

# **Renewable Energy Sources Statistics in the European Union, Iceland and Norway**

**Data 1989-2000**



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## Introduction

In the late 80's very few statistics existed on renewable energy either at the EU level or in the Member States. At the time only data on electricity generation from large hydro plants were collected regularly. The Council Recommendation of 9 June, 1988 (88/349/EEC) stipulates that the Member States, in collaboration with Eurostat, should establish a statistical system for data collection on Renewable Energy Sources.

### Main actions

- 1990 The first data collection was launched, with 1989 as the reference year. Creation of a network of national centres of expertise (Ministries, Energy Agencies, Statistical offices) at national level.
- 1991-99 Revision and finalisation for the data collection methodology, in collaboration with the Member States. Collection of statistics continued on an annual basis and was financed partially by the Commission (DG Energy - Altener Programme), Eurostat and DG R&D). Member States presented their national results in various national publications. The repetition of data collection allowed Member States to improve the quality of statistics for certain applications as well as to bring the project to a level of routine activity. Specific surveys were also performed for difficult applications, either as a result of this project or as a result of other surveys initiated by Eurostat (e.g. households, services, combined heat and power plants).
- 2000 Member States agreed to undertake the entire cost of this data collection and reporting to Eurostat in the future. For this purpose Eurostat created a new questionnaire to be used in conjunction with the existing four questionnaires covering conventional fuels This questionnaire fully meets the requirements of DG TREN, and will also be used for data collection in all OECD countries (Joint Eurostat/IEA/UNECE questionnaire).

## Project Results

This project, a joint effort of Eurostat, DG TREN and DG R&D has provided the following concrete results:

- Reference statistics for setting and monitoring Community quantitative targets on the contribution of renewable energy sources,
- Four specific publications with statistics and the methodology used,
- A database with detailed information on RES from 1989 to 2000,
- Expertise developed by the national statistical systems in providing harmonised statistics.

This publication contains the main renewable energy data and indicators for the period 1989 to 2000 for the European Union, Norway and Iceland based on statistics collected by Eurostat and financed in the framework of the Altener programme, Directorate General for Energy and Transport. The information was compiled by the Centre for Renewable Energy Sources, CRES, Greece and the Institute for the Diversification and Energy Saving, IDAE, Spain.



# Renewable Energy Sources Statistics

## EU - 15 Data



ΚΑΠΕ  
CRES



## Glossary

CAP	Common Agricultural Policy
CHP	Combined Heat and Power
EU	European Union
GIC	Gross Inland Consumption
MSW	Municipal Solid Waste
NCV	Net Calorific Value
PV	Photovoltaic
RES	Renewable Energy Sources
WECs	Wind Energy Converters
kJ	Kilojoule
MJ	Megajoule
TJ	Terajoule
ktoe	Thousand tonnes of oil equivalent
Mtoe	Million tonnes of oil equivalent
kWp	Kilowatt peak
MW	Megawatt
MW <sub>th</sub>	Megawatt thermal
MW <sub>e</sub>	Megawatt electric
MWh	Megawatthour
GW	Gigawatt
GWh	Gigawatthour
TWh	Terawatthour
na	Not Available

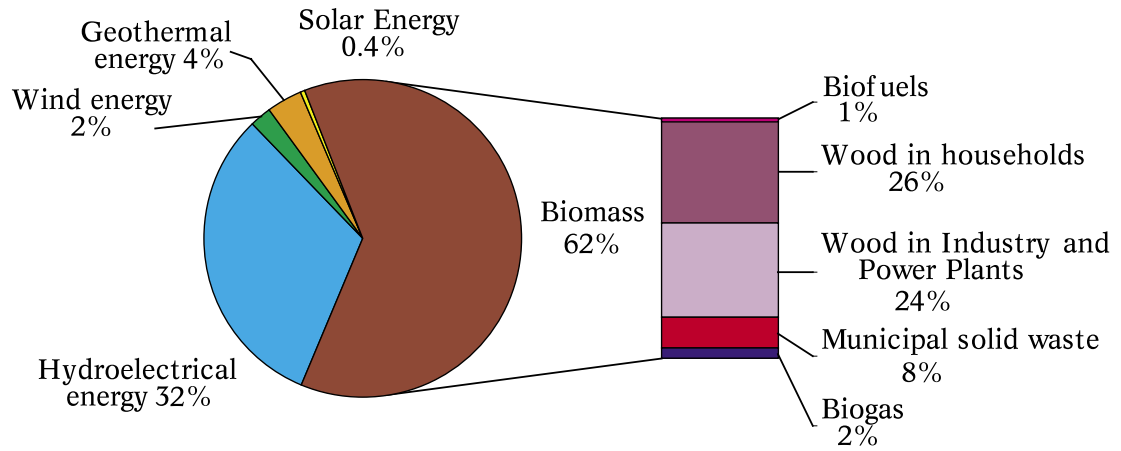


## Primary Energy Production

ktoe	Average Annual Increase per period					
	1989	1995	2000	89-95	95-00	89-00
<b>All Fuels</b>	<b>719 962</b>	<b>736 563</b>	<b>758 694</b>	<b>0.4%</b>	<b>0.6%</b>	<b>0.5%</b>
<b>Renewables</b>	<b>65 010</b>	<b>73 505</b>	<b>87 645</b>	<b>2%</b>	<b>4%</b>	<b>3%</b>
WIND	45	350	1931	41%	41%	41%
SOLAR	127	242	364	11%	9%	10%
HYDRO	21 619	24 948	27 663	2%	2%	2%
GEOTHERMAL	2 216	2 517	3 335	2%	6%	4%
BIOMASS incl. BIOFUELS	41 002	45 450	54 352	2%	4%	3%
<b>Total RES Electricity Generation (TWh)</b>	<b>271</b>	<b>321</b>	<b>388</b>	<b>3%</b>	<b>4%</b>	<b>3%</b>



### EU-15, Primary Energy Production in 2000

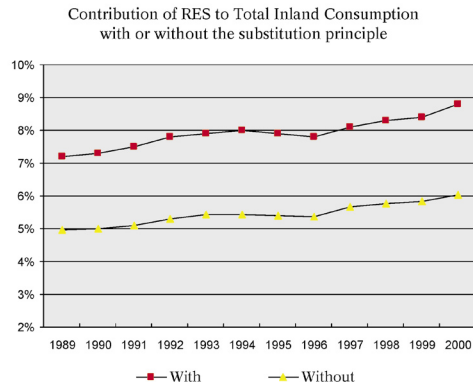
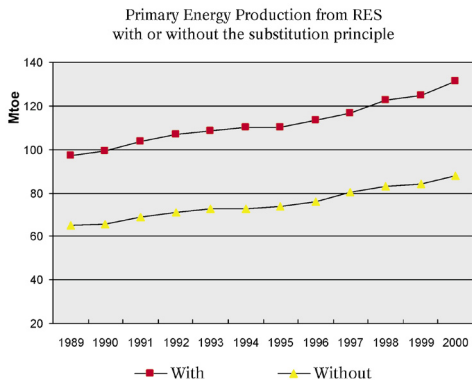




Primary energy production from RES in EU-15

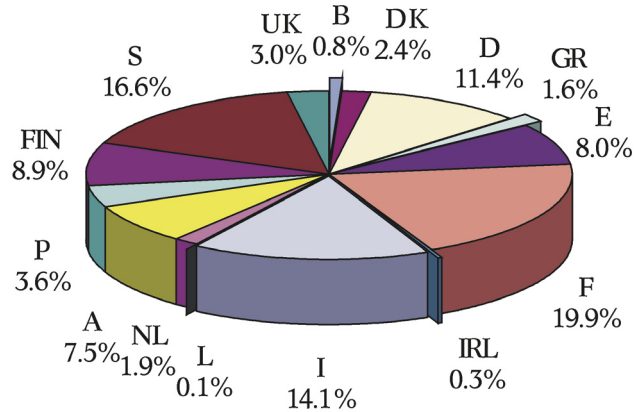
Year	Primary energy production from RES (ktoe)	Total primary production (ktoe)	Total inland consumption (ktoe)	Contribution of RES to total primary production	Contribution of RES to total inland consumption
1989	65 010	719 962	1 310 261	9.0%	5.0%
1990	65 760	705 705	1 319 239	9.3%	5.0%
1991	68 830	707 474	1 346 604	9.7%	5.1%
1992	70 810	701 893	1 336 150	10.1%	5.3%
1993	72 440	709 102	1 336 212	10.2%	5.4%
1994	72 772	722 754	1 336 436	10.1%	5.4%
1995	73 506	736 511	1 363 797	10.0%	5.4%
1996	76 079	762 107	1 413 344	10.0%	5.4%
1997	80 064	755 897	1 410 318	10.6%	5.7%
1998	82 996	750 562	1 436 907	11.1%	5.8%
1999	84 245	764 518	1 444 142	11.0%	5.8%
2000	87 635	758 681	1 455 105	11.6%	6.0%

The application of the **substitution principle** shows that if the electricity generated from hydropower, wind, geothermal, biomass and photovoltaic systems had been produced from a conventional power station (where 220 toe of primary energy are required to produce 1 GWh), renewable energy in the year 2000 in the European Union (EU 15) would have contributed 16.4% to total primary energy production.

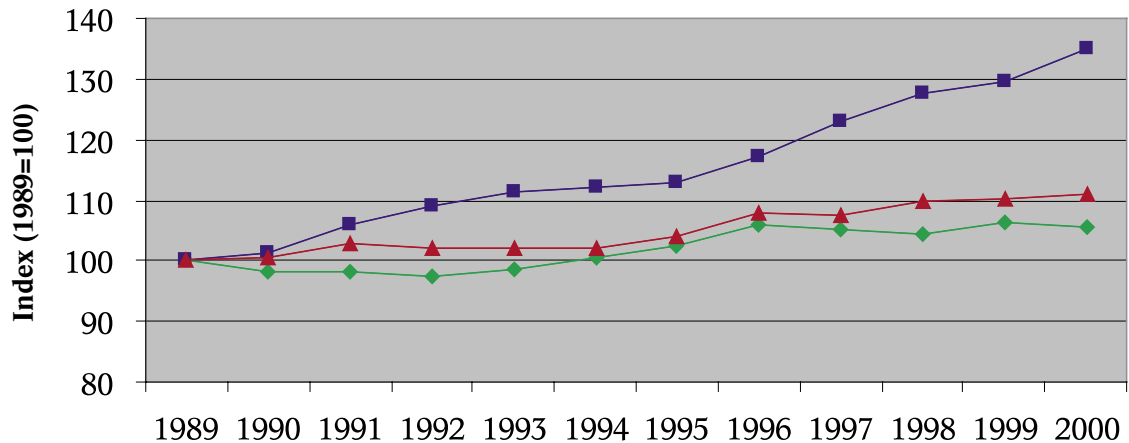


Primary energy production of renewable energy sources in the European Union (EU-15) in 1989 was 65 Mtoe, representing 9.0% of overall primary energy production. The increase to 88 Mtoe over the period 1989-2000, resulted in a higher contribution to primary production (11.6% in 2000).

**Member States Contribution to EU-15 RES Primary Energy Production in 2000**



### Primary Energy Evolution in EU-15, 1989-2000



◆ Total primary production    ■ RES primary energy    ▲ Total inland consumption

## Inland Consumption

Renewable energy sources accounted for 5.0% of the total inland consumption in the European Union (EU-15) in 1989. This percentage was increased to 6.0% in 2000. In the European Union, hydro and biomass/wastes are the major renewable energy sources while geothermal, solar and wind energy, make a smaller contribution. The use of biomass/wastes is predominantly in the form of firewood consumption in households, although wood waste burned in industry and municipal solid waste incineration, contribute significantly.

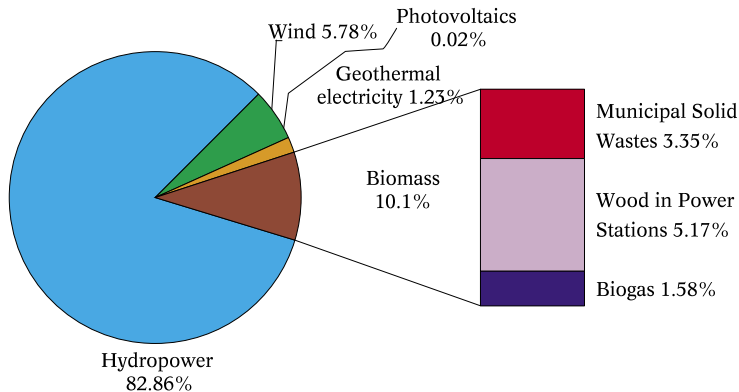
\* Gross Electricity Consumption of a country or a region is the sum of the Gross Electricity Production plus the net imports of electricity in the country or the region.

RES Contribution in 2000			
Country	To Total Primary Production	To Total Inland Consumption	To Gross Electricity Consumption*
B	5.6%	1.3%	1.5%
DK	7.7%	10.8%	17.1%
D	7.6%	2.9%	6.8%
GR	14.1%	5.0%	7.7%
E	22.5%	5.7%	15.7%
F	13.4%	6.8%	15.0%
IRL	11.3%	1.8%	4.9%
I	40.5%	7.0%	16.1%
L	100.0%	1.6%	2.9%
NL	2.9%	2.1%	3.9%
A	69.9%	23.2%	71.5%
P	100.0%	13.0%	29.4%
FIN	52.7%	23.9%	28.5%
S	49.3%	30.7%	55.3%
UK	1.0%	1.1%	2.7%
<b>EU-15</b>	<b>11.6%</b>	<b>6.0%</b>	<b>14.7%</b>



**Electricity Generation**

In 2000, electricity generation in the European Union (EU-15) from renewable energy sources was 388 TWh, representing 14.7% of the Gross Electricity Consumption and coming essentially from hydropower plants (321 TWh in 2000). Looking at electricity generation from biomass/wastes (39.2 TWh in 2000), municipal solid wastes (13.0 TWh) account for 33.2% of the total electricity from biomass, while wood/wood waste and agricultural solid wastes burned in power stations (20 TWh) for 51.1%, with the remainder being generated from biogas. In 1989, 528 GWh were generated from wind turbines whose total installed capacity was 354 MW at that time, while in 2000, 22 434 GWh were generated from an installed capacity of 12 792 MW.

