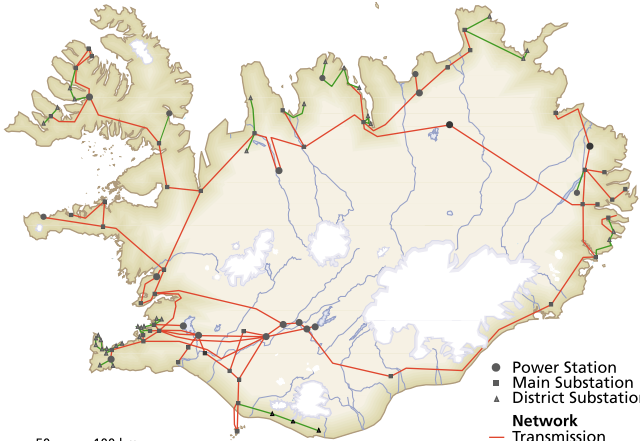




# ENERGY STATISTICS IN ICELAND

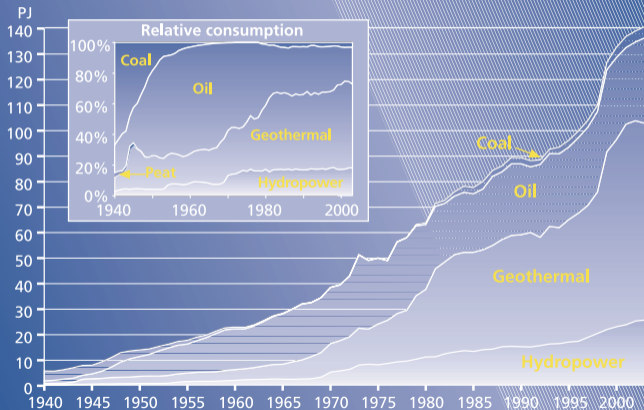
# Electricity Network



- Power Station
- Main Substation
- ▲ District Substation
- Network**
- Transmission
- Distribution

0 50 100 km

# Primary energy consumption in Iceland 1940-2003



# Generation of electricity in Iceland 2003 and 2002

## Total installed capacity of power plants

	2003		2002	
	MW	% of total	MW	% of total
Hydropower	1,150	78	1,150	78
Geothermal	202	13.7	202	13.7
Fuel	122	8.3	122	8.3
<b>Total</b>	<b>1,474</b>	<b>100</b>	<b>1,474</b>	<b>100</b>

## Electricity generation

	2003		2002	
	GWh	% of total	GWh	% of total
Hydropower	7,084	83.4	6,972	82.9
Geothermal	1,406	16.6	1,433	17.0
Fuel	5	0.06	5	0.06
<b>Total</b>	<b>8,495</b>	<b>100</b>	<b>8,410</b>	<b>100</b>

### Power plants under construction:

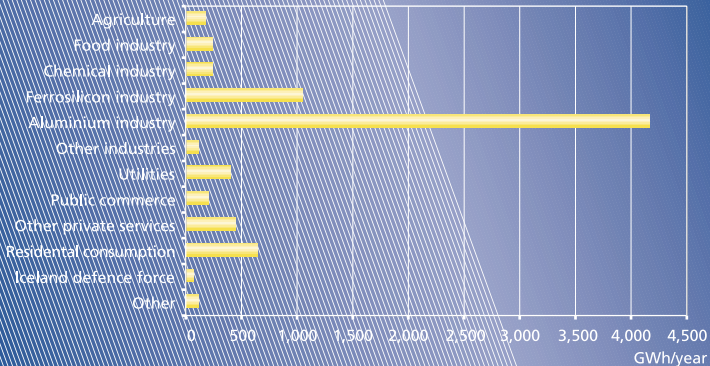
#### Geothermal:

Nesjavellir 30 MW (240 GWh), in 2005  
 Reykjanes 100 MW (800 GWh), in 2006  
 Hellisheidi 80 MW (640 GWh), in 2006

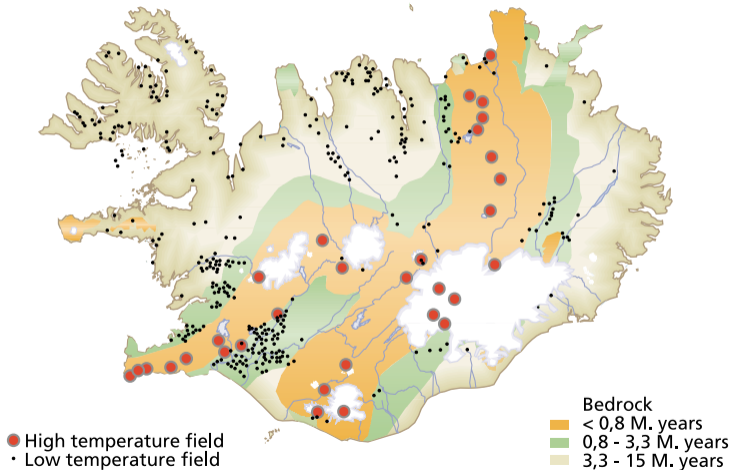
#### Hydropower:

