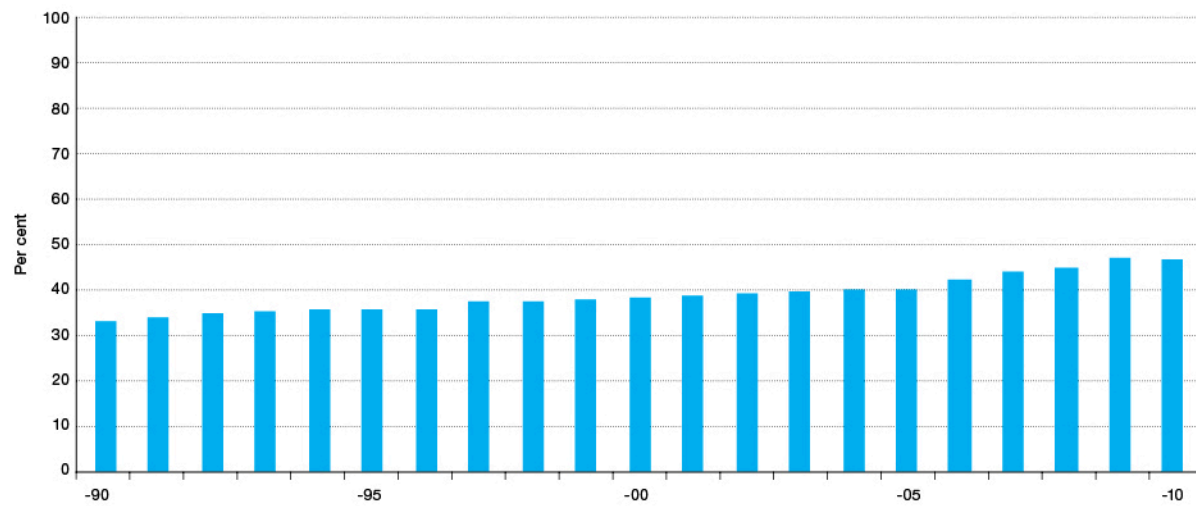


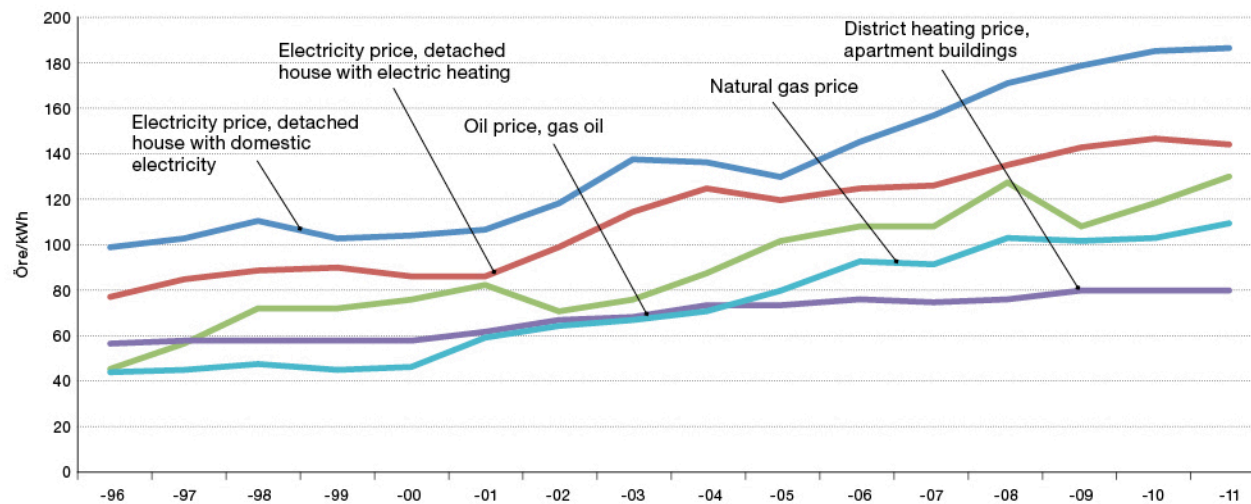
Proportion of energy use in Sweden from renewable sources, 1990–2010



Source: Swedish Energy Agency and Eurostat.

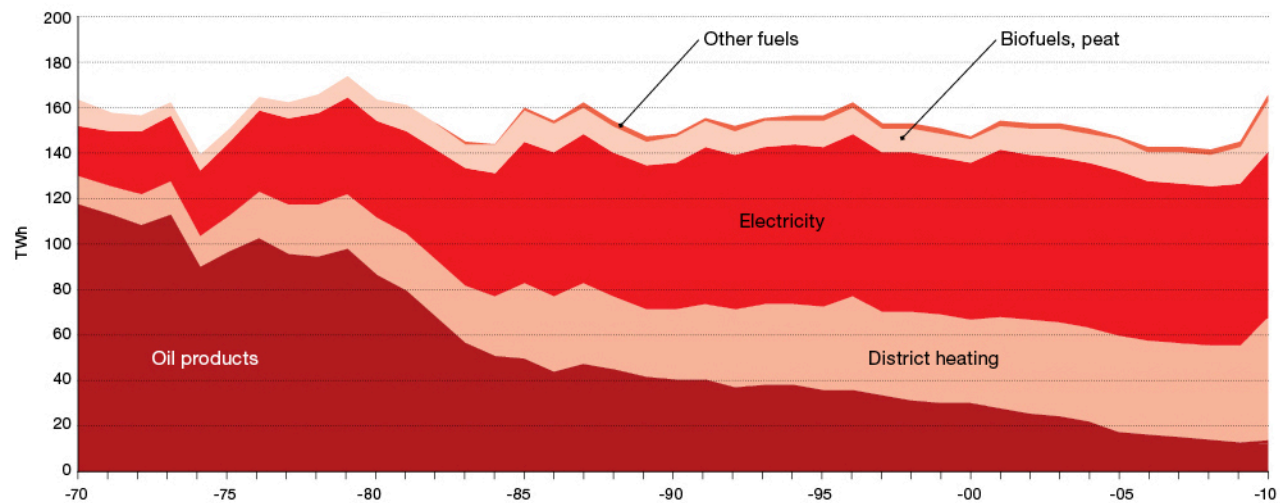
Note: Calculations in accordance with the Renewables Directive. Data for 2005–2009 differs from that for earlier years.

