2.9 | 3.8 | 3.2 | 3.5 | 3.8 |
| **Imports** | **209.5** | **200.4** | **201.7** | **212.3** | **203.7** | **216.6** | **213.6** | **229.6** | **224.9** | **224.6** | **100.0** |
| Oil | 130.7 | 125.3 | 127.6 | 130.3 | 128.4 | 130.7 | 132.0 | 133.9 | 127.1 | 129.6 | 57.7 |
| Gas | 78.8 | 75.1 | 74.1 | 81.9 | 75.3 | 85.9 | 81.6 | 95.7 | 97.8 | 94.9 | 42.3 |
| Gasoline | 2.1 | 2.0 | 1.6 | 1.9 | 1.9 | 2.0 | 1.6 | 2.3 | 2.5 | 3.3 | 1.5 |
| Diesel | 15.9 | 13.8 | 13.8 | 18.0 | 17.1 | 18.7 | 19.5 | 19.7 | 18.7 | 20.0 | 8.9 |
| Heating Oil | 2.6 | 2.7 | 2.3 | 2.4 | 2.4 | 1.8 | 2.4 | 2.2 | 2.0 | 1.5 | 0.7 |
| Aviation Jet | 4.7 | 4.3 | 5.0 | 5.4 | 4.9 | 5.1 | 5.1 | 6.1 | 6.7 | 6.9 | 3.1 |
| LPG | 1.0 | 1.0 | 1.2 | 1.1 | 0.7 | 0.8 | 0.9 | 1.0 | 1.2 | 1.4 | 0.6 |
| **Exports** | **35.7** | **33.1** | **33.1** | **38.5** | **39.8** | **49.7** | **42.1** | **50.3** | **49.9** | **45.3** | **100.0** |
| Oil | 18.6 | 18.3 | 18.8 | 20.1 | 21.1 | 22.5 | 22.8 | 23.4 | 22.5 | 21.9 | 48.3 |
| Gas | 17.2 | 14.7 | 14.3 | 18.4 | 18.7 | 27.2 | 19.3 | 26.9 | 27.4 | 23.4 | 51.7 |
| Gasoline | 5.1 | 5.0 | 5.2 | 5.3 | 5.0 | 4.6 | 5.3 | 6.0 | 5.3 | 5.1 | 11.2 |
| Diesel | 6.8 | 6.5 | 6.3 | 7.0 | 7.7 | 8.4 | 9.5 | 9.0 | 8.2 | 7.6 | 16.9 |
| Heating Oil | 1.7 | 1.9 | 2.0 | 2.6 | 3.0 | 2.9 | 2.1 | 1.8 | 2.5 | 2.5 | 5.5 |
| Aviation Jet | 0.7 | 0.8 | 1.2 | 1.2 | 0.9 | 1.2 | 0.9 | 1.3 | 1.4 | 1.4 | 3.2 |
| LPG | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.6 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **780.9** | **751.9** | **767.8** | **788.6** | **749.7** | **754.5** | **758.9** | **745.5** | **719.5** | **673.0** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **216.8** | **201.4** | **204.6** | **209.2** | **194.6** | **192.5** | **189.4** | **182.1** | **173.1** | **161.0** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **58.8** | **53.9** | **54.4** | **55.6** | **52.0** | **52.4** | **51.9** | **51.4** | **49.7** | **49.6** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **90.7** | **83.1** | **83.0** | **84.4** | **79.5** | **78.7** | **77.4** | **76.1** | **72.6** | **70.7** | **-** |

*Heat is included

**Primary energy demand mix**

Other renewables
5%

Biomass
10%

Nuclear
7%

Oil
34%

2019: 295.54 Mtoe

Coal
18%

Gas
25%

**Electricity generation by source**

Oil    Gas    Coal    Nuclear    Hydro    Biomass    Wind    Solar    Other renewables
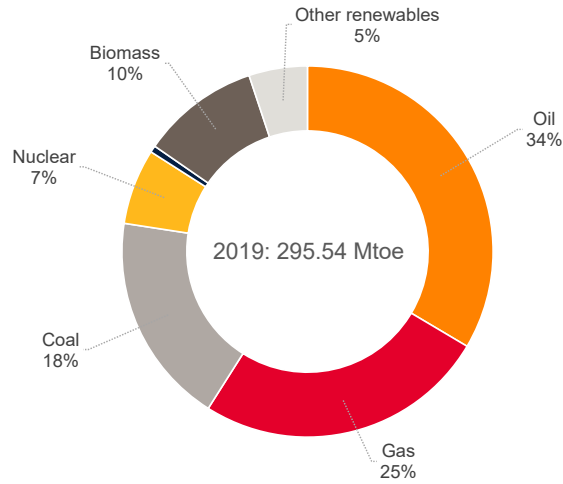
**Primary energy demand and CO$_2$ emissions growth**
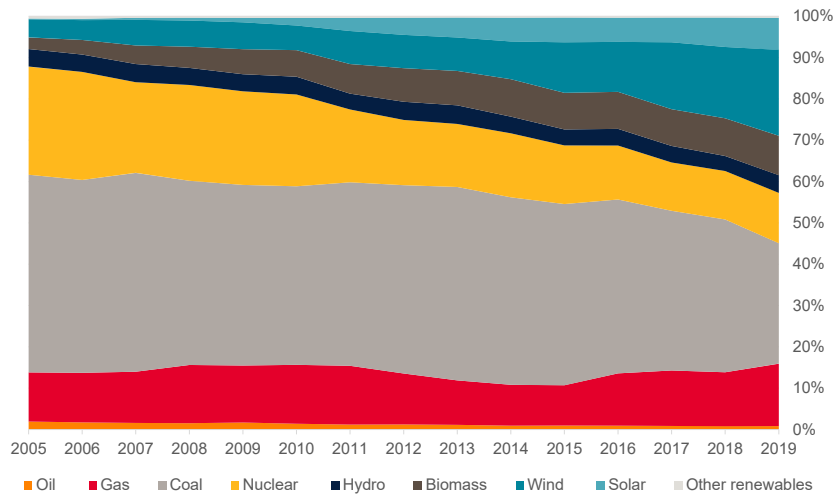
Demand growth    Emissions growth

| **Italy** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **173.9** | **168.2** | **161.5** | **155.6** | **146.9** | **152.7** | **151.2** | **153.6** | **150.8** | **149.0** | **100.0** |
| Oil | 65.3 | 62.7 | 55.6 | 53.3 | 51.6 | 53.6 | 51.5 | 52.0 | 50.9 | 50.4 | 33.8 |
| Gas | 68.0 | 63.8 | 61.3 | 57.4 | 50.7 | 55.3 | 58.1 | 61.5 | 59.5 | 60.9 | 40.8 |
| Coal | 13.7 | 15.3 | 15.7 | 13.5 | 13.1 | 12.3 | 11.0 | 9.3 | 8.5 | 6.7 | 4.5 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 4.4 | 3.9 | 3.6 | 4.5 | 5.0 | 3.9 | 3.6 | 3.1 | 4.3 | 4.0 | 2.7 |
| Biomass | 12.7 | 11.3 | 13.5 | 14.6 | 14.0 | 14.6 | 14.4 | 14.9 | 14.5 | 14.2 | 9.5 |
| Other renewables | 0.9 | 1.8 | 2.8 | 3.1 | 3.2 | 3.2 | 3.4 | 3.6 | 3.5 | 3.8 | 2.6 |
| Electricity balance of trade* | 8.9 | 9.3 | 9.0 | 9.0 | 9.4 | 9.8 | 9.2 | 9.1 | 9.6 | 9.1 | 6.1 |
| **Total final consumption, by source** | **135.0** | **129.1** | **126.5** | **121.7** | **117.4** | **119.6** | **118.9** | **119.6** | **120.0** | **117.5** | **100.0** |
| Oil | 54.4 | 53.7 | 49.5 | 46.5 | 47.8 | 47.1 | 46.1 | 45.5 | 45.9 | 45.1 | 38.4 |
| Gas | 39.1 | 35.8 | 35.7 | 35.4 | 31.2 | 33.4 | 33.7 | 34.4 | 34.0 | 32.9 | 28.0 |
| Coal | 3.2 | 3.7 | 3.5 | 2.6 | 2.7 | 2.0 | 2.2 | 1.6 | 2.1 | 2.1 | 1.8 |
| Electricity | 25.7 | 25.9 | 25.5 | 24.7 | 24.2 | 24.7 | 24.6 | 25.1 | 25.2 | 25.0 | 21.3 |
| Heat | 3.6 | 3.5 | 3.7 | 4.0 | 4.0 | 4.2 | 4.3 | 4.5 | 4.6 | 4.5 | 3.8 |
| Biomass | 9.0 | 6.5 | 8.6 | 8.5 | 7.4 | 8.3 | 8.0 | 8.6 | 8.3 | 7.9 | 6.7 |
| **Electricity generation, by source** | **26.0** | **26.0** | **25.7** | **24.9** | **24.1** | **24.3** | **24.9** | **25.4** | **24.9** | **25.2** | **100.0** |
| Oil | 1.9 | 1.7 | 1.6 | 1.3 | 1.2 | 1.2 | 1.0 | 1.0 | 0.9 | 1.0 | 3.8 |
| Gas | 13.1 | 12.4 | 11.1 | 9.4 | 8.1 | 9.5 | 10.8 | 12.1 | 11.1 | 12.0 | 47.7 |
| Coal | 3.8 | 4.3 | 4.7 | 4.2 | 4.0 | 3.9 | 3.3 | 3.0 | 2.6 | 1.8 | 7.1 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 4.7 | 4.1 | 3.8 | 4.7 | 5.2 | 4.0 | 3.8 | 3.3 | 4.4 | 4.2 | 16.6 |
| Biomass | 1.0 | 1.1 | 1.3 | 1.7 | 1.8 | 1.9 | 1.9 | 1.9 | 1.9 | 1.9 | 7.4 |
| Wind | 0.8 | 0.8 | 1.2 | 1.3 | 1.3 | 1.3 | 1.5 | 1.5 | 1.5 | 1.8 | 7.0 |
| Solar | 0.2 | 0.9 | 1.6 | 1.9 | 1.9 | 2.0 | 1.9 | 2.1 | 1.9 | 2.1 | 8.2 |
| Other renewables | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 2.1 |
| **Total final consumption, by sector** | **135.0** | **129.1** | **126.5** | **121.7** | **117.4** | **119.6** | **118.9** | **119.6** | **120.0** | **117.5** | **100.0** |
| Industry | 31.2 | 30.2 | 28.7 | 26.6 | 26.0 | 26.0 | 26.2 | 25.7 | 25.4 | 25.0 | 21.2 |
| Transport | 38.9 | 38.6 | 36.8 | 35.9 | 37.2 | 36.3 | 35.9 | 34.5 | 35.6 | 35.3 | 30.0 |
| Residential/Comercial | 52.4 | 48.1 | 50.3 | 50.1 | 44.2 | 47.9 | 47.6 | 48.5 | 48.8 | 47.5 | 40.5 |
| **Oil final consumption, by sector** | **54.4** | **53.7** | **49.5** | **46.5** | **47.8** | **47.1** | **46.1** | **45.5** | **45.9** | **45.1** | **100.0** |
| Industry | 3.3 | 3.4 | 2.8 | 2.4 | 1.9 | 2.8 | 2.5 | 1.8 | 1.9 | 1.8 | 4.0 |
| Transport | 35.9 | 35.6 | 33.8 | 32.9 | 34.4 | 33.3 | 33.0 | 31.7 | 32.5 | 32.2 | 71.4 |
| Residential/Comercial | 4.2 | 3.8 | 3.4 | 3.3 | 2.8 | 2.9 | 2.8 | 2.6 | 2.7 | 2.7 | 6.1 |
| **Natural gas final consumption, by sector** | **39.1** | **35.8** | **35.7** | **35.4** | **31.2** | **33.4** | **33.7** | **34.4** | **34.0** | **32.9** | **100.0** |
| Industry | 10.3 | 9.3 | 9.0 | 8.7 | 8.5 | 8.3 | 8.4 | 8.9 | 8.6 | 8.4 | 25.4 |
| Transport | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 0.8 | 0.9 | 0.9 | 2.6 |
| Residential/Comercial | 27.3 | 25.2 | 25.4 | 25.3 | 21.2 | 23.5 | 23.6 | 23.8 | 23.7 | 22.9 | 69.8 |
| **Refined products consumption** | **54.4** | **53.7** | **49.5** | **46.5** | **47.8** | **47.1** | **46.1** | **45.5** | **45.9** | **45.1** | **100.0** |
| Gasoline | 10.5 | 10.0 | 9.3 | 8.7 | 8.8 | 8.2 | 7.8 | 7.6 | 7.8 | 7.8 | 17.3 |
| Diesel | 28.7 | 28.4 | 26.7 | 25.8 | 26.8 | 26.2 | 26.1 | 24.6 | 25.6 | 25.2 | 55.8 |
| Heating Oil | 1.4 | 1.4 | 1.2 | 1.2 | 1.2 | 1.5 | 1.7 | 1.3 | 1.2 | 1.2 | 2.6 |
| Aviation Jet | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 2.3 |
| LPG | 3.7 | 3.5 | 3.6 | 3.6 | 3.5 | 3.6 | 3.6 | 3.7 | 3.5 | 3.6 | 8.0 |
| **Imports** | **158.6** | **147.4** | **140.9** | **128.7** | **116.9** | **130.9** | **135.2** | **142.0** | **137.1** | **138.2** | **100.0** |
| Oil | 96.9 | 89.8 | 85.4 | 78.0 | 71.3 | 80.7 | 81.8 | 85.0 | 81.5 | 80.1 | 58.0 |
| Gas | 61.7 | 57.6 | 55.5 | 50.7 | 45.7 | 50.2 | 53.5 | 57.0 | 55.6 | 58.1 | 42.0 |
| Gasoline | 0.1 | 0.1 | 0.0 | 0.4 | 0.4 | 0.5 | 0.4 | 0.1 | 0.4 | 0.4 | 0.3 |
| Diesel | 2.5 | 2.6 | 2.1 | 3.1 | 3.2 | 3.1 | 4.5 | 5.1 | 5.4 | 4.6 | 3.3 |
| Heating Oil | 0.9 | 0.8 | 0.6 | 0.5 | 0.3 | 0.3 | 0.8 | 0.8 | 1.6 | 1.0 | 0.7 |
| Aviation Jet | 0.9 | 1.3 | 1.1 | 1.5 | 1.6 | 1.9 | 2.1 | 2.3 | 2.4 | 2.6 | 1.9 |
| LPG | 2.3 | 2.2 | 2.3 | 2.6 | 2.4 | 2.5 | 2.6 | 2.6 | 2.5 | 2.6 | 1.9 |
| **Exports** | **30.2** | **27.6** | **30.5** | **25.1** | **21.4** | **28.5** | **30.1** | **32.4** | **30.2** | **28.2** | **100.0** |
| Oil | 30.1 | 27.5 | 30.4 | 24.9 | 21.2 | 28.3 | 29.9 | 32.1 | 29.9 | 27.9 | 99.1 |
| Gas | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.9 |
| Gasoline | 9.4 | 8.9 | 9.7 | 8.3 | 7.4 | 9.0 | 8.5 | 8.9 | 8.9 | 8.9 | 31.7 |
| Diesel | 10.8 | 9.5 | 10.9 | 8.6 | 5.6 | 9.1 | 9.5 | 10.4 | 9.1 | 9.5 | 33.7 |
| Heating Oil | 3.2 | 2.7 | 3.0 | 2.1 | 2.7 | 3.9 | 4.5 | 5.0 | 4.3 | 3.6 | 12.7 |
| Aviation Jet | 0.1 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.3 | 1.2 |
| LPG | 0.5 | 0.4 | 0.4 | 0.5 | 0.2 | 0.3 | 0.4 | 0.3 | 0.2 | 0.3 | 1.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **402.0** | **393.4** | **374.8** | **343.7** | **328.1** | **335.9** | **333.0** | **329.2** | **323.5** | **317.6** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million $15ppp)*** | **174.4** | **169.7** | **166.4** | **155.2** | **148.0** | **150.2** | **147.2** | **143.2** | **139.7** | **136.7** | **-** |
| **Final energy intensity *(toe/million $15ppp)*** | **54.4** | **51.7** | **52.7** | **52.1** | **49.7** | **50.5** | **49.7** | **48.6** | **48.7** | **47.7** | **-** |
| **Total energy intensity *(toe/million $15ppp)*** | **75.5** | **72.5** | **71.7** | **70.3** | **66.3** | **68.3** | **66.8** | **66.8** | **65.1** | **64.1** | **-** |

*Heat is included*

**Primary energy demand mix**

Biomass
10%

Other renewables
3%

Hydro
3%

Coal
5%

Oil
36%

2019: 149.03 Mtoe

Gas
43%

**Electricity generation by source**

Oil    Gas    Coal    Nuclear    Hydro    Biomass    Wind    Solar    Other renewables
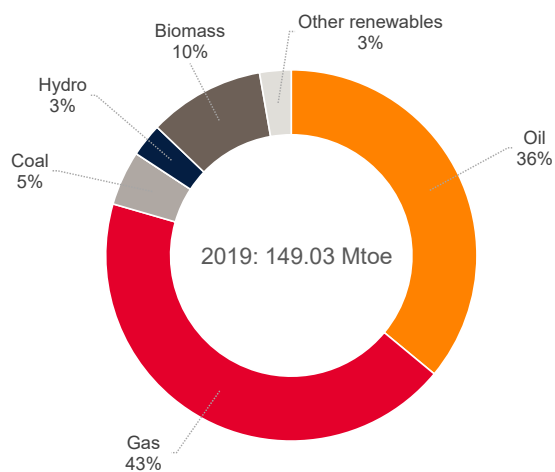
**Primary energy demand and CO$_2$ emissions growth**
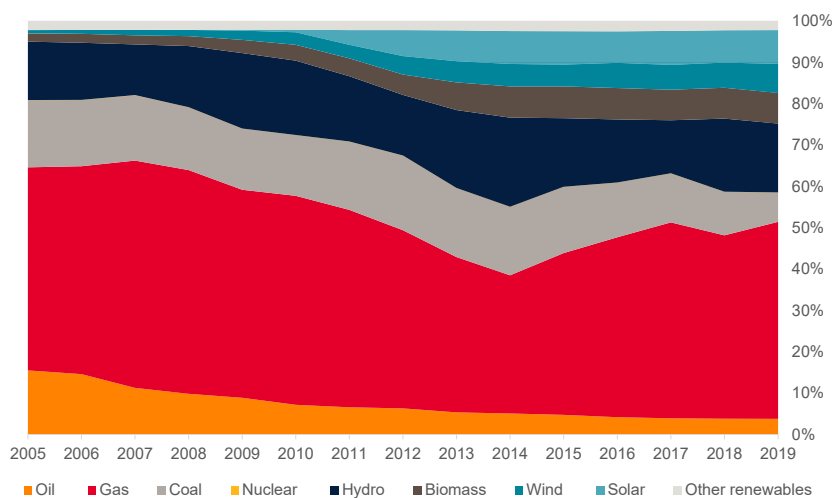
Demand growth          Emissions growth
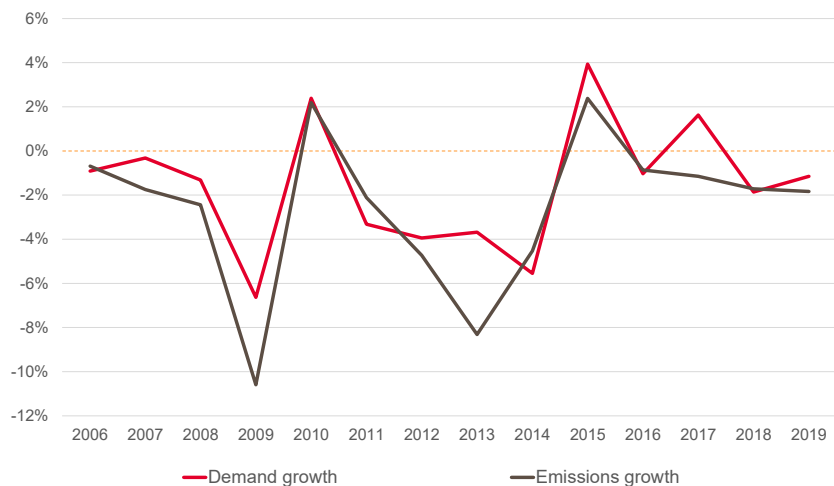
| **Netherlands** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **82.7** | **77.0** | **77.1** | **75.4** | **71.1** | **72.1** | **73.6** | **74.2** | **73.1** | **71.1** | **100.0** |
| Oil | 29.9 | 28.4 | 28.6 | 27.4 | 26.4 | 26.3 | 27.4 | 27.9 | 27.2 | 25.8 | 36.3 |
| Gas | 40.1 | 35.0 | 33.5 | 33.4 | 29.1 | 28.6 | 30.0 | 30.9 | 30.7 | 32.0 | 45.0 |
| Coal | 7.5 | 7.4 | 8.2 | 8.1 | 9.0 | 10.9 | 10.1 | 9.1 | 8.1 | 6.3 | 8.8 |
| Nuclear | 1.0 | 1.1 | 1.0 | 0.8 | 1.1 | 1.1 | 1.0 | 0.9 | 0.9 | 1.0 | 1.4 |
| 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 | 3.7 | 3.8 | 3.7 | 3.6 | 3.6 | 3.7 | 3.7 | 4.1 | 4.4 | 6.2 |
| Other renewables | 0.3 | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 1.1 | 1.2 | 1.4 | 1.9 |
| Electricity balance of trade* | 0.3 | 0.8 | 1.5 | 1.6 | 1.3 | 0.9 | 0.5 | 0.6 | 0.9 | 0.3 | 0.4 |
| **Total final consumption, by source** | **66.6** | **61.8** | **62.5** | **61.5** | **56.9** | **57.9** | **59.0** | **60.2** | **59.5** | **58.8** | **100.0** |
| Oil | 26.6 | 25.3 | 25.4 | 24.5 | 23.5 | 23.7 | 24.7 | 25.4 | 25.1 | 26.1 | 44.3 |
| Gas | 24.7 | 21.1 | 22.0 | 22.1 | 18.8 | 19.6 | 19.7 | 20.0 | 19.4 | 17.9 | 30.5 |
| Coal | 2.0 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 2.1 | 2.0 | 3.4 |
| Electricity | 9.3 | 9.3 | 9.0 | 9.0 | 8.7 | 9.0 | 9.1 | 9.1 | 9.2 | 9.1 | 15.5 |
| Heat | 3.0 | 2.9 | 2.7 | 2.7 | 2.7 | 2.3 | 2.3 | 2.2 | 2.1 | 2.1 | 3.6 |
| Biomass | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.2 | 1.1 | 1.2 | 1.5 | 1.5 | 2.6 |
| **Electricity generation, by source** | **10.3** | **9.8** | **8.9** | **8.7** | **8.9** | **9.5** | **9.9** | **10.1** | **9.8** | **10.3** | **100.0** |
| Oil | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.1 |
| Gas | 6.5 | 6.0 | 4.9 | 4.8 | 4.4 | 4.1 | 4.6 | 5.1 | 5.1 | 6.2 | 60.4 |
| Coal | 2.2 | 2.1 | 2.3 | 2.4 | 2.8 | 3.6 | 3.4 | 2.9 | 2.6 | 1.7 | 16.5 |
| Nuclear | 0.3 | 0.4 | 0.3 | 0.2 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 3.2 |
| 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 | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 | 0.5 | 0.5 | 0.6 | 5.5 |
| Wind | 0.3 | 0.4 | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.9 | 0.9 | 1.0 | 9.5 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 3.7 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total final consumption, by sector** | **66.6** | **61.8** | **62.5** | **61.5** | **56.9** | **57.9** | **59.0** | **60.2** | **59.5** | **58.8** | **100.0** |
| Industry | 16.1 | 15.7 | 15.6 | 15.3 | 15.0 | 15.2 | 15.6 | 15.8 | 15.4 | 15.2 | 25.8 |
| Transport | 11.7 | 11.8 | 11.4 | 11.1 | 10.3 | 10.4 | 10.5 | 10.7 | 11.2 | 11.5 | 19.6 |
| Residential/Comercial | 20.3 | 17.2 | 18.1 | 18.7 | 15.5 | 16.3 | 16.4 | 16.4 | 16.3 | 15.6 | 26.4 |
| **Oil final consumption, by sector** | **26.6** | **25.3** | **25.4** | **24.5** | **23.5** | **23.7** | **24.7** | **25.4** | **25.1** | **26.1** | **100.0** |
| Industry | 3.4 | 3.0 | 3.4 | 3.1 | 3.2 | 3.1 | 3.5 | 3.5 | 3.5 | 3.7 | 14.4 |
| Transport | 11.3 | 11.3 | 10.9 | 10.6 | 9.8 | 9.9 | 10.0 | 10.2 | 10.4 | 10.8 | 41.2 |
| Residential/Comercial | 0.2 | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.9 |
| **Natural gas final consumption, by sector** | **24.7** | **21.1** | **22.0** | **22.1** | **18.8** | **19.6** | **19.7** | **20.0** | **19.4** | **17.9** | **100.0** |
| Industry | 5.0 | 4.9 | 4.8 | 4.8 | 4.6 | 5.1 | 5.1 | 5.3 | 5.1 | 4.7 | 26.3 |
| 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 | 13.8 | 10.8 | 11.7 | 12.2 | 9.3 | 9.9 | 10.1 | 10.0 | 9.9 | 9.1 | 50.7 |
| **Refined products consumption** | **23.8** | **22.4** | **22.9** | **21.9** | **20.7** | **21.5** | **22.4** | **23.3** | **23.4** | **24.6** | **100.0** |
| Gasoline | 4.2 | 4.2 | 4.0 | 3.9 | 3.8 | 3.9 | 4.0 | 4.1 | 4.2 | 4.3 | 17.6 |
| Diesel | 7.8 | 7.8 | 7.4 | 7.4 | 6.8 | 7.0 | 6.9 | 7.0 | 7.1 | 7.4 | 29.9 |
| Heating Oil | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Aviation Jet | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| LPG | 1.5 | 1.6 | 1.2 | 2.0 | 2.6 | 2.8 | 2.3 | 2.1 | 2.4 | 2.0 | 8.3 |
| **Imports** | **164.3** | **160.3** | **168.2** | **166.3** | **163.7** | **184.8** | **189.1** | **191.5** | **192.9** | **188.8** | **100.0** |
| Oil | 145.8 | 143.2 | 148.2 | 144.5 | 141.4 | 155.6 | 156.0 | 152.7 | 150.6 | 151.2 | 80.1 |
| Gas | 18.4 | 17.2 | 20.1 | 21.8 | 22.3 | 29.2 | 33.1 | 38.8 | 42.3 | 37.5 | 19.9 |
| Gasoline | 9.9 | 10.8 | 12.5 | 10.2 | 10.0 | 10.4 | 10.4 | 11.3 | 8.0 | 7.6 | 4.0 |
| Diesel | 19.2 | 18.7 | 18.5 | 18.2 | 15.7 | 16.6 | 19.2 | 17.1 | 12.1 | 12.9 | 6.9 |
| Heating Oil | 29.0 | 32.7 | 31.7 | 32.4 | 33.5 | 36.9 | 30.2 | 15.3 | 12.2 | 11.2 | 6.0 |
| Aviation Jet | 3.9 | 2.7 | 2.7 | 4.0 | 2.7 | 3.2 | 4.6 | 3.7 | 3.4 | 3.5 | 1.9 |
| LPG | 1.6 | 2.2 | 1.7 | 2.8 | 3.8 | 5.0 | 4.0 | 3.5 | 4.4 | 3.6 | 1.9 |
| **Exports** | **144.1** | **141.0** | **148.8** | **153.4** | **146.1** | **152.6** | **157.7** | **153.3** | **149.8** | **143.3** | **100.0** |
| Oil | 101.5 | 99.9 | 103.3 | 102.6 | 102.0 | 112.9 | 114.8 | 113.2 | 110.4 | 107.7 | 75.2 |
| Gas | 42.6 | 41.1 | 45.5 | 50.8 | 44.1 | 39.7 | 42.9 | 40.2 | 39.4 | 35.6 | 24.8 |
| Gasoline | 17.1 | 15.6 | 20.2 | 18.2 | 19.8 | 21.9 | 20.6 | 21.3 | 24.3 | 27.0 | 18.8 |
| Diesel | 31.7 | 31.4 | 29.8 | 30.0 | 28.2 | 27.2 | 30.7 | 29.7 | 23.3 | 24.2 | 16.9 |
| Heating Oil | 25.6 | 26.3 | 27.0 | 27.0 | 28.2 | 35.1 | 30.3 | 14.4 | 10.4 | 9.3 | 6.5 |
| Aviation Jet | 6.8 | 6.5 | 6.0 | 7.0 | 6.2 | 6.7 | 8.4 | 7.7 | 8.4 | 8.3 | 5.8 |
| LPG | 1.1 | 1.6 | 1.7 | 1.6 | 1.8 | 2.8 | 2.7 | 2.3 | 2.4 | 2.3 | 1.6 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **190.8** | **178.5** | **176.8** | **175.2** | **168.3** | **175.5** | **175.6** | **173.6** | **167.1** | **170.4** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **232.4** | **214.1** | **214.2** | **212.6** | **201.4** | **206.0** | **201.7** | **193.8** | **181.8** | **182.2** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **63.7** | **58.1** | **59.1** | **59.2** | **53.0** | **53.6** | **53.2** | **52.1** | **50.8** | **49.1** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **100.8** | **92.3** | **93.4** | **91.6** | **85.1** | **84.6** | **84.6** | **82.8** | **79.5** | **76.0** | **-** |

*Heat is included*

**Primary energy demand mix**

Nuclear
1%

Biomass
6%

Other renewables
2%

Coal
9%

Oil
37%

2019: 71.09 Mtoe

Gas
45%

**Electricity generation by source**

Oil ■ Gas ■ Coal ■ Nuclear ■ Hydro ■ Biomass ■ Wind ■ Solar ■ Other renewables
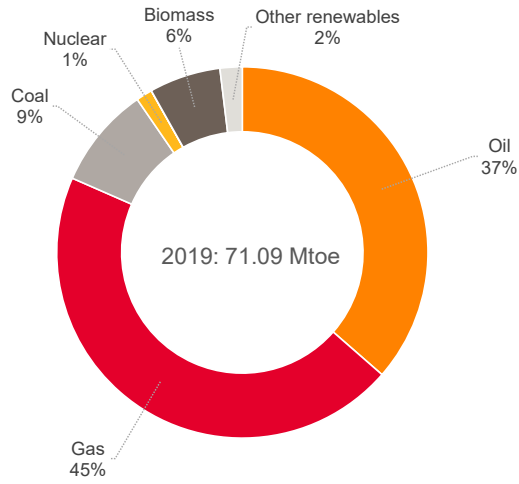
**Primary energy demand and CO₂ emissions growth**
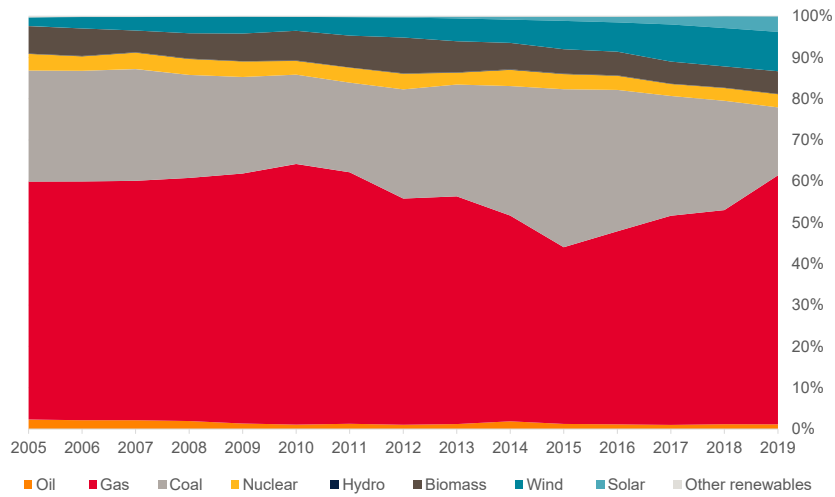
Demand growth    Emissions growth

| **Norway** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **29.7** | **26.7** | **27.8** | **28.8** | **28.7** | **28.8** | **27.7** | **28.9** | **28.1** | **27.2** | **100.0** |
| Oil | 10.1 | 8.7 | 9.0 | 10.0 | 10.1 | 9.5 | 8.6 | 10.3 | 8.6 | 8.2 | 30.0 |
| Gas | 6.3 | 5.1 | 5.4 | 5.6 | 5.8 | 6.1 | 5.6 | 4.7 | 5.3 | 4.9 | 17.9 |
| Coal | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 3.2 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 10.0 | 10.3 | 12.2 | 11.0 | 11.7 | 11.8 | 12.3 | 12.2 | 11.9 | 10.8 | 39.6 |
| Biomass | 1.8 | 1.8 | 1.7 | 1.6 | 1.4 | 1.5 | 1.7 | 1.9 | 2.0 | 2.0 | 7.4 |
| Other renewables | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.5 | 1.8 |
| Electricity balance of trade* | 0.7 | -0.2 | -1.5 | -0.4 | -1.3 | -1.2 | -1.4 | -1.3 | -0.8 | 0.0 | 0.1 |
| **Total final consumption, by source** | **21.4** | **20.8** | **20.9** | **20.7** | **20.2** | **20.5** | **20.7** | **20.8** | **21.1** | **20.6** | **100.0** |
| Oil | 8.5 | 8.3 | 8.2 | 7.9 | 7.8 | 7.8 | 7.6 | 7.4 | 7.6 | 7.3 | 35.2 |
| Gas | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 0.9 | 1.0 | 0.9 | 0.8 | 3.9 |
| Coal | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.7 | 0.7 | 3.4 |
| Electricity | 9.7 | 9.3 | 9.5 | 9.5 | 9.3 | 9.6 | 9.8 | 9.8 | 9.9 | 9.9 | 47.9 |
| Heat | 0.4 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 2.7 |
| Biomass | 1.4 | 1.4 | 1.3 | 1.2 | 1.0 | 1.0 | 1.2 | 1.4 | 1.4 | 1.4 | 6.9 |
| **Electricity generation, by source** | **10.6** | **11.0** | **12.7** | **11.5** | **12.2** | **12.4** | **12.9** | **12.8** | **12.6** | **11.6** | **100.0** |
| Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gas | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1.9 |
| 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 | 10.1 | 10.5 | 12.3 | 11.1 | 11.7 | 11.9 | 12.4 | 12.3 | 12.0 | 10.8 | 93.4 |
| Biomass | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Wind | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.5 | 4.1 |
| 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 | 0.2 |
| **Total final consumption, by sector** | **21.4** | **20.8** | **20.9** | **20.7** | **20.2** | **20.5** | **20.7** | **20.8** | **21.1** | **20.6** | **100.0** |
| Industry | 6.3 | 6.3 | 6.1 | 6.1 | 6.0 | 6.1 | 6.0 | 6.2 | 6.4 | 6.3 | 30.4 |
| Transport | 5.1 | 5.1 | 5.2 | 5.0 | 4.9 | 4.9 | 5.0 | 4.6 | 4.6 | 4.5 | 21.8 |
| Residential/Comercial | 7.3 | 6.6 | 6.9 | 6.9 | 6.5 | 6.6 | 6.9 | 6.9 | 7.0 | 7.0 | 33.8 |
| **Oil final consumption, by sector** | **8.5** | **8.3** | **8.2** | **7.9** | **7.8** | **7.8** | **7.6** | **7.4** | **7.6** | **7.3** | **100.0** |
| Industry | 1.0 | 1.0 | 0.9 | 0.9 | 0.8 | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 | 12.4 |
| Transport | 4.9 | 4.9 | 4.9 | 4.7 | 4.6 | 4.6 | 4.5 | 4.0 | 3.9 | 3.8 | 52.9 |
| Residential/Comercial | 0.5 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 4.0 |
| **Natural gas final consumption, by sector** | **0.8** | **0.9** | **0.9** | **0.9** | **0.9** | **1.0** | **0.9** | **1.0** | **0.9** | **0.8** | **100.0** |
| Industry | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 31.9 |
| Transport | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 10.1 |
| Residential/Comercial | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 4.5 |
| **Refined products consumption** | **8.5** | **8.3** | **8.2** | **7.9** | **7.8** | **7.8** | **7.6** | **7.4** | **7.6** | **7.3** | **100.0** |
| Gasoline | 1.3 | 1.1 | 1.1 | 1.0 | 1.0 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 10.4 |
| Diesel | 4.2 | 4.2 | 4.3 | 4.2 | 4.0 | 4.0 | 4.0 | 3.7 | 3.7 | 3.6 | 49.3 |
| Heating Oil | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Aviation Jet | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 5.4 |
| LPG | 0.9 | 0.8 | 0.7 | 0.9 | 0.8 | 0.8 | 0.6 | 0.6 | 0.7 | 0.5 | 6.6 |
| **Imports** | **6.3** | **5.5** | **5.7** | **6.8** | **5.5** | **6.4** | **6.7** | **7.9** | **8.9** | **8.2** | **100.0** |
| Oil | 6.3 | 5.5 | 5.7 | 6.8 | 5.5 | 6.4 | 6.7 | 7.9 | 8.9 | 8.2 | 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 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.4 | 0.4 | 0.5 | 5.8 |
| Diesel | 1.2 | 1.2 | 1.5 | 1.3 | 1.1 | 1.7 | 1.8 | 1.7 | 1.6 | 1.8 | 21.8 |
| Heating Oil | 1.7 | 1.3 | 1.1 | 1.9 | 1.1 | 1.6 | 1.3 | 1.8 | 1.4 | 0.9 | 10.6 |
| Aviation Jet | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.2 | 0.2 | 0.2 | 2.5 |
| LPG | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.9 | 0.2 | 0.3 | 0.2 | 2.7 |
| **Exports** | **179.4** | **172.3** | **175.8** | **167.5** | **170.2** | **179.3** | **185.2** | **194.3** | **185.0** | **178.6** | **100.0** |
| Oil | 90.9 | 86.9 | 79.8 | 76.8 | 80.2 | 82.6 | 88.4 | 90.3 | 83.8 | 83.1 | 46.5 |
| Gas | 88.5 | 85.4 | 96.0 | 90.7 | 90.0 | 96.7 | 96.7 | 104.0 | 101.2 | 95.6 | 53.5 |
| Gasoline | 2.1 | 3.0 | 2.8 | 2.6 | 2.3 | 3.3 | 3.5 | 3.8 | 3.9 | 3.9 | 2.2 |
| Diesel | 2.1 | 3.0 | 2.6 | 2.7 | 2.8 | 3.4 | 2.7 | 4.3 | 3.9 | 4.1 | 2.3 |
| Heating Oil | 1.7 | 1.8 | 1.6 | 1.8 | 1.5 | 1.4 | 1.0 | 1.4 | 1.3 | 1.5 | 0.8 |
| Aviation Jet | 0.0 | 0.1 | 0.1 | 0.1 | 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 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **39.2** | **38.3** | **37.5** | **37.6** | **37.5** | **37.8** | **36.9** | **36.9** | **39.5** | **40.0** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **136.0** | **131.5** | **125.6** | **124.4** | **121.8** | **120.3** | **116.1** | **113.9** | **120.3** | **120.6** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **66.4** | **63.5** | **62.3** | **61.0** | **57.6** | **57.4** | **57.6** | **56.4** | **56.4** | **54.8** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **103.0** | **91.7** | **92.9** | **95.5** | **93.2** | **91.6** | **87.3** | **89.3** | **85.7** | **82.0** | **-** |

*Heat is included

## Primary energy demand mix

Biomass
7%

Other renewables
2%

Oil
30%

2019: 27.21 Mtoe

Hydro
40%

Gas
18%

Coal
3%

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Gas  ■ Coal  ■ Hydro  ■ Biomass  ■ Wind  ■ Other renewables

## Primary energy demand and $CO_2$ emissions growth

20%
15%
10%
5%
0%
-5%
-10%
-15%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
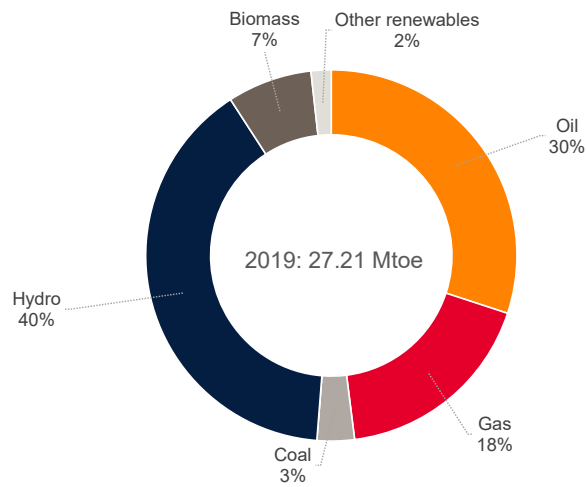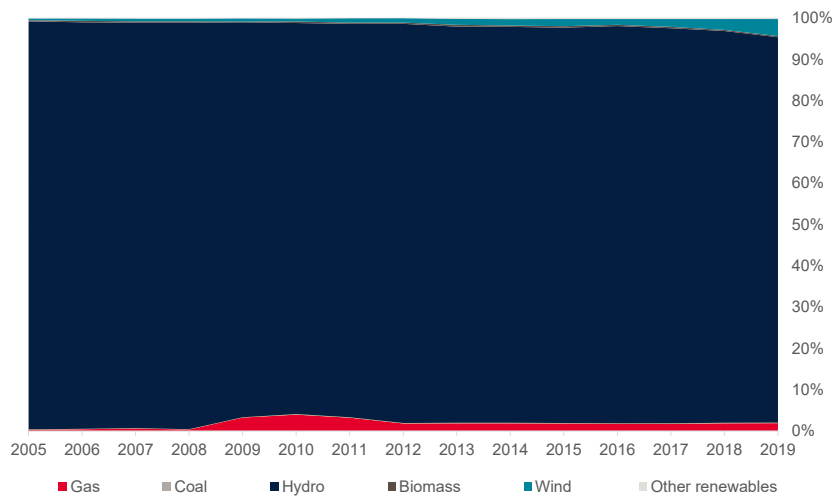
—Demand growth     —Emissions growth
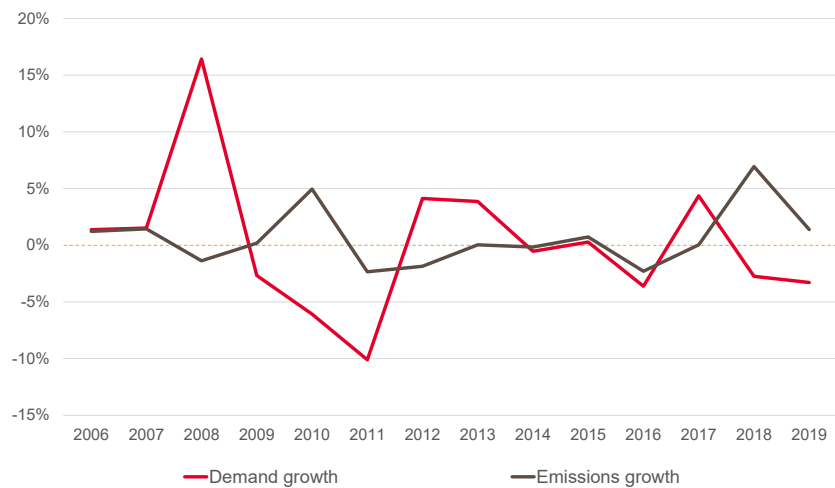
| Poland _(Million toe)_ | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **100.8** | **101.2** | **98.1** | **98.2** | **94.6** | **95.6** | **99.8** | **104.4** | **106.1** | **102.8** | **100.0** |
| Oil | 25.7 | 25.8 | 24.7 | 22.8 | 22.5 | 24.0 | 26.4 | 29.6 | 30.5 | 31.1 | 30.3 |
| Gas | 12.8 | 12.8 | 13.7 | 13.7 | 13.4 | 13.8 | 14.6 | 15.4 | 16.1 | 16.4 | 16.0 |
| Coal | 54.7 | 54.7 | 50.9 | 53.0 | 49.4 | 48.3 | 49.1 | 49.4 | 49.4 | 44.0 | 42.8 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 |
| Biomass | 7.3 | 7.9 | 8.4 | 8.2 | 8.2 | 8.3 | 8.1 | 8.1 | 8.3 | 8.7 | 8.4 |
| Other renewables | 0.1 | 0.3 | 0.4 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 1.1 | 1.4 | 1.3 |
| Electricity balance of trade* | -0.1 | -0.4 | -0.2 | -0.3 | 0.3 | 0.1 | 0.3 | 0.3 | 0.6 | 1.0 | 1.0 |
| **Total final consumption, by source** | **70.3** | **68.9** | **68.3** | **67.2** | **65.8** | **67.1** | **71.3** | **75.8** | **76.8** | **77.2** | **100.0** |
| Oil | 23.2 | 23.1 | 21.8 | 20.8 | 20.9 | 22.2 | 24.4 | 27.9 | 28.7 | 29.3 | 38.0 |
| Gas | 10.1 | 10.1 | 10.4 | 10.4 | 10.0 | 10.1 | 10.9 | 11.0 | 11.1 | 11.1 | 14.4 |
| Coal | 14.5 | 13.5 | 13.8 | 13.4 | 12.9 | 12.4 | 12.7 | 12.9 | 12.7 | 12.5 | 16.2 |
| Electricity | 10.2 | 10.4 | 10.5 | 10.6 | 10.8 | 11.0 | 11.4 | 11.7 | 12.0 | 11.7 | 15.2 |
| Heat | 6.6 | 5.8 | 6.0 | 6.0 | 5.5 | 5.5 | 5.7 | 5.9 | 5.7 | 5.6 | 7.2 |
| Biomass | 5.6 | 5.9 | 5.8 | 6.0 | 5.7 | 5.9 | 6.1 | 6.4 | 6.7 | 6.8 | 8.8 |
| **Electricity generation, by source** | **13.6** | **14.1** | **13.9** | **14.2** | **13.7** | **14.2** | **14.3** | **14.7** | **14.6** | **14.1** | **100.0** |
| Oil | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 1.1 |
| Gas | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 9.2 |
| Coal | 11.9 | 12.2 | 11.7 | 12.0 | 11.3 | 11.4 | 11.4 | 11.5 | 11.5 | 10.4 | 73.6 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 1.6 |
| Biomass | 0.5 | 0.7 | 0.9 | 0.7 | 0.9 | 0.9 | 0.7 | 0.6 | 0.6 | 0.7 | 4.8 |
| Wind | 0.1 | 0.3 | 0.4 | 0.5 | 0.7 | 0.9 | 1.1 | 1.3 | 1.1 | 1.3 | 9.2 |
| 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** | **70.3** | **68.9** | **68.3** | **67.2** | **65.8** | **67.1** | **71.3** | **75.8** | **76.8** | **77.2** | **100.0** |
| Industry | 14.2 | 14.7 | 14.5 | 15.1 | 15.2 | 15.2 | 15.7 | 17.0 | 17.2 | 17.1 | 22.2 |
| Transport | 16.7 | 16.9 | 16.2 | 15.1 | 15.3 | 16.2 | 18.1 | 21.0 | 22.2 | 22.5 | 29.2 |
| Residential/Comercial | 30.7 | 28.5 | 29.0 | 28.5 | 26.7 | 26.7 | 28.2 | 27.9 | 27.9 | 27.8 | 36.0 |
| **Oil final consumption, by sector** | **23.2** | **23.1** | **21.8** | **20.8** | **20.9** | **22.2** | **24.4** | **27.9** | **28.7** | **29.3** | **100.0** |
| Industry | 1.1 | 0.9 | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 2.7 |
| Transport | 15.6 | 15.7 | 15.1 | 14.1 | 14.3 | 15.3 | 17.4 | 20.1 | 21.0 | 21.3 | 72.7 |
| Residential/Comercial | 1.4 | 1.3 | 1.2 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 3.9 |
| **Natural gas final consumption, by sector** | **10.1** | **10.1** | **10.4** | **10.4** | **10.0** | **10.1** | **10.9** | **11.0** | **11.0** | **11.1** | **100.0** |
| Industry | 3.0 | 3.2 | 3.1 | 3.2 | 3.2 | 3.2 | 3.4 | 3.7 | 3.6 | 3.6 | 32.7 |
| 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 | 5.4 | 5.1 | 5.2 | 5.2 | 4.7 | 4.8 | 5.4 | 5.1 | 5.4 | 5.5 | 49.3 |
| **Refined products consumption** | **23.2** | **23.1** | **21.8** | **20.8** | **20.9** | **22.2** | **24.4** | **27.9** | **28.7** | **29.3** | **100.0** |
| Gasoline | 4.2 | 3.9 | 3.8 | 3.6 | 3.5 | 3.7 | 4.0 | 4.3 | 4.5 | 4.6 | 15.5 |
| Diesel | 12.5 | 12.9 | 12.2 | 11.3 | 11.4 | 12.1 | 14.0 | 16.6 | 17.4 | 17.7 | 60.3 |
| Heating Oil | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 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 | 0.1 |
| LPG | 2.7 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 2.7 | 2.9 | 3.1 | 3.0 | 10.4 |
| **Imports** | **38.1** | **39.9** | **40.2** | **38.7** | **38.9** | **42.5** | **44.8** | **48.1** | **50.1** | **50.2** | **100.0** |
| Oil | 29.2 | 30.2 | 30.2 | 28.4 | 29.2 | 32.5 | 32.7 | 35.1 | 37.1 | 37.2 | 74.1 |
| Gas | 8.9 | 9.7 | 10.0 | 10.3 | 9.7 | 10.0 | 12.2 | 13.0 | 13.1 | 13.0 | 25.9 |
| Gasoline | 0.4 | 0.6 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.4 | 0.9 |
| Diesel | 2.2 | 2.0 | 1.4 | 0.9 | 1.5 | 2.1 | 3.8 | 5.3 | 4.9 | 4.7 | 9.4 |
| Heating Oil | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| LPG | 2.2 | 2.2 | 2.1 | 2.3 | 2.2 | 2.2 | 2.4 | 2.7 | 2.8 | 2.7 | 5.4 |
| **Exports** | **3.6** | **4.8** | **5.9** | **7.0** | **7.5** | **8.5** | **8.0** | **6.4** | **6.7** | **6.4** | **100.0** |
| Oil | 3.5 | 4.8 | 5.9 | 6.9 | 7.5 | 8.5 | 7.3 | 5.4 | 6.2 | 5.9 | 91.7 |
| Gas | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.7 | 1.0 | 0.6 | 0.5 | 8.3 |
| Gasoline | 0.5 | 0.5 | 0.7 | 0.9 | 0.7 | 0.8 | 0.5 | 0.2 | 0.4 | 0.3 | 4.0 |
| Diesel | 0.0 | 0.1 | 0.3 | 0.6 | 1.0 | 1.8 | 1.1 | 0.2 | 0.1 | 0.1 | 1.7 |
| Heating Oil | 1.5 | 1.9 | 2.2 | 2.5 | 2.8 | 2.6 | 2.4 | 2.4 | 2.7 | 2.2 | 33.9 |
| Aviation Jet | 0.2 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.2 | 0.3 | 0.2 | 3.6 |
| LPG | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.2 | 0.3 | 0.5 | 0.6 | 0.5 | 8.1 |
| **$CO_2$ Emissions _(Million tons $CO_2$)_** | **318.0** | **313.5** | **307.6** | **304.8** | **291.8** | **296.0** | **306.6** | **319.5** | **322.7** | **302.1** | **-** |
| **$CO_2$ Intensity _(t$CO_2$/million \$15ppp)_** | **362.2** | **340.0** | **328.4** | **320.9** | **297.3** | **290.5** | **292.0** | **290.3** | **278.8** | **250.7** | **-** |
| **Final energy intensity _(toe/million \$15ppp)_** | **74.3** | **69.1** | **67.6** | **65.5** | **61.6** | **60.2** | **62.5** | **63.4** | **61.6** | **59.2** | **-** |
| **Total energy intensity _(toe/million \$15ppp)_** | **114.8** | **109.8** | **104.7** | **103.4** | **96.4** | **93.8** | **95.0** | **94.9** | **91.7** | **85.3** | **-** |

