

# Full of energy



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## The first big energy transition of mankind

Only 200 years ago, civilization relied on renewable energies: people heated with wood, wind and water mills carried out mechanical work – but only where and when enough wind and water was available. Man and beast had to use their muscles a lot.

Then, the fossil-fuel era started. With coal, steam trains and steam engines, industrialization took off. Later, crude oil and natural gas became the most important energy sources: to run machines, to move by train, car, plane or ship, to heat and to generate electricity.

A completely new infrastructure with oil-tankers, pipelines, gas pipes



*The “Todtnauerli” train: On July 7, 1889, the coal-fueled progress arrived at the hindmost Wiesental.*

and high-voltage power lines developed. The living conditions and habits of people changed completely.

In rich countries, energy was available basically without limits at any place at any time. This led to an exponential growth of productivity and energy consumption...

## On the brink of the second, huge energy transition

As early as the 1970s, scientists of The Club of Rome started to warn about the “limits of growth”. It became apparent that the availability of crude materials and fossil fuels is limited and that increasing environmental damage can cause permanent problems. One of these problems is climate change – caused by greenhouse gases that are set free during the burning of fossil fuels.



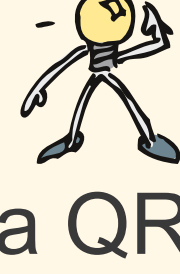
*A natural source of oil. In Azerbaijan, fossil fuel reaches the surface of the earth.*

Meanwhile, the second huge energy transition has started: towards sustainable systems powered by the sun’s energy. All renewable energy sources, with one exception, are part of the constant energy stream from the sun to the earth. And this second energy transition will bring lots of new stuff, too: we need new infrastructures and some long-standing beliefs may have to be revisited.

## At the energy park “Buchenbrändle”

... you can learn more about the diverse energy sources of the fossil and the emerging solar era:

- The most important on the pillar in brief
- Sonnya with her own view of things
- Birni has answers for children
- more information and references via QR-code on your smart phone



Did anybody ever say this to you?  
Well, it's true.

People have a lot of energy. We can run, climb and have the strength to carry or pull heavy stuff. This can be very hard sometimes. To make things easier and some things faster, people invented all sorts of machines.

These machines also need energy, usually electric power or petrol.

Can you imagine a world without cars?  
A world without TV, computers or cell phones? And now imagine you had a kitchen without a fridge, where you would cook over a fire and wash the laundry with your hands. This was the world of your great-great grandparents – but a lot has changed since!

Nobody has to drill for coal or gas for me. They will be used-up one day. But sun, wind and water, they will always be there.



Naturpark  
Südschwarzwald



Umweltstiftung  
Schöna