Energy prices in the residential and service sector, 1996–2011



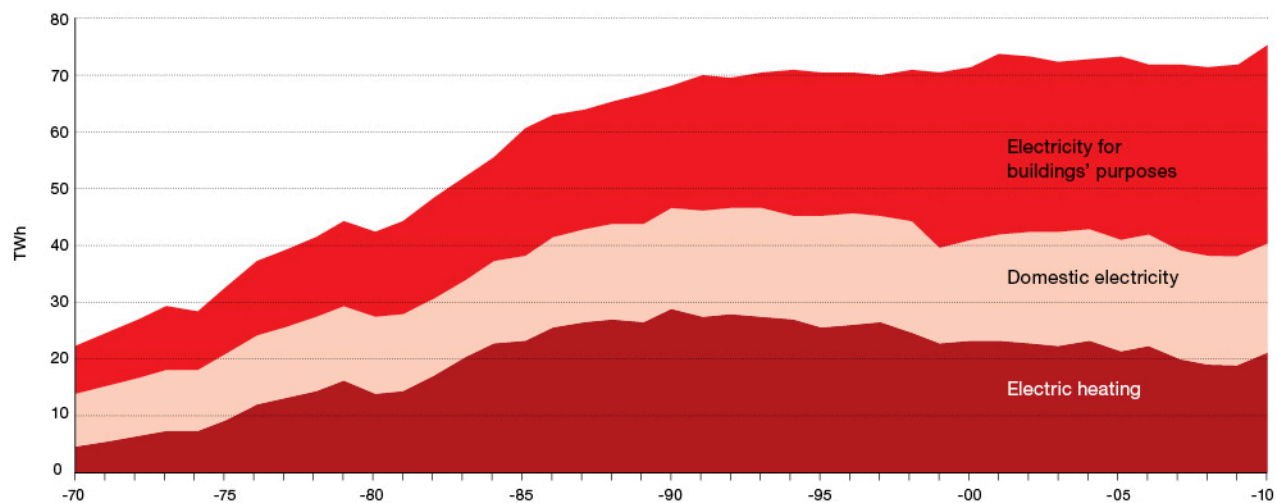
Source: Swedish Energy Agency and Statistics Sweden

Final energy use in the residential and service sector, 1970–2010, TWh



Source: Swedish Energy Agency and Statistics Sweden.

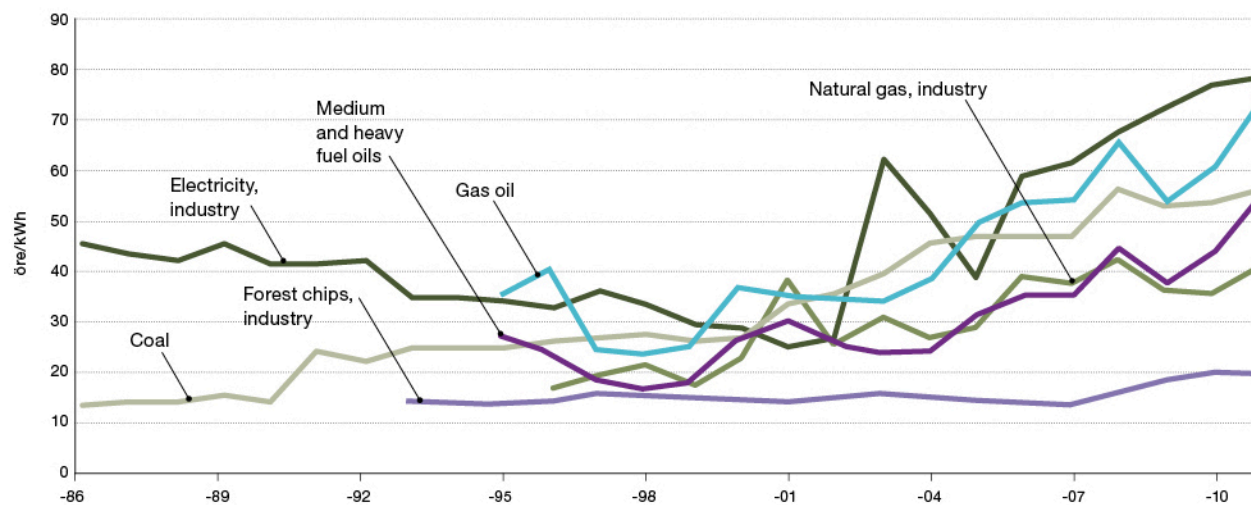
Electricity use in the residential and service sector, 1970–2010, TWh



Source: Swedish Energy Agency and Statistics Sweden.

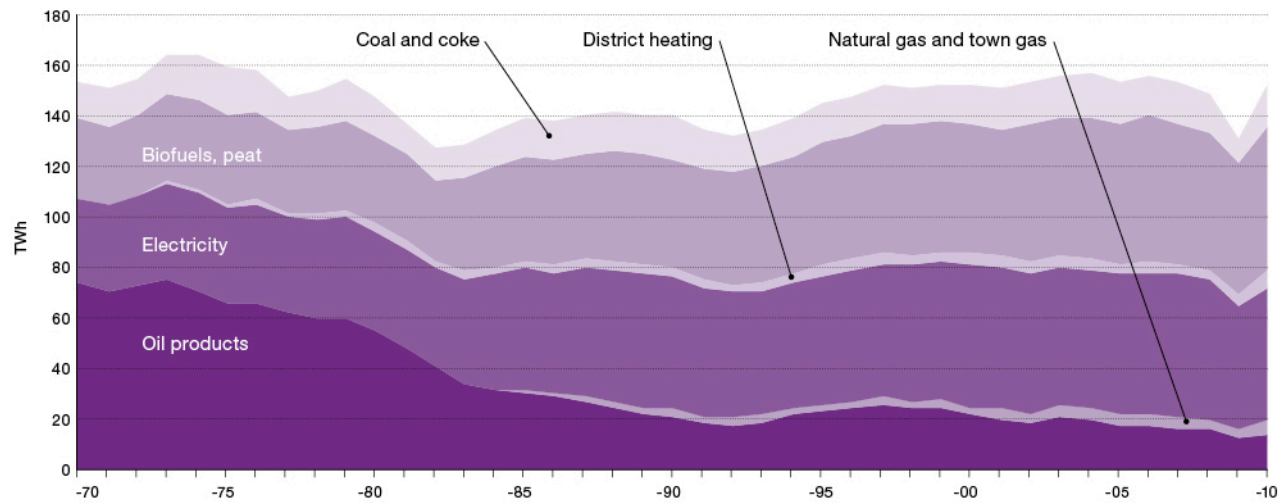
Note: Correction for statistically average climate year conditions has been applied, in accordance with the Swedish Energy Agency's method.

Real energy prices for industry in Sweden, including energy taxes, 1986–2011, öre per kWh



Source: Swedish Energy Agency and Statistics Sweden.