_*Heat is included_

## Primary energy demand mix

Biomass
9%

Other renewables
1%

Oil
31%

2019: 102.77 Mtoe

Coal
43%

Gas
16%

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005  2006  2007  2008  2009  2010  2011  2012  2013  2014  2015  2016  2017  2018  2019

■ Oil   ■ Gas   ■ Coal   ■ Hydro   ■ Biomass   ■ Wind   ■ Solar

## Primary energy demand and CO$_2$ emissions growth

8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%

2006  2007  2008  2009  2010  2011  2012  2013  2014  2015  2016  2017  2018  2019
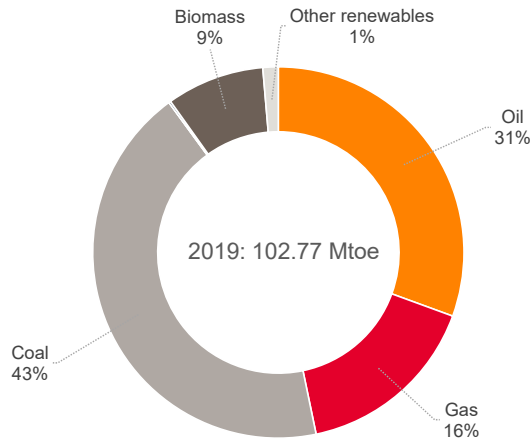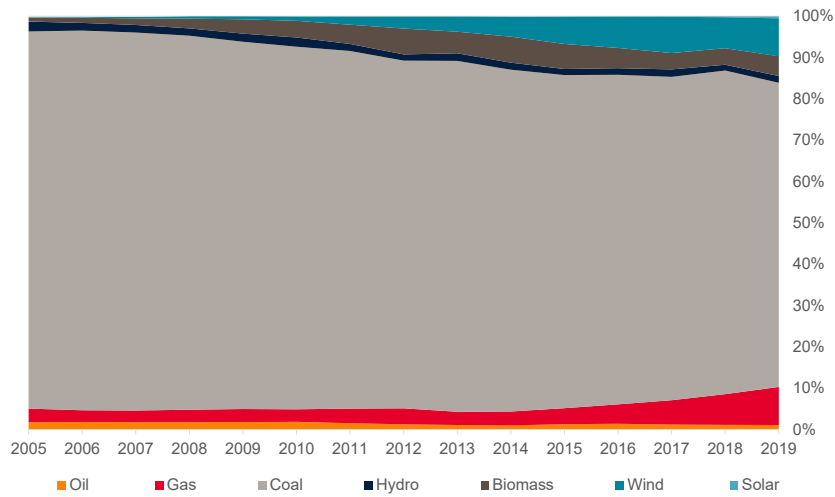
— Demand growth       — Emissions growth
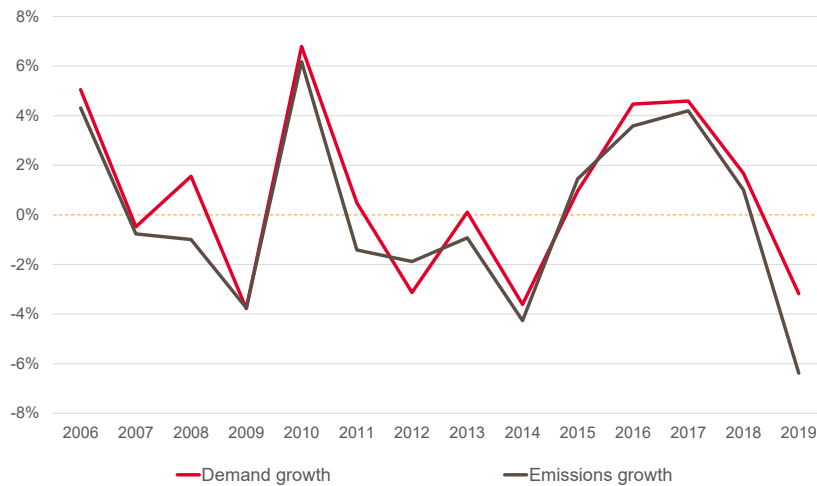
| Portugal<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **23.5** | **22.8** | **21.4** | **21.6** | **21.2** | **22.0** | **21.9** | **22.8** | **22.2** | **22.1** | **100.0** |
| Oil | 11.5 | 10.6 | 9.4 | 9.5 | 9.3 | 9.4 | 9.3 | 9.4 | 9.0 | 9.7 | 43.9 |
| Gas | 4.5 | 4.5 | 3.9 | 3.8 | 3.5 | 4.0 | 4.3 | 5.4 | 5.0 | 5.3 | 23.8 |
| Coal | 1.7 | 2.2 | 2.9 | 2.7 | 2.7 | 3.3 | 2.8 | 3.2 | 2.7 | 1.4 | 6.2 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.4 | 1.0 | 0.5 | 1.2 | 1.3 | 0.7 | 1.4 | 0.5 | 1.1 | 0.8 | 3.5 |
| Biomass | 3.2 | 3.3 | 2.9 | 3.0 | 3.0 | 3.0 | 3.1 | 3.1 | 3.1 | 3.1 | 14.2 |
| Other renewables | 0.8 | 0.8 | 0.9 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.3 | 5.9 |
| Electricity balance of trade* | 0.4 | 0.5 | 0.9 | 0.5 | 0.3 | 0.5 | -0.2 | 0.0 | 0.1 | 0.5 | 2.5 |
| **Total final consumption, by source** | **18.9** | **18.2** | **16.4** | **16.2** | **16.2** | **16.2** | **16.1** | **16.4** | **16.1** | **16.6** | **100.0** |
| Oil | 10.1 | 9.4 | 8.2 | 8.1 | 8.2 | 8.2 | 8.0 | 8.2 | 7.8 | 8.4 | 50.7 |
| Gas | 1.6 | 1.6 | 1.6 | 1.6 | 1.5 | 1.6 | 1.6 | 1.7 | 1.8 | 1.7 | 10.0 |
| Coal | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Electricity | 4.3 | 4.2 | 4.0 | 3.9 | 3.9 | 3.9 | 4.0 | 4.0 | 4.1 | 4.1 | 24.4 |
| Heat | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 1.8 |
| Biomass | 2.5 | 2.5 | 2.1 | 2.2 | 2.1 | 2.2 | 2.2 | 2.2 | 2.2 | 2.2 | 13.0 |
| **Electricity generation, by source** | **4.7** | **4.5** | **4.0** | **4.4** | **4.5** | **4.5** | **5.2** | **5.1** | **5.1** | **4.6** | **100.0** |
| Oil | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 2.3 |
| Gas | 1.3 | 1.3 | 0.9 | 0.6 | 0.6 | 0.9 | 1.1 | 1.6 | 1.3 | 1.4 | 31.8 |
| Coal | 0.6 | 0.8 | 1.1 | 1.0 | 1.0 | 1.3 | 1.1 | 1.3 | 1.0 | 0.5 | 10.4 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.4 | 1.0 | 0.6 | 1.3 | 1.4 | 0.8 | 1.5 | 0.7 | 1.2 | 0.9 | 19.8 |
| Biomass | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 6.9 |
| Wind | 0.8 | 0.8 | 0.9 | 1.0 | 1.0 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 25.9 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 2.7 |
| 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** | **18.9** | **18.2** | **16.4** | **16.2** | **16.2** | **16.2** | **16.1** | **16.4** | **16.1** | **16.6** | **100.0** |
| Industry | 5.4 | 5.3 | 4.6 | 4.6 | 4.4 | 4.4 | 4.4 | 4.5 | 4.4 | 4.4 | 26.6 |
| Transport | 6.5 | 6.0 | 5.5 | 5.4 | 5.5 | 5.6 | 5.7 | 5.8 | 5.8 | 6.1 | 36.5 |
| Residential/Comercial | 4.9 | 4.6 | 4.5 | 4.4 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 4.5 | 27.3 |
| **Oil final consumption, by sector** | **10.1** | **9.4** | **8.2** | **8.1** | **8.2** | **8.2** | **8.0** | **8.2** | **7.8** | **8.4** | **100.0** |
| Industry | 1.0 | 0.9 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.5 | 0.6 | 7.0 |
| Transport | 6.1 | 5.7 | 5.2 | 5.1 | 5.2 | 5.2 | 5.3 | 5.5 | 5.5 | 5.7 | 68.0 |
| Residential/Comercial | 0.9 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 7.2 |
| **Natural gas final consumption, by sector** | **1.6** | **1.6** | **1.6** | **1.6** | **1.5** | **1.6** | **1.6** | **1.7** | **1.8** | **1.7** | **100.0** |
| Industry | 1.1 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.2 | 1.3 | 1.2 | 69.7 |
| Transport | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| Residential/Comercial | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 29.1 |
| **Refined products consumption** | **10.1** | **9.4** | **8.2** | **8.1** | **8.2** | **8.2** | **8.0** | **8.2** | **7.8** | **8.4** | **100.0** |
| Gasoline | 1.5 | 1.3 | 1.2 | 1.2 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 1.1 | 13.3 |
| Diesel | 5.2 | 4.8 | 4.4 | 4.3 | 4.4 | 4.5 | 4.6 | 4.7 | 4.7 | 4.9 | 58.2 |
| Heating Oil | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 3.0 |
| Aviation Jet | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 2.4 |
| LPG | 0.8 | 0.8 | 0.6 | 0.9 | 1.1 | 0.9 | 0.9 | 0.8 | 0.7 | 0.9 | 10.3 |
| **Imports** | **19.9** | **19.6** | **18.5** | **20.0** | **18.8** | **22.2** | **22.0** | **23.8** | **22.1** | **22.8** | **100.0** |
| Oil | 15.4 | 15.0 | 14.5 | 16.2 | 15.3 | 18.1 | 17.8 | 18.4 | 17.1 | 17.5 | 76.5 |
| Gas | 4.5 | 4.5 | 3.9 | 3.8 | 3.5 | 4.1 | 4.3 | 5.4 | 5.0 | 5.4 | 23.5 |
| Gasoline | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 1.1 |
| Diesel | 1.2 | 1.4 | 0.9 | 0.6 | 0.7 | 0.8 | 1.0 | 0.9 | 0.9 | 1.1 | 5.0 |
| Heating Oil | 0.3 | 0.4 | 0.2 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 | 0.2 | 0.8 |
| Aviation Jet | 0.1 | 0.3 | 0.2 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.3 | 1.1 |
| LPG | 0.5 | 0.5 | 0.5 | 0.7 | 0.9 | 0.8 | 0.8 | 0.7 | 0.6 | 0.8 | 3.5 |
| **Exports** | **2.9** | **2.9** | **3.7** | **5.6** | **4.8** | **6.9** | **6.8** | **7.0** | **5.4** | **4.9** | **100.0** |
| Oil | 2.9 | 2.9 | 3.7 | 5.6 | 4.8 | 6.9 | 6.8 | 7.0 | 5.4 | 4.9 | 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 | 0.8 | 0.9 | 1.4 | 1.0 | 1.9 | 1.8 | 2.0 | 1.8 | 1.7 | 33.6 |
| Diesel | 0.0 | 0.1 | 0.4 | 1.7 | 1.3 | 2.3 | 2.1 | 2.1 | 1.2 | 0.9 | 18.5 |
| Heating Oil | 0.9 | 1.2 | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.5 | 1.2 | 1.1 | 21.6 |
| Aviation Jet | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| LPG | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 1.8 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **48.5** | **48.0** | **46.5** | **45.1** | **44.2** | **48.2** | **47.6** | **51.9** | **49.5** | **47.6** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **150.9** | **152.2** | **153.6** | **150.6** | **146.3** | **156.8** | **151.9** | **161.3** | **149.8** | **141.0** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **53.6** | **52.0** | **49.8** | **49.7** | **48.8** | **48.5** | **47.8** | **47.2** | **46.0** | **45.9** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **73.1** | **72.4** | **70.9** | **72.1** | **70.3** | **71.6** | **69.8** | **70.9** | **67.0** | **65.4** | **-** |

*Heat is included

**Primary energy demand mix**

Other renewables
6%

Biom…

Hydro
4%

Coal
6%

Gas
24%

Oil
45%

2019: 22.10 Mtoe

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil  ■ Gas  ■ Coal  ■ Hydro  ■ Biomass  ■ Wind  ■ Solar  ■ Other renewables

**Primary energy demand and CO$_2$ emissions growth**

15%
10%
5%
0%
-5%
-10%
-15%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
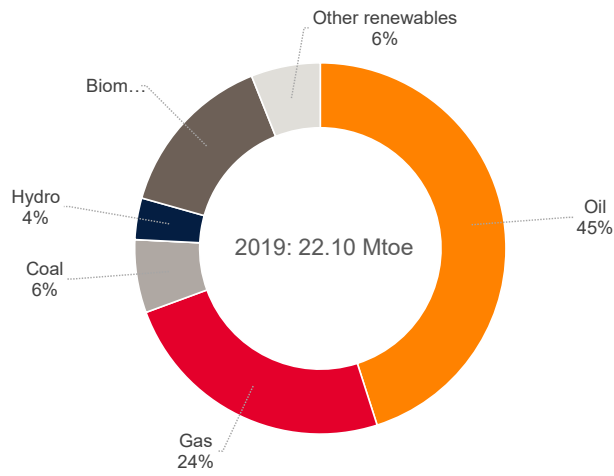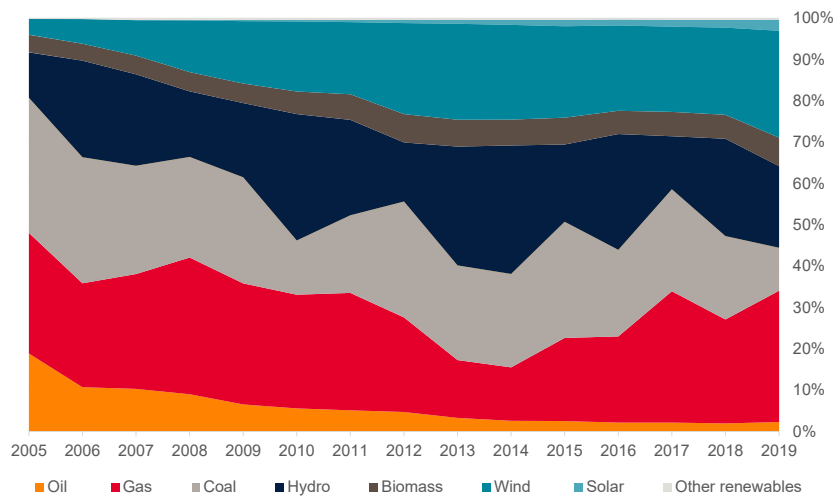
— Demand growth  — Emissions growth
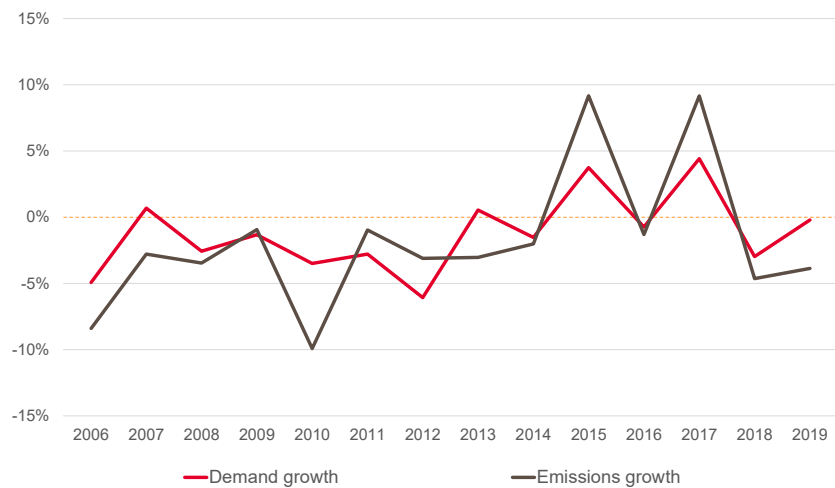
| Romania<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **35.1** | **35.9** | **35.0** | **32.0** | **31.6** | **31.9** | **31.9** | **33.4** | **33.5** | **33.8** | **100.0** |
| Oil | 8.6 | 8.6 | 8.4 | 8.0 | 8.0 | 8.6 | 8.8 | 9.5 | 9.6 | 9.7 | 28.8 |
| Gas | 10.8 | 11.1 | 10.8 | 9.8 | 9.3 | 8.9 | 9.0 | 9.6 | 9.8 | 10.3 | 30.4 |
| Coal | 7.0 | 8.1 | 7.6 | 5.7 | 5.7 | 5.9 | 5.3 | 5.4 | 5.1 | 4.6 | 13.6 |
| Nuclear | 3.0 | 3.1 | 3.0 | 3.0 | 3.0 | 3.0 | 2.9 | 3.0 | 3.0 | 2.9 | 8.7 |
| Hydro | 1.7 | 1.3 | 1.0 | 1.3 | 1.6 | 1.4 | 1.6 | 1.2 | 1.5 | 1.3 | 4.0 |
| Biomass | 4.1 | 3.7 | 3.9 | 3.9 | 3.9 | 3.8 | 4.0 | 4.0 | 4.0 | 3.9 | 11.6 |
| Other renewables | 0.0 | 0.1 | 0.2 | 0.4 | 0.7 | 0.8 | 0.7 | 0.8 | 0.7 | 0.7 | 2.1 |
| Electricity balance of trade* | -0.2 | -0.1 | 0.0 | -0.1 | -0.6 | -0.6 | -0.4 | -0.2 | -0.2 | 0.3 | 0.7 |
| **Total final consumption, by source** | **23.7** | **24.0** | **24.4** | **23.2** | **23.1** | **22.8** | **23.2** | **24.1** | **24.2** | **24.8** | **100.0** |
| Oil | 6.6 | 7.1 | 7.6 | 7.1 | 7.3 | 7.6 | 8.0 | 8.3 | 8.4 | 8.9 | 35.8 |
| Gas | 6.8 | 7.0 | 6.9 | 6.4 | 6.3 | 5.6 | 5.5 | 5.9 | 5.9 | 6.1 | 24.6 |
| Coal | 1.1 | 0.9 | 1.0 | 0.9 | 0.9 | 1.0 | 0.9 | 0.8 | 0.8 | 0.9 | 3.6 |
| Electricity | 3.6 | 3.7 | 3.6 | 3.5 | 3.6 | 3.7 | 3.7 | 3.8 | 3.9 | 3.9 | 15.6 |
| Heat | 1.7 | 1.7 | 1.5 | 1.4 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.2 | 4.9 |
| Biomass | 4.1 | 3.6 | 3.8 | 3.8 | 3.7 | 3.6 | 3.8 | 3.8 | 3.8 | 3.8 | 15.5 |
| **Electricity generation, by source** | **5.2** | **5.4** | **5.1** | **5.1** | **5.6** | **5.7** | **5.6** | **5.5** | **5.6** | **5.1** | **100.0** |
| Oil | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 1.0 |
| Gas | 0.6 | 0.7 | 0.7 | 0.8 | 0.7 | 0.8 | 0.8 | 0.9 | 0.9 | 0.9 | 18.4 |
| Coal | 1.8 | 2.1 | 2.0 | 1.5 | 1.5 | 1.6 | 1.4 | 1.4 | 1.3 | 1.1 | 20.5 |
| Nuclear | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 18.9 |
| Hydro | 1.7 | 1.3 | 1.1 | 1.3 | 1.7 | 1.5 | 1.6 | 1.3 | 1.6 | 1.4 | 26.6 |
| Biomass | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.6 |
| Wind | 0.0 | 0.1 | 0.2 | 0.4 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 0.6 | 11.0 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 3.1 |
| 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** | **23.7** | **24.0** | **24.4** | **23.2** | **23.1** | **22.8** | **23.2** | **24.1** | **24.2** | **24.8** | **100.0** |
| Industry | 6.8 | 7.1 | 6.8 | 6.3 | 6.4 | 6.4 | 6.3 | 6.4 | 6.4 | 6.6 | 26.8 |
| Transport | 4.8 | 5.0 | 5.4 | 5.3 | 5.3 | 5.4 | 5.8 | 6.2 | 6.3 | 6.5 | 26.4 |
| Residential/Comercial | 10.1 | 9.6 | 9.8 | 9.5 | 9.2 | 9.2 | 9.3 | 9.6 | 9.6 | 9.6 | 38.7 |
| **Oil final consumption, by sector** | **6.6** | **7.1** | **7.6** | **7.1** | **7.3** | **7.6** | **8.0** | **8.3** | **8.4** | **8.9** | **100.0** |
| Industry | 0.6 | 0.8 | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 1.0 | 10.8 |
| Transport | 4.6 | 4.7 | 5.1 | 5.0 | 5.1 | 5.1 | 5.5 | 5.8 | 6.0 | 6.1 | 69.4 |
| Residential/Comercial | 0.3 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 3.7 |
| **Natural gas final consumption, by sector** | **6.8** | **7.0** | **6.9** | **6.4** | **6.3** | **5.6** | **5.5** | **5.9** | **5.9** | **6.1** | **100.0** |
| Industry | 2.8 | 3.0 | 2.6 | 2.4 | 2.5 | 2.2 | 2.1 | 2.2 | 2.2 | 2.3 | 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/Comercial | 3.1 | 3.1 | 3.3 | 3.2 | 2.9 | 3.0 | 3.0 | 3.3 | 3.3 | 3.3 | 54.8 |
| **Refined products consumption** | **6.6** | **7.1** | **7.6** | **7.1** | **7.3** | **7.6** | **8.0** | **8.3** | **8.4** | **8.9** | **100.0** |
| Gasoline | 1.4 | 1.3 | 1.4 | 1.3 | 1.4 | 1.3 | 1.4 | 1.4 | 1.4 | 1.4 | 15.8 |
| Diesel | 3.6 | 3.9 | 4.4 | 4.2 | 4.2 | 4.4 | 4.7 | 5.1 | 5.4 | 5.6 | 63.0 |
| Heating Oil | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Aviation Jet | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| LPG | 0.5 | 0.5 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 5.3 |
| **Imports** | **10.0** | **10.4** | **10.2** | **9.0** | **9.7** | **9.9** | **11.7** | **12.1** | **13.0** | **14.7** | **100.0** |
| Oil | 8.2 | 7.9 | 7.9 | 7.8 | 9.3 | 9.7 | 10.5 | 11.2 | 11.7 | 12.2 | 82.4 |
| Gas | 1.8 | 2.5 | 2.3 | 1.2 | 0.5 | 0.2 | 1.2 | 1.0 | 1.3 | 2.6 | 17.6 |
| Gasoline | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 |
| Diesel | 1.3 | 1.3 | 1.6 | 1.1 | 1.0 | 1.2 | 1.3 | 1.4 | 1.5 | 1.2 | 8.3 |
| Heating Oil | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Aviation Jet | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.3 |
| LPG | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 1.4 |
| **Exports** | **3.6** | **3.8** | **3.5** | **3.9** | **4.7** | **4.9** | **5.3** | **5.2** | **5.4** | **5.6** | **100.0** |
| Oil | 3.6 | 3.8 | 3.5 | 3.9 | 4.7 | 4.9 | 5.3 | 5.2 | 5.4 | 5.6 | 99.8 |
| Gas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Gasoline | 1.4 | 1.8 | 1.6 | 1.8 | 1.8 | 1.9 | 2.2 | 2.0 | 2.2 | 2.2 | 39.7 |
| Diesel | 0.8 | 0.7 | 0.7 | 0.9 | 1.7 | 1.6 | 1.7 | 1.6 | 1.6 | 1.6 | 28.2 |
| Heating Oil | 0.4 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 2.6 |
| Aviation Jet | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 7.3 |
| LPG | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 6.3 |
| **CO$_2$ Emissions *(Million tons CO$_2$)*** | **74.7** | **81.6** | **79.1** | **69.6** | **69.1** | **69.4** | **67.9** | **71.1** | **71.1** | **74.8** | **-** |
| **CO$_2$ Intensity *(tCO$_2$/million \$15ppp)*** | **201.8** | **216.0** | **205.3** | **174.3** | **167.4** | **162.0** | **151.2** | **147.5** | **141.3** | **142.8** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **59.9** | **58.9** | **58.7** | **54.3** | **52.1** | **50.5** | **48.9** | **47.6** | **46.0** | **45.0** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **94.7** | **94.9** | **90.8** | **80.1** | **76.7** | **74.5** | **70.9** | **69.3** | **66.6** | **64.5** | **-** |

*Heat is included*

**Primary energy demand mix**

Other renewables
2%

Biomass
12%

Hydro
4%

Nuclear
9%

Coal
14%

Oil
29%

Gas
30%

2019: 33.79 Mtoe

**Electricity generation by source**

Oil   Gas   Coal   Nuclear   Hydro   Biomass   Wind   Solar   Other renewables
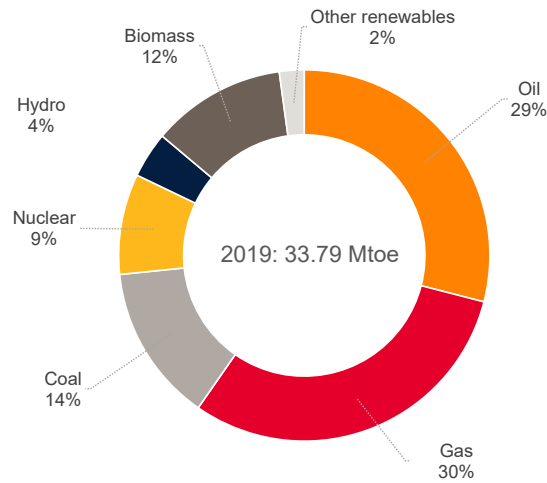
**Primary energy demand and CO$_2$ emissions growth**
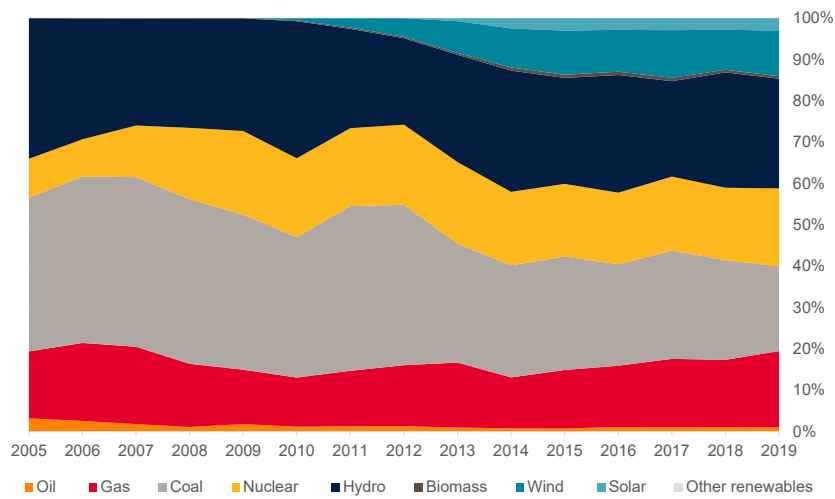
Demand growth      Emissions growth
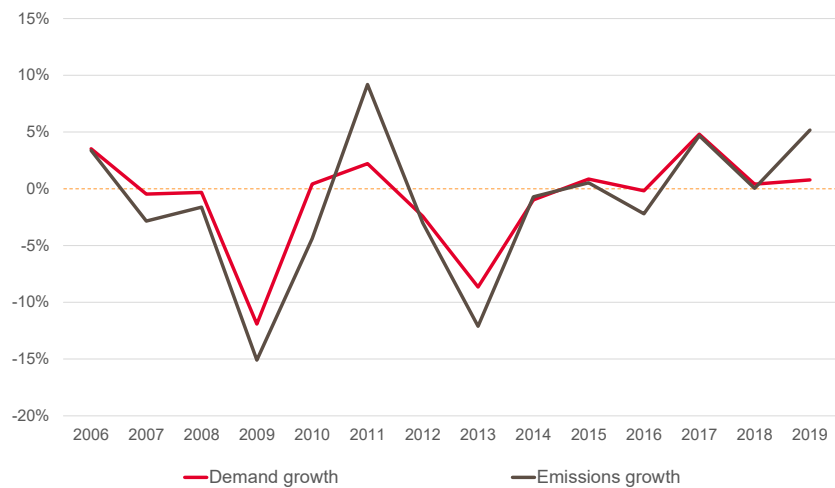
| **Span**<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **128.0** | **125.9** | **125.7** | **117.4** | **114.8** | **119.2** | **120.1** | **126.3** | **126.3** | **124.8** | **100.0** |
| Oil | 58.2 | 54.8 | 50.4 | 47.8 | 46.9 | 49.3 | 50.7 | 53.4 | 54.9 | 54.8 | 43.9 |
| Gas | 31.1 | 28.9 | 28.6 | 26.2 | 23.7 | 24.5 | 25.0 | 27.3 | 27.1 | 31.0 | 24.8 |
| Coal | 7.8 | 12.4 | 15.2 | 11.0 | 11.4 | 13.3 | 10.5 | 12.6 | 10.2 | 4.4 | 3.5 |
| Nuclear | 16.2 | 15.0 | 16.0 | 14.8 | 14.9 | 14.9 | 15.3 | 15.1 | 14.5 | 15.2 | 12.2 |
| Hydro | 3.6 | 2.6 | 1.8 | 3.2 | 3.4 | 2.4 | 3.1 | 1.6 | 3.2 | 2.3 | 1.8 |
| Biomass | 6.7 | 7.3 | 7.9 | 7.1 | 7.0 | 7.0 | 7.2 | 7.5 | 7.9 | 8.0 | 6.4 |
| Other renewables | 4.4 | 4.5 | 5.3 | 5.9 | 5.6 | 5.4 | 5.4 | 5.5 | 5.5 | 6.0 | 4.8 |
| Electricity balance of trade* | -0.1 | 0.3 | 0.7 | 1.4 | 1.9 | 2.3 | 3.0 | 3.2 | 3.2 | 3.1 | 2.5 |
| **Total final consumption, by source** | **92.8** | **89.5** | **85.3** | **81.8** | **79.4** | **80.5** | **82.8** | **84.2** | **86.9** | **86.6** | **100.0** |
| Oil | 50.0 | 46.3 | 41.8 | 39.9 | 38.5 | 40.2 | 42.0 | 42.8 | 44.3 | 44.4 | 51.3 |
| Gas | 14.9 | 14.5 | 15.0 | 15.3 | 14.8 | 13.6 | 13.9 | 13.9 | 14.6 | 14.6 | 16.8 |
| Coal | 1.5 | 1.9 | 1.5 | 1.8 | 1.5 | 1.5 | 1.4 | 1.6 | 1.6 | 1.4 | 1.6 |
| Electricity | 21.1 | 20.9 | 20.7 | 19.8 | 19.5 | 20.0 | 20.0 | 20.2 | 20.3 | 19.9 | 23.0 |
| Heat | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 |
| Biomass | 5.1 | 5.6 | 6.0 | 4.8 | 4.8 | 5.0 | 5.2 | 5.4 | 5.8 | 5.9 | 6.8 |
| **Electricity generation, by source** | **25.9** | **25.3** | **25.6** | **24.6** | **24.0** | **24.2** | **23.6** | **23.7** | **23.6** | **23.6** | **100.0** |
| Oil | 1.4 | 1.3 | 1.3 | 1.2 | 1.2 | 1.5 | 1.5 | 1.4 | 1.2 | 1.1 | 4.9 |
| Gas | 8.2 | 7.4 | 6.3 | 4.9 | 4.1 | 4.5 | 4.5 | 5.5 | 5.0 | 7.4 | 31.4 |
| Coal | 2.3 | 3.9 | 4.8 | 3.6 | 3.9 | 4.5 | 3.2 | 4.0 | 3.2 | 1.0 | 4.1 |
| Nuclear | 5.3 | 5.0 | 5.3 | 4.9 | 4.9 | 4.9 | 5.0 | 5.0 | 4.8 | 5.0 | 21.3 |
| Hydro | 3.9 | 2.8 | 2.1 | 3.5 | 3.7 | 2.7 | 3.4 | 1.8 | 3.4 | 2.4 | 10.3 |
| Biomass | 0.4 | 0.5 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 2.5 |
| Wind | 3.8 | 3.7 | 4.3 | 4.8 | 4.5 | 4.2 | 4.2 | 4.2 | 4.4 | 4.7 | 20.1 |
| Solar | 0.6 | 0.8 | 1.0 | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.1 | 1.3 | 5.5 |
| 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** | **92.8** | **89.5** | **85.3** | **81.8** | **79.4** | **80.5** | **82.8** | **84.2** | **86.9** | **86.6** | **100.0** |
| Industry | 21.5 | 21.3 | 20.7 | 20.6 | 20.0 | 18.9 | 18.7 | 19.4 | 20.0 | 19.7 | 22.7 |
| Transport | 33.9 | 32.2 | 29.7 | 28.1 | 28.3 | 29.5 | 30.7 | 31.8 | 33.1 | 33.6 | 38.8 |
| Residential/Comercial | 27.1 | 26.1 | 25.7 | 24.7 | 23.9 | 25.1 | 25.8 | 25.5 | 26.0 | 25.7 | 29.7 |
| **Oil final consumption, by sector** | **50.0** | **46.3** | **41.8** | **39.9** | **38.5** | **40.2** | **42.0** | **42.8** | **44.3** | **44.4** | **100.0** |
| Industry | 4.9 | 4.3 | 3.5 | 2.7 | 2.5 | 2.7 | 2.8 | 2.8 | 3.0 | 2.9 | 6.5 |
| Transport | 32.1 | 30.0 | 27.1 | 26.7 | 26.8 | 27.8 | 28.8 | 29.7 | 30.6 | 31.0 | 69.8 |
| Residential/Comercial | 4.8 | 4.2 | 4.0 | 4.2 | 3.9 | 4.0 | 4.0 | 3.9 | 4.1 | 4.0 | 9.0 |
| **Natural gas final consumption, by sector** | **14.9** | **14.5** | **15.0** | **15.3** | **14.8** | **13.6** | **13.9** | **13.9** | **14.6** | **14.6** | **100.0** |
| Industry | 7.8 | 7.7 | 8.4 | 9.0 | 8.8 | 6.9 | 6.5 | 6.9 | 7.2 | 7.2 | 49.4 |
| Transport | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 2.7 |
| Residential/Comercial | 5.3 | 5.2 | 5.1 | 4.7 | 4.5 | 5.6 | 6.5 | 6.2 | 6.4 | 6.4 | 44.2 |
| **Refined products consumption** | **50.0** | **46.3** | **41.8** | **39.9** | **38.5** | **40.2** | **42.0** | **42.8** | **44.3** | **44.4** | **100.0** |
| Gasoline | 5.6 | 5.2 | 4.8 | 4.6 | 4.5 | 4.6 | 4.8 | 4.9 | 5.1 | 5.4 | 12.2 |
| Diesel | 29.7 | 27.5 | 25.2 | 25.7 | 25.5 | 26.9 | 27.4 | 27.9 | 28.5 | 28.6 | 64.3 |
| Heating Oil | 1.1 | 1.1 | 0.7 | 0.8 | 0.6 | 0.5 | 0.6 | 0.9 | 1.1 | 1.1 | 2.5 |
| Aviation Jet | 2.3 | 2.1 | 1.8 | 1.7 | 1.8 | 1.8 | 2.0 | 2.1 | 2.2 | 2.3 | 5.1 |
| LPG | 2.0 | 1.8 | 1.7 | 1.7 | 1.8 | 2.1 | 2.8 | 2.5 | 2.9 | 2.7 | 6.0 |
| **Imports** | **112.9** | **110.7** | **110.2** | **109.7** | **112.0** | **112.7** | **114.5** | **120.4** | **121.1** | **122.0** | **100.0** |
| Oil | 81.0 | 79.8 | 79.7 | 78.8 | 80.3 | 84.5 | 86.3 | 90.2 | 90.8 | 89.6 | 73.5 |
| Gas | 31.9 | 30.9 | 30.5 | 30.9 | 31.6 | 28.2 | 28.2 | 30.1 | 30.3 | 32.4 | 26.5 |
| Gasoline | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 0.5 | 1.3 | 1.1 |
| Diesel | 11.0 | 8.7 | 6.8 | 4.7 | 3.9 | 4.7 | 4.9 | 5.2 | 5.6 | 5.7 | 4.7 |
| Heating Oil | 3.3 | 3.6 | 3.1 | 4.2 | 5.3 | 4.3 | 5.9 | 6.7 | 7.0 | 6.1 | 5.0 |
| Aviation Jet | 2.5 | 2.8 | 2.4 | 1.9 | 2.0 | 2.3 | 2.2 | 2.3 | 1.8 | 1.7 | 1.4 |
| LPG | 0.9 | 0.6 | 0.4 | 0.4 | 0.7 | 0.9 | 1.6 | 1.4 | 1.5 | 1.4 | 1.1 |
| **Exports** | **12.5** | **14.5** | **21.8** | **26.9** | **28.3** | **27.1** | **28.0** | **29.6** | **28.6** | **24.9** | **100.0** |
| Oil | 11.5 | 13.0 | 19.4 | 21.8 | 21.1 | 22.7 | 24.5 | 27.1 | 25.7 | 23.9 | 95.9 |
| Gas | 1.0 | 1.5 | 2.4 | 5.1 | 7.1 | 4.4 | 3.5 | 2.5 | 2.8 | 1.0 | 4.1 |
| Gasoline | 3.6 | 3.5 | 3.5 | 3.6 | 3.4 | 5.0 | 4.7 | 4.7 | 4.6 | 4.9 | 19.6 |
| Diesel | 1.2 | 2.4 | 6.3 | 5.5 | 5.2 | 5.5 | 5.5 | 6.7 | 6.8 | 6.7 | 26.8 |
| Heating Oil | 2.0 | 2.1 | 1.4 | 2.9 | 2.9 | 2.2 | 2.9 | 3.5 | 3.6 | 2.2 | 8.8 |
| Aviation Jet | 0.1 | 0.3 | 0.2 | 0.4 | 0.3 | 0.5 | 0.6 | 0.6 | 0.5 | 0.4 | 1.7 |
| LPG | 0.3 | 0.3 | 0.3 | 0.4 | 0.5 | 0.4 | 0.5 | 0.6 | 0.5 | 0.6 | 2.4 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **267.0** | **270.3** | **265.5** | **238.3** | **236.0** | **251.7** | **242.6** | **257.8** | **254.8** | **239.6** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **162.9** | **166.6** | **168.5** | **153.9** | **150.3** | **154.7** | **144.6** | **149.2** | **144.0** | **132.8** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **52.3** | **51.0** | **50.3** | **49.6** | **48.0** | **46.9** | **46.4** | **45.9** | **46.3** | **45.3** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **78.1** | **77.6** | **79.8** | **75.8** | **73.2** | **73.3** | **71.6** | **73.1** | **71.4** | **69.2** | **-** |

*Heat is included

**Primary energy demand mix**

Biomass
7%

Other renewables
5%

Hydro
2%

Nuclear
12%

2019: 124.80 Mtoe

Oil
45%

Coal
4%

Gas
25%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil   ■ Gas   ■ Coal   ■ Nuclear   ■ Hydro   ■ Biomass   ■ Wind   ■ Solar   ■ Other renewables

**Primary energy demand and CO$_2$ emissions growth**

8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%
-10%
-12%
-14%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
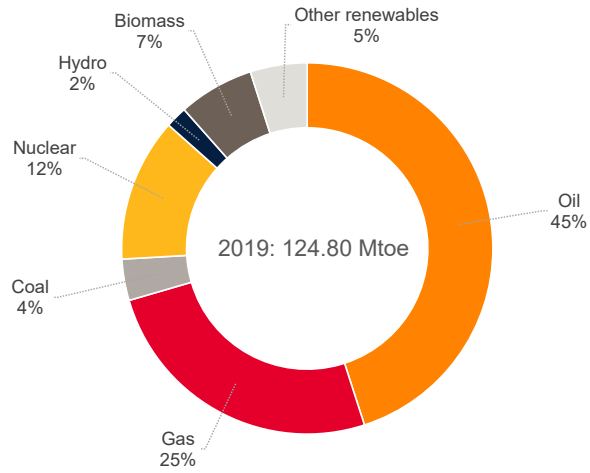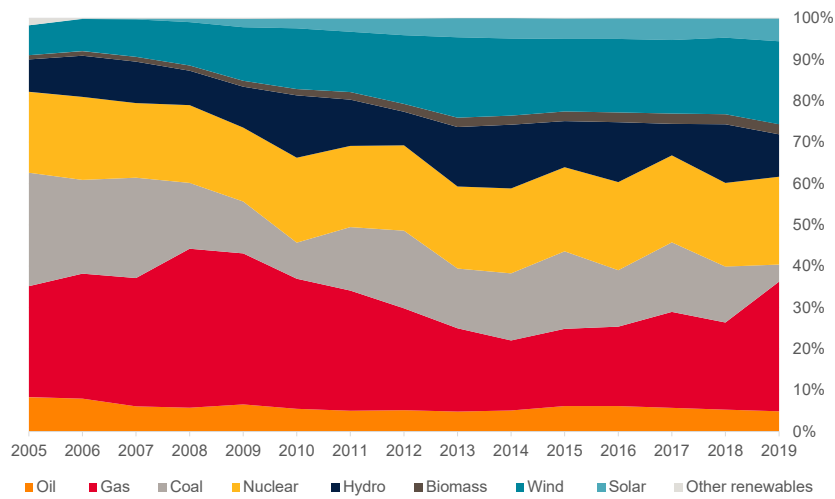
—— Demand growth          —— Emissions growth
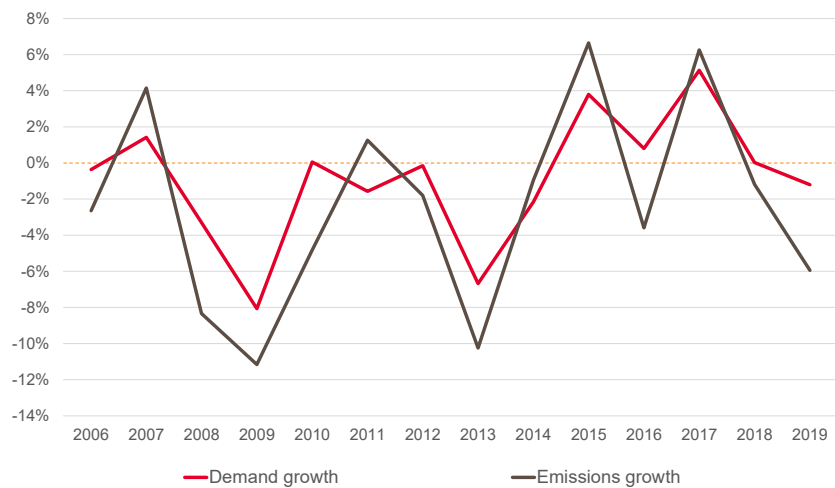
| Sweden<br>(Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **50.9** | **49.6** | **50.1** | **49.3** | **48.2** | **44.8** | **49.2** | **49.2** | **48.9** | **47.1** | **100.0** |
| Oil | 13.9 | 13.7 | 12.6 | 11.9 | 11.6 | 9.3 | 11.7 | 10.4 | 9.7 | 9.9 | 21.1 |
| Gas | 1.5 | 1.2 | 1.0 | 1.0 | 0.8 | 0.7 | 0.8 | 0.9 | 0.9 | 1.0 | 2.1 |
| Coal | 2.5 | 2.5 | 2.2 | 2.2 | 2.1 | 2.1 | 2.1 | 2.0 | 2.0 | 2.0 | 4.3 |
| Nuclear | 15.1 | 15.8 | 16.7 | 17.3 | 16.9 | 14.7 | 16.4 | 17.1 | 17.9 | 16.0 | 34.1 |
| Hydro | 5.7 | 5.7 | 6.8 | 5.3 | 5.5 | 6.5 | 5.3 | 5.6 | 5.3 | 5.1 | 10.9 |
| Biomass | 11.5 | 10.6 | 11.6 | 11.4 | 11.4 | 11.8 | 12.4 | 13.1 | 12.8 | 13.2 | 28.0 |
| Other renewables | 0.3 | 0.5 | 0.6 | 0.8 | 1.0 | 1.4 | 1.3 | 1.5 | 1.5 | 1.8 | 3.8 |
| Electricity balance of trade* | 0.4 | -0.4 | -1.4 | -0.7 | -1.1 | -1.7 | -0.8 | -1.4 | -1.3 | -2.0 | -4.2 |
| **Total final consumption, by source** | **35.4** | **33.5** | **33.4** | **32.8** | **32.4** | **32.7** | **33.9** | **34.2** | **34.4** | **33.5** | **100.0** |
| Oil | 11.2 | 10.6 | 9.9 | 9.7 | 9.7 | 9.4 | 9.9 | 9.9 | 10.1 | 10.1 | 30.2 |
| Gas | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.7 | 0.6 | 0.8 | 0.7 | 0.8 | 2.3 |
| Coal | 1.4 | 1.4 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.2 | 1.3 | 3.8 |
| Electricity | 11.3 | 10.7 | 10.9 | 10.8 | 10.5 | 10.7 | 11.0 | 10.9 | 11.0 | 9.9 | 29.6 |
| Heat | 5.2 | 4.1 | 4.5 | 4.5 | 4.2 | 4.2 | 4.4 | 4.4 | 4.5 | 4.3 | 12.8 |
| Biomass | 5.7 | 5.9 | 6.1 | 6.0 | 6.1 | 6.5 | 6.7 | 6.9 | 6.9 | 7.2 | 21.4 |
| **Electricity generation, by source** | **12.8** | **12.9** | **14.3** | **13.2** | **13.2** | **13.9** | **13.4** | **14.1** | **14.0** | **13.5** | **100.0** |
| Oil | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Gas | 0.2 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.3 |
| Coal | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.5 |
| Nuclear | 5.0 | 5.2 | 5.5 | 5.7 | 5.6 | 4.8 | 5.4 | 5.6 | 5.9 | 5.3 | 39.2 |
| Hydro | 5.7 | 5.7 | 6.8 | 5.3 | 5.5 | 6.5 | 5.3 | 5.6 | 5.3 | 5.1 | 38.0 |
| Biomass | 1.2 | 1.1 | 1.1 | 1.1 | 1.0 | 1.0 | 1.1 | 1.2 | 1.1 | 1.1 | 8.4 |
| Wind | 0.3 | 0.5 | 0.6 | 0.8 | 1.0 | 1.4 | 1.3 | 1.5 | 1.4 | 1.8 | 13.0 |
| 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** | **35.4** | **33.5** | **33.4** | **32.8** | **32.4** | **32.7** | **33.9** | **34.2** | **34.4** | **33.5** | **100.0** |
| Industry | 12.2 | 11.9 | 11.7 | 11.5 | 11.3 | 11.6 | 11.5 | 11.5 | 11.3 | 11.1 | 33.1 |
| Transport | 7.8 | 7.7 | 7.5 | 7.5 | 7.7 | 7.8 | 8.2 | 8.4 | 8.1 | 8.4 | 24.9 |
| Residential/Comercial | 12.6 | 11.5 | 11.9 | 11.4 | 11.1 | 11.2 | 11.8 | 11.6 | 12.1 | 11.4 | 33.9 |
| **Oil final consumption, by sector** | **11.2** | **10.6** | **9.9** | **9.7** | **9.7** | **9.4** | **9.9** | **9.9** | **10.1** | **10.1** | **100.0** |
| Industry | 1.2 | 1.1 | 1.0 | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 8.4 |
| Transport | 7.2 | 7.0 | 6.7 | 6.5 | 6.6 | 6.5 | 6.6 | 6.5 | 6.3 | 6.4 | 63.6 |
| Residential/Comercial | 0.7 | 0.6 | 0.4 | 0.3 | 0.4 | 0.3 | 0.4 | 0.3 | 0.6 | 0.6 | 5.7 |
| **Natural gas final consumption, by sector** | **0.7** | **0.7** | **0.7** | **0.6** | **0.6** | **0.7** | **0.6** | **0.8** | **0.7** | **0.8** | **100.0** |
| Industry | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.4 | 0.3 | 0.4 | 0.3 | 0.4 | 56.1 |
| Transport | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Residential/Comercial | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 15.8 |
| **Refined products consumption** | **11.2** | **10.6** | **9.9** | **9.7** | **9.7** | **9.4** | **9.9** | **9.9** | **10.1** | **10.1** | **100.0** |
| Gasoline | 3.3 | 3.0 | 2.7 | 2.6 | 2.8 | 2.5 | 2.5 | 2.4 | 2.1 | 2.1 | 21.1 |
| Diesel | 4.7 | 4.7 | 4.4 | 4.3 | 4.2 | 4.4 | 4.6 | 4.6 | 4.9 | 5.1 | 50.1 |
| Heating Oil | 0.8 | 0.6 | 0.5 | 0.5 | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 2.2 |
| Aviation Jet | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 1.7 |
| LPG | 0.9 | 1.0 | 0.9 | 1.1 | 1.0 | 1.0 | 1.2 | 1.1 | 1.2 | 1.0 | 10.1 |
| **Imports** | **29.7** | **28.7** | **28.9** | **25.3** | **27.8** | **29.1** | **31.7** | **30.5** | **30.0** | **26.3** | **100.0** |
| Oil | 28.3 | 27.5 | 27.9 | 24.3 | 27.1 | 28.4 | 30.9 | 29.5 | 29.0 | 25.2 | 96.0 |
| Gas | 1.5 | 1.2 | 1.0 | 1.0 | 0.8 | 0.7 | 0.8 | 0.9 | 1.0 | 1.0 | 4.0 |
| Gasoline | 2.0 | 1.6 | 1.2 | 1.3 | 1.9 | 1.8 | 2.0 | 1.6 | 0.8 | 0.6 | 2.4 |
| Diesel | 2.2 | 2.2 | 2.1 | 2.2 | 2.4 | 2.6 | 3.1 | 3.0 | 3.1 | 3.6 | 13.8 |
| Heating Oil | 1.0 | 1.2 | 0.7 | 0.7 | 0.4 | 0.7 | 2.0 | 1.5 | 1.7 | 0.8 | 3.1 |
| Aviation Jet | 0.7 | 0.8 | 0.7 | 0.6 | 0.9 | 0.8 | 1.0 | 1.0 | 1.1 | 1.1 | 4.0 |
| LPG | 1.0 | 1.3 | 0.9 | 1.1 | 1.2 | 1.1 | 1.5 | 1.3 | 1.2 | 1.4 | 5.2 |
| **Exports** | **12.8** | **11.6** | **13.6** | **10.0** | **12.8** | **15.3** | **17.0** | **18.1** | **15.9** | **11.2** | **100.0** |
| Oil | 12.8 | 11.6 | 13.6 | 10.0 | 12.8 | 15.3 | 17.0 | 18.0 | 15.8 | 11.1 | 99.4 |
| Gas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.6 |
| Gasoline | 2.2 | 2.4 | 3.0 | 2.1 | 3.7 | 4.1 | 3.8 | 4.0 | 3.0 | 1.9 | 16.8 |
| Diesel | 4.7 | 4.0 | 5.2 | 3.6 | 4.9 | 5.7 | 5.4 | 7.1 | 6.3 | 4.3 | 38.4 |
| Heating Oil | 3.5 | 3.2 | 3.1 | 2.2 | 1.7 | 2.7 | 4.3 | 4.0 | 4.2 | 2.1 | 19.0 |
| Aviation Jet | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.1 | 0.0 | 0.2 | 0.1 | 1.2 |
| LPG | 0.5 | 0.3 | 0.6 | 0.3 | 0.4 | 0.6 | 0.8 | 0.7 | 0.6 | 0.7 | 6.6 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **48.5** | **44.0** | **40.6** | **39.0** | **38.9** | **38.4** | **39.8** | **39.7** | **39.5** | **39.3** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million \$15ppp)** | **113.5** | **100.3** | **92.9** | **88.1** | **85.5** | **80.9** | **81.7** | **79.8** | **77.6** | **76.4** | **-** |
| **Final energy intensity (toe/million \$15ppp)** | **78.0** | **71.9** | **72.3** | **69.5** | **67.0** | **65.2** | **65.2** | **63.9** | **62.9** | **60.6** | **-** |
| **Total energy intensity (toe/million \$15ppp)** | **119.1** | **113.0** | **114.5** | **111.3** | **106.0** | **94.4** | **101.0** | **98.9** | **96.0** | **91.4** | **-** |

