

RENEWABLE

ENERGY!

Renewable energy is when energy is made from a source that there is a constant supply of, or will naturally regenerate in a short period of time.

What do you want to learn about renewable energy?
Click on the Picture Below



The problem with renewable energy is that it's reliant on conditions that won't always happen. For example it won't always be sunny enough for solar panels. How efficient is renewable energy if we don't account for reliability? (How much power it produces, and not how reliable it is.)

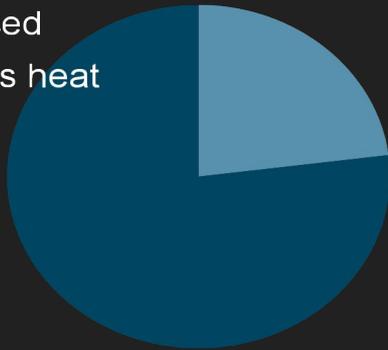
According to [Investopedia.com](https://www.investopedia.com) one barrel of oil can produce up to 1,700 kilowatt hours!

[Mcginley.co.uk](https://www.mcginley.co.uk) says that 28 square meters of solar panels can produce 3,400 kilowatt hours in a year! That's nowhere near the amount of a barrel of oil though.

One 100 foot wind turbine at 25% capacity can produce 4,380,000 kilowatt hours annually. Those are just the energy outputs though, because it also takes energy to produce more energy

Burning of oil

- Energy produced
- Energy used as heat



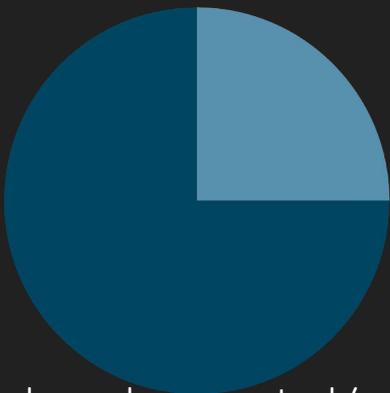
When the energy produced by wind, solar and geothermal loses nearly 0 % to heat.

Surprisingly yes! Not many countries have %100 renewable energy but a few do.

According to [wordsmartcities.org](https://www.wordsmartcities.org) Iceland has %100 renewable energy, here are the different types used:

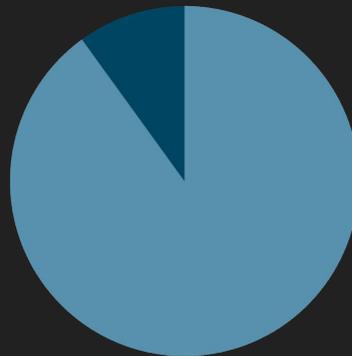
Energy used in Iceland

- Geothermal
- Hydro



Heating used in Iceland

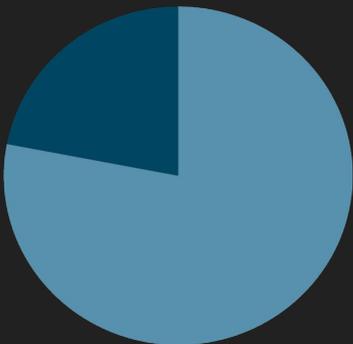
- Geothermal
- Other



Costa Rica is nearly carbon neutral (nearly zero emissions), here are the types of energy used there:

Energy used in Costa Rica

- hydro and tidal
- other renewable energies



The reason why these countries have %100 renewable energy is because of certain environmental conditions that are abundant there. Such as lots of waves and hurricanes in Costa Rica, and lots of active volcanoes in Iceland. Both countries also have small populations, so less power is needed to be generated. So the energy model of these countries might not work everywhere.

There are many reasons why, but here's a few of the biggest ones.

- Most modern infrastructure and technology relies on non-renewable energy, making renewable alternatives more expensive, this also means that switching to renewable energy could cause more waste.
- Fossil fuels are just more efficient than renewable energy, even if you factor in the energy used for heat.
- Pollution and waste can be created from renewable energy too, like the plastic used to make solar panels and land used to build power plants.
- Not every country has the right environmental conditions of resources to have reliable renewable energy.
- Most political parties and a surprising amount of environmental NGOs are funded by fossil fuel companies. So this could influence environmental policies and rhetoric (persuasive speech).
- Fossil fuel companies sometimes sponsor projects about sustainability, which usually obsess over "individual changes" (trying to lower your own damage on the environment) and not as much about the damage of fossil fuels.