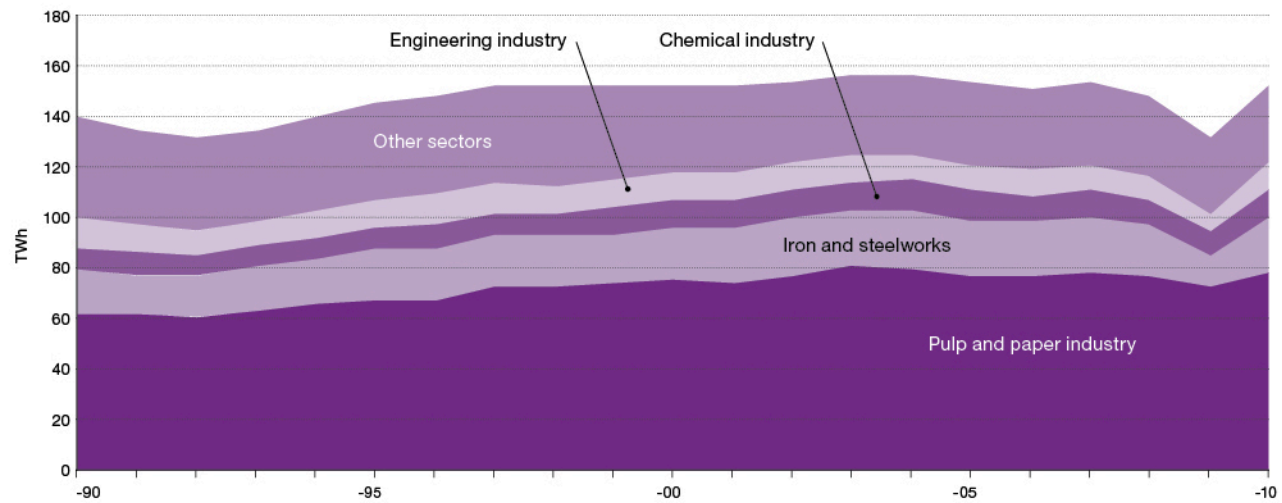
Final energy use in the industry sector, 1970–2010, TWh



Source: Swedish Energy Agency and Statistics Sweden.

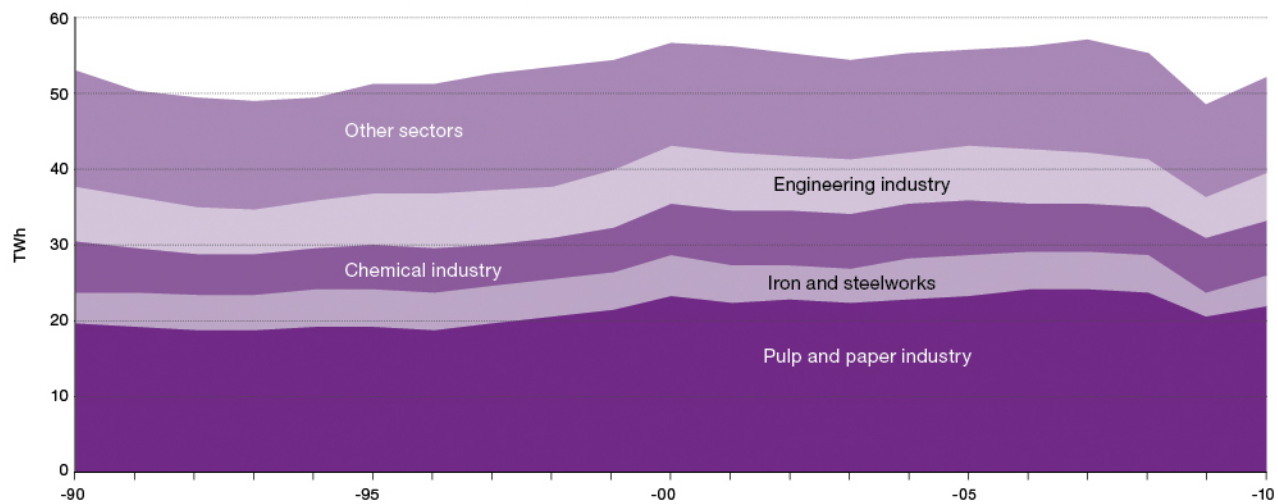
Note: See Secondary Energy Carriers on Page 44.

Energy use in industry, by sector, 1990–2010, TWh



Source: Swedish Energy Agency and Statistics Sweden.

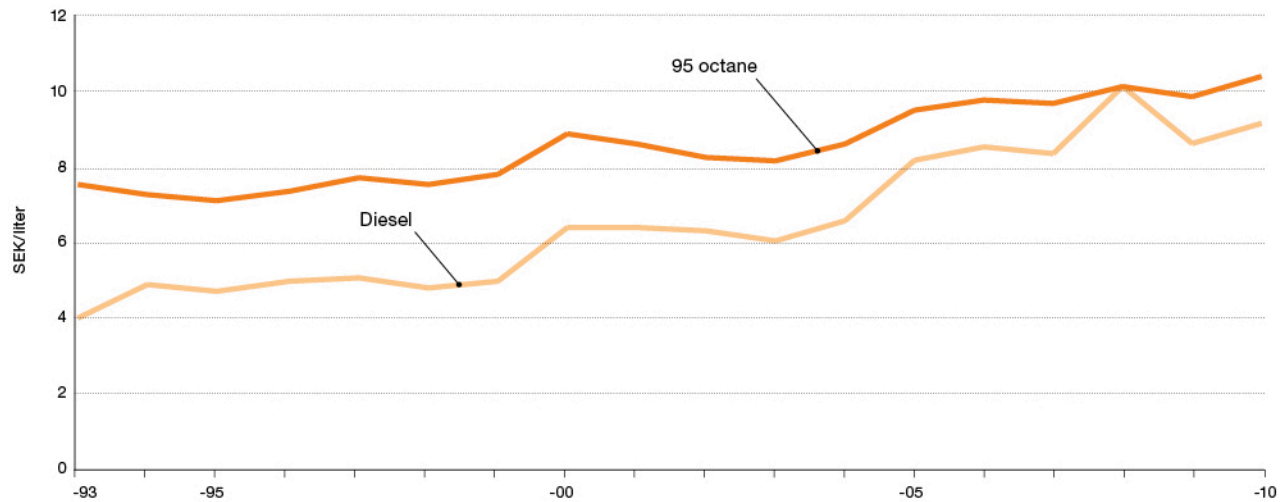
Electricity use in industry, by sector, 1990–2010, TWh



Source: Swedish Energy Agency and Statistics Sweden.

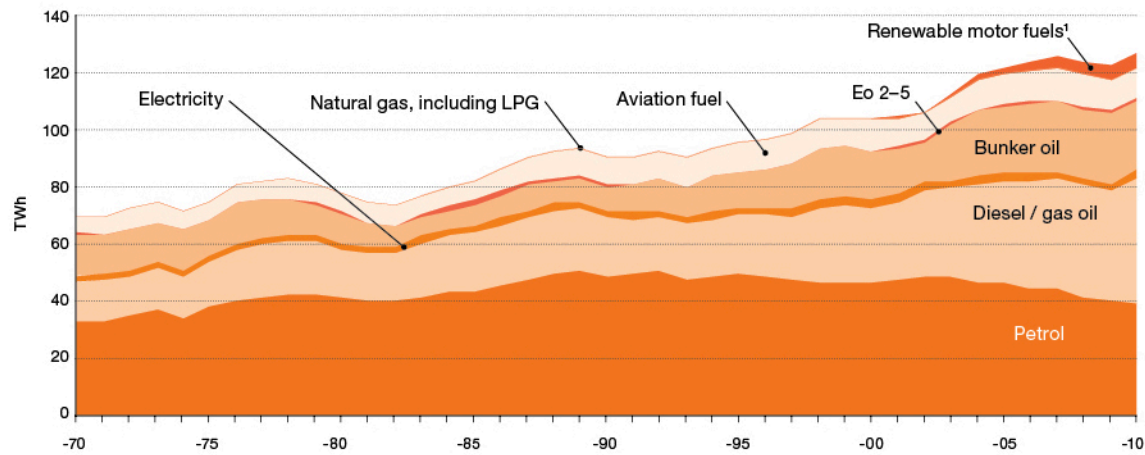


Real annual average prices for motor fuels in Sweden, including energy taxes but excluding VAT, 1993–2010, SEK/liter



Source: Swedish Energy Agency and Statistics Sweden.

