

Common points of the advantages and disadvantages of sustainable energy.

merits

- Does not emit greenhouse gases.
- High conversion efficiency.

demerits

- Depends on the weather.

Advantages and disadvantages of geothermal power generation with the lowest ratio.

Advantages... Easy to use as a power source

Heat from water to warm water

High conversion efficiency

disadvantages... Carry heat away need a volcano



The future

To improve conversion efficiency after improving each power generation method.

We would like to consider what kind of improvement method is required in the future.

And we learned that there were advantages and disadvantages that we didn't think of

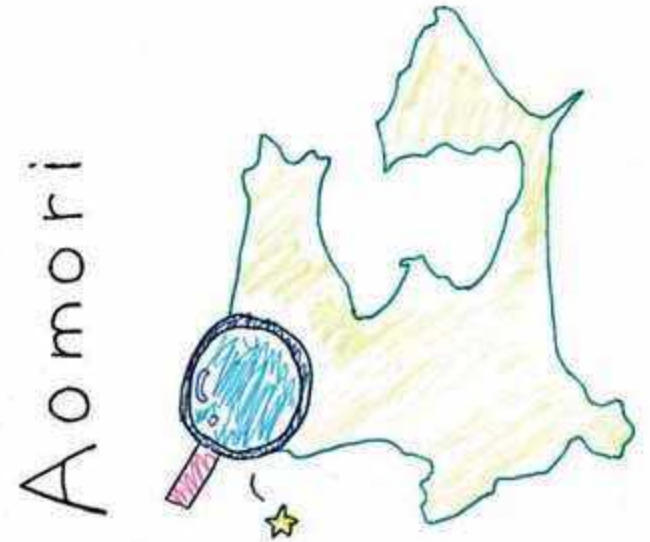
Source

◦ <https://www.fepc.or.jp>

◦ <https://www.sbenergy.jp>

◦ <https://isep-energychart.com>

Advantages and disadvantages of sustainable energy



11 HR group 4

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## Motive

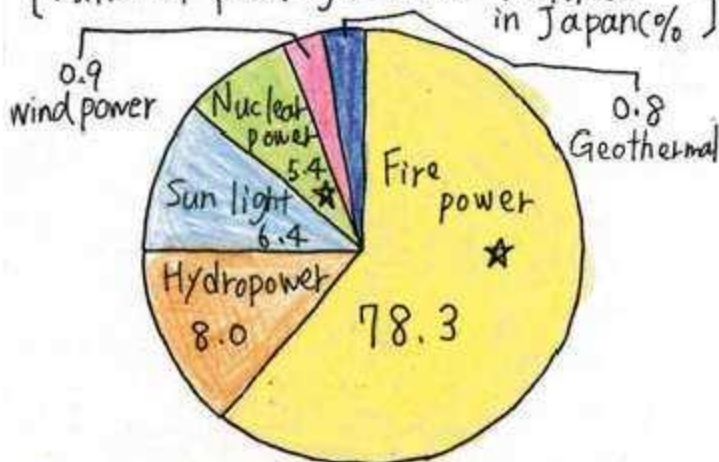
We were interested in various power generation methods and their improvements.

## Purpose

Investigate the merits and demerits of power generation and consider what to do in the future.