*Heat is included
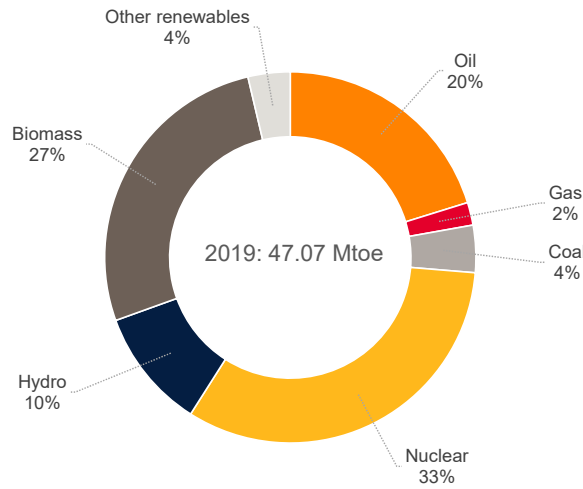
**Primary energy demand mix**

Other renewables
4%

Oil
20%

Biomass
27%

Gas
2%

Coal
4%

2019: 47.07 Mtoe

Hydro
10%

Nuclear
33%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil  ■ Gas  ■ Coal  ■ Nuclear  ■ Hydro  ■ Biomass  ■ Wind  ■ Solar  ■ Other renewables

**Primary energy demand and CO$_2$ emissions growth**

15%
10%
5%
0%
-5%
-10%
-15%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

— Demand growth  — Emissions growth

117
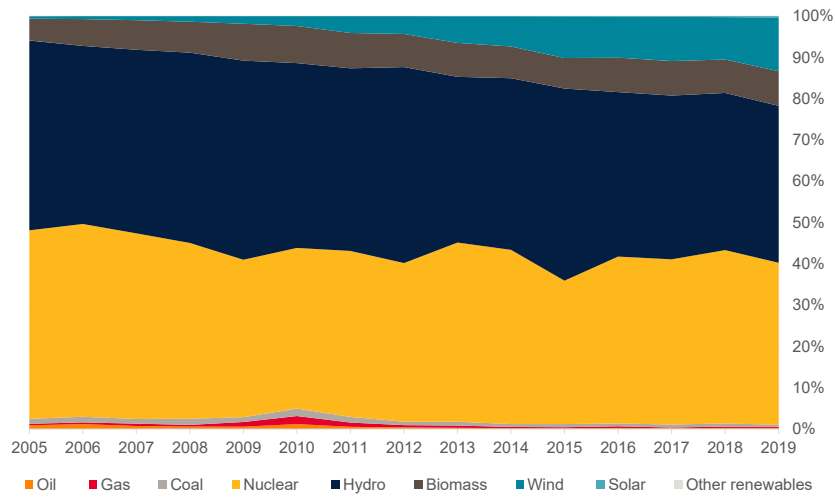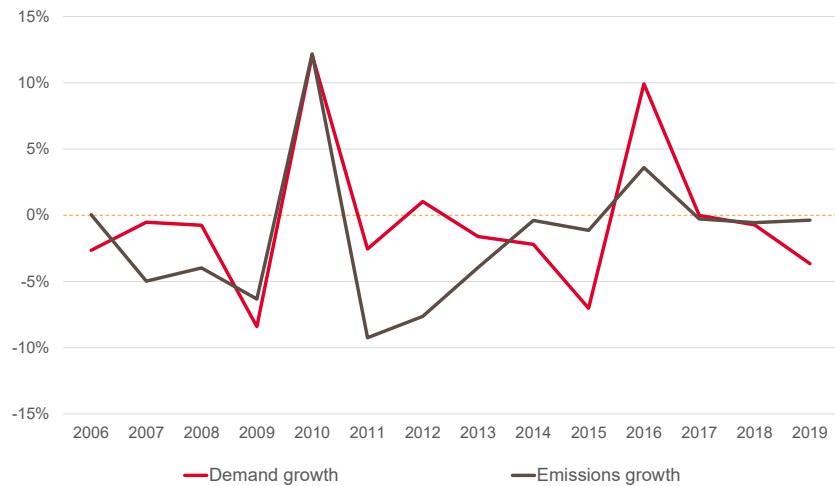
| Turkey _(Million toe)_ | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **105.7** | **112.5** | **117.8** | **115.1** | **119.2** | **129.1** | **136.9** | **147.0** | **145.4** | **147.0** | **100.0** |
| Oil | 31.5 | 31.7 | 33.5 | 33.7 | 33.0 | 39.1 | 42.6 | 44.8 | 42.4 | 42.8 | 29.1 |
| Gas | 31.4 | 36.8 | 37.3 | 37.5 | 40.2 | 39.4 | 38.3 | 44.2 | 41.1 | 37.2 | 25.3 |
| Coal | 31.2 | 32.7 | 34.6 | 30.3 | 33.4 | 34.5 | 38.3 | 40.1 | 41.5 | 41.0 | 27.9 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 4.5 | 4.5 | 5.0 | 5.1 | 3.5 | 5.8 | 5.8 | 5.0 | 5.2 | 7.6 | 5.2 |
| Biomass | 4.5 | 3.6 | 3.7 | 3.9 | 3.5 | 3.2 | 3.1 | 3.0 | 3.6 | 4.3 | 3.0 |
| Other renewables | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 1.0 | 1.4 | 1.8 | 2.4 | 2.7 | 1.8 |
| Electricity balance of trade* | 2.3 | 2.8 | 3.3 | 4.0 | 4.8 | 6.1 | 7.3 | 8.0 | 9.2 | 11.3 | 7.7 |
| **Total final consumption, by source** | **79.8** | **83.6** | **87.8** | **87.2** | **87.7** | **95.5** | **99.6** | **106.8** | **104.8** | **104.0** | **100.0** |
| Oil | 28.4 | 28.2 | 29.8 | 31.1 | 30.5 | 35.1 | 37.5 | 39.9 | 38.6 | 39.0 | 37.5 |
| Gas | 13.0 | 17.5 | 18.0 | 18.7 | 19.3 | 21.2 | 21.5 | 24.8 | 24.7 | 22.9 | 22.0 |
| Coal | 16.4 | 15.2 | 16.4 | 13.4 | 13.4 | 14.2 | 14.7 | 14.8 | 13.0 | 13.3 | 12.8 |
| Electricity | 14.6 | 15.8 | 16.6 | 16.9 | 17.7 | 18.4 | 19.6 | 21.1 | 21.6 | 21.6 | 20.8 |
| Heat | 3.0 | 3.3 | 3.5 | 3.5 | 3.5 | 3.7 | 3.6 | 3.7 | 3.9 | 4.1 | 3.9 |
| Biomass | 4.4 | 3.5 | 3.5 | 3.7 | 3.3 | 2.9 | 2.7 | 2.5 | 2.9 | 3.1 | 3.0 |
| **Electricity generation, by source** | **18.2** | **19.7** | **20.6** | **20.7** | **21.7** | **22.5** | **23.6** | **25.6** | **26.2** | **26.2** | **100.0** |
| Oil | 0.2 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.0 | 0.1 | 0.2 |
| Gas | 8.4 | 8.9 | 9.0 | 9.0 | 10.4 | 8.5 | 7.7 | 9.5 | 8.0 | 4.7 | 18.1 |
| Coal | 4.7 | 5.7 | 5.8 | 5.5 | 6.6 | 6.6 | 7.9 | 8.4 | 9.7 | 9.7 | 37.2 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 4.5 | 4.5 | 5.0 | 5.1 | 3.5 | 5.8 | 5.8 | 5.0 | 5.2 | 7.6 | 29.2 |
| Biomass | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.4 | 1.5 |
| Wind | 0.3 | 0.4 | 0.5 | 0.6 | 0.7 | 1.0 | 1.3 | 1.5 | 1.7 | 1.9 | 7.1 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.7 | 0.8 | 3.2 |
| Other renewables | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.5 | 0.6 | 0.7 | 0.9 | 3.5 |
| **Total final consumption, by sector** | **79.8** | **83.6** | **87.8** | **87.2** | **87.7** | **95.5** | **99.6** | **106.8** | **104.8** | **104.0** | **100.0** |
| Industry | 24.4 | 26.5 | 27.8 | 26.1 | 27.3 | 28.4 | 28.6 | 34.6 | 35.5 | 35.0 | 33.6 |
| Transport | 14.5 | 14.8 | 17.1 | 19.4 | 20.3 | 24.0 | 26.2 | 27.3 | 27.4 | 27.8 | 26.7 |
| Residential/Comercial | 28.9 | 30.7 | 31.2 | 30.4 | 30.2 | 32.3 | 33.1 | 35.7 | 33.3 | 32.7 | 31.4 |
| **Oil final consumption, by sector** | **28.4** | **28.2** | **29.8** | **31.1** | **30.5** | **35.1** | **37.5** | **39.9** | **38.6** | **39.0** | **100.0** |
| Industry | 1.1 | 1.4 | 1.6 | 1.0 | 0.8 | 1.0 | 0.8 | 4.3 | 3.7 | 3.7 | 9.4 |
| Transport | 14.4 | 14.7 | 16.9 | 18.9 | 20.0 | 23.8 | 26.0 | 27.1 | 27.1 | 27.5 | 70.5 |
| Residential/Comercial | 1.5 | 1.3 | 0.9 | 1.0 | 0.9 | 1.0 | 0.9 | 1.1 | 1.0 | 1.0 | 2.7 |
| **Natural gas final consumption, by sector** | **13.0** | **17.5** | **18.0** | **18.7** | **19.3** | **21.2** | **21.5** | **24.8** | **24.7** | **22.9** | **100.0** |
| Industry | 6.3 | 7.9 | 8.0 | 8.0 | 8.8 | 9.0 | 8.6 | 10.3 | 10.7 | 9.9 | 43.4 |
| Transport | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| Residential/Comercial | 6.4 | 9.3 | 9.5 | 10.3 | 10.1 | 11.7 | 12.1 | 13.9 | 13.4 | 12.4 | 54.1 |
| **Refined products consumption** | **28.4** | **28.2** | **29.8** | **31.1** | **30.5** | **35.1** | **37.5** | **39.9** | **38.6** | **39.0** | **100.0** |
| Gasoline | 2.1 | 2.0 | 1.9 | 2.0 | 2.0 | 2.1 | 2.3 | 2.3 | 2.3 | 2.5 | 6.3 |
| Diesel | 14.7 | 15.4 | 16.0 | 16.7 | 17.8 | 20.2 | 21.8 | 23.5 | 23.2 | 23.4 | 60.1 |
| Heating Oil | 0.3 | 0.6 | 0.7 | 0.7 | 0.5 | 0.5 | 0.2 | 0.3 | 0.3 | 0.3 | 0.7 |
| Aviation Jet | 0.4 | 0.3 | 0.4 | 0.8 | 1.0 | 1.2 | 1.4 | 1.2 | 1.2 | 1.2 | 3.2 |
| LPG | 4.0 | 4.0 | 4.0 | 4.1 | 4.1 | 4.4 | 4.6 | 4.5 | 4.6 | 4.6 | 11.8 |
| **Imports** | **68.3** | **73.7** | **78.7** | **77.9** | **81.4** | **89.6** | **88.9** | **98.8** | **90.7** | **90.0** | **100.0** |
| Oil | 37.0 | 37.6 | 40.9 | 40.7 | 40.9 | 49.7 | 50.7 | 53.4 | 49.2 | 52.6 | 58.4 |
| Gas | 31.3 | 36.1 | 37.8 | 37.3 | 40.5 | 39.9 | 38.2 | 45.5 | 41.5 | 37.4 | 41.6 |
| Gasoline | 0.3 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Diesel | 9.9 | 10.3 | 11.2 | 11.8 | 13.1 | 12.7 | 13.1 | 14.6 | 15.0 | 11.3 | 12.5 |
| Heating Oil | 0.6 | 0.6 | 0.9 | 0.7 | 1.1 | 1.6 | 1.6 | 2.0 | 2.3 | 2.0 | 2.2 |
| Aviation Jet | 0.4 | 0.6 | 0.6 | 0.5 | 0.9 | 0.2 | 0.3 | 0.2 | 0.5 | 0.4 | 0.4 |
| LPG | 3.4 | 3.3 | 3.3 | 3.4 | 3.4 | 3.8 | 3.8 | 3.7 | 3.6 | 3.4 | 3.8 |
| **Exports** | **6.9** | **8.1** | **8.3** | **8.0** | **7.5** | **8.1** | **7.0** | **7.3** | **5.6** | **9.2** | **100.0** |
| Oil | 6.4 | 7.5 | 7.8 | 7.5 | 7.0 | 7.6 | 6.5 | 6.8 | 5.1 | 8.5 | 93.2 |
| Gas | 0.5 | 0.6 | 0.5 | 0.6 | 0.5 | 0.5 | 0.6 | 0.5 | 0.6 | 0.6 | 6.8 |
| Gasoline | 2.1 | 2.5 | 2.8 | 2.6 | 2.2 | 3.3 | 3.0 | 3.3 | 2.6 | 3.1 | 34.1 |
| Diesel | 0.4 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 1.4 | 15.3 |
| Heating Oil | 2.2 | 2.1 | 1.2 | 1.8 | 2.5 | 2.4 | 1.6 | 1.4 | 1.1 | 2.0 | 22.2 |
| Aviation Jet | 1.4 | 2.1 | 2.5 | 2.1 | 1.0 | 0.3 | 0.2 | 0.3 | 0.1 | 0.7 | 7.8 |
| LPG | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 | 0.2 | 0.3 | 0.1 | 0.1 | 1.0 |
| **$CO_2$ Emissions _(Million tons $CO_2$)_** | **273.5** | **294.3** | **305.9** | **294.9** | **316.3** | **329.0** | **349.3** | **386.6** | **387.7** | **376.8** | **-** |
| **$CO_2$ Intensity _(t$CO_2$/million \$15ppp)_** | **191.6** | **185.5** | **184.0** | **163.5** | **166.7** | **163.5** | **168.2** | **173.3** | **169.0** | **162.7** | **-** |
| **Final energy intensity _(toe/million \$15ppp)_** | **50.9** | **48.8** | **48.5** | **44.5** | **43.4** | **44.0** | **44.2** | **45.7** | **43.9** | **43.2** | **-** |
| **Total energy intensity _(toe/million \$15ppp)_** | **74.0** | **70.9** | **70.8** | **63.8** | **62.8** | **64.2** | **65.9** | **65.9** | **63.4** | **63.5** | **-** |

*Heat is included

## Primary energy demand mix

Hydro
6%

Biomass
3%

Other renewables
2%

Oil
32%

2019: 147.02 Mtoe

Coal
30%

Gas
27%

## Electricity generation by source

Oil   Gas   Coal   Nuclear   Hydro   Biomass   Wind   Solar   Other renewables
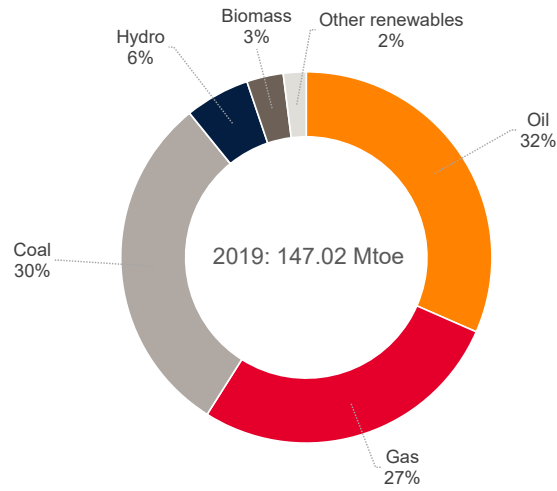
## Primary energy demand and CO$_2$ emissions growth
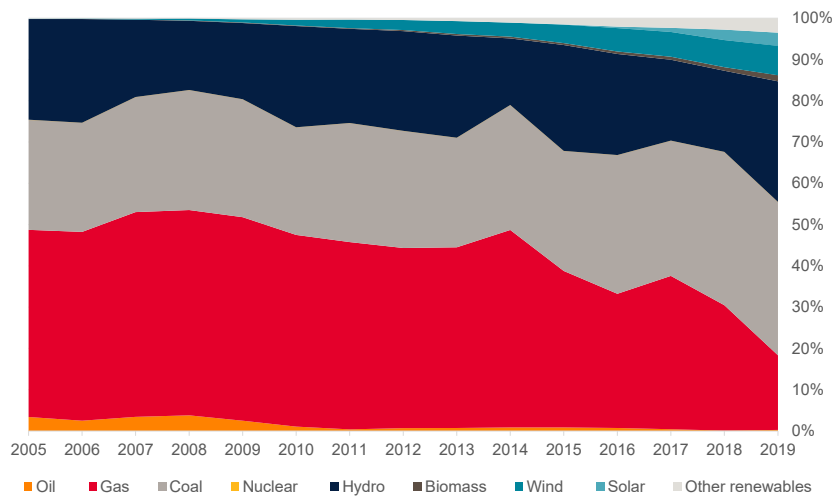
Demand growth     Emissions growth
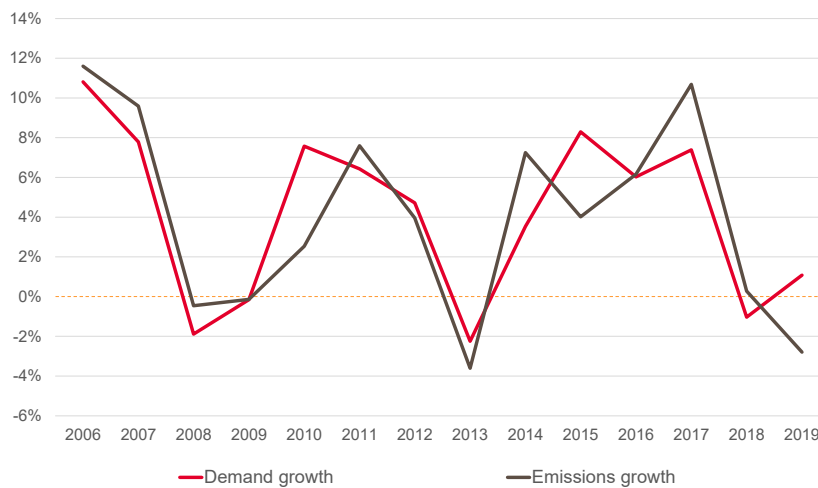
| United Kingdom *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **203.6** | **188.8** | **193.8** | **191.0** | **180.0** | **181.7** | **179.1** | **175.8** | **175.4** | **170.8** | **100.0** |
| Oil | 63.6 | 60.4 | 59.6 | 57.1 | 58.3 | 60.2 | 61.1 | 60.6 | 60.0 | 58.7 | 34.4 |
| Gas | 84.8 | 70.3 | 66.4 | 65.8 | 59.9 | 61.9 | 69.5 | 67.8 | 68.3 | 67.9 | 39.7 |
| Coal | 30.9 | 30.7 | 39.0 | 37.3 | 30.2 | 23.9 | 11.7 | 9.5 | 7.9 | 5.6 | 3.3 |
| Nuclear | 16.2 | 18.0 | 18.3 | 18.4 | 16.6 | 18.3 | 18.7 | 18.3 | 17.0 | 14.7 | 8.6 |
| Hydro | 0.3 | 0.5 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 |
| Biomass | 6.6 | 6.9 | 7.3 | 8.2 | 9.6 | 10.8 | 12.0 | 12.4 | 13.9 | 14.9 | 8.7 |
| Other renewables | 0.9 | 1.4 | 1.8 | 2.6 | 3.1 | 4.1 | 4.1 | 5.3 | 6.0 | 6.7 | 3.9 |
| Electricity balance of trade* | 0.3 | 0.6 | 1.1 | 1.3 | 1.8 | 1.9 | 1.6 | 1.3 | 1.7 | 1.9 | 1.1 |
| **Total final consumption, by source** | **139.5** | **127.5** | **130.3** | **131.5** | **124.2** | **128.2** | **130.1** | **128.5** | **129.6** | **127.6** | **100.0** |
| Oil | 55.4 | 53.3 | 52.3 | 51.6 | 52.0 | 54.0 | 55.3 | 55.3 | 54.5 | 53.4 | 41.8 |
| Gas | 47.2 | 38.9 | 42.4 | 42.8 | 36.1 | 38.2 | 39.5 | 38.3 | 39.8 | 39.2 | 30.7 |
| Coal | 4.5 | 4.1 | 4.3 | 5.3 | 5.2 | 4.8 | 3.6 | 3.4 | 3.2 | 2.9 | 2.3 |
| Electricity | 28.3 | 27.3 | 27.4 | 27.2 | 26.1 | 26.1 | 26.1 | 25.9 | 25.9 | 25.4 | 19.9 |
| Heat | 1.3 | 1.2 | 1.3 | 1.2 | 1.2 | 1.4 | 1.3 | 1.4 | 1.4 | 1.4 | 1.1 |
| Biomass | 2.9 | 2.7 | 2.7 | 3.4 | 3.6 | 3.7 | 4.2 | 4.3 | 5.0 | 5.4 | 4.2 |
| **Electricity generation, by source** | **32.9** | **31.6** | **31.3** | **30.8** | **29.1** | **29.1** | **29.2** | **29.1** | **28.6** | **27.9** | **100.0** |
| Oil | 0.4 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.3 |
| Gas | 15.1 | 12.6 | 8.6 | 8.2 | 8.7 | 8.6 | 12.3 | 11.8 | 11.3 | 11.4 | 41.1 |
| Coal | 9.4 | 9.4 | 12.4 | 11.3 | 8.7 | 6.6 | 2.7 | 2.0 | 1.5 | 0.6 | 2.2 |
| Nuclear | 5.3 | 5.9 | 6.1 | 6.1 | 5.5 | 6.0 | 6.2 | 6.0 | 5.6 | 4.9 | 17.4 |
| Hydro | 0.6 | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.7 | 0.8 | 0.7 | 0.7 | 2.3 |
| Biomass | 1.2 | 1.3 | 1.4 | 1.7 | 2.2 | 2.8 | 3.0 | 3.1 | 3.4 | 3.6 | 12.8 |
| Wind | 0.9 | 1.4 | 1.7 | 2.4 | 2.7 | 3.5 | 3.2 | 4.3 | 4.9 | 5.6 | 20.0 |
| Solar | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.6 | 0.9 | 1.0 | 1.1 | 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** | **139.5** | **127.5** | **130.3** | **131.5** | **124.2** | **128.2** | **130.1** | **128.5** | **129.6** | **127.6** | **100.0** |
| Industry | 27.3 | 25.5 | 25.2 | 25.8 | 24.9 | 24.9 | 23.9 | 24.1 | 23.9 | 23.3 | 18.3 |
| Transport | 40.2 | 39.6 | 39.3 | 39.1 | 39.7 | 40.5 | 41.4 | 41.5 | 41.3 | 40.8 | 32.0 |
| Residential/Comercial | 62.9 | 53.7 | 57.9 | 58.7 | 51.5 | 54.2 | 55.9 | 54.1 | 55.5 | 54.7 | 42.8 |
| **Oil final consumption, by sector** | **55.4** | **53.3** | **52.3** | **51.6** | **52.0** | **54.0** | **55.3** | **55.3** | **54.5** | **53.4** | **100.0** |
| Industry | 4.9 | 4.1 | 4.2 | 3.7 | 3.7 | 3.8 | 3.9 | 3.9 | 3.5 | 3.5 | 6.6 |
| Transport | 38.7 | 38.2 | 38.0 | 37.7 | 38.1 | 39.2 | 40.0 | 40.1 | 39.6 | 38.7 | 72.6 |
| Residential/Comercial | 4.1 | 3.5 | 3.4 | 3.5 | 3.6 | 3.7 | 3.8 | 3.7 | 3.8 | 3.7 | 6.9 |
| **Natural gas final consumption, by sector** | **47.2** | **38.9** | **42.4** | **42.8** | **36.1** | **38.2** | **39.5** | **38.3** | **39.8** | **39.2** | **100.0** |
| Industry | 8.5 | 8.1 | 7.9 | 8.1 | 7.6 | 7.6 | 7.6 | 7.8 | 7.9 | 7.7 | 19.7 |
| 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 | 38.0 | 30.3 | 33.9 | 34.2 | 27.9 | 30.2 | 31.5 | 30.1 | 31.4 | 31.0 | 79.1 |
| **Refined products consumption** | **55.4** | **53.3** | **52.3** | **51.6** | **52.0** | **54.0** | **55.3** | **55.3** | **54.5** | **53.4** | **100.0** |
| Gasoline | 15.3 | 14.6 | 13.9 | 13.2 | 13.0 | 12.7 | 12.6 | 12.3 | 12.1 | 12.3 | 23.0 |
| Diesel | 25.7 | 25.5 | 26.5 | 26.4 | 27.1 | 28.7 | 29.7 | 30.1 | 29.8 | 28.7 | 53.7 |
| Heating Oil | 0.7 | 0.5 | 0.3 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 | 0.3 | 0.2 | 0.3 |
| Aviation Jet | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 1.6 |
| LPG | 3.3 | 3.4 | 2.7 | 2.5 | 2.6 | 3.1 | 3.2 | 3.0 | 3.0 | 2.9 | 5.5 |
| **Imports** | **127.8** | **129.2** | **132.1** | **131.2** | **122.3** | **123.6** | **127.0** | **129.3** | **128.9** | **127.4** | **100.0** |
| Oil | 80.9 | 83.0 | 89.3 | 89.6 | 85.4 | 85.2 | 86.3 | 89.1 | 89.1 | 87.5 | 68.7 |
| Gas | 46.9 | 46.2 | 42.9 | 41.6 | 36.9 | 38.3 | 40.7 | 40.2 | 39.7 | 39.9 | 31.3 |
| Gasoline | 3.0 | 3.4 | 4.4 | 4.7 | 3.7 | 4.1 | 4.1 | 3.6 | 3.8 | 3.2 | 2.5 |
| Diesel | 8.6 | 9.2 | 11.1 | 11.2 | 13.1 | 15.1 | 17.0 | 15.6 | 16.3 | 15.0 | 11.8 |
| Heating Oil | 1.0 | 0.8 | 0.6 | 0.6 | 1.0 | 1.0 | 1.2 | 0.9 | 0.7 | 0.7 | 0.5 |
| Aviation Jet | 7.6 | 7.1 | 7.3 | 8.4 | 8.4 | 8.5 | 9.0 | 8.9 | 9.2 | 9.4 | 7.4 |
| LPG | 0.4 | 0.2 | 0.3 | 0.5 | 0.5 | 0.8 | 0.9 | 0.9 | 1.3 | 1.0 | 0.8 |
| **Exports** | **83.0** | **76.7** | **72.6** | **69.4** | **64.1** | **70.1** | **69.3** | **72.7** | **75.3** | **74.9** | **100.0** |
| Oil | 70.0 | 63.0 | 62.5 | 61.7 | 55.2 | 58.3 | 60.9 | 63.4 | 69.0 | 68.4 | 91.2 |
| Gas | 13.0 | 13.7 | 10.2 | 7.7 | 9.0 | 11.9 | 8.4 | 9.3 | 6.2 | 6.6 | 8.8 |
| Gasoline | 9.1 | 9.8 | 11.6 | 11.4 | 9.1 | 10.9 | 11.7 | 11.5 | 10.8 | 9.9 | 13.3 |
| Diesel | 6.6 | 7.9 | 7.8 | 6.3 | 5.5 | 4.7 | 5.0 | 3.9 | 4.4 | 4.3 | 5.7 |
| Heating Oil | 4.7 | 4.9 | 5.4 | 4.5 | 4.0 | 3.2 | 3.2 | 2.9 | 2.4 | 2.1 | 2.8 |
| Aviation Jet | 1.5 | 1.2 | 1.4 | 1.0 | 1.1 | 1.2 | 1.3 | 1.3 | 1.6 | 1.5 | 1.9 |
| LPG | 0.8 | 0.9 | 1.3 | 1.3 | 1.0 | 0.9 | 1.1 | 1.1 | 0.9 | 0.9 | 1.2 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **485.2** | **446.1** | **467.8** | **455.1** | **414.5** | **402.5** | **379.8** | **365.6** | **362.1** | **345.6** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **196.5** | **177.7** | **183.7** | **175.1** | **155.0** | **147.0** | **136.3** | **128.8** | **125.9** | **118.5** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **53.2** | **47.7** | **48.4** | **48.0** | **43.9** | **44.1** | **44.0** | **42.6** | **42.5** | **41.2** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **82.5** | **75.2** | **76.1** | **73.5** | **67.3** | **66.3** | **64.3** | **62.0** | **61.0** | **58.6** | **-** |

*Heat is included

**Primary energy demand mix**

Other renewables
4%

Biomass
9%

Nuclear
9%

Coal
3%

Oil
35%

2019: 170.82 Mtoe

Gas
40%

**Electricity generation by source**

Oil  Gas  Coal  Nuclear  Hydro  Biomass  Wind  Solar  Other renewables
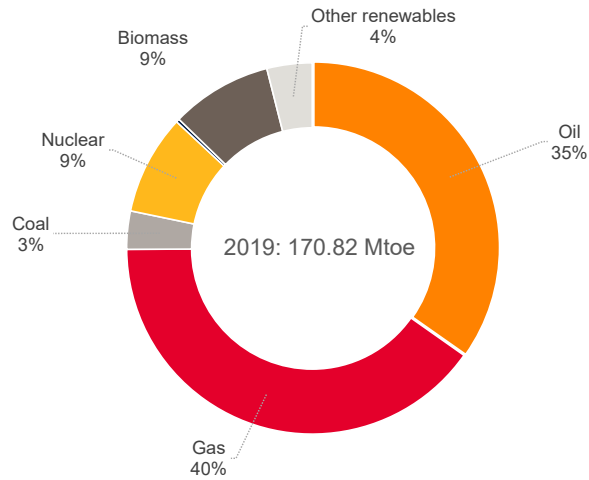
**Primary energy demand and CO$_2$ emissions growth**
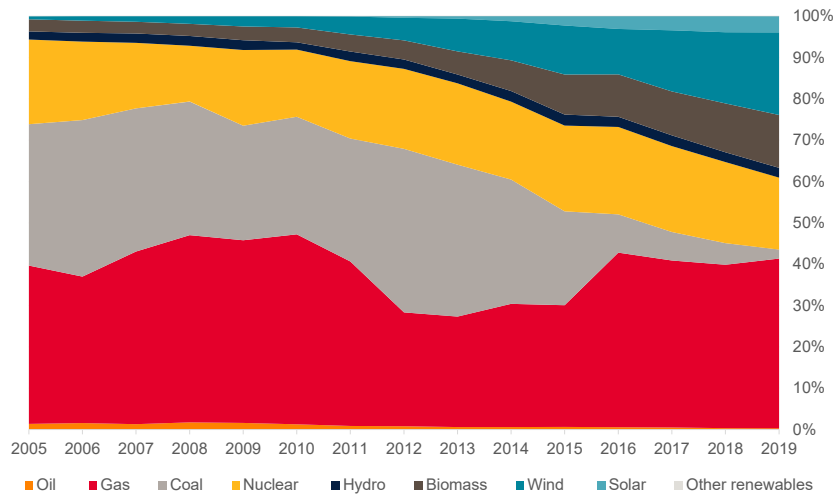
Demand growth        Emissions growth

| **Former Soviet Union** <br> *(Million toe)* | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **Share in 2019 (%)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **1,008.0** | **1,043.2** | **1,058.8** | **1,030.7** | **1,019.2** | **987.1** | **1,006.6** | **1,027.1** | **1,071.6** | **1,089.7** | **100.0** |
| Oil | 187.1 | 200.3 | 209.3 | 198.5 | 198.9 | 191.0 | 208.6 | 208.7 | 212.1 | 215.6 | 19.8 |
| Gas | 546.5 | 559.0 | 547.2 | 540.1 | 536.3 | 504.4 | 507.5 | 524.2 | 553.5 | 569.0 | 52.2 |
| Coal | 176.1 | 185.2 | 201.8 | 191.8 | 181.2 | 185.1 | 182.9 | 183.1 | 192.9 | 191.4 | 17.6 |
| Nuclear | 68.3 | 69.3 | 70.4 | 67.3 | 70.8 | 74.5 | 73.0 | 75.9 | 75.9 | 76.6 | 7.0 |
| Hydro | 20.6 | 20.1 | 20.1 | 21.6 | 20.6 | 19.8 | 21.8 | 22.3 | 22.9 | 23.2 | 2.1 |
| Biomass | 11.1 | 11.4 | 11.8 | 12.0 | 11.8 | 12.5 | 13.8 | 13.8 | 15.6 | 15.6 | 1.4 |
| Other renewables | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.3 | 0.4 | 0.5 | 0.0 |
| Electricity balance of trade* | -1.7 | -2.1 | -1.8 | -0.6 | -0.6 | -0.5 | -1.1 | -1.1 | -1.7 | -2.1 | -0.2 |
| **Total final consumption, by source** | **622.7** | **637.7** | **638.3** | **615.8** | **623.3** | **608.8** | **619.6** | **640.4** | **658.2** | **665.5** | **100.0** |
| Oil | 151.4 | 149.4 | 150.8 | 156.1 | 158.2 | 158.5 | 157.9 | 165.9 | 169.2 | 171.7 | 25.8 |
| Gas | 176.8 | 178.5 | 172.9 | 164.8 | 172.5 | 167.1 | 173.3 | 185.7 | 193.3 | 195.8 | 29.4 |
| Coal | 58.6 | 63.8 | 66.6 | 63.2 | 62.2 | 61.3 | 62.3 | 61.0 | 62.6 | 63.2 | 9.5 |
| Electricity | 87.7 | 89.4 | 91.0 | 91.3 | 90.7 | 89.9 | 90.6 | 91.9 | 94.8 | 95.3 | 14.3 |
| Heat | 142.9 | 151.1 | 151.3 | 134.6 | 133.9 | 125.7 | 128.3 | 128.6 | 130.3 | 131.5 | 19.8 |
| Biomass | 5.3 | 5.4 | 5.7 | 5.8 | 5.7 | 6.3 | 7.2 | 7.3 | 8.0 | 8.1 | 1.2 |
| **Electricity generation, by source** | **127.5** | **130.2** | **132.7** | **132.3** | **132.6** | **131.7** | **134.0** | **133.7** | **136.9** | **137.2** | **100.0** |
| Oil | 1.1 | 2.6 | 2.7 | 0.9 | 1.1 | 1.2 | 1.5 | 0.9 | 0.8 | 0.6 | 0.5 |
| Gas | 56.6 | 57.3 | 58.5 | 59.2 | 60.3 | 59.8 | 59.2 | 58.8 | 59.6 | 59.7 | 43.5 |
| Coal | 26.3 | 26.8 | 27.7 | 27.8 | 26.5 | 25.4 | 26.5 | 25.8 | 27.6 | 27.2 | 19.8 |
| Nuclear | 22.5 | 22.9 | 23.2 | 22.2 | 23.4 | 24.6 | 24.1 | 25.1 | 25.0 | 25.3 | 18.4 |
| Hydro | 20.7 | 20.3 | 20.2 | 21.8 | 20.8 | 20.1 | 22.1 | 22.6 | 23.2 | 23.5 | 17.1 |
| Biomass | 0.3 | 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 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.2 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total final consumption, by sector** | **622.7** | **637.7** | **638.3** | **615.8** | **623.3** | **608.8** | **619.6** | **640.4** | **658.2** | **665.5** | **100.0** |
| Industry | 211.7 | 222.3 | 228.2 | 214.2 | 211.2 | 207.2 | 218.2 | 216.8 | 223.2 | 224.5 | 33.7 |
| Transport | 87.9 | 92.1 | 93.2 | 93.9 | 93.5 | 91.2 | 90.5 | 91.7 | 93.0 | 96.7 | 14.5 |
| Residential/Comercial | 224.3 | 233.9 | 226.1 | 220.5 | 228.9 | 220.3 | 220.0 | 233.1 | 239.9 | 242.7 | 36.5 |
| **Oil final consumption, by sector** | **151.4** | **149.4** | **150.8** | **156.1** | **158.2** | **158.5** | **157.9** | **165.9** | **169.2** | **171.7** | **100.0** |
| Industry | 15.3 | 15.4 | 15.2 | 18.7 | 17.4 | 19.5 | 21.3 | 20.8 | 21.4 | 20.9 | 12.1 |
| Transport | 80.8 | 84.6 | 85.4 | 86.2 | 85.8 | 83.9 | 83.1 | 84.8 | 85.7 | 89.3 | 52.0 |
| Residential/Comercial | 9.1 | 11.5 | 10.9 | 12.7 | 13.9 | 14.1 | 13.1 | 16.6 | 17.2 | 17.8 | 10.4 |
| **Natural gas final consumption, by sector** | **176.8** | **178.5** | **172.9** | **164.8** | **172.5** | **167.1** | **173.3** | **185.7** | **193.3** | **195.8** | **100.0** |
| Industry | 48.9 | 49.3 | 51.5 | 48.4 | 50.9 | 47.5 | 47.7 | 49.1 | 51.5 | 52.4 | 26.8 |
| Transport | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.8 | 0.9 | 0.9 | 1.1 | 1.1 | 0.6 |
| Residential/Comercial | 85.2 | 86.7 | 79.7 | 76.6 | 82.1 | 78.7 | 83.5 | 89.4 | 92.3 | 93.5 | 47.7 |
| **Refined products consumption** | **150.9** | **147.7** | **150.3** | **152.6** | **157.8** | **157.8** | **157.2** | **165.2** | **168.5** | **171.0** | **100.0** |
| Gasoline | 49.8 | 50.3 | 52.0 | 52.3 | 52.5 | 50.9 | 50.5 | 48.7 | 50.1 | 50.4 | 29.5 |
| Diesel | 39.9 | 44.2 | 41.7 | 43.0 | 45.1 | 45.9 | 44.1 | 47.2 | 44.9 | 50.3 | 29.4 |
| Heating Oil | 5.4 | 5.1 | 4.7 | 4.1 | 3.9 | 3.8 | 2.9 | 3.4 | 3.6 | 3.1 | 1.8 |
| Aviation Jet | 5.6 | 6.9 | 7.0 | 6.5 | 6.1 | 5.5 | 5.4 | 5.9 | 6.9 | 6.8 | 4.0 |
| LPG | 13.6 | 15.6 | 16.4 | 18.2 | 19.9 | 19.9 | 20.4 | 22.6 | 24.6 | 24.7 | 14.4 |
| **Imports** | **104.9** | **121.9** | **113.9** | **103.0** | **91.7** | **92.8** | **83.1** | **88.2** | **87.0** | **84.2** | **100.0** |
| Oil | 46.0 | 53.0 | 54.0 | 47.3 | 42.8 | 45.5 | 39.4 | 40.8 | 40.4 | 39.5 | 46.9 |
| Gas | 59.0 | 68.9 | 59.9 | 55.7 | 48.9 | 47.3 | 43.7 | 47.4 | 46.5 | 44.8 | 53.1 |
| Gasoline | 4.8 | 5.6 | 5.6 | 5.4 | 6.4 | 5.5 | 5.1 | 4.3 | 3.8 | 2.4 | 2.8 |
| Diesel | 6.0 | 9.9 | 10.7 | 7.1 | 7.5 | 7.4 | 8.4 | 9.0 | 8.8 | 9.6 | 11.4 |
| Heating Oil | 2.0 | 2.7 | 3.6 | 0.3 | 0.3 | 0.7 | 0.7 | 0.7 | 0.3 | 0.1 | 0.1 |
| Aviation Jet | 0.6 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.6 | 0.7 | 0.7 | 0.3 | 0.3 |
| LPG | 0.5 | 0.7 | 0.8 | 0.9 | 1.1 | 1.3 | 1.9 | 2.2 | 2.4 | 2.7 | 3.2 |
| **Exports** | **701.2** | **728.5** | **720.6** | **750.8** | **720.7** | **761.7** | **759.0** | **781.8** | **795.5** | **812.6** | **100.0** |
| Oil | 505.3 | 507.8 | 502.4 | 507.4 | 492.7 | 515.5 | 504.7 | 510.7 | 509.9 | 519.6 | 63.9 |
| Gas | 195.8 | 220.7 | 218.2 | 243.4 | 228.0 | 246.2 | 254.3 | 271.1 | 285.6 | 293.0 | 36.1 |
| Gasoline | 7.2 | 8.3 | 7.6 | 8.5 | 8.1 | 9.2 | 9.4 | 8.3 | 7.6 | 9.3 | 1.1 |
| Diesel | 51.4 | 50.3 | 53.6 | 51.3 | 50.5 | 48.1 | 45.9 | 47.4 | 50.3 | 47.2 | 5.8 |
| Heating Oil | 70.6 | 64.7 | 64.8 | 71.4 | 72.6 | 75.0 | 57.0 | 54.4 | 48.6 | 52.7 | 6.5 |
| Aviation Jet | 0.2 | 0.1 | 0.2 | 2.4 | 3.1 | 3.0 | 3.0 | 2.9 | 3.3 | 3.5 | 0.4 |
| LPG | 6.0 | 5.2 | 5.3 | 5.8 | 6.3 | 6.8 | 7.9 | 7.9 | 8.1 | 7.7 | 0.9 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **2,372.6** | **2,484.1** | **2,474.7** | **2,417.6** | **2,348.7** | **2,316.3** | **2,299.6** | **2,323.7** | **2,464.0** | **2,487.9** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **518.8** | **514.8** | **495.1** | **472.0** | **454.2** | **458.2** | **453.0** | **447.7** | **461.1** | **455.6** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **119.3** | **118.3** | **114.1** | **107.5** | **107.6** | **106.9** | **108.4** | **108.4** | **107.9** | **107.1** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **220.4** | **216.2** | **211.8** | **201.3** | **197.1** | **195.3** | **198.3** | **197.9** | **200.5** | **199.6** | **-** |

*Heat is included

**Primary energy demand mix**



Hydro
2%

Biomass
1%

Nuclear
7%

Oil
20%

Coal
18%

2019: 1,089.74 Mtoe

Gas
52%

**Electricity generation by source**



Oil  Gas  Coal  Nuclear  Hydro  Biomass  Wind  Solar  Other renewables

**Primary energy demand and CO$_2$ emissions growth**



Demand growth  Emissions growth
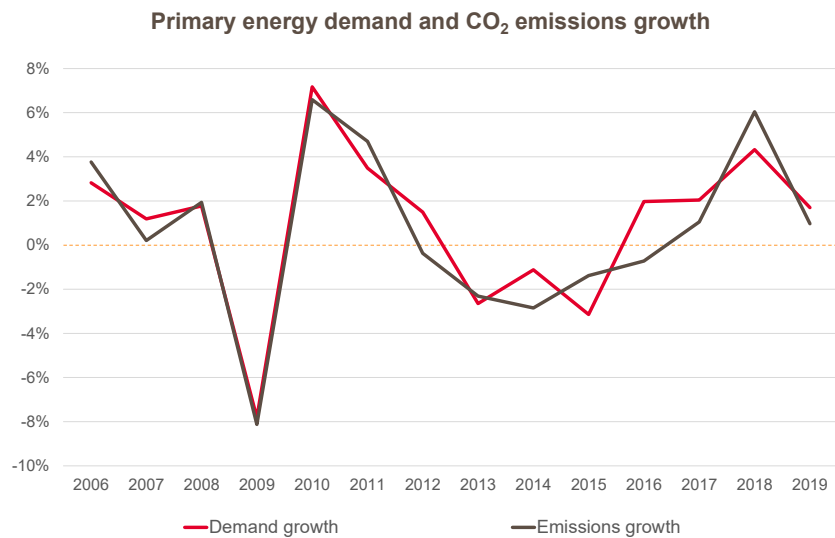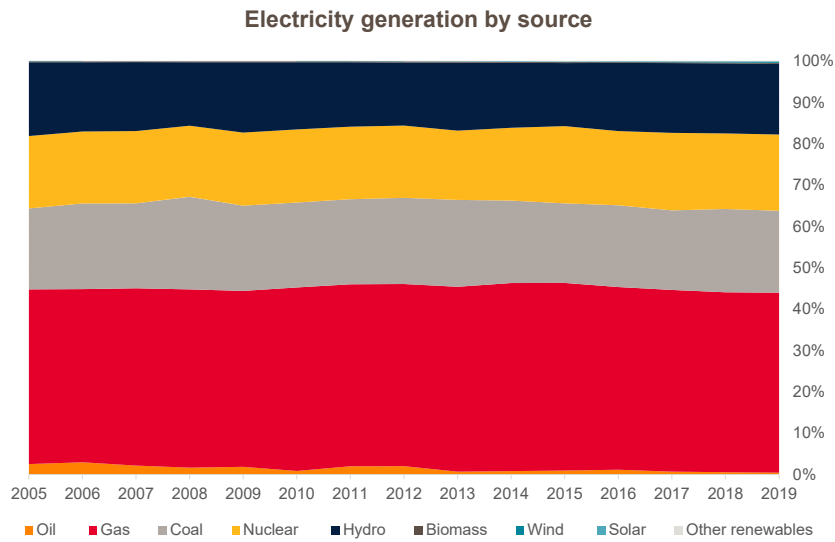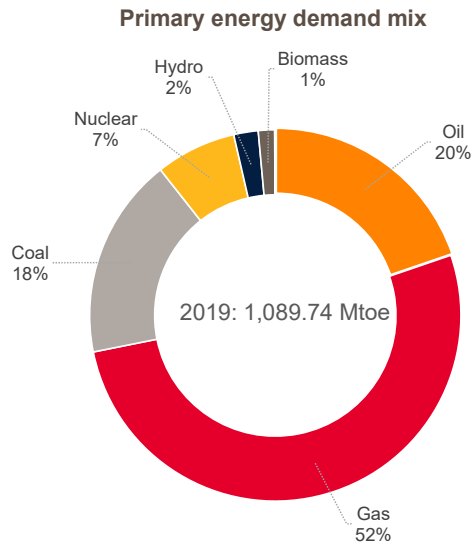
| Kazakhstan (Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **69.1** | **77.3** | **73.9** | **81.5** | **76.9** | **78.1** | **81.6** | **85.2** | **89.9** | **88.6** | **100.0** |
| Oil | 11.5 | 14.3 | 12.9 | 18.0 | 13.0 | 15.5 | 16.5 | 16.4 | 17.6 | 18.0 | 20.3 |
| Gas | 22.3 | 24.4 | 22.3 | 25.4 | 26.2 | 27.4 | 28.7 | 29.8 | 30.9 | 29.9 | 33.7 |
| Coal | 34.5 | 37.8 | 37.9 | 37.5 | 37.0 | 34.2 | 35.4 | 38.3 | 40.8 | 40.0 | 45.1 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 1.0 | 1.0 | 0.9 | 0.9 | 1.0 |
| Biomass | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 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 | 0.1 | 0.1 | 0.1 |
| Electricity balance of trade* | 0.1 | 0.1 | 0.1 | -0.1 | -0.1 | 0.0 | -0.1 | -0.4 | -0.3 | -0.3 | -0.3 |
| **Total final consumption, by source** | **39.6** | **43.7** | **42.7** | **43.7** | **39.3** | **41.1** | **41.6** | **41.9** | **44.4** | **44.0** | **100.0** |
| Oil | 9.1 | 11.1 | 10.0 | 13.6 | 10.4 | 12.3 | 13.0 | 12.8 | 13.7 | 14.2 | 32.2 |
| Gas | 3.1 | 3.2 | 2.9 | 2.9 | 3.0 | 3.2 | 3.5 | 3.4 | 3.6 | 3.4 | 7.8 |
| Coal | 15.7 | 16.9 | 17.0 | 15.2 | 12.9 | 13.1 | 13.3 | 14.3 | 15.1 | 14.4 | 32.7 |
| Electricity | 5.2 | 5.8 | 6.1 | 5.9 | 6.1 | 6.0 | 5.8 | 5.4 | 5.8 | 5.8 | 13.1 |
| Heat | 6.4 | 6.7 | 6.7 | 6.1 | 6.8 | 6.4 | 5.9 | 5.9 | 6.2 | 6.2 | 14.0 |
| Biomass | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| **Electricity generation, by source** | **7.1** | **7.4** | **8.0** | **8.9** | **9.0** | **9.2** | **9.2** | **8.9** | **9.2** | **9.3** | **100.0** |
| Oil | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 0.1 | 0.8 |
| Gas | 0.6 | 0.7 | 1.3 | 1.5 | 1.7 | 1.7 | 1.9 | 1.7 | 1.8 | 1.8 | 19.6 |
| Coal | 5.7 | 6.0 | 6.0 | 6.7 | 6.5 | 6.6 | 6.1 | 6.1 | 6.4 | 6.4 | 69.5 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.7 | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 1.0 | 1.0 | 0.9 | 0.9 | 9.3 |
| 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 | 0.1 | 0.6 |
| 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** | **39.6** | **43.7** | **42.7** | **43.7** | **39.3** | **41.1** | **41.6** | **41.9** | **44.4** | **44.0** | **100.0** |
| Industry | 21.8 | 24.8 | 23.7 | 25.1 | 18.9 | 21.5 | 23.7 | 22.3 | 23.4 | 22.9 | 51.9 |
| Transport | 4.9 | 5.0 | 5.3 | 5.0 | 5.0 | 5.4 | 5.5 | 5.3 | 5.6 | 5.7 | 13.0 |
| Residential/Comercial | 9.7 | 11.4 | 10.0 | 10.7 | 12.2 | 11.7 | 9.5 | 11.3 | 12.3 | 12.3 | 28.0 |
| **Oil final consumption, by sector** | **9.1** | **11.1** | **10.0** | **13.6** | **10.4** | **12.3** | **13.0** | **12.8** | **13.7** | **14.2** | **100.0** |
| Industry | 2.2 | 3.2 | 2.2 | 5.1 | 2.1 | 3.5 | 4.4 | 4.0 | 4.2 | 4.3 | 30.6 |
| Transport | 4.5 | 4.6 | 4.9 | 4.6 | 4.7 | 5.0 | 5.2 | 5.0 | 5.2 | 5.4 | 37.7 |
| Residential/Comercial | 1.7 | 2.3 | 1.7 | 2.7 | 2.6 | 2.7 | 2.3 | 2.7 | 3.0 | 3.2 | 22.3 |
| **Natural gas final consumption, by sector** | **3.1** | **3.2** | **2.9** | **2.9** | **3.0** | **3.2** | **3.5** | **3.4** | **3.6** | **3.4** | **100.0** |
| Industry | 1.4 | 1.5 | 1.5 | 1.6 | 1.6 | 1.8 | 1.7 | 1.7 | 1.7 | 1.7 | 48.8 |
| 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 | 1.6 | 1.6 | 1.2 | 1.1 | 1.1 | 1.1 | 1.3 | 1.2 | 1.3 | 1.2 | 35.7 |
| **Refined products consumption** | **8.8** | **9.5** | **9.6** | **10.2** | **10.1** | **11.8** | **12.4** | **12.2** | **13.0** | **13.6** | **100.0** |
| Gasoline | 3.6 | 3.8 | 4.0 | 4.0 | 4.0 | 4.4 | 4.7 | 4.6 | 4.8 | 4.9 | 35.9 |
| Diesel | 3.1 | 3.5 | 3.3 | 3.9 | 3.9 | 4.6 | 5.5 | 4.8 | 5.2 | 5.6 | 41.1 |
| Heating Oil | 1.0 | 1.1 | 1.0 | 0.9 | 0.8 | 1.5 | 0.8 | 0.9 | 0.9 | 0.9 | 6.7 |
| Aviation Jet | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.6 |
| LPG | 0.3 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.6 | 0.9 | 1.1 | 1.1 | 8.3 |
| **Imports** | **10.6** | **9.7** | **12.1** | **14.6** | **6.5** | **6.8** | **7.7** | **7.4** | **7.2** | **5.0** | **100.0** |
| Oil | 7.7 | 5.9 | 8.5 | 10.2 | 3.0 | 1.9 | 2.0 | 2.1 | 1.5 | 0.9 | 17.4 |
| Gas | 2.9 | 3.8 | 3.6 | 4.3 | 3.5 | 4.9 | 5.8 | 5.3 | 5.7 | 4.1 | 82.6 |
| Gasoline | 0.8 | 0.7 | 1.3 | 1.2 | 1.2 | 1.4 | 1.2 | 1.1 | 0.6 | 0.0 | 0.5 |
| Diesel | 0.4 | 0.2 | 0.5 | 0.6 | 0.6 | 0.2 | 0.4 | 0.5 | 0.5 | 0.4 | 7.4 |
| Heating Oil | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Aviation Jet | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.2 | 0.0 | 0.7 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Exports** | **83.0** | **81.4** | **86.6** | **85.7** | **82.6** | **80.2** | **79.0** | **90.1** | **91.7** | **91.9** | **100.0** |
| Oil | 77.8 | 76.3 | 77.6 | 77.1 | 73.8 | 69.6 | 66.6 | 75.2 | 76.3 | 76.3 | 83.0 |
| Gas | 5.2 | 5.1 | 9.0 | 8.6 | 8.8 | 10.7 | 12.4 | 14.9 | 15.4 | 15.6 | 17.0 |
| Gasoline | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Diesel | 2.0 | 1.0 | 1.8 | 1.8 | 1.8 | 0.2 | 0.1 | 0.1 | 0.2 | 0.0 | 0.1 |
| Heating Oil | 2.5 | 2.7 | 2.5 | 2.4 | 2.6 | 1.9 | 1.8 | 2.1 | 1.7 | 1.5 | 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 | 1.9 | 1.8 | 1.8 | 1.8 | 2.1 | 2.2 | 2.1 | 2.2 | 2.0 | 2.1 | 2.3 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **217.1** | **231.7** | **234.2** | **251.2** | **236.3** | **248.4** | **260.8** | **257.8** | **269.4** | **265.8** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million $15ppp)** | **619.9** | **616.0** | **593.9** | **600.9** | **542.7** | **563.5** | **585.4** | **555.8** | **558.0** | **526.8** | **-** |
| **Final energy intensity (toe/million $15ppp)** | **111.8** | **114.9** | **106.1** | **102.4** | **88.2** | **91.1** | **91.3** | **87.9** | **89.5** | **84.9** | **-** |
| **Total energy intensity (toe/million $15ppp)** | **197.3** | **205.5** | **187.3** | **195.1** | **176.6** | **177.2** | **183.2** | **183.6** | **186.3** | **175.6** | **-** |