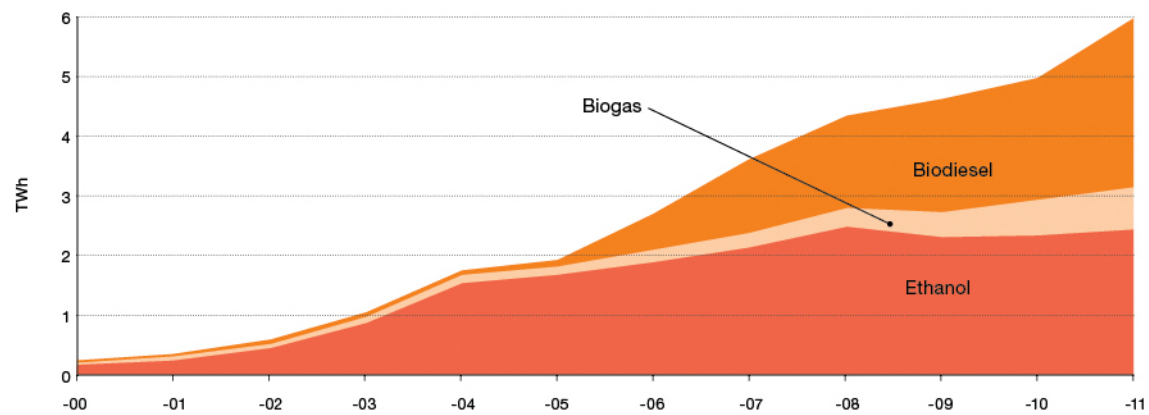
Final energy use in the transport sector, 1970–2010, including overseas transport, TWh



Source: Swedish Energy Agency, SCB and Energigas Sverige.

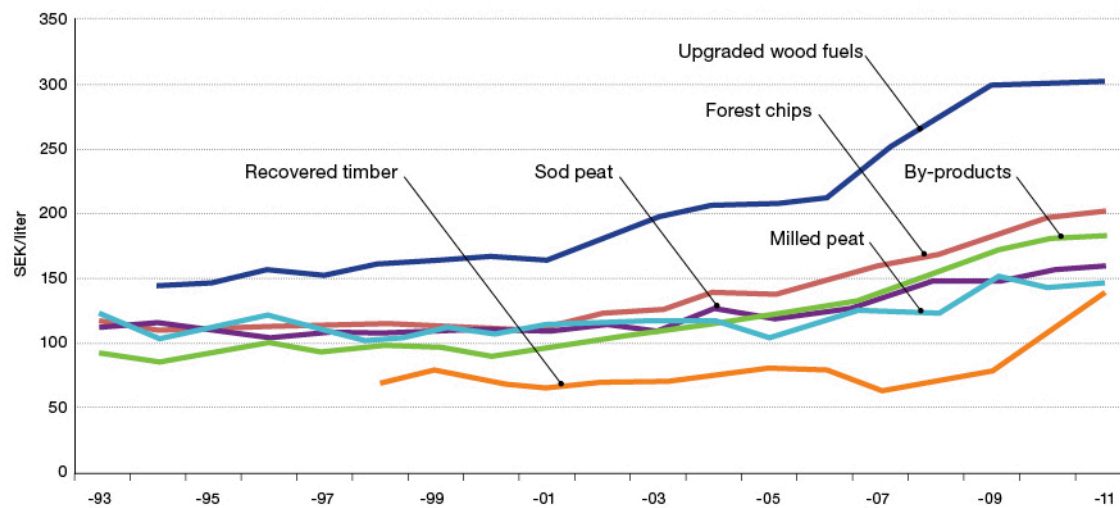
Note: 1. Quantity for 1999 is for ethanol alone. Quantities for following years include ethanol, FAME and biogas.

Final energy use of renewable motor fuels, 2000–2011, TWh



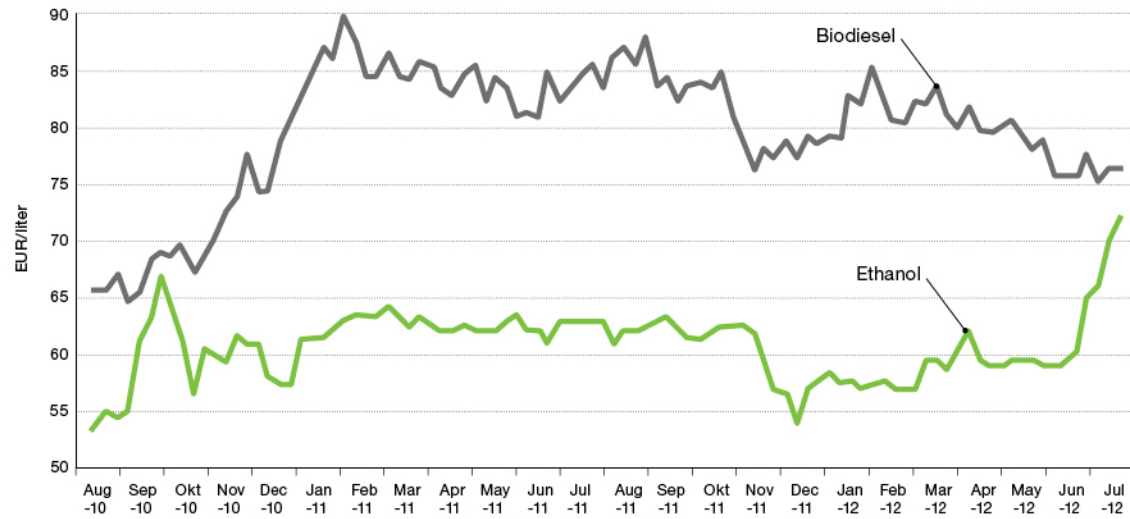
Source: Swedish Energy Agency, SCB and Energigas Sverige.

