Renewable Energy

Rising temperatures, melting ice caps, wildfires, and destructive storms are a few examples of concerns for the future of the planet. Keeping the planet alive relies on creating strategies to move away from dirty energy sources like oil and coal.

Renewable energy cannot be depleted because it is naturally replenished over time via sunlight, heat from the earth's core, and the gravitational pull of the moon and sun. Therefore, relying on renewable energy is paramount to the success of future generations.

Wind power

Windmills, as we know them today, windmills can be traced back to the intelligence ancient people had in learning how to use the wind as a source of power. Strong winds or airflows power the wind turbines of today.

To maximize power output, wind turbines are grouped together in wind farms, typically in a location where strong winds are constant. After the initial investment, financial maintenance of wind turbines is minimal. As a result, wind turbines can last for decades.

Wind energy is not ideal for a local setting, such as a residential home or park. Another drawback is that it can adversely affect the environment. For example, wind turbines can reduce natural habitats for animals. Additionally, the spinning turbine blades threaten bats and birds.

Solar power

Advancements in technology have made solar energy widely available to the average consumer. It's an affordable option to power homes and businesses. The federal government provides a tax incentive for homeowners that use solar energy. Any solar panel that can get direct sunlight can convert that into electricity, which alleviates demand from the community power grid.

A quality solar panel can last up to 40 years, making it a sound investment. However, one drawback to solar power is that an alternate power source such as a battery or utility grid needs to be available at night or when sunlight is limited. Additionally, some homeowners may consider solar panels to be an eyesore.

Hydroelectric power

According to the Department of Energy, Hydropower generates power from the flow of water. Hydropower is generated through structures similar to wind turbines, except they are placed underwater. Ocean tides are predictable, making hydropower reliable.

Hydropower is unique in that it does not create any air pollution. Hydropower facilities can generate power on demand, unlike wind or solar power. Hydroelectricity plants can eliminate traditional power sources like coal and gas.

Building a hydropower plant can have some negative effects on the environment. They can interrupt the natural flow of rivers, leading to the displacement of wildlife. Hydropower plants require a significant investment upfront, but it can provide low-cost electricity for up to 100 years after being built.

Developing a reliable renewable energy system is definitely possible because the energy sources are present. Furthermore, technology is evolving and improving everyday, making it possible to harness the earth's natural energy sources to create power for the benefit of future generations to come.