
Alternative Energy Systems Comparison

Several major differences between wind power, water power, nuclear power, and solar power systems exist.

The organization of a system for nuclear or water power may constitute only one or two turbines and one or two plants. Power lines go out directly from the power plant. A water power plant is usually a compound of several buildings that are all close together, not taking up a great amount of land.

In large scale wind power or solar power plants, many arrays of solar cells exist, and many wind towers are built. This means a great amount of wires must extend to route all of the generated power to one base that is connected to the electrical grid. A superextended wind farm or solar power farm means that a great amount of land space is taken and rendered useless for anything other than energy generