

DENMARK

Sources

Prices and taxes data for oil products are provided on a quarterly basis by the **Danish Competition and Consumer Authority (KFST)**.

Prices and taxes data for natural gas and electricity for households are provided on a quarterly basis by the **Danish Energy Agency (DEA)**.

Energy price indices for oil products, natural gas, electricity and coal are derived from data extracted from the **Statistics Denmark** website.

Data collection methodology

From 1Q1993 onwards, quarterly prices refer to the average of the daily prices. From 1Q1985 to 4Q1992, quarterly prices refer to the second month of each quarter. Prior to 1Q1985, prices refer to the first month of each quarter.

Oil products

Monthly ex-tax prices for oil products are collected by KFST every quarter from the five largest companies in the retail and wholesale markets.

For low sulphur fuel oil, light fuel oil, automotive diesel, unleaded premium (95 RON) gasoline and regular unleaded gasoline, companies report their sales volumes to commercial and non-commercial users, their effective average ex-tax prices, and the effective discounts from their list prices. The average ex-tax prices are calculated as volume-weighted averages of the data submitted by companies. End-use prices are calculated by adding the applicable taxes to the ex-tax prices.

Heavy fuel oil use for electricity generation is currently negligible and prices are therefore not available.

Natural gas

From 1Q2007 onwards, prices for industry refer to the Eurostat consumption bands I1, I2, I3, I4 and I5. Prices for households refer to the single unit price charged to the residential consumers, which does not depend on consumption, as reported to Eurostat.

National average prices for industry are computed by the DEA as consumption-weighted averages of the average prices per band published by Eurostat. From 2Q2017 onwards, the weights used for this calculation are the bi-annual consumption figures per band collected through surveys. Prior, the weights used for this calculation were the most recent available (maximum two years old).

Eurostat data are bi-annual, therefore, prices for 1Q and 2Q are the same, as are those for 3Q and 4Q.

Excise taxes are calculated as the subtraction of the prices excluding taxes from the prices including non-VAT taxes, as published by Eurostat.

Electricity

From 1Q2008 onwards, prices refer to the Eurostat consumption bands DA, DB, DC, DD and DE for households; and bands IB, IC, ID, IE and IF, for industry.

National average prices for industry are computed by the DEA as consumption-weighted averages of the average prices per band published by Eurostat. From 2014 onwards, the weights used for this calculation are bi-annual consumption figures per band collected through surveys. Prior to 2014, the weights used for this calculation were the most recent available (maximum two years old).

National average prices for households are calculated as the simple average across consumption bands, as the consumption distribution across bands is currently not known.

Eurostat data are bi-annual, therefore, prices for 1Q and 2Q are the same, as are those for 3Q and 4Q.

Excise taxes are calculated as the subtraction of the prices excluding taxes from the prices including non-VAT taxes, as published by Eurostat.

Energy price indices

Annual indices are 12-month averages. Quarterly indices refer to the 3-month average.

The wholesale index for oil products refers to the Producer Price Indices (PPIs) for gasoline, gas oil, heating oils, imported lubrication oils and other oils, calculated by the IEA using component indices and weights published by Statistics Denmark.

The retail index for oil products refers to a consumption-weighted average of the Consumer Price Indices (CPIs) for *liquid fuels* and *fuels and lubricants for personal transport equipment*.

The retail price index for electricity refers to the CPI for *electricity*.

The retail price index for natural gas refers to the CPI for *gas*.

The retail price index for coal refers to the CPI for *solid fuels*.

Energy taxation

VAT

VAT (*MOMS*) applies to all energy products. VAT is refunded for purchases for commercial purposes. Therefore,

it is not included in prices shown for the industrial and electricity generation sectors, as well as for automotive fuels for commercial use.

From	To	%
01.01.78	01.10.78	18
02.10.78	30.06.80	20
01.07.80	31.12.91	22
01.01.92	now	25

Excise tax

The legal framework in place in Denmark is consistent with the 2003 EU Energy Taxation Directive.

Starting in 2016, energy tax rates in Denmark have been indexed every year to reflect changes in the CPI, using the rates applicable to 2015 as a basis.

This CPI-indexation is used to update the tax rates for the Sulphur tax, Nitrogen oxide tax, Carbon dioxide tax, Mineral oil tax, Natural gas tax, Coal tax and Electricity tax.

Tax applicability table (not exhaustive)

	HSFO/LFO	LFO	Diesel	Gasoline	LPG	Natural gas	Steam coal	Coking coal	Electricity
Mineral oil tax		x	x	x	x				
CO ₂ tax	x	x	x	x	x	x	x	x	
Nitrogen oxide tax	x	x	x	x	x	x	x	x	
Sulphur tax	x						x	x	
Natural gas tax						x			
Coal tax							x	x	
Electricity tax									x

Mineral oil tax (*Mineraolieafgift*)

The Mineral oil tax is legally defined in the Mineral Oil Tax Act (no. 1118 of 26 September 2014). It does not apply to fuels sold in the Faroe Islands or Greenland.

Industrial users are entitled to a full refund on their tax expenditures. Heavy fuel oil, used exclusively in industry, is therefore effectively tax free.

Fuels used for electricity generation are exempt as a specific tax is levied on electricity.

CO₂ tax (*Kuldioxidafgift*)

The CO₂ tax is legally defined in the CO₂ Tax Act (No. 321 of 4 April 2011). It does not apply to fuels sold in the Faroe Islands or Greenland.

Nitrogen oxide tax (*Kvælstofoxiderafgift*)

The Nitrogen oxide tax is legally defined in the Nitrogen Oxide Tax Act (no. 472 of 17 June 2008), which first came into effect on 1 January 2010. It does not apply to fuels sold in the Faroe Islands or Greenland.

Rates applicable to commercial energy products (except electricity) are derived from a tax rate expressed in Danish crowns per kilogram of NO₂ equivalents. Introduction in 2010 at the rate of 5 DKK/kg, it was progressively raised to reach 26.4 DKK/kg in January 2015.

Sulphur tax (*Svovlafgift*)

The Sulphur tax is legally defined in the Sulphur Tax Act (no. 78 of 8 February 2006). It does not apply to fuels sold in the Faroe Islands or Greenland.

The tax applies to oil products and coal with sulphur content exceeding 0.05% in mass. Rates applicable to commercial energy products are derived from a tax rate expressed in Danish crowns per kilogram of sulphur. The current rate of 23 DKK/kg was reached after gradual increases of the tax rate since its introduction.

Natural gas tax (*Gasafgift*)

The Natural gas tax is legally defined in the Natural Gas Tax Act (no. 312 of 1 April 2011). Natural gas for electricity generation is exempt as a specific tax is levied on electricity.

Tax rates are expressed in Danish crowns per Normal cubic meter (Nm³), and a different tax rate applies depending on the calorific value of the fuel. In the tables shown at the end of this section, the rates for natural gas refer to a gross calorific value below 39.6 MJ/Nm³.

Coal tax (*Kulafgift*)

The Coal tax is legally defined in the Coal Tax Act (no. 1080 of 3 September 2015). It does not apply to fuels sold in the Faroe Islands or Greenland.

Coal used for electricity generation is exempt as a specific tax is levied on electricity. Coal used in chemical reduction processes, including coking coal, is also exempt.

Electricity tax (*Elafgift*)

The Electricity tax is legally defined in the Electricity Tax Act (no. 310 of 1 April 2011). It does not apply to electricity sold in the Faroe Islands or Greenland.

Until 1 January 2014, the electricity tax included several minor surcharges (*tillægsafgift*) related to energy savings, distribution and CO₂ emissions. In the tables shown at the end of this section, rates until 31 December 2013 include these minor components, which were subsequently integrated into the main electricity tax.

Mineral oil tax (*Mineraolieafgift*)

From	To	Light fuel oil (DKK/1000l)	Automotive diesel (DKK/l)	Gasoline (DKK/l)
01.01.05	31.12.07	1857	2.487	3.810
01.01.08	07.07.08	1890	2.598	3.879
08.07.08	31.12.08	1890	2.598	3.849
01.01.09	31.12.09	1924	2.479	3.959
01.01.10	28.10.10	2056	2.524	3.881
29.10.10	31.12.10	2056	2.524	3.815
01.01.11	31.12.11	2093	2.511	3.884
01.01.12	31.12.12	2131	2.521	3.954
01.01.13	31.01.13	2169	2.565	3.993
01.02.13	31.12.13	2531	2.565	3.993
01.01.14	31.12.14	2577	2.612	4.064
01.01.15	31.12.15	1955	2.660	4.137
01.01.16	31.12.16	1971	2.681	4.170
01.01.17	31.12.17	1982	2.697	4.193
01.01.18	31.12.18	1992	2.711	4.216
01.01.19	now	2016	2.742	4.265

