



Energy in Denmark 2010

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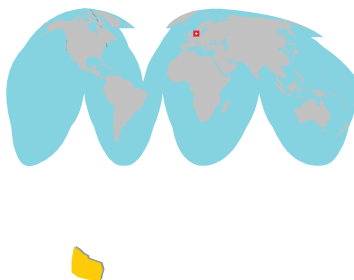
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GENERAL INFORMATION ON DENMARK



Geography

Area (2011) km ²	42 959
Coastline (2009) km	7 314
Number of islands	407
Number of lakes	1 008
Forest area (2001)	5 294 km ²
Preserved areas (2000)	1 781 km ²

Climate

Average temperature (2010):	
January	-3.2° C
July	18.7° C
Sunshine	1 669 hours
Precipitation (av. per year)	726 mm

Population

Population (Jan. 2011)	5 560 628
By age:	
0-19	24.3%
19-59	52.4%
60-	23.3%
Population density	129.4 per km ²

Currency (2010)

1 Krone (DKK)	= 100 øre
1 USD	= 5.63 DKK
1 EURO	= 7.45 DKK
1 GBP	= 8.69 DKK

Economics (2010)

GDP, Billion DKK	1 743
Exports, Billion DKK	882
Imports, Billion DKK	790

Constitution and Government

Denmark is a constitutional monarchy
 Monarch is Queen Margrethe II
 The present government consists of:
 The Danish Social Democrats
 The Danish Social-Liberal party
 The Socialist People's Party

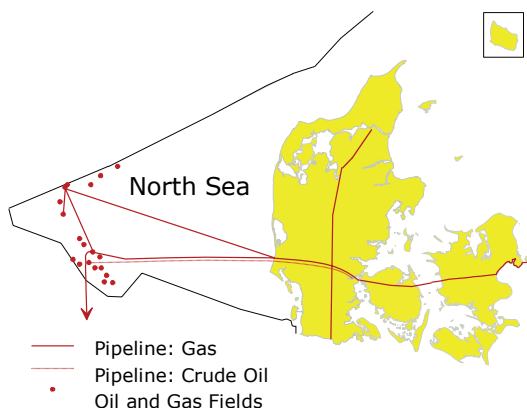
Labour Market (2010)

Labour Force, '000	2 905
Employed, '000	2 764
Employed in Industry, %	19.1
Employed in Agriculture and Fishing, %	2.8
Employed in Trade and Service, %	78.1

Note: Adjusted means adjusted for climate and fuels for net electricity exports

ENERGY PRODUCTION

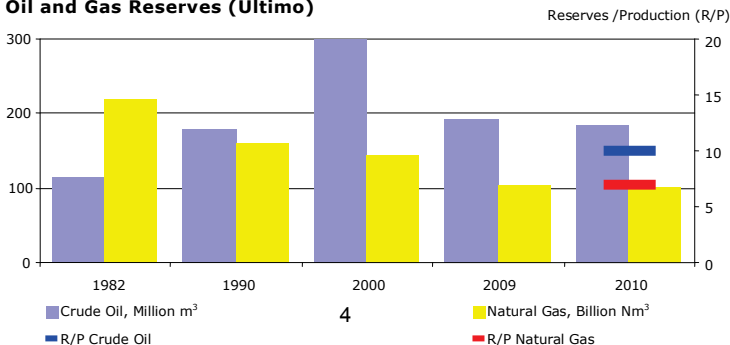
Danish Oil and Gas Fields and Pipelines



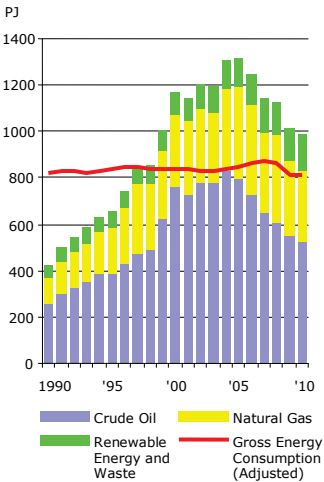
In 2010, Danish oil and gas production came from nineteen fields (fifteen oil and four gas fields). Seven fields are situated in the northern part of the Central Graben, while all the other fields are situated in the southern region of the Central Graben. Denmark is the third largest oil producer in Western Europe trailing only UK and Norway.

Energy Production [PJ]	1980	1990	2000	2009	2010
Total Production	40	425	1165	1009	983
Crude Oil	13	256	765	555	523
Natural Gas	0	116	310	315	307
Waste, Non-renewable	3	5	13	16	16
Renewable Energy	24	48	78	123	137

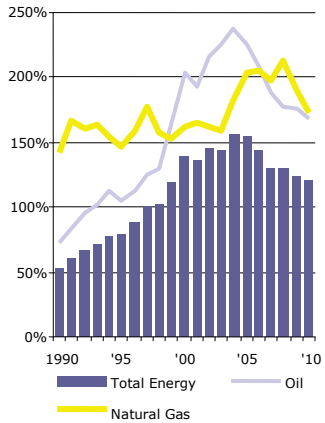
Oil and Gas Reserves (Ultimo)