*Heat is included

**Primary energy demand mix**

Hydro
1%

Oil
20%

Coal
45%

2019: 88.59 Mtoe

Gas
34%

**Electricity generation by source**

■ Oil　■ Gas　■ Coal　■ Nuclear　■ Hydro　■ Biomass　■ Wind　■ Solar　■ Other renewables
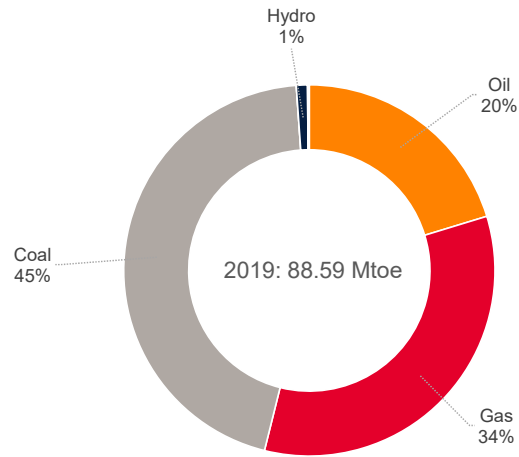
**Primary energy demand and CO$_2$ emissions growth**
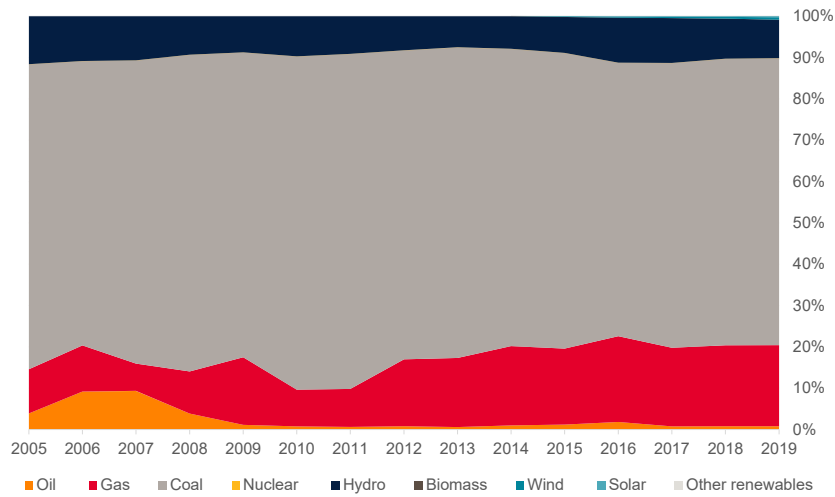
— Demand growth　— Emissions growth
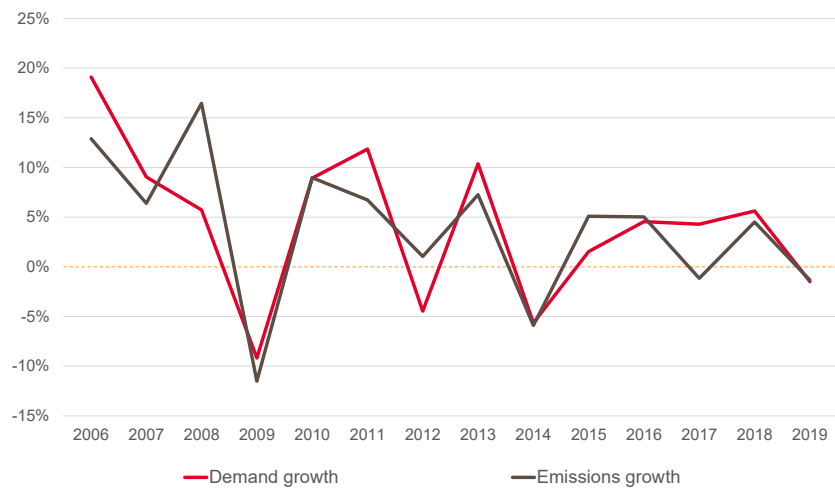
| **Russia** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **688.1** | **710.9** | **727.9** | **706.5** | **706.8** | **692.4** | **714.2** | **732.4** | **765.7** | **779.4** | **100.0** |
| Oil | 139.1 | 146.8 | 156.2 | 145.1 | 148.6 | 139.4 | 155.2 | 154.0 | 154.8 | 156.3 | 20.1 |
| Gas | 383.4 | 395.9 | 387.0 | 386.1 | 385.3 | 364.1 | 371.2 | 388.1 | 413.3 | 423.4 | 54.3 |
| Coal | 100.9 | 103.3 | 117.8 | 108.3 | 103.9 | 116.4 | 113.3 | 114.1 | 119.0 | 119.9 | 15.4 |
| Nuclear | 44.4 | 45.1 | 46.3 | 45.0 | 47.1 | 50.9 | 51.2 | 52.9 | 53.3 | 54.5 | 7.0 |
| Hydro | 14.3 | 14.3 | 14.3 | 15.6 | 15.1 | 14.4 | 15.9 | 15.9 | 16.4 | 17.0 | 2.2 |
| Biomass | 6.9 | 7.1 | 7.4 | 7.2 | 7.1 | 7.7 | 8.1 | 7.8 | 9.5 | 9.3 | 1.2 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 |
| Electricity balance of trade* | -1.1 | -1.5 | -1.0 | -0.8 | -0.3 | -0.6 | -0.9 | -0.5 | -0.7 | -1.1 | -0.1 |
| **Total final consumption, by source** | **425.8** | **427.8** | **426.5** | **413.7** | **432.6** | **431.7** | **442.1** | **465.2** | **477.1** | **485.8** | **100.0** |
| Oil | 109.4 | 103.2 | 103.4 | 108.4 | 114.3 | 114.4 | 113.0 | 120.6 | 121.5 | 122.7 | 25.3 |
| Gas | 110.5 | 106.7 | 101.1 | 100.7 | 111.3 | 114.0 | 122.2 | 136.2 | 144.0 | 147.5 | 30.4 |
| Coal | 28.8 | 31.5 | 34.1 | 32.2 | 33.7 | 35.6 | 35.8 | 35.2 | 34.4 | 36.4 | 7.5 |
| Electricity | 60.3 | 60.5 | 61.5 | 61.8 | 61.5 | 61.2 | 62.2 | 63.6 | 65.5 | 66.0 | 13.6 |
| Heat | 114.6 | 123.6 | 123.7 | 108.0 | 109.5 | 103.3 | 105.3 | 106.1 | 107.6 | 109.1 | 22.5 |
| Biomass | 2.3 | 2.4 | 2.7 | 2.6 | 2.5 | 3.1 | 3.5 | 3.4 | 4.1 | 4.0 | 0.8 |
| **Electricity generation, by source** | **89.3** | **90.7** | **92.1** | **91.1** | **91.5** | **91.8** | **93.8** | **94.1** | **95.6** | **96.5** | **100.0** |
| Oil | 0.8 | 2.4 | 2.4 | 0.7 | 0.9 | 0.9 | 0.9 | 0.6 | 0.6 | 0.6 | 0.6 |
| Gas | 44.8 | 44.7 | 45.2 | 45.6 | 45.9 | 45.6 | 44.9 | 44.6 | 44.2 | 44.3 | 45.9 |
| Coal | 14.3 | 14.1 | 14.5 | 13.9 | 13.6 | 13.6 | 14.7 | 15.0 | 16.4 | 16.1 | 16.7 |
| Nuclear | 14.7 | 14.9 | 15.3 | 14.8 | 15.5 | 16.8 | 16.9 | 17.5 | 17.6 | 18.0 | 18.6 |
| Hydro | 14.5 | 14.4 | 14.4 | 15.7 | 15.2 | 14.6 | 16.1 | 16.1 | 16.5 | 17.1 | 17.7 |
| Biomass | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 | 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 | 0.1 | 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 |
| **Total final consumption, by sector** | **425.8** | **427.8** | **426.5** | **413.7** | **432.6** | **431.7** | **442.1** | **465.2** | **477.1** | **485.8** | **100.0** |
| Industry | 143.9 | 149.1 | 157.3 | 146.0 | 150.9 | 150.0 | 159.9 | 161.0 | 164.5 | 167.2 | 34.4 |
| Transport | 61.2 | 64.6 | 64.2 | 64.9 | 65.9 | 64.8 | 62.9 | 63.8 | 63.9 | 66.5 | 13.7 |
| Residential/Comercial | 148.4 | 153.3 | 145.7 | 142.0 | 151.9 | 151.0 | 151.9 | 164.2 | 169.8 | 173.0 | 35.6 |
| **Oil final consumption, by sector** | **109.4** | **103.2** | **103.4** | **108.4** | **114.3** | **114.4** | **113.0** | **120.6** | **121.5** | **122.7** | **100.0** |
| Industry | 11.1 | 10.2 | 11.3 | 12.1 | 13.8 | 14.5 | 16.0 | 15.9 | 16.2 | 15.4 | 12.6 |
| Transport | 56.0 | 59.0 | 58.4 | 59.2 | 60.0 | 59.4 | 57.4 | 58.7 | 58.7 | 61.2 | 49.9 |
| Residential/Comercial | 6.4 | 8.3 | 8.5 | 9.2 | 10.7 | 10.5 | 9.8 | 12.9 | 13.3 | 13.6 | 11.1 |
| **Natural gas final consumption, by sector** | **110.5** | **106.7** | **101.1** | **100.7** | **111.3** | **114.0** | **122.2** | **136.2** | **144.0** | **147.5** | **100.0** |
| Industry | 32.4 | 31.2 | 34.1 | 33.7 | 37.2 | 35.5 | 36.7 | 38.3 | 40.5 | 41.4 | 28.1 |
| Transport | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 | 0.3 | 0.2 |
| Residential/Comercial | 43.5 | 42.2 | 34.6 | 35.8 | 41.7 | 44.5 | 49.7 | 56.4 | 59.7 | 61.1 | 41.4 |
| **Refined products consumption** | **109.3** | **103.1** | **103.3** | **108.2** | **114.1** | **114.3** | **113.0** | **120.6** | **121.4** | **122.7** | **100.0** |
| Gasoline | 34.9 | 35.4 | 36.8 | 37.4 | 38.1 | 37.1 | 36.4 | 35.2 | 36.3 | 36.6 | 29.8 |
| Diesel | 23.4 | 26.3 | 23.0 | 23.6 | 26.6 | 27.3 | 24.8 | 28.0 | 24.7 | 28.5 | 23.2 |
| Heating Oil | 2.5 | 2.2 | 2.3 | 2.0 | 1.8 | 1.0 | 0.9 | 1.3 | 1.4 | 1.1 | 0.9 |
| Aviation Jet | 5.2 | 6.4 | 6.6 | 6.1 | 5.7 | 5.1 | 4.9 | 5.4 | 6.3 | 6.2 | 5.1 |
| LPG | 11.3 | 12.8 | 13.6 | 14.9 | 16.5 | 16.5 | 16.4 | 18.0 | 19.6 | 19.3 | 15.7 |
| **Imports** | **7.4** | **11.2** | **9.2** | **9.4** | **10.8** | **12.7** | **9.3** | **9.1** | **9.3** | **9.1** | **100.0** |
| Oil | 3.9 | 4.7 | 2.6 | 2.7 | 3.7 | 5.5 | 1.9 | 1.8 | 1.7 | 1.7 | 19.0 |
| Gas | 3.5 | 6.6 | 6.6 | 6.7 | 7.1 | 7.2 | 7.3 | 7.2 | 7.6 | 7.4 | 81.0 |
| Gasoline | 0.5 | 1.1 | 0.2 | 0.6 | 1.1 | 0.9 | 0.2 | 0.0 | 0.0 | 0.0 | 0.4 |
| Diesel | 0.5 | 0.8 | 0.3 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.6 |
| Heating Oil | 0.8 | 1.1 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.7 |
| LPG | 0.1 | 0.2 | 0.2 | 0.1 | 0.2 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 2.2 |
| **Exports** | **514.4** | **528.6** | **518.2** | **542.7** | **514.1** | **547.7** | **555.4** | **568.8** | **579.0** | **602.0** | **100.0** |
| Oil | 360.3 | 363.3 | 359.4 | 368.6 | 358.4 | 382.8 | 380.3 | 381.3 | 381.1 | 393.8 | 65.4 |
| Gas | 154.1 | 165.3 | 158.8 | 174.1 | 155.7 | 164.9 | 175.1 | 187.5 | 197.9 | 208.2 | 34.6 |
| Gasoline | 3.1 | 4.1 | 3.4 | 4.6 | 3.8 | 5.0 | 5.5 | 4.6 | 4.4 | 5.4 | 0.9 |
| Diesel | 42.4 | 40.2 | 41.9 | 43.2 | 41.0 | 39.1 | 38.8 | 41.3 | 45.0 | 42.4 | 7.0 |
| Heating Oil | 59.8 | 52.7 | 54.5 | 61.6 | 63.3 | 65.4 | 49.7 | 47.1 | 41.4 | 45.3 | 7.5 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 1.9 | 2.5 | 2.4 | 2.5 | 2.3 | 2.7 | 2.8 | 0.5 |
| LPG | 3.6 | 2.8 | 2.9 | 3.4 | 3.7 | 4.1 | 5.4 | 4.9 | 5.3 | 4.9 | 0.8 |
| **CO$_2$ Emissions *(Million tons CO$_2$)*** | **1,609.5** | **1,673.7** | **1,653.1** | **1,602.7** | **1,584.4** | **1,592.1** | **1,571.5** | **1,614.4** | **1,725.4** | **1,754.5** | **-** |
| **CO$_2$ Intensity *(tCO$_2$/million $15ppp)*** | **496.8** | **490.7** | **467.5** | **445.3** | **437.0** | **451.9** | **447.1** | **451.9** | **471.0** | **472.6** | **-** |
| **Final energy intensity *(toe/million $15ppp)*** | **111.0** | **109.6** | **105.6** | **99.8** | **103.7** | **105.7** | **108.4** | **110.7** | **110.4** | **111.4** | **-** |
| **Total energy intensity *(toe/million $15ppp)*** | **212.4** | **208.4** | **205.9** | **196.3** | **195.0** | **196.5** | **203.2** | **205.0** | **209.0** | **209.9** | **-** |

*Heat is included

**Primary energy demand mix**

Hydro
2%

Biomass
1%

Nuclear
7%

Oil
20%

Coal
16%

2019: 779.38 Mtoe

Gas
54%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil ■ Gas ■ Coal ■ Nuclear ■ Hydro ■ Biomass ■ Solar

**Primary energy demand and CO$_2$ emissions growth**

8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
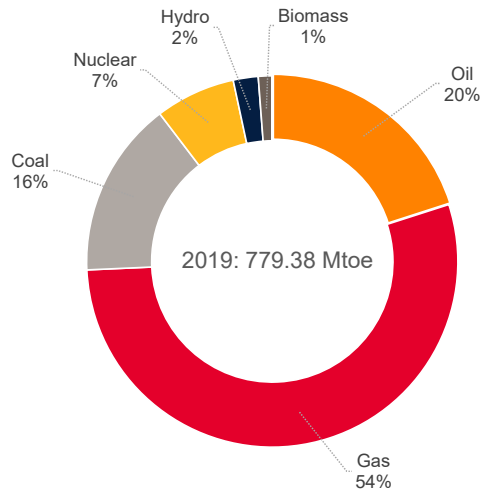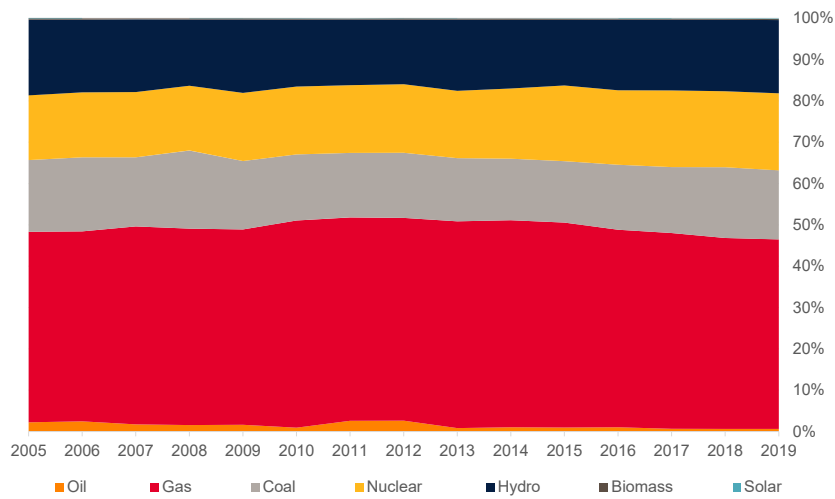
— Demand growth — Emissions growth
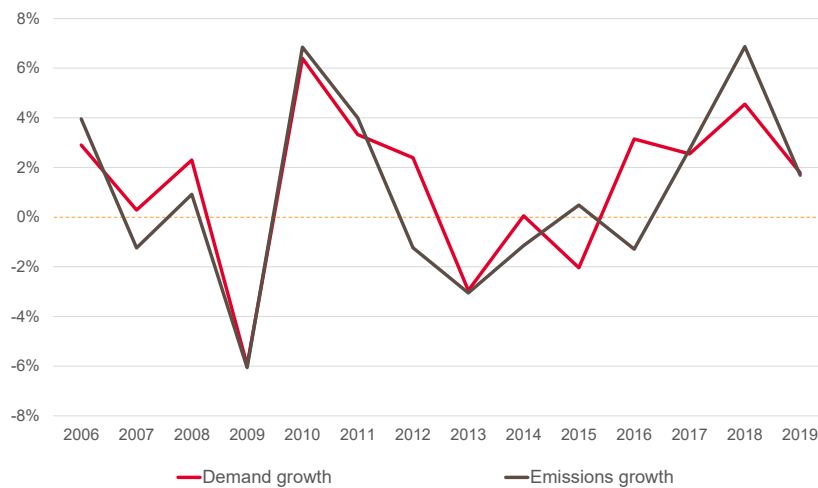
| Ukraine<br>(Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **132.3** | **126.4** | **122.4** | **116.0** | **105.6** | **92.8** | **91.5** | **89.4** | **92.7** | **88.8** | **100.0** |
| Oil | 13.2 | 12.5 | 11.7 | 10.0 | 10.8 | 10.6 | 11.2 | 12.8 | 13.2 | 13.2 | 14.9 |
| Gas | 55.2 | 46.8 | 43.0 | 39.4 | 33.4 | 26.1 | 25.6 | 24.5 | 25.6 | 23.5 | 26.5 |
| Coal | 38.2 | 41.5 | 42.5 | 41.6 | 35.6 | 30.1 | 29.7 | 25.8 | 27.6 | 26.1 | 29.4 |
| Nuclear | 23.2 | 23.5 | 23.5 | 21.7 | 23.0 | 22.8 | 21.1 | 22.3 | 22.0 | 21.6 | 24.4 |
| Hydro | 1.1 | 0.9 | 0.9 | 1.2 | 0.7 | 0.5 | 0.7 | 0.8 | 0.9 | 0.6 | 0.7 |
| Biomass | 1.6 | 1.7 | 1.7 | 1.9 | 1.9 | 2.1 | 2.8 | 3.0 | 3.2 | 3.4 | 3.8 |
| Other renewables | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.3 |
| Electricity balance of trade* | -0.3 | -0.5 | -1.0 | 0.2 | 0.0 | 0.5 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 |
| **Total final consumption, by source** | **75.3** | **77.5** | **75.3** | **72.6** | **63.1** | **53.4** | **54.7** | **51.8** | **53.5** | **51.2** | **100.0** |
| Oil | 12.5 | 12.5 | 12.5 | 11.9 | 10.1 | 9.5 | 9.6 | 9.9 | 10.4 | 10.5 | 20.6 |
| Gas | 25.0 | 26.0 | 24.6 | 22.7 | 18.7 | 14.6 | 14.3 | 13.4 | 12.3 | 12.3 | 24.0 |
| Coal | 12.8 | 14.1 | 13.5 | 13.5 | 13.1 | 10.3 | 10.6 | 8.8 | 10.1 | 9.4 | 18.4 |
| Electricity | 11.4 | 11.9 | 11.8 | 11.8 | 11.0 | 10.2 | 10.1 | 10.0 | 10.1 | 10.0 | 19.5 |
| Heat | 12.5 | 12.0 | 11.9 | 11.7 | 8.9 | 7.5 | 8.3 | 7.8 | 7.5 | 6.9 | 13.4 |
| Biomass | 1.0 | 1.0 | 1.0 | 1.1 | 1.2 | 1.3 | 1.7 | 1.8 | 1.9 | 2.1 | 4.0 |
| **Electricity generation, by source** | **16.2** | **16.8** | **17.1** | **16.7** | **15.7** | **14.1** | **14.2** | **13.4** | **13.7** | **13.1** | **100.0** |
| Oil | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.4 |
| Gas | 1.4 | 1.6 | 1.4 | 1.2 | 1.1 | 0.9 | 0.8 | 0.6 | 0.8 | 0.7 | 5.4 |
| Coal | 6.0 | 6.4 | 6.9 | 7.0 | 6.1 | 4.8 | 5.3 | 4.2 | 4.4 | 4.2 | 32.4 |
| Nuclear | 7.7 | 7.8 | 7.8 | 7.2 | 7.6 | 7.5 | 7.0 | 7.4 | 7.3 | 7.1 | 54.6 |
| Hydro | 1.1 | 0.9 | 0.9 | 1.2 | 0.8 | 0.6 | 0.8 | 0.9 | 1.0 | 0.7 | 5.1 |
| 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 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.0 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 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** | **75.3** | **77.5** | **75.3** | **72.6** | **63.1** | **53.4** | **54.7** | **51.8** | **53.5** | **51.2** | **100.0** |
| Industry | 30.1 | 31.3 | 29.1 | 27.0 | 24.8 | 20.6 | 20.1 | 18.8 | 20.3 | 19.1 | 37.4 |
| Transport | 9.5 | 9.5 | 9.7 | 9.5 | 8.0 | 7.2 | 7.8 | 8.0 | 8.5 | 8.5 | 16.5 |
| Residential/Comercial | 28.4 | 28.7 | 28.5 | 29.2 | 25.0 | 20.5 | 22.0 | 20.9 | 20.9 | 19.8 | 38.7 |
| **Oil final consumption, by sector** | **12.5** | **12.5** | **12.5** | **11.9** | **10.1** | **9.5** | **9.6** | **9.9** | **10.4** | **10.5** | **100.0** |
| Industry | 1.4 | 1.4 | 1.2 | 1.0 | 0.9 | 0.8 | 0.2 | 0.4 | 0.4 | 0.5 | 4.5 |
| Transport | 8.8 | 8.7 | 8.9 | 8.7 | 7.3 | 6.6 | 7.1 | 7.4 | 7.4 | 7.9 | 74.8 |
| Residential/Comercial | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 2.0 |
| **Natural gas final consumption, by sector** | **25.0** | **26.0** | **24.6** | **22.7** | **18.7** | **14.6** | **14.3** | **13.4** | **13.4** | **12.3** | **100.0** |
| Industry | 6.4 | 6.6 | 5.3 | 4.4 | 3.3 | 2.8 | 2.5 | 2.6 | 2.9 | 2.7 | 21.9 |
| Transport | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Residential/Comercial | 14.3 | 14.5 | 14.2 | 14.1 | 12.5 | 9.4 | 9.8 | 9.5 | 9.4 | 8.7 | 70.4 |
| **Refined products consumption** | **12.5** | **12.5** | **12.5** | **11.9** | **10.1** | **9.5** | **9.6** | **9.9** | **10.4** | **10.5** | **100.0** |
| Gasoline | 4.9 | 4.6 | 4.5 | 4.2 | 3.3 | 2.5 | 2.3 | 2.1 | 1.9 | 1.8 | 17.0 |
| Diesel | 5.6 | 6.0 | 6.3 | 6.1 | 5.4 | 5.3 | 5.2 | 5.2 | 5.4 | 5.7 | 54.0 |
| Heating Oil | 0.2 | 0.1 | 0.1 | 0.0 | 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 | 0.8 | 0.8 | 0.9 | 0.9 | 1.0 | 0.9 | 1.5 | 1.7 | 1.9 | 2.3 | 21.6 |
| **Imports** | **43.5** | **49.7** | **36.6** | **30.7** | **24.0** | **21.4** | **18.5** | **22.1** | **20.1** | **20.6** | **100.0** |
| Oil | 13.9 | 13.5 | 10.0 | 8.1 | 8.3 | 8.1 | 9.7 | 10.9 | 11.5 | 11.8 | 57.3 |
| Gas | 29.6 | 36.2 | 26.6 | 22.6 | 15.7 | 13.3 | 8.8 | 11.3 | 8.5 | 8.8 | 42.7 |
| Gasoline | 2.2 | 2.3 | 2.1 | 1.9 | 2.3 | 1.5 | 1.5 | 1.3 | 1.2 | 1.1 | 5.4 |
| Diesel | 2.5 | 3.8 | 4.8 | 4.4 | 4.9 | 4.9 | 5.2 | 5.5 | 5.7 | 6.4 | 30.9 |
| Heating Oil | 0.5 | 0.6 | 0.1 | 0.0 | 0.0 | 0.2 | 0.4 | 0.3 | 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 | 0.3 | 0.3 | 0.4 | 0.5 | 0.7 | 1.2 | 1.2 | 1.4 | 1.6 | 7.9 |
| **Exports** | **4.1** | **4.2** | **1.7** | **1.0** | **0.8** | **0.1** | **0.2** | **0.6** | **0.6** | **0.7** | **100.0** |
| Oil | 4.1 | 4.2 | 1.7 | 1.0 | 0.8 | 0.1 | 0.2 | 0.6 | 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 | 0.6 | 1.0 | 0.5 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Diesel | 0.7 | 0.9 | 0.5 | 0.1 | 0.1 | 0.0 | 0.0 | 0.2 | 0.2 | 0.2 | 35.0 |
| Heating Oil | 2.4 | 1.8 | 0.5 | 0.6 | 0.5 | 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 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **276.5** | **290.8** | **285.1** | **274.0** | **231.1** | **191.7** | **192.2** | **176.7** | **185.0** | **176.6** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million \$15ppp)** | **721.5** | **719.3** | **703.5** | **676.2** | **610.5** | **561.1** | **549.4** | **492.5** | **499.4** | **462.0** | **-** |
| **Final energy intensity (toe/million \$15ppp)** | **182.0** | **176.8** | **170.6** | **167.0** | **157.4** | **146.5** | **147.9** | **137.4** | **137.3** | **128.5** | **-** |
| **Total energy intensity (toe/million \$15ppp)** | **345.1** | **312.7** | **302.0** | **286.5** | **279.0** | **271.6** | **261.5** | **249.2** | **250.3** | **232.2** | **-** |

*Heat is included

**Primary energy demand mix**

Hydro
1%

Biomass
4%

Oil
15%

Nuclear
24%

2019: 88.77 Mtoe

Gas
27%

Coal
29%

**Electricity generation by source**

■ Oil  ■ Gas  ■ Coal  ■ Nuclear  ■ Hydro  ■ Biomass  ■ Wind  ■ Solar

**Primary energy demand and CO$_2$ emissions growth**

—— Demand growth  —— Emissions growth
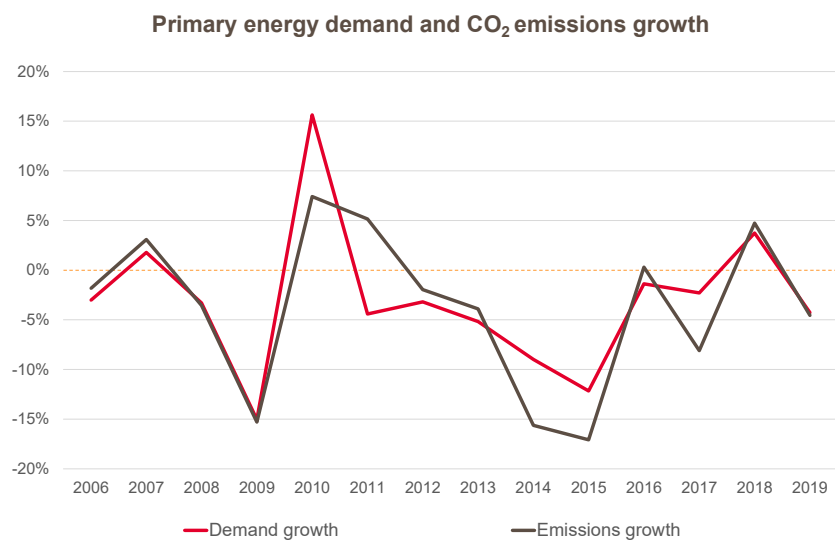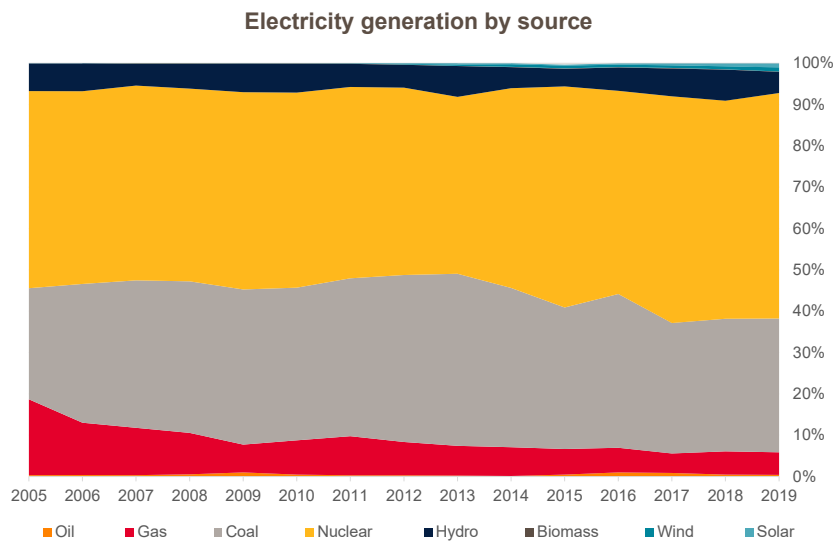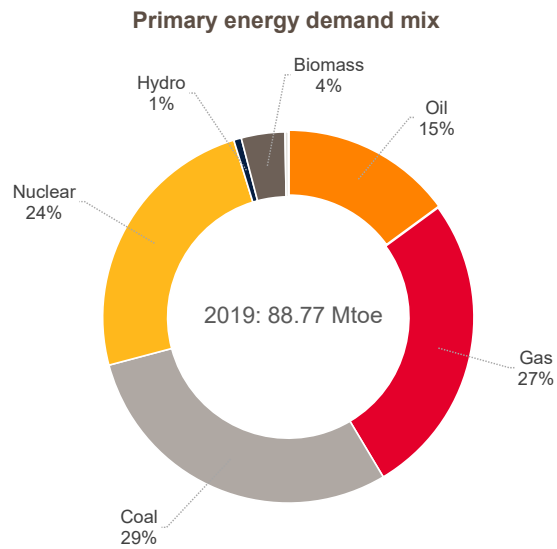
| Uzbekistan (Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **42.5** | **46.5** | **47.9** | **43.0** | **43.4** | **38.6** | **33.9** | **33.8** | **35.6** | **36.7** | **100.0** |
| Oil | 3.7 | 3.5 | 3.1 | 3.0 | 2.8 | 2.6 | 2.4 | 2.3 | 2.4 | 2.3 | 6.3 |
| Gas | 37.2 | 41.6 | 42.9 | 37.6 | 38.3 | 33.9 | 29.4 | 29.0 | 30.5 | 32.0 | 87.4 |
| Coal | 0.9 | 1.0 | 1.4 | 2.0 | 1.9 | 1.6 | 1.6 | 1.8 | 2.0 | 1.7 | 4.7 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.7 | 0.5 | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 1.7 |
| 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* | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.2 |
| **Total final consumption, by source** | **30.6** | **33.4** | **34.5** | **29.1** | **29.5** | **25.2** | **22.5** | **22.1** | **23.0** | **23.8** | **100.0** |
| Oil | 3.4 | 3.1 | 2.8 | 2.7 | 2.6 | 2.4 | 2.2 | 2.1 | 2.2 | 2.1 | 9.0 |
| Gas | 20.8 | 23.7 | 25.1 | 19.7 | 20.2 | 16.0 | 13.3 | 13.0 | 13.6 | 14.3 | 60.0 |
| Coal | 0.3 | 0.3 | 0.4 | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 2.0 |
| Electricity | 3.2 | 3.3 | 3.3 | 3.4 | 3.5 | 3.6 | 3.7 | 3.8 | 4.0 | 4.0 | 16.8 |
| Heat | 3.0 | 2.9 | 2.9 | 2.9 | 2.8 | 2.8 | 2.8 | 2.7 | 2.7 | 2.9 | 12.3 |
| 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** | **4.5** | **4.5** | **4.6** | **4.7** | **4.8** | **5.0** | **5.1** | **5.3** | **5.5** | **5.6** | **100.0** |
| Oil | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 |
| Gas | 3.5 | 3.8 | 3.8 | 4.0 | 4.1 | 4.1 | 4.2 | 4.4 | 4.6 | 4.7 | 84.9 |
| Coal | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 3.7 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.7 | 0.5 | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 11.2 |
| 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 | 0.0 |
| 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** | **30.6** | **33.4** | **34.5** | **29.1** | **29.5** | **25.2** | **22.5** | **22.1** | **23.0** | **23.8** | **100.0** |
| Industry | 6.7 | 7.5 | 8.0 | 6.6 | 6.8 | 5.8 | 5.1 | 5.1 | 5.4 | 5.5 | 23.1 |
| Transport | 2.0 | 1.8 | 1.7 | 1.6 | 1.5 | 1.4 | 1.3 | 1.3 | 1.4 | 1.3 | 5.3 |
| Residential/Comercial | 15.9 | 18.0 | 18.9 | 15.1 | 15.4 | 12.5 | 10.7 | 10.5 | 11.0 | 11.4 | 48.1 |
| **Oil final consumption, by sector** | **3.4** | **3.1** | **2.8** | **2.7** | **2.6** | **2.4** | **2.2** | **2.1** | **2.2** | **2.1** | **100.0** |
| Industry | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 5.0 |
| Transport | 1.9 | 1.7 | 1.6 | 1.5 | 1.4 | 1.3 | 1.2 | 1.2 | 1.3 | 1.2 | 54.7 |
| Residential/Comercial | 0.3 | 0.3 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 4.4 |
| **Natural gas final consumption, by sector** | **20.8** | **23.7** | **25.1** | **19.7** | **20.2** | **16.0** | **13.3** | **13.0** | **13.6** | **14.3** | **100.0** |
| Industry | 5.3 | 6.1 | 6.4 | 5.0 | 5.1 | 4.1 | 3.4 | 3.3 | 3.4 | 3.6 | 25.3 |
| Transport | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Residential/Comercial | 14.4 | 16.5 | 17.5 | 13.6 | 14.0 | 11.0 | 9.2 | 8.9 | 9.3 | 9.8 | 68.7 |
| **Refined products consumption** | **3.3** | **3.1** | **2.8** | **2.7** | **2.5** | **2.3** | **2.2** | **2.1** | **2.2** | **2.1** | **100.0** |
| Gasoline | 1.5 | 1.3 | 1.3 | 1.1 | 1.1 | 1.0 | 0.9 | 0.9 | 0.9 | 0.8 | 39.2 |
| Diesel | 1.0 | 0.9 | 0.9 | 1.0 | 0.9 | 0.8 | 0.8 | 0.7 | 0.8 | 0.9 | 41.3 |
| Heating Oil | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 2.9 |
| Aviation Jet | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 4.6 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.7 |
| **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** | **12.0** | **10.0** | **8.5** | **11.2** | **12.2** | **16.9** | **16.6** | **17.2** | **18.5** | **16.6** | **100.0** |
| Oil | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.5 |
| Gas | 11.7 | 9.8 | 8.3 | 11.0 | 12.0 | 16.8 | 16.5 | 17.0 | 18.3 | 16.5 | 99.5 |
| 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 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.3 |
| 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 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **102.4** | **112.0** | **115.4** | **105.0** | **105.8** | **93.7** | **82.7** | **82.5** | **87.3** | **89.4** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million \$15ppp)** | **791.7** | **799.6** | **761.4** | **641.8** | **599.7** | **491.9** | **402.7** | **381.5** | **383.0** | **371.5** | **-** |
| **Final energy intensity (toe/million \$15ppp)** | **226.8** | **228.9** | **219.0** | **170.5** | **160.5** | **126.7** | **105.0** | **97.7** | **96.8** | **94.9** | **-** |
| **Total energy intensity (toe/million \$15ppp)** | **328.6** | **332.1** | **316.2** | **262.4** | **246.1** | **202.4** | **164.9** | **156.4** | **156.0** | **152.3** | **-** |

*Heat is included

**Primary energy demand mix**

Coal
5%

Hydro
2%

Oil
6%

2019: 36.65 Mtoe

Gas
87%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil  ■ Gas  ■ Coal  ■ Hydro

**Primary energy demand and CO$_2$ emissions growth**

15%
10%
5%
0%
-5%
-10%
-15%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
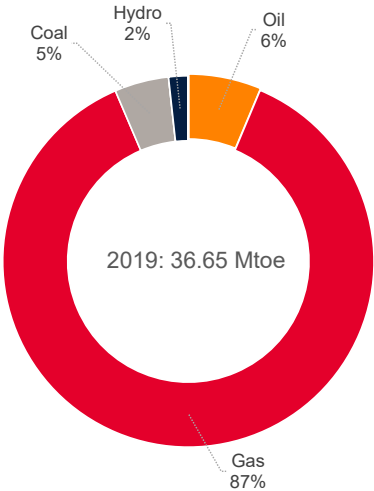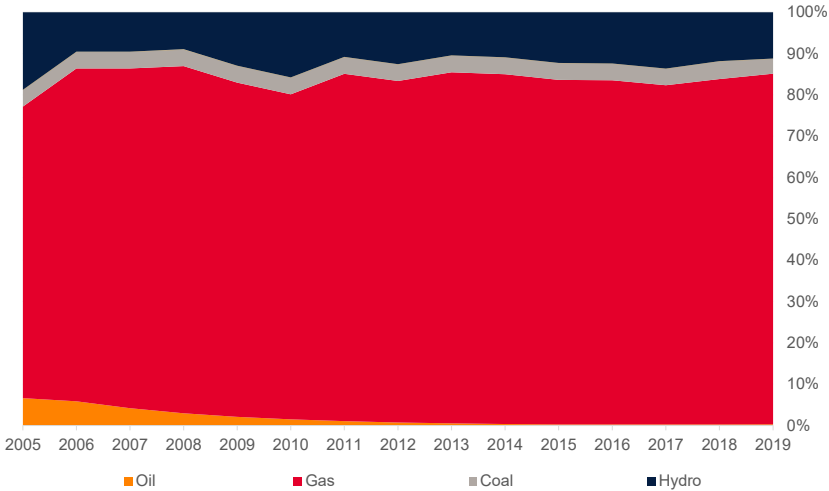
— Demand growth    — Emissions growth

| **Middle East**<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | **Share in 2019 (%)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **646.0** | **648.9** | **700.7** | **703.5** | **750.6** | **760.8** | **764.9** | **777.8** | **786.7** | **776.1** | **100.0** |
| Oil | 321.1 | 305.8 | 343.4 | 333.8 | 360.1 | 347.2 | 334.8 | 336.5 | 329.9 | 304.6 | 39.2 |
| Gas | 311.3 | 329.4 | 342.1 | 354.4 | 375.5 | 399.2 | 415.2 | 426.7 | 443.3 | 456.7 | 58.8 |
| Coal | 9.8 | 9.8 | 11.6 | 10.5 | 10.3 | 10.0 | 9.0 | 8.9 | 7.9 | 8.2 | 1.1 |
| Nuclear | 0.0 | 0.1 | 0.5 | 1.2 | 1.2 | 0.8 | 1.7 | 2.0 | 1.9 | 1.8 | 0.2 |
| Hydro | 1.5 | 1.7 | 1.8 | 2.0 | 1.7 | 1.5 | 1.8 | 1.5 | 1.6 | 2.8 | 0.4 |
| Biomass | 1.0 | 0.9 | 0.9 | 0.9 | 0.9 | 0.9 | 1.0 | 1.0 | 1.0 | 1.0 | 0.1 |
| Other renewables | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.3 | 0.4 | 0.6 | 1.2 | 0.2 |
| Electricity balance of trade* | 1.2 | 1.3 | 0.4 | 0.5 | 0.7 | 1.1 | 1.0 | 0.8 | 0.3 | -0.2 | -0.0 |
| **Total final consumption, by source** | **429.7** | **444.9** | **464.5** | **471.0** | **491.0** | **495.3** | **496.3** | **508.5** | **515.7** | **523.6** | **100.0** |
| Oil | 218.3 | 213.7 | 227.0 | 227.2 | 238.1 | 239.7 | 234.6 | 244.6 | 238.5 | 233.6 | 44.6 |
| Gas | 145.2 | 163.7 | 166.4 | 168.9 | 173.3 | 175.2 | 177.3 | 177.8 | 189.9 | 202.1 | 38.6 |
| Coal | 1.7 | 1.6 | 2.6 | 3.3 | 3.7 | 3.4 | 3.5 | 3.9 | 3.6 | 3.7 | 0.7 |
| Electricity | 62.3 | 63.8 | 67.3 | 70.2 | 74.5 | 75.7 | 79.5 | 80.8 | 82.1 | 82.6 | 15.8 |
| Heat | 1.3 | 1.2 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.1 |
| Biomass | 0.9 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 0.9 | 0.2 |
| **Electricity generation, by source** | **76.7** | **78.8** | **82.4** | **85.0** | **90.9** | **95.7** | **98.7** | **102.7** | **105.5** | **106.9** | **100.0** |
| Oil | 24.0 | 27.5 | 29.1 | 28.2 | 28.3 | 26.2 | 24.3 | 23.9 | 24.8 | 23.9 | 22.3 |
| Gas | 48.1 | 46.5 | 47.9 | 51.5 | 57.7 | 65.0 | 69.6 | 74.1 | 76.0 | 76.4 | 71.5 |
| Coal | 3.0 | 3.1 | 3.4 | 2.8 | 2.6 | 2.6 | 2.1 | 2.0 | 1.8 | 2.0 | 1.8 |
| Nuclear | 0.0 | 0.0 | 0.2 | 0.4 | 0.4 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 |
| Hydro | 1.5 | 1.7 | 1.8 | 2.0 | 1.7 | 1.5 | 1.8 | 1.5 | 1.6 | 2.8 | 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 |
| Wind | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 |
| Solar | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.3 | 0.4 | 0.5 | 1.1 | 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** | **429.7** | **444.9** | **464.5** | **471.0** | **491.0** | **495.3** | **496.3** | **508.5** | **515.7** | **523.6** | **100.0** |
| Industry | 134.4 | 139.1 | 147.5 | 150.1 | 157.8 | 153.8 | 149.1 | 154.5 | 157.5 | 164.3 | 31.4 |
| Transport | 121.4 | 124.5 | 131.7 | 135.1 | 137.7 | 136.5 | 137.5 | 139.2 | 133.5 | 134.4 | 25.7 |
| Residential/Comercial | 109.1 | 111.7 | 110.6 | 113.4 | 117.4 | 122.3 | 128.0 | 126.0 | 131.2 | 136.1 | 26.0 |
| **Oil final consumption, by sector** | **218.3** | **213.7** | **227.0** | **227.2** | **238.1** | **239.7** | **234.6** | **244.6** | **238.5** | **233.6** | **100.0** |
| Industry | 35.4 | 30.9 | 32.7 | 34.9 | 38.7 | 38.3 | 34.6 | 38.7 | 36.3 | 37.6 | 16.1 |
| Transport | 116.7 | 119.2 | 125.8 | 129.4 | 131.7 | 130.1 | 131.0 | 132.6 | 126.4 | 126.7 | 54.2 |
| Residential/Comercial | 20.2 | 19.1 | 18.8 | 15.6 | 15.7 | 14.8 | 15.5 | 15.0 | 14.9 | 14.8 | 6.3 |
| **Natural gas final consumption, by sector** | **145.2** | **163.7** | **166.4** | **168.9** | **173.3** | **175.2** | **177.3** | **177.8** | **189.9** | **202.1** | **100.0** |
| Industry | 83.4 | 91.4 | 96.6 | 95.1 | 97.8 | 97.1 | 93.5 | 95.1 | 100.3 | 105.6 | 52.3 |
| Transport | 4.7 | 5.3 | 5.9 | 5.6 | 6.0 | 6.3 | 6.5 | 6.5 | 7.1 | 7.7 | 3.8 |
| Residential/Comercial | 41.5 | 45.5 | 42.8 | 47.1 | 47.6 | 49.4 | 53.2 | 50.0 | 54.5 | 59.0 | 29.2 |
| **Refined products consumption** | **212.2** | **209.5** | **222.3** | **222.2** | **232.9** | **234.3** | **231.8** | **242.3** | **236.5** | **231.9** | **100.0** |
| Gasoline | 62.8 | 64.6 | 68.4 | 72.1 | 73.4 | 74.5 | 76.9 | 81.6 | 81.5 | 81.3 | 35.1 |
| Diesel | 71.2 | 71.1 | 74.4 | 74.3 | 74.5 | 69.9 | 67.5 | 64.8 | 57.4 | 58.3 | 25.1 |
| Heating Oil | 18.8 | 16.7 | 16.2 | 17.4 | 20.9 | 21.8 | 21.3 | 25.3 | 24.3 | 25.6 | 11.0 |
| Aviation Jet | 1.2 | 1.1 | 1.1 | 1.1 | 1.2 | 1.4 | 1.3 | 1.5 | 1.6 | 1.5 | 0.7 |
| LPG | 12.9 | 13.4 | 15.5 | 12.4 | 14.5 | 17.0 | 14.1 | 14.2 | 14.5 | 14.3 | 6.2 |
| **Imports** | **115.0** | **113.9** | **119.0** | **133.3** | **136.7** | **145.5** | **143.3** | **134.8** | **146.5** | **128.2** | **100.0** |
| Oil | 84.5 | 83.0 | 94.9 | 107.7 | 109.3 | 113.7 | 111.1 | 105.6 | 116.6 | 96.4 | 75.2 |
| Gas | 30.5 | 30.9 | 24.1 | 25.6 | 27.3 | 31.8 | 32.2 | 29.3 | 29.9 | 31.8 | 24.8 |
| Gasoline | 17.8 | 14.3 | 15.3 | 18.7 | 19.5 | 22.8 | 24.2 | 27.0 | 32.7 | 21.8 | 17.0 |
| Diesel | 19.0 | 21.4 | 28.6 | 32.2 | 32.8 | 32.5 | 32.0 | 24.7 | 27.1 | 17.8 | 13.9 |
| Heating Oil | 17.4 | 19.9 | 21.9 | 22.5 | 21.1 | 22.5 | 21.0 | 19.2 | 22.6 | 23.3 | 18.2 |
| Aviation Jet | 0.8 | 0.8 | 0.4 | 0.6 | 0.6 | 0.6 | 0.8 | 0.8 | 0.9 | 0.9 | 0.7 |
| LPG | 1.7 | 1.9 | 2.1 | 1.9 | 1.6 | 1.6 | 2.1 | 1.3 | 1.2 | 1.2 | 0.9 |
| **Exports** | **1,076.9** | **1,199.8** | **1,192.7** | **1,215.9** | **1,195.4** | **1,255.8** | **1,392.0** | **1,369.6** | **1,404.2** | **1,306.8** | **100.0** |
| Oil | 963.8 | 1,078.0 | 1,070.6 | 1,078.2 | 1,064.4 | 1,126.4 | 1,259.6 | 1,232.7 | 1,264.5 | 1,161.8 | 88.9 |
| Gas | 113.0 | 121.8 | 122.1 | 137.6 | 131.0 | 129.3 | 132.3 | 137.0 | 139.7 | 145.0 | 11.1 |
| Gasoline | 5.3 | 4.6 | 3.2 | 2.8 | 5.1 | 9.0 | 13.3 | 12.3 | 19.2 | 10.1 | 0.8 |
| Diesel | 21.7 | 20.8 | 22.5 | 24.1 | 31.9 | 46.1 | 54.8 | 55.4 | 69.0 | 56.4 | 4.3 |
| Heating Oil | 27.3 | 25.2 | 24.7 | 26.5 | 20.5 | 24.4 | 28.6 | 32.4 | 31.3 | 22.2 | 1.7 |
| Aviation Jet | 11.4 | 11.6 | 11.3 | 11.4 | 9.4 | 10.2 | 9.6 | 10.3 | 13.0 | 12.9 | 1.0 |
| LPG | 45.1 | 52.0 | 52.3 | 50.7 | 54.3 | 51.0 | 58.3 | 57.8 | 59.9 | 39.4 | 3.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **1,607.6** | **1,661.2** | **1,735.6** | **1,774.6** | **1,849.6** | **1,875.3** | **1,887.9** | **1,920.3** | **1,947.0** | **1,979.9** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **323.5** | **315.4** | **324.1** | **323.4** | **326.5** | **325.0** | **309.0** | **312.1** | **317.1** | **325.9** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **75.4** | **73.1** | **74.6** | **74.4** | **74.6** | **73.1** | **69.4** | **69.8** | **70.4** | **73.3** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **130.0** | **123.2** | **130.9** | **128.2** | **132.5** | **131.8** | **125.2** | **126.4** | **128.1** | **127.7** | **-** |