CO₂ tax (*Kuldioxidafgift*)

From	To	Heavy fuel oil (DKK/tonne)	Light fuel oil (DKK/1000l)	Automotive diesel (DKK/l)	Gasoline (DKK/l)	Natural gas (DKK/MWh)
01.01.05	31.12.05	288	243	0.243	0.220	
01.01.06	31.12.06	288	243	0.243	0.220	16.2
01.01.07	31.12.07	288	243	0.243	0.220	16.5
01.01.08	31.12.08	293	247	0.247	0.224	16.5
01.01.09	31.12.09	298	252	0.252	0.228	16.8
01.01.10	28.10.10	493	413	0.413	0.373	28.7
29.10.10	31.12.10	493	413	0.413	0.355	28.7
01.01.11	31.05.11	502	420	0.420	0.361	29.2
01.06.11	31.12.11	502	420	0.391	0.361	29.2
01.01.12	31.12.12	511	428	0.399	0.367	29.8
01.01.13	31.12.13	520	435	0.405	0.374	30.3
01.01.14	31.12.14	529	443	0.413	0.381	30.8
01.01.15	31.12.15	539	451	0.420	0.388	31.4
01.01.16	31.12.16	543	455	0.423	0.391	31.6
01.01.17	31.12.17	547	457	0.426	0.393	31.8
01.01.18	31.12.18	549	460	0.428	0.395	31.9
01.01.19	now	556	465	0.433	0.400	n.a.

Nitrogen oxide tax (*Kvælstofoxiderafgift*)

From	To	Heavy fuel oil (DKK/tonne)	Light fuel oil (DKK/1000l)	Automotive diesel (DKK/l)	Gasoline (DKK/l)	Natural gas (DKK/MWh)
01.01.14	31.12.14	147	46	0.046	0.043	n.a.
01.01.15	31.12.15	150	47	0.047	0.043	3.44
01.01.16	30.06.16	151	47	0.047	0.043	3.44
01.07.16	31.12.17	28	9	0.009	0.009	0.65
01.01.18	now	29	9	0.009	0.009	0.65

Sulphur tax (*Svovlafgift*)

From	To	Heavy fuel oil (DKK/tonne)
01.01.00	31.12.07	100
01.01.08	31.12.08	102
01.01.09	31.12.09	104
01.01.10	31.12.10	105
01.01.11	31.12.11	107
01.01.12	31.12.12	109
01.01.13	31.12.13	111
01.01.14	31.12.14	113
01.01.15	31.12.15	115
01.01.16	31.12.16	116
01.01.17	31.12.17	116.5
01.01.18	31.12.18	117
01.01.19	now	118.5

Natural gas and electricity taxes (*Gasafgift / Elafgift*)

From	To	Natural gas (DKK/MWh)	Electricity households (DKK/MWh)
01.01.07	31.12.07	167.1	666
01.01.08	31.12.08	170.1	675
01.01.09	31.12.09	173.1	685
01.01.10	31.12.10	185.7	721
01.01.11	31.12.11	189.1	793
01.01.12	31.12.12	192.5	806
01.01.13	31.12.13	196.0	820
01.01.14	31.12.14	232.8	833
01.01.15	31.12.15	176.6	878
01.01.16	31.12.16	178.0	885
01.01.17	31.12.17	179.1	910
01.01.18	now	180.0	914

Product specifications

	Low sulphur fuel oil	Light fuel oil	Automotive diesel	Premium unleaded (95 RON) gasoline	Natural gas
Quality	Svær fuelolie	Fyringsolie	Diesel		
Cetane number			46		
Density (kg/l)	0.975	0.8594	0.845		
Sulphur content (%)	0.5				
Lead content (g/l)				0.05	
NCV (kcal/kg)	9 650	10 175	10 175		
GCV (kcal/m ³)					10 509
Delivery size (tonnes/year)	≥ 1 000	2 - 5			