Prices of wood fuels and peat for heating plants, SEK per MWh, nominal prices



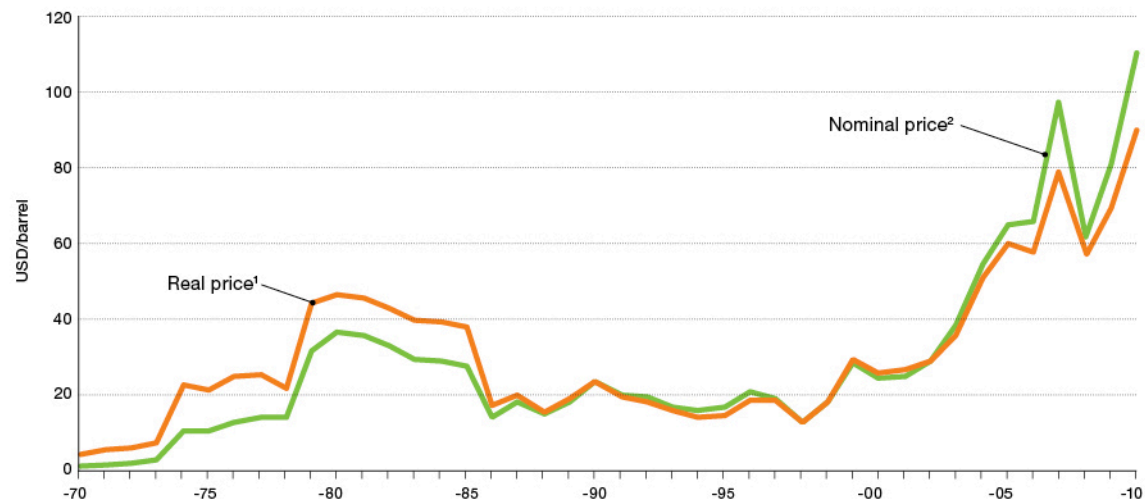
Source: Swedish Energy Agency and Statistics Sweden.

Ethanol and biodiesel prices on the European market, August 2010–July 2012,  
EUR per 100 liter



Source: F.O. Licht's Interactive Data 2012.

Nominal and real prices of light crude oil, 1970–2011, USD/barrel

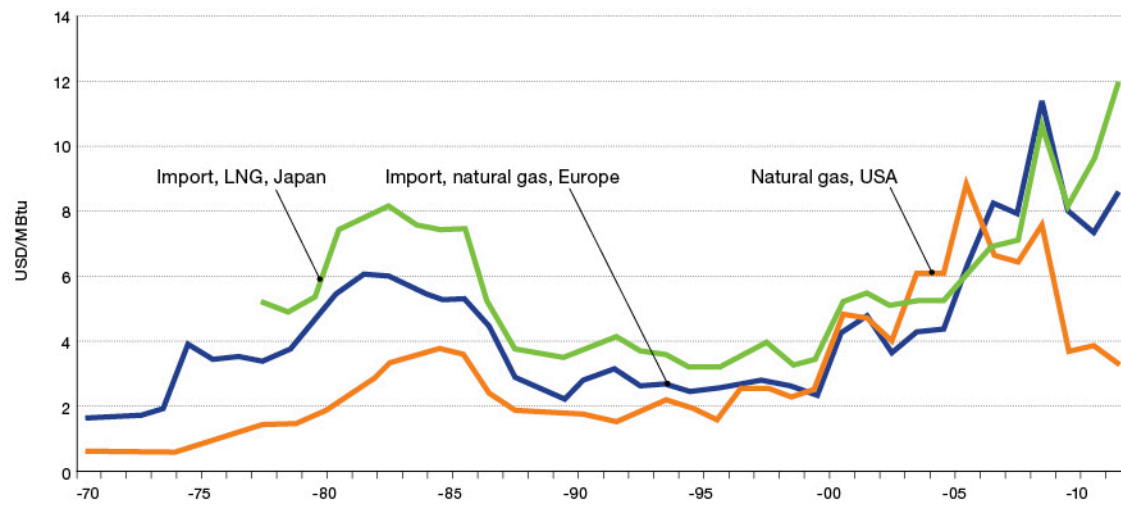


Source: BP and the World Bank.

Anm. 1. 1970–1975 prices are for Dubai crude. 1976– prices are for Brent crude.

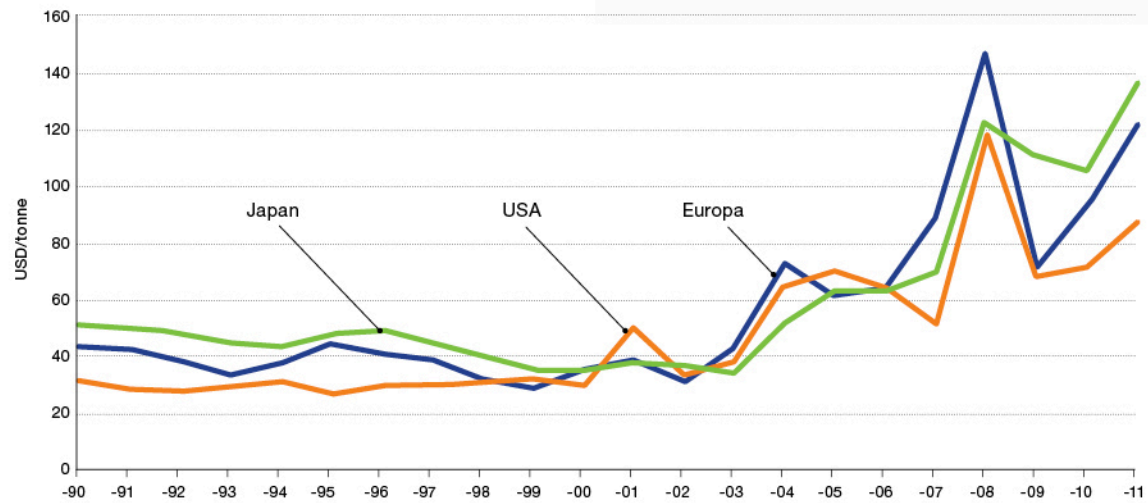
2. Global real prices have been deflated by the MUV Index from the World Bank: base year, 2005.

Fixed prices for natural gas, 1970–2011, USD/MBtu (index year 2005)



Source: World Bank.

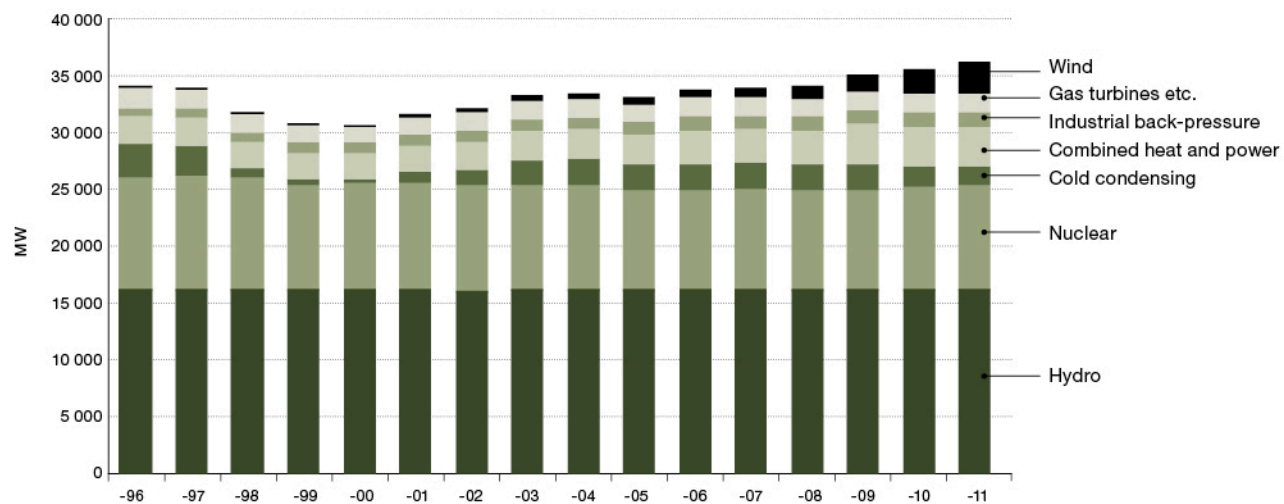
Coal prices in Europe, USA and Japan, 1990–2011, USD/tonne



Source: BP Statistical Review of World Energy, 2012.