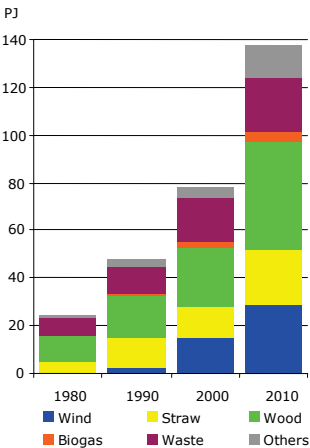
Energy Production and Energy Consumption



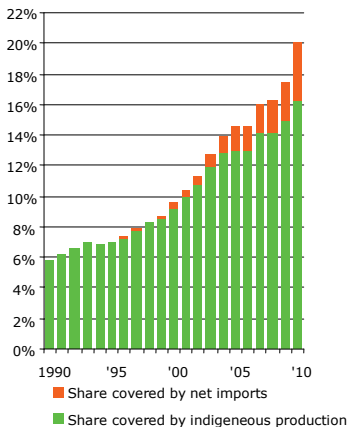
Degree of Self-sufficiency



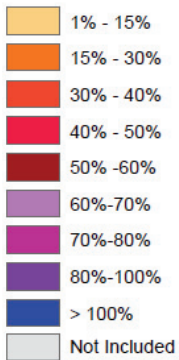
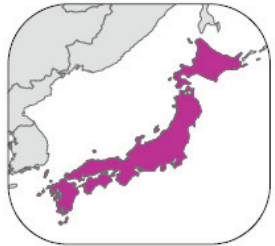
Renewable Energy Production by Type



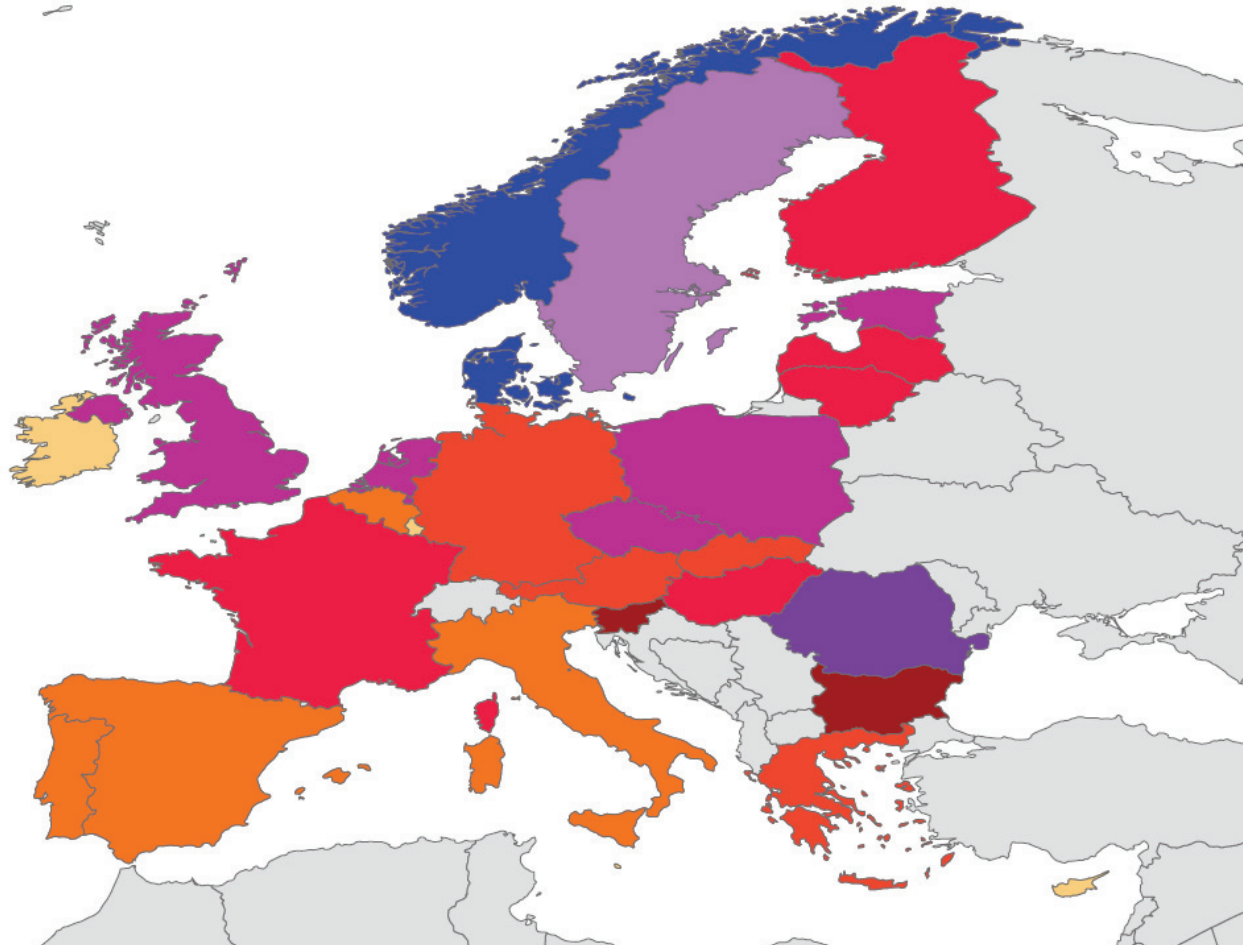
Consumption of Renewable Energy – Share of Total Energy Consumption (TPES)