**Primary energy demand mix**

Coal
1%

Oil
39%

2019: 776.10 Mtoe

Gas
59%

**Electricity generation by source**

■ Oil   ■ Gas   ■ Coal   ■ Nuclear   ■ Hydro   ■ Wind   ■ Solar
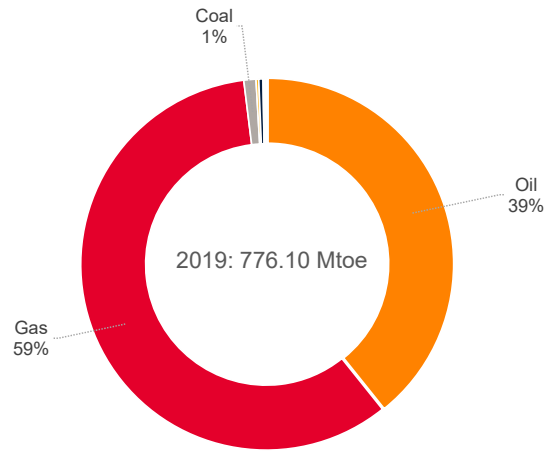
**Primary energy demand and CO$_2$ emissions growth**
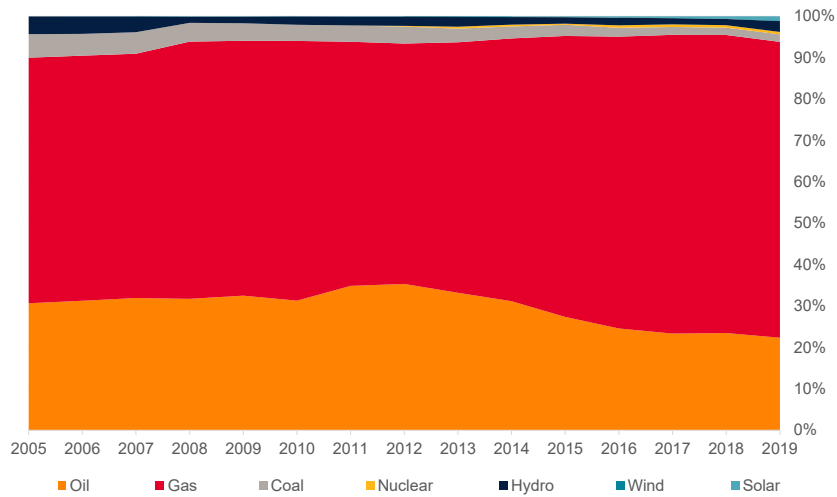
—— Demand growth        —— Emissions growth
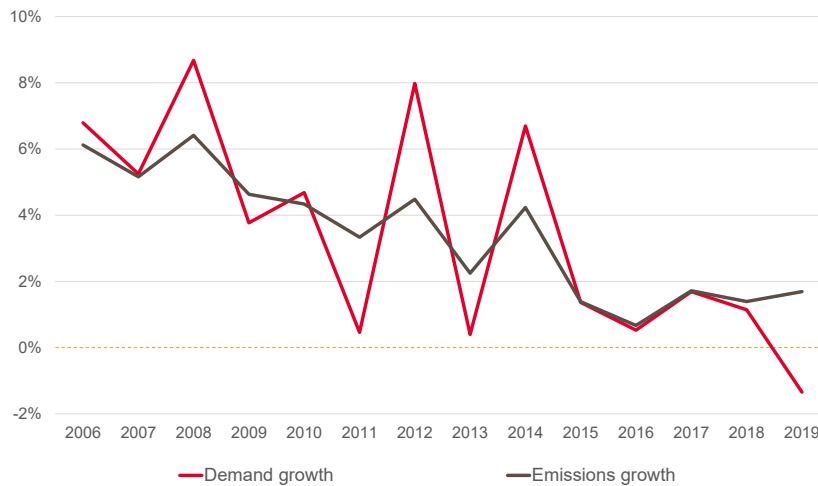
| **Iran** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **204.3** | **208.3** | **216.8** | **221.0** | **237.2** | **237.2** | **244.8** | **261.6** | **271.3** | **257.6** | **100.0** |
| Oil | 79.5 | 76.5 | 85.8 | 88.2 | 87.9 | 78.6 | 74.0 | 82.4 | 83.9 | 61.2 | 23.7 |
| Gas | 122.1 | 129.2 | 128.3 | 129.3 | 145.9 | 155.3 | 166.3 | 174.5 | 183.0 | 191.3 | 74.3 |
| Coal | 1.5 | 1.5 | 1.1 | 1.2 | 1.0 | 1.1 | 1.1 | 1.2 | 0.8 | 0.7 | 0.3 |
| Nuclear | 0.0 | 0.1 | 0.5 | 1.2 | 1.2 | 0.8 | 1.7 | 2.0 | 1.9 | 1.8 | 0.7 |
| Hydro | 0.8 | 1.0 | 1.1 | 1.3 | 1.2 | 1.2 | 1.4 | 1.3 | 1.4 | 2.5 | 1.0 |
| Biomass | 0.6 | 0.5 | 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 | 0.1 | 0.1 | 0.0 |
| Electricity balance of trade* | -0.3 | -0.4 | -0.6 | -0.7 | -0.5 | -0.2 | -0.2 | -0.4 | -0.3 | -0.5 | -0.2 |
| **Total final consumption, by source** | **157.6** | **162.5** | **163.3** | **167.7** | **180.7** | **180.7** | **187.8** | **194.5** | **204.7** | **208.5** | **100.0** |
| Oil | 65.0 | 57.3 | 60.2 | 59.7 | 66.6 | 66.1 | 64.0 | 68.5 | 69.0 | 63.4 | 30.4 |
| Gas | 75.2 | 87.5 | 84.7 | 88.9 | 93.5 | 94.9 | 101.4 | 102.6 | 112.1 | 121.3 | 58.2 |
| Coal | 0.8 | 0.9 | 0.7 | 1.0 | 1.1 | 1.1 | 1.1 | 1.2 | 1.3 | 1.3 | 0.6 |
| Electricity | 16.0 | 16.3 | 17.1 | 17.6 | 19.0 | 18.2 | 20.7 | 21.7 | 21.9 | 22.0 | 10.5 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.3 |
| **Electricity generation, by source** | **20.0** | **20.6** | **21.9** | **22.6** | **23.6** | **24.1** | **24.9** | **26.5** | **26.7** | **27.1** | **100.0** |
| Oil | 4.0 | 5.7 | 6.0 | 7.3 | 5.1 | 3.5 | 2.8 | 2.3 | 2.6 | 2.5 | 9.1 |
| Gas | 15.2 | 13.8 | 14.6 | 13.5 | 16.8 | 19.1 | 20.1 | 22.2 | 22.0 | 21.4 | 79.1 |
| Coal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 |
| Nuclear | 0.0 | 0.0 | 0.2 | 0.4 | 0.4 | 0.3 | 0.6 | 0.6 | 0.6 | 0.6 | 2.2 |
| Hydro | 0.8 | 1.0 | 1.1 | 1.3 | 1.2 | 1.2 | 1.4 | 1.3 | 1.4 | 2.5 | 9.2 |
| 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 | 0.1 |
| 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** | **157.6** | **162.5** | **163.3** | **167.7** | **180.7** | **180.7** | **187.8** | **194.5** | **204.7** | **208.5** | **100.0** |
| Industry | 39.0 | 41.1 | 41.9 | 42.2 | 48.2 | 45.7 | 45.5 | 46.9 | 50.2 | 53.3 | 25.6 |
| Transport | 39.7 | 39.4 | 41.5 | 42.7 | 43.6 | 42.0 | 43.3 | 45.4 | 46.7 | 47.8 | 22.9 |
| Residential/Comercial | 57.9 | 58.8 | 55.1 | 57.6 | 60.4 | 62.1 | 66.2 | 63.6 | 68.1 | 72.0 | 34.5 |
| **Oil final consumption, by sector** | **65.0** | **57.3** | **60.2** | **59.7** | **66.6** | **66.1** | **64.0** | **68.5** | **69.0** | **63.4** | **100.0** |
| Industry | 7.8 | 5.7 | 5.5 | 5.3 | 8.4 | 8.0 | 4.1 | 3.9 | 3.7 | 3.7 | 5.8 |
| Transport | 35.0 | 34.1 | 35.6 | 37.0 | 37.6 | 35.7 | 36.8 | 38.8 | 39.6 | 40.1 | 63.2 |
| Residential/Comercial | 9.2 | 7.8 | 7.5 | 5.3 | 6.4 | 6.1 | 6.1 | 5.5 | 5.5 | 5.2 | 8.2 |
| **Natural gas final consumption, by sector** | **75.2** | **87.5** | **84.7** | **88.9** | **93.5** | **94.9** | **101.4** | **102.6** | **112.1** | **121.3** | **100.0** |
| Industry | 25.1 | 28.8 | 29.8 | 30.0 | 32.5 | 32.1 | 33.6 | 35.2 | 38.5 | 41.7 | 34.3 |
| Transport | 4.7 | 5.3 | 5.9 | 5.6 | 6.0 | 6.3 | 6.5 | 6.5 | 7.1 | 7.7 | 6.3 |
| Residential/Comercial | 39.6 | 42.7 | 39.0 | 43.3 | 44.0 | 45.3 | 49.0 | 46.3 | 50.6 | 54.8 | 45.2 |
| **Refined products consumption** | **65.0** | **57.3** | **60.2** | **59.7** | **66.6** | **66.1** | **64.0** | **68.5** | **69.0** | **63.4** | **100.0** |
| Gasoline | 17.6 | 16.8 | 17.8 | 19.2 | 19.5 | 19.9 | 21.0 | 22.6 | 23.2 | 23.2 | 36.6 |
| Diesel | 25.1 | 23.6 | 24.1 | 24.2 | 24.0 | 21.5 | 21.3 | 22.1 | 22.4 | 23.0 | 36.2 |
| Heating Oil | 6.0 | 3.8 | 3.7 | 3.3 | 6.3 | 5.8 | 2.0 | 1.1 | 0.9 | 0.7 | 1.1 |
| 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 | 2.8 | 2.5 | 2.5 | 0.6 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 3.7 |
| **Imports** | **16.8** | **13.3** | **6.2** | **7.7** | **10.1** | **11.7** | **10.2** | **8.6** | **9.6** | **10.8** | **100.0** |
| Oil | 9.2 | 3.3 | 2.2 | 3.2 | 3.8 | 4.4 | 5.2 | 5.4 | 5.6 | 5.9 | 54.5 |
| Gas | 7.6 | 10.0 | 3.9 | 4.5 | 6.4 | 7.2 | 5.0 | 3.3 | 4.0 | 4.9 | 45.5 |
| Gasoline | 4.3 | 1.4 | 0.4 | 1.0 | 1.3 | 2.8 | 3.4 | 3.5 | 3.7 | 4.0 | 37.0 |
| Diesel | 1.4 | 0.0 | 0.0 | 0.2 | 0.3 | 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 | 0.3 | 0.2 | 0.2 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Exports** | **148.3** | **148.1** | **86.4** | **82.1** | **85.2** | **92.3** | **156.7** | **171.1** | **155.9** | **112.6** | **100.0** |
| Oil | 141.1 | 140.1 | 78.6 | 74.3 | 77.0 | 84.6 | 149.0 | 159.9 | 142.4 | 96.0 | 85.3 |
| Gas | 7.2 | 8.0 | 7.9 | 7.9 | 8.2 | 7.7 | 7.7 | 11.2 | 13.4 | 16.6 | 14.7 |
| 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 | 0.6 | 0.6 | 0.2 | 0.0 | 1.8 | 3.5 | 2.1 | 2.1 | 2.1 | 1.9 |
| Heating Oil | 9.7 | 9.9 | 5.5 | 8.1 | 6.1 | 9.1 | 15.2 | 15.2 | 15.3 | 9.6 | 8.5 |
| 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 | 4.1 | 4.1 | 3.0 | 2.0 | 3.3 | 3.2 | 3.1 | 2.9 | 2.9 | 1.3 | 1.2 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **515.2** | **531.2** | **535.9** | **553.8** | **584.6** | **579.0** | **582.3** | **602.1** | **626.3** | **637.8** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **360.5** | **362.2** | **394.7** | **408.8** | **412.5** | **414.0** | **367.2** | **365.9** | **402.4** | **443.4** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **100.1** | **99.4** | **107.0** | **110.4** | **112.4** | **112.3** | **102.3** | **99.5** | **111.2** | **126.1** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **143.0** | **142.0** | **159.7** | **163.1** | **167.3** | **169.6** | **154.4** | **159.0** | **174.3** | **179.1** | **-** |

*Heat is included*

## Primary energy demand mix

Nuclear
1%

Oil
24%

2019: 257.57 Mtoe

Gas
74%

## Electricity generation by source

■ Oil  ■ Gas  ■ Coal  ■ Nuclear  ■ Hydro  ■ Wind
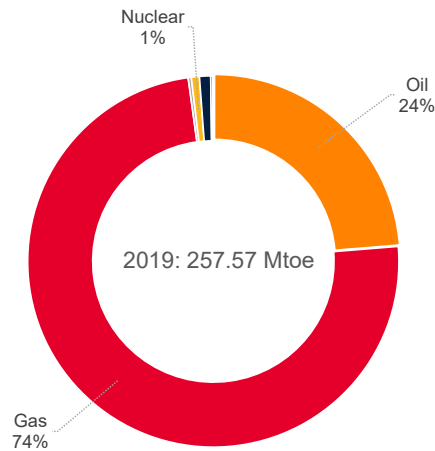
## Primary energy demand and CO$_2$ emissions growth
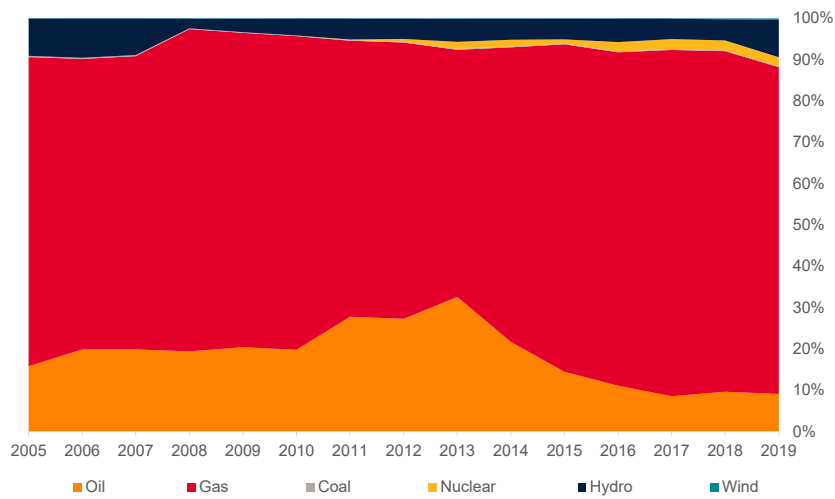
— Demand growth  — Emissions growth
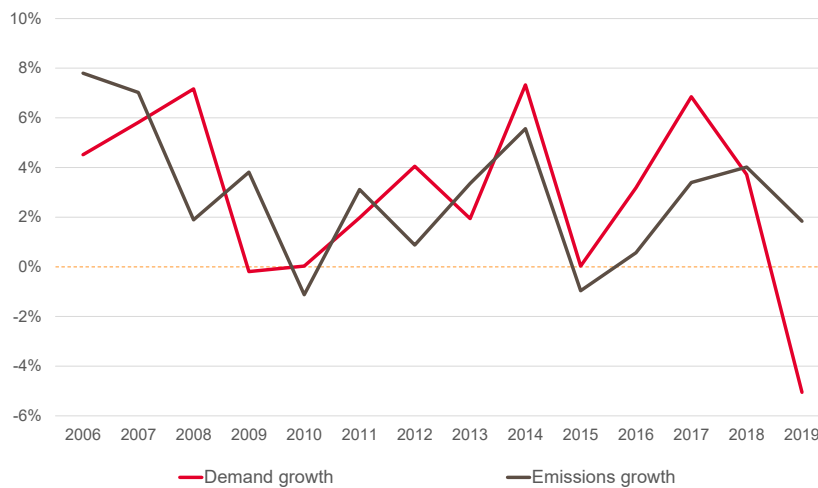
| **Iraq**<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | **Share in 2019 (%)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **36.8** | **41.0** | **46.8** | **49.5** | **49.6** | **46.8** | **55.6** | **61.5** | **63.4** | **64.5** | **100.0** |
| Oil | 31.7 | 34.0 | 39.8 | 42.3 | 42.7 | 39.7 | 48.0 | 53.2 | 55.5 | 56.3 | 87.3 |
| Gas | 4.2 | 6.1 | 5.7 | 5.7 | 5.5 | 5.7 | 6.2 | 7.1 | 7.4 | 7.7 | 12.0 |
| 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 | 0.4 | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 | 0.3 | 0.1 | 0.1 | 0.2 | 0.3 |
| 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 | 0.0 | 0.0 |
| Electricity balance of trade* | 0.5 | 0.6 | 0.9 | 1.0 | 1.1 | 1.1 | 1.0 | 1.0 | 0.3 | 0.3 | 0.4 |
| **Total final consumption, by source** | **19.1** | **22.9** | **26.0** | **26.4** | **21.4** | **17.4** | **18.5** | **20.3** | **21.6** | **22.4** | **100.0** |
| Oil | 15.8 | 18.2 | 19.9 | 20.1 | 16.1 | 13.1 | 13.8 | 15.4 | 16.4 | 17.1 | 76.2 |
| Gas | 0.2 | 1.3 | 3.0 | 2.4 | 1.6 | 1.2 | 1.4 | 1.4 | 1.4 | 1.5 | 6.6 |
| 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 | 3.3 | 3.0 | 3.9 | 3.8 | 3.1 | 3.3 | 3.4 | 3.7 | 3.8 | 17.0 |
| 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** | **4.2** | **4.6** | **4.0** | **5.0** | **5.8** | **5.9** | **6.9** | **7.5** | **8.9** | **9.3** | **100.0** |
| Oil | 1.7 | 1.9 | 1.6 | 2.2 | 2.4 | 2.7 | 2.9 | 3.7 | 4.1 | 4.3 | 46.0 |
| Gas | 2.0 | 2.4 | 2.0 | 2.4 | 3.2 | 3.0 | 3.7 | 3.7 | 4.7 | 4.8 | 52.2 |
| 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 | 0.3 | 0.4 | 0.4 | 0.3 | 0.2 | 0.3 | 0.1 | 0.1 | 0.2 | 1.8 |
| 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** | **19.1** | **22.9** | **26.0** | **26.4** | **21.4** | **17.4** | **18.5** | **20.3** | **21.6** | **22.4** | **100.0** |
| Industry | 3.1 | 4.0 | 6.3 | 5.8 | 4.8 | 3.5 | 3.6 | 3.7 | 3.9 | 4.0 | 17.9 |
| Transport | 9.3 | 11.0 | 11.9 | 11.8 | 9.7 | 8.3 | 8.5 | 9.6 | 10.7 | 11.0 | 49.1 |
| Residential/Comercial | 6.3 | 6.5 | 6.6 | 7.3 | 6.1 | 5.1 | 6.1 | 6.4 | 6.5 | 6.9 | 30.8 |
| **Oil final consumption, by sector** | **15.8** | **18.2** | **19.9** | **20.1** | **16.1** | **13.1** | **13.8** | **15.4** | **16.4** | **17.1** | **100.0** |
| Industry | 2.3 | 2.8 | 3.0 | 3.1 | 2.5 | 2.0 | 1.9 | 2.2 | 2.3 | 2.3 | 13.6 |
| Transport | 9.3 | 11.0 | 11.9 | 11.8 | 9.7 | 8.3 | 8.5 | 9.6 | 10.7 | 11.0 | 64.4 |
| Residential/Comercial | 3.8 | 3.9 | 4.3 | 4.3 | 3.2 | 2.6 | 3.2 | 3.4 | 3.2 | 3.5 | 20.6 |
| **Natural gas final consumption, by sector** | **0.2** | **1.3** | **3.0** | **2.4** | **1.6** | **1.2** | **1.4** | **1.4** | **1.4** | **1.5** | **100.0** |
| Industry | 0.2 | 0.6 | 2.5 | 1.9 | 1.4 | 1.0 | 1.2 | 1.1 | 1.2 | 1.2 | 83.7 |
| 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** | **15.8** | **18.2** | **19.9** | **20.1** | **16.1** | **13.1** | **13.8** | **15.4** | **16.4** | **17.1** | **100.0** |
| Gasoline | 5.2 | 5.9 | 6.3 | 6.1 | 5.0 | 4.8 | 5.0 | 5.7 | 6.4 | 6.7 | 39.0 |
| Diesel | 6.1 | 7.6 | 8.3 | 8.4 | 6.9 | 5.3 | 5.2 | 5.9 | 6.4 | 6.5 | 38.1 |
| Heating Oil | 0.2 | 0.2 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 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 | 1.8 | 1.7 | 2.0 | 2.2 | 1.8 | 1.3 | 1.9 | 1.9 | 2.0 | 2.1 | 12.3 |
| **Imports** | **8.5** | **9.2** | **11.9** | **12.6** | **14.5** | **13.7** | **17.1** | **16.8** | **14.6** | **15.7** | **100.0** |
| Oil | 8.5 | 9.2 | 11.9 | 12.6 | 14.5 | 13.7 | 17.1 | 16.8 | 14.6 | 15.7 | 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 | 1.8 | 2.4 | 2.5 | 2.2 | 2.0 | 2.1 | 2.3 | 2.6 | 2.8 | 3.0 | 19.2 |
| Diesel | 5.6 | 5.7 | 8.4 | 9.4 | 11.6 | 10.7 | 13.8 | 13.6 | 10.8 | 11.8 | 75.1 |
| 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 | 0.5 | 0.5 | 0.2 | 0.3 | 0.3 | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 | 3.4 |
| LPG | 0.2 | 0.2 | 0.4 | 0.5 | 0.4 | 0.3 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Exports** | **95.8** | **109.1** | **122.1** | **119.9** | **127.2** | **152.8** | **192.0** | **194.6** | **195.8** | **201.5** | **100.0** |
| Oil | 95.8 | 109.1 | 122.1 | 119.9 | 127.2 | 152.8 | 192.0 | 194.6 | 195.8 | 201.5 | 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 | 0.0 | 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 | 0.2 | 0.1 | 0.1 | 0.5 | 0.4 | 0.4 | 0.3 | 3.5 | 1.7 | 2.2 | 1.1 |
| 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **104.1** | **112.2** | **128.0** | **137.1** | **141.7** | **131.7** | **141.2** | **140.8** | **155.3** | **160.7** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million $15ppp)*** | **249.3** | **249.7** | **249.9** | **249.0** | **255.5** | **231.6** | **219.8** | **223.7** | **248.2** | **247.2** | **-** |
| **Final energy intensity *(toe/million $15ppp)*** | **44.6** | **47.9** | **48.2** | **45.3** | **37.0** | **29.7** | **28.3** | **31.4** | **33.8** | **33.8** | **-** |
| **Total energy intensity *(toe/million $15ppp)*** | **88.1** | **91.2** | **91.5** | **89.8** | **89.4** | **82.2** | **86.5** | **97.7** | **101.4** | **99.2** | **-** |

*Heat is included*

**Primary energy demand mix**

Gas
12%

Hydro
0%

2019: 64.51 Mtoe

Oil
88%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil ■ Gas ■ Hydro

**Primary energy demand and CO$_2$ emissions growth**

30%
25%
20%
15%
10%
5%
0%
-5%
-10%
-15%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
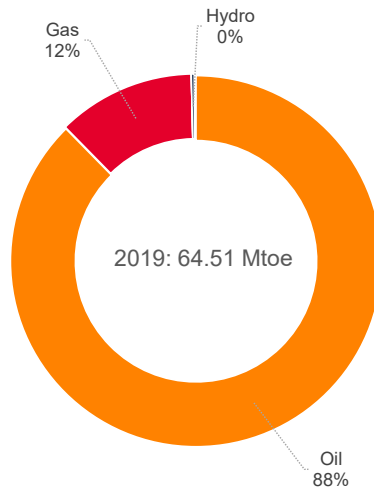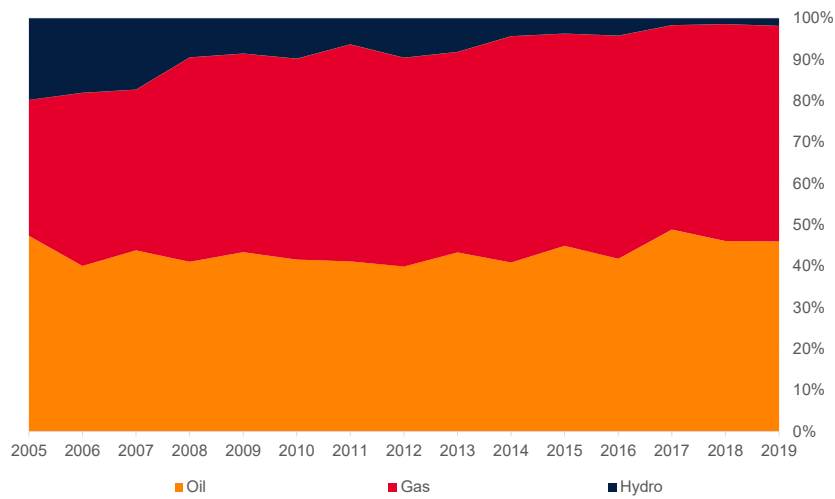
— Demand growth — Emissions growth
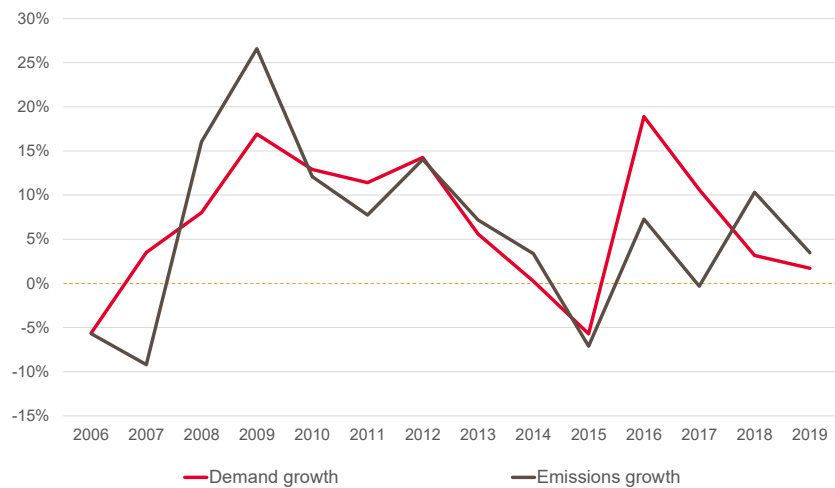
| Kuwait<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **32.1** | **31.0** | **34.4** | **33.7** | **32.0** | **34.5** | **36.4** | **34.0** | **34.2** | **35.5** | **100.0** |
| Oil | 20.2 | 17.1 | 19.6 | 18.6 | 17.0 | 17.5 | 18.2 | 15.5 | 15.0 | 14.6 | 41.2 |
| Gas | 11.9 | 13.9 | 14.8 | 15.1 | 15.0 | 17.1 | 18.2 | 18.5 | 19.2 | 20.9 | 58.8 |
| 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 | 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** | **15.1** | **15.6** | **17.1** | **15.9** | **17.1** | **18.1** | **19.2** | **19.3** | **19.8** | **20.3** | **100.0** |
| Oil | 8.6 | 8.2 | 9.3 | 8.5 | 8.5 | 8.8 | 8.8 | 8.3 | 8.3 | 8.5 | 42.0 |
| Gas | 3.3 | 4.2 | 4.3 | 4.1 | 4.8 | 5.6 | 6.5 | 6.9 | 7.2 | 7.4 | 36.6 |
| Coal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Electricity | 3.2 | 3.2 | 3.4 | 3.4 | 3.7 | 3.7 | 3.9 | 4.2 | 4.3 | 4.4 | 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** | **4.9** | **4.9** | **5.4** | **5.2** | **5.6** | **5.9** | **6.0** | **6.3** | **6.4** | **6.5** | **100.0** |
| Oil | 3.2 | 3.1 | 3.4 | 3.2 | 3.7 | 3.7 | 3.9 | 4.1 | 4.2 | 3.8 | 59.0 |
| Gas | 1.7 | 1.9 | 2.0 | 2.1 | 1.9 | 2.1 | 2.2 | 2.2 | 2.2 | 2.7 | 41.0 |
| 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 |
| 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** | **15.1** | **15.6** | **17.1** | **15.9** | **17.1** | **18.1** | **19.2** | **19.3** | **19.8** | **20.3** | **100.0** |
| Industry | 4.7 | 5.6 | 5.8 | 5.5 | 6.3 | 7.1 | 8.0 | 8.3 | 8.6 | 8.9 | 43.8 |
| Transport | 4.2 | 3.9 | 4.2 | 4.4 | 4.5 | 4.7 | 4.8 | 4.4 | 4.5 | 4.7 | 23.1 |
| Residential/Comercial | 2.9 | 2.9 | 3.1 | 3.1 | 3.3 | 3.4 | 3.5 | 3.8 | 4.0 | 4.0 | 19.7 |
| **Oil final consumption, by sector** | **8.6** | **8.2** | **9.3** | **8.5** | **8.5** | **8.8** | **8.8** | **8.3** | **8.3** | **8.5** | **100.0** |
| Industry | 0.9 | 0.8 | 0.9 | 0.9 | 0.9 | 0.9 | 0.8 | 0.7 | 0.7 | 0.7 | 8.3 |
| Transport | 4.2 | 3.9 | 4.2 | 4.4 | 4.5 | 4.7 | 4.8 | 4.4 | 4.5 | 4.7 | 55.0 |
| Residential/Comercial | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 4.7 |
| **Natural gas final consumption, by sector** | **3.3** | **4.2** | **4.3** | **4.1** | **4.8** | **5.6** | **6.5** | **6.9** | **7.2** | **7.4** | **100.0** |
| Industry | 3.3 | 4.2 | 4.3 | 4.1 | 4.8 | 5.6 | 6.5 | 6.9 | 7.2 | 7.4 | 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** | **8.6** | **8.2** | **9.3** | **8.5** | **8.5** | **8.8** | **8.8** | **8.3** | **8.3** | **8.5** | **100.0** |
| Gasoline | 2.9 | 2.7 | 2.8 | 3.0 | 3.1 | 3.3 | 3.2 | 2.8 | 2.8 | 3.0 | 35.4 |
| Diesel | 2.2 | 2.1 | 2.4 | 2.3 | 2.3 | 2.3 | 2.4 | 2.4 | 2.4 | 2.4 | 27.9 |
| 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 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 3.4 |
| **Imports** | **2.3** | **2.8** | **2.2** | **1.8** | **2.7** | **3.3** | **4.1** | **4.5** | **4.4** | **4.6** | **100.0** |
| Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gas | 2.3 | 2.8 | 2.2 | 1.8 | 2.7 | 3.3 | 4.1 | 4.5 | 4.4 | 4.6 | 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** | **104.0** | **124.7** | **139.6** | **137.1** | **135.8** | **136.3** | **141.7** | **132.8** | **135.4** | **131.6** | **100.0** |
| Oil | 104.0 | 124.7 | 139.6 | 137.1 | 135.8 | 136.3 | 141.7 | 132.8 | 135.4 | 131.6 | 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 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 |
| Diesel | 7.3 | 7.3 | 7.7 | 7.2 | 7.2 | 7.0 | 6.5 | 5.3 | 5.5 | 5.3 | 4.0 |
| Heating Oil | 3.6 | 4.3 | 5.2 | 3.3 | 3.6 | 4.9 | 4.4 | 3.6 | 3.4 | 3.3 | 2.5 |
| Aviation Jet | 2.0 | 2.0 | 2.2 | 2.0 | 1.8 | 1.9 | 1.6 | 0.9 | 1.0 | 1.1 | 0.8 |
| LPG | 4.2 | 4.6 | 5.1 | 4.9 | 5.0 | 5.4 | 6.3 | 7.3 | 7.4 | 7.6 | 5.8 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **78.8** | **80.1** | **79.8** | **87.7** | **83.8** | **93.3** | **94.8** | **90.9** | **91.9** | **94.4** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million $15ppp)*** | **327.5** | **303.5** | **283.4** | **308.0** | **293.0** | **324.0** | **317.9** | **314.1** | **313.5** | **319.8** | **-** |
| **Final energy intensity *(toe/million $15ppp)*** | **48.9** | **46.9** | **46.7** | **45.6** | **49.4** | **52.7** | **54.6** | **57.1** | **58.6** | **59.5** | **-** |
| **Total energy intensity *(toe/million $15ppp)*** | **133.3** | **117.5** | **122.3** | **118.5** | **111.7** | **119.9** | **122.1** | **117.5** | **116.6** | **120.3** | **-** |

*Heat is included*

**Primary energy demand mix**

Oil
41%

Gas
59%

2019: 35.52 Mtoe

**Electricity generation by source**

■ Oil    ■ Gas
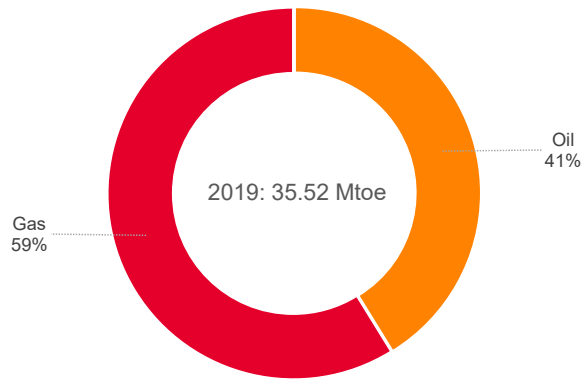
**Primary energy demand and CO$_2$ emissions growth**
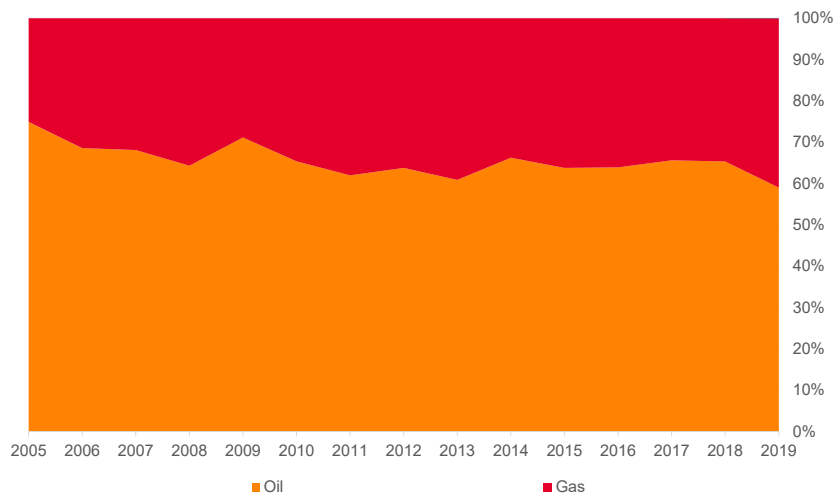
—— Demand growth    —— Emissions growth
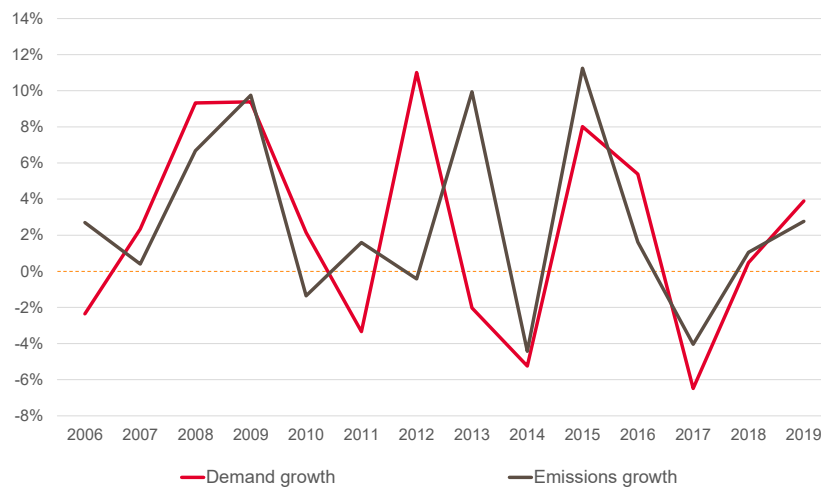
| **Saudi Arabia** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **185.5** | **176.7** | **199.4** | **191.4** | **213.4** | **221.7** | **210.1** | **211.3** | **204.6** | **206.9** | **100.0** |
| Oil | 125.6 | 115.7 | 133.1 | 124.4 | 143.8 | 150.4 | 135.9 | 133.3 | 125.5 | 126.7 | 61.2 |
| Gas | 59.9 | 61.0 | 66.2 | 66.9 | 69.5 | 71.3 | 74.1 | 78.0 | 79.0 | 80.1 | 38.7 |
| 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 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 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** | **120.6** | **123.4** | **133.7** | **133.4** | **141.4** | **144.2** | **139.5** | **140.7** | **134.7** | **135.5** | **100.0** |
| Oil | 75.9 | 76.5 | 82.9 | 85.1 | 90.3 | 98.7 | 93.8 | 94.5 | 88.2 | 88.8 | 65.5 |
| Gas | 27.3 | 28.9 | 30.5 | 26.6 | 28.0 | 21.2 | 21.3 | 22.5 | 22.8 | 23.1 | 17.1 |
| Coal | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Electricity | 17.4 | 18.1 | 20.3 | 21.7 | 23.1 | 24.3 | 24.4 | 23.7 | 23.7 | 23.5 | 17.4 |
| 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** | **20.6** | **21.5** | **23.4** | **24.4** | **26.8** | **29.1** | **29.7** | **29.9** | **30.2** | **30.1** | **100.0** |
| Oil | 11.1 | 12.2 | 12.9 | 11.5 | 13.1 | 12.8 | 11.9 | 10.8 | 10.9 | 10.5 | 34.7 |
| Gas | 9.5 | 9.3 | 10.4 | 12.9 | 13.7 | 16.2 | 17.8 | 19.1 | 19.3 | 19.6 | 65.0 |
| 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 |
| 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 | 0.3 |
| 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** | **120.6** | **123.4** | **133.7** | **133.4** | **141.4** | **144.2** | **139.5** | **140.7** | **134.7** | **135.5** | **100.0** |
| Industry | 43.8 | 43.9 | 46.5 | 46.0 | 48.5 | 43.0 | 42.3 | 47.2 | 45.3 | 46.8 | 34.6 |
| Transport | 35.2 | 37.0 | 40.3 | 41.6 | 43.9 | 47.5 | 45.7 | 41.8 | 34.4 | 34.0 | 25.1 |
| Residential/Comercial | 16.3 | 16.9 | 18.5 | 18.9 | 20.4 | 22.6 | 22.7 | 22.6 | 22.2 | 22.1 | 16.3 |
| **Oil final consumption, by sector** | **75.9** | **76.5** | **82.9** | **85.1** | **90.3** | **98.7** | **93.8** | **94.5** | **88.2** | **88.8** | **100.0** |
| Industry | 18.2 | 16.7 | 17.5 | 20.2 | 21.1 | 23.1 | 23.0 | 26.9 | 24.6 | 25.9 | 29.1 |
| Transport | 35.2 | 37.0 | 40.3 | 41.6 | 43.9 | 47.5 | 45.7 | 41.8 | 34.4 | 34.0 | 38.3 |
| Residential/Comercial | 1.6 | 1.9 | 1.7 | 1.6 | 1.5 | 1.7 | 1.8 | 1.8 | 1.7 | 1.7 | 1.9 |
| **Natural gas final consumption, by sector** | **27.3** | **28.9** | **30.5** | **26.6** | **28.0** | **21.2** | **21.3** | **22.5** | **22.8** | **23.1** | **100.0** |
| Industry | 23.2 | 24.4 | 25.8 | 21.8 | 23.4 | 16.6 | 15.9 | 17.4 | 17.6 | 17.9 | 77.2 |
| 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 | 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** | **69.7** | **72.2** | **78.2** | **80.1** | **85.1** | **93.2** | **91.0** | **92.2** | **86.3** | **87.1** | **100.0** |
| Gasoline | 19.0 | 20.4 | 22.1 | 23.1 | 23.9 | 25.6 | 25.5 | 26.1 | 24.4 | 23.9 | 27.5 |
| Diesel | 18.9 | 19.3 | 21.2 | 21.7 | 23.2 | 25.3 | 23.0 | 17.7 | 10.8 | 10.9 | 12.5 |
| Heating Oil | 8.7 | 9.2 | 9.0 | 11.2 | 11.9 | 13.4 | 16.5 | 21.6 | 20.8 | 22.3 | 25.6 |
| Aviation Jet | 0.7 | 0.7 | 0.7 | 0.8 | 0.8 | 0.9 | 0.8 | 1.0 | 1.1 | 1.1 | 1.3 |
| LPG | 3.7 | 3.7 | 5.1 | 4.3 | 4.7 | 7.7 | 4.1 | 4.3 | 4.5 | 4.3 | 5.0 |
| **Imports** | **9.7** | **10.4** | **16.9** | **24.8** | **24.2** | **30.2** | **28.9** | **25.3** | **37.4** | **18.9** | **100.0** |
| Oil | 9.7 | 10.4 | 16.9 | 24.8 | 24.2 | 30.2 | 28.9 | 25.3 | 37.4 | 18.9 | 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 | 3.9 | 2.4 | 4.2 | 6.1 | 7.2 | 10.1 | 9.4 | 9.1 | 14.0 | 3.9 | 20.8 |
| Diesel | 4.2 | 6.1 | 8.5 | 12.5 | 11.9 | 12.6 | 11.1 | 4.5 | 9.9 | 1.5 | 8.2 |
| Heating Oil | 0.0 | 1.2 | 3.2 | 5.4 | 3.2 | 5.2 | 7.2 | 10.1 | 11.2 | 11.9 | 62.6 |
| 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Exports** | **358.7** | **415.0** | **441.5** | **443.6** | **431.3** | **453.3** | **476.0** | **450.7** | **492.7** | **434.5** | **100.0** |
| Oil | 358.7 | 415.0 | 441.5 | 443.6 | 431.3 | 453.3 | 476.0 | 450.7 | 492.7 | 434.5 | 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 | 3.0 | 2.0 | 1.2 | 1.1 | 3.7 | 7.2 | 9.6 | 8.3 | 14.3 | 5.5 | 1.3 |
| Diesel | 6.0 | 4.1 | 5.0 | 5.3 | 12.3 | 20.3 | 29.1 | 30.6 | 41.8 | 30.9 | 7.1 |
| Heating Oil | 9.3 | 5.8 | 9.8 | 9.6 | 5.6 | 4.8 | 3.6 | 4.5 | 5.9 | 3.0 | 0.7 |
| Aviation Jet | 0.2 | 0.2 | 0.3 | 0.3 | 0.7 | 0.2 | 0.7 | 0.3 | 0.3 | 0.2 | 0.1 |
| LPG | 24.1 | 25.4 | 26.1 | 25.1 | 25.8 | 22.9 | 28.4 | 27.8 | 30.8 | 15.3 | 3.5 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **435.1** | **451.2** | **481.7** | **488.6** | **524.3** | **550.7** | **546.3** | **551.5** | **529.8** | **534.3** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **327.0** | **308.3** | **312.3** | **308.4** | **319.3** | **322.1** | **314.3** | **320.0** | **300.1** | **301.7** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **71.9** | **67.1** | **68.5** | **67.5** | **68.9** | **66.2** | **63.7** | **64.7** | **57.8** | **58.2** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **139.4** | **120.8** | **129.3** | **120.8** | **129.9** | **129.7** | **120.9** | **122.6** | **115.9** | **116.9** | **-** |

*Heat is included

## Primary energy demand mix

Gas
39%

2019: 206.94 Mtoe

Oil
61%

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005  2006  2007  2008  2009  2010  2011  2012  2013  2014  2015  2016  2017  2018  2019

■ Oil      ■ Gas      ■ Solar

## Primary energy demand and $CO_2$ emissions growth

14%
12%
10%
8%
6%
4%
2%
0%
-2%
-4%
-6%
-8%

2006  2007  2008  2009  2010  2011  2012  2013  2014  2015  2016  2017  2018  2019
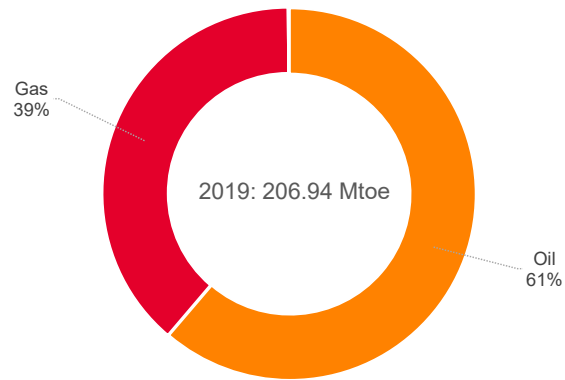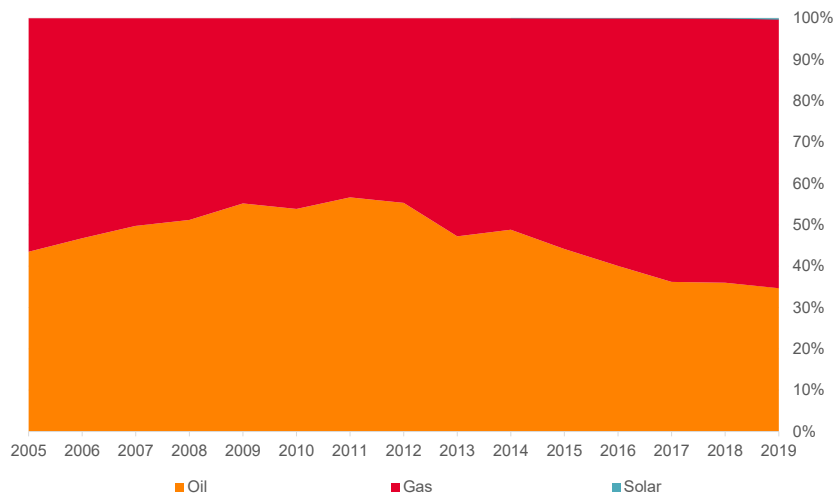
— Demand growth        — Emissions growth
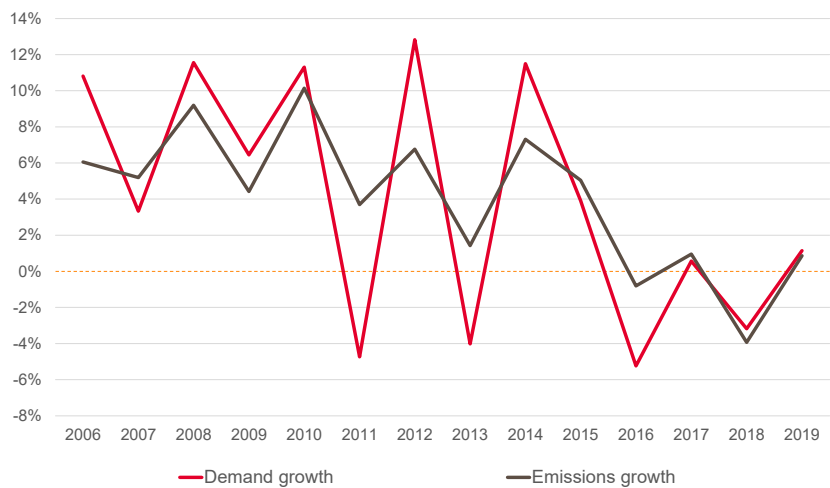
| United Arab Emirates (Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **61.0** | **60.3** | **63.8** | **67.2** | **74.3** | **77.9** | **78.5** | **67.7** | **68.2** | **69.5** | **100.0** |
| Oil | 10.9 | 8.8 | 8.8 | 10.8 | 18.5 | 16.0 | 16.0 | 5.9 | 5.8 | 5.6 | 8.1 |
| Gas | 49.3 | 51.0 | 53.6 | 54.7 | 53.7 | 60.1 | 60.5 | 59.5 | 60.1 | 60.8 | 87.6 |
| Coal | 0.7 | 0.4 | 1.4 | 1.8 | 2.0 | 1.7 | 1.8 | 2.1 | 1.9 | 2.0 | 2.8 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 0.0 | 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 | 0.1 | 0.1 | 0.4 | 0.6 |
| Electricity balance of trade* | 0.0 | 0.0 | -0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.6 | 0.9 |
| **Total final consumption, by source** | **44.9** | **47.5** | **49.0** | **52.2** | **51.0** | **56.0** | **52.7** | **52.9** | **53.0** | **53.6** | **100.0** |
| Oil | 12.5 | 13.8 | 14.2 | 15.7 | 16.6 | 15.2 | 16.7 | 18.8 | 18.4 | 17.8 | 33.3 |
| Gas | 24.5 | 25.9 | 25.8 | 26.8 | 23.8 | 29.6 | 24.3 | 22.0 | 22.7 | 23.6 | 44.0 |
| Coal | 0.7 | 0.4 | 1.4 | 1.8 | 2.0 | 1.7 | 1.8 | 2.1 | 1.9 | 2.0 | 3.7 |
| Electricity | 7.3 | 7.4 | 7.6 | 7.9 | 8.7 | 9.5 | 9.8 | 9.9 | 10.0 | 10.2 | 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 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| **Electricity generation, by source** | **8.4** | **8.5** | **8.8** | **9.1** | **10.0** | **11.0** | **11.1** | **11.6** | **11.7** | **11.9** | **100.0** |
| Oil | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.1 |
| Gas | 8.3 | 8.4 | 8.7 | 9.0 | 9.9 | 10.8 | 11.0 | 11.4 | 11.4 | 11.4 | 95.7 |
| 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 | 0.1 | 0.1 | 0.4 | 3.2 |
| 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** | **44.9** | **47.5** | **49.0** | **52.2** | **51.0** | **56.0** | **52.7** | **52.9** | **53.0** | **53.6** | **100.0** |
| Industry | 26.7 | 28.1 | 28.9 | 30.4 | 27.7 | 33.5 | 28.5 | 26.5 | 27.0 | 27.9 | 52.1 |
| Transport | 10.0 | 10.1 | 10.3 | 11.7 | 12.0 | 10.4 | 11.7 | 13.8 | 13.7 | 13.3 | 24.9 |
| Residential/Comercial | 6.8 | 6.8 | 7.1 | 7.3 | 8.0 | 8.8 | 8.9 | 9.0 | 9.1 | 9.2 | 17.1 |
| **Oil final consumption, by sector** | **12.5** | **13.8** | **14.2** | **15.7** | **16.6** | **15.2** | **16.7** | **18.8** | **18.4** | **17.8** | **100.0** |
| Industry | 1.1 | 1.2 | 1.2 | 1.2 | 1.3 | 1.3 | 1.4 | 1.3 | 1.4 | 1.3 | 7.5 |
| Transport | 10.0 | 10.1 | 10.3 | 11.7 | 12.0 | 10.4 | 11.7 | 13.8 | 13.7 | 13.3 | 74.8 |
| Residential/Comercial | 0.2 | 0.3 | 0.2 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.3 | 1.9 |
| **Natural gas final consumption, by sector** | **24.5** | **25.9** | **25.8** | **26.8** | **23.8** | **29.6** | **24.3** | **22.0** | **22.7** | **23.6** | **100.0** |
| Industry | 24.3 | 25.6 | 25.6 | 26.6 | 23.5 | 29.3 | 24.0 | 21.8 | 22.4 | 23.3 | 98.8 |
| 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** | **12.5** | **13.8** | **14.2** | **15.7** | **16.6** | **15.2** | **16.7** | **18.8** | **18.4** | **17.8** | **100.0** |
| Gasoline | 5.4 | 5.5 | 5.9 | 7.3 | 7.7 | 7.2 | 8.0 | 10.0 | 10.4 | 10.1 | 56.8 |
| Diesel | 4.4 | 4.4 | 4.2 | 4.1 | 4.0 | 2.9 | 3.4 | 3.5 | 3.0 | 2.9 | 16.1 |
| Heating Oil | 1.1 | 1.2 | 1.2 | 1.2 | 1.2 | 1.3 | 1.4 | 1.2 | 1.3 | 1.3 | 7.3 |
| Aviation Jet | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 1.8 |
| LPG | 0.6 | 1.2 | 1.3 | 1.4 | 1.7 | 1.8 | 1.9 | 1.9 | 1.7 | 1.7 | 9.5 |
| **Imports** | **30.3** | **33.0** | **33.4** | **37.0** | **36.0** | **37.6** | **35.3** | **29.7** | **32.9** | **33.5** | **100.0** |
| Oil | 16.1 | 18.2 | 17.7 | 20.7 | 19.8 | 20.1 | 18.2 | 14.7 | 17.3 | 17.4 | 51.8 |
| Gas | 14.2 | 14.8 | 15.7 | 16.3 | 16.2 | 17.5 | 17.2 | 15.0 | 15.6 | 16.1 | 48.2 |
| Gasoline | 3.0 | 2.7 | 2.6 | 4.5 | 4.1 | 3.4 | 4.3 | 6.8 | 7.1 | 7.1 | 21.3 |
| Diesel | 0.1 | 0.9 | 0.7 | 1.4 | 0.5 | 2.4 | 0.7 | 0.2 | 0.6 | 0.6 | 1.9 |
| Heating Oil | 13.1 | 13.9 | 14.2 | 14.2 | 14.5 | 14.0 | 11.6 | 6.7 | 8.9 | 9.0 | 26.8 |
| 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 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Exports** | **130.8** | **152.8** | **156.7** | **164.9** | **158.3** | **170.1** | **169.8** | **168.6** | **168.9** | **171.7** | **100.0** |
| Oil | 124.4 | 146.6 | 150.7 | 159.0 | 151.9 | 163.9 | 163.6 | 162.9 | 163.0 | 165.6 | 96.5 |
| Gas | 6.4 | 6.1 | 6.0 | 5.8 | 6.4 | 6.2 | 6.1 | 5.8 | 5.9 | 6.0 | 3.5 |
| Gasoline | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.9 | 2.8 | 3.1 | 3.3 | 3.3 | 1.9 |
| Diesel | 0.7 | 1.0 | 0.6 | 1.0 | 0.7 | 5.6 | 5.7 | 7.3 | 9.3 | 9.3 | 5.4 |
| 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 | 3.9 | 4.0 | 4.0 | 4.5 | 2.6 | 4.3 | 4.1 | 4.5 | 6.4 | 6.4 | 3.7 |
| LPG | 2.6 | 5.8 | 6.2 | 6.4 | 7.9 | 8.2 | 9.2 | 8.7 | 7.8 | 7.8 | 4.6 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **155.9** | **160.1** | **170.6** | **178.9** | **178.8** | **189.0** | **194.6** | **199.1** | **199.2** | **199.3** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million \$15ppp)** | **308.3** | **296.1** | **302.0** | **301.5** | **288.6** | **290.4** | **290.3** | **294.6** | **289.9** | **286.3** | **-** |
| **Final energy intensity (toe/million \$15ppp)** | **86.2** | **83.2** | **82.0** | **83.4** | **77.1** | **81.0** | **73.4** | **73.0** | **72.5** | **72.5** | **-** |
| **Total energy intensity (toe/million \$15ppp)** | **120.6** | **111.6** | **113.0** | **113.3** | **119.9** | **119.7** | **117.2** | **100.2** | **99.3** | **99.8** | **-** |