Karahnjúkar 6x115 = 690 MW  
 (4600 GWh), in 2007

# Electricity consumption 2003



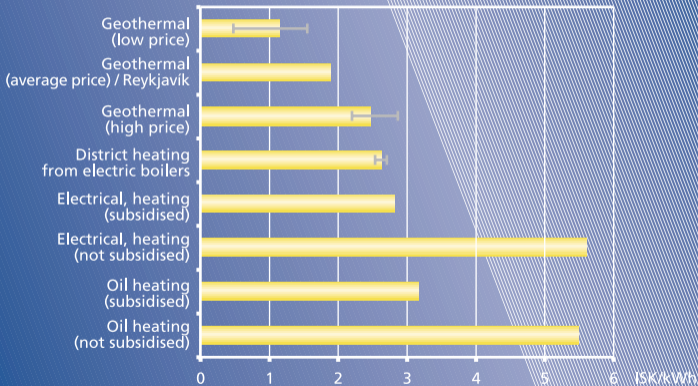
# Geothermal fields



## The main district heating companies in Iceland

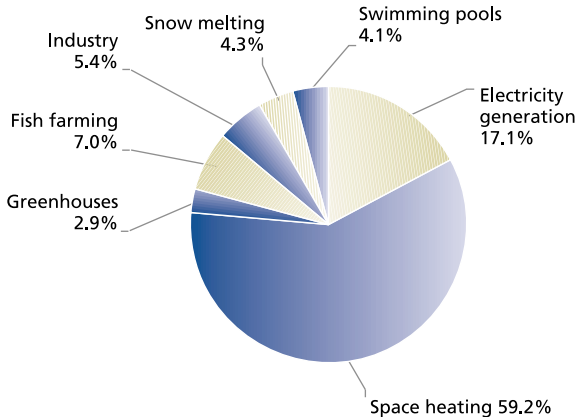
	Number of wells 2004	Population 2004	Distribution 1,000 m <sup>3</sup> 2003
Orkuveita Reykjavíkur <i>geothermal</i>	74	181,000 181,000	59,481 59,481
Hitaveita Sudurnesja hf. <i>geothermal</i> <i>electricity / oil</i>	10	20,400 16,650 3,750	9,900 8,747 1,153
Nordurorka hf. <i>geothermal</i>	15	17,000 17,000	5,127 5,127
Orkubu Vestfjarda hf. <i>geothermal</i> <i>electricity / oil</i>	5	4,100 450 3,650	1,814 216 1,598
Rafmagnsveitur ríkisins <i>geothermal</i> <i>electricity / oil</i>	5	3,750 1,750 2,000	1,447 828 619

# Comparison of energy prices for residential heating September 2004



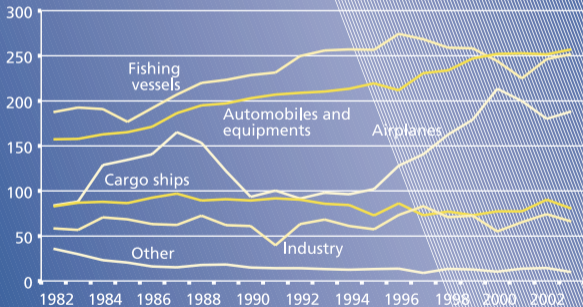


## Utilization of geothermal energy 2003



# Consumption of petroleum products in Iceland 1982 - 2003

Thousand tons



## Units of Power and Energy

The International System of Units (SI) is the mandatory system of measurement in Iceland. The basic and customary units for power and energy are:

	Energy	Power
Basic unit	Joule (J)	Watt (W)
Customary unit	Watt-hour (Wh)	-

The prefixes for multiples of units in the SI system

Prefix	Abbreviations	Multiple of base unit
Exa	E	$10^{18}$
Peta	P	$10^{15}$
Tera	T	$10^{12}$
Giga	G	$10^9$
Mega	M	$10^6$
Kilo	k	$10^3$

Sometimes other units which are not part of the SI system are used, e.g. horsepower, hp or ton of oil equivalent, toe. The same prefixes are used, e.g. ktoe and Gtoe.

1 hp = 746 W  
1 toe = 41.9 GJ  
1Wh = 3.6 kJ



**ORKUSTOFNUN**

National Energy Authority

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