Degree of Self-sufficiency - Total Energy, 2009



Source: Eurostat and IEA

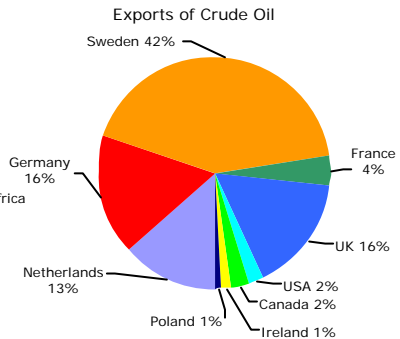
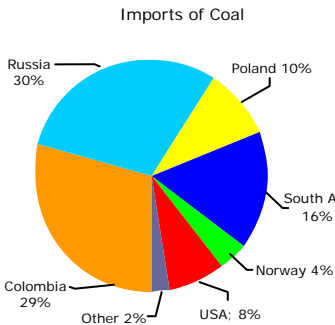


IMPORTS AND EXPORTS OF ENERGY

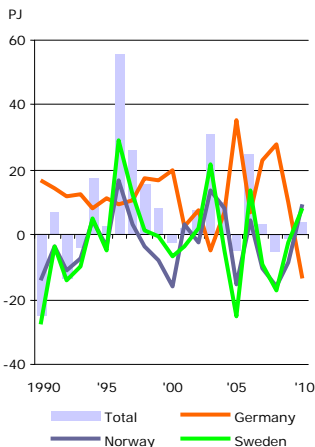
Imports and Exports of Energy Products, 2010

	Imports	Exports
Crude Oil [1000 Tonnes]	2 712	7 702
Oil Products [1000 Tonnes]	6 626	5 292
Natural Gas [Million Nm ³]	144	3 350
Coal [1000 Tonnes]	4 570	71
Electricity [GWh]	10 599	11 734

Imports of Coal and Exports of Crude Oil by Country, 2010



Net Exports of Electricity



In Denmark, the foreign trade in electricity varies more than in any other European country. Foreign trade is strongly affected by price trends at the Nordic Electricity Exchange, Nord Pool, which is significantly influenced by the varying precipitation conditions in Norway and Sweden where electricity generation is dominated by water power.

In 2010, the Danish net exports of electricity totalled 4.1 PJ. It was the result of net exports of 9,3 PJ to Norway and 8,1 PJ net export to Sweden and net import of 13.3 PJ from Germany.

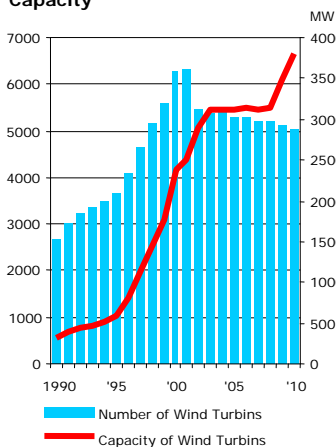
Number of Wind Turbines by Size

	1990		2000			2010		
	Onshore turbines	Onshore turbines	Offshore turbines	Total	Onshore turbines	Offshore turbines	Total	
Total	2 663	6 215	41	6 256	4 632	404	5 036	
- 499 kW	2 653	3 672	11	3 683	1 496	11	1 507	
500 - 999 kW	8	2 284	10	2 294	2 585	10	2 595	
1 000 - 1 999 kW	2	251	-	251	366	0	366	
2 000 - kW	-	8	20	28	185	383	568	

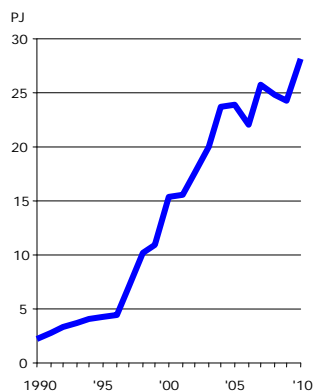
Total Capacity of Wind Turbines by Size [MW]

	1990		2000			2010		
	Onshore turbines	Onshore turbines	Offshore turbines	Total	Onshore turbines	Offshore turbines	Total	
Total	326	2 340	50	2 390	2 934	868	3 802	
- 499 kW	317	533	5	537	268	5	273	
500 - 999 kW	6	1 513	5	1 518	1 758	5	1 763	
1 000 - 1 999 kW	3	279	-	279	451	0	451	
2 000 - kW	-	16	40	56	458	858	1 315	

Number of Wind Turbines and Capacity



Production of Wind Power



ELECTRICITY AND HEAT

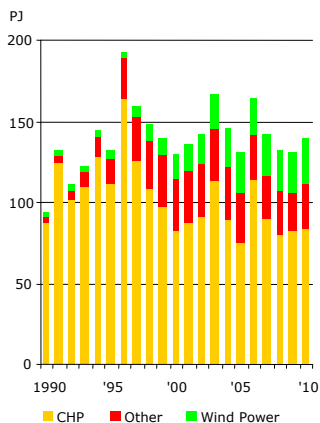
Electricity Production by Fuel

[PJ]	1994	2000	2009	2010
Total Gross Electricity Production	145	130	131	140
Oil	10	16	4	3
Natural Gas	8	32	24	29
Coal	120	60	64	61
Wind Power	4	15	24	28
Other	3	7	15	19

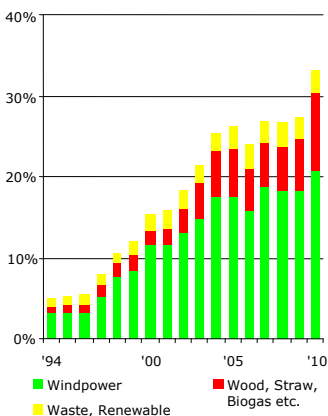
Electricity Capacity (Ultimo)

[MW]	1994	2000	2009	2010
Total Electricity Capacity	10 774	12 600	13 392	13 728
Large-scale Units	9 126	8 160	7 446	7 446
Small-scale Units	773	1 462	1 774	1 784
Autoproducers	339	574	677	680
Wind Turbines	527	2 390	3 482	3 802
Other	9	12	14	16

Electricity Production by Type



Electricity Generated by Renewables: Share of Domestic Supply

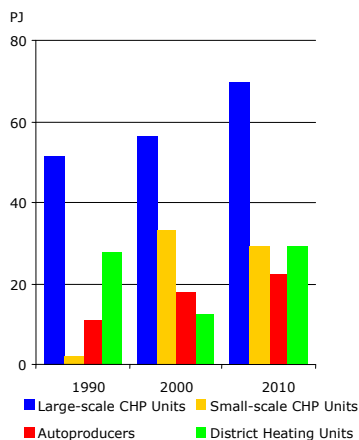


ELECTRICITY AND HEAT

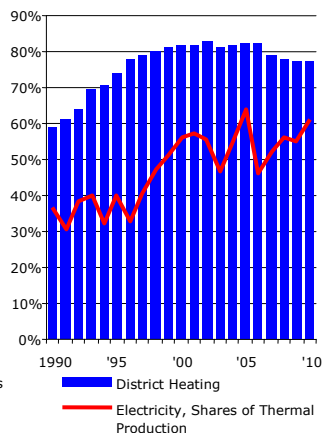
District Heating by Fuel

[PJ]	1994	2000	2009	2010
Total Gross Production	113	120	131	150
Oil	6	4	6	4
Natural Gas	25	42	36	45
Coal	56	39	34	36
Surplus Heat	3	4	3	2
Waste, Non-renewable	5	8	10	10
Renewable Energy	18	23	42	53
of which:				
- Straw	4	6	8	12
- Wood	4	5	17	24
- Bio Oil	0	0	1	2
- Waste, Renewables	9	11	15	14
- Biogas	0	1	1	1

District Heating Production by Type of Producer

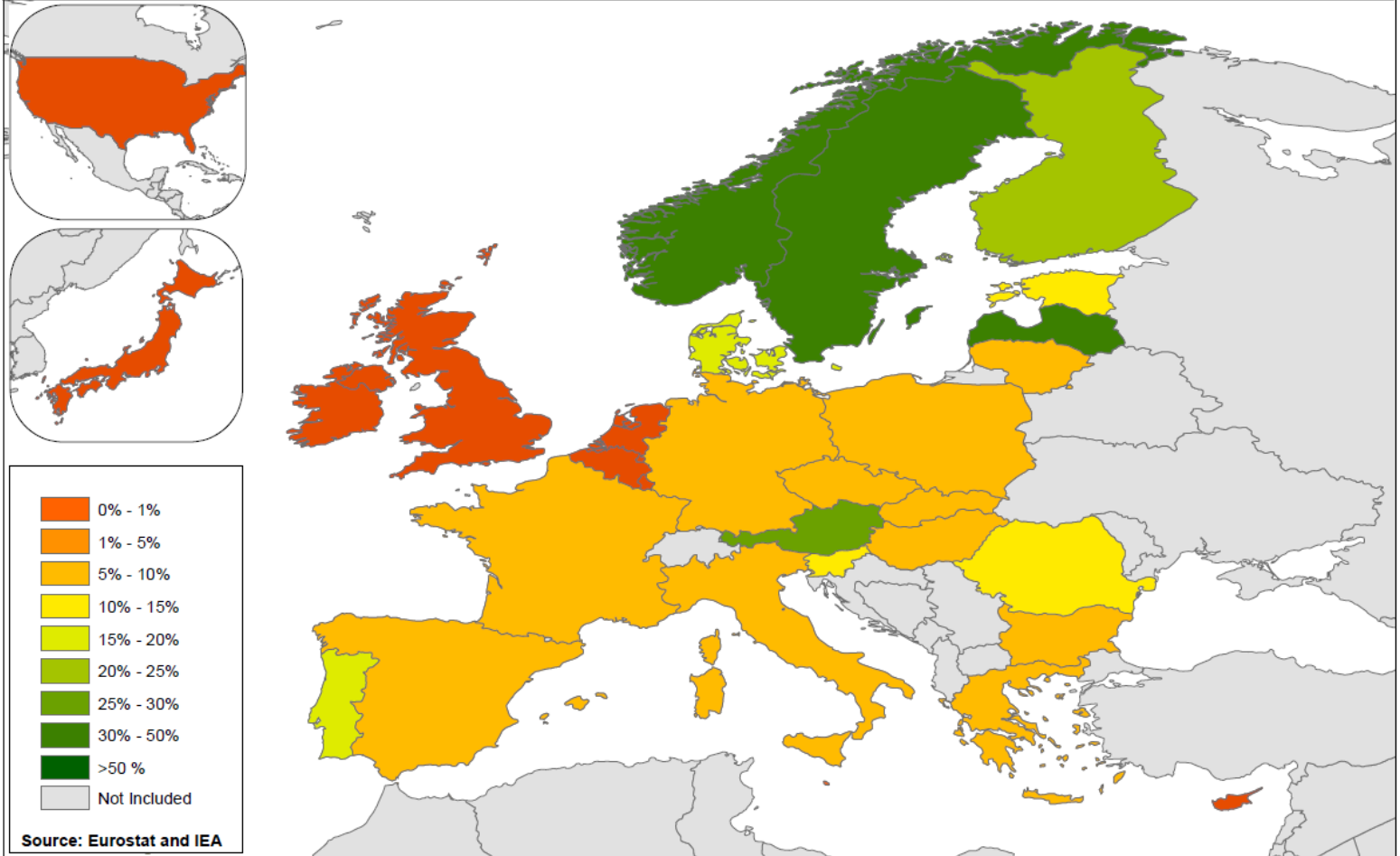


CHP Shares of Electricity and District Heat Production

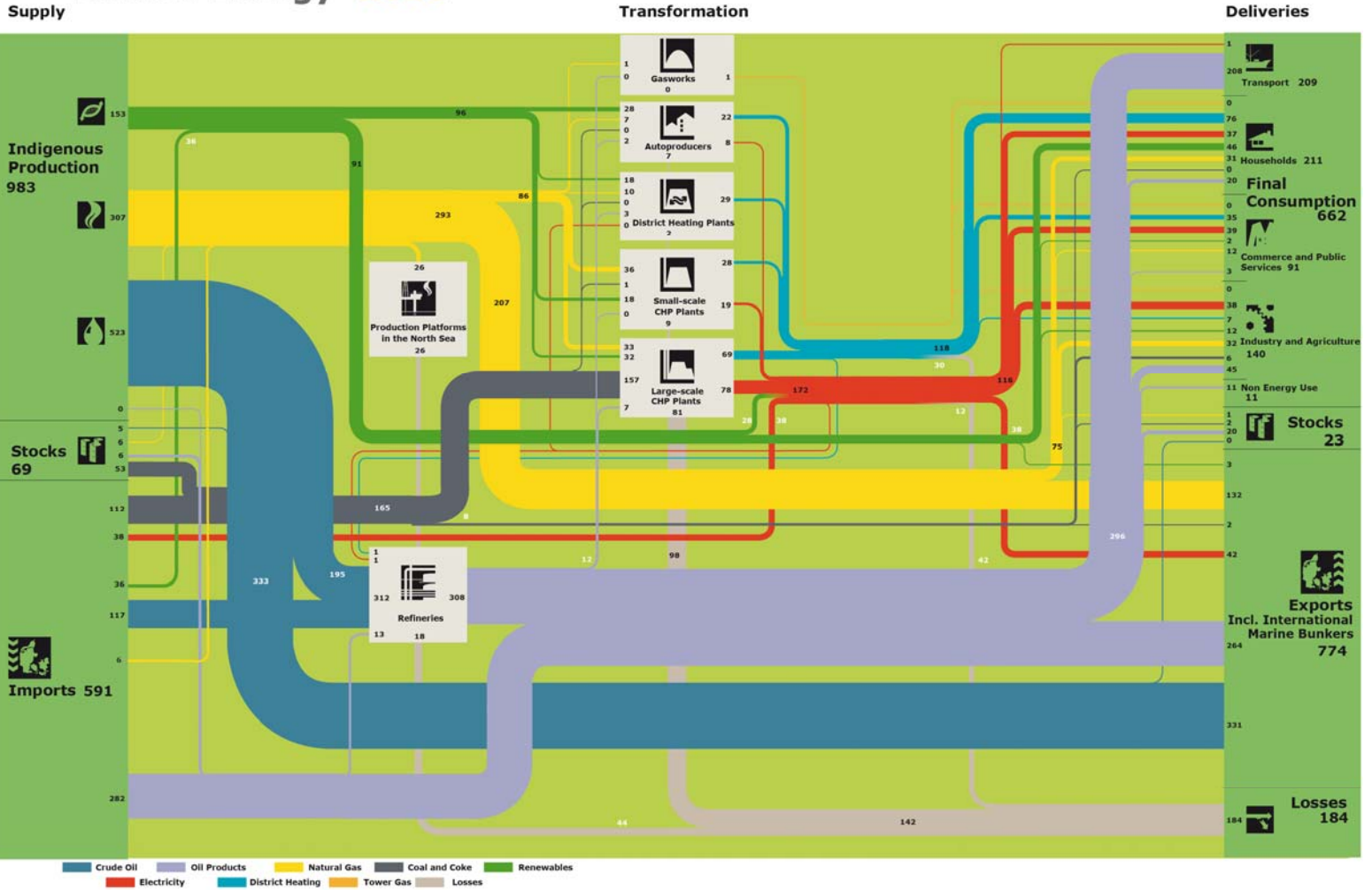


Renewable Energy, 2009

Share of Total Energy Consumption (TPES)



Danish Energy 2010



All Figures are in Peta Joule (PJ)

ENERGY CONSUMPTION

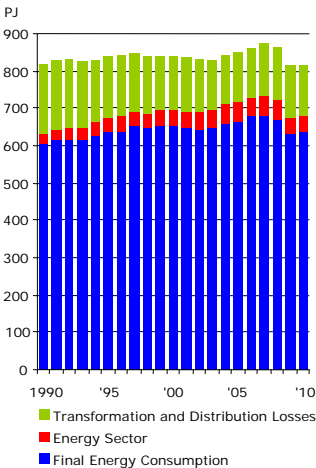
Gross Energy Consumption by Fuel

Adjusted [PJ]	1980	1990	2000	2009	2010
Total Gross Energy Consumption	814	819	839	815	815
Oil	546	355	376	315	311
Natural Gas	0	82	192	167	177
Coal and Coke	241	327	176	172	147
Waste, Non-renewable	3	6	13	16	15
Renewable Energy	24	50	82	145	165

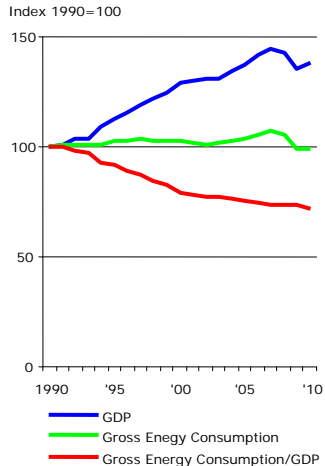
Final Energy Consumption by Sector

Climate Adjusted [PJ]	1980	1990	2000	2009	2010
Total Final Energy Consumption	610	604	651	632	635
Non-energy Use	16	13	13	10	11
Transport	143	170	201	209	209
Industry and Agriculture	168	159	168	136	137
Trade and Service	78	77	81	84	85
Households	204	184	189	192	193

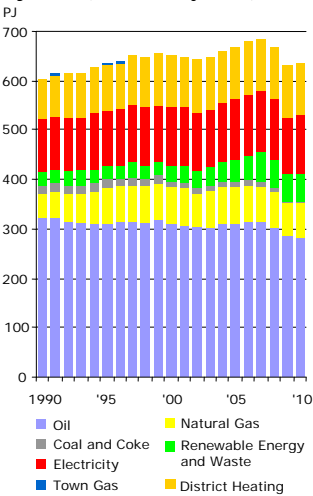
Gross Energy Consumption and Final Energy Consumption (Adjusted)



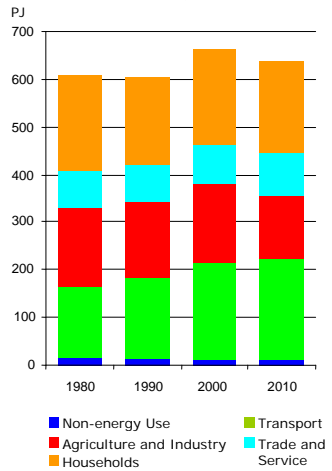
GDP, Gross Energy Consumption and Energy Intensity (Adjusted)



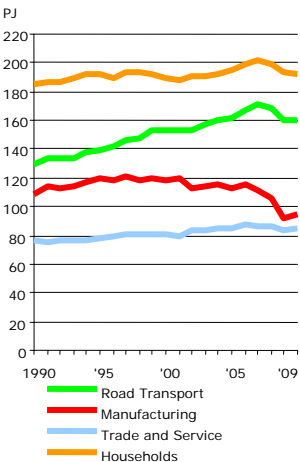
Final Energy Consumption by Fuel (Climate Adjusted)



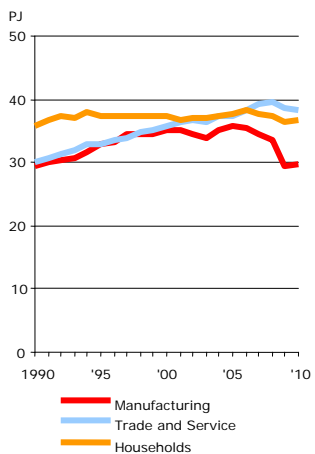
Final Energy Consumption by Sector (Climate Adjusted)



Final Energy Consumption (Climate Adjusted)



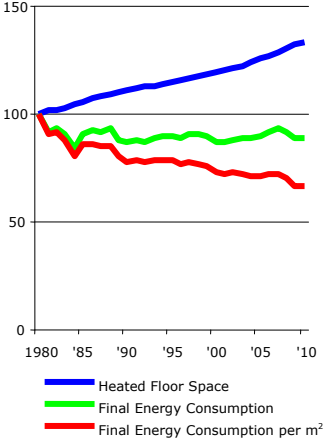
Electricity Consumption (Climate Adjusted)



ENERGY CONSUMPTION

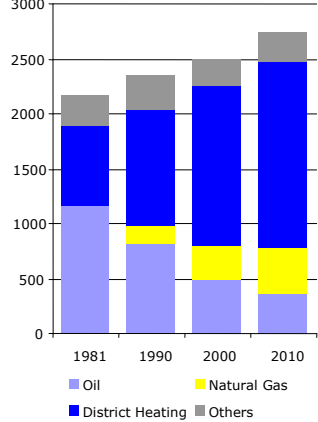
Energy Consumption for Space Heating in Households (Climate Adjusted)

Index 1980=100



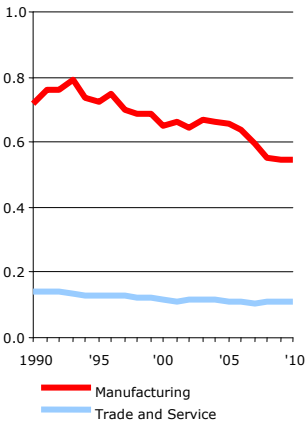
Heating Installations in Households

1000 Units

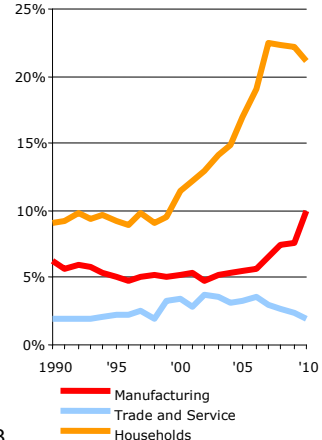


Energy Intensities (Climate Adjusted)

TJ per DKK Million Gross Value Added (2000 Prices)



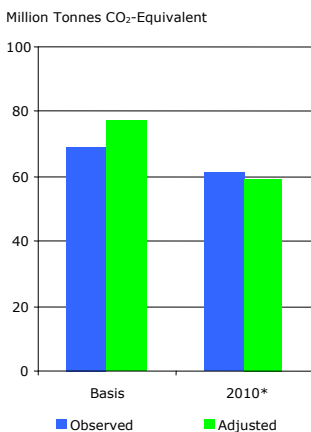
Shares of Renewable Energy in Final Energy Consumption (Climate Adjusted)



CO₂ Emissions from Energy Consumption

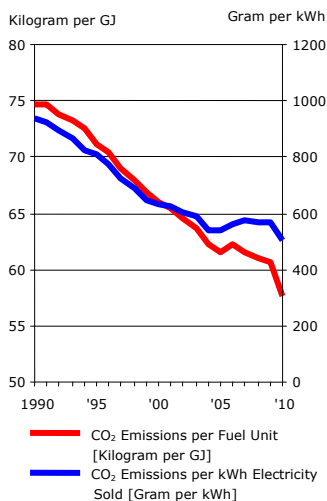
[Million Tonnes]	1980	1990	2000	2009	2010
Observed CO₂ Emissions	64.3	53.1	53.6	49.0	49.4
- Energy Sector	0.9	1.4	2.3	2.4	2.3
- Transformation Sector	30.1	25.2	24.2	22.0	21.9
- Final Energy Consumption	33.3	26.5	27.0	24.6	25.2
Adjusted CO₂ Emissions	62.6	61.2	55.4	49.4	47.0
- Energy Sector	0.9	1.4	2.3	2.4	2.3
- Transformation Sector	28.8	32.4	25.5	22.4	20.0
- Final Energy Consumption	32.9	27.4	27.6	24.7	24.6

Total Emissions from Greenhouse Gases



*) Preliminary emission inventory

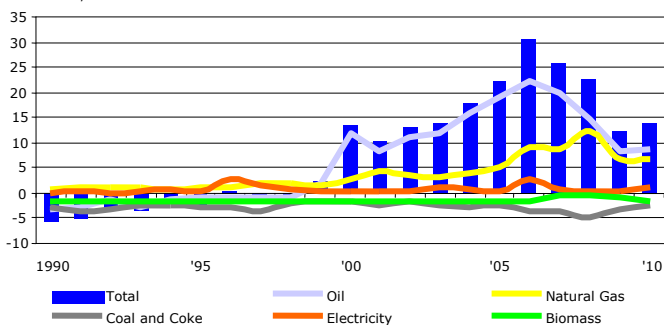
CO₂ Emissions per Fuel Unit and per kWh of Electricity (Adjusted)



ENERGY ECONOMY AND PRICES

Foreign Trade with Energy: Net Currency Surplus

Billion DKK, Current Prices



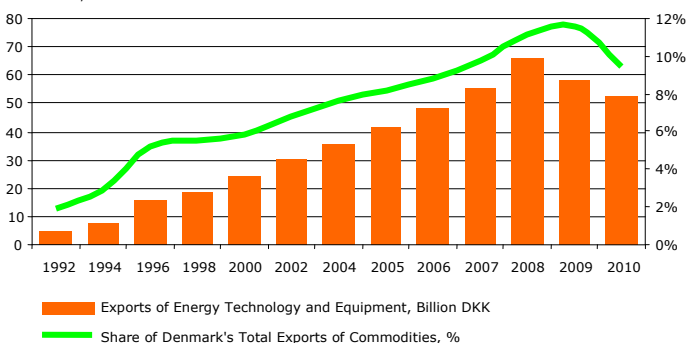
Economic Key Figures

[Billion DKK, Current Prices]

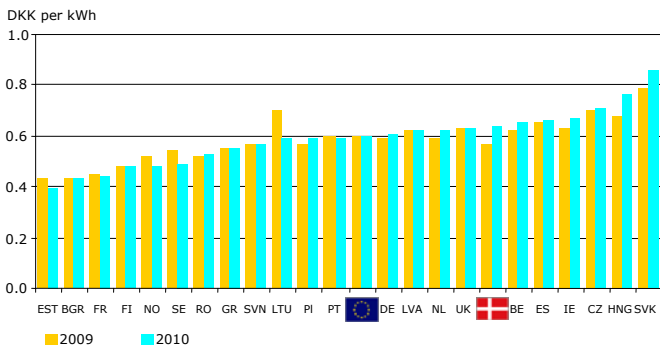
	2009	2010
Total Energy Expenditures	155.3	•
Revenues from Energy, CO ₂ and Sulphur Taxation	37.0	40.3
Expenditures to Public Service Obligations on Electricity	3.5	2.5
Value of Crude Oil and Natural Gas Production	43.3	51.0