*Heat is included

143

**Primary energy demand mix**

Coal
3%

Oil
8%

2019: 69.49 Mtoe

Gas
88%

**Electricity generation by source**

| | |
|---|---|
| 100% | |
| 90% | |
| 80% | |
| 70% | |
| 60% | |
| 50% | |
| 40% | |
| 30% | |
| 20% | |
| 10% | |
| 0% | |

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil　　　　■ Gas　　　　■ Solar

**Primary energy demand and CO$_2$ emissions growth**

20%
15%
10%
5%
0%
-5%
-10%
-15%
-20%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
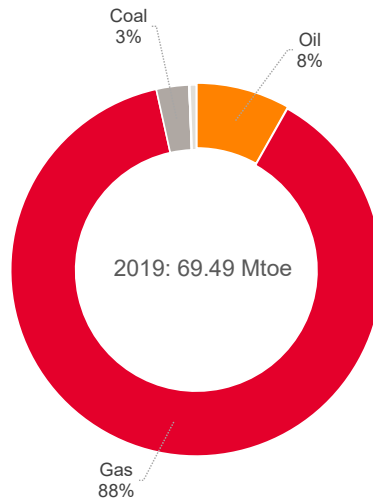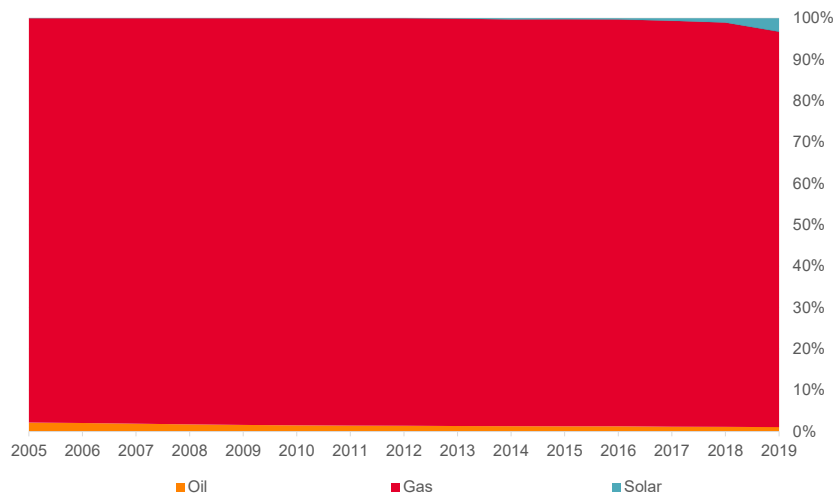
—— Demand growth　　　　—— Emissions growth

| North America<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **2,656.8** | **2,644.8** | **2,613.3** | **2,656.2** | **2,685.8** | **2,659.7** | **2,636.9** | **2,630.6** | **2,712.9** | **2,686.5** | **100.0** |
| Oil | 997.2 | 978.2 | 976.0 | 972.1 | 973.0 | 989.0 | 976.3 | 981.0 | 997.7 | 988.3 | 36.8 |
| Gas | 685.8 | 708.1 | 737.7 | 756.4 | 777.0 | 798.7 | 813.9 | 807.1 | 884.9 | 911.8 | 33.9 |
| Coal | 538.4 | 513.7 | 456.7 | 463.1 | 463.6 | 403.6 | 372.2 | 360.3 | 342.9 | 300.2 | 11.2 |
| Nuclear | 243.8 | 241.1 | 235.8 | 244.3 | 246.9 | 245.9 | 248.0 | 247.8 | 249.3 | 249.3 | 9.3 |
| Hydro | 56.0 | 63.1 | 59.4 | 59.4 | 58.7 | 57.1 | 59.1 | 62.5 | 61.0 | 58.4 | 2.2 |
| Biomass | 110.6 | 112.8 | 117.5 | 125.9 | 128.4 | 125.2 | 123.5 | 124.2 | 124.9 | 121.7 | 4.5 |
| Other renewables | 9.4 | 12.0 | 14.4 | 18.0 | 20.7 | 23.0 | 27.9 | 32.0 | 35.6 | 40.3 | 1.5 |
| Electricity balance of trade* | 15.6 | 15.8 | 15.8 | 17.0 | 17.3 | 17.4 | 16.0 | 15.7 | 16.6 | 16.4 | 0.6 |
| **Total final consumption, by source** | **1,808.4** | **1,780.4** | **1,749.8** | **1,797.2** | **1,817.1** | **1,809.5** | **1,814.7** | **1,821.7** | **1,878.4** | **1,868.1** | **100.0** |
| Oil | 925.9 | 886.6 | 875.2 | 883.8 | 887.8 | 905.9 | 912.2 | 910.1 | 929.3 | 923.5 | 49.4 |
| Gas | 359.0 | 364.4 | 351.5 | 379.5 | 395.2 | 377.8 | 377.2 | 387.3 | 414.9 | 419.6 | 22.5 |
| Coal | 39.9 | 39.7 | 35.4 | 35.4 | 34.0 | 31.6 | 27.1 | 28.2 | 27.0 | 26.8 | 1.4 |
| Electricity | 388.5 | 390.5 | 385.8 | 388.9 | 390.6 | 387.4 | 391.0 | 388.0 | 397.5 | 389.7 | 20.9 |
| Heat | 9.4 | 9.7 | 9.7 | 9.2 | 9.0 | 8.9 | 9.8 | 8.8 | 9.4 | 9.9 | 0.5 |
| Biomass | 85.6 | 89.4 | 92.3 | 100.4 | 100.4 | 97.9 | 97.4 | 99.2 | 100.2 | 98.7 | 5.3 |
| **Electricity generation, by source** | **452.2** | **454.6** | **449.9** | **452.6** | **456.0** | **455.3** | **456.6** | **453.0** | **466.2** | **462.7** | **100.0** |
| Oil | 8.7 | 8.2 | 8.3 | 8.0 | 6.9 | 6.7 | 6.6 | 6.7 | 6.9 | 6.3 | 1.4 |
| Gas | 104.6 | 109.0 | 128.3 | 118.9 | 119.6 | 139.8 | 143.8 | 136.3 | 153.2 | 164.7 | 35.6 |
| Coal | 181.1 | 170.7 | 149.8 | 155.6 | 155.9 | 135.0 | 124.8 | 121.5 | 115.1 | 99.3 | 21.5 |
| Nuclear | 80.5 | 79.6 | 77.8 | 80.6 | 81.5 | 81.2 | 81.8 | 81.8 | 82.3 | 82.3 | 17.8 |
| Hydro | 58.0 | 65.1 | 61.1 | 61.1 | 60.5 | 58.8 | 61.1 | 64.5 | 62.9 | 60.1 | 13.0 |
| Biomass | 7.2 | 7.3 | 7.5 | 7.7 | 8.2 | 8.1 | 8.0 | 7.6 | 7.6 | 7.2 | 1.5 |
| Wind | 9.0 | 11.4 | 13.5 | 16.5 | 18.3 | 19.6 | 23.2 | 25.5 | 27.6 | 30.2 | 6.5 |
| Solar | 0.4 | 0.6 | 1.0 | 1.5 | 2.4 | 3.3 | 4.6 | 6.5 | 8.0 | 10.2 | 2.2 |
| Other renewables | 2.7 | 2.7 | 2.7 | 2.7 | 2.7 | 2.6 | 2.6 | 2.6 | 2.6 | 2.6 | 0.6 |
| **Total final consumption, by sector** | **1,808.4** | **1,780.4** | **1,749.8** | **1,797.2** | **1,817.1** | **1,809.5** | **1,814.7** | **1,821.7** | **1,878.4** | **1,868.1** | **100.0** |
| Industry | 350.6 | 350.4 | 353.1 | 352.8 | 349.8 | 349.3 | 350.3 | 351.1 | 355.1 | 350.3 | 18.8 |
| Transport | 693.3 | 677.4 | 671.2 | 689.7 | 689.7 | 711.1 | 720.2 | 722.4 | 732.3 | 728.8 | 39.0 |
| Residential/Comercial | 571.7 | 564.7 | 531.0 | 567.6 | 581.1 | 558.5 | 550.9 | 548.7 | 585.0 | 583.7 | 31.2 |
| **Oil final consumption, by sector** | **925.9** | **886.6** | **875.2** | **883.8** | **887.8** | **905.9** | **912.2** | **910.1** | **929.3** | **923.5** | **100.0** |
| Industry | 36.9 | 30.6 | 30.4 | 30.2 | 27.4 | 30.2 | 31.8 | 29.5 | 29.7 | 27.7 | 3.0 |
| Transport | 667.3 | 647.6 | 635.9 | 651.2 | 650.7 | 670.5 | 676.8 | 678.4 | 688.6 | 685.1 | 74.2 |
| Residential/Comercial | 49.3 | 42.8 | 37.4 | 38.7 | 36.6 | 38.9 | 38.0 | 36.0 | 37.2 | 37.7 | 4.1 |
| **Natural gas final consumption, by sector** | **359.0** | **364.4** | **351.5** | **379.5** | **395.2** | **377.8** | **377.2** | **387.3** | **414.9** | **419.6** | **100.0** |
| Industry | 134.2 | 137.4 | 144.0 | 143.8 | 148.0 | 147.9 | 152.0 | 152.5 | 158.2 | 159.5 | 38.0 |
| Transport | 0.7 | 0.7 | 0.8 | 0.7 | 0.9 | 1.0 | 1.1 | 1.3 | 1.4 | 1.4 | 0.3 |
| Residential/Comercial | 206.8 | 207.9 | 186.9 | 215.2 | 226.3 | 207.6 | 199.5 | 203.8 | 226.3 | 229.5 | 54.7 |
| **Refined products consumption** | **922.4** | **884.6** | **873.1** | **881.4** | **885.3** | **901.6** | **909.2** | **905.7** | **924.8** | **919.0** | **100.0** |
| Gasoline | 457.0 | 433.1 | 429.4 | 434.8 | 436.2 | 448.3 | 456.2 | 452.2 | 453.8 | 451.6 | 49.1 |
| Diesel | 227.8 | 227.5 | 223.3 | 223.2 | 230.5 | 225.6 | 221.7 | 222.9 | 232.7 | 227.0 | 24.7 |
| Heating Oil | 11.0 | 8.2 | 6.8 | 3.4 | 2.5 | 4.9 | 4.0 | 4.0 | 3.9 | 4.3 | 0.5 |
| Aviation Jet | 52.6 | 52.8 | 53.1 | 54.6 | 55.7 | 58.1 | 60.6 | 63.8 | 65.4 | 66.7 | 7.3 |
| LPG | 59.2 | 45.7 | 46.8 | 52.1 | 48.4 | 49.8 | 48.5 | 46.3 | 47.8 | 47.0 | 5.1 |
| **Imports** | **826.8** | **807.1** | **759.1** | **697.3** | **663.3** | **691.3** | **742.6** | **751.0** | **749.3** | **705.6** | **100.0** |
| Oil | 708.5 | 686.0 | 641.5 | 586.3 | 559.1 | 581.7 | 620.5 | 624.8 | 622.1 | 577.4 | 81.8 |
| Gas | 118.3 | 121.1 | 117.7 | 111.0 | 104.2 | 109.6 | 122.1 | 126.2 | 127.2 | 128.2 | 18.2 |
| Gasoline | 58.1 | 56.7 | 53.1 | 50.3 | 48.8 | 55.0 | 60.7 | 58.3 | 63.9 | 68.2 | 9.7 |
| Diesel | 15.5 | 15.3 | 14.4 | 15.5 | 18.8 | 20.5 | 19.9 | 22.8 | 27.1 | 24.6 | 3.5 |
| Heating Oil | 22.7 | 21.1 | 19.3 | 16.4 | 12.9 | 13.2 | 13.8 | 14.3 | 15.4 | 11.9 | 1.7 |
| Aviation Jet | 6.7 | 6.5 | 5.8 | 6.9 | 8.1 | 11.0 | 12.1 | 12.9 | 13.1 | 17.2 | 2.4 |
| LPG | 4.5 | 7.0 | 7.2 | 7.3 | 7.2 | 8.3 | 10.4 | 12.1 | 13.0 | 12.4 | 1.8 |
| **Exports** | **433.1** | **471.6** | **486.6** | **505.4** | **543.5** | **580.7** | **627.1** | **711.9** | **792.5** | **851.4** | **100.0** |
| Oil | 327.0 | 360.0 | 376.0 | 400.5 | 443.5 | 474.0 | 505.7 | 566.4 | 640.3 | 678.6 | 79.7 |
| Gas | 106.1 | 111.5 | 110.6 | 104.9 | 100.1 | 106.7 | 121.4 | 145.5 | 152.2 | 172.8 | 20.3 |
| Gasoline | 22.4 | 29.6 | 29.7 | 29.8 | 31.8 | 35.9 | 43.1 | 46.8 | 53.1 | 50.6 | 5.9 |
| Diesel | 40.3 | 50.0 | 58.3 | 64.8 | 61.5 | 65.7 | 66.2 | 76.4 | 70.5 | 72.0 | 8.5 |
| Heating Oil | 32.0 | 31.4 | 28.3 | 29.0 | 30.6 | 27.3 | 25.4 | 25.3 | 25.7 | 18.8 | 2.2 |
| Aviation Jet | 5.3 | 5.6 | 7.0 | 8.3 | 8.5 | 8.8 | 9.2 | 10.2 | 12.2 | 12.4 | 1.5 |
| LPG | 0.4 | 0.5 | 0.6 | 0.7 | 17.6 | 24.8 | 31.4 | 35.9 | 39.6 | 46.7 | 5.5 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **6,438.8** | **6,259.2** | **6,073.4** | **6,176.2** | **6,205.6** | **6,069.9** | **5,969.8** | **5,903.4** | **6,052.2** | **5,923.0** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million $15ppp)** | **326.9** | **311.9** | **295.7** | **295.3** | **289.4** | **275.4** | **266.4** | **257.6** | **256.9** | **246.4** | **-** |
| **Final energy intensity (toe/million $15ppp)** | **91.8** | **88.7** | **85.2** | **85.9** | **84.7** | **82.1** | **81.0** | **79.5** | **79.7** | **77.7** | **-** |
| **Total energy intensity (toe/million $15ppp)** | **134.9** | **131.8** | **127.2** | **127.0** | **125.3** | **120.7** | **117.7** | **114.8** | **115.2** | **111.8** | **-** |

*Heat is included

**Primary energy demand mix**

Hydro
2%

Nuclear
9%

Biomass
5%

Other renewables
2%

Oil
37%

Coal
11%

2019: 2,686.50 Mtoe

Gas
34%

**Electricity generation by source**



2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil   ■ Gas   ■ Coal   ■ Nuclear   ■ Hydro   ■ Biomass   ■ Wind   ■ Solar   ■ Other renewables

**Primary energy demand and CO$_2$ emissions growth**



2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
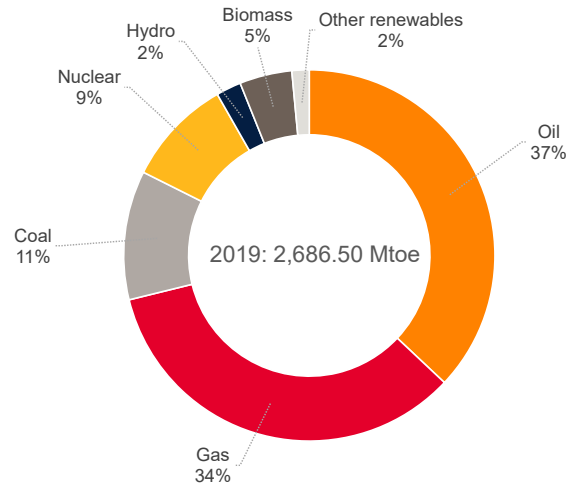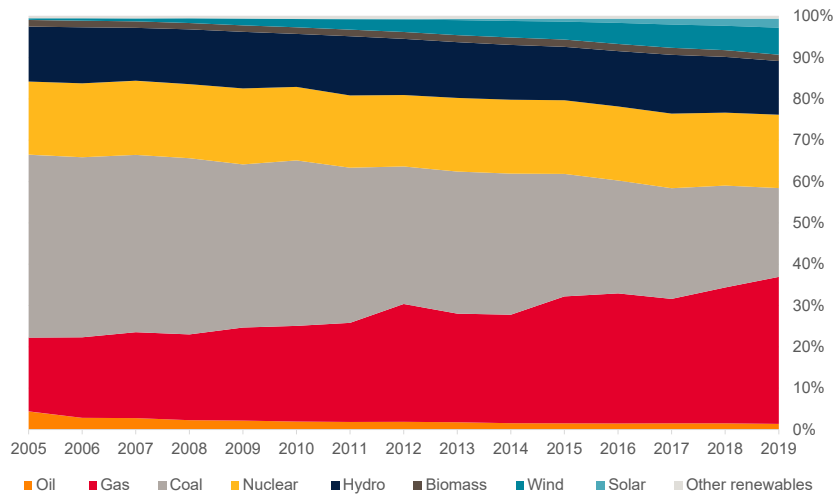
— Demand growth   — Emissions growth
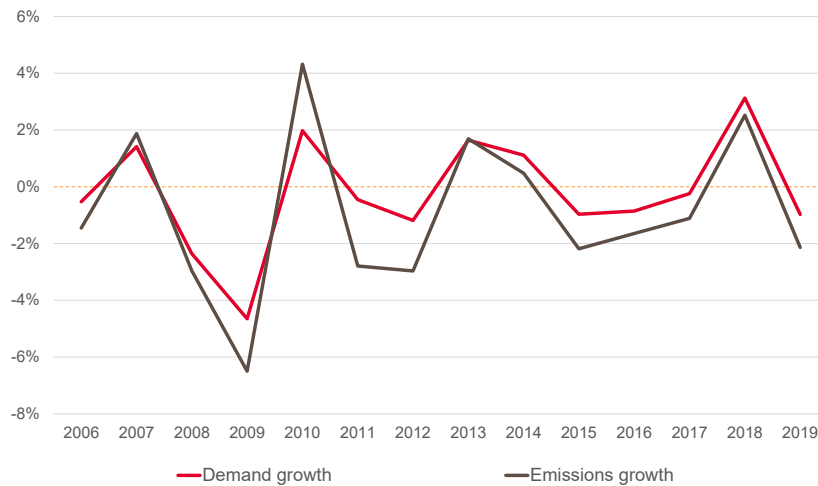
| Canada _(Million toe)_ | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **260.8** | **266.4** | **269.3** | **273.9** | **280.9** | **281.7** | **283.1** | **289.5** | **297.9** | **295.5** | **100.0** |
| Oil | 96.7 | 95.9 | 97.9 | 95.6 | 99.1 | 105.1 | 99.9 | 100.5 | 100.5 | 98.7 | 33.4 |
| Gas | 75.7 | 82.4 | 83.7 | 87.9 | 89.1 | 87.6 | 95.1 | 100.8 | 111.5 | 113.4 | 38.4 |
| Coal | 22.5 | 20.1 | 19.4 | 18.1 | 19.3 | 18.0 | 18.3 | 16.9 | 14.6 | 12.5 | 4.2 |
| Nuclear | 23.6 | 24.4 | 24.7 | 27.0 | 28.0 | 26.5 | 26.4 | 26.4 | 26.2 | 26.3 | 8.9 |
| Hydro | 30.2 | 32.3 | 32.7 | 33.7 | 32.9 | 32.9 | 33.3 | 33.8 | 33.0 | 32.6 | 11.0 |
| Biomass | 13.1 | 13.4 | 13.5 | 14.2 | 14.2 | 14.1 | 12.8 | 13.7 | 13.4 | 13.0 | 4.4 |
| Other renewables | 0.8 | 0.9 | 1.0 | 1.7 | 2.1 | 2.5 | 2.9 | 2.8 | 2.9 | 3.0 | 1.0 |
| Electricity balance of trade* | -1.9 | -2.9 | -3.8 | -4.2 | -3.7 | -5.1 | -5.5 | -5.3 | -4.1 | -4.0 | -1.3 |
| **Total final consumption, by source** | **188.6** | **195.9** | **194.9** | **195.9** | **194.1** | **190.6** | **188.7** | **192.8** | **197.6** | **199.5** | **100.0** |
| Oil | 89.5 | 90.9 | 92.7 | 91.4 | 89.8 | 91.2 | 92.5 | 89.5 | 89.5 | 88.9 | 44.6 |
| Gas | 40.0 | 43.6 | 42.2 | 44.3 | 45.6 | 44.4 | 42.4 | 44.3 | 48.7 | 51.6 | 25.9 |
| Coal | 4.0 | 4.5 | 4.3 | 3.7 | 3.7 | 3.3 | 3.2 | 3.4 | 3.6 | 3.6 | 1.8 |
| Electricity | 44.2 | 45.4 | 44.0 | 44.1 | 43.1 | 40.1 | 40.3 | 43.2 | 43.6 | 43.7 | 21.9 |
| Heat | 0.5 | 0.7 | 0.7 | 0.7 | 0.8 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 0.3 |
| Biomass | 10.5 | 10.8 | 11.0 | 11.7 | 11.1 | 10.9 | 9.6 | 11.8 | 11.5 | 11.1 | 5.6 |
| **Electricity generation, by source** | **51.9** | **54.5** | **54.5** | **56.7** | **56.8** | **57.3** | **57.3** | **56.6** | **55.9** | **55.8** | **100.0** |
| Oil | 0.7 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 0.7 | 0.6 | 0.6 | 0.6 | 1.1 |
| Gas | 4.4 | 5.0 | 5.3 | 5.0 | 5.0 | 5.8 | 5.3 | 5.0 | 5.8 | 6.2 | 11.2 |
| Coal | 6.8 | 6.5 | 5.5 | 5.6 | 5.7 | 5.6 | 5.3 | 5.1 | 4.4 | 4.0 | 7.2 |
| Nuclear | 7.8 | 8.0 | 8.2 | 8.9 | 9.2 | 8.8 | 8.7 | 8.7 | 8.6 | 8.7 | 15.5 |
| Hydro | 30.2 | 32.3 | 32.7 | 33.7 | 32.9 | 32.9 | 33.3 | 33.8 | 33.0 | 32.6 | 58.4 |
| Biomass | 0.9 | 0.9 | 0.9 | 0.9 | 1.1 | 1.1 | 1.1 | 0.6 | 0.6 | 0.6 | 1.2 |
| Wind | 0.8 | 0.9 | 1.0 | 1.5 | 1.9 | 2.3 | 2.6 | 2.5 | 2.5 | 2.6 | 4.7 |
| Solar | 0.0 | 0.0 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.4 | 0.7 |
| Other renewables | 0.3 | 0.2 | 0.2 | 0.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total final consumption, by sector** | **188.6** | **195.9** | **194.9** | **195.9** | **194.1** | **190.6** | **188.7** | **192.8** | **197.6** | **199.5** | **100.0** |
| Industry | 42.8 | 44.1 | 44.3 | 44.7 | 43.9 | 43.5 | 42.1 | 45.6 | 47.4 | 47.0 | 23.6 |
| Transport | 57.3 | 57.9 | 58.7 | 60.2 | 59.5 | 58.9 | 59.2 | 59.3 | 60.4 | 60.0 | 30.1 |
| Residential/Comercial | 60.5 | 64.0 | 60.7 | 62.0 | 62.4 | 58.5 | 56.8 | 60.1 | 62.2 | 65.0 | 32.6 |
| **Oil final consumption, by sector** | **89.5** | **90.9** | **92.7** | **91.4** | **89.8** | **91.2** | **92.5** | **89.5** | **89.5** | **88.9** | **100.0** |
| Industry | 4.6 | 4.6 | 4.6 | 4.4 | 4.1 | 4.7 | 4.8 | 5.0 | 4.9 | 4.8 | 5.4 |
| Transport | 56.0 | 56.2 | 56.9 | 58.2 | 57.5 | 57.0 | 57.4 | 56.9 | 58.1 | 57.7 | 64.8 |
| Residential/Comercial | 5.3 | 5.7 | 5.4 | 5.0 | 4.7 | 4.9 | 4.7 | 4.6 | 4.3 | 4.2 | 4.8 |
| **Natural gas final consumption, by sector** | **40.0** | **43.6** | **42.2** | **44.3** | **45.6** | **44.4** | **42.4** | **44.3** | **48.7** | **51.6** | **100.0** |
| Industry | 12.7 | 13.9 | 14.3 | 14.9 | 14.9 | 14.5 | 14.2 | 14.7 | 16.5 | 16.4 | 31.8 |
| Transport | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 |
| Residential/Comercial | 23.6 | 25.5 | 23.6 | 25.3 | 27.1 | 25.7 | 24.1 | 25.6 | 27.8 | 30.7 | 59.4 |
| **Refined products consumption** | **89.5** | **90.9** | **92.7** | **91.4** | **89.8** | **91.2** | **92.5** | **89.5** | **89.5** | **88.9** | **100.0** |
| Gasoline | 34.2 | 33.8 | 33.9 | 34.8 | 34.2 | 34.9 | 36.2 | 35.8 | 35.2 | 35.1 | 39.5 |
| Diesel | 26.5 | 28.0 | 27.1 | 27.3 | 27.3 | 27.1 | 25.7 | 25.4 | 26.9 | 24.7 | 27.8 |
| Heating Oil | 2.7 | 2.2 | 2.2 | 1.8 | 1.7 | 1.5 | 1.4 | 1.5 | 1.9 | 2.5 | 2.8 |
| Aviation Jet | 4.0 | 4.2 | 5.0 | 5.4 | 5.3 | 5.4 | 5.8 | 6.0 | 6.6 | 7.3 | 8.3 |
| LPG | 3.1 | 3.5 | 3.6 | 3.1 | 2.8 | 2.7 | 2.8 | 3.1 | 2.0 | 2.5 | 2.8 |
| **Imports** | **74.0** | **81.3** | **84.1** | **78.8** | **74.5** | **80.1** | **82.5** | **77.2** | **73.6** | **78.6** | **100.0** |
| Oil | 55.3 | 55.3 | 58.0 | 56.5 | 56.2 | 63.5 | 65.5 | 57.1 | 55.7 | 60.0 | 76.3 |
| Gas | 18.7 | 26.0 | 26.1 | 22.3 | 18.3 | 16.6 | 17.0 | 20.1 | 17.9 | 18.6 | 23.7 |
| Gasoline | 3.7 | 4.4 | 3.1 | 2.6 | 2.6 | 3.1 | 4.0 | 3.7 | 2.9 | 3.6 | 4.6 |
| Diesel | 0.7 | 1.7 | 0.7 | 1.2 | 1.5 | 1.9 | 2.0 | 1.1 | 1.7 | 1.9 | 2.4 |
| Heating Oil | 0.9 | 0.4 | 0.7 | 1.1 | 1.0 | 0.6 | 0.7 | 0.8 | 0.7 | 0.7 | 0.9 |
| Aviation Jet | 2.6 | 3.3 | 2.5 | 2.4 | 2.6 | 3.0 | 2.8 | 2.5 | 3.7 | 5.7 | 7.3 |
| LPG | 0.2 | 0.4 | 0.2 | 0.1 | 0.2 | 0.1 | 0.3 | 0.3 | 0.0 | 0.1 | 0.1 |
| **Exports** | **203.8** | **214.0** | **225.1** | **233.8** | **239.9** | **251.1** | **261.2** | **276.1** | **288.1** | **289.6** | **100.0** |
| Oil | 124.7 | 137.2 | 151.6 | 165.0 | 174.6 | 185.1 | 192.4 | 205.1 | 220.8 | 226.2 | 78.1 |
| Gas | 79.1 | 76.8 | 73.5 | 68.8 | 65.3 | 66.0 | 68.7 | 71.0 | 67.3 | 63.4 | 21.9 |
| Gasoline | 6.8 | 6.0 | 6.3 | 6.6 | 6.5 | 7.7 | 7.8 | 8.7 | 7.9 | 7.0 | 2.4 |
| Diesel | 7.1 | 6.4 | 8.0 | 8.1 | 6.5 | 6.8 | 6.8 | 7.7 | 5.8 | 5.7 | 2.0 |
| Heating Oil | 2.7 | 2.8 | 3.7 | 4.4 | 3.5 | 3.0 | 2.9 | 2.8 | 3.2 | 1.9 | 0.7 |
| Aviation Jet | 0.4 | 0.3 | 0.4 | 0.5 | 0.4 | 0.5 | 0.5 | 1.0 | 1.0 | 1.2 | 0.4 |
| LPG | 0.4 | 0.5 | 0.5 | 0.6 | 0.7 | 0.4 | 0.2 | 0.2 | 0.1 | 0.2 | 0.1 |
| **$CO_2$ Emissions _(Million tons $CO_2$)_** | **548.3** | **560.7** | **562.0** | **570.9** | **574.3** | **577.6** | **567.0** | **564.7** | **572.4** | **569.3** | **-** |
| **$CO_2$ Intensity _(t$CO_2$/million \$15ppp)_** | **385.0** | **381.7** | **376.0** | **372.7** | **364.5** | **363.0** | **351.4** | **339.6** | **337.4** | **330.2** | **-** |
| **Final energy intensity _(toe/million \$15ppp)_** | **116.7** | **117.2** | **113.6** | **113.1** | **109.5** | **105.4** | **102.2** | **103.3** | **104.4** | **103.8** | **-** |
| **Total energy intensity _(toe/million \$15ppp)_** | **183.1** | **181.4** | **180.2** | **178.8** | **178.3** | **177.0** | **175.4** | **174.1** | **175.6** | **171.4** | **-** |

*Heat is included

## Primary energy demand mix

Biomass
4%

Other renewables
1%

Hydro
11%

Nuclear
9%

Coal
4%

2019: 295.49 Mtoe

Oil
33%

Gas
38%

## Electricity generation by source

Oil    Gas    Coal    Nuclear    Hydro    Biomass    Wind    Solar    Other renewables
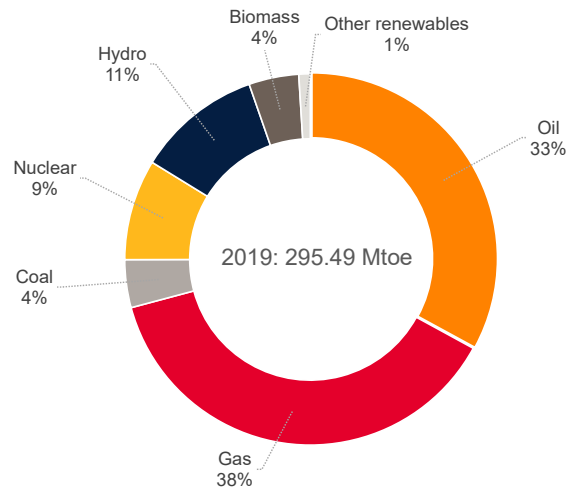
## Primary energy demand and CO$_2$ emissions growth
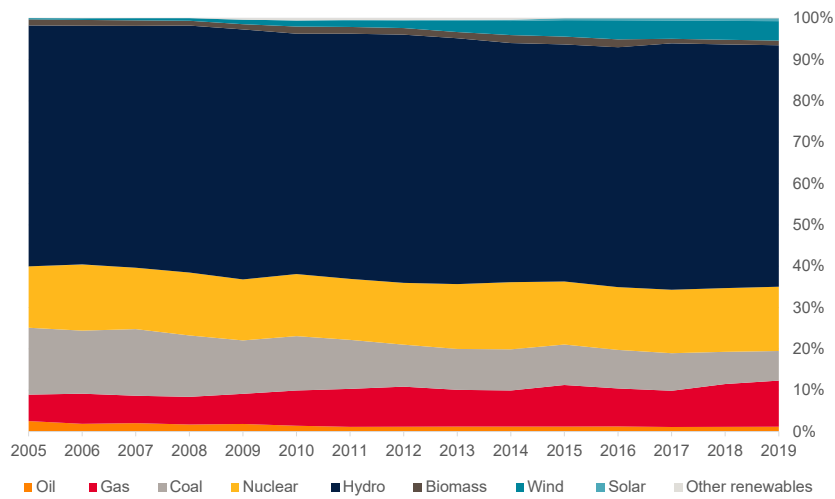
Demand growth        Emissions growth
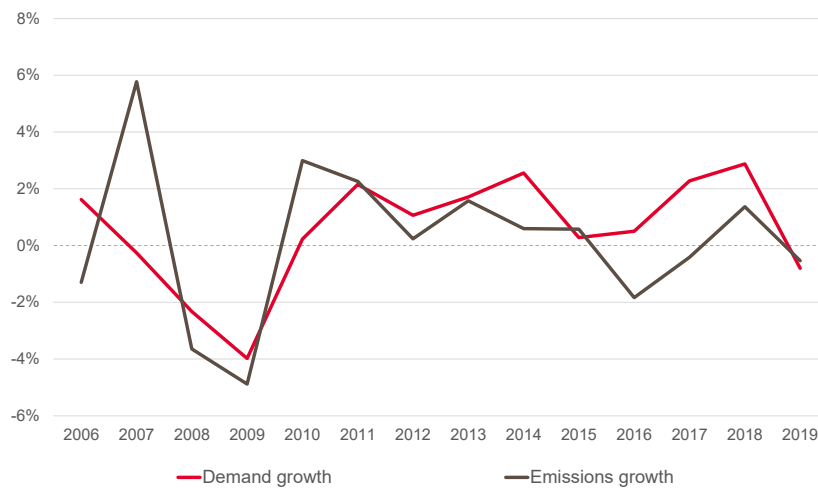
| **Mexico** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | **Share in 2019 (%)** |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **178.6** | **187.0** | **191.8** | **192.1** | **188.4** | **184.9** | **184.9** | **180.1** | **179.9** | **177.5** | **100.0** |
| Oil | 94.5 | 97.8 | 102.6 | 98.9 | 96.8 | 90.4 | 88.0 | 85.9 | 85.6 | 81.7 | 46.0 |
| Gas | 54.2 | 57.1 | 59.3 | 62.2 | 60.5 | 64.6 | 66.2 | 62.6 | 62.7 | 65.5 | 36.9 |
| Coal | 13.3 | 14.5 | 12.7 | 12.9 | 12.7 | 11.4 | 12.4 | 12.7 | 11.3 | 10.1 | 5.7 |
| Nuclear | 1.5 | 2.6 | 2.3 | 3.1 | 2.5 | 3.0 | 2.8 | 2.8 | 3.9 | 3.2 | 1.8 |
| Hydro | 3.2 | 3.1 | 2.7 | 2.4 | 3.3 | 2.7 | 2.6 | 2.8 | 2.8 | 2.1 | 1.2 |
| Biomass | 8.1 | 8.0 | 8.4 | 9.0 | 8.7 | 8.6 | 8.7 | 9.1 | 9.2 | 9.3 | 5.2 |
| Other renewables | 0.1 | 0.1 | 0.3 | 0.4 | 0.6 | 0.8 | 0.9 | 1.0 | 1.2 | 2.6 | 1.4 |
| Electricity balance of trade* | 3.7 | 3.6 | 3.4 | 3.3 | 3.2 | 3.4 | 3.4 | 3.3 | 3.1 | 3.1 | 1.7 |
| **Total final consumption, by source** | **118.0** | **121.1** | **120.0** | **120.3** | **119.6** | **120.6** | **122.5** | **123.1** | **122.2** | **120.8** | **100.0** |
| Oil | 74.5 | 74.2 | 73.3 | 72.3 | 73.1 | 72.7 | 75.2 | 73.0 | 74.3 | 70.3 | 58.2 |
| Gas | 12.9 | 13.7 | 14.3 | 14.9 | 14.2 | 13.9 | 14.3 | 15.1 | 12.0 | 13.3 | 11.0 |
| Coal | 4.8 | 5.7 | 3.8 | 4.6 | 3.4 | 4.6 | 2.6 | 4.2 | 3.2 | 3.1 | 2.6 |
| Electricity | 18.5 | 20.1 | 21.3 | 20.8 | 21.7 | 22.1 | 23.3 | 23.4 | 25.0 | 26.0 | 21.6 |
| Heat | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.3 | 0.3 | 0.3 | 0.3 |
| Biomass | 7.1 | 7.2 | 7.1 | 7.6 | 7.0 | 6.9 | 6.9 | 7.2 | 7.4 | 7.7 | 6.3 |
| **Electricity generation, by source** | **23.7** | **26.0** | **26.4** | **25.6** | **25.9** | **26.7** | **27.6** | **27.7** | **28.5** | **29.7** | **100.0** |
| Oil | 3.8 | 4.2 | 4.8 | 4.1 | 2.8 | 2.7 | 2.9 | 3.3 | 3.1 | 3.3 | 11.0 |
| Gas | 12.6 | 14.1 | 14.2 | 14.3 | 14.8 | 16.0 | 16.5 | 16.3 | 16.8 | 17.8 | 59.7 |
| Coal | 2.8 | 2.9 | 2.9 | 2.7 | 2.9 | 2.9 | 3.0 | 2.7 | 2.7 | 2.4 | 8.1 |
| Nuclear | 0.5 | 0.9 | 0.8 | 1.0 | 0.8 | 1.0 | 0.9 | 0.9 | 1.3 | 1.1 | 3.6 |
| Hydro | 3.2 | 3.1 | 2.7 | 2.4 | 3.3 | 2.7 | 2.6 | 2.8 | 2.8 | 2.1 | 6.9 |
| Biomass | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.2 | 0.5 |
| Wind | 0.1 | 0.1 | 0.3 | 0.4 | 0.6 | 0.8 | 0.9 | 0.9 | 1.1 | 1.5 | 5.0 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 1.1 | 3.6 |
| Other renewables | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 1.5 |
| **Total final consumption, by sector** | **118.0** | **121.1** | **120.0** | **120.3** | **119.6** | **120.6** | **122.5** | **123.1** | **122.2** | **120.8** | **100.0** |
| Industry | 33.5 | 36.2 | 35.8 | 36.8 | 34.6 | 36.1 | 35.8 | 38.1 | 34.7 | 35.3 | 29.2 |
| Transport | 51.1 | 51.4 | 51.7 | 51.1 | 51.3 | 51.1 | 52.9 | 51.4 | 53.3 | 51.8 | 42.9 |
| Residential/Comercial | 22.5 | 22.7 | 23.0 | 22.9 | 23.5 | 24.0 | 24.2 | 24.1 | 24.6 | 25.0 | 20.7 |
| **Oil final consumption, by sector** | **74.5** | **74.2** | **73.3** | **72.3** | **73.1** | **72.7** | **75.2** | **73.0** | **74.3** | **70.3** | **100.0** |
| Industry | 5.8 | 5.9 | 5.9 | 5.8 | 5.7 | 6.2 | 7.0 | 6.4 | 5.7 | 4.5 | 6.5 |
| Transport | 51.0 | 51.3 | 51.6 | 51.0 | 51.2 | 51.0 | 52.8 | 51.3 | 53.1 | 51.7 | 73.4 |
| Residential/Comercial | 8.1 | 8.0 | 8.1 | 7.7 | 7.7 | 7.6 | 7.4 | 7.3 | 7.3 | 6.9 | 9.8 |
| **Natural gas final consumption, by sector** | **12.9** | **13.7** | **14.3** | **14.9** | **14.2** | **13.9** | **14.3** | **15.1** | **12.0** | **13.3** | **100.0** |
| Industry | 11.5 | 12.1 | 12.7 | 13.3 | 12.4 | 12.4 | 12.7 | 13.7 | 10.8 | 12.0 | 90.3 |
| Transport | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.5 |
| Residential/Comercial | 1.0 | 0.9 | 1.0 | 1.0 | 1.1 | 1.0 | 1.0 | 1.0 | 0.8 | 0.9 | 7.0 |
| **Refined products consumption** | **74.5** | **74.2** | **73.3** | **72.3** | **73.1** | **72.7** | **75.2** | **73.0** | **74.3** | **70.3** | **100.0** |
| Gasoline | 35.8 | 35.7 | 35.9 | 35.2 | 34.7 | 35.4 | 36.8 | 35.6 | 38.1 | 37.6 | 53.5 |
| Diesel | 18.4 | 19.0 | 19.6 | 19.0 | 19.5 | 19.0 | 19.6 | 18.6 | 18.0 | 16.7 | 23.8 |
| Heating Oil | 1.4 | 1.1 | 1.2 | 0.6 | 0.5 | 0.5 | 0.8 | 0.7 | 0.3 | 0.2 | 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 | 10.0 | 9.9 | 9.8 | 10.1 | 10.1 | 9.9 | 9.9 | 9.9 | 10.0 | 9.6 | 13.6 |
| **Imports** | **42.8** | **47.4** | **51.7** | **51.2** | **54.1** | **65.2** | **78.6** | **87.0** | **102.0** | **100.7** | **100.0** |
| Oil | 30.1 | 32.9 | 32.8 | 29.2 | 30.5 | 35.1 | 43.1 | 51.3 | 59.4 | 54.5 | 54.1 |
| Gas | 12.6 | 14.5 | 18.9 | 22.0 | 23.6 | 30.2 | 35.5 | 35.7 | 42.6 | 46.2 | 45.9 |
| Gasoline | 16.6 | 17.6 | 17.3 | 15.5 | 16.1 | 18.6 | 22.0 | 23.2 | 27.6 | 27.2 | 27.0 |
| Diesel | 6.0 | 6.8 | 6.7 | 5.4 | 6.7 | 7.4 | 9.5 | 12.9 | 15.2 | 11.2 | 11.2 |
| Heating Oil | 0.6 | 1.4 | 2.4 | 1.7 | 0.7 | 0.9 | 1.4 | 2.2 | 2.0 | 2.4 | 2.4 |
| Aviation Jet | 0.2 | 0.0 | 0.2 | 0.2 | 0.6 | 1.1 | 1.6 | 2.1 | 2.8 | 2.8 | 2.8 |
| LPG | 2.9 | 3.0 | 3.3 | 3.0 | 3.3 | 3.9 | 5.1 | 6.3 | 7.0 | 6.1 | 6.0 |
| **Exports** | **88.1** | **85.2** | **78.7** | **76.3** | **74.1** | **72.0** | **75.1** | **73.0** | **74.3** | **68.8** | **100.0** |
| Oil | 87.4 | 85.2 | 78.7 | 76.3 | 74.0 | 72.0 | 75.1 | 73.0 | 74.3 | 68.8 | 100.0 |
| Gas | 0.8 | 0.1 | 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 | 0.1 | 0.2 | 0.1 | 0.5 | 0.1 | 0.3 | 0.8 | 0.2 | 0.2 | 0.2 | 0.3 |
| Heating Oil | 6.7 | 5.5 | 3.8 | 5.2 | 7.0 | 6.8 | 6.2 | 5.7 | 5.2 | 4.6 | 6.7 |
| Aviation Jet | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| LPG | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 0.1 | 0.0 | 0.1 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **444.9** | **460.8** | **462.8** | **453.0** | **437.9** | **445.4** | **448.7** | **448.1** | **438.3** | **433.3** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **230.9** | **230.7** | **223.5** | **215.9** | **203.0** | **199.9** | **195.7** | **191.5** | **183.4** | **181.6** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **57.4** | **57.2** | **55.3** | **54.6** | **52.5** | **51.7** | **51.1** | **50.4** | **49.0** | **48.8** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **92.7** | **93.6** | **92.6** | **91.5** | **87.4** | **83.0** | **80.6** | **77.0** | **75.3** | **74.4** | **-** |

*Heat is included

## Primary energy demand mix

Hydro
1%

Biomass
5%

Other renewables
1%

Nuclear
2%

Coal
6%

2019: 177.53 Mtoe

Oil
47%

Gas
38%

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil   ■ Gas   ■ Coal   ■ Nuclear   ■ Hydro   ■ Biomass   ■ Wind   ■ Solar   ■ Other renewables