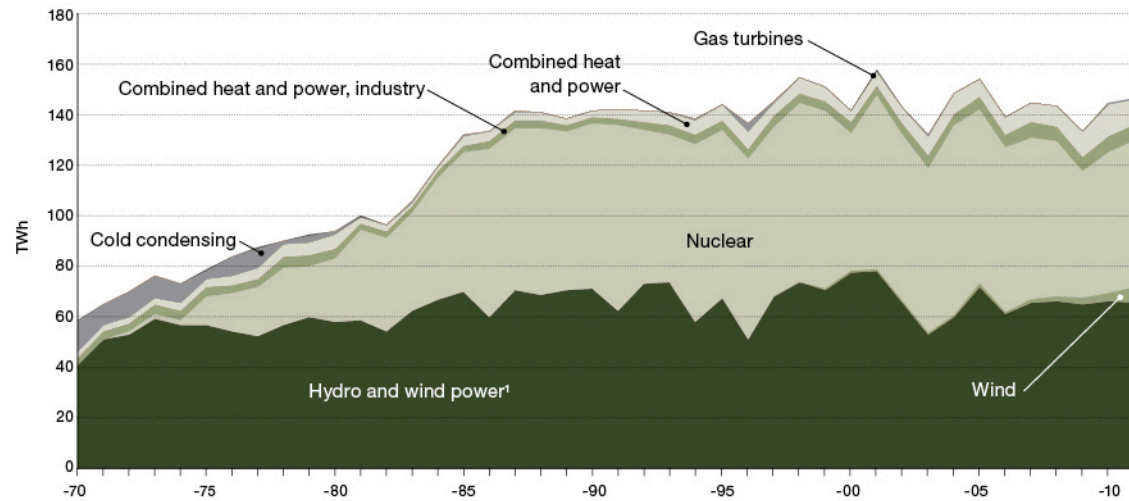


Installed electricity production capacity in Sweden, by type, 1996–2011, MW



Source: Svensk Energi.

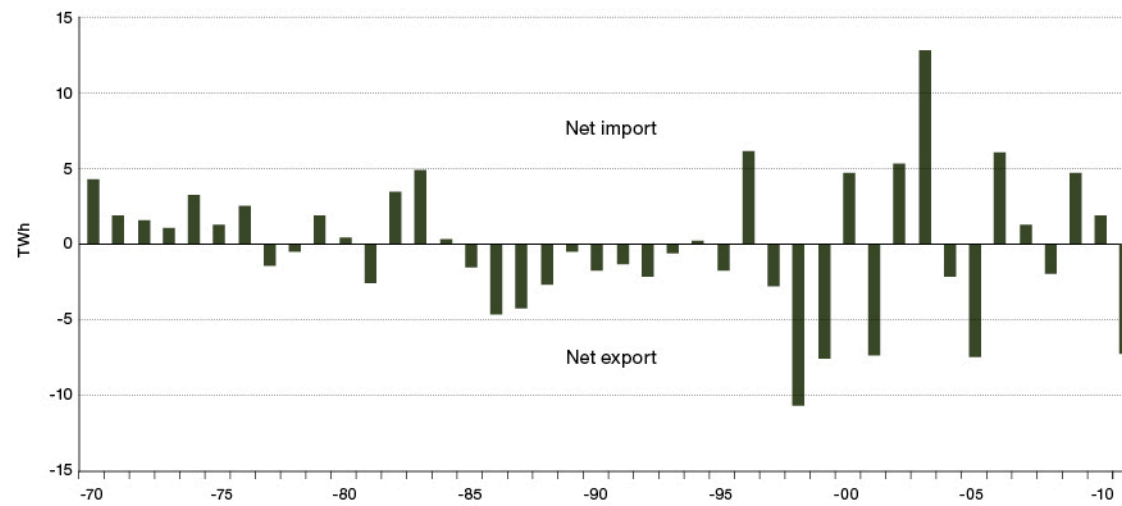
Sweden's electricity production, by type, 1970–2011, TWh



Source: Swedish Energy Agency and Statistics Sweden.

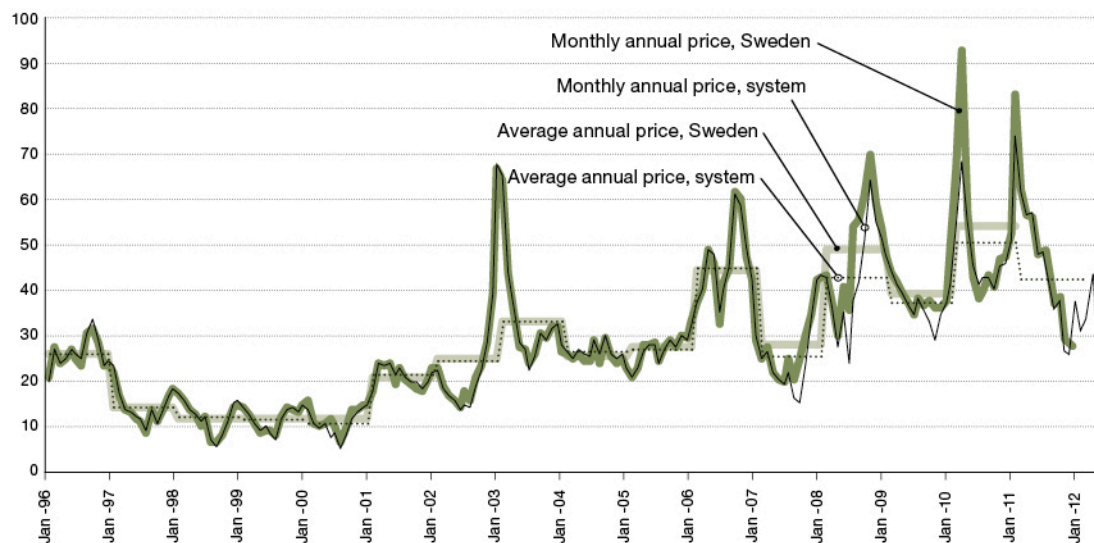
Note: 1. Hydro power and wind power were quoted jointly until 1996, after which wind power was quoted separately.

Sweden's net imports (+) and net exports (-) of electricity 1970–2011, TWh



Source: Swedish Energy Agency and Statistics Sweden.