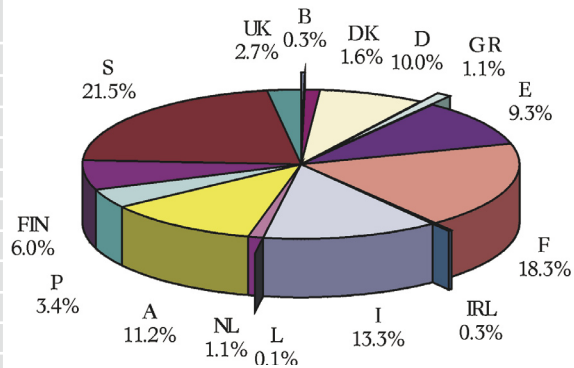




## Electricity Generation from RES in EU-15

Year	Electricity Generation from RES (TWh)	Gross Electricity Consumption (TWh)	Contribution of RES to Gross Electricity Consumption
1989	271	2 044	13.3%
1990	279	2 086	13.4%
1991	289	2 238	12.9%
1992	309	2 251	13.7%
1993	315	2 254	14.0%
1994	325	2 287	14.2%
1995	321	2 345	13.7%
1996	324	2 410	13.5%
1997	335	2 434	13.8%
1998	353	2 506	14.1%
1999	360	2 555	14.1%
2000	388	2 641	14.7%

Member States Contribution to EU-15 RES Electricity Generation in 2000

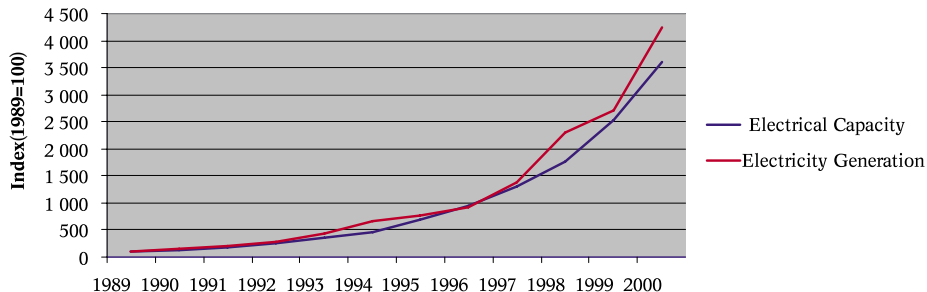


**The Impact of Each Resource**

**Wind**

In 2000, the installed capacity of wind energy converters in EU-15 was 12 792 MW, generating 22 434 GWh of electricity (1931 ktoe). Since 1989, installed capacity has increased by a factor of 36 while electricity generation has risen by a factor of almost forty-two. The average annual increase of the electricity generated by wind energy converters in the period 1995-2000 is 41%.

**Wind Energy Trend in EU-15, 1989-2000**



## ***Hydropower***

Hydropower is the second largest renewable energy source in EU-15 in terms of primary energy production, accounting for 31.6% (27 663 ktoe) of total RES primary energy production in 2000. By the end of 2000, installed capacity was 94 620 MW, showing an increase of 11.2% over the period 1989-2000. It must be stressed that the potential of large-scale plants in the European Union has almost already been exploited.

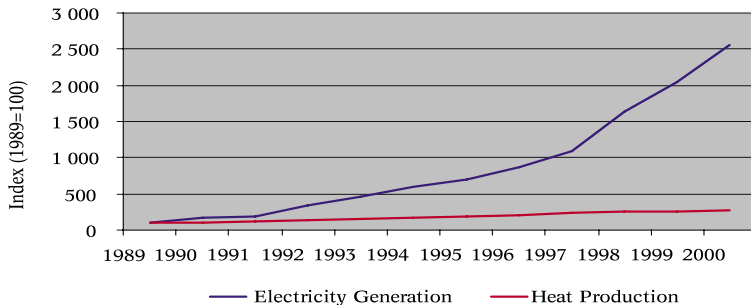
Hydropower in EU-15					
Year	Installed Capacity (MW)	of which < 10 MW	Primary energy production (ktoe)	Electricity generation (TWh)	Contribution of Hydro Electricity in Total RES Electricity
1989	85 055	8 495	21 619	251	93%
1990	85 659	8 604	22 275	259	93%
1991	86 320	8 702	23 085	268	93%
1992	86 739	8 812	24 587	286	93%
1993	87 430	9 084	24 883	289	92%
1994	91 019	9 268	25 536	297	91%
1995	91 380	9 417	24 948	290	90%
1996	91 756	9 653	24 816	288	89%
1997	92 972	9 755	25 454	296	88%
1998	93 614	9 845	26 265	305	86%
1999	93 440	9 870	26 319	306	85%
2000	94 620	9 708	27 663	321	83%

## Solar energy

In 2000, the total installed surface of solar collectors in EU-15 was 10.4 million square metres. Primary energy production was 356 ktoe, i.e. 0.4% of total EU-15 RES primary energy. Production has almost tripled over the reference period. About 29% of the total surface area of installed solar collectors in EU-15 was located in Germany, 29% in Greece and 18% in Austria while the shares to the total heat production are 26%, 28% and 13% for Germany, Greece and Austria respectively.

Installed capacity of photovoltaic (PV) panels in EU-15 by the end of 2000 was 88 MWp, which means an increase of twenty times the 1989 capacity of 4.4 MWp. Electricity generation has risen by a factor of twenty six from 1989 (4 GWh) to 2000 (96 GWh). Significant reductions in cost due to the use of cheaper materials, together with promotion policies in some Member States, have resulted in significant development of PV panels mainly in small-scale stand-alone applications. Germany had the largest PV capacity in EU-15 in 2000 with more than 40 MW.

Solar Energy Evolution in EU-15, 1989-2000



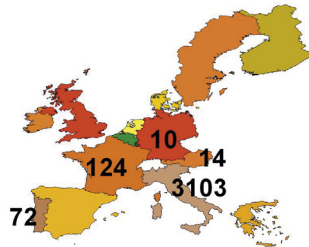
## Geothermal Energy

Primary production of geothermal energy was 3 335 ktoe in 2000, which represented 3.8% of total RES primary energy in EU-15. The main contributing Member State is Italy with 3 103 ktoe in 2000 with a share of 93%.

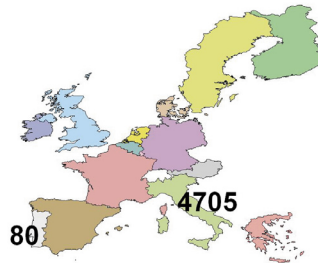
In EU-15, electricity production and installed capacity of geothermal power plants in 2000 were 4 785 GWh and 644 MWe respectively, i.e. an increase of 51.4% in generation and 21.6% in capacity since 1989. Electricity generation is almost exclusively confined to Italy (4 705 GWh) due to the high enthalpy geothermal resources while minor contributions were made by Portugal (80 GWh).

In contrast to the use of geothermal heat for electricity generation, the direct end-use of low enthalpy geothermal heat is more widely spread across the European Union and serves mainly in district heating and agriculture.

Countries  
with more  
than 10 ktoe  
Primary  
Production



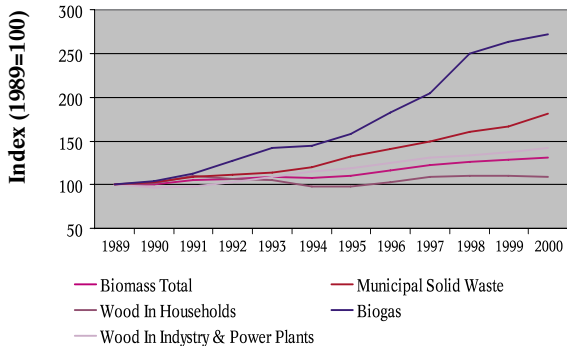
Electricity  
Producing  
Countries  
(GWh)



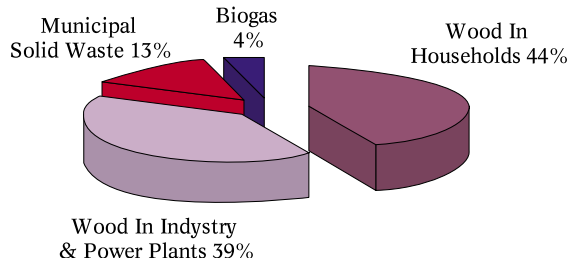
## Biomass/Wastes

Biomass/Wastes are the most important renewable energy sources in EU-15.

Biomass/wastes contributed 53 690 ktoe of primary energy production in EU-15 in 2000, representing 61.3% (62.0% including Biofuels) of total RES energy production. They are mainly used to produce heat, the electricity generation being 39.2 TWh in 2000.



The Breakdown of Biomass in 2000



### ***Municipal Solid Waste incineration***

Incineration is the method used most frequently to recover energy from wastes disposed of by households, industry and the tertiary sector. In 2000, primary energy production of Municipal Solid Wastes, was 7 243 ktoe, i.e. an increase of 81% since 1989, representing about 13.5% of the total primary energy production from biomass/wastes. In Europe, electricity generation from MSW was 13.0 TWh in 2000, showing an increase of 169% since 1989. It represented 33.2% of total electricity generation from biomass/wastes. It must be noticed that, in the above figures, no distinction between biodegradable and non-biodegradable Waste is made.

It must be noticed that although the above data include both biodegradable and non-biodegradable MSW, the statistical system is now adapted to the requirements of the new Directive on electricity from renewables and future statistics will exclude the non-biodegradable part from the production and consumption of Municipal Solid Wastes.

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Primary Production (ktoe)	4 006	4 103	4 376	4 440	4 548	4 811	5 283	5 648	5 968	6 406	6 685	7 243
Primary Production (index 1989=100)	100	102	109	111	114	120	132	141	149	160	167	181

### ***Wood/Wood Wastes/Other Solid Wastes***

The combustion of firewood and forestry/agricultural solid wastes is the major RES technology in EU-15, accounting for 82.5% of total primary energy production from biomass/wastes and 50.5% of the total RES energy production. The principal fuels used are firewood and wood waste (wood chips, bark etc.), while there are minor contributions from black liquor, straw and other agricultural wastes.

Firewood consumption in households was 23 182 ktoe in 2000. France (7 407 ktoe), Germany (3 727 ktoe), Italy (3 614 ktoe) and Spain (2 049 ktoe) show significant levels of firewood consumption for domestic heating. It should be noted here that accurate statistics on firewood consumption can only be obtained with surveys.

The quantity of wood and wood waste used in power stations and industry for electricity and/or heat production was 21 100 ktoe in 2000, while electricity generation was 20.0 TWh, as mentioned above.

#### **Primary Production of Wood, Wood Waste and Other Solid Waste (index 1989=100)**

Year	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
In Households	100	102	110	107	106	98	98	102	109	111	111	109
In Power Stations and Industry	100	97	98	102	110	115	119	125	131	134	137	142

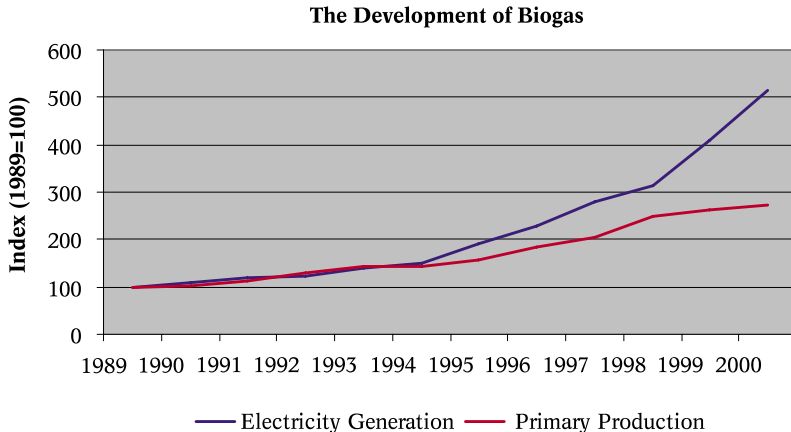


## ***Biogas***

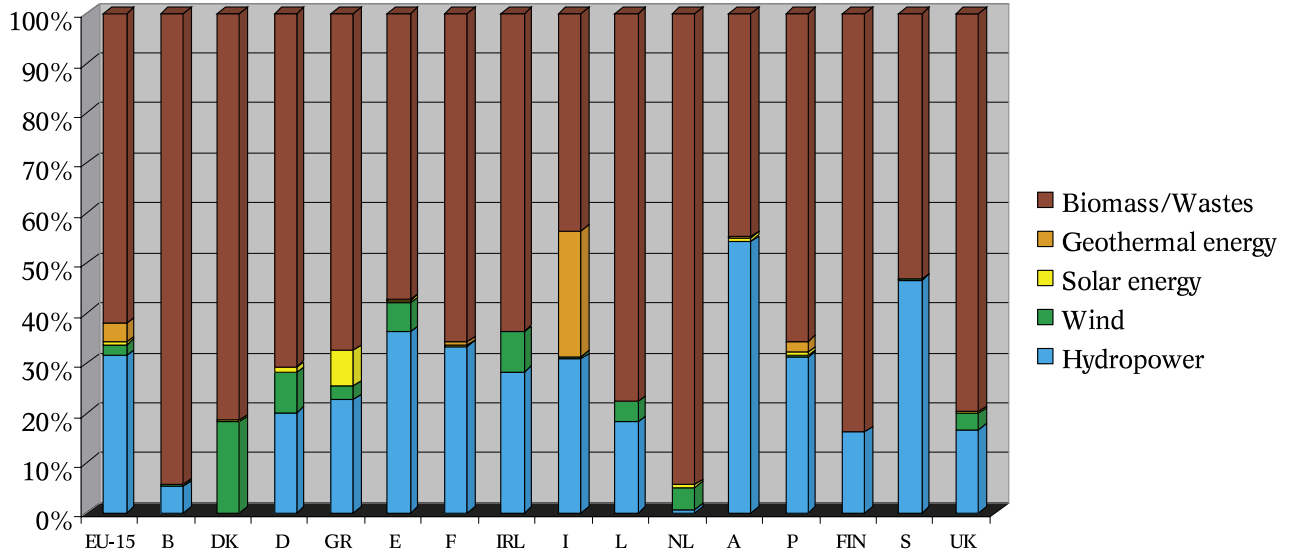
The anaerobic fermentation of organic wastes is a practice that has been rapidly expanding in EU-15. Whereas it is an activity that takes place mainly for environmental reasons, energy recovery is a welcomed by-product. In EU-15, biogas energy production was 2 164 ktoe in 2000, mainly from landfill gas and sewage sludge gas. Electricity generation from biogas in EU-15 was 6.1 TWh in 2000, mainly from landfill gas.

## ***Biofuels***

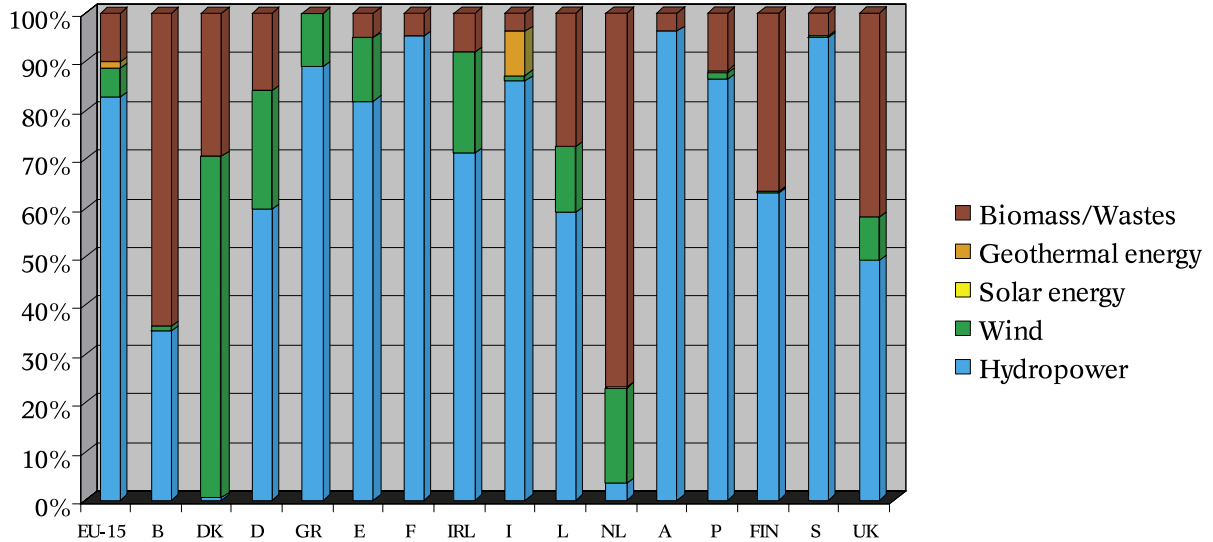
Primary energy production of liquid biofuels in EU-15 has increased significantly since 1989 and attained 663 ktoe in 2000.