Exports of Energy Technology and Equipment

Billion DKK, Current Prices



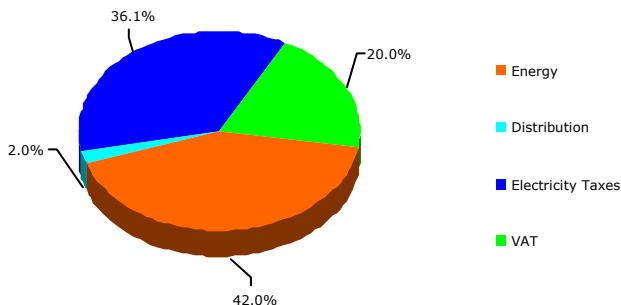
Electricity Prices for Industrial Consumers (Annual Consumption 2 GWh)



Energy Prices for Households, 2010

Energy Prices for Households, 2010	DKK	Euro
Gasoline Regular [DKK per Litre]	11.02	1.48
Heating Gas Oil [DKK per Litre]	9.38	1.26
Natural Gas [DKK per Nm ³]	8.72	1.17
Electricity [DKK per kWh]	2.00	0.27

Decomposition of the Electricity Price for Households, 2010 (Per cent)



INTERNATIONAL COMPARISONS, 2009

	Degree of Self-sufficiency [%]	Renewable Energy and Waste: Share of Gross Energy Consumption [%]	Gross Energy Consumption per Capita [GJ]	Energy Intensity [TOE per Million EUR GDP (2000 Prices)]
Denmark	123	19	147	107
Romania	80	15	69	577
Estonia	79	14	165	607
Netherlands	77	5	207	174
UK	76	3	141	114
Czech Republic	74	6	169	514
Poland	71	7	105	364
Sweden	65	36	208	148
Bulgaria	55	6	97	843
Slovenia	50	13	144	252
France	49	8	171	164
Latvia	48	36	80	354
Finland	48	23	267	222
EU 27	48	9	143	165
Lithuania	48	10	104	446
Hungary	43	8	106	413
Germany	39	9	167	151
Austria	35	28	162	136
Slovakia	34	7	130	497
Greece	33	6	114	168
Belgium	25	4	227	206
Spain	23	10	119	168
Portugal	20	19	98	187
Italy	16	10	118	140
Ireland	10	4	140	109
Cyprus	3	4	147	212
Luxembourg	2	3	370	152
Malta	1	0	83	168
Norway	748	43	252	135
USA	78	5	296	174
Japan	20	3	156	90

Source: Eurostat and IEA

DANISH KEY FIGURES

	1980	1990	2000	2009	2010
Gross Energy Consumption per Capita [GJ]	159	160	157	148	147
Final Energy Consumption per Capita [GJ]	119	118	122	115	115
Energy Intensity, Gross Energy Consumption [TJ per Million GDP]	0.998	0.818	0.649	0.601	0.591
Energy Intensity, Final Energy Consumption [TJ per Million GDP]	0.748	0.603	0.503	0.467	0.461
Degree of Self-sufficiency [%]	5	52	139	124	121
Dependency of Oil [%]	67	43	45	39	38
Renewable Energy: Share of Gross Energy Consumption [%]	2.9	6.1	9.8	17.8	20.2
Refinery Capacity [Million Tonnes per Year]	9.0	9.0	9.2	9.0	9.0
Electricity Capacity [MW]	6 618	9 142	12 598	13 392	13 728
Wind Turbine Capacity: Share of Total Electricity Capacity [%]	-	3.8	19.0	26.0	27.7
Net Electricity Exports: Share of Domestic Supply [%]	5.1	-22.5	-1.9	-1.0	3.2
CHP Production: Share of Thermal Electricity Production [%]	18	37	56	55	61
CHP Production: Share of District Heating Production [%]	39	59	82	77	77
Renewable Energy: Share of Total Domestic Electricity Supply [%]	0.0	2.0	15.3	27.5	33.1
CO ₂ Emissions per Capita [Tonnes]	12.2	11.9	10.4	9.0	8.5
CO ₂ Emissions per kWh Sold [Gram per kWh]	1 034	937	634	568	505
CO ₂ Emissions per Consumed Unit of District Heating [Kilogram per GJ]	91	68	47	38	29
CO ₂ Emissions per GDP [Kilogram per DKK]	77	61	43	36	34

Note: Data on energy consumption and CO₂ emissions are adjusted

Do you need more data?

At www.ens.dk under "Facts & Figures" you can find: http://www.ens.dk/Facts_figures

Energy Statistics 2010

- Electronic version of the publication
- Time series and tables
- Danish energy flows



Data

- Monthly energy statistics
- Oil and gas production in Denmark
- Wind turbine data

A screenshot of a data table with multiple columns and rows, likely representing energy statistics. The table is organized into sections with headers, and the data is presented in a grid format.

Maps

Key maps showing aspects of the Danish energy sector



DANISH

ENERGY
AGENCY

Danish Energy Agency
44 Amaliegade
DK-1256 Copenhagen K
Denmark

Tlf: +45 33 92 67 00
Fax: +45 33 11 47 43
ens@ens.dk

www.ens.dk

CVR: 59778714