

■Purpose of Exhibition

Our life is made through energy consumption. Life without electricity is not considered possible. We also consume energy for the movement of people and logistics such as automobiles and airplanes. Now, the problem of global warming and the depletion of energy resources is growing. We need to use energy more wisely. What is energy? This question could make us think about how we use energy and act however we can to prevent the waste of energy consumption.

This article introduces contents of exhibitions related to the following five topics:

[What is energy?], [World energy situation], [Our main source of energy], [Our dependence on energy], [Energy Q&A].



■Additional Knowledge

[Energy Conversion]

The term "energy" is used everywhere, but what does energy really mean? When asked it is a tough question to answer.

In physics, energy is categorized into various kinds; heat energy, electric energy, light energy and motion energy. These energies can be converted into each other. We can change light energy into electric energy with solar batteries. Electric energy can be converted into motion energy. In order to stop a running car, motion energy is converted into heat energy by friction. We live a convenient and comfortable life by making wise use of energy conversion.

[World Energy Situation]

When we talk about energy, it means petroleum, coal and natural gas. These are known as primary energy sources. Human life has been continuing by converting these energies.

We use them as heat energy by burning directly, or they are utilized as fuel to produce electricity at power plants. However, these primary energies may deplete and carbon dioxide emissions are worsening global warming, both current and important global issues.

[Our Main Source of Energy]

Electric energy is the most convenient to use of all energies. That is because electric energy can work machines like a motor and can be converted into light and heat easily. Therefore, many electric energy power plants have been constructed all over the world and transmit electricity to cities. Hydropower generation, thermal power generation and nuclear power generation are the major power generating methods, and each method is used to make full use of its capabilities.

[Our dependence on Energy]

We live an abundant life by consuming energy. Thus, it is important to continue living on energy, but also continue addressing issues such as the depletion of natural resources and global warming.

[Various Kinds of Energy Resources]

Now, we need alternative methods to generate power.

The energy produced by wind and solar power generation is called renewable energy, and the energy that stems from nature and does not deplete is called recyclable. We are not too concerned about the depletion of natural resources and global warming, but it is not possible to only rely on primary energy sources to sustain our livelihoods.

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