Primary Energy Production by Source in 2000



Electricity Generation by Source in 2000





# Renewable Energy Sources Statistics

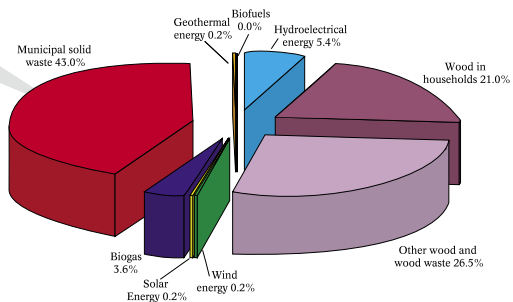
## Country Data



KAPÉ  
GRES

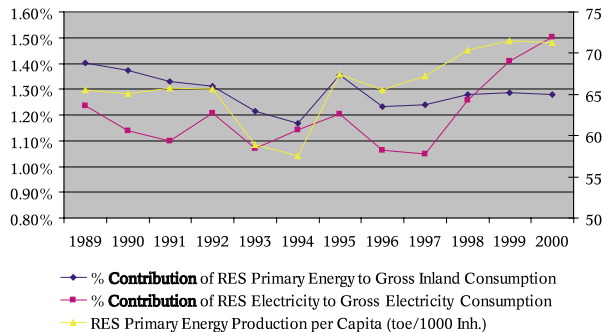


**RES Primary Energy Production in 2000  
breakdown by source**



RES Primary Energy Production (ktoe)	Average Annual Change												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	95-00
Hydroelectrical energy	26	23	20	29	22	30	29	21	26	33	29	40	6%
Wood in households	185	185	185	177	180	176	170	210	167	168	177	154	-2%
Other wood and wood waste	151	151	152	147	70	59	148	97	133	178	197	193	6%
Wind energy	1	1	1	1	1	1	1	1	1	1	1	1	13%
Solar Energy	1	1	1	1	1	1	1	1	1	1	1	1	4%
Biogas	6	6	10	7	7	10	11	10	13	22	20	26	19%
Municipal solid waste	281	281	289	297	311	298	323	325	341	314	304	314	-1%
Geothermal energy		1	1	1	1	1	2	2	2	2	2	1	-3%
Biofuels	0	0	0	0	2	6	0	0	0	0	0	0	0
<b>Total</b>	<b>652</b>	<b>649</b>	<b>659</b>	<b>660</b>	<b>593</b>	<b>582</b>	<b>684</b>	<b>666</b>	<b>684</b>	<b>718</b>	<b>732</b>	<b>731</b>	<b>1%</b>

Wood and wood wastes cover the largest percentage of the total RES primary energy production (47.5% in 2000), while municipal solid waste is the second largest source (43% of RES primary energy production in 2000). MSW is used for the production of the largest percentage of RES electricity. The percentage of RES in the Gross Inland Consumption was 1.3% in 2000 (and is equal to the average of the last ten years), while the percentage of RES electricity in the Gross Electricity Consumption was 1.5% in the same year.



1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
1.4%	1.4%	1.3%	1.3%	1.2%	1.2%	1.4%	1.2%	1.2%	1.3%	1.3%	1.3%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
1.2%	1.1%	1.1%	1.2%	1.1%	1.1%	1.2%	1.1%	1.0%	1.3%	1.4%	1.5%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
66	65	66	66	59	57	67	66	67	70	72	71



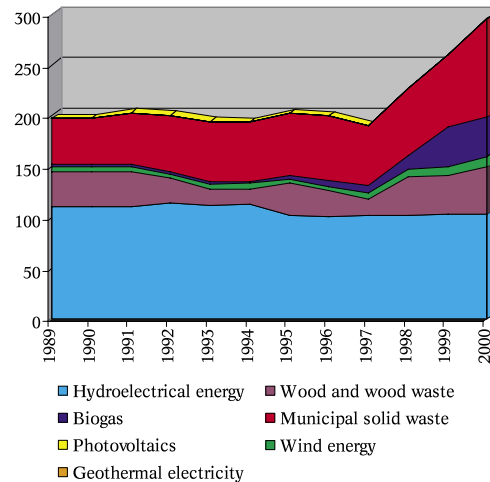
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	1.2%	1.1%	1.1%	1.2%	1.1%	1.1%	1.2%	1.1%	1.0%	1.3%	1.4%	1.5%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	0.5%	0.4%	0.3%	0.5%	0.3%	0.5%	0.4%	0.3%	0.4%	0.5%	0.4%	0.5%
Wood and wood waste	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.2%	0.2%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%
Municipal solid waste	0.5%	0.5%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

### RES Primary Energy Production per Capita (toe/1000 Inh)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	3	2	2	3	2	3	3	2	3	3	3	4
Wood in households	19	19	19	18	18	17	17	21	16	16	17	15
Other wood and wood waste	15	15	15	15	7	6	15	10	13	17	19	19
Wind energy	0	0	0	0	0	0	0	0	0	0	0	0
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0
Biogas	1	1	1	1	1	1	1	1	1	2	2	3
Municipal solid waste	28	28	29	30	31	29	32	32	34	31	30	31
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	1	0	0	0	0	0	0
All RES	66	65	66	66	59	57	67	66	67	70	72	71

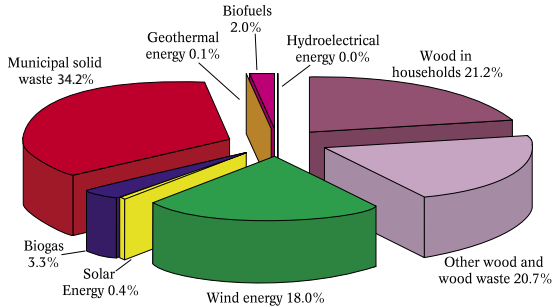
### Installed Capacity of RET's

## MW





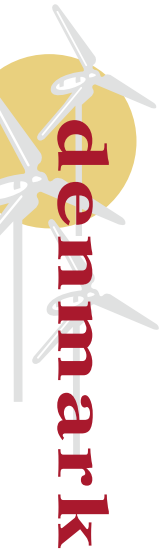
**RES Primary Energy Production in 2000  
breakdown by source**



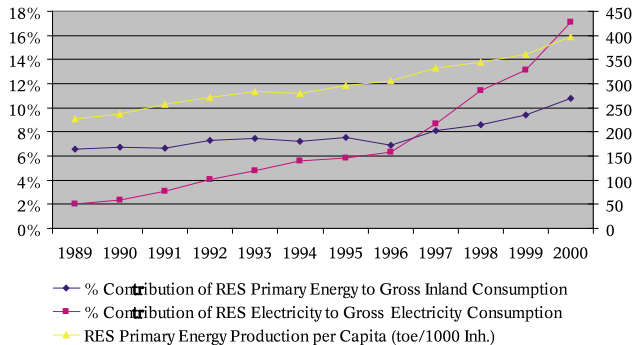
**RES Primary Energy Production (ktoe)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average Annual Change 95-00
Hydroelectrical energy	2	2	2	2	2	3	3	2	2	2	3	2	0%
Wood in households	422	423	458	465	477	455	446	457	455	420	420	448	0%
Other wood and wood waste	312	328	363	394	400	372	388	383	409	435	469	439	2%
Wind energy	37	52	64	79	89	98	101	106	166	242	260	382	30%
Solar Energy	1	2	3	3	4	4	5	6	7	7	8	8	10%
Biogas	26	30	37	37	41	46	42	48	57	64	63	70	11%
Municipal solid waste	368	382	402	419	453	477	560	607	660	652	695	725	5%
Geothermal energy	1	1	1	1	1	1	1	1	1	1	1	1	5%
Biofuels	0	0	0	0	0	0	0	0	0	0	0	42	na
<b>Total</b>	<b>1 169</b>	<b>1 221</b>	<b>1 330</b>	<b>1 401</b>	<b>1 468</b>	<b>1 457</b>	<b>1 546</b>	<b>1 608</b>	<b>1 757</b>	<b>1 824</b>	<b>1 919</b>	<b>2 118</b>	<b>6%</b>





The largest percentage of RES electricity in Denmark is produced by wind energy converters (12% in 2000) and by incinerators of MSW (3.4% in 2000). Wood and wood wastes cover the largest percentage of the total RES primary energy production (41.9% in 2000), while MSW is the second largest source (34.2% of RES primary energy production in 2000). The percentage of RES in the Gross Inland Consumption was 10.8% in 2000, while the percentage of RES electricity in the Gross Electricity Consumption was 17.1% in the same year.

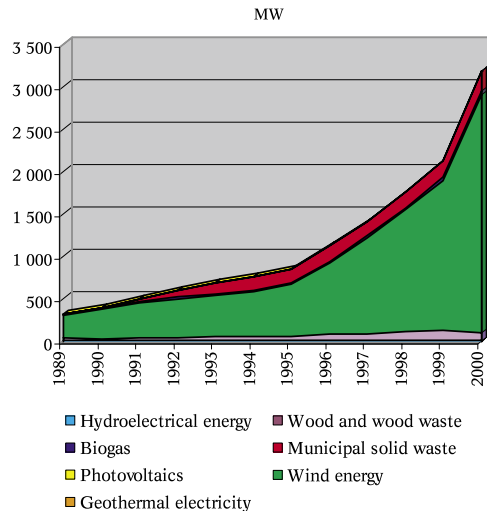


1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
6.5%	6.7%	6.7%	7.3%	7.5%	7.2%	7.5%	6.9%	8.1%	8.6%	9.4%	10.8%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
2.0%	2.4%	3.0%	4.0%	4.8%	5.6%	5.8%	6.3%	8.7%	11.4%	13.1%	17.1%
<b>RES Primary Energy Production per Capita (toe/1000 Inh.)</b>											
228	238	258	271	283	280	295	306	332	344	361	397

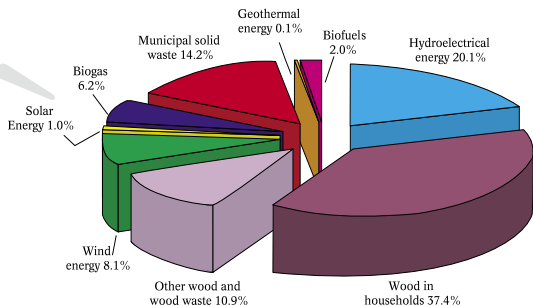
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	2.0%	2.4%	3.0%	4.0%	4.8%	5.6%	5.8%	6.3%	8.7%	11.4%	13.1%	17.1%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.1%	0.1%
Wood and wood waste	0.5%	0.2%	0.3%	0.4%	0.5%	0.5%	0.5%	0.8%	0.9%	1.2%	1.3%	1.1%
Wind energy	1.3%	1.9%	2.1%	2.6%	3.0%	3.2%	3.3%	3.2%	5.2%	7.7%	8.3%	12.0%
Biogas	0.1%	0.1%	0.2%	0.2%	0.2%	0.3%	0.2%	0.2%	0.3%	0.3%	0.5%	0.6%
Municipal solid waste	0.0%	0.1%	0.3%	0.8%	1.0%	1.5%	1.7%	2.0%	2.2%	2.3%	2.9%	3.4%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	0	0	0	0	0	1	0	0	0	0	1	0
Wood in households	82	82	89	90	92	87	85	87	86	79	79	84
Other wood and wood waste	61	64	70	76	77	71	74	73	77	82	88	82
Wind energy	7	10	12	15	17	19	19	20	31	46	49	72
Solar Energy	0	0	1	1	1	1	1	1	1	1	1	1
Biogas	5	6	7	7	8	9	8	9	11	12	12	13
Municipal solid waste	72	74	78	81	87	92	107	115	125	123	131	136
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	8
All RES	228	238	258	271	283	280	295	306	332	344	361	397

## Installed Capacity of RET's



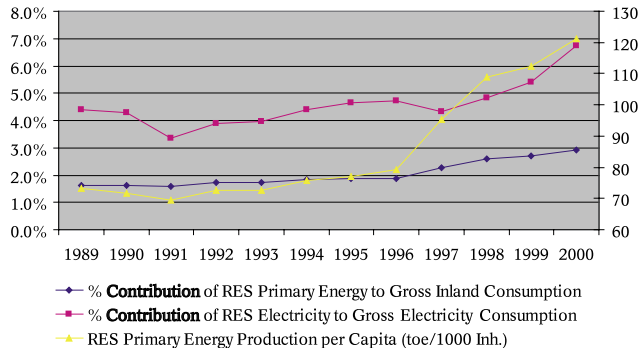
**RES Primary Energy Production in 2000  
breakdown by source**



**RES Primary Energy Production (ktoe)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average Annual Change 95-00
Hydroelectrical energy	1 439	1 385	1 242	1 470	1 473	1 591	1 698	1 718	1 492	1 511	1 689	1 997	3%
Wood in households	2 180	2 180	2 188	2 188	2 188	2 188	2 188	2 188	3 675	3 815	3 745	3 727	11%
Other wood and wood waste	781	764	729	743	767	788	774	806	754	1 072	1 064	1 082	7%
Wind energy	2	6	18	25	58	123	147	179	261	395	475	805	40%
Solar Energy	7	8	9	14	21	37	41	57	70	83	78	96	19%
Biogas	298	292	292	336	334	333	333	369	391	620	621	621	13%
Municipal solid waste	1 063	1 063	1 063	1 063	1 036	1 066	1 073	1 103	1 083	1 339	1 416	1 416	6%
Geothermal energy	7	7	7	9	9	9	9	10	10	10	10	10	3%
Biofuels	0	0	0	4	4	27	33	53	86	96	124	203	43%
<b>Total</b>	<b>5 777</b>	<b>5 705</b>	<b>5 549</b>	<b>5 850</b>	<b>5 890</b>	<b>6 160</b>	<b>6 295</b>	<b>6 482</b>	<b>7 821</b>	<b>8 939</b>	<b>9 221</b>	<b>9 956</b>	<b>10%</b>

The contribution of RES in the Gross Inland Consumption was 2.9% in 2000, while the contribution of RES electricity in the Gross Electricity Consumption was 6.8% in the same year. Wood and wood wastes cover the largest percentage of the total RES primary energy production (48.3% in 2000), while hydroelectric energy is the second largest source (20% of RES primary energy production in 2000). Finally, municipal solid waste cover 14.2% of RES primary energy production in 2000. The installed capacity of wind energy converters has increased considerably to 6.1 GW in 2000.



1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
1.6%	1.6%	1.6%	1.7%	1.7%	1.8%	1.9%	1.9%	2.3%	2.6%	2.7%	2.9%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
4.4%	4.3%	3.3%	3.9%	4.0%	4.4%	4.7%	4.7%	4.3%	4.8%	5.4%	6.8%
<b>RES Primary Energy Production per Capita (toe/1000 Inh.)</b>											
73	72	69	73	73	76	77	79	95	109	112	121

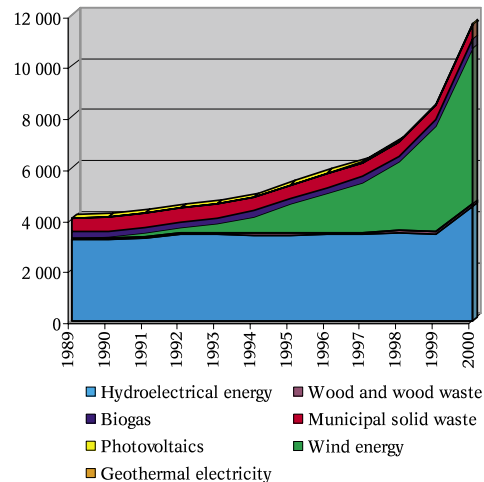


	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>	4.4%	4.3%	3.3%	3.9%	4.0%	4.4%	4.7%	4.7%	4.3%	4.8%	5.4%	6.8%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	3.7%	3.5%	2.7%	3.2%	3.2%	3.5%	3.6%	3.6%	3.2%	3.2%	3.5%	4.0%
Wood and wood waste	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Wind energy	0.0%	0.0%	0.0%	0.1%	0.1%	0.3%	0.3%	0.4%	0.6%	0.8%	1.0%	1.6%
Biogas	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.3%
Municipal solid waste	0.6%	0.6%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.4%	0.6%	0.6%	0.6%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

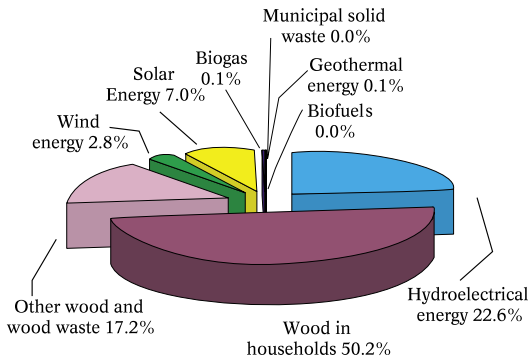
### RES Primary Energy Production per Capita (toe/1000 Inh )

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	18	17	16	18	18	20	21	21	18	18	21	24
Wood in households	28	27	27	27	27	27	27	27	45	46	46	45
Other wood and wood waste	10	10	9	9	9	10	9	10	9	13	13	13
Wind energy	0	0	0	0	1	2	2	2	3	5	6	10
Solar Energy	0	0	0	0	0	0	1	1	1	1	1	1
Biogas	4	4	4	4	4	4	4	5	5	8	8	8
Municipal solid waste	13	13	13	13	13	13	13	13	13	16	17	17
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	1	1	1	2	2
<b>All RES</b>	<b>73</b>	<b>72</b>	<b>69</b>	<b>73</b>	<b>73</b>	<b>76</b>	<b>77</b>	<b>79</b>	<b>95</b>	<b>109</b>	<b>112</b>	<b>121</b>

**Installed Capacity of RET's  
MW**



**RES Primary Energy Production in 2000  
breakdown by source**



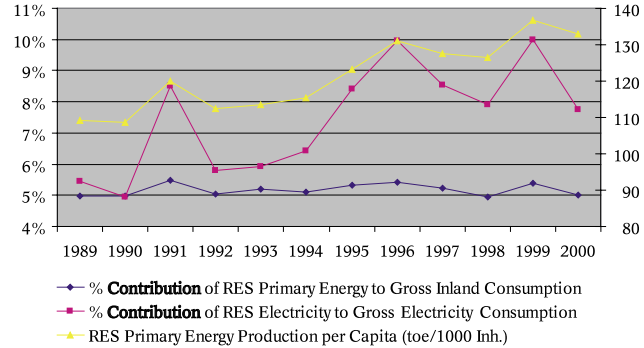
**RES Primary Energy Production (ktoe)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average Annual Change 95-00
Hydroelectrical energy	163	152	266	189	196	223	303	374	334	320	416	318	1%
Wood in households	702	702	702	702	702	702	702	702	702	702	702	704	0%
Other wood and wood waste	183	191	195	196	197	191	195	206	208	205	209	241	4%
Wind energy	0	0	0	1	4	3	3	3	3	6	14	39	68%
Solar Energy	51	57	63	70	75	79	82	86	89	93	97	99	4%
Biogas	0	0	0	1	1	1	1	1	1	1	1	1	na
Municipal solid waste	0	0	0	0	0	0	0	0	0	0	0	0	na
Geothermal energy	3	3	3	3	3	4	3	3	2	3	2	2	na
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>1 102</b>	<b>1 104</b>	<b>1 230</b>	<b>1 161</b>	<b>1 178</b>	<b>1 203</b>	<b>1 289</b>	<b>1 374</b>	<b>1 339</b>	<b>1 329</b>	<b>1 442</b>	<b>1 403</b>	<b>2%</b>





In Greece, wood and wood wastes cover the largest percentage of the total RES primary energy production (67.3% in 2000), while hydroelectric energy is the second largest source (22.6% of RES primary energy production in 2000). Hydroelectric energy covered about 6.9% and wind energy covered 0.8% of the Gross Electricity Consumption. The percentage of RES in the Gross Inland Consumption was 5% in 2000, while the percentage of RES electricity in the Gross Electricity Consumption was 7.7% in the same year.



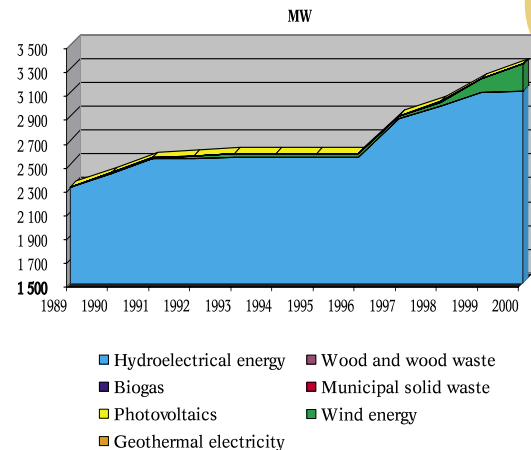
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
5.0%	5.0%	5.5%	5.0%	5.2%	5.1%	5.3%	5.4%	5.2%	4.9%	5.4%	5.0%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
5.4%	4.9%	8.5%	5.8%	5.9%	6.4%	8.4%	10.0%	8.5%	7.9%	10.0%	7.7%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
109	109	120	113	113	115	123	131	128	126	137	133



	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	5.4%	4.9%	8.5%	5.8%	5.9%	6.4%	8.4%	10.0%	8.5%	7.9%	10.0%	7.7%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	5.4%	4.9%	8.5%	5.8%	5.8%	6.3%	8.3%	9.9%	8.5%	7.7%	9.7%	6.9%
Wood and wood waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.3%	0.8%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Municipal solid waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

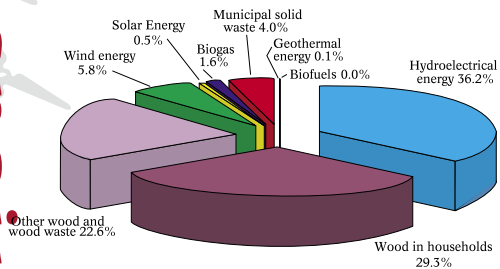
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	16	15	26	18	19	21	29	36	32	30	40	30
Wood in households	70	69	69	68	68	67	67	67	67	67	67	67
Other wood and wood waste	18	19	19	19	19	18	19	20	20	19	20	23
Wind energy	0	0	0	0	0	0	0	0	0	1	1	4
Solar Energy	5	6	6	7	7	8	8	8	8	9	9	9
Biogas	0	0	0	0	0	0	0	0	0	0	0	0
Municipal solid waste	0	0	0	0	0	0	0	0	0	0	0	0
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	109	109	120	113	113	115	123	131	128	126	137	133

**Installed Capacity of RET's**





**RES Primary Energy Production in 2000  
breakdown by source**

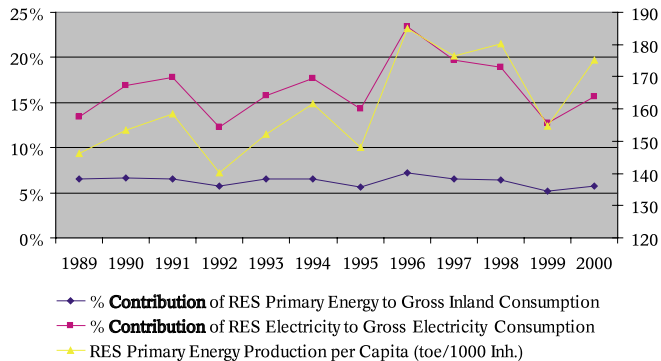


**RES Primary Energy Production (ktoe)**

Average  
Annual  
Change

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	95-00
Hydroelectrical energy	1 664	2 186	2 348	1 620	2 088	2 410	1 989	3 396	2 991	2 926	1 968	2 536	5%
Wood in households	2 074	2 074	2 084	2 097	2 099	2 102	1 992	1 992	1 991	1 991	1 992	2 049	1%
Other wood and wood waste	1 839	1 587	1 622	1 612	1 623	1 636	1 507	1 532	1 546	1 624	1 613	1 579	1%
Wind energy	1	1	1	9	10	15	23	29	62	185	236	407	77%
Solar Energy	21	21	21	21	22	24	25	26	25	27	29	33	6%
Biogas	10	10	10	17	19	22	75	77	79	82	90	109	8%
Municipal solid waste	60	81	81	87	87	116	187	211	244	275	199	279	8%
Geothermal energy	2	2	2	7	7	7	7	7	7	7	5	8	3%
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>5 671</b>	<b>5 962</b>	<b>6 170</b>	<b>5 469</b>	<b>5 953</b>	<b>6 332</b>	<b>5 805</b>	<b>7 269</b>	<b>6 944</b>	<b>7 116</b>	<b>6 132</b>	<b>6 998</b>	<b>4%</b>

Renewable Energy Sources in Spain accounted for 5.7% of the Gross Inland Consumption in 2000, while the contribution of RES electricity in the Gross Electricity Consumption was 15.7% in the same year. Wood and wood wastes cover the largest percentage of the total RES primary energy production (51.8% in 2000), while hydroelectric energy is the second largest source (36.2% of RES primary energy production in 2000). Wind energy electricity covers 2.1% of the Gross Consumption of Electricity, and the installed capacity of wind energy converters has increased dramatically to 1.9 GW in 2000.



1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
6.5%	6.7%	6.6%	5.7%	6.5%	6.5%	5.7%	7.2%	6.5%	6.4%	5.2%	5.7%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
13.4%	16.9%	17.7%	12.3%	15.8%	17.7%	14.3%	23.5%	19.7%	19.0%	12.8%	15.7%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
146	153	159	140	152	162	148	185	176	180	155	175



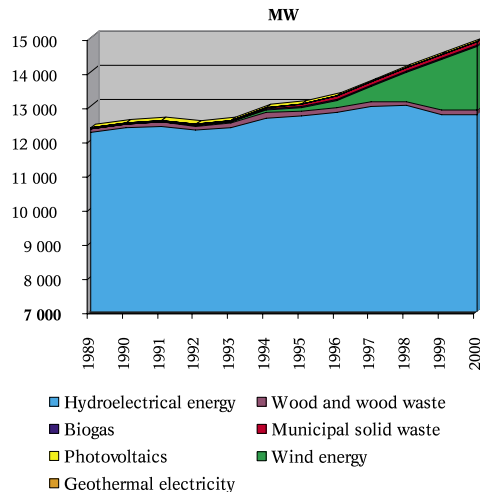


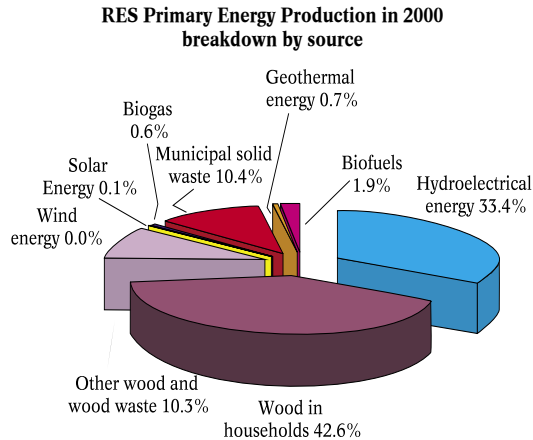
Spain

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	13.4%	16.9%	17.7%	12.3%	15.8%	17.7%	14.3%	23.5%	19.7%	19.0%	12.8%	15.7%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	13.2%	16.8%	17.6%	11.8%	15.3%	17.1%	13.5%	22.5%	18.6%	17.1%	10.6%	12.8%
Wood and wood waste	0.1%	0.1%	0.1%	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%	0.4%	0.4%
Wind energy	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%	0.4%	1.1%	1.3%	2.1%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Municipal solid waste	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	43	56	60	42	53	62	51	86	76	74	50	64
Wood in households	53	53	54	54	54	54	51	51	51	50	50	51
Other wood and wood waste	47	41	42	41	42	42	38	39	39	41	41	40
Wind energy	0	0	0	0	0	0	1	1	2	5	6	10
Solar Energy	1	1	1	1	1	1	1	1	1	1	1	1
Biogas	0	0	0	0	0	1	2	2	2	2	2	3
Municipal solid waste	2	2	2	2	2	3	5	5	6	7	5	7
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	146	153	159	140	152	162	148	185	176	180	155	175

Installed Capacity of RET's





**RES Primary Energy Production (ktoe)**

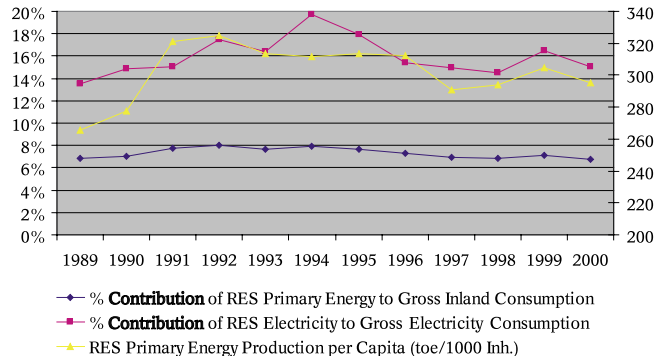
Average  
Annual  
Change

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	95-00
Hydroelectrical energy	4 122	4 636	5 051	5 997	5 627	6 822	6 315	5 650	5 399	5 388	6 284	5 810	-2%
Wood in households	7 770	7 990	9 890	9 177	9 070	7 625	7 778	8 422	7 417	7 610	7 481	7 407	-1%
Other wood and wood waste	1 785	1 799	1 848	1 914	1 792	1 922	1 956	1 908	2 022	2 046	1 961	1 786	-2%
Wind energy	0	0	0	0	0	1	1	1	2	4	3	7	62%
Solar Energy	12	12	13	13	13	14	15	15	16	17	18	25	12%
Biogas	116	116	116	118	120	125	131	137	143	150	150	107	-4%
Municipal solid waste	1 033	1 050	1 253	1 255	1 256	1 266	1 640	1 610	1 514	1 560	1 560	1 811	2%
Geothermal energy	133	125	125	130	122	125	132	133	124	117	117	124	-1%
Biofuels	0	0	0	3	25	84	162	241	305	259	279	323	15%
<b>Total</b>	<b>14 970</b>	<b>15 728</b>	<b>18 295</b>	<b>18 606</b>	<b>18 025</b>	<b>17 984</b>	<b>18 129</b>	<b>18 116</b>	<b>16 944</b>	<b>17 152</b>	<b>17 854</b>	<b>17 400</b>	<b>-1%</b>





RES electricity was 15% of the Gross Electricity Consumption in 2000, while the contribution of RES in the Gross Inland Consumption was 6.8% in the same year. Wood and wood wastes cover the largest percentage of the total RES primary energy production (52.8% in 2000), while hydroelectric energy is the second largest source (33.4% of RES primary energy production in 2000) with an installed capacity of 21 GW. Hydroelectric energy covered about 14% of the Gross Electricity Consumption.



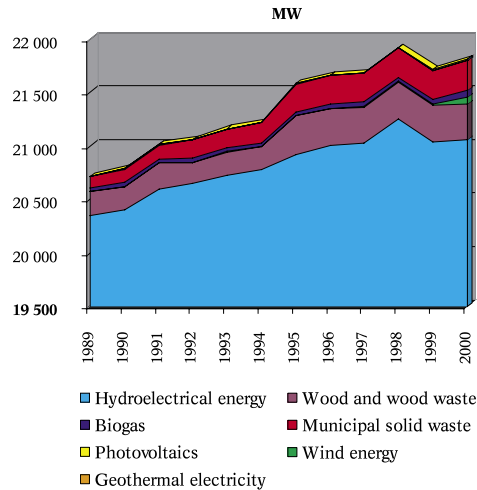
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
6.9%	7.0%	7.8%	8.0%	7.6%	7.9%	7.7%	7.3%	7.0%	6.8%	7.1%	6.8%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
13.5%	14.8%	15.1%	17.5%	16.4%	19.7%	17.9%	15.4%	15.0%	14.5%	16.5%	15.0%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
265	277	321	325	314	312	313	312	291	294	305	295

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	13.5%	14.8%	15.1%	17.5%	16.4%	19.7%	17.9%	15.4%	15.0%	14.5%	16.5%	15.0%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	13.1%	14.4%	14.6%	17.0%	15.9%	19.2%	17.3%	14.8%	14.3%	13.8%	15.8%	14.3%
Wood and wood waste	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%	0.4%	0.4%	0.4%	0.4%	0.3%	0.3%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Municipal solid waste	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.3%	0.3%	0.2%	0.3%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

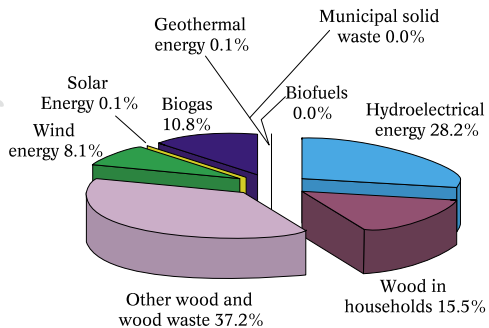
### RES Primary Energy Production per Capita (toe/1000 Inh )

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	73	82	89	105	98	118	109	97	93	92	107	99
Wood in households	138	141	174	160	158	132	134	145	127	130	128	126
Other wood and wood waste	32	32	32	33	31	33	34	33	35	35	33	30
Wind energy	0	0	0	0	0	0	0	0	0	0	0	0
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0
Biogas	2	2	2	2	2	2	2	2	2	3	3	2
Municipal solid waste	18	19	22	22	22	22	28	28	26	27	27	31
Geothermal energy	2	2	2	2	2	2	2	2	2	2	2	2
Biofuels	0	0	0	0	0	1	3	4	5	4	5	5
All RES	265	277	321	325	314	312	313	312	291	294	305	295

### Installed Capacity of RET's



**RES Primary Energy Production in 2000  
breakdown by source**

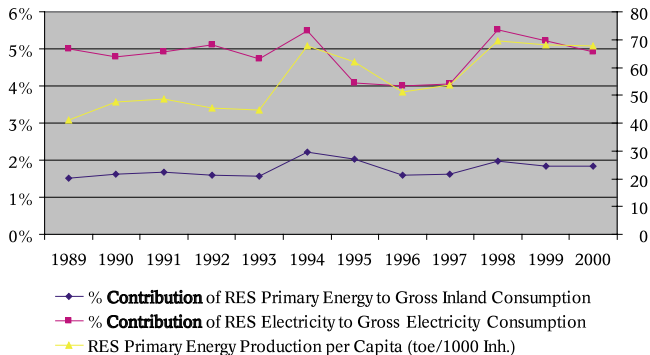


**RES Primary Energy Production (ktoe)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average Annual Change 95-00
Hydroelectrical energy	60	60	64	70	66	79	61	62	58	79	73	73	4%
Wood in households	39	45	45	57	57	41	40	41	41	43	43	40	0%
Other wood and wood waste	43	61	61	32	33	118	119	68	68	87	87	96	-4%
Wind energy	0	0	0	0	1	2	1	1	4	15	16	21	74%
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biogas	2	2	3	3	4	2	3	14	26	35	37	28	58%
Municipal solid waste	0	0	0	0	0	0	0	0	0	0	0	0	na
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>144</b>	<b>168</b>	<b>172</b>	<b>162</b>	<b>160</b>	<b>243</b>	<b>224</b>	<b>186</b>	<b>198</b>	<b>259</b>	<b>256</b>	<b>258</b>	<b>3%</b>



Wood and wood wastes cover the largest percentage of the total RES primary energy production (52.7% in 2000), while hydroelectric energy is the second largest source (28.2% of RES primary energy production in 2000) and biogas is the third (10.8% of RES primary energy production in 2000). Hydroelectric energy covered about 3.5% and wind electricity covered 1% of the Gross Electricity Consumption. RES accounted for 1.8% of the Gross Inland Consumption in 2000, while the contribution of RES electricity in the Gross Electricity Consumption was 4.9% in the same year.



1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
1.5%	1.6%	1.7%	1.6%	1.6%	2.2%	2.0%	1.6%	1.6%	2.0%	1.8%	1.8%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
5.0%	4.8%	4.9%	5.1%	4.7%	5.5%	4.1%	4.0%	4.0%	5.5%	5.2%	4.9%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
41	48	49	45	45	68	62	51	54	70	68	68

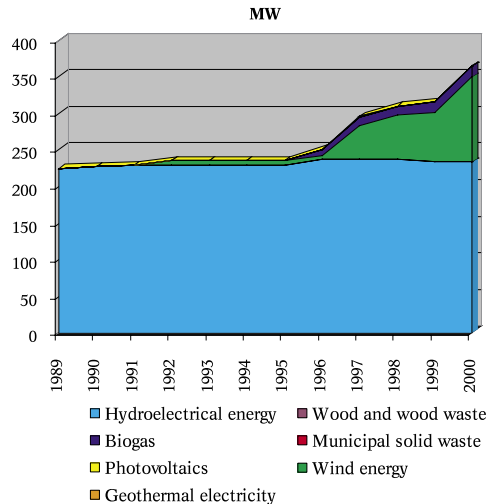




	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	5.0%	4.8%	4.9%	5.1%	4.7%	5.5%	4.1%	4.0%	4.0%	5.5%	5.2%	4.9%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	5.0%	4.8%	4.9%	5.1%	4.7%	5.4%	4.0%	3.8%	3.4%	4.3%	3.8%	3.5%
Wood and wood waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%	0.8%	0.8%	1.0%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.4%	0.4%	0.6%	0.4%
Municipal solid waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

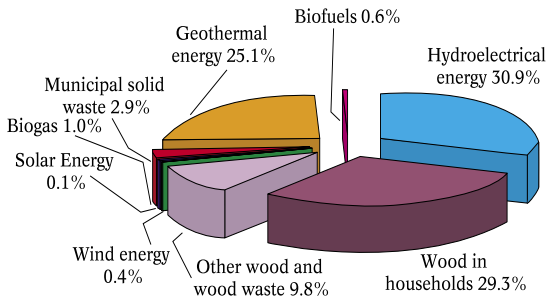
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	17	17	18	20	18	22	17	17	16	21	19	19
Wood in households	11	13	13	16	16	12	11	11	11	12	12	11
Other wood and wood waste	12	17	17	9	9	33	33	19	18	24	23	25
Wind energy	0	0	0	0	0	0	0	0	1	4	4	6
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0
Biogas	1	1	1	1	1	1	1	4	7	9	10	7
Municipal solid waste	0	0	0	0	0	0	0	0	0	0	0	0
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	41	48	49	45	45	68	62	51	54	70	68	68

**Installed Capacity of RET's**



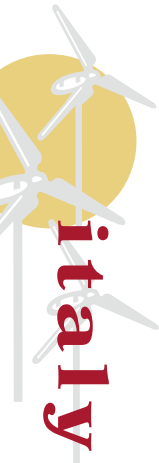


**RES Primary Energy Production in 2000  
breakdown by source**

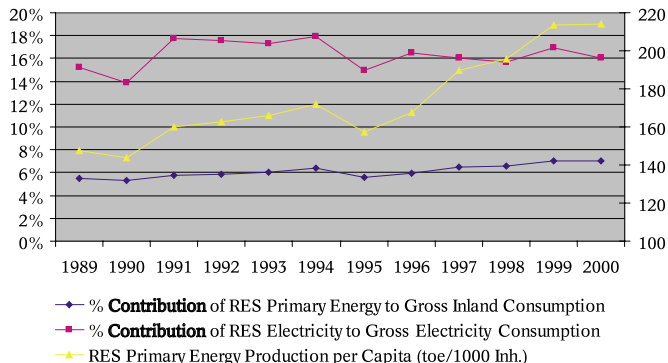


**RES Primary Energy Production (ktoe)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average Annual Change
Hydroelectrical energy	2 928	2 719	3 632	3 628	3 562	3 840	3 249	3 615	3 577	3 544	3 901	3 816	3%
Wood in households	2 150	2 150	2 150	2 150	2 150	2 252	2 226	2 226	3 344	3 334	3 614	3 614	10%
Other wood and wood waste	965	970	970	998	1 007	1 020	1 002	1 021	1 038	1 073	1 210	1 206	4%
Wind energy	0	0	0	0	0	1	1	3	10	20	35	48	127%
Solar Energy	5	5	5	5	7	8	8	8	8	11	11	11	7%
Biogas	56	63	63	59	59	10	19	59	95	142	167	122	45%
Municipal solid waste	191	191	197	197	215	265	124	134	172	273	374	356	23%
Geothermal energy	2 067	2 073	2 050	2 226	2 465	2 312	2 323	2 524	2 611	2 801	2 915	3 103	6%
Biofuels	0	0	0	0	0	120	63	43	66	78	78	78	5%
<b>Total</b>	<b>8 362</b>	<b>8 170</b>	<b>9 066</b>	<b>9 263</b>	<b>9 464</b>	<b>9 828</b>	<b>9 014</b>	<b>9 632</b>	<b>10 921</b>	<b>11 275</b>	<b>12 304</b>	<b>12 354</b>	<b>7%</b>



7% of the Gross Inland Consumption in 2000 was covered by RES, while the percentage of RES electricity in the Gross Electricity Consumption was 16.1% in the same year. Wood and wood wastes cover the largest percentage of the total RES primary energy production (39% in 2000), while hydroelectric energy is the second largest source (30.9% of RES primary energy production in 2000) and geothermal energy is the third (25.1% of RES primary energy production in 2000). Hydroelectric energy covered about 13.8% and geothermal electricity covered 1.5% of the Gross Electricity Consumption.



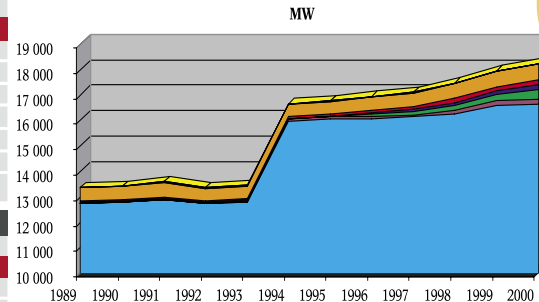
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
5.5%	5.3%	5.8%	5.8%	6.1%	6.4%	5.5%	5.9%	6.5%	6.5%	7.0%	7.0%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
15.3%	13.9%	17.8%	17.6%	17.3%	18.0%	14.9%	16.5%	16.0%	15.6%	16.9%	16.1%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
148	144	160	163	166	172	157	168	190	196	213	214

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>	15.3%	13.9%	17.8%	17.6%	17.3%	18.0%	14.9%	16.5%	16.0%	15.6%	16.9%	16.1%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	13.9%	12.6%	16.4%	16.1%	15.8%	16.6%	13.6%	14.9%	14.4%	13.7%	14.8%	13.8%
Wood and wood waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.2%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%	0.2%	0.2%
Municipal solid waste	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.3%
Geothermal electricity	1.3%	1.3%	1.2%	1.3%	1.4%	1.3%	1.2%	1.3%	1.3%	1.4%	1.4%	1.5%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

### RES Primary Energy Production per Capita (toe/1000 Inh)

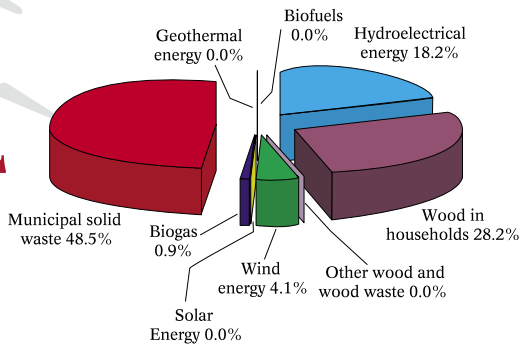
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	52	48	64	64	62	67	57	63	62	62	68	66
Wood in households	38	38	38	38	38	39	39	39	58	58	63	63
Other wood and wood waste	17	17	17	18	18	18	17	18	18	19	21	21
Wind energy	0	0	0	0	0	0	0.0	0.0	0.2	0.3	0.6	0.8
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0
Biogas	1	1	1	1	1	0	0	1	2	2	3	2
Municipal solid waste	3	3	3	3	4	5	2	2	3	5	6	6
Geothermal energy	36	37	36	39	43	40	41	44	45	49	51	54
Biofuels	0	0	0	0	0	2	1	1	1	1	1	1
All RES	148	144	160	163	166	172	157	168	190	196	213	214

### Installed Capacity of RET's



- Hydroelectrical energy
- Wood and wood waste
- Biogas
- Municipal solid waste
- Photovoltaics
- Wind energy
- Geothermal electricity

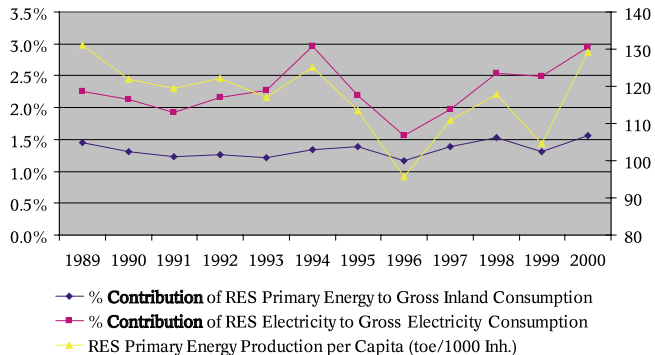
**RES Primary Energy Production in 2000  
breakdown by source**



**RES Primary Energy Production (ktoe)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average Annual Change 95-00
Hydroelectrical energy	6	6	5	6	6	10	7	5	7	10	8	10	7%
Wood in households	15	15	15	15	15	15	15	15	15	15	15	16	1%
Other wood and wood waste	0	0	0	0	0	0	0	0	0	0	0	0	na
Wind energy	0	0	0	0	0	0	0	0	0	1	2	2	na
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biogas	0	1	1	1	1	1	1	2	1	2	0	1	na
Municipal solid waste	28	25	26	26	25	24	23	18	23	23	20	28	4%
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>49</b>	<b>47</b>	<b>46</b>	<b>48</b>	<b>47</b>	<b>51</b>	<b>47</b>	<b>40</b>	<b>47</b>	<b>50</b>	<b>45</b>	<b>57</b>	<b>4%</b>

Municipal solid waste covers the largest percentage of the total RES primary energy production (48.5% in 2000), while wood and wood waste is the second largest source (28.2% of RES primary energy production in 2000) and hydroelectric energy is the third (18.2% of RES primary energy production in 2000). Hydroelectric energy covered about 1.7% and wind electricity covered 0.4% of the Gross Electricity Consumption. The contribution of RES in the Gross Inland Consumption was 1.6% in 2000, while the contribution of RES electricity in the Gross Electricity Consumption was 2.9% in the same year.

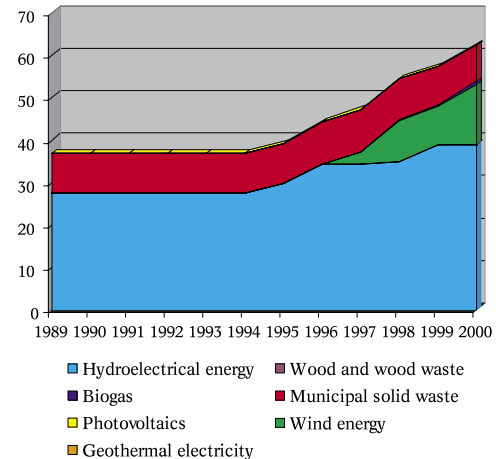


1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
1.5%	1.3%	1.2%	1.3%	1.2%	1.3%	1.4%	1.2%	1.4%	1.5%	1.3%	1.6%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
2.3%	2.1%	1.9%	2.2%	2.3%	3.0%	2.2%	1.6%	2.0%	2.5%	2.5%	2.9%
<b>RES Primary Energy Production per Capita (toe/1000 Inh.)</b>											
131	122	119	122	117	125	113	96	111	118	105	129



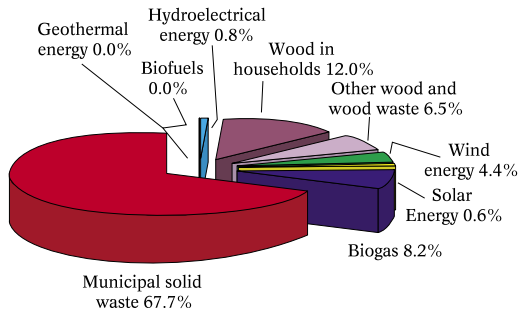
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	2.3%	2.1%	1.9%	2.2%	2.3%	3.0%	2.2%	1.6%	2.0%	2.5%	2.5%	2.9%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	1.3%	1.3%	1.0%	1.3%	1.3%	2.1%	1.3%	1.0%	1.2%	1.7%	1.4%	1.7%
Wood and wood waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.3%	0.4%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Municipal solid waste	0.9%	0.9%	0.9%	0.8%	1.0%	0.9%	0.8%	0.6%	0.7%	0.7%	0.8%	0.8%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	16	15	12	15	14	25	18	12	16	23	19	24
Wood in households	41	40	40	39	39	38	38	37	37	36	35	36
Other wood and wood waste	0	0	0	0	0	0	0	0	0	0	0	0
Wind energy	0	0	0	0	0	0	0	0	0	2	3	5
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0
Biogas	1	2	1	2	2	2	2	4	3	4	0	1
Municipal solid waste	74	65	66	66	62	60	56	43	55	53	46	63
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	131	122	119	122	17	125	113	96	111	118	105	129

### Installed Capacity of RET's





**RES Primary Energy Production in 2000  
breakdown by source**

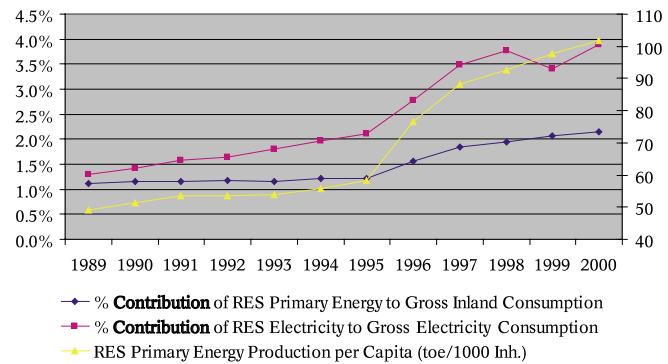


**RES Primary Energy Production (ktoe)**

Average  
Annual  
Change

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	95-00
Hydroelectrical energy	3	7	9	10	8	9	8	7	8	9	8	12	10%
Wood in households	221	221	218	218	214	211	211	208	208	208	208	194	-2%
Other wood and wood waste	35	42	42	38	37	33	33	36	46	59	59	106	26%
Wind energy	3	5	8	13	15	20	27	38	41	55	55	71	21%
Solar Energy	1	2	2	3	3	3	4	4	5	7	7	9	19%
Biogas	64	64	75	93	100	107	119	125	128	123	119	132	2%
Municipal solid waste	403	429	454	441	447	473	497	774	943	994	1 090	1 098	17%
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>730</b>	<b>770</b>	<b>807</b>	<b>815</b>	<b>825</b>	<b>857</b>	<b>899</b>	<b>1 191</b>	<b>1 380</b>	<b>1 454</b>	<b>1 546</b>	<b>1 622</b>	<b>13%</b>

Municipal solid waste covers the largest percentage of the total RES primary energy production (67.7% in 2000), while wood and wood waste is the second largest source (18.5% of RES primary energy production in 2000) and biogas is the third (8.2% of RES primary energy production in 2000). Electricity of MSW origin covered about 2.4% and wind electricity covered 0.8% of the Gross Electricity Consumption. The percentage of RES in the Gross Inland Consumption was 2.1% in 2000, while the percentage of RES electricity in the Gross Electricity Consumption was 3.9% in the same year.

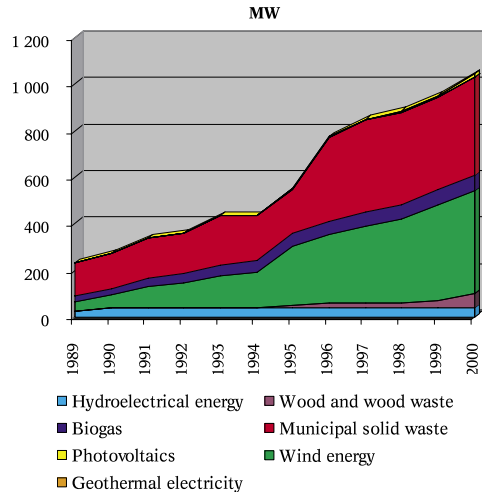


1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.6%	1.8%	1.9%	2.1%	2.1%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
1.3%	1.4%	1.6%	1.6%	1.8%	2.0%	2.1%	2.8%	3.5%	3.8%	3.4%	3.9%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
49	52	54	54	54	56	58	77	88	93	98	102

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	1.3%	1.4%	1.6%	1.6%	1.8%	2.0%	2.1%	2.8%	3.5%	3.8%	3.4%	3.9%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Wood and wood waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%
Wind energy	0.1%	0.1%	0.1%	0.2%	0.2%	0.3%	0.3%	0.5%	0.5%	0.6%	0.6%	0.8%
Biogas	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.3%	0.3%
Municipal solid waste	1.1%	1.1%	1.2%	1.2%	1.3%	1.3%	1.4%	2.0%	2.6%	2.8%	2.4%	2.4%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

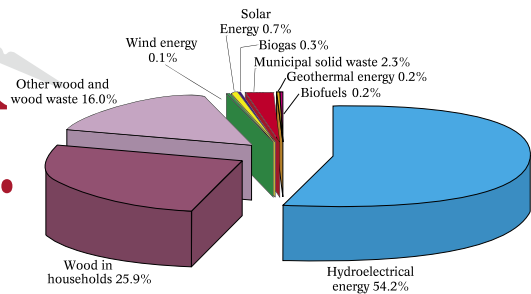
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	0	0	1	1	1	1	0	0	1	1	0	1
Wood in households	15	15	14	14	14	14	14	13	13	13	13	12
Other wood and wood waste	2	3	3	3	2	2	2	2	3	4	4	7
Wind energy	0	0	0	1	1	1	2	2	3	4	4	4
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	1
Biogas	4	4	5	6	7	7	8	8	8	8	8	8
Municipal solid waste	27	29	30	29	29	31	32	50	60	63	69	69
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	49	52	54	54	54	56	58	77	88	93	98	102

## Installed Capacity of RET's



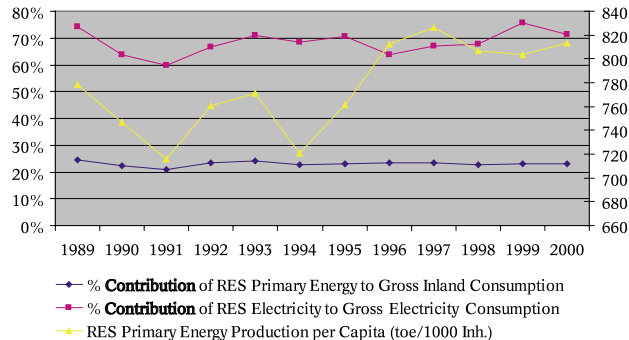


**RES Primary Energy Production in 2000  
breakdown by source**



RES Primary Energy Production (ktoe)	Average Annual Change												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	95-00
Hydroelectrical energy	3 019	2 708	2 702	2 995	3 156	3 070	3 187	2 941	3 093	3 192	3 589	3 579	2%
Wood in households	2 224	2 332	2 119	2 224	2 021	1 776	1 891	1 958	1 848	1 826	1 864	1 709	-2%
Other wood and wood waste	670	641	648	650	823	779	871	1 440	1 496	1 264	830	1 059	4%
Wind energy	0	0	0	0	0	0	0	0	2	4	4	6	na
Solar Energy	11	13	17	21	25	29	36	42	48	55	47	47	6%
Biogas	9	7	24	27	27	28	30	34	39	40	17	19	-9%
Municipal solid waste	29	67	77	89	95	97	95	20	125	121	127	149	10%
Geothermal energy	2	2	2	4	4	4	4	5	5	7	12	14	27%
Biofuels	1	1	11	7	8	6	11	1	12	13	16	16	9%
<b>Total</b>	<b>5 964</b>	<b>5 771</b>	<b>5 600</b>	<b>6 017</b>	<b>6 158</b>	<b>5 789</b>	<b>6 124</b>	<b>552</b>	<b>6 667</b>	<b>6 520</b>	<b>6 506</b>	<b>6 598</b>	<b>2%</b>

Hydroelectric energy is the main renewable source used in Austria and it covers a large percentage of the Gross Electricity Consumption (68.7% in 2000). Wood and wood wastes cover 42% of RES primary production, and are mainly used for heat production. The largest increase in renewable energy production during the year 1995 to 2000 is in geothermal energy (27%), which holds only 0.2% of RES primary production and in municipal solid waste (10%). The contribution of RES in the Gross Inland Consumption was 23% in 2000, while the contribution of RES electricity to Gross Electricity Consumption was 71.5% in the same year.



1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
24.4%	22.5%	20.7%	23.4%	24.0%	22.6%	23.2%	23.4%	23.4%	22.6%	22.9%	23.2%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
74.2%	63.9%	59.9%	66.7%	71.0%	68.3%	70.6%	63.9%	67.2%	67.8%	75.7%	71.5%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
779	747	716	760	771	721	761	813	826	807	804	813





	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
--	------	------	------	------	------	------	------	------	------	------	------	------

**Share of RES Electricity to Gross Electricity Consumption**

	74.2%	63.9%	59.9%	66.7%	71.0%	68.3%	70.6%	63.9%	67.2%	67.8%	75.7%	71.5%
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**Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption**

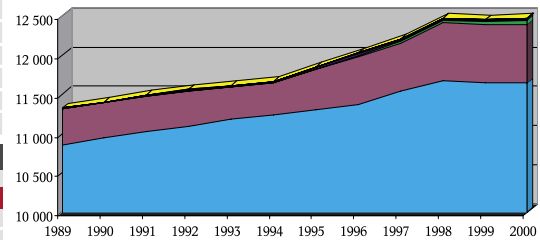
Hydroelectrical energy	72.0%	61.8%	57.9%	64.7%	69.0%	66.3%	68.4%	61.3%	64.1%	64.8%	72.7%	68.7%
Wood and wood waste	2.2%	2.0%	1.9%	1.9%	1.8%	1.9%	2.0%	2.4%	2.8%	2.7%	2.7%	2.4%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%
Biogas	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Municipal solid waste	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

**RES Primary Energy Production per Capita (toe/1000 Inh)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	394	350	346	378	395	382	396	365	383	395	443	441
Wood in households	290	302	271	281	253	221	235	243	229	226	230	211
Other wood and wood waste	87	83	83	82	103	97	108	179	185	156	103	130
Wind energy	0	0	0	0	0	0	0	0	0	0	1	1
Solar Energy	1	2	2	3	3	4	4	5	6	7	6	6
Biogas	1	1	3	3	3	3	4	4	5	5	2	2
Municipal solid waste	4	9	10	11	12	12	12	15	15	15	16	18
Geothermal energy	0	0	0	0	0	0	1	1	1	1	2	2
Biofuels	0	0	1	1	1	1	1	1	1	2	2	2
All RES	779	747	716	760	771	721	761	813	826	807	804	813

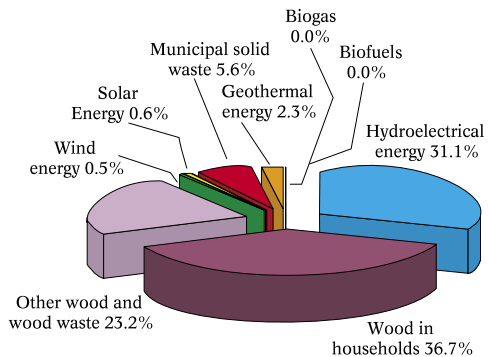
**Installed Capacity of RET's**

MW



- Hydroelectrical energy
- Wood and wood waste
- Biogas
- Municipal solid waste
- Photovoltaics
- Wind energy
- Geothermal electricity

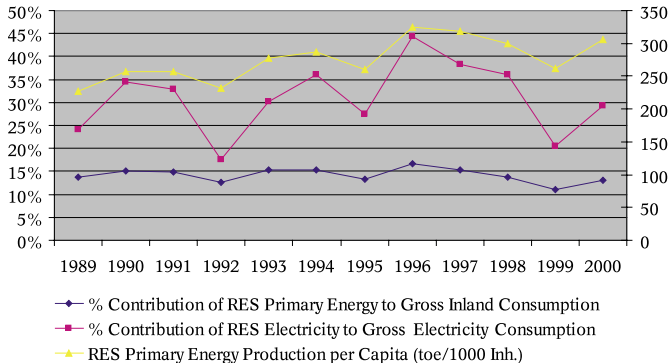
**RES Primary Energy Production in 2000  
breakdown by source**



**RES Primary Energy Production (ktoe)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average Annual Change 95-00
Hydroelectrical energy	500	787	778	399	734	916	717	1 269	1 127	1 116	625	974	6%
Wood in households	1 150	1 150	1 150	1 150	1 150	1 150	1 150	1 150	1 150	1 150	1 150	1 150	0%
Other wood and wood waste	602	590	595	736	864	762	683	779	869	692	725	728	1%
Wind energy	0	0	0	0	1	1	1	2	3	8	11	14	62%
Solar Energy	9	11	13	13	14	14	15	16	16	17	18	18	4%
Biogas	2	2	2	2	2	3	3	3	3	2	1	1	-18%
Municipal solid waste	0	0	0	0	0	0	0	0	0	0	57	174	na
Geothermal energy	0	3	4	4	4	30	37	42	45	51	70	72	14%
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>2 264</b>	<b>2 543</b>	<b>2 542</b>	<b>2 305</b>	<b>2 770</b>	<b>2 876</b>	<b>2 607</b>	<b>3 261</b>	<b>3 213</b>	<b>3 035</b>	<b>2 656</b>	<b>3 133</b>	<b>4%</b>

Renewable Energy Sources accounted for 13% of the Gross Inland Consumption in 2000, while the percentage of RES electricity in the Gross Electricity Consumption was 29.4% in the same year. Wood and wood waste cover the largest percentage of the total RES primary energy production (60% in 2000), while hydroelectric energy is the second largest source (31.1% of RES primary energy production in 2000) and MSW is the third (5.6% of RES primary energy production in 2000). Hydroelectricity covered about 25.3% and wood and wood waste produced electricity covered 2.3% of the Gross Electricity Consumption.



1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
13.8%	15.2%	14.9%	12.5%	15.2%	15.4%	13.3%	16.6%	15.4%	13.6%	11.1%	13.0%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
24.0%	34.5%	32.9%	17.6%	30.1%	36.0%	27.4%	44.3%	38.3%	36.0%	20.5%	29.4%
<b>RES Primary Energy Production per Capita (toe/1000 Inh.)</b>											
228	257	256	231	278	288	260	324	318	300	261	306

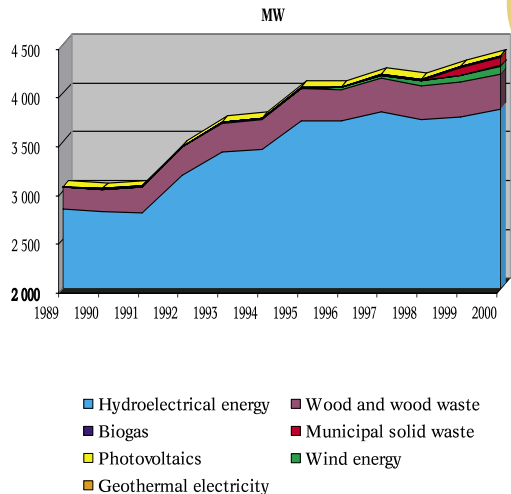


	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	24.0%	34.5%	32.9%	17.6%	30.1%	36.0%	27.4%	44.3%	38.3%	36.0%	20.5%	29.4%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	21.6%	32.1%	30.2%	14.8%	27.2%	33.0%	24.4%	41.4%	35.3%	33.0%	17.1%	25.3%
Wood and wood waste	2.5%	2.4%	2.7%	2.8%	2.9%	2.9%	2.9%	2.7%	2.8%	2.6%	2.5%	2.3%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.2%	0.3%	0.4%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Municipal solid waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.4%	1.2%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

### RES Primary Energy Production per Capita (toe/1000 Inh )

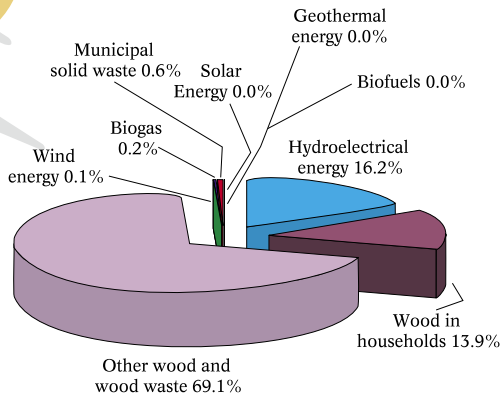
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	50	80	78	40	74	92	72	126	112	110	61	95
Wood in households	116	116	116	115	115	115	115	114	114	114	113	112
Other wood and wood waste	61	60	60	74	87	76	68	77	86	68	71	71
Wind energy	0	0	0	0	0	0	0	0	0	1	1	1
Solar Energy	1	1	1	1	1	1	2	2	2	2	2	2
Biogas	0	0	0	0	0	0	0	0	0	0	0	0
Municipal solid waste	0	0	0	0	0	0	0	0	0	0	6	17
Geothermal energy	0	0	0	0	0	3	4	4	4	5	7	7
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	228	257	256	231	278	288	260	324	318	300	261	306

### Installed Capacity of RET's





**RES Primary Energy Production in 2000  
breakdown by source**

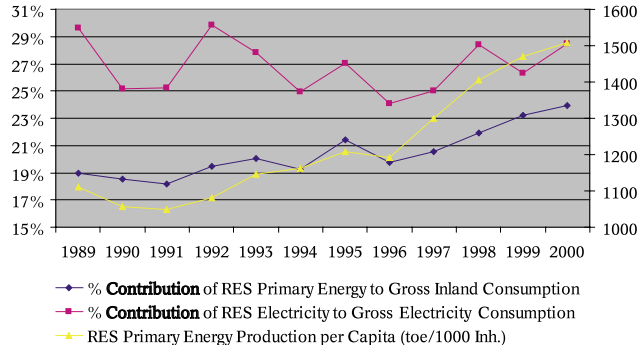


**RES Primary Energy Production (ktoe)**

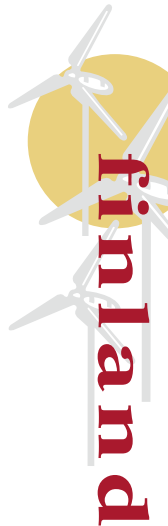
Average Annual Change

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	95-00
Hydroelectrical energy	1 120	934	1 135	1 301	1 158	1 013	1 110	1 020	1 053	1 294	1 099	1 262	3%
Wood in households	1 065	1 068	1 070	1 072	1 075	1 075	1 068	1 120	1 125	1 139	1 112	1 082	0%
Other wood and wood waste	3 298	3 240	3 030	3 051	3 545	3 796	3 965	3 946	4 466	4 790	5 348	5 392	6%
Wind energy	0	0	0	0	0	1	1	1	1	2	4	7	49%
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0	14%
Biogas	10	10	10	10	11	11	13	16	24	18	18	18	7%
Municipal solid waste	18	19	18	18	17	16	12	8	10	4	15	45	30%
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>5 512</b>	<b>5 270</b>	<b>5 263</b>	<b>5 453</b>	<b>5 806</b>	<b>5 911</b>	<b>6 169</b>	<b>6 110</b>	<b>6 680</b>	<b>7 247</b>	<b>7 596</b>	<b>7 806</b>	<b>5%</b>

Hydroelectric energy covered about 17.9% and wood and wood waste covered 10.4% of the Gross Electricity Consumption of Finland in 2000. Wood and wood wastes cover the largest percentage of the total RES primary energy production (82.9% in 2000), while hydroelectric energy is the second largest source (16.2% of RES primary energy production in 2000). The percentage of RES in the Gross Inland Consumption was 23.9% in 2000, while the percentage of RES electricity in the Gross Electricity Consumption was 28.5% in the same year.



1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
19.0%	18.5%	18.2%	19.5%	20.0%	19.3%	21.4%	19.8%	20.5%	21.9%	23.2%	23.9%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
29.6%	25.2%	25.2%	29.8%	27.8%	24.9%	27.0%	24.1%	25.0%	28.4%	26.3%	28.5%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
1 110	1 057	1 050	1 082	1 146	1 162	1 208	1 192	1 300	1 406	1 471	1 508

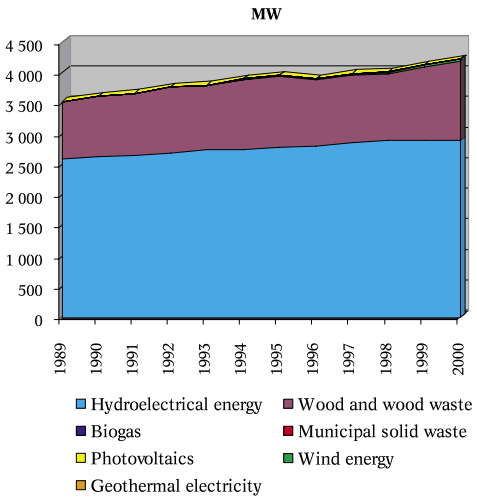




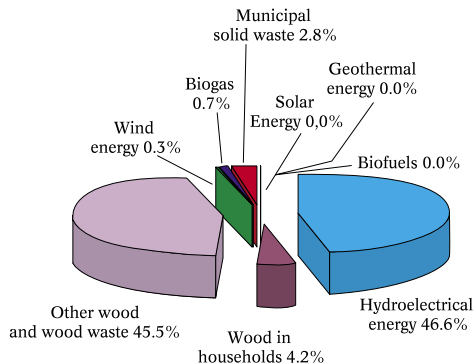
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	29.6%	25.2%	25.2%	29.8%	27.8%	24.9%	27.0%	24.1%	25.0%	28.4%	26.3%	28.5%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	21.7%	17.6%	18.9%	22.9%	19.6%	16.3%	18.2%	16.2%	15.9%	18.9%	15.8%	17.9%
Wood and wood waste	7.9%	7.6%	6.3%	6.9%	8.2%	8.6%	8.8%	7.8%	9.0%	9.4%	10.4%	10.4%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Municipal solid waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	226	187	226	258	229	199	217	199	205	251	213	244
Wood in households	215	214	213	213	212	211	209	219	219	221	215	209
Other wood and wood waste	664	650	604	605	700	746	776	770	869	929	1 035	1 042
Wind energy	0	0	0	0	0	0	0	0	0	0	1	1
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0
Biogas	2	2	2	2	2	2	3	3	5	3	4	3
Municipal solid waste	4	4	4	4	3	3	2	2	2	1	3	9
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	1 110	1 057	1 050	1 082	1 146	1 162	1 208	1 192	1 300	1 406	1 471	1 508

**Installed Capacity of RET's**



**RES Primary Energy Production in 2000  
breakdown by source**



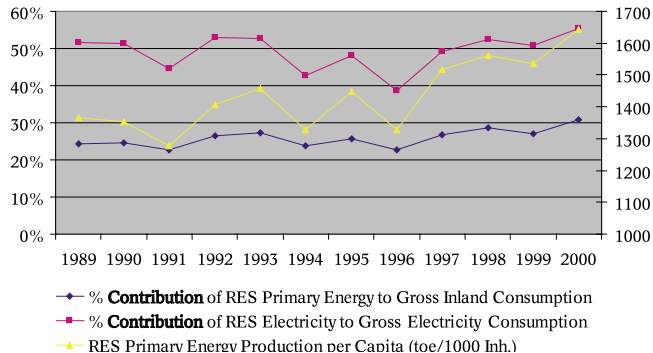
**RES Primary Energy Production (ktoe)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average Annual Change 95-00
Hydroelectrical energy	6 169	6 234	5 437	6 394	6 419	5 082	5 856	4 449	5 934	6 391	6 166	6 795	3%
Wood in households	926	937	939	943	945	911	926	948	962	975	827	612	-8%
Other wood and wood waste	4 154	4 040	4 288	4 478	4 891	5 200	5 494	5 834	5 946	5 896	6 041	6 632	4%
Wind energy	0	1	1	3	4	6	9	12	18	27	32	38	33%
Solar Energy	3	3	4	4	4	4	5	4	4	5	5	5	2%
Biogas	0	0	0	0	81	92	99	115	124	103	102	107	2%
Municipal solid waste	340	355	352	364	373	362	390	372	426	417	422	403	1%
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>11 592</b>	<b>11 569</b>	<b>11 021</b>	<b>12 185</b>	<b>12 717</b>	<b>11 656</b>	<b>12 779</b>	<b>11 734</b>	<b>13 414</b>	<b>13 813</b>	<b>13 594</b>	<b>14 592</b>	<b>3%</b>





Hydro-electricity covered about 52.4% and wood and wood waste produced electricity covered 2.4% of the Gross Electricity Consumption in 2000. The percentage of RES in the Gross Inland Consumption was 30.7% in 2000, while the contribution of RES electricity in the Gross Electricity Consumption was 55.3% in the same year. Wood and wood waste cover the largest percentage of the total RES primary energy production (49.6% in 2000), while hydroelectric energy is the second largest source (46.6% of RES primary energy production in 2000) and MSW is the third (2.8% of RES primary energy production in 2000).



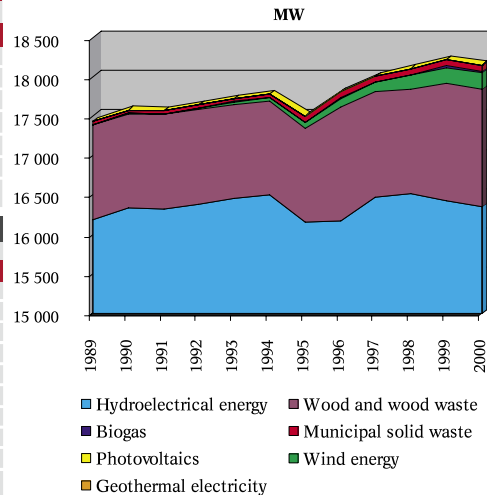
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
24.4%	24.6%	22.7%	26.4%	27.3%	23.8%	25.6%	22.7%	26.6%	28.6%	27.0%	30.7%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
51.7%	51.4%	44.6%	52.9%	52.8%	42.6%	48.1%	38.6%	49.1%	52.4%	50.9%	55.3%
<b>RES Primary Energy Production per Capita (toe/1000 Inh.)</b>											
1 365	1 352	1 279	1 406	1 459	1 327	1 448	1 327	1 516	1 561	1 535	1 645

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	51.7%	51.4%	44.6%	52.9%	52.8%	42.6%	48.1%	38.6%	49.1%	52.4%	50.9%	55.3%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	50.2%	49.9%	43.1%	51.4%	51.2%	41.1%	46.4%	35.2%	47.0%	50.3%	48.5%	52.4%
Wood and wood waste	1.4%	1.4%	1.4%	1.4%	1.5%	1.5%	1.6%	3.0%	1.8%	1.7%	2.0%	2.4%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.2%	0.3%	0.3%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Municipal solid waste	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.1%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

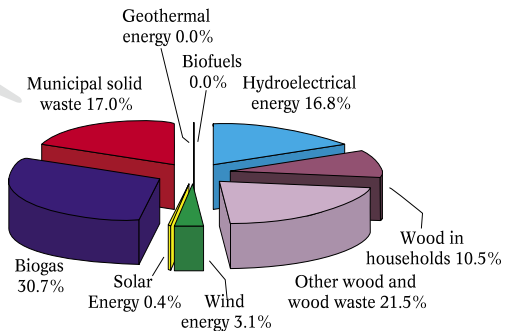
### RES Primary Energy Production per Capita (toe/1000 Inh)

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	726	728	631	738	736	579	663	503	671	722	696	766
Wood in households	109	109	109	109	108	104	105	107	109	110	93	69
Other wood and wood waste	489	472	498	517	561	592	622	660	672	666	682	748
Wind energy	0	0	0	0	1	1	1	1	2	3	4	4
Solar Energy	0	0	0	0	0	1	1	0	0	1	1	1
Biogas	0	0	0	0	9	10	11	13	14	12	12	12
Municipal solid waste	40	41	41	42	43	41	44	42	48	47	48	45
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	1 365	1 352	1 279	1 406	1 459	1 327	1 448	1 327	1 516	1 561	1 535	1 645