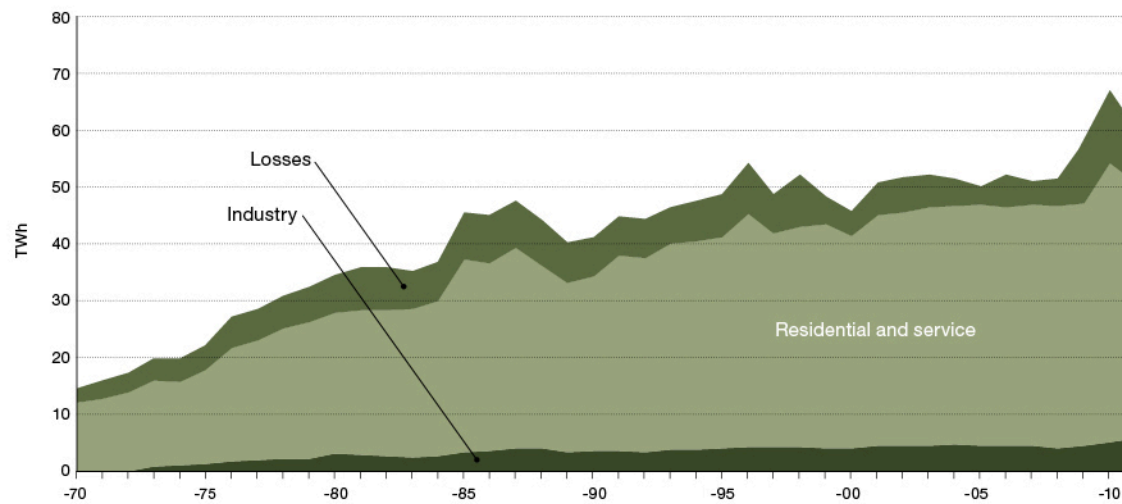
Spot prices on Nord Pool. Monthly and annual average system prices and prices for the Swedish price zone, January 1996 – April 2012, öre per kWh



Source: Nord Pool Spot.

Note: Sweden has been divided into four supply areas since 1st November 2011, thus replacing the previous single-zone price for Sweden.

Use of district heating, 1970–2011, TWh

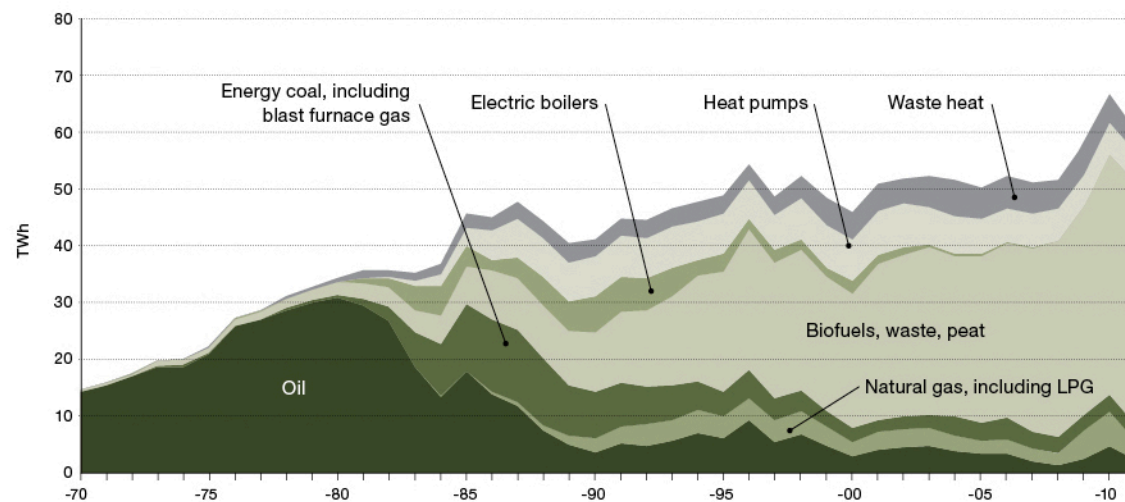


Source: Statistics Sweden and the Swedish Energy Agency, EN 20 SM.

Note: The substantial increase in 2009/2010 is due mainly to unusually cold winters, and particularly so for 2010.

Figures for 2011 are preliminary, and also from not entirely comparable sources.

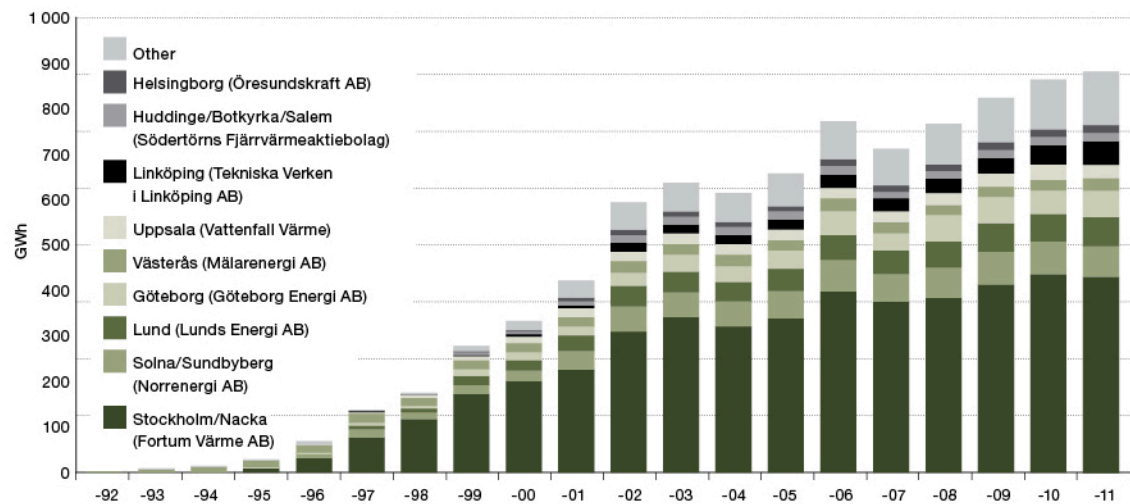
Energy sources for district heating, 1970–2011, TWh



Source: Statistics Sweden and the Swedish Energy Agency, EN 20 SM.

Note: With effect from and including 2009, more fuels are included in the indicator. Figures for 2011 are preliminary, and also from not entirely comparable sources.

District cooling supplies, 1992–2011, GWh

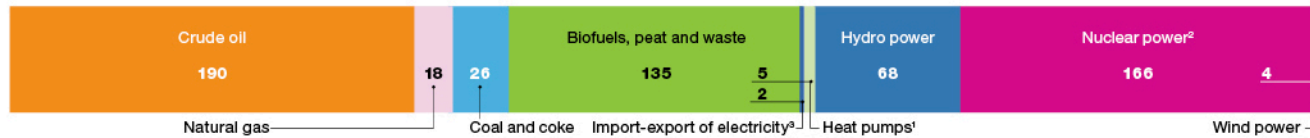


Source: Svensk Fjärrvärme, additional processing by the Swedish Energy Agency.

