



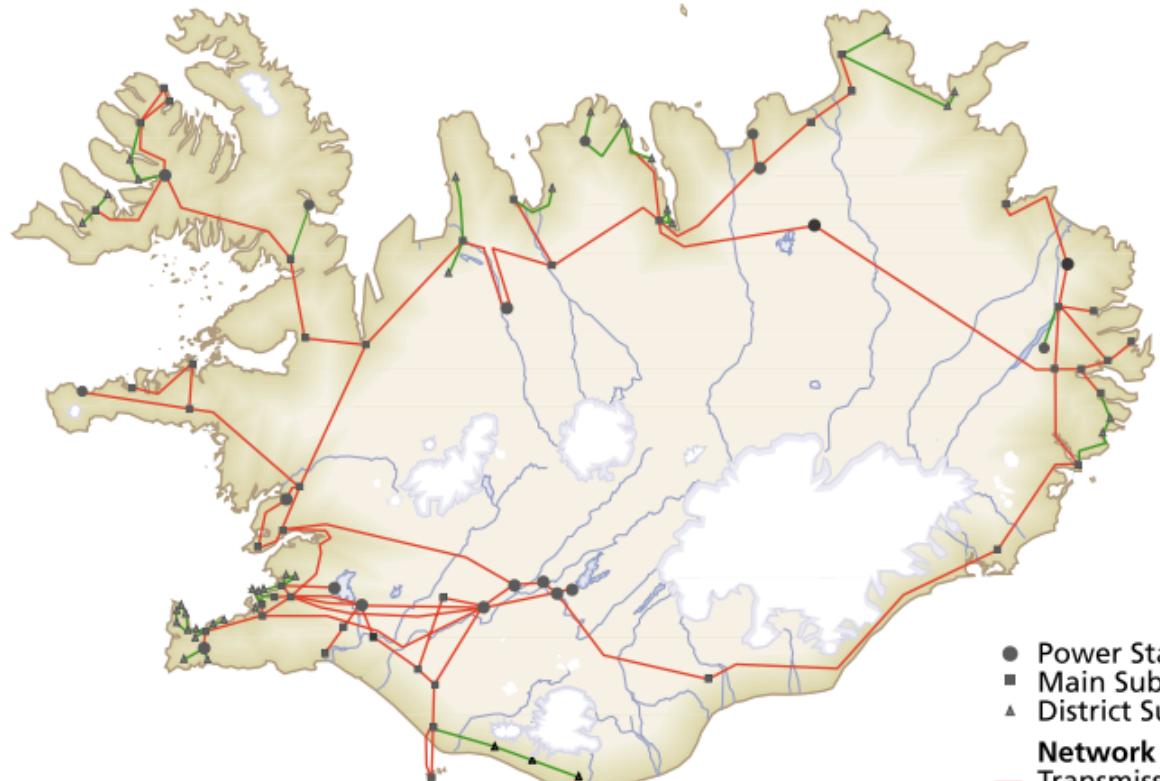
# ENERGY STATISTICS IN ICELAND

2005



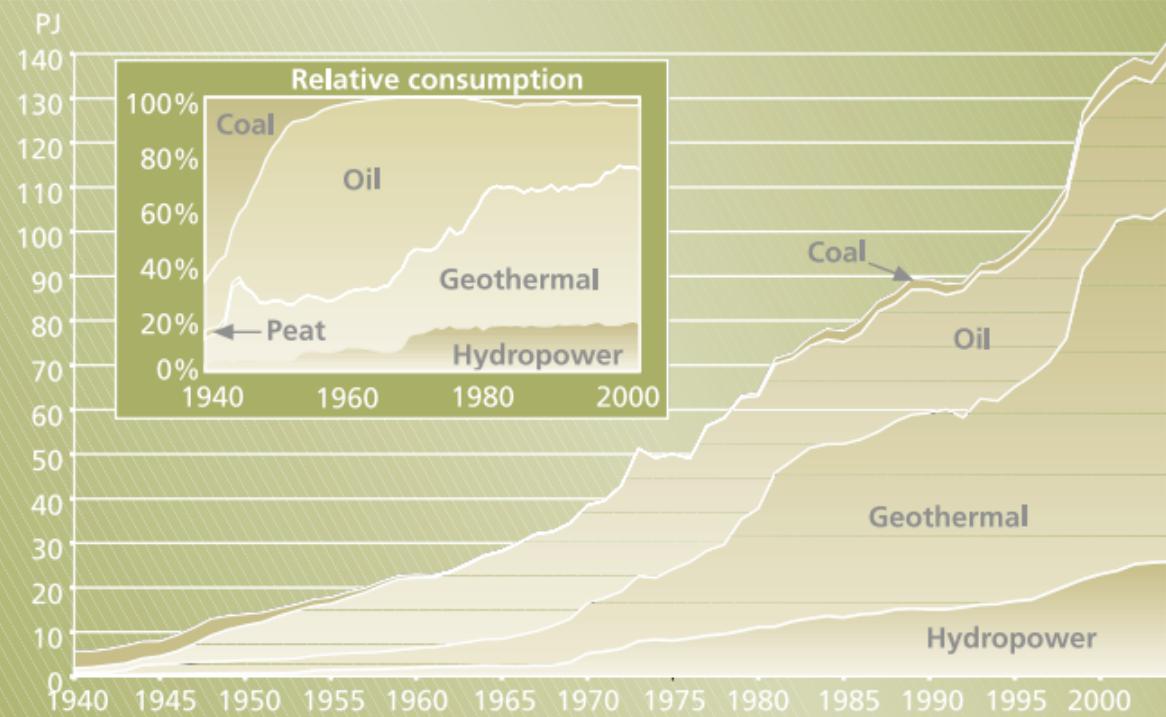
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# Electricity network



