

Energy and Electricity in Iceland:

Our three main energy and electricity sources are; Hydropower, geothermal water and windmills. Here we will be talking about these three energy producers and where most of them are located on Iceland.

The Electricity that is produced in Iceland is almost only made out of renewable sources. These renewable sources are Hydropower, Geothermal energy and windmills and together these three energy sources make 99,99% of all electricity generation in Iceland. Fossil fuels made the other 0,01%.

This table shows the division after Energy source:

Tafla 1: Raforkuframleiðsla eftir orkugjöfum miðað við árið 2014.

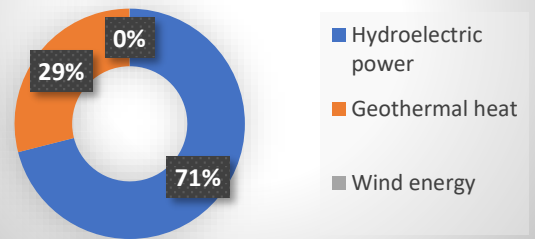
Orkugjafi	GWh	Hlutfall
Vatnsafl	12.872	71,04%
Jarðvarmi	5.238	28,91%
Vindorka	8	0,04%
Jarðefnaeldsneyti	2	0,01%
Samtals:	18.120	100,00%

Geothermal energy and hydropower are counted as local energy, but oil and coal count as imported energy. In the whole local energy makes 86,8% but imported energy makes 13,2% of Iceland's energy.

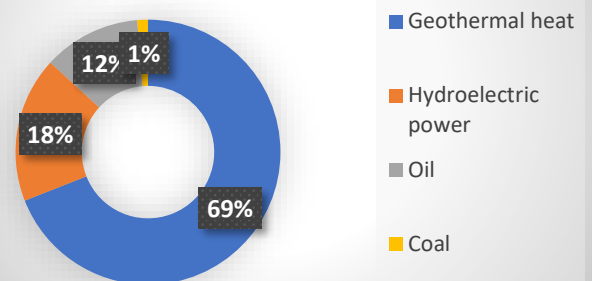
Tafla 2: Orkunotkun eftir orkugjöfum miðað við árið 2014.

Orkugjafi	Hlutfall
Jarðvarmi	69,1%
Vatnsafl	17,8%
Olía	11,9%
Kol	1,3%
Samtals:	100,0%

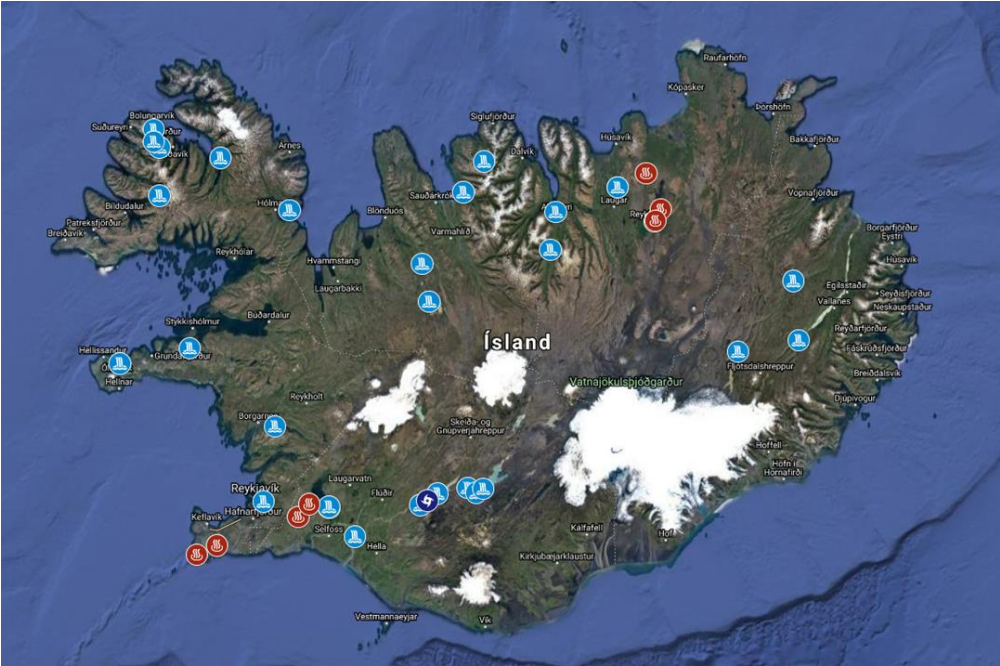
Production of electricity based on source of energy 2014



Usage of electricity based on sources of energy 2014



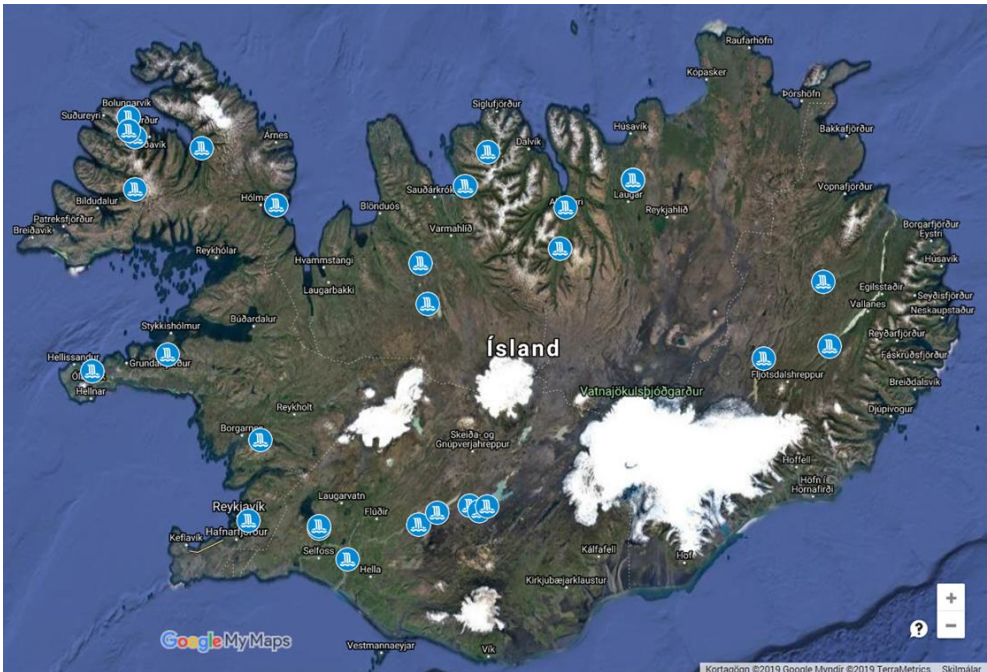
Here you can see all the renewable energy sources:



Hydropower

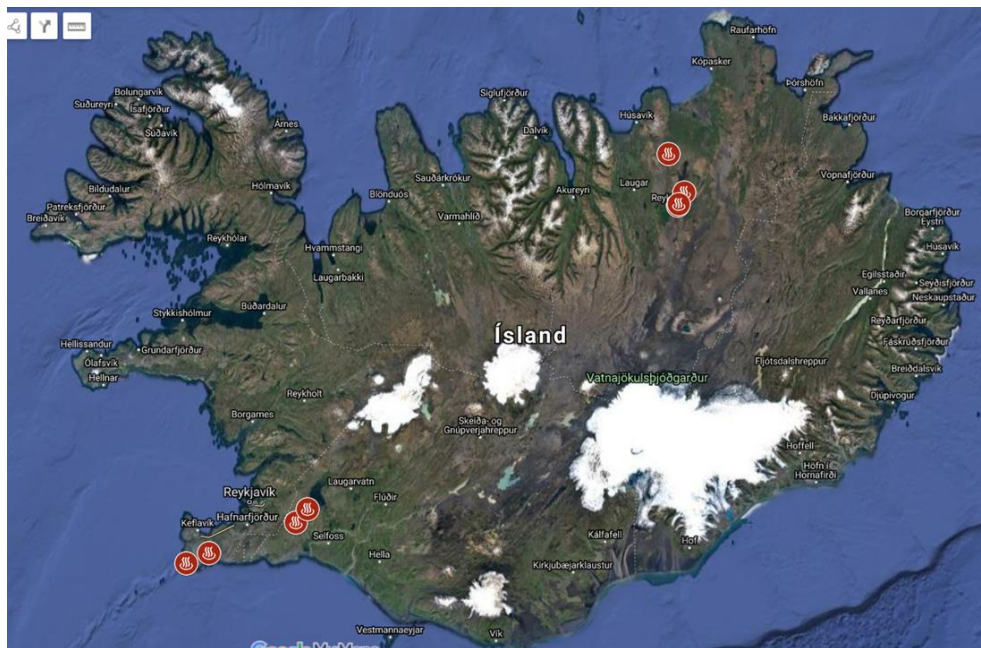
Water power or Hydropower is the power drawn from falling water (waterfalls) or fast running waters (rivers). This power can be then used for useful purposes, for example, renewable energy that could operate various mechanical devices, such as mills, textile or dock cranes.

In Iceland over 80% of electricity is generated in hydroelectric power stations. The largest station (by far) is Kárahnjúkar Hydropower Plant, it generates about 690 MW (mega-watt) of electricity which powers the area north of Vatnajökull to produce aluminum. In whole, hydropower is used for 17,8% of all energy and 80% of all electricity in Iceland.



Geothermal Energy

In Iceland we use geothermal water for most of the energy. The energy is mostly used to heat up our houses. When radioactive substances in the ground heat the other materials around them the heat searches to go out of the ground. This process takes a very long time. When we, humans, use it, it doesn't get disturbed and that is what's good about it. And now there are ways to use the fumes that comes in the process, so it doesn't contaminate much. In whole geothermal energy is used for 70% of all energy and 29% of all electricity in Iceland



Vindmyllur- Windmills

In Iceland there are two windmills that were set up in 2012. They can put electricity in 1.200 houses for daily use. In Iceland the weather can change very quickly so there is not possible to use just windmills. In whole windmills only produce 0,04% of all electricity in Iceland.



Here you can see the two hydroplant stations on Snæfellsness were we live

