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The Role of Electricity in All Cases

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Annotation: *We know that human life, its activities, electricity is of great importance today. This article discusses the role of electricity in all areas.*

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Electricity is an essential part of modern life and it helps us in many different ways. We use electricity for lighting, heating, cooling, and refrigeration, for medical purposes and for operating appliances, electronics, computers, public transportation systems, and much more. In the modern era, we are nothing without electricity.

Electricity

Electricity is a form of energy resulting from the movement of charged particles, such as electrons (particles with a negative charge) and protons (particles with a positive charge).

For example, static electricity is produced from friction. When a substance moves against the direction of another, it transports charged particles.

The annoying sting and flame that we might see when we pull our feet on the carpet and then touch a metal electrostatic handle is then static, so the electrons are transferred between the body and the door handle

Electricity consumption, in general, is growing exponentially because electricity is widely used to perform tasks that were previously performed using coal, natural gas, or human muscles, such as steel fabrication, car assembly, and milking cows, etc., so electricity is widely used.

The Importance of Electricity in Our Daily Life

The electricity we use in our daily lives is a secondary source of energy.

The electricity is produced by converting basic and natural energy sources such as coal, natural gas, nuclear energy, solar energy, and wind energy into electrical energy, which has become of great importance in facilitating human lives and achieving the renaissance in the nation's economy.

In the past decades, humans have been using candles, whale oil lamps to illuminate, cold ice boxes for food preservation, and wood-burning stoves for heating.

Today, with the discovery of electricity, human life has become easier by using electricity to perform many functions every day, such as lighting, heating, cooling of homes and operating various electrical appliances.

The discovery of electric energy led to the creation and the invention of devices that revolutionized its era and the inventions of scientists have contributed to the development and progress of the use of electricity.

For example, Thomas Edison invented the light bulb, which is one of the most important inventions in human history.

In 1837, Samuel Morse invented the telegraph which was connected to electrical wires across Europe, America, and India.

In 1876 AD, the scientist Alexander Graham Bell invented the telephone device that transmits sound over long distances by flowing electrical current in copper wires and converting sound to electrical current, and the headphones at the other end convert the electrical vibrations into sound signals.

Nikola Tesla also contributed in bringing electrical inventions to homes to operate interior lighting and factories to operate industrial machinery through the generation, transmission, and use of alternating electricity (AC), and to reduce the cost of transporting electricity over long distances.

At the present time, energy and electricity are affecting modern agricultural methods, whereby the process of conditioning and storing grains and grass on farms is carried out by modern electrical machinery, as well as milking and cooling milk in dairy farms

Electric-powered equipment has been developed to conserve and store agricultural crops to help cope with the harsh weather conditions that may occur at the time of the harvest. The electrical appliances also helped reduce labor by harvesting the grains within days instead of months and drying them with electric-powered fans.

Until they are used for longer periods, agricultural crops are kept in stores with temperature-controlled electric refrigerators.

Modern Uses of Electricity

Electricity is an essential part of modern life and it helps us in many different ways. In the modern era, we are nothing without electricity. The major areas where we use electricity include:

Home Uses

The use of electricity is essential for cooking and heating water, as these are the most important uses, as they are used in lighting, cleaning, and entertainment. When talking about household uses of electricity, these are the basic uses, but not only. Its use includes watching television, washing clothes, heating, bathing, and working from home on computers and running other devices, so that residential energy uses represent approximately forty percent of the total energy use worldwide.

Safety in the Community

Electricity reduces the isolation of rural areas from other areas and safety is also achieved through the provision of external lighting, alarm systems, and even traffic lights, as electricity is the most important element for achieving security in homes, cities, and major areas.

Medical Uses

The use of electricity led to reaching the treatment of many diseases through the use of electrical therapy devices, and the operation of electrical machines and equipment when performing surgical operations, in addition to their ability to photograph the internal organs in the body through the use of X-rays, CT scans, MRIs, which led to a reduction in the death rate.

Agricultural Productivity

Electricity helps increase farmers' productivity, as it allows farmers to operate electrical machinery, in addition to its role in helping them to use their time and make better use of them, obtain greater production quantities, develop irrigation strategies for them, and the level of their agricultural activities.

Transportation and Entertainment

Electricity helped provide rapid transportation, such as fast electric trains, and entertainment such as radio, television, cinema,

With electricity, some modern equipment, such as computers and robots, that facilitated human life has been developed.

Social Interaction

Electricity is useful for activating communication in isolated rural areas with the surrounding external world, where people in these areas are isolated, as they do not have phones or any other type of communication device, which gives them the opportunity to communicate with other cities, besides helping these areas in an emergency, or if they need help.

Industrial Growth

The use of electrical machines increased in the current era, which led to an increase in the production of multiple commodities, and the ability to operate machines in all industries, whether large or small, which contributed to the growth of industries and improving the condition of members of society.

Commercial sector

The use of electricity in the commercial sector includes heating, cooling, and lighting for buildings and commercial squares, in addition to the electricity used by companies and commercial centers in all parts of cities for computers, fax machines, copying and printing machines, elevators and electrical drawers as well and many more.

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