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

# Primary energy consumption in Iceland 1940-2004



# Generation of electricity in Iceland 2004 and 2003

## Total installed capacity of power plants

	2004		2003	
	MW	% of total	MW	% of total
Hydropower	1,155	78.4	1,150	78.0
Geothermal	202	13.7	202	13.7
Fuel	116	7.9	122	8.3
<b>Total</b>	<b>1,473</b>	<b>100</b>	<b>1,474</b>	<b>100</b>

## Electricity generation

	2004		2003	
	GWh	% of total	GWh	% of total
Hydropower	7,131	82.7	7,084	83.4
Geothermal	1,483	17.2	1,406	16.6
Fuel	5	0.06	5	0.06
<b>Total</b>	<b>8,619</b>	<b>100</b>	<b>8,495</b>	<b>100</b>

Nesjavellir addition of 30 MW started 2005. There will be a substantial increase in electricity production in the next few years.

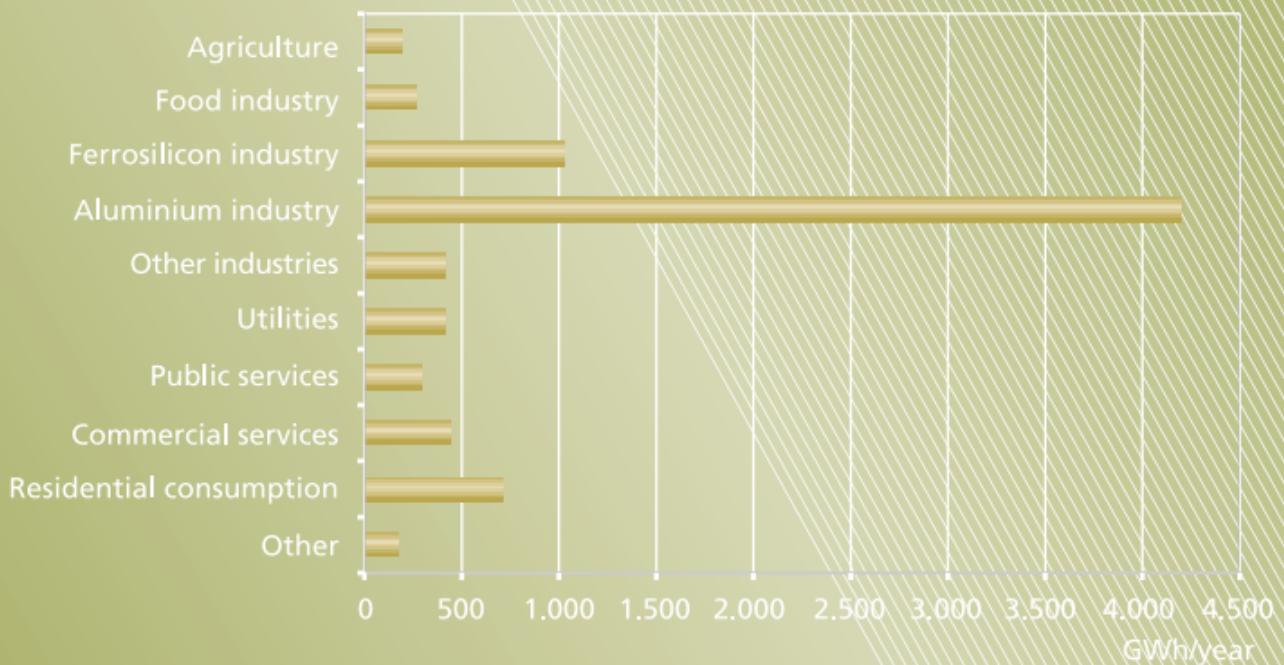
### Geothermal:

Reykjanes 100 MW (800 GWh), in 2006  
Hellisheidi 80 MW (640 GWh), in 2006

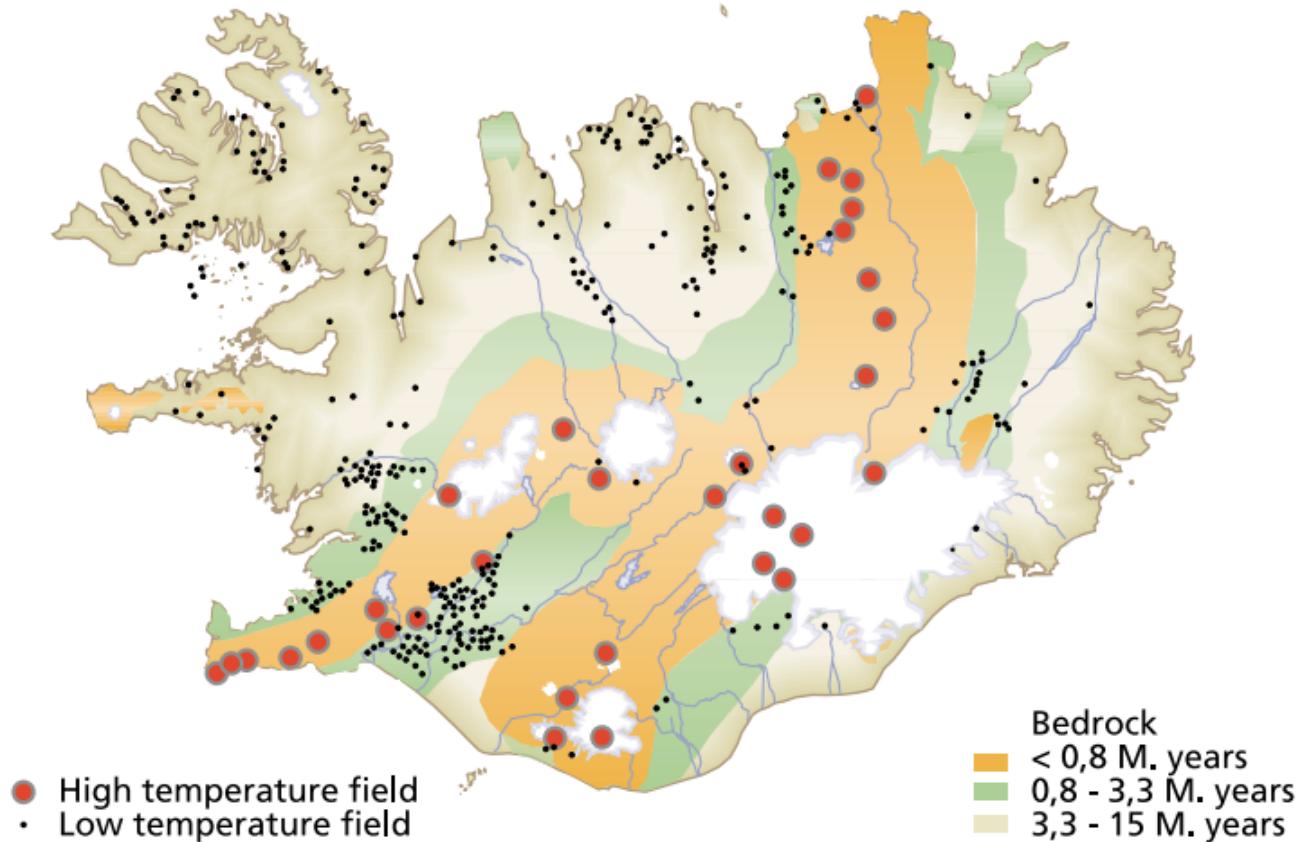
### Hydropower:

