



What kinds of energy are there?
Let's consider where this energy is used.

What is energy anyway?



Everything requires energy to operate. TVs need electricity, cars need gasoline and people need food. We call energy what is needed to fuel actions, whether the activities of people or the moving of objects.

	Energy made through burning	Energy generated without burning
Energy that can be used repeatedly	<p>Wood Plants Biomass</p>	<p>Solar Hydro Wind</p>
Energy that can only be used once	<p>Gasoline (oil) Coal Liquid natural gas</p>	<p>Nuclear</p> <p>So there is energy that is made by burning things, and energy that is created without burning things!</p>
	Gases, such as CO ₂ , are created.	Little CO ₂ is created.



Let's look at the types of energy above and divide them into energy that can be used as is and energy that is changed into electricity. Then let's think about how we use these types of energy in our lives.

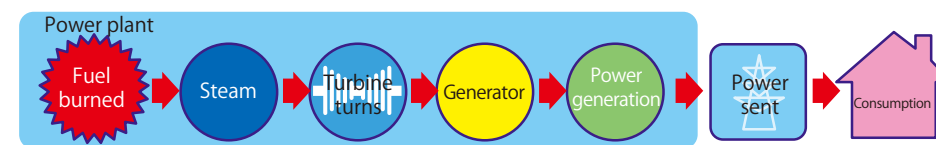
The activities of people and using too much energy is believed to be causing changes around the world, such as climate change. What exactly is energy? Let's think about the different types of energy, look at their unique characteristics and how they are used.



How is energy made?

How electricity is made: thermal power

Natural gas, coal and oil are burned as fuel to make steam that spins a machine called a turbine to create energy. The energy from the turbine is used to move a generator and create electricity.



Burning fossil fuels to create electricity releases carbon dioxide. That is why electricity is strongly linked to global warming.



Saving energy

Cutting back on the energy you use is as easy as turning off the lights in an unused room or replacing a refrigerator or air conditioner with a more efficient model. This is called conserving or saving energy.



Let's learn about efforts to make energy from new methods that do not require combustion.

Solar power: Power made from sunlight

This uses sunlight and solar cell batteries to make power. Solar power has finally begun to make inroads. City governments and public organizations are also helping to popularize solar power and it is also gaining popularity in homes around the nation.

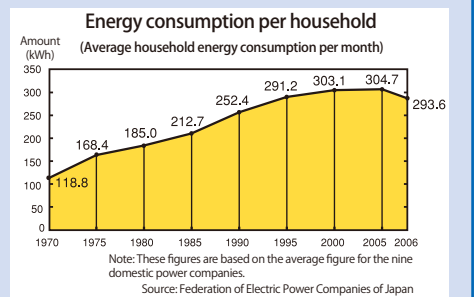
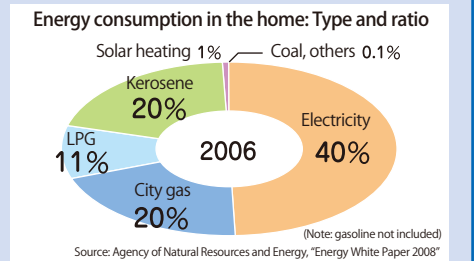


Wind power: Power made from the wind

This uses the power of nature in the form of the wind to spin the blades of a windmill to turn a turbine and generate power. Wind power requires a large area with abundant open space as well as steady wind.



Look at the different types of energy and how much we use.



For more information about products that use electricity see p. 17.