THE ENERGY OF THE NOT TOO DISTANT FUTURE

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As non-renewable resources are depleted, we are faced with a crucial dilemma: continue to use the same resources until they are completely exhausted (which could have catastrophic consequences) or find a way to provide electricity to the entire world without the need to exhaust non-renewable resources. Elon Musk, CEO of Tesla Motors, is trying to find a way to solve this and for this, it has recently created a battery that can do just that.

Powerwall is a home battery that uses solar energy to provide the battery with a charge. The battery is capable of powering an entire house when utilities are low. When a storm hits a city and the power grid goes down, the Powerwall is capable of providing emergency power.

The compact design of the battery allows it to be installed on any wall in the home; and it is also an aesthetically attractive equipment. The system that collects and distributes electricity through the Powerwall is relatively simple. It consists of three essential parts: the solar panel, the main battery (Powerwall) and the inverter.

The solar panel, which is installed on the roof, collects and converts sunlight into electricity. That surplus electricity is stored in the Powerwall during the day or even when utility grid rates are low. The inverter converts electricity from DC to CA (the type of electricity used for household electronics).

Building an invention as innovative as this one has many benefits. The battery can provide financial savings to its owner, charging it during periods of low rates, when the demand for electricity is lower, and, conversely, discharging it when rates are high. Owning a Powerwall also increases the consumption of solar power generation, which is one of the cleanest renewable energy sources

today. This makes it possible to reduce CO2 emissions.

As this technology advances, one of the purposes is to use this innovation to address poverty and help provide electricity to areas that do not have nearby power plants. Once a cheaper way of producing these types of rechargeable lithium-ion batteries is found, then the likelihood of seeing the rise of many developing countries, such as sub-Saharan Africa, increases. For example, the United States Congress has promoted several projects to bring electricity to remote areas of Africa. The United States Agency for International Development leads the Electrify Africa Act initiative.

The Powerwall is technologically pioneering. In fact, it is considered the car of its industry. Once this situation is reached, the goal is to find methods or production systems that allow greater accessibility to the Powerwall. The more accessible it is, the more people will be able to enjoy renewable energy. This is the fundamental purpose of this technology: to reduce the amount of non-renewable energy derived from the burning of fossil fuels, providing a renewable alternative.

There are no comments yet.