## Primary energy demand and CO$_2$ emissions growth

6%
5%
4%
3%
2%
1%
0%
-1%
-2%
-3%
-4%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
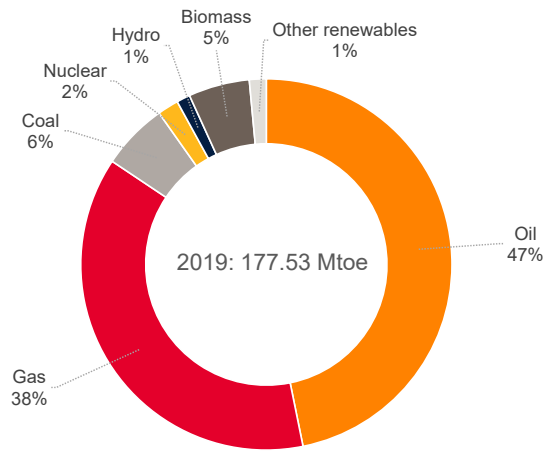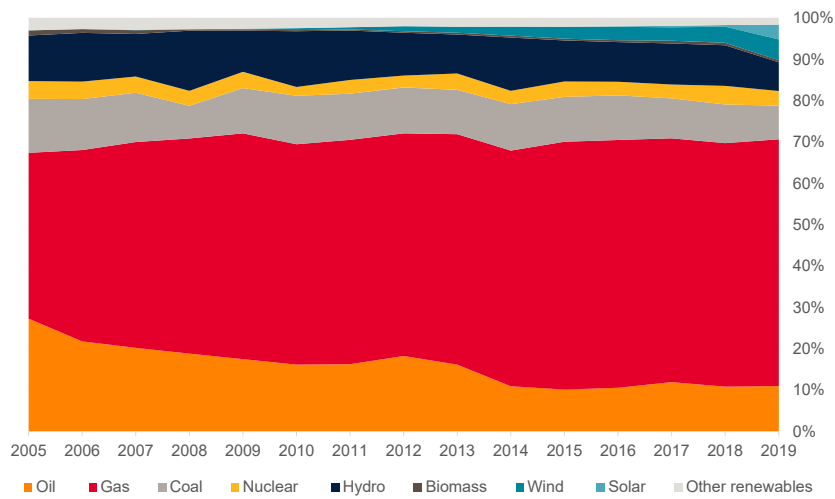
—— Demand growth          —— Emissions growth
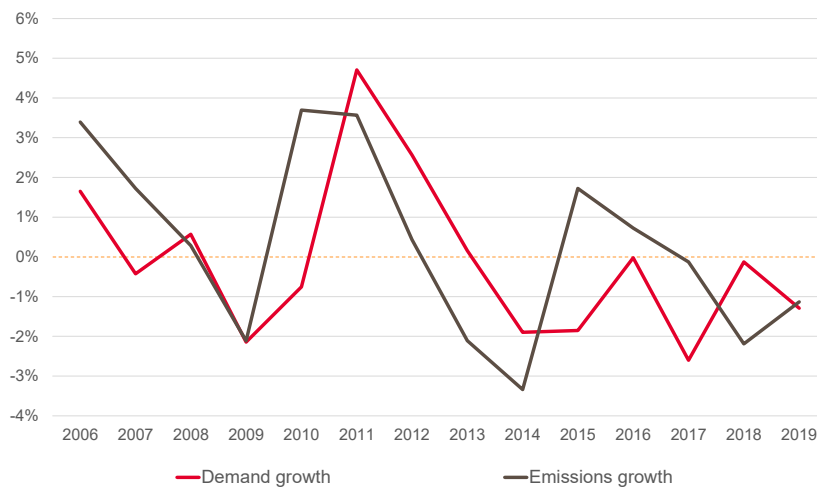
| **United States** (Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **2,217.4** | **2,191.3** | **2,152.3** | **2,190.3** | **2,216.4** | **2,193.1** | **2,168.9** | **2,161.0** | **2,235.1** | **2,213.5** | **100.0** |
| Oil | 806.0 | 784.4 | 775.5 | 777.6 | 777.1 | 793.4 | 788.4 | 794.6 | 811.6 | 807.9 | 36.5 |
| Gas | 555.9 | 568.6 | 594.7 | 606.4 | 627.4 | 646.4 | 652.7 | 643.7 | 710.7 | 732.9 | 33.1 |
| Coal | 502.6 | 479.1 | 424.5 | 432.1 | 431.7 | 374.1 | 341.5 | 330.7 | 317.0 | 277.6 | 12.5 |
| Nuclear | 218.6 | 214.1 | 208.8 | 214.2 | 216.5 | 216.4 | 218.9 | 218.6 | 219.2 | 219.8 | 9.9 |
| Hydro | 22.6 | 27.7 | 24.0 | 23.3 | 22.5 | 21.6 | 23.2 | 26.0 | 25.3 | 23.7 | 1.1 |
| Biomass | 89.3 | 91.5 | 95.6 | 102.7 | 105.5 | 102.5 | 102.0 | 101.4 | 102.3 | 99.4 | 4.5 |
| Other renewables | 8.5 | 10.9 | 13.1 | 16.0 | 18.0 | 19.7 | 24.1 | 28.2 | 31.5 | 34.8 | 1.6 |
| Electricity balance of trade* | 13.9 | 15.1 | 16.1 | 18.0 | 17.7 | 19.1 | 18.1 | 17.7 | 17.6 | 17.4 | 0.8 |
| **Total final consumption, by source** | **1,501.7** | **1,463.5** | **1,434.9** | **1,481.0** | **1,503.4** | **1,498.3** | **1,503.4** | **1,505.8** | **1,558.6** | **1,547.9** | **100.0** |
| Oil | 761.9 | 721.5 | 709.1 | 720.1 | 724.9 | 741.9 | 744.4 | 747.6 | 765.5 | 764.2 | 49.4 |
| Gas | 306.1 | 307.1 | 295.0 | 320.3 | 335.4 | 319.5 | 320.6 | 327.9 | 354.2 | 354.7 | 22.9 |
| Coal | 31.1 | 29.5 | 27.3 | 27.1 | 26.9 | 23.7 | 21.2 | 20.6 | 20.2 | 20.1 | 1.3 |
| Electricity | 325.8 | 325.0 | 320.5 | 324.0 | 325.9 | 325.2 | 327.5 | 321.5 | 328.9 | 320.0 | 20.7 |
| Heat | 8.8 | 8.9 | 8.8 | 8.3 | 8.1 | 8.0 | 8.9 | 8.0 | 8.5 | 9.0 | 0.6 |
| Biomass | 68.0 | 71.4 | 74.2 | 81.2 | 82.3 | 80.1 | 80.9 | 80.2 | 81.2 | 79.9 | 5.2 |
| **Electricity generation, by source** | **376.5** | **374.1** | **369.0** | **370.3** | **373.3** | **371.3** | **371.7** | **368.6** | **381.7** | **377.1** | **100.0** |
| Oil | 4.1 | 3.4 | 2.8 | 3.2 | 3.4 | 3.3 | 3.0 | 2.8 | 3.2 | 2.4 | 0.6 |
| Gas | 87.5 | 89.9 | 108.8 | 99.6 | 99.9 | 118.0 | 122.0 | 115.0 | 130.6 | 140.7 | 37.3 |
| Coal | 171.5 | 161.3 | 141.3 | 147.3 | 147.3 | 126.5 | 116.4 | 113.6 | 108.0 | 92.9 | 24.6 |
| Nuclear | 72.1 | 70.6 | 68.9 | 70.7 | 71.4 | 71.4 | 72.2 | 72.1 | 72.3 | 72.5 | 19.2 |
| Hydro | 24.6 | 29.6 | 25.7 | 24.9 | 24.2 | 23.3 | 25.1 | 28.0 | 27.2 | 25.4 | 6.7 |
| Biomass | 6.2 | 6.4 | 6.5 | 6.7 | 7.0 | 6.9 | 6.8 | 6.8 | 6.8 | 6.4 | 1.7 |
| Wind | 8.2 | 10.4 | 12.2 | 14.6 | 15.8 | 16.6 | 19.7 | 22.1 | 23.9 | 26.0 | 6.9 |
| Solar | 0.3 | 0.5 | 0.9 | 1.4 | 2.2 | 3.1 | 4.3 | 6.1 | 7.6 | 8.7 | 2.3 |
| Other renewables | 1.8 | 1.9 | 1.9 | 2.0 | 2.0 | 2.1 | 2.1 | 2.1 | 2.1 | 2.2 | 0.6 |
| **Total final consumption, by sector** | **1,501.7** | **1,463.5** | **1,434.9** | **1,481.0** | **1,503.4** | **1,498.3** | **1,503.4** | **1,505.8** | **1,558.6** | **1,547.9** | **100.0** |
| Industry | 274.2 | 270.1 | 272.9 | 271.3 | 271.2 | 269.6 | 272.4 | 267.7 | 273.0 | 268.0 | 17.3 |
| Transport | 585.0 | 568.0 | 560.8 | 578.6 | 579.0 | 601.0 | 608.0 | 611.7 | 618.6 | 617.0 | 39.9 |
| Residential/Comercial | 488.6 | 478.0 | 447.3 | 482.7 | 495.1 | 475.9 | 469.9 | 464.5 | 498.1 | 493.8 | 31.9 |
| **Oil final consumption, by sector** | **761.9** | **721.5** | **709.1** | **720.1** | **724.9** | **741.9** | **744.4** | **747.6** | **765.5** | **764.2** | **100.0** |
| Industry | 26.5 | 20.1 | 19.8 | 20.1 | 17.5 | 19.2 | 19.9 | 18.1 | 19.1 | 18.3 | 2.4 |
| Transport | 560.4 | 540.1 | 527.5 | 542.0 | 542.1 | 562.5 | 566.6 | 570.2 | 577.4 | 575.8 | 75.3 |
| Residential/Comercial | 35.8 | 29.2 | 24.0 | 26.0 | 24.2 | 26.4 | 26.0 | 24.1 | 25.7 | 26.5 | 3.5 |
| **Natural gas final consumption, by sector** | **306.1** | **307.1** | **295.0** | **320.3** | **335.4** | **319.5** | **320.6** | **327.9** | **354.2** | **354.7** | **100.0** |
| Industry | 109.9 | 111.4 | 117.1 | 115.5 | 120.6 | 121.0 | 125.0 | 124.1 | 131.0 | 131.1 | 37.0 |
| Transport | 0.7 | 0.7 | 0.7 | 0.7 | 0.8 | 0.9 | 1.0 | 1.1 | 1.2 | 1.3 | 0.4 |
| Residential/Comercial | 182.2 | 181.4 | 162.3 | 188.9 | 198.1 | 180.8 | 174.5 | 177.3 | 197.7 | 197.9 | 55.8 |
| **Refined products consumption** | **758.4** | **719.5** | **707.0** | **717.6** | **722.4** | **737.6** | **741.4** | **743.2** | **761.0** | **759.8** | **100.0** |
| Gasoline | 387.0 | 363.6 | 359.6 | 364.8 | 367.4 | 377.9 | 383.3 | 380.8 | 380.5 | 378.9 | 49.9 |
| Diesel | 182.9 | 180.5 | 176.7 | 176.9 | 183.7 | 179.5 | 176.5 | 179.0 | 187.8 | 185.6 | 24.4 |
| Heating Oil | 6.9 | 4.9 | 3.3 | 1.0 | 0.3 | 2.9 | 1.8 | 1.8 | 1.7 | 1.6 | 0.2 |
| Aviation Jet | 48.6 | 48.6 | 48.1 | 49.2 | 50.4 | 52.8 | 54.8 | 57.9 | 58.8 | 59.4 | 7.8 |
| LPG | 46.2 | 32.3 | 33.3 | 38.9 | 35.6 | 37.3 | 35.7 | 33.3 | 35.9 | 34.9 | 4.6 |
| **Imports** | **710.0** | **678.4** | **623.4** | **567.3** | **534.7** | **546.0** | **581.5** | **586.8** | **573.7** | **526.3** | **100.0** |
| Oil | 623.1 | 597.8 | 550.7 | 500.6 | 472.4 | 483.1 | 511.9 | 516.4 | 507.0 | 462.9 | 88.0 |
| Gas | 86.9 | 80.6 | 72.7 | 66.7 | 62.3 | 62.9 | 69.5 | 70.4 | 66.8 | 63.3 | 12.0 |
| Gasoline | 37.8 | 34.7 | 32.8 | 32.2 | 30.0 | 33.3 | 34.6 | 31.3 | 33.4 | 37.4 | 7.1 |
| Diesel | 8.8 | 6.8 | 6.9 | 8.9 | 10.6 | 11.2 | 8.4 | 8.8 | 10.1 | 11.4 | 2.2 |
| Heating Oil | 21.3 | 19.3 | 16.2 | 13.6 | 11.2 | 11.7 | 11.6 | 11.3 | 12.6 | 8.8 | 1.7 |
| Aviation Jet | 3.9 | 3.1 | 3.1 | 4.4 | 4.9 | 6.9 | 7.6 | 8.3 | 6.6 | 8.7 | 1.7 |
| LPG | 1.4 | 3.5 | 3.7 | 4.2 | 3.7 | 4.3 | 5.0 | 5.6 | 6.0 | 6.3 | 1.2 |
| **Exports** | **141.1** | **172.3** | **182.8** | **195.2** | **229.5** | **257.6** | **290.8** | **362.7** | **430.1** | **493.1** | **100.0** |
| Oil | 114.9 | 137.7 | 145.7 | 159.2 | 194.8 | 216.9 | 238.2 | 288.3 | 345.3 | 383.6 | 77.8 |
| Gas | 26.1 | 34.6 | 37.1 | 36.0 | 34.7 | 40.7 | 52.7 | 74.4 | 84.8 | 109.4 | 22.2 |
| Gasoline | 15.5 | 23.7 | 23.3 | 23.2 | 25.3 | 28.3 | 35.3 | 38.1 | 45.2 | 43.6 | 8.8 |
| Diesel | 33.2 | 43.3 | 50.1 | 56.3 | 54.9 | 58.5 | 58.7 | 68.5 | 64.5 | 66.1 | 13.4 |
| Heating Oil | 22.6 | 23.1 | 20.7 | 19.4 | 20.1 | 17.5 | 16.3 | 16.8 | 17.2 | 12.3 | 2.5 |
| Aviation Jet | 4.8 | 5.3 | 6.6 | 7.8 | 8.1 | 8.3 | 8.7 | 9.2 | 11.1 | 11.2 | 2.3 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 17.0 | 24.4 | 31.0 | 35.6 | 39.4 | 46.5 | 9.4 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **5,445.6** | **5,237.7** | **5,048.6** | **5,152.3** | **5,193.4** | **5,046.9** | **4,954.2** | **4,890.7** | **5,041.5** | **4,920.3** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million $15ppp)** | **333.2** | **315.5** | **297.5** | **298.1** | **293.3** | **277.0** | **267.7** | **258.6** | **259.0** | **247.0** | **-** |
| **Final energy intensity (toe/million $15ppp)** | **83.6** | **80.4** | **76.5** | **78.1** | **77.0** | **74.9** | **73.9** | **71.9** | **72.3** | **70.0** | **-** |
| **Total energy intensity (toe/million $15ppp)** | **135.7** | **132.0** | **126.8** | **126.7** | **125.2** | **120.4** | **117.2** | **114.2** | **114.8** | **111.1** | **-** |

*Heat is included

## Primary energy demand mix



Hydro 1%
Biomass 4%
Other renewables 2%
Nuclear 10%
Oil 37%
Coal 13%
2019: 2,213.49 Mtoe
Gas 33%

## Electricity generation by source



Oil  Gas  Coal  Nuclear  Hydro  Biomass  Wind  Solar  Other renewables
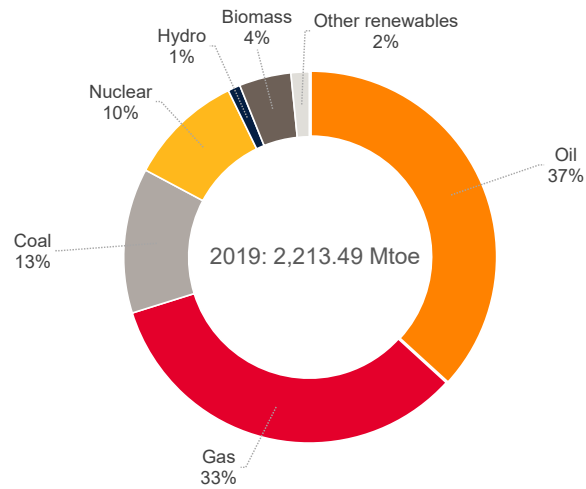
## Primary energy demand and CO$_2$ emissions growth
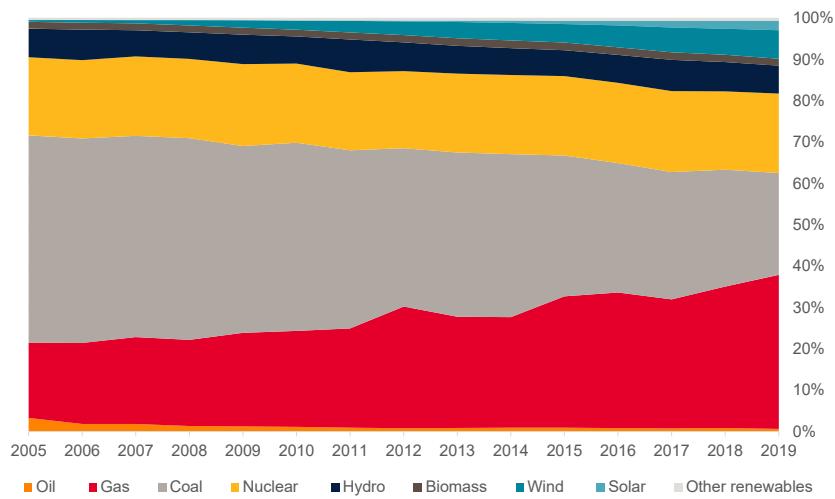


Demand growth          Emissions growth
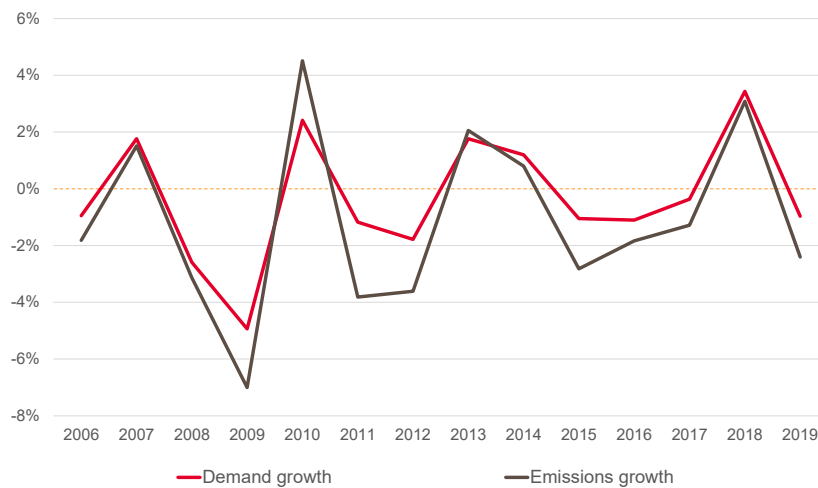
| South and Central America (Million toe) | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **609.2** | **617.7** | **640.8** | **659.2** | **666.0** | **661.5** | **653.3** | **649.9** | **642.0** | **633.1** | **100.0** |
| Oil | 270.2 | 271.0 | 283.4 | 287.0 | 290.5 | 280.0 | 271.0 | 265.0 | 254.7 | 245.8 | 39.7 |
| Gas | 123.5 | 126.5 | 133.4 | 139.8 | 144.7 | 144.7 | 140.7 | 141.0 | 138.6 | 133.9 | 21.6 |
| Coal | 25.6 | 28.0 | 28.2 | 31.9 | 32.8 | 33.8 | 34.1 | 32.3 | 31.8 | 31.6 | 5.0 |
| Nuclear | 5.7 | 5.7 | 5.8 | 5.6 | 5.5 | 5.7 | 6.3 | 5.7 | 5.9 | 6.4 | 0.9 |
| Hydro | 59.7 | 64.1 | 62.7 | 61.5 | 58.1 | 57.9 | 59.6 | 60.9 | 62.0 | 61.4 | 9.7 |
| Biomass | 120.9 | 118.6 | 122.7 | 128.4 | 128.6 | 132.4 | 133.0 | 135.0 | 137.7 | 140.2 | 21.5 |
| Other renewables | 0.3 | 0.4 | 0.7 | 0.9 | 1.6 | 2.9 | 4.2 | 5.4 | 6.7 | 8.9 | 1.0 |
| Electricity balance of trade* | 3.3 | 3.5 | 3.8 | 4.1 | 4.1 | 4.2 | 4.4 | 4.5 | 4.6 | 5.0 | 0.7 |
| **Total final consumption, by source** | **463.3** | **472.0** | **485.2** | **493.0** | **498.3** | **493.8** | **492.0** | **492.4** | **486.3** | **487.0** | **100.0** |
| Oil | 214.6 | 221.9 | 233.8 | 233.6 | 238.9 | 230.0 | 230.1 | 230.1 | 221.9 | 220.8 | 45.6 |
| Gas | 65.6 | 61.8 | 61.3 | 61.8 | 61.1 | 61.6 | 59.1 | 57.4 | 58.3 | 58.8 | 12.0 |
| Coal | 15.5 | 17.8 | 16.0 | 16.4 | 16.7 | 16.4 | 16.5 | 16.4 | 16.9 | 16.2 | 3.5 |
| Electricity | 76.0 | 79.3 | 82.4 | 86.0 | 86.5 | 88.0 | 88.0 | 88.7 | 88.9 | 89.1 | 18.3 |
| Heat | 0.4 | 0.4 | 0.5 | 0.6 | 0.7 | 0.8 | 0.9 | 0.9 | 1.0 | 1.1 | 0.2 |
| Biomass | 91.2 | 90.7 | 91.3 | 94.5 | 94.5 | 97.1 | 97.5 | 99.0 | 99.3 | 100.9 | 20.4 |
| **Electricity generation, by source** | **94.5** | **98.2** | **102.2** | **106.2** | **105.9** | **109.3** | **109.5** | **110.6** | **111.2** | **111.7** | **100.0** |
| Oil | 10.3 | 10.5 | 11.1 | 11.5 | 12.1 | 12.1 | 10.6 | 8.6 | 7.6 | 6.4 | 6.8 |
| Gas | 14.9 | 13.4 | 16.5 | 19.3 | 20.6 | 22.1 | 20.5 | 21.5 | 20.4 | 20.2 | 18.4 |
| Coal | 3.4 | 3.6 | 4.5 | 5.9 | 5.8 | 6.3 | 6.3 | 5.8 | 5.9 | 5.9 | 5.3 |
| Nuclear | 1.9 | 1.9 | 1.9 | 1.9 | 1.8 | 1.9 | 2.1 | 1.9 | 2.0 | 2.1 | 1.8 |
| Hydro | 59.7 | 64.1 | 62.8 | 61.6 | 58.1 | 58.0 | 59.6 | 60.9 | 62.1 | 61.4 | 55.8 |
| Biomass | 3.8 | 4.0 | 4.3 | 4.9 | 5.4 | 5.7 | 5.9 | 6.1 | 6.2 | 6.3 | 5.6 |
| Wind | 0.3 | 0.4 | 0.7 | 0.8 | 1.6 | 2.7 | 3.9 | 4.8 | 5.6 | 7.1 | 5.1 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.4 | 0.6 | 1.1 | 1.8 | 0.9 |
| Other renewables | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 | 0.4 |
| **Total final consumption, by sector** | **463.3** | **472.0** | **485.2** | **493.0** | **498.3** | **493.8** | **492.0** | **492.4** | **486.3** | **487.0** | **100.0** |
| Industry | 163.0 | 164.3 | 163.9 | 165.1 | 162.7 | 157.0 | 157.1 | 155.0 | 151.5 | 150.8 | 31.1 |
| Transport | 145.1 | 152.7 | 161.8 | 163.5 | 169.9 | 170.8 | 170.2 | 172.2 | 171.1 | 171.6 | 35.2 |
| Residential/Comercial | 100.0 | 101.3 | 104.4 | 108.4 | 108.9 | 110.6 | 112.0 | 111.3 | 111.9 | 112.5 | 23.0 |
| **Oil final consumption, by sector** | **214.6** | **221.9** | **233.8** | **233.6** | **238.9** | **230.0** | **230.1** | **230.1** | **221.9** | **220.8** | **100.0** |
| Industry | 37.6 | 37.3 | 38.0 | 37.6 | 37.2 | 32.9 | 33.2 | 31.2 | 29.9 | 29.6 | 13.5 |
| Transport | 123.9 | 132.4 | 141.9 | 141.4 | 146.1 | 143.7 | 144.9 | 146.6 | 142.2 | 142.2 | 64.1 |
| Residential/Comercial | 17.5 | 17.4 | 17.3 | 17.8 | 18.0 | 17.5 | 18.1 | 17.9 | 18.1 | 17.3 | 8.2 |
| **Natural gas final consumption, by sector** | **65.6** | **61.8** | **61.3** | **61.8** | **61.1** | **61.6** | **59.1** | **57.4** | **58.3** | **58.8** | **100.0** |
| Industry | 34.0 | 30.8 | 30.0 | 29.5 | 29.0 | 29.1 | 27.1 | 26.2 | 26.5 | 26.1 | 45.5 |
| Transport | 5.3 | 5.3 | 5.6 | 5.7 | 5.8 | 5.9 | 5.7 | 5.6 | 5.7 | 6.0 | 9.8 |
| Residential/Comercial | 12.4 | 12.7 | 13.3 | 13.8 | 13.6 | 13.7 | 14.1 | 13.2 | 13.2 | 13.6 | 22.7 |
| **Refined products consumption** | **213.5** | **221.1** | **233.2** | **233.2** | **238.4** | **229.3** | **227.7** | **227.9** | **219.8** | **218.8** | **100.0** |
| Gasoline | 54.0 | 57.4 | 64.5 | 62.5 | 66.2 | 65.6 | 66.7 | 66.9 | 62.8 | 62.7 | 28.6 |
| Diesel | 85.4 | 88.9 | 92.0 | 95.2 | 97.3 | 94.6 | 93.5 | 93.8 | 93.3 | 93.6 | 42.4 |
| Heating Oil | 13.2 | 13.1 | 13.0 | 12.5 | 10.9 | 8.7 | 7.9 | 7.3 | 6.8 | 6.2 | 3.1 |
| Aviation Jet | 4.7 | 5.0 | 5.2 | 5.3 | 5.3 | 5.6 | 5.2 | 5.2 | 5.1 | 5.0 | 2.3 |
| LPG | 20.5 | 20.9 | 21.9 | 22.9 | 23.2 | 21.4 | 22.1 | 21.6 | 21.5 | 20.3 | 9.8 |
| **Imports** | **151.3** | **160.3** | **167.0** | **178.6** | **176.5** | **171.4** | **165.1** | **167.4** | **163.9** | **160.4** | **100.0** |
| Oil | 132.1 | 139.8 | 142.4 | 148.7 | 145.6 | 141.7 | 141.7 | 144.2 | 140.9 | 141.5 | 86.0 |
| Gas | 19.3 | 20.5 | 24.6 | 30.0 | 30.9 | 29.6 | 23.4 | 23.1 | 22.9 | 18.9 | 14.0 |
| Gasoline | 9.7 | 12.1 | 14.2 | 12.9 | 13.0 | 14.3 | 16.0 | 18.3 | 17.1 | 19.5 | 10.5 |
| Diesel | 32.7 | 32.6 | 34.6 | 40.1 | 39.9 | 37.1 | 41.3 | 43.0 | 41.9 | 40.1 | 25.6 |
| Heating Oil | 13.9 | 14.8 | 13.7 | 12.5 | 12.6 | 12.4 | 12.9 | 12.7 | 12.3 | 11.3 | 7.5 |
| Aviation Jet | 3.9 | 4.0 | 4.3 | 4.3 | 4.3 | 4.8 | 4.3 | 4.6 | 4.6 | 4.2 | 2.8 |
| LPG | 6.7 | 6.8 | 6.4 | 7.3 | 7.7 | 7.1 | 7.7 | 8.0 | 8.5 | 7.6 | 5.2 |
| **Exports** | **274.1** | **289.6** | **280.1** | **279.3** | **285.0** | **293.9** | **278.4** | **275.8** | **249.6** | **240.9** | **100.0** |
| Oil | 243.1 | 256.0 | 244.4 | 240.8 | 247.8 | 259.4 | 246.3 | 244.3 | 217.8 | 208.1 | 87.3 |
| Gas | 31.0 | 33.6 | 35.6 | 38.5 | 37.2 | 34.5 | 32.1 | 31.5 | 31.8 | 32.9 | 12.7 |
| Gasoline | 7.2 | 7.8 | 6.9 | 7.0 | 6.3 | 8.1 | 7.5 | 7.5 | 6.6 | 11.2 | 2.6 |
| Diesel | 7.6 | 12.0 | 7.0 | 5.1 | 5.5 | 4.4 | 5.2 | 4.6 | 5.3 | 7.1 | 2.1 |
| Heating Oil | 25.8 | 29.9 | 29.8 | 28.4 | 28.0 | 26.4 | 28.5 | 27.6 | 26.4 | 23.9 | 10.6 |
| Aviation Jet | 5.1 | 6.0 | 5.2 | 4.6 | 5.0 | 4.6 | 3.2 | 2.5 | 2.2 | 2.5 | 0.9 |
| LPG | 5.1 | 5.6 | 5.1 | 5.0 | 4.6 | 2.5 | 2.2 | 2.2 | 2.2 | 2.5 | 0.9 |
| **$CO_2$ Emissions (Million tons $CO_2$)** | **1,107.3** | **1,127.1** | **1,190.9** | **1,221.3** | **1,255.7** | **1,237.2** | **1,208.9** | **1,177.5** | **1,134.8** | **1,102.4** | **-** |
| **$CO_2$ Intensity (t$CO_2$/million $15ppp)** | **171.0** | **165.9** | **170.8** | **169.5** | **172.8** | **171.6** | **171.2** | **165.4** | **158.6** | **154.6** | **-** |
| **Final energy intensity (toe/million $15ppp)** | **71.5** | **69.5** | **69.6** | **68.4** | **68.6** | **68.5** | **69.7** | **69.2** | **68.0** | **68.3** | **-** |
| **Total energy intensity (toe/million $15ppp)** | **94.1** | **90.9** | **91.9** | **91.5** | **91.7** | **91.7** | **92.5** | **91.3** | **89.8** | **88.8** | **-** |

*Heat is included

## Primary energy demand mix

Other renewables
1%

Biomass
21%

Oil
40%

2019: 633.07 Mtoe

Hydro
10%

Nuclear
1%

Coal
5%

Gas
22%

## Electricity generation by source

Oil ◼ Gas ◼ Coal ◼ Nuclear ◼ Hydro ◼ Biomass ◼ Wind ◼ Solar ◼ Other renewables
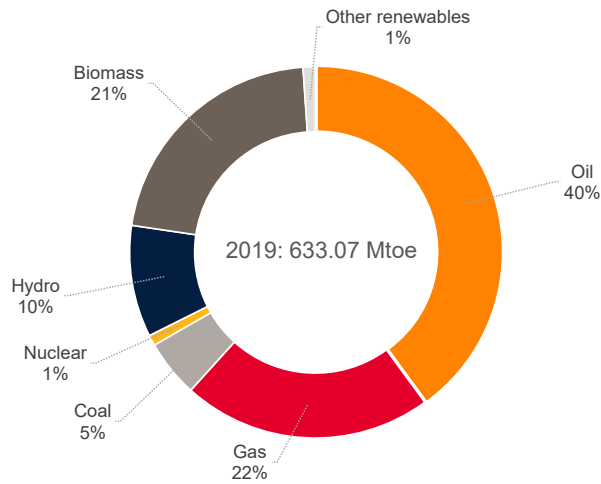
## Primary energy demand and CO$_2$ emissions growth
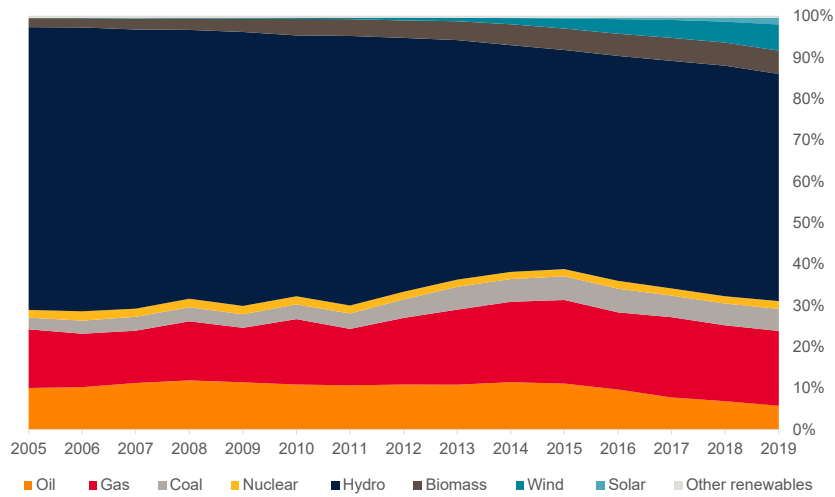
—— Demand growth    —— Emissions growth
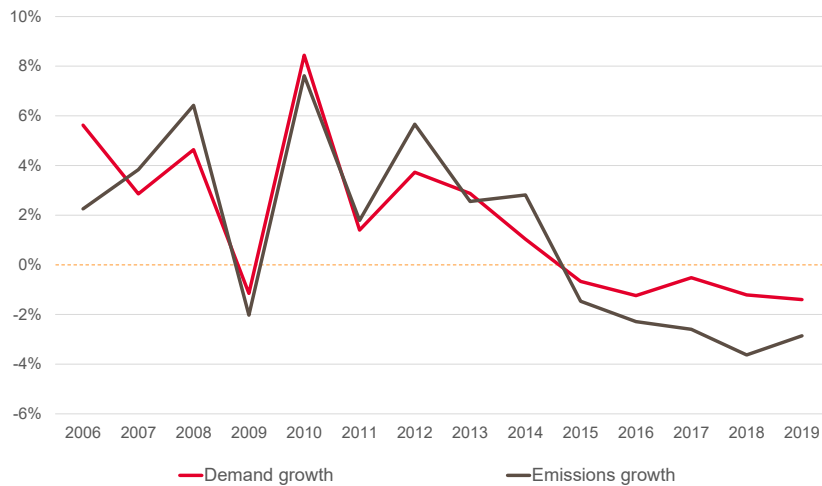
| **Argentina**<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **78.7** | **80.5** | **81.0** | **83.1** | **83.5** | **85.6** | **86.3** | **85.3** | **83.6** | **82.5** | **100.0** |
| Oil | 31.4 | 29.9 | 29.2 | 30.9 | 30.8 | 32.1 | 31.2 | 29.5 | 27.2 | 27.0 | 32.8 |
| Gas | 38.0 | 40.4 | 41.7 | 41.9 | 42.2 | 42.9 | 44.6 | 45.1 | 45.5 | 43.7 | 53.0 |
| Coal | 1.0 | 1.2 | 1.2 | 1.2 | 1.1 | 1.0 | 0.8 | 0.8 | 0.9 | 0.7 | 0.8 |
| Nuclear | 1.9 | 1.7 | 1.7 | 1.6 | 1.5 | 1.9 | 2.2 | 1.6 | 1.8 | 2.2 | 2.7 |
| Hydro | 2.9 | 3.4 | 3.2 | 3.5 | 3.5 | 3.3 | 3.2 | 3.4 | 3.4 | 3.0 | 3.7 |
| Biomass | 2.8 | 3.1 | 3.3 | 3.3 | 3.5 | 3.5 | 3.4 | 3.9 | 3.8 | 4.1 | 5.0 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.5 | 0.6 |
| Electricity balance of trade* | 0.7 | 0.8 | 0.7 | 0.7 | 0.8 | 0.8 | 0.8 | 0.9 | 0.8 | 1.2 | 1.4 |
| **Total final consumption, by source** | **55.9** | **57.6** | **58.6** | **59.1** | **59.9** | **61.2** | **61.2** | **60.4** | **57.8** | **58.7** | **100.0** |
| Oil | 24.6 | 24.7 | 25.5 | 25.0 | 25.3 | 25.8 | 25.6 | 26.0 | 23.1 | 23.9 | 40.7 |
| Gas | 19.0 | 20.0 | 19.9 | 20.9 | 20.6 | 21.0 | 21.1 | 19.9 | 20.0 | 20.5 | 34.9 |
| Coal | 0.7 | 0.8 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.5 | 0.5 | 0.5 | 0.9 |
| Electricity | 9.7 | 10.0 | 10.3 | 10.4 | 10.9 | 11.4 | 11.3 | 11.1 | 11.1 | 10.7 | 18.3 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 1.9 | 2.2 | 2.4 | 2.3 | 2.6 | 2.6 | 2.7 | 3.0 | 3.1 | 3.0 | 5.2 |
| **Electricity generation, by source** | **10.8** | **11.2** | **11.7** | **12.0** | **11.9** | **12.5** | **12.7** | **12.5** | **12.6** | **12.0** | **100.0** |
| Oil | 1.4 | 1.7 | 1.7 | 1.7 | 1.6 | 1.9 | 1.8 | 1.0 | 0.6 | 0.2 | 1.9 |
| Gas | 5.4 | 5.0 | 5.6 | 5.6 | 5.7 | 6.1 | 6.5 | 7.1 | 7.5 | 7.1 | 59.2 |
| Coal | 0.3 | 0.3 | 0.4 | 0.3 | 0.3 | 0.3 | 0.2 | 0.2 | 0.2 | 0.1 | 1.1 |
| Nuclear | 0.6 | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.7 | 0.5 | 0.6 | 0.7 | 6.2 |
| Hydro | 2.9 | 3.4 | 3.2 | 3.5 | 3.6 | 3.3 | 3.3 | 3.5 | 3.5 | 3.1 | 25.6 |
| Biomass | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 1.9 |
| Wind | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.4 | 3.6 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.6 |
| 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** | **55.9** | **57.6** | **58.6** | **59.1** | **59.9** | **61.2** | **61.2** | **60.4** | **57.8** | **58.7** | **100.0** |
| Industry | 16.6 | 16.8 | 16.3 | 16.2 | 17.0 | 17.0 | 16.3 | 16.2 | 16.7 | 16.9 | 28.8 |
| Transport | 14.8 | 17.0 | 17.0 | 16.2 | 16.1 | 16.8 | 16.8 | 17.1 | 15.7 | 16.0 | 27.2 |
| Residential/Comercial | 16.4 | 16.2 | 17.2 | 17.9 | 18.1 | 18.5 | 19.2 | 17.8 | 17.6 | 17.6 | 30.0 |
| **Oil final consumption, by sector** | **24.6** | **24.7** | **25.5** | **25.0** | **25.3** | **25.8** | **25.6** | **26.0** | **23.1** | **23.9** | **100.0** |
| Industry | 4.2 | 3.8 | 4.2 | 3.7 | 4.1 | 3.9 | 3.7 | 3.4 | 3.3 | 3.6 | 14.9 |
| Transport | 11.9 | 13.8 | 13.7 | 12.8 | 12.5 | 13.1 | 13.1 | 13.5 | 12.3 | 12.5 | 52.5 |
| Residential/Comercial | 2.0 | 1.4 | 1.5 | 1.6 | 1.8 | 1.8 | 1.7 | 1.6 | 1.5 | 1.5 | 6.4 |
| **Natural gas final consumption, by sector** | **19.0** | **20.0** | **19.9** | **20.9** | **20.6** | **21.0** | **21.1** | **19.9** | **20.0** | **20.5** | **100.0** |
| Industry | 6.5 | 6.9 | 6.3 | 6.9 | 7.0 | 7.2 | 6.9 | 7.0 | 7.3 | 7.5 | 36.5 |
| Transport | 2.2 | 2.3 | 2.3 | 2.3 | 2.4 | 2.5 | 2.4 | 2.1 | 2.0 | 2.1 | 10.0 |
| Residential/Comercial | 8.7 | 9.0 | 9.5 | 9.9 | 9.6 | 9.7 | 10.2 | 9.1 | 9.0 | 9.3 | 45.1 |
| **Refined products consumption** | **24.6** | **24.7** | **25.5** | **25.0** | **25.3** | **25.8** | **25.6** | **26.0** | **23.1** | **23.9** | **100.0** |
| Gasoline | 4.8 | 5.3 | 5.7 | 5.9 | 5.8 | 6.0 | 6.1 | 6.5 | 5.9 | 5.7 | 24.1 |
| Diesel | 10.1 | 10.9 | 10.3 | 9.6 | 10.0 | 10.3 | 10.2 | 10.4 | 9.2 | 9.5 | 39.9 |
| Heating Oil | 0.5 | 0.2 | 0.2 | 0.1 | 0.4 | 0.4 | 0.3 | 0.1 | 0.2 | 0.5 | 2.1 |
| Aviation Jet | 0.4 | 0.3 | 0.4 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 2.5 |
| LPG | 1.8 | 1.3 | 1.9 | 2.0 | 1.9 | 1.8 | 1.9 | 1.8 | 1.7 | 1.6 | 6.8 |
| **Imports** | **7.5** | **10.8** | **12.5** | **16.3** | **16.8** | **16.0** | **16.0** | **15.8** | **14.5** | **9.8** | **100.0** |
| Oil | 4.5 | 5.1 | 4.9 | 6.7 | 7.1 | 6.5 | 7.2 | 6.6 | 6.3 | 5.3 | 54.3 |
| Gas | 3.0 | 5.7 | 7.6 | 9.6 | 9.7 | 9.4 | 8.7 | 9.3 | 8.2 | 4.5 | 45.7 |
| Gasoline | 0.1 | 0.1 | 0.0 | 0.3 | 0.3 | 0.0 | 0.2 | 0.3 | 0.5 | 0.4 | 4.1 |
| Diesel | 1.3 | 1.8 | 1.2 | 3.8 | 3.2 | 3.3 | 3.6 | 3.1 | 2.7 | 2.7 | 27.4 |
| Heating Oil | 0.7 | 0.7 | 0.7 | 0.3 | 0.5 | 0.0 | 0.0 | 0.0 | 0.2 | 0.0 | 0.0 |
| Aviation Jet | 0.0 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 2.3 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Exports** | **6.6** | **5.8** | **5.7** | **3.5** | **4.1** | **3.6** | **3.9** | **3.4** | **6.3** | **7.7** | **100.0** |
| Oil | 6.2 | 5.7 | 5.6 | 3.5 | 4.0 | 3.6 | 3.9 | 3.4 | 5.7 | 7.3 | 94.4 |
| Gas | 0.4 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.5 | 0.4 | 5.6 |
| 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 | 0.1 | 0.1 | 0.3 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 2.3 |
| Heating Oil | 0.6 | 0.0 | 0.0 | 0.2 | 0.2 | 0.0 | 0.0 | 0.3 | 0.7 | 0.7 | 9.1 |
| 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 | 1.3 | 1.3 | 1.0 | 0.8 | 1.0 | 0.9 | 1.0 | 1.0 | 1.2 | 1.5 | 19.2 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **174.5** | **181.8** | **188.7** | **183.9** | **187.4** | **193.2** | **193.6** | **186.5** | **173.0** | **170.7** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **211.9** | **208.2** | **218.3** | **207.8** | **217.1** | **218.0** | **222.5** | **208.3** | **198.1** | **199.9** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **62.3** | **60.8** | **62.1** | **60.6** | **63.8** | **63.6** | **64.6** | **61.6** | **61.4** | **63.6** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **95.5** | **92.2** | **93.7** | **93.9** | **96.8** | **96.5** | **99.2** | **95.3** | **95.8** | **96.6** | **-** |

*Heat is included*

**Primary energy demand mix**

Hydro
4%

Biomass
5%

Nuclear
3%

Coal
1%

Oil
33%

2019: 82.50 Mtoe

Gas
54%

**Electricity generation by source**



| 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 |

■ Oil  ■ Gas  ■ Coal  ■ Nuclear  ■ Hydro  ■ Biomass  ■ Wind  ■ Solar  ■ Other renewables
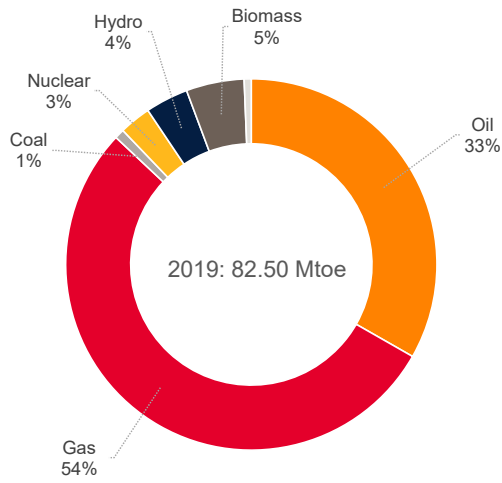
**Primary energy demand and CO$_2$ emissions growth**
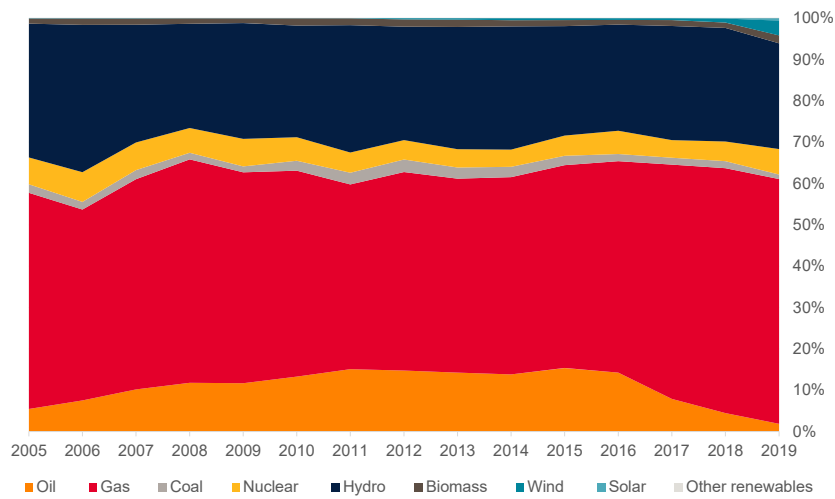


—— Demand growth          —— Emissions growth
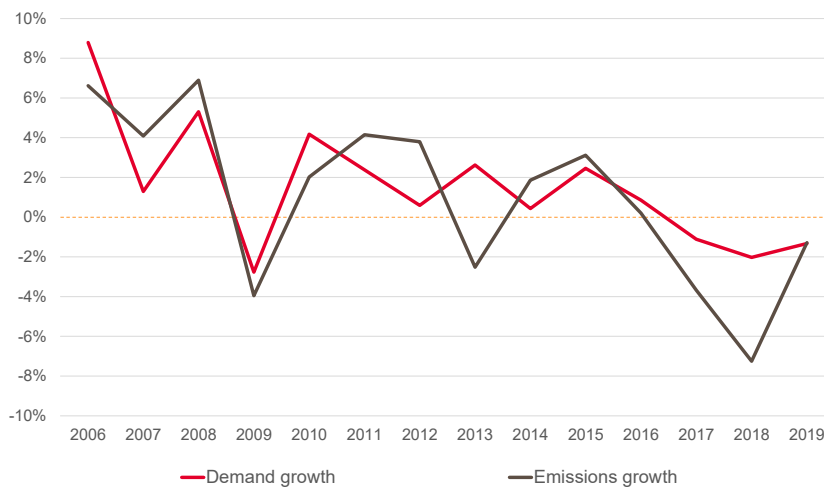
| **Brazil** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **267.1** | **271.0** | **281.4** | **293.8** | **303.0** | **297.1** | **286.2** | **291.3** | **287.0** | **288.3** | **100.0** |
| Oil | 104.7 | 108.9 | 115.2 | 120.5 | 124.6 | 115.8 | 109.6 | 111.2 | 103.8 | 102.5 | 35.6 |
| Gas | 23.7 | 23.5 | 28.0 | 33.0 | 36.4 | 36.2 | 30.7 | 32.5 | 30.8 | 30.7 | 10.6 |
| Coal | 14.5 | 15.4 | 15.3 | 16.5 | 17.5 | 17.7 | 15.9 | 16.8 | 16.6 | 16.5 | 5.7 |
| Nuclear | 3.8 | 4.1 | 4.2 | 4.0 | 4.0 | 3.8 | 4.1 | 4.1 | 4.1 | 4.2 | 1.5 |
| Hydro | 34.7 | 36.8 | 35.7 | 33.6 | 32.1 | 30.9 | 32.8 | 31.9 | 33.5 | 33.5 | 11.6 |
| Biomass | 82.2 | 78.4 | 78.5 | 81.5 | 83.7 | 87.2 | 85.8 | 87.0 | 89.8 | 91.6 | 31.8 |
| Other renewables | 0.2 | 0.2 | 0.4 | 0.6 | 1.1 | 1.9 | 2.9 | 3.7 | 4.5 | 5.3 | 1.8 |
| Electricity balance of trade* | 3.4 | 3.6 | 4.0 | 4.1 | 3.6 | 3.7 | 4.4 | 4.1 | 4.0 | 4.0 | 1.4 |
| **Total final consumption, by source** | **215.4** | **222.6** | **228.7** | **232.0** | **236.4** | **231.5** | **227.8** | **231.6** | **226.9** | **227.5** | **100.0** |
| Oil | 93.9 | 100.2 | 105.8 | 107.8 | 109.9 | 103.0 | 101.3 | 102.5 | 96.4 | 96.3 | 42.4 |
| Gas | 12.7 | 12.8 | 12.6 | 12.4 | 12.2 | 12.3 | 12.0 | 11.6 | 12.0 | 11.3 | 5.0 |
| Coal | 11.2 | 12.4 | 11.9 | 11.5 | 11.7 | 11.7 | 10.3 | 11.6 | 11.8 | 11.2 | 4.9 |
| Electricity | 37.7 | 39.3 | 40.6 | 41.8 | 43.0 | 42.2 | 42.2 | 42.8 | 43.3 | 43.9 | 19.3 |
| Heat | 0.4 | 0.4 | 0.5 | 0.6 | 0.6 | 0.7 | 0.8 | 0.8 | 0.9 | 1.0 | 0.4 |
| Biomass | 59.6 | 57.5 | 57.1 | 57.9 | 59.0 | 61.6 | 61.3 | 62.3 | 62.4 | 63.7 | 28.0 |
| **Electricity generation, by source** | **44.4** | **45.7** | **47.5** | **49.1** | **50.8** | **50.0** | **49.8** | **50.7** | **51.7** | **52.9** | **100.0** |
| Oil | 1.4 | 1.3 | 1.7 | 2.3 | 3.0 | 2.5 | 1.3 | 1.4 | 1.1 | 0.6 | 1.1 |
| Gas | 3.1 | 2.2 | 4.0 | 5.9 | 7.0 | 6.8 | 4.9 | 5.6 | 4.7 | 5.2 | 9.7 |
| Coal | 1.0 | 1.1 | 1.2 | 1.9 | 2.3 | 2.4 | 2.2 | 2.2 | 2.0 | 2.2 | 4.1 |
| Nuclear | 1.2 | 1.3 | 1.4 | 1.3 | 1.3 | 1.3 | 1.4 | 1.4 | 1.3 | 1.4 | 2.6 |
| Hydro | 34.7 | 36.8 | 35.7 | 33.6 | 32.1 | 30.9 | 32.8 | 31.9 | 33.5 | 33.5 | 63.3 |
| Biomass | 2.7 | 2.8 | 3.0 | 3.5 | 4.0 | 4.2 | 4.4 | 4.5 | 4.6 | 4.7 | 8.9 |
| Wind | 0.2 | 0.2 | 0.4 | 0.6 | 1.1 | 1.9 | 2.9 | 3.6 | 4.2 | 4.9 | 9.2 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.5 | 0.9 |
| 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** | **215.4** | **222.6** | **228.7** | **232.0** | **236.4** | **231.5** | **227.8** | **231.6** | **226.9** | **227.5** | **100.0** |
| Industry | 83.9 | 87.2 | 87.1 | 86.3 | 85.2 | 82.6 | 82.2 | 83.3 | 79.0 | 78.7 | 34.6 |
| Transport | 70.2 | 74.4 | 79.1 | 83.1 | 86.1 | 84.0 | 82.6 | 84.7 | 84.7 | 85.3 | 37.5 |
| Residential/Comercial | 34.4 | 34.6 | 35.7 | 36.2 | 38.1 | 38.3 | 38.1 | 38.3 | 38.8 | 39.3 | 17.3 |
| **Oil final consumption, by sector** | **93.9** | **100.2** | **105.8** | **107.8** | **109.9** | **103.0** | **101.3** | **102.5** | **96.4** | **96.3** | **100.0** |
| Industry | 12.0 | 12.7 | 12.5 | 12.7 | 12.8 | 11.6 | 11.1 | 10.9 | 9.5 | 9.5 | 9.9 |
| Transport | 53.7 | 59.2 | 64.9 | 67.0 | 68.7 | 63.6 | 63.8 | 65.4 | 62.2 | 62.4 | 64.8 |
| Residential/Comercial | 7.1 | 7.2 | 7.1 | 7.2 | 7.3 | 7.2 | 7.3 | 7.3 | 7.2 | 6.7 | 7.0 |
| **Natural gas final consumption, by sector** | **12.7** | **12.8** | **12.6** | **12.4** | **12.2** | **12.3** | **12.0** | **11.6** | **12.0** | **11.3** | **100.0** |
| Industry | 9.0 | 9.7 | 9.6 | 9.5 | 9.4 | 9.7 | 9.2 | 8.8 | 9.0 | 8.4 | 73.9 |
| Transport | 1.7 | 1.7 | 1.7 | 1.6 | 1.6 | 1.5 | 1.5 | 1.7 | 1.9 | 2.0 | 17.3 |
| Residential/Comercial | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 3.9 |
| **Refined products consumption** | **93.9** | **100.2** | **105.8** | **107.8** | **109.9** | **103.0** | **101.3** | **102.5** | **96.4** | **96.3** | **100.0** |
| Gasoline | 17.5 | 20.8 | 24.4 | 24.4 | 25.7 | 23.3 | 24.2 | 24.8 | 21.6 | 21.8 | 22.7 |
| Diesel | 38.4 | 40.4 | 42.7 | 45.0 | 45.6 | 43.4 | 42.1 | 42.5 | 41.8 | 41.9 | 43.5 |
| Heating Oil | 4.3 | 3.9 | 3.6 | 3.7 | 3.8 | 3.0 | 2.9 | 2.6 | 2.0 | 1.8 | 1.8 |
| Aviation Jet | 3.2 | 3.6 | 3.8 | 3.6 | 3.7 | 3.6 | 3.3 | 3.3 | 3.4 | 3.3 | 3.4 |
| LPG | 7.7 | 8.0 | 8.0 | 8.2 | 8.3 | 8.1 | 8.2 | 8.3 | 8.2 | 7.6 | 7.9 |
| **Imports** | **50.2** | **50.3** | **53.4** | **58.4** | **59.5** | **52.7** | **40.6** | **44.9** | **44.0** | **44.6** | **100.0** |
| Oil | 39.3 | 41.3 | 42.1 | 43.8 | 42.9 | 36.9 | 30.6 | 35.7 | 35.0 | 36.2 | 81.1 |
| Gas | 10.8 | 9.0 | 11.3 | 14.5 | 16.5 | 15.8 | 10.0 | 9.2 | 9.1 | 8.4 | 18.9 |
| Gasoline | 0.4 | 1.7 | 2.9 | 1.7 | 1.6 | 2.3 | 2.9 | 3.5 | 2.5 | 4.1 | 9.1 |
| Diesel | 7.6 | 7.9 | 8.2 | 8.5 | 9.6 | 5.9 | 7.2 | 11.0 | 9.9 | 8.9 | 19.9 |
| Heating Oil | 0.2 | 0.7 | 0.2 | 0.1 | 0.4 | 0.3 | 0.1 | 0.1 | 0.3 | 0.0 | 0.0 |
| Aviation Jet | 1.6 | 1.5 | 1.5 | 1.5 | 1.2 | 1.1 | 0.8 | 0.5 | 0.7 | 0.9 | 2.0 |
| LPG | 1.9 | 2.1 | 1.7 | 2.1 | 2.3 | 2.0 | 2.1 | 2.0 | 2.1 | 1.7 | 3.9 |
| **Exports** | **39.2** | **37.8** | **33.8** | **27.6** | **33.5** | **44.1** | **49.5** | **59.8** | **64.3** | **75.8** | **100.0** |
| Oil | 39.2 | 37.8 | 33.8 | 27.6 | 33.5 | 44.1 | 49.5 | 59.8 | 64.3 | 75.8 | 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 | 0.6 | 0.2 | 0.1 | 0.3 | 0.3 | 0.5 | 0.6 | 0.4 | 1.1 | 2.1 | 2.8 |
| Diesel | 0.6 | 0.5 | 0.3 | 0.3 | 0.3 | 0.1 | 0.4 | 0.4 | 0.8 | 1.5 | 2.0 |
| Heating Oil | 4.7 | 5.1 | 5.3 | 5.7 | 5.1 | 4.4 | 3.6 | 3.8 | 5.3 | 6.1 | 8.0 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.6 | 0.8 |
| LPG | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **377.0** | **397.0** | **429.8** | **461.3** | **487.5** | **463.0** | **429.2** | **437.3** | **413.2** | **410.0** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **123.4** | **124.9** | **132.7** | **138.3** | **145.4** | **143.2** | **137.3** | **138.4** | **129.1** | **126.7** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **64.9** | **64.9** | **65.6** | **64.8** | **65.8** | **66.9** | **68.2** | **68.6** | **66.5** | **65.9** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **87.4** | **85.3** | **86.9** | **88.1** | **90.4** | **91.9** | **91.5** | **92.2** | **89.7** | **89.0** | **-** |