Note: The statistics show only commercial district cooling, i.e. where the suppliers and property-owners are different companies.

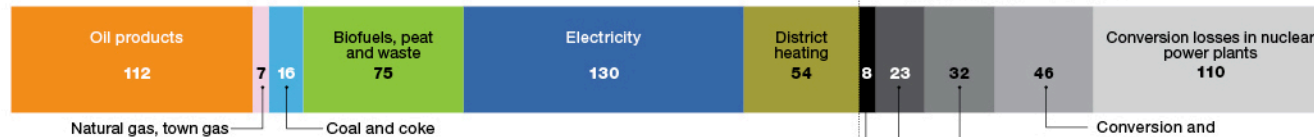
## Energy supply and energy use in Sweden in 2010, TWh

### Total energy supply, by energy carriers, 614 TWh

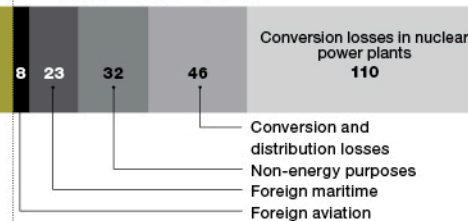


Conversion in power and heating plants, refineries, gasworks, coking plants and blast furnaces. Distribution of electricity and district heating, together with international bunkering and supply of energy raw materials to such users as the paint and chemical industry.

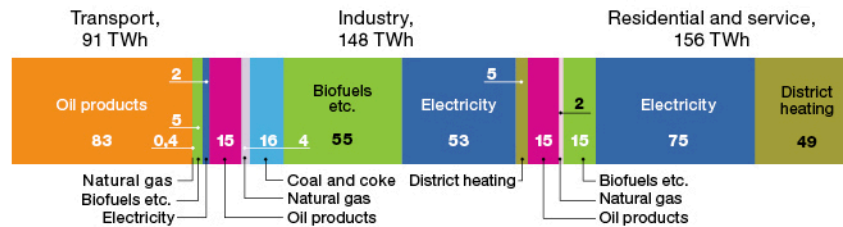
### Total final use, by energy carriers, 395 TWh



### Losses and use for non-energy purposes, 219 TWh



### Total final energy use, by sectors, 395 TWh



Source: Swedish Energy Agency and Statistics Sweden.

Note: 1. Heat pumps are large heat pumps in the energy sector.

2. Nuclear power energy quantities are gross, i.e. as nuclear fuel energy input in accordance with UN/ECE guidelines.

3. Net imports of electricity are counted as supply.



## Fuel constituents

Biobased motor fuels and liquid biofuels	
Ethanol	E5, E85, ED95, ETBE
Biodiesel	B5, B100, RME, FAME
Vehicle gas	Umbrella name for methane gases: biogas, natural gas and mixtures thereof
Liquid biofuels	Bio-oils: Rapeseed oil, palm oil, tall oil and waste oils

Key	
FAME	Fatty acid methyl ester
HVO	Hydrogenated vegetable oil
ETBE	Ethyl tertiary butyl ether
DME	Dimethyl ether
RME	Rapeseed methyl ester
E5	95 % petrol and 5 % ethanol
E85	85 % ethanol and 15 % petrol (summer), or 75 % ethanol and 25 % petrol (winter)
ED95	95 % ethanol and ignition improver and corrosion protector
B5	Fuel consisting of 5 % biodiesel and 95 % mineral diesel oil
B100	Pure biodiesel

Import / export of electricity between Sweden and neighbouring countries, 2011, TWh

TWh	Import / to Sweden	Export / from Sweden
Norway	7,1	7
Finland	4	6,1
Denmark	2,8	5,3
Germany	0,6	2,1
Poland	0,3	1,5
<b>Total</b>	<b>14,8</b>	<b>22</b>

### Prefixes used before energy units

Prefix		Factor	
k	kilo	$10^3$	thousand
M	mega	$10^6$	million
G	giga	$10^9$	milliard
T	tera	$10^{12}$	billion
P	peta	$10^{15}$	thousand billion

### Conversion factors between energy units

	GJ	MWh	toe	Mcal
GJ	1	0,28	0,02	239
MWh	3,6	1	0,086	860
toe	41,9	11,63	1	10 000
Mcal	0,0419	0,00116	0,0001	1

## Calorific values in MWh and GJ per physical quantity

Fuel	Physical quantity	MWh	GJ
Chipped forest timber	1 tonne	2,00-4,00	7,20-14,40
Peat	1 tonne	2,50-3,00	9,00-11,0
Pellets, briquettes	1 tonne	4,50-5,00	16,0-18,0
Coal	1 tonne	7,56	27,2
Coke	1 tonne	7,79	28,1
Nuclear fuel	1 toe	11,6	41,9
Crude oil	1 m <sup>3</sup>	10,1	36,3
Topped crude oil	1 m <sup>3</sup>	11,1	40,1
Petroleum coke	1 tonne	9,67	34,8
Asphalt, surface dressings	1 tonne	11,6	41,9
Lubricating oils	1 tonne	11,5	41,4
Vehicle petrol	1 m <sup>3</sup>	9,00	32,6
Aviation petrol	1 m <sup>3</sup>	9,08	32,7
Virgin naphtha	1 tonne	8,74	31,5
Petroleum naphtha	1 m <sup>3</sup>	9,34	33,6
Aviation kerosene and other intermediate distillates	1 tonne	9,58	34,5
Other kerosene	1 m <sup>3</sup>	9,54	34,3
Diesel fuel and gas oil <sup>1</sup>	1 m <sup>3</sup>	10,00	35,9
Heavy fuel oils nos. 2 - 5	1 m <sup>3</sup>	10,6	38,1
Propane and butane	1 tonne	12,8	46,1
Town gas, coke retort gas	1000 m <sup>3</sup>	4,65	16,8
Natural gas <sup>1</sup>	1000 m <sup>3</sup>	11,1	39,8
Blast furnace gas	1000 m <sup>3</sup>	0,93	3,35
Ethanol	1 m <sup>3</sup>	5,90	21,2
Biogas	1000 m <sup>3</sup>	9,70	34,9
FAME	1 m <sup>3</sup>	9,17	33,0

1) The values for natural gas are for the lower calorific value, i.e. without the contribution from latent heat of condensation.

Note: The table shows conversion factors to three significant figures. Calculations use a greater number of significant figures.

The blue colour shows the savings resulting from the ecodesign requirements: both colours together show what the electricity use would be in 2020 if the products continue without the effects of the legislation.

Electricity use would then have been as follows:

- electric motors 1252 TWh,
- domestic lighting 135 TWh,
- street and office lighting 260 TWh,
- standby and off-mode functions 49 TWh,
- fans 560 TWh,
- dishwashers 35 TWh,
- TV receivers 132 TWh,
- circulation pumps 55 TWh,
- air-conditioning/air/air heat pumps 73 TWh,
- mains power units (e.g. battery chargers) 31 TWh,
- digital conversion boxes 14 TWh (in process of disappearing, and therefore calculated only for 2014),
- refrigerators and freezers 122 TWh and,
- washing machines 38 TWh.