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

# Electricity consumption 2004



# Geothermal fields

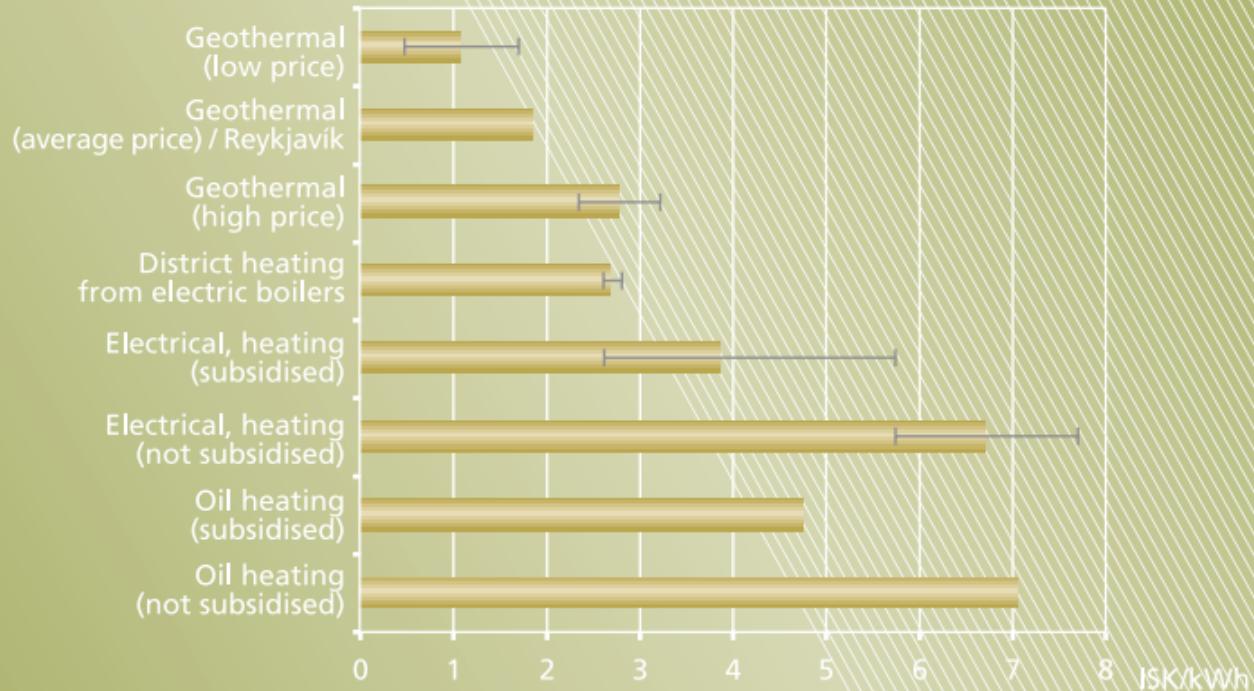


## The main district heating companies in Iceland

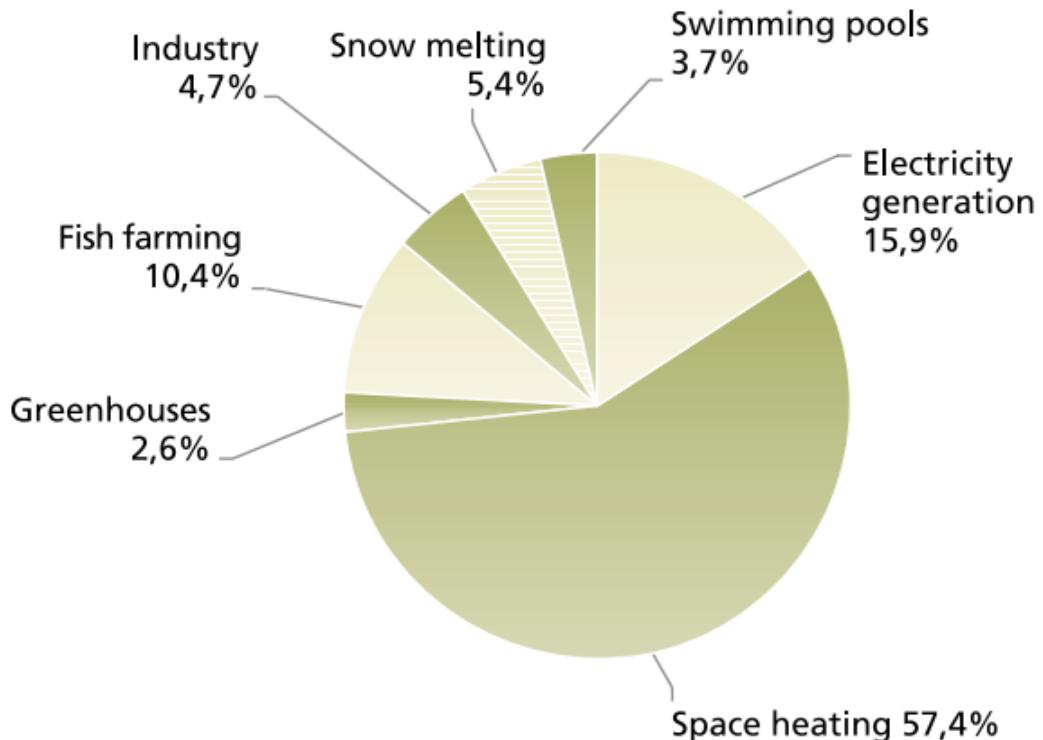
	Number of wells 2004	Population 2004	Distribution 1000 m <sup>3</sup> 2004
Orkuveita Reykjavíkur <i>geothermal</i>	76	181.100 181.100	66.565 66.565
Hitaveita Sudurnesja hf. <i>geothermal</i> <i>electricity / oil</i>	10	20.200 16.600 3.600	10.663 9.251 1.412
Nordurorka hf. <i>geothermal</i>	15	17.450 17.450	5.265 5.265
Orkubu Vestfjarda hf. <i>geothermal</i> <i>electricity / oil</i>	5	4.040 405 3.635	2.052 395 1.657
Rafmagnsveitir ríkisins <i>geothermal</i> <i>electricity / oil</i>	5	3.690 1.680 2.010	1.362 687 675
All heating services	300	266.000	104.000

# Comparison of energy prices for residential heating

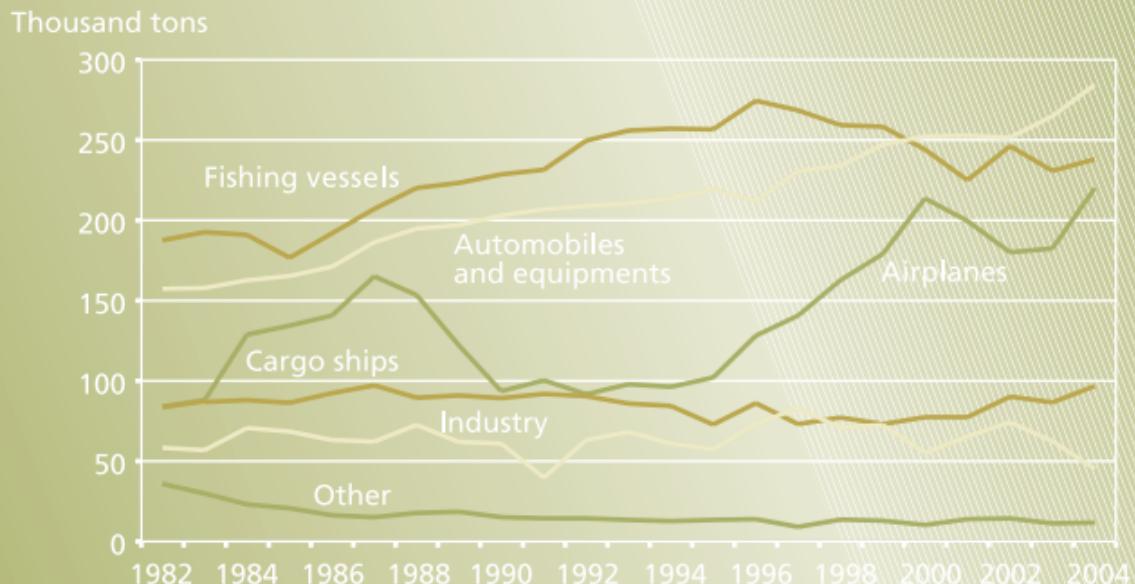
## September 2005



## Utilization of geothermal energy 2004



# Consumption of petroleum products in Iceland 1982-2004



# 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.

$$1 \text{ hp} = 746 \text{ W}$$

$$1 \text{ toe} = 41.9 \text{ GJ}$$

$$1\text{Wh} = 3.6 \text{ kJ}$$



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