*Heat is included

**Primary energy demand mix**



Other renewables
2%

Biomass
32%

Oil
36%

2019: 288.29 Mtoe

Hydro
12%

Nuclear
1%

Coal
6%

Gas
11%

**Electricity generation by source**



■ Oil  ■ Gas  ■ Coal  ■ Nuclear  ■ Hydro  ■ Biomass  ■ Wind  ■ Solar  ■ Other renewables
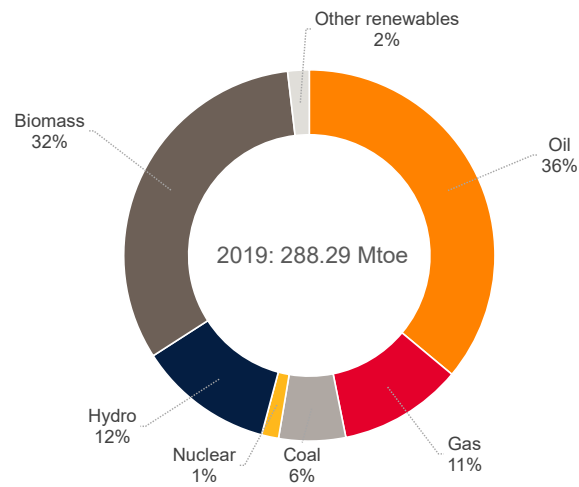
**Primary energy demand and CO$_2$ emissions growth**
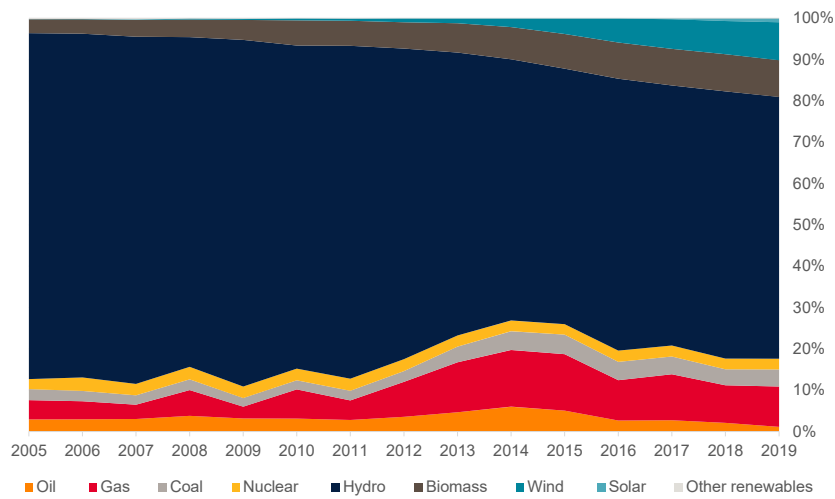


— Demand growth      — Emissions growth
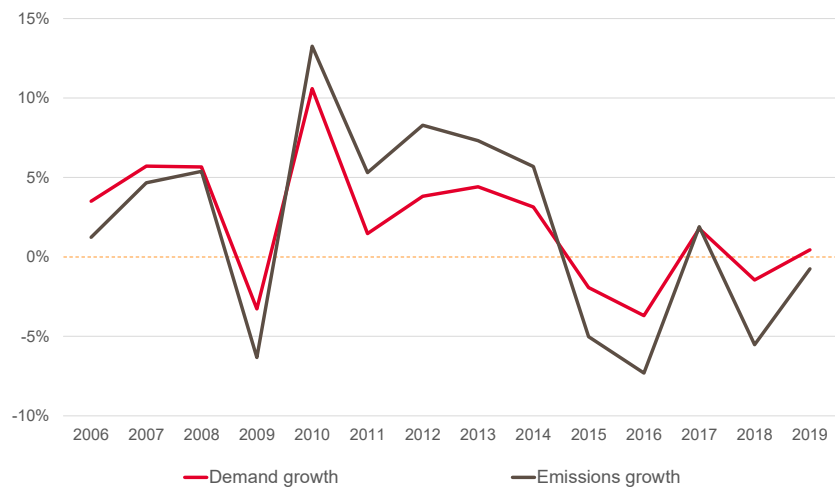
| Chile *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **30.9** | **33.6** | **37.2** | **38.5** | **34.7** | **35.5** | **37.8** | **38.4** | **38.9** | **39.2** | **100.0** |
| Oil | 15.0 | 15.8 | 15.6 | 15.8 | 15.4 | 15.3 | 16.1 | 16.0 | 16.3 | 16.5 | 42.0 |
| Gas | 4.5 | 4.6 | 4.3 | 4.1 | 3.6 | 4.0 | 4.3 | 4.3 | 4.7 | 5.2 | 13.4 |
| Coal | 4.5 | 5.4 | 6.2 | 6.5 | 6.1 | 6.6 | 7.1 | 7.3 | 7.1 | 6.5 | 16.6 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.9 | 1.8 | 1.7 | 1.7 | 2.0 | 2.1 | 2.0 | 1.8 | 2.0 | 1.7 | 4.4 |
| Biomass | 4.9 | 5.9 | 9.4 | 10.3 | 7.4 | 7.3 | 7.8 | 8.1 | 7.9 | 8.0 | 20.5 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.3 | 0.4 | 0.6 | 0.7 | 1.0 | 2.5 |
| Electricity balance of trade* | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.6 |
| **Total final consumption, by source** | **24.0** | **25.3** | **25.2** | **26.7** | **24.9** | **25.0** | **26.4** | **26.7** | **27.2** | **27.6** | **100.0** |
| Oil | 12.1 | 12.7 | 12.6 | 13.5 | 13.6 | 13.8 | 14.8 | 15.2 | 15.6 | 15.7 | 57.0 |
| Gas | 2.4 | 2.0 | 1.4 | 1.4 | 1.3 | 1.5 | 1.7 | 1.7 | 1.8 | 1.8 | 6.6 |
| Coal | 0.5 | 0.6 | 0.4 | 0.3 | 0.3 | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 1.4 |
| Electricity | 4.7 | 5.0 | 5.4 | 5.6 | 5.8 | 5.8 | 6.0 | 6.0 | 6.1 | 6.2 | 22.6 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Biomass | 4.3 | 5.0 | 5.4 | 5.8 | 3.9 | 3.6 | 3.5 | 3.3 | 3.3 | 3.4 | 12.3 |
| **Electricity generation, by source** | **5.2** | **5.7** | **6.0** | **6.3** | **6.1** | **6.5** | **6.8** | **6.8** | **7.0** | **7.1** | **100.0** |
| Oil | 0.7 | 0.5 | 0.5 | 0.5 | 0.3 | 0.3 | 0.3 | 0.2 | 0.1 | 0.2 | 3.3 |
| Gas | 0.9 | 1.2 | 1.1 | 1.0 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.4 | 19.4 |
| Coal | 1.5 | 1.7 | 2.2 | 2.6 | 2.2 | 2.4 | 2.6 | 2.5 | 2.5 | 2.3 | 32.3 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.9 | 1.8 | 1.7 | 1.7 | 2.0 | 2.1 | 2.0 | 1.8 | 2.0 | 1.7 | 24.3 |
| Biomass | 0.2 | 0.4 | 0.4 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 6.5 |
| Wind | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.3 | 0.3 | 0.5 | 6.3 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.5 | 7.7 |
| 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** | **24.0** | **25.3** | **25.2** | **26.7** | **24.9** | **25.0** | **26.4** | **26.7** | **27.2** | **27.6** | **100.0** |
| Industry | 8.8 | 9.8 | 9.3 | 10.0 | 10.5 | 10.5 | 10.7 | 10.0 | 10.2 | 10.4 | 37.7 |
| Transport | 7.1 | 7.3 | 7.5 | 8.2 | 8.1 | 8.5 | 8.9 | 9.2 | 9.4 | 9.4 | 34.1 |
| Residential/Comercial | 6.7 | 7.2 | 7.4 | 7.6 | 5.5 | 5.5 | 6.0 | 6.3 | 6.4 | 6.6 | 23.8 |
| **Oil final consumption, by sector** | **12.1** | **12.7** | **12.6** | **13.5** | **13.6** | **13.8** | **14.8** | **15.2** | **15.6** | **15.7** | **100.0** |
| Industry | 3.0 | 3.2 | 2.9 | 3.3 | 3.7 | 3.9 | 3.8 | 3.6 | 3.7 | 3.8 | 24.0 |
| Transport | 7.1 | 7.2 | 7.4 | 8.2 | 8.0 | 8.4 | 8.8 | 9.1 | 9.3 | 9.3 | 59.2 |
| Residential/Comercial | 1.4 | 1.7 | 1.5 | 1.4 | 1.2 | 1.2 | 1.6 | 1.8 | 1.8 | 1.9 | 11.8 |
| **Natural gas final consumption, by sector** | **2.4** | **2.0** | **1.4** | **1.4** | **1.3** | **1.5** | **1.7** | **1.7** | **1.8** | **1.8** | **100.0** |
| Industry | 1.1 | 1.0 | 0.6 | 0.7 | 0.6 | 0.8 | 0.8 | 0.8 | 0.8 | 0.9 | 47.2 |
| Transport | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 1.0 |
| Residential/Comercial | 0.5 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 37.9 |
| **Refined products consumption** | **12.1** | **12.7** | **12.6** | **13.5** | **13.6** | **13.8** | **14.8** | **15.2** | **15.6** | **15.7** | **100.0** |
| Gasoline | 2.9 | 2.7 | 2.8 | 3.1 | 3.3 | 3.3 | 3.5 | 3.5 | 3.6 | 3.7 | 23.2 |
| Diesel | 5.9 | 6.7 | 6.5 | 7.1 | 6.8 | 7.5 | 8.0 | 8.2 | 8.6 | 8.7 | 55.4 |
| Heating Oil | 1.1 | 1.1 | 1.0 | 1.0 | 0.9 | 0.7 | 0.7 | 0.7 | 0.7 | 0.5 | 3.3 |
| Aviation Jet | 0.4 | 0.3 | 0.3 | 0.3 | 0.4 | 0.6 | 0.5 | 0.5 | 0.4 | 0.4 | 2.7 |
| LPG | 1.3 | 1.3 | 1.4 | 1.4 | 1.5 | 1.2 | 1.4 | 1.5 | 1.5 | 1.5 | 9.7 |
| **Imports** | **19.0** | **19.9** | **19.9** | **20.6** | **19.3** | **19.4** | **20.7** | **20.6** | **20.9** | **21.4** | **100.0** |
| Oil | 16.0 | 16.6 | 16.6 | 17.3 | 16.4 | 16.3 | 17.1 | 17.1 | 17.0 | 17.1 | 79.9 |
| Gas | 3.0 | 3.3 | 3.3 | 3.3 | 2.9 | 3.1 | 3.7 | 3.5 | 3.9 | 4.3 | 20.1 |
| Gasoline | 0.8 | 0.7 | 0.6 | 0.6 | 0.5 | 0.5 | 0.5 | 0.6 | 0.6 | 0.3 | 1.5 |
| Diesel | 4.7 | 4.6 | 5.0 | 5.1 | 5.1 | 5.4 | 5.8 | 5.4 | 5.4 | 5.7 | 26.8 |
| Heating Oil | 0.4 | 0.6 | 0.4 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Aviation Jet | 0.3 | 0.2 | 0.5 | 0.5 | 0.4 | 0.5 | 0.6 | 0.7 | 0.7 | 0.3 | 1.2 |
| LPG | 0.9 | 0.9 | 0.9 | 1.2 | 1.1 | 0.9 | 1.2 | 1.2 | 1.2 | 1.3 | 5.9 |
| **Exports** | **0.6** | **0.6** | **0.9** | **0.9** | **0.6** | **0.5** | **0.7** | **0.7** | **0.4** | **0.4** | **100.0** |
| Oil | 0.6 | 0.6 | 0.9 | 0.9 | 0.6 | 0.5 | 0.4 | 0.5 | 0.4 | 0.4 | 100.0 |
| Gas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.1 | 0.0 | 0.0 |
| Gasoline | 0.2 | 0.1 | 0.3 | 0.2 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 16.4 |
| Diesel | 0.3 | 0.3 | 0.4 | 0.4 | 0.4 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 15.7 |
| Heating Oil | 0.0 | 0.1 | 0.1 | 0.2 | 0.1 | 0.3 | 0.3 | 0.3 | 0.1 | 0.0 | 9.9 |
| 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 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 11.7 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **70.3** | **76.3** | **78.7** | **82.7** | **76.7** | **81.5** | **86.1** | **86.9** | **87.1** | **86.4** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **208.6** | **213.5** | **209.1** | **211.2** | **192.4** | **199.8** | **208.5** | **207.4** | **199.9** | **196.2** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **68.1** | **68.8** | **65.0** | **66.7** | **60.8** | **60.7** | **62.5** | **62.3** | **61.1** | **61.3** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **91.6** | **94.0** | **98.8** | **98.3** | **87.2** | **87.1** | **91.6** | **91.6** | **89.4** | **89.0** | **-** |

*Heat is included*

## Primary energy demand mix

Other renewables
3%

Biomass
21%

Hydro
4%

Coal
17%

Gas
13%

Oil
42%

2019: 39.20 Mtoe

## Electricity generation by source

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil ■ Gas ■ Coal ■ Hydro ■ Biomass ■ Wind ■ Solar ■ Other renewables

## Primary energy demand and CO$_2$ emissions growth

15%
10%
5%
0%
-5%
-10%
-15%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
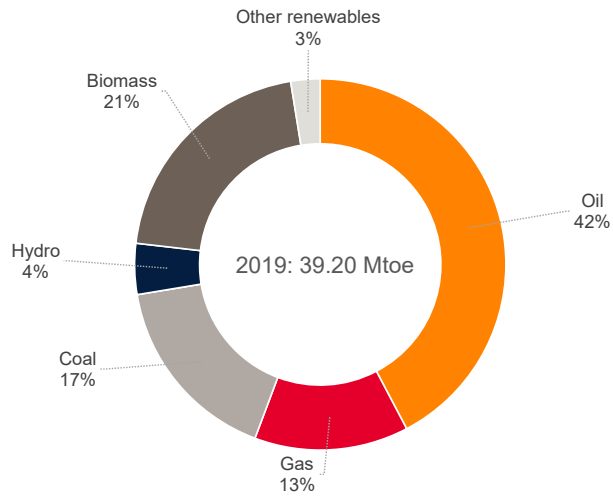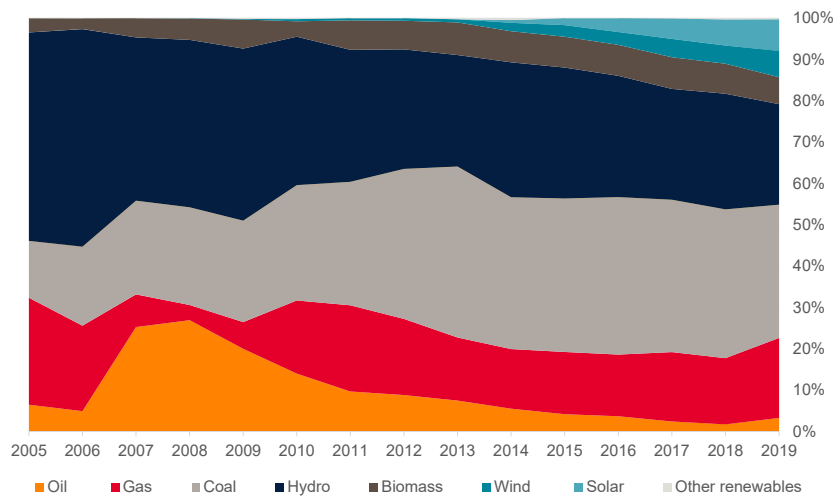
— Demand growth — Emissions growth

| **Colombia** *(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **31.2** | **31.3** | **31.5** | **38.7** | **38.8** | **38.7** | **40.8** | **38.4** | **38.9** | **40.5** | **100.0** |
| Oil | 12.6 | 12.6 | 13.0 | 14.5 | 14.1 | 14.1 | 15.1 | 14.4 | 15.0 | 15.4 | 38.1 |
| Gas | 8.2 | 7.6 | 7.9 | 9.8 | 10.3 | 10.1 | 9.6 | 9.8 | 10.2 | 10.6 | 26.3 |
| Coal | 3.2 | 3.5 | 2.9 | 4.7 | 4.8 | 5.1 | 6.7 | 4.1 | 3.5 | 5.0 | 12.4 |
| 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 | 4.2 | 4.1 | 4.3 | 4.1 | 4.2 | 4.2 | 5.3 | 5.2 | 4.8 | 11.7 |
| Biomass | 3.8 | 3.5 | 3.7 | 5.5 | 5.6 | 5.4 | 5.2 | 4.8 | 4.9 | 4.6 | 11.4 |
| 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* | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **Total final consumption, by source** | **22.4** | **25.1** | **24.7** | **28.4** | **29.6** | **29.0** | **31.4** | **29.6** | **30.3** | **30.9** | **100.0** |
| Oil | 10.1 | 11.7 | 12.1 | 12.0 | 12.8 | 12.8 | 13.3 | 13.2 | 13.9 | 14.2 | 45.9 |
| Gas | 3.6 | 3.7 | 3.8 | 3.7 | 3.9 | 3.8 | 4.1 | 4.1 | 4.0 | 4.6 | 15.0 |
| Coal | 1.6 | 2.6 | 1.7 | 2.7 | 2.7 | 2.3 | 4.1 | 2.7 | 2.7 | 2.8 | 9.2 |
| Electricity | 3.9 | 4.2 | 4.2 | 4.8 | 5.0 | 5.1 | 5.2 | 5.3 | 5.3 | 5.0 | 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 | 3.2 | 3.0 | 3.0 | 5.2 | 5.2 | 5.0 | 4.8 | 4.4 | 4.5 | 4.2 | 13.7 |
| **Electricity generation, by source** | **5.1** | **5.2** | **5.4** | **6.4** | **6.1** | **6.7** | **6.6** | **6.8** | **7.0** | **6.7** | **100.0** |
| Oil | 0.0 | 0.0 | 0.0 | 0.1 | 0.2 | 0.3 | 0.4 | 0.2 | 0.2 | 0.3 | 3.9 |
| Gas | 1.0 | 0.7 | 0.8 | 1.3 | 1.2 | 1.5 | 1.4 | 0.9 | 1.1 | 1.0 | 14.4 |
| Coal | 0.4 | 0.2 | 0.3 | 0.5 | 0.5 | 0.6 | 0.5 | 0.3 | 0.4 | 0.6 | 9.1 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 3.5 | 4.2 | 4.1 | 4.3 | 4.1 | 4.2 | 4.2 | 5.3 | 5.2 | 4.8 | 70.7 |
| Biomass | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.7 |
| 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 | 0.1 |
| 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** | **22.4** | **25.1** | **24.7** | **28.4** | **29.6** | **29.0** | **31.4** | **29.6** | **30.3** | **30.9** | **100.0** |
| Industry | 6.0 | 7.0 | 6.0 | 7.0 | 7.2 | 6.8 | 9.1 | 8.0 | 8.1 | 8.2 | 26.6 |
| Transport | 7.4 | 9.0 | 9.4 | 9.2 | 9.5 | 10.3 | 10.7 | 10.6 | 11.0 | 11.5 | 37.1 |
| Residential/Comercial | 6.4 | 6.5 | 6.7 | 8.3 | 8.5 | 8.2 | 8.2 | 8.0 | 8.2 | 8.3 | 26.7 |
| **Oil final consumption, by sector** | **10.1** | **11.7** | **12.1** | **12.0** | **12.8** | **12.8** | **13.3** | **13.2** | **13.9** | **14.2** | **100.0** |
| Industry | 0.6 | 0.3 | 0.4 | 0.2 | 0.2 | 0.2 | 0.5 | 0.6 | 0.7 | 0.7 | 5.0 |
| Transport | 6.8 | 8.4 | 8.9 | 8.5 | 8.9 | 9.6 | 10.1 | 10.1 | 10.5 | 10.9 | 77.1 |
| Residential/Comercial | 0.8 | 0.8 | 0.7 | 0.5 | 0.5 | 0.5 | 0.5 | 0.4 | 0.6 | 0.6 | 4.1 |
| **Natural gas final consumption, by sector** | **3.6** | **3.7** | **3.8** | **3.7** | **3.9** | **3.8** | **4.1** | **4.1** | **4.0** | **4.6** | **100.0** |
| Industry | 1.9 | 2.0 | 2.0 | 1.2 | 1.2 | 1.1 | 1.5 | 1.5 | 1.4 | 1.6 | 35.3 |
| Transport | 0.6 | 0.5 | 0.5 | 0.6 | 0.6 | 0.6 | 0.5 | 0.4 | 0.4 | 0.5 | 10.4 |
| Residential/Comercial | 1.1 | 1.2 | 1.3 | 1.3 | 1.3 | 1.3 | 1.3 | 1.4 | 1.5 | 1.7 | 36.2 |
| **Refined products consumption** | **9.8** | **11.7** | **12.1** | **12.0** | **12.8** | **12.8** | **13.3** | **13.2** | **13.9** | **14.2** | **100.0** |
| Gasoline | 2.9 | 3.6 | 3.7 | 3.9 | 4.2 | 4.7 | 5.2 | 5.3 | 5.5 | 5.7 | 40.5 |
| Diesel | 4.9 | 6.2 | 6.5 | 6.9 | 7.1 | 6.6 | 6.6 | 6.2 | 6.9 | 7.1 | 50.4 |
| Heating Oil | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.3 | 0.1 | 0.8 |
| 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 | 0.6 | 0.5 | 0.6 | 0.6 | 0.6 | 0.7 | 0.6 | 0.6 | 4.0 |
| **Imports** | **2.5** | **2.7** | **3.2** | **4.2** | **4.5** | **2.8** | **4.9** | **2.8** | **2.2** | **3.1** | **100.0** |
| Oil | 2.5 | 2.7 | 3.2 | 4.2 | 4.5 | 2.8 | 4.9 | 2.8 | 1.9 | 2.8 | 92.1 |
| Gas | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.2 | 7.9 |
| Gasoline | 0.0 | 0.3 | 0.5 | 0.6 | 0.6 | 0.6 | 1.6 | 1.5 | 1.1 | 1.7 | 54.7 |
| Diesel | 2.4 | 2.4 | 2.6 | 3.6 | 3.8 | 2.2 | 3.1 | 1.0 | 0.6 | 0.9 | 30.3 |
| Heating Oil | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 |
| Aviation Jet | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.1 | 0.1 | 2.7 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 4.3 |
| **Exports** | **30.5** | **37.9** | **39.0** | **39.9** | **46.0** | **43.8** | **36.0** | **36.6** | **34.7** | **35.9** | **100.0** |
| Oil | 29.3 | 36.4 | 37.5 | 38.3 | 45.2 | 43.6 | 36.0 | 36.6 | 34.7 | 35.9 | 100.0 |
| Gas | 1.2 | 1.6 | 1.4 | 1.6 | 0.8 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gasoline | 0.6 | 0.6 | 0.4 | 0.0 | 0.0 | 0.0 | 0.0 | 0.5 | 0.1 | 0.0 | 0.0 |
| Diesel | 0.8 | 0.8 | 0.7 | 0.7 | 0.0 | 0.0 | 0.7 | 0.9 | 1.6 | 1.8 | 5.0 |
| Heating Oil | 3.3 | 3.8 | 3.8 | 3.7 | 3.6 | 2.4 | 2.7 | 2.4 | 1.9 | 2.0 | 5.6 |
| 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 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **60.8** | **66.0** | **65.8** | **75.4** | **78.3** | **78.0** | **88.2** | **75.8** | **77.2** | **83.3** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **114.9** | **116.1** | **111.5** | **122.2** | **121.1** | **117.3** | **130.0** | **109.7** | **109.1** | **113.9** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **40.4** | **42.5** | **40.4** | **45.2** | **44.7** | **42.5** | **45.3** | **41.8** | **41.9** | **41.5** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **59.0** | **55.0** | **53.4** | **62.7** | **60.0** | **58.1** | **60.2** | **55.5** | **54.9** | **55.3** | **-** |

*Heat is included*

**Primary energy demand mix**

Biomass
11%

Hydro
12%

Coal
13%

2019: 40.45 Mtoe

Oil
38%

Gas
26%

**Electricity generation by source**

100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019

■ Oil  ■ Gas  ■ Coal  ■ Hydro  ■ Biomass  ■ Wind

**Primary energy demand and CO$_2$ emissions growth**

25%
20%
15%
10%
5%
0%
-5%
-10%
-15%
-20%

2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
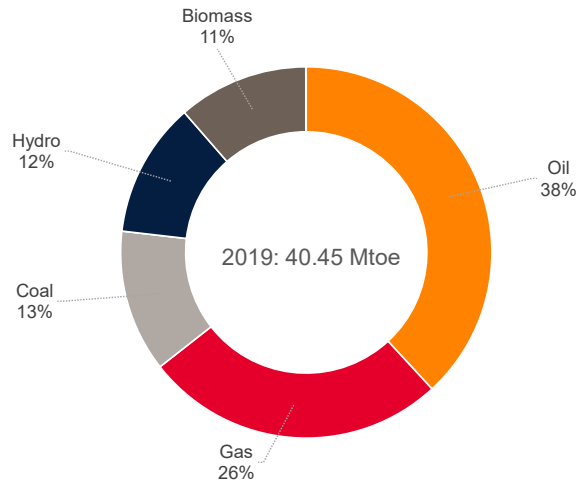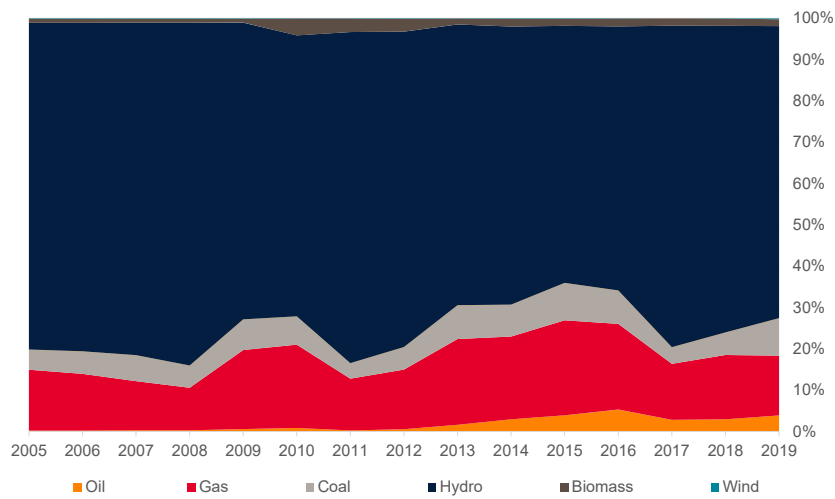
— Demand growth  — Emissions growth
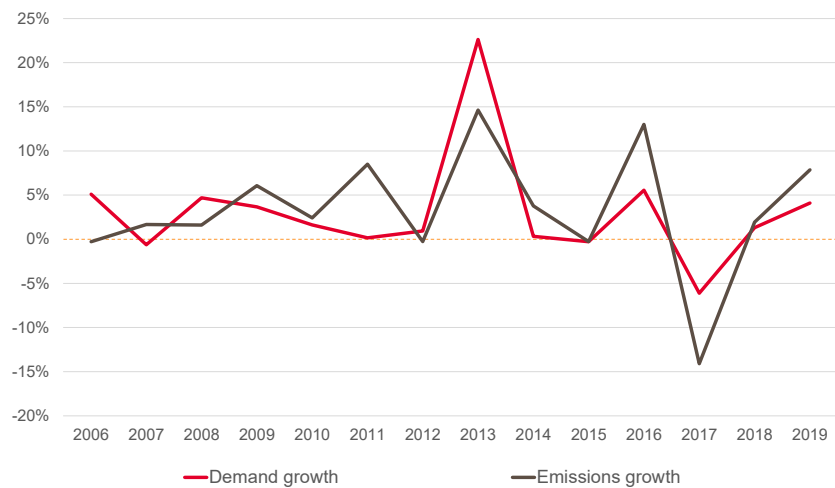
| Peru<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in<br>2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **17.6** | **20.2** | **21.7** | **20.8** | **22.0** | **22.7** | **23.6** | **23.2** | **25.4** | **25.2** | **100.0** |
| Oil | 5.8 | 7.6 | 8.5 | 7.9 | 7.5 | 8.3 | 8.7 | 9.4 | 11.2 | 10.9 | 43.1 |
| Gas | 5.5 | 6.5 | 6.8 | 6.4 | 8.0 | 7.9 | 8.3 | 7.0 | 7.3 | 7.4 | 29.2 |
| Coal | 0.9 | 0.7 | 0.8 | 0.9 | 0.8 | 0.8 | 0.9 | 0.7 | 0.7 | 0.7 | 2.7 |
| Nuclear | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Hydro | 1.7 | 1.9 | 1.8 | 1.9 | 1.9 | 2.0 | 2.1 | 2.5 | 2.6 | 2.7 | 10.7 |
| Biomass | 3.7 | 3.6 | 3.7 | 3.7 | 3.7 | 3.5 | 3.5 | 3.3 | 3.4 | 3.4 | 13.3 |
| Other renewables | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.2 | 0.2 | 0.8 |
| Electricity balance of trade* | -0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| **Total final consumption, by source** | **15.4** | **16.1** | **16.9** | **17.8** | **17.6** | **18.6** | **19.1** | **19.2** | **20.1** | **20.0** | **100.0** |
| Oil | 7.7 | 8.0 | 8.5 | 8.8 | 8.6 | 9.2 | 9.5 | 9.7 | 10.1 | 9.8 | 49.2 |
| Gas | 1.1 | 1.4 | 1.4 | 2.0 | 1.9 | 1.9 | 1.9 | 2.1 | 2.3 | 2.4 | 12.1 |
| Coal | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.6 | 0.5 | 0.6 | 0.6 | 2.8 |
| Electricity | 2.7 | 2.9 | 3.1 | 3.3 | 3.4 | 3.6 | 3.9 | 4.0 | 4.2 | 4.3 | 21.4 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 |
| Biomass | 3.2 | 3.1 | 3.3 | 3.2 | 3.1 | 3.1 | 3.2 | 2.8 | 2.9 | 2.9 | 14.3 |
| **Electricity generation, by source** | **3.1** | **3.4** | **3.4** | **3.7** | **3.9** | **4.1** | **4.4** | **4.5** | **4.7** | **4.9** | **100.0** |
| Oil | 0.2 | 0.2 | 0.1 | 0.1 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 1.2 |
| Gas | 1.1 | 1.2 | 1.3 | 1.6 | 1.8 | 1.9 | 2.0 | 1.7 | 1.8 | 1.9 | 38.3 |
| Coal | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | 0.0 | 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 | 1.7 | 1.9 | 1.8 | 1.9 | 1.9 | 2.0 | 2.1 | 2.5 | 2.6 | 2.7 | 55.2 |
| Biomass | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.0 | 0.0 | 0.0 | 0.0 | 0.8 |
| Wind | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 2.8 |
| Solar | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 1.4 |
| 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** | **15.4** | **16.1** | **16.9** | **17.8** | **17.6** | **18.6** | **19.1** | **19.2** | **20.1** | **20.0** | **100.0** |
| Industry | 4.3 | 4.6 | 4.5 | 5.1 | 5.1 | 5.3 | 5.2 | 5.4 | 5.7 | 5.8 | 28.9 |
| Transport | 5.8 | 6.1 | 6.4 | 6.9 | 6.9 | 7.5 | 8.2 | 8.3 | 8.6 | 8.5 | 42.5 |
| Residential/Comercial | 4.7 | 4.7 | 4.8 | 5.0 | 5.0 | 5.0 | 5.0 | 5.0 | 5.3 | 5.2 | 26.1 |
| **Oil final consumption, by sector** | **7.7** | **8.0** | **8.5** | **8.8** | **8.6** | **9.2** | **9.5** | **9.7** | **10.1** | **9.8** | **100.0** |
| Industry | 1.2 | 1.2 | 1.2 | 1.3 | 1.2 | 1.2 | 0.9 | 0.9 | 1.0 | 0.9 | 9.4 |
| Transport | 5.3 | 5.5 | 5.5 | 6.0 | 5.9 | 6.5 | 7.2 | 7.3 | 7.5 | 7.4 | 75.3 |
| Residential/Comercial | 0.8 | 0.9 | 0.9 | 1.0 | 1.0 | 1.1 | 1.1 | 1.2 | 1.2 | 1.2 | 11.9 |
| **Natural gas final consumption, by sector** | **1.1** | **1.4** | **1.4** | **2.0** | **1.9** | **1.9** | **1.9** | **2.1** | **2.3** | **2.4** | **100.0** |
| Industry | 0.7 | 0.8 | 0.8 | 1.2 | 1.0 | 1.1 | 1.1 | 1.3 | 1.2 | 1.3 | 54.7 |
| Transport | 0.4 | 0.4 | 0.6 | 0.6 | 0.6 | 0.6 | 0.6 | 0.7 | 0.7 | 0.7 | 30.1 |
| Residential/Comercial | 0.1 | 0.2 | 0.1 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.3 | 0.4 | 15.1 |
| **Refined products consumption** | **7.7** | **8.0** | **8.5** | **8.8** | **8.6** | **9.2** | **9.5** | **9.7** | **10.1** | **9.8** | **100.0** |
| Gasoline | 1.3 | 1.3 | 1.3 | 1.4 | 1.5 | 1.6 | 1.8 | 1.9 | 2.0 | 2.1 | 21.0 |
| Diesel | 4.3 | 4.5 | 4.5 | 4.7 | 4.6 | 5.1 | 5.2 | 5.1 | 5.2 | 5.0 | 50.9 |
| Heating Oil | 0.2 | 0.3 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.6 |
| Aviation Jet | 0.1 | 0.2 | 0.2 | 0.3 | 0.2 | 0.2 | 0.3 | 0.3 | 0.4 | 0.2 | 2.4 |
| LPG | 1.3 | 1.4 | 1.5 | 1.7 | 1.7 | 1.8 | 1.9 | 2.0 | 2.1 | 2.2 | 22.3 |
| **Imports** | **6.7** | **7.1** | **7.3** | **7.4** | **6.9** | **7.6** | **9.3** | **11.8** | **11.2** | **10.5** | **100.0** |
| Oil | 6.7 | 7.1 | 7.3 | 7.4 | 6.9 | 7.6 | 9.3 | 11.8 | 11.2 | 10.5 | 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 | 0.2 | 0.4 | 0.2 | 0.4 | 0.1 | 0.2 | 0.0 | 0.9 | 1.0 | 0.8 | 7.8 |
| Diesel | 1.4 | 1.6 | 1.7 | 2.4 | 2.4 | 2.7 | 3.6 | 3.6 | 3.5 | 3.4 | 32.6 |
| 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 | 0.1 | 0.1 | 0.1 | 0.2 | 0.4 | 0.3 | 0.5 | 0.4 | 0.4 | 4.0 |
| LPG | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.2 | 0.4 | 0.4 | 3.7 |
| **Exports** | **7.1** | **9.7** | **10.4** | **10.8** | **9.1** | **8.2** | **9.9** | **11.7** | **10.1** | **9.6** | **100.0** |
| Oil | 5.0 | 4.3 | 5.2 | 4.8 | 4.0 | 3.4 | 4.1 | 6.2 | 5.1 | 4.2 | 44.0 |
| Gas | 2.1 | 5.3 | 5.2 | 6.0 | 5.1 | 4.8 | 5.8 | 5.5 | 5.0 | 5.4 | 56.0 |
| Gasoline | 1.8 | 1.6 | 1.9 | 2.0 | 1.6 | 1.6 | 1.7 | 2.4 | 2.2 | 1.9 | 20.0 |
| Diesel | 0.1 | 0.1 | 0.0 | 0.1 | 0.0 | 0.0 | 0.4 | 0.5 | 0.4 | 0.3 | 2.7 |
| Heating Oil | 1.2 | 1.1 | 1.6 | 1.2 | 0.8 | 0.7 | 1.2 | 2.5 | 2.1 | 1.7 | 18.1 |
| Aviation Jet | 0.5 | 0.5 | 0.6 | 0.6 | 0.8 | 0.6 | 0.7 | 0.7 | 0.0 | 0.0 | 0.0 |
| LPG | 0.4 | 0.2 | 0.1 | 0.3 | 0.0 | 0.0 | 0.0 | 0.1 | 0.0 | 0.0 | 0.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **41.7** | **45.0** | **44.6** | **45.4** | **48.2** | **49.7** | **52.1** | **49.8** | **50.1** | **49.7** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **149.2** | **151.7** | **141.6** | **136.1** | **141.1** | **140.9** | **142.3** | **132.6** | **128.3** | **124.4** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **53.9** | **53.2** | **51.3** | **52.3** | **50.7** | **51.8** | **51.6** | **50.3** | **50.6** | **49.5** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **63.0** | **68.0** | **68.7** | **62.5** | **64.3** | **64.3** | **64.4** | **61.6** | **64.9** | **63.2** | **-** |

*Heat is included

## Primary energy demand mix



Biomass
13%

Hydro
10%

Coal
3%

2019: 25.25 Mtoe

Oil
44%

Gas
29%

## Electricity generation by source



Oil ■ Gas ■ Coal ■ Hydro ■ Biomass ■ Wind
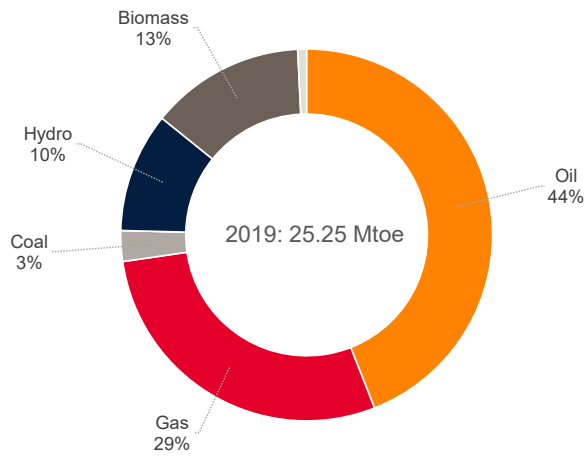
## Primary energy demand and CO$_2$ emissions growth
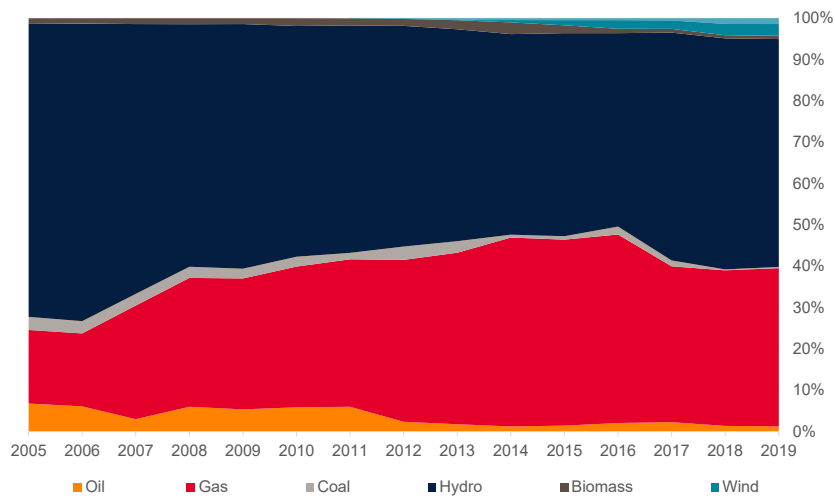


Demand growth       Emissions growth
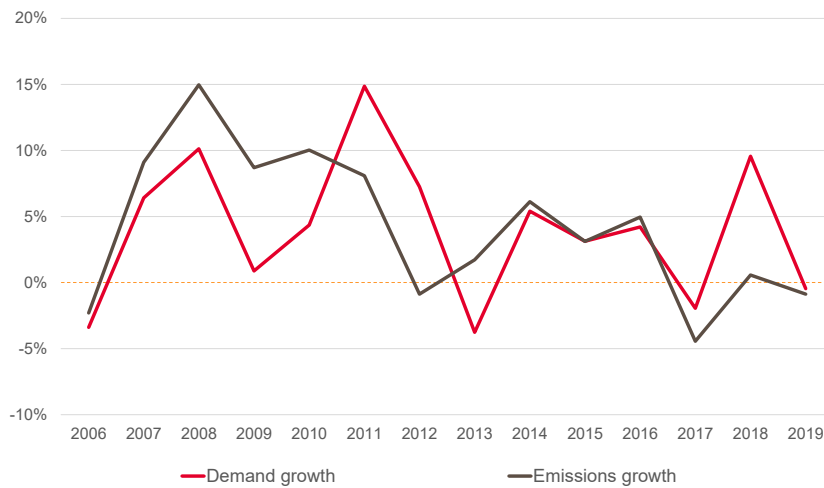
| Venezuela<br>*(Million toe)* | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | Share in 2019 (%) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Total primary energy demand, by source** | **72.4** | **67.3** | **73.1** | **68.8** | **65.5** | **60.0** | **55.6** | **49.8** | **43.8** | **38.7** | **100.0** |
| Oil | 44.0 | 38.1 | 43.2 | 39.3 | 38.7 | 32.4 | 28.2 | 22.7 | 20.1 | 17.6 | 45.5 |
| Gas | 20.8 | 20.9 | 21.7 | 21.2 | 20.4 | 20.3 | 21.3 | 20.9 | 18.0 | 14.9 | 38.4 |
| Coal | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 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 | 6.6 | 7.2 | 7.1 | 7.2 | 5.5 | 6.4 | 5.4 | 5.6 | 5.1 | 5.6 | 14.5 |
| Biomass | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 | 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 | 0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.1 | -0.3 |
| **Total final consumption, by source** | **49.2** | **42.6** | **46.8** | **43.9** | **42.6** | **38.2** | **33.0** | **29.8** | **26.6** | **24.9** | **100.0** |
| Oil | 27.5 | 25.3 | 29.3 | 26.3 | 27.8 | 22.2 | 19.9 | 16.6 | 14.6 | 13.5 | 54.2 |
| Gas | 13.6 | 8.9 | 9.0 | 8.2 | 7.6 | 7.9 | 6.2 | 6.4 | 6.0 | 5.7 | 22.7 |
| Coal | 0.2 | 0.2 | 0.2 | 0.2 | 0.2 | 0.1 | 0.1 | 0.1 | 0.1 | 0.1 | 0.3 |
| Electricity | 7.0 | 7.3 | 7.6 | 8.4 | 6.2 | 7.1 | 6.2 | 6.1 | 5.2 | 5.1 | 20.4 |
| Heat | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Biomass | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.8 | 0.7 | 0.6 | 0.6 | 0.6 | 2.4 |
| **Electricity generation, by source** | **9.8** | **10.1** | **10.5** | **10.6** | **8.9** | **10.6** | **9.3** | **9.2** | **7.8** | **7.6** | **100.0** |
| Oil | 1.5 | 1.5 | 1.7 | 1.6 | 1.5 | 1.7 | 1.5 | 1.2 | 0.9 | 0.8 | 9.9 |
| Gas | 1.6 | 1.5 | 1.7 | 1.8 | 1.8 | 2.4 | 2.3 | 2.4 | 1.8 | 1.2 | 16.4 |
| 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 | 6.6 | 7.2 | 7.1 | 7.2 | 5.5 | 6.4 | 5.4 | 5.6 | 5.1 | 5.6 | 73.6 |
| 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 | 0.0 | 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** | **49.2** | **42.6** | **46.8** | **43.9** | **42.6** | **38.2** | **33.0** | **29.8** | **26.6** | **24.9** | **100.0** |
| Industry | 25.1 | 20.1 | 20.9 | 20.8 | 17.6 | 14.4 | 12.0 | 11.3 | 10.4 | 9.7 | 38.8 |
| Transport | 16.4 | 14.7 | 18.0 | 15.0 | 17.0 | 15.5 | 13.6 | 11.5 | 10.1 | 9.4 | 37.8 |
| Residential/Comercial | 6.7 | 6.7 | 7.0 | 7.0 | 7.0 | 7.4 | 6.6 | 6.4 | 5.6 | 5.3 | 21.5 |
| **Oil final consumption, by sector** | **27.5** | **25.3** | **29.3** | **26.3** | **27.8** | **22.2** | **19.9** | **16.6** | **14.6** | **13.5** | **100.0** |
| Industry | 8.9 | 8.2 | 8.8 | 8.6 | 8.1 | 4.7 | 4.4 | 3.6 | 3.2 | 2.9 | 21.7 |
| Transport | 16.4 | 14.6 | 17.9 | 15.0 | 17.0 | 15.4 | 13.6 | 11.5 | 10.1 | 9.4 | 69.7 |
| Residential/Comercial | 1.3 | 1.5 | 1.6 | 1.7 | 1.7 | 1.2 | 1.1 | 0.9 | 0.8 | 0.7 | 5.4 |
| **Natural gas final consumption, by sector** | **13.6** | **8.9** | **9.0** | **8.2** | **7.6** | **7.9** | **6.2** | **6.4** | **6.0** | **5.7** | **100.0** |
| Industry | 12.3 | 8.0 | 8.0 | 7.2 | 6.6 | 6.8 | 5.1 | 5.3 | 5.0 | 4.7 | 83.3 |
| 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 | 0.9 | 1.0 | 1.0 | 1.0 | 1.2 | 1.0 | 1.1 | 1.0 | 0.9 | 16.6 |
| **Refined products consumption** | **27.5** | **25.3** | **29.3** | **26.3** | **27.8** | **22.2** | **19.9** | **16.6** | **14.6** | **13.5** | **100.0** |
| Gasoline | 13.4 | 11.5 | 14.1 | 11.4 | 12.8 | 12.5 | 10.9 | 9.4 | 8.2 | 7.7 | 56.8 |
| Diesel | 6.5 | 4.9 | 6.1 | 5.7 | 6.7 | 4.6 | 4.1 | 3.2 | 3.0 | 2.7 | 20.0 |
| Heating Oil | 3.2 | 3.9 | 3.8 | 3.6 | 2.6 | 1.0 | 0.9 | 0.8 | 0.8 | 0.7 | 5.4 |
| 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 | 3.5 | 4.1 | 4.2 | 4.5 | 4.6 | 3.2 | 3.1 | 2.5 | 2.2 | 1.9 | 14.3 |
| **Imports** | **2.6** | **1.6** | **3.3** | **3.8** | **0.7** | **1.4** | **1.4** | **1.5** | **2.3** | **3.1** | **100.0** |
| Oil | 1.0 | 0.0 | 1.9 | 2.2 | 0.0 | 1.1 | 1.4 | 1.5 | 2.3 | 3.1 | 100.0 |
| Gas | 1.7 | 1.6 | 1.4 | 1.6 | 0.7 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Gasoline | 0.0 | 0.0 | 0.4 | 0.3 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Diesel | 0.8 | 0.0 | 1.4 | 1.9 | 0.0 | 1.1 | 1.4 | 1.5 | 2.3 | 3.1 | 100.0 |
| Heating Oil | 0.1 | 0.0 | 0.1 | 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** | **126.2** | **131.0** | **122.0** | **123.7** | **117.5** | **122.7** | **112.0** | **100.7** | **72.5** | **47.4** | **100.0** |
| Oil | 126.2 | 131.0 | 122.0 | 123.7 | 117.5 | 122.7 | 112.0 | 100.7 | 72.5 | 47.4 | 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 | 0.5 | 1.3 | 0.4 | 0.4 | 0.5 | 1.6 | 0.7 | 0.8 | 0.3 | 0.2 | 0.4 |
| Diesel | 3.5 | 7.1 | 2.5 | 0.5 | 1.3 | 0.8 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| Heating Oil | 9.1 | 11.2 | 10.7 | 8.9 | 10.4 | 11.0 | 12.6 | 10.4 | 8.6 | 6.1 | 12.8 |
| Aviation Jet | 3.1 | 3.6 | 3.0 | 2.3 | 2.5 | 2.3 | 1.4 | 0.9 | 0.6 | 0.4 | 0.9 |
| LPG | 1.7 | 2.5 | 2.7 | 2.3 | 2.2 | 0.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 |
| **$CO_2$ Emissions *(Million tons $CO_2$)*** | **171.7** | **146.0** | **164.3** | **152.5** | **151.9** | **140.8** | **127.6** | **113.9** | **99.6** | **86.6** | **-** |
| **$CO_2$ Intensity *(t$CO_2$/million \$15ppp)*** | **334.8** | **273.2** | **291.1** | **266.6** | **276.3** | **273.1** | **298.3** | **315.8** | **343.6** | **459.4** | **-** |
| **Final energy intensity *(toe/million \$15ppp)*** | **94.0** | **77.9** | **81.2** | **75.0** | **75.7** | **72.3** | **75.4** | **80.8** | **90.0** | **129.7** | **-** |
| **Total energy intensity *(toe/million \$15ppp)*** | **141.2** | **125.9** | **129.6** | **120.3** | **119.1** | **116.4** | **130.0** | **138.2** | **151.0** | **205.3** | **-** |

*Heat is included*

**Primary energy demand mix**

Biomass
2%

Hydro
15%

Oil
45%

2019: 38.69 Mtoe

Gas
38%

**Electricity generation by source**

- Oil
- Gas
- Hydro
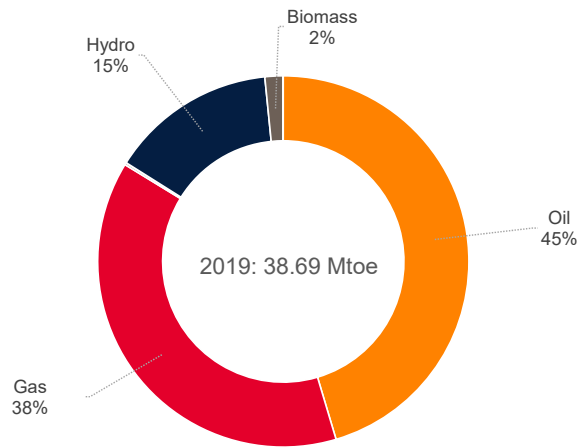
**Primary energy demand and CO$_2$ emissions growth**
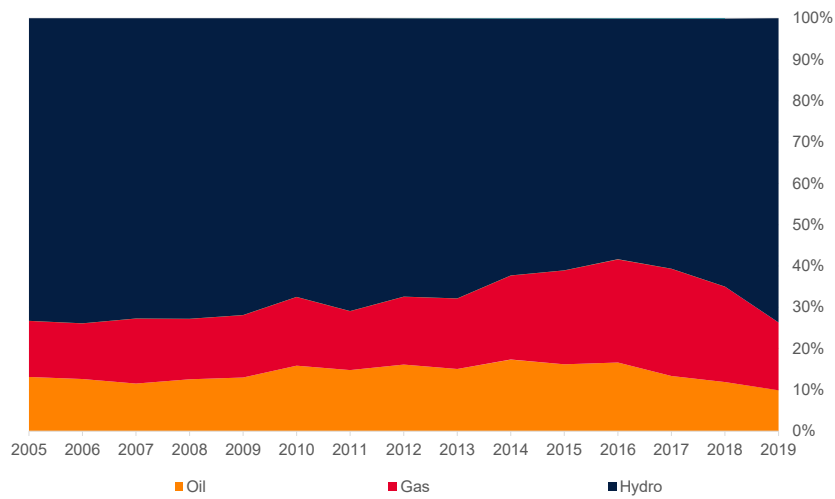
— Demand growth
— Emissions growth
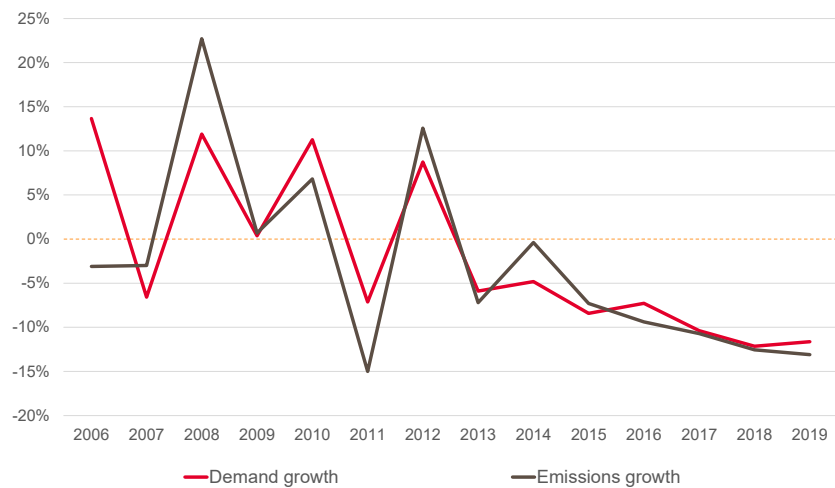
# Conversion factors

## 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 litros 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).

### $CO_2$ Emissions

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

### $CO_2$ Intensity to GDP

Amount of $CO_2$ emitted to produce one unit of Gross Domestic Product (GDP). In this publication it is presented in year 2015 real terms in purchasing power parity (ppp).

### Primary Energy Intensity to GDP

Primary energy consumed to produce one unit of Gross Domestic Product (GDP). Non-energy uses are excluded. In this publication it is presented in year 2015 real terms in purchasing power parity (ppp).

### Final Energy Intensity to GDP

Final energy consumed to produce one unit of Gross Domestic Product (GDP). Non-energy uses are excluded. In this publication it is presented in year 2015 real terms in purchasing power parity (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.