### Installed Capacity of RET's



**RES Primary Energy Production in 2000  
breakdown by source**

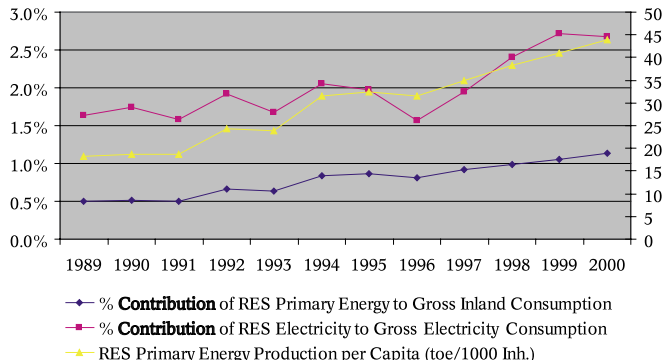


**RES Primary Energy Production (ktoe)**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	Average Annual Change 95-00
Hydroelectrical energy	398	436	394	474	368	438	416	289	355	450	461	440	1%
Wood in households	204	204	204	204	204	204	204	204	204	204	276	276	6%
Other wood and wood waste	57	57	57	233	237	455	498	505	506	506	529	563	2%
Wind energy	1	1	1	3	19	30	34	42	57	75	77	81	19%
Solar Energy	5	5	5	6	6	6	6	6	6	7	7	11	13%
Biogas	195	218	256	307	320	359	380	442	501	585	685	804	16%
Municipal solid waste	193	160	165	185	234	352	358	369	427	435	406	445	4%
Geothermal energy	0	0	1	1	1	1	1	1	1	1	1	1	0%
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>1 053</b>	<b>1 082</b>	<b>1 082</b>	<b>1 413</b>	<b>1 388</b>	<b>1 845</b>	<b>1 895</b>	<b>1 858</b>	<b>2 057</b>	<b>2 264</b>	<b>2 442</b>	<b>2 621</b>	<b>7%</b>



Wood and wood waste cover the largest percentage of the total RES primary energy production (32% in 2000), while biogas is the second largest source (30.7% of RES primary energy production in 2000) and MSW is the third (17% of RES primary energy production in 2000). Hydroelectricity covered about 1.3% and biogas produced electricity covered 0.7% of the Gross Electricity Consumption. The contribution of RES in the Gross Inland Consumption was 1.1% in 2000, while the percentage of RES electricity in the Gross Electricity Consumption was 2.7% in the same year.



1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
0.5%	0.5%	0.5%	0.7%	0.6%	0.8%	0.9%	0.8%	0.9%	1.0%	1.1%	1.1%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
1.6%	1.7%	1.6%	1.9%	1.7%	2.1%	2.0%	1.6%	1.9%	2.4%	2.7%	2.7%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
18	19	19	24	24	32	32	32	35	38	41	44

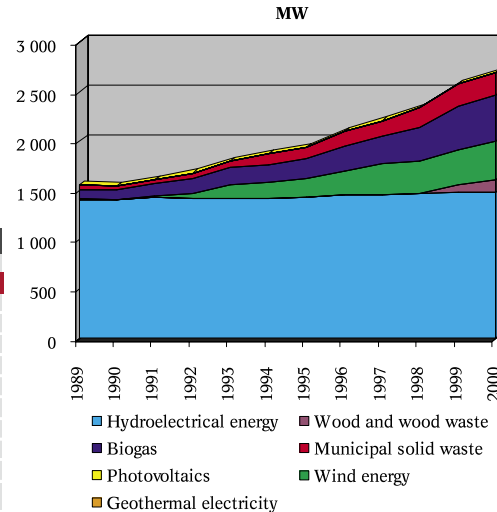


	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	1.6%	1.7%	1.6%	1.9%	1.7%	2.1%	2.0%	1.6%	1.9%	2.4%	2.7%	2.7%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	1.4%	1.5%	1.3%	1.6%	1.3%	1.5%	1.4%	0.9%	1.1%	1.4%	1.4%	1.3%
Wood and wood waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.2%
Biogas	0.1%	0.1%	0.2%	0.2%	0.2%	0.3%	0.3%	0.3%	0.4%	0.4%	0.6%	0.7%
Municipal solid waste	0.1%	0.1%	0.1%	0.1%	0.1%	0.2%	0.2%	0.2%	0.3%	0.4%	0.3%	0.3%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

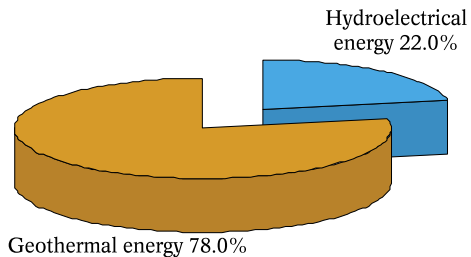
**RES Primary Energy Production per Capita (toe/1000 Inh )**

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	7	8	7	8	6	8	7	5	6	8	8	7
Wood in households	4	4	4	4	4	3	3	3	3	3	5	5
Other wood and wood waste	1	1	1	4	4	8	8	9	9	9	9	9
Wind energy	0	0	0	0	0	1	1	1	1	1	1	1
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0
Biogas	3	4	4	5	5	6	6	8	8	10	12	13
Municipal solid waste	3	3	3	3	4	6	6	6	7	7	7	7
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	18	19	19	24	24	32	32	32	35	38	41	44

**Installed Capacity of RET's**



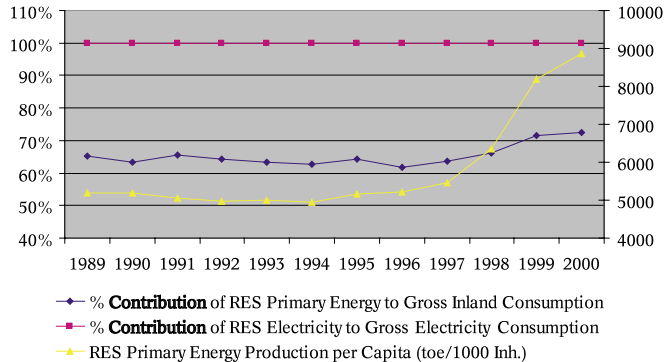
**RES Primary Energy Production in 2000  
breakdown by source**



RES Primary Energy Production (ktoe)													Average Annual Change
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	95-00
Hydroelectrical energy	366	362	362	371	384	388	403	410	448	483	520	547	6%
Wood in households	0	0	0	0	0	0	0	0	0	0	0	0	na
Other wood and wood waste	0	0	0	0	0	0	0	0	0	0	0	0	na
Wind energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biogas	0	0	0	0	0	0	0	0	0	0	0	0	na
Municipal solid waste	0	0	0	1	1	1	1	1	1	1	1	1	0%
Geothermal energy	948	964	940	928	935	928	976	992	1 032	1 256	1 753	1 942	15%
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>1 314</b>	<b>1 325</b>	<b>1 302</b>	<b>1 299</b>	<b>1 321</b>	<b>1 317</b>	<b>1 379</b>	<b>1 404</b>	<b>1 481</b>	<b>1 741</b>	<b>2 274</b>	<b>2 490</b>	<b>13%</b>



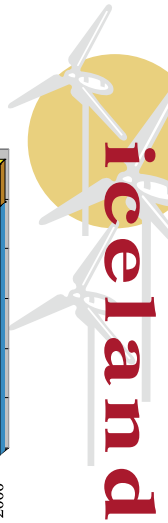
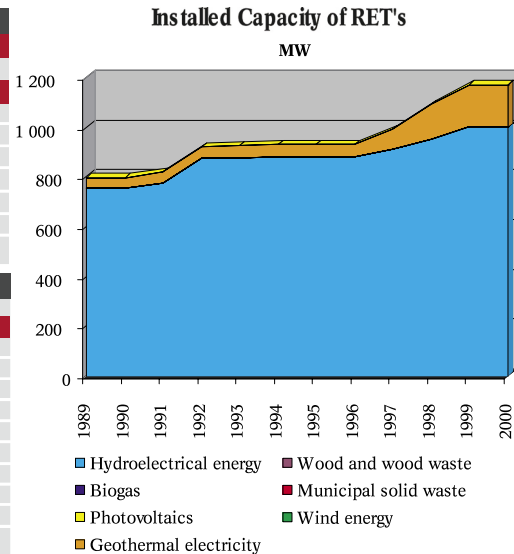
All the electricity consumed in Iceland is produced from renewable energy sources. In 2000, 82.7% of the electricity was produced from hydro and 17.3% from geothermal energy. Also 72.6% of the Gross Inland Consumption of Iceland (in 2000) is covered by renewable energy sources (hydro and geothermal). Geothermal energy is used for heating purposes as well.



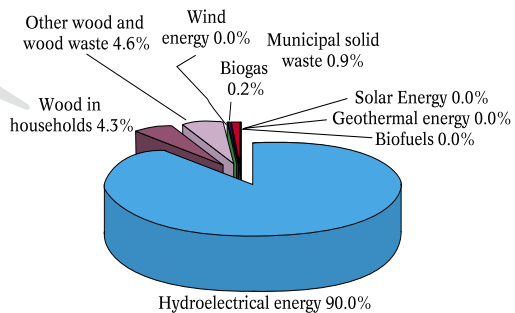
1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
65.1%	63.2%	65.5%	64.4%	63.4%	62.8%	64.4%	61.8%	63.6%	66.3%	71.7%	72.6%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
99.9%	99.9%	99.8%	99.9%	99.9%	99.9%	99.8%	99.9%	99.9%	99.9%	99.9%	99.9%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
5 196	5 200	5 049	4 977	5 008	4 951	5 157	5 220	5 462	6 352	8 199	8 855

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	99.9%	99.9%	99.8%	99.9%	99.9%	99.9%	99.8%	99.9%	99.9%	99.9%	99.9%	99.9%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	93.9%	93.2%	93.5%	94.8%	94.5%	94.5%	94.0%	93.1%	93.2%	89.5%	84.1%	82.7%
Wood and wood waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Municipal solid waste	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Geothermal electricity	6.0%	6.7%	6.3%	5.1%	5.4%	5.4%	5.8%	6.8%	6.7%	10.4%	15.8%	17.2%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%

<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	1 449	1 419	1 402	1 420	1 456	1 460	1 505	1 526	1 652	1 764	1 875	1 944
Wood in households	0	0	0	0	0	0	0	0	0	0	0	0
Other wood and wood waste	0	0	0	0	0	0	0	0	0	0	0	0
Wind energy	0	0	0	0	0	0	0	0	0	0	0	0
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0
Biogas	0	0	0	0	0	0	0	0	0	0	0	0
Municipal solid waste	0	0	0	4	4	4	4	4	4	4	4	4
Geothermal energy	3 748	3 781	3 647	3 553	3 547	3 487	3 648	3 690	3 807	4 584	6 320	6 908
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	5 196	5 200	5 049	4 977	5 008	4 951	5 157	5 220	5 462	6 352	8 199	8 855



**RES Primary Energy Production in 2000  
breakdown by source**



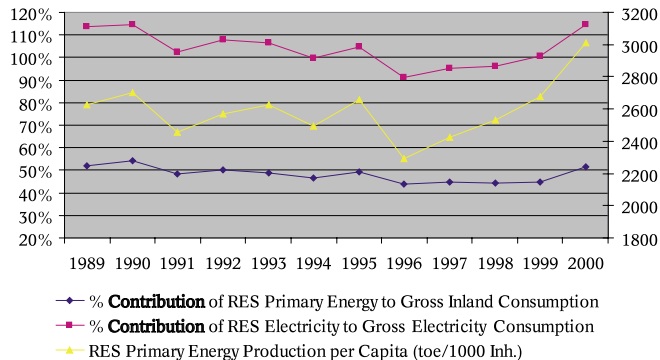
## RES Primary Energy Production (ktoe)

Average  
Annual  
Change

	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	95-00
Hydroelectrical energy	10 206	10 437	9 508	10 066	10 285	9 676	10 434	8 907	9 439	9 946	10 438	12 186	3%
Wood in households	445	516	461	464	522	576	554	586	604	604	575	577	1%
Other wood and wood waste	368	407	400	387	403	432	456	434	488	534	768	618	6%
Wind energy	0	0	0	0	1	1	1	1	1	1	1	3	26%
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biogas	0	1	6	8	12	13	16	16	25	25	25	26	11%
Municipal solid waste	87	95	99	99	107	109	115	112	114	116	138	124	2%
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0	na
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0	na
<b>Total</b>	<b>11 106</b>	<b>11 456</b>	<b>10 474</b>	<b>11 023</b>	<b>11 329</b>	<b>10 807</b>	<b>11 574</b>	<b>10 055</b>	<b>10 670</b>	<b>11 225</b>	<b>11 945</b>	<b>13 533</b>	<b>3%</b>

More than half of the Gross Inland Consumption of Norway (51.4% in 2000) is covered by renewable energy sources, while hydro-electricity was 1.14 times larger than the Gross Consumption of Electricity.

Hydroelectric energy is the main renewable source (90% of RES primary energy) and the remaining is covered by wood, biogas and municipal solid wastes.



1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>% Contribution of RES Primary Energy to Gross Inland Consumption</b>											
52.2%	54.2%	48.5%	50.1%	49.0%	46.7%	49.3%	44.0%	44.6%	44.3%	44.9%	51.4%
<b>% Contribution of RES Electricity to Gross Electricity Consumption</b>											
113.7%	114.7%	102.3%	107.8%	106.6%	99.7%	104.5%	91.3%	95.2%	96.1%	100.5%	114.4%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>											
2 628	2 701	2 458	2 572	2 627	2 492	2 655	2 295	2 422	2 533	2 677	3 013



	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
<b>Share of RES Electricity to Gross Electricity Consumption</b>												
	113.7%	114.7%	102.3%	107.8%	106.6%	99.7%	104.5%	91.3%	95.2%	96.1%	100.5%	114.4%
<b>Electricity Generation per RES Technology as a percentage of the Gross Electricity Consumption</b>												
Hydroelectrical energy	113.7%	114.5%	102.1%	107.5%	106.4%	99.4%	104.2%	91.0%	95.0%	95.8%	100.4%	114.3%
Wood and wood waste	0.0%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%
Wind energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Biogas	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Municipal solid waste	0.1%	0.1%	0.1%	0.0%	0.1%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%
Geothermal electricity	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Photovoltaics	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
<b>RES Primary Energy Production per Capita (toe/1000 Inh )</b>												
	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000
Hydroelectrical energy	2 415	2 461	2 231	2 348	2 385	2 231	2 393	2 033	2 143	2 244	2 339	2 713
Wood in households	105	122	108	108	121	133	127	134	137	136	129	128
Other wood and wood waste	87	96	94	90	93	100	105	99	111	120	172	138
Wind energy	0	0	0	0	0	0	0	0	0	0	0	1
Solar Energy	0	0	0	0	0	0	0	0	0	0	0	0
Biogas	0	0	1	2	3	3	4	4	6	6	6	6
Municipal solid waste	21	22	23	23	25	25	26	25	26	26	31	28
Geothermal energy	0	0	0	0	0	0	0	0	0	0	0	0
Biofuels	0	0	0	0	0	0	0	0	0	0	0	0
All RES	2 628	2 701	2 458	2 572	2 627	2 492	2 655	2 295	2 422	2 533	2 677	3 013

**Installed Capacity of RET's**