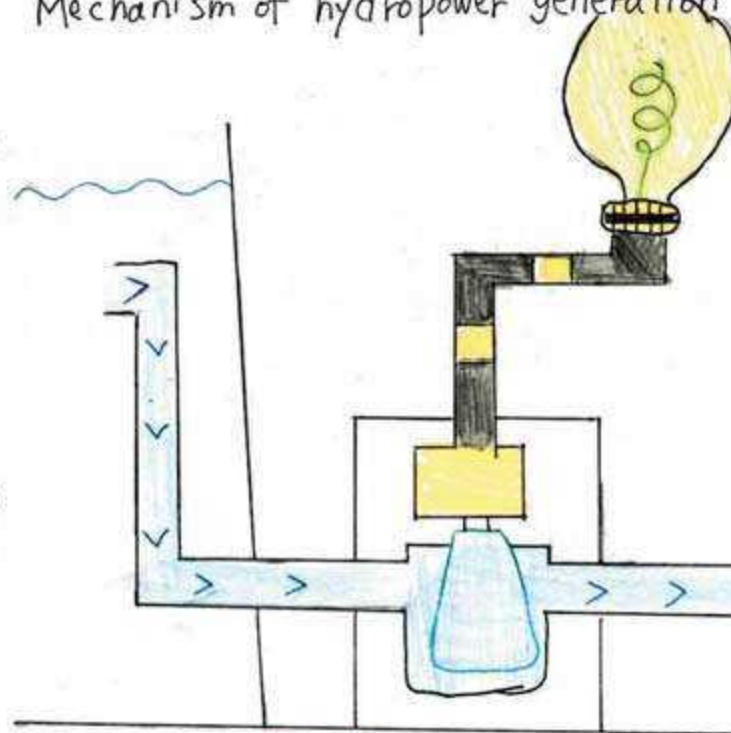
## Way

Investigate the highest percentage of sustainable energy and the lowest percentage was wind and geothermal [Ratio of power generation methods in Japan %]



★ ... what is not sustainable

## Mechanism of hydropower generation



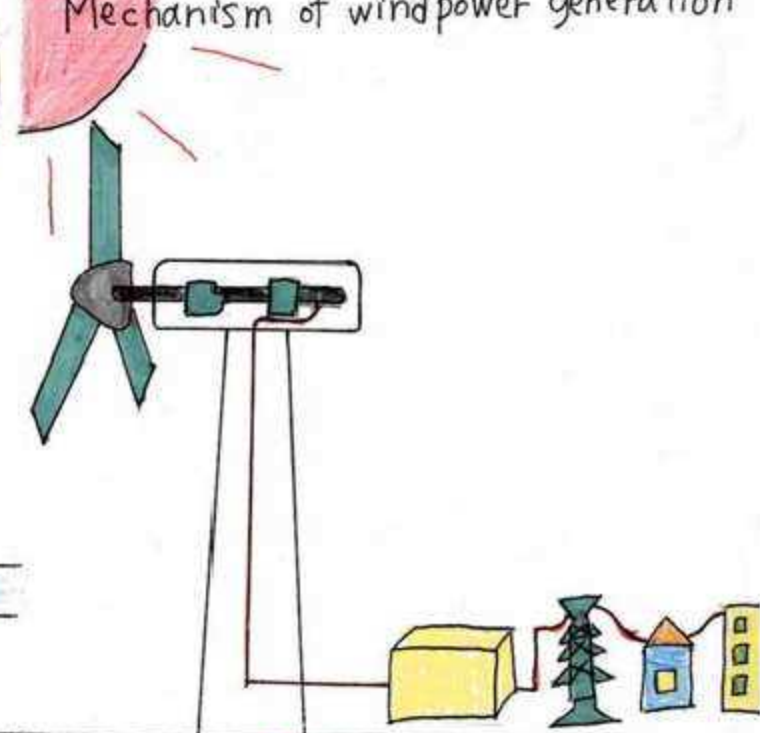
### merits

- Does not emit CO<sub>2</sub>.
- Power generation efficiency is 1st.
- Low cost.

### demerits

- Ecosystem is destroyed by installation of dams.
- Requires a lot of money for construction.
- If a dam breaks down, damage to people, private houses, etc.

## Mechanism of windpower generation



### merits

- Low environmental impact.
- Can generate electricity regardless of day or night.
- Can be installed on land.
- Low power generation cost.
- Does not require cooling water.

### demerits

- Power generation is affected by wind speed.
- Installation location limited.
- Risk of failure due to lightning.
- May cause noise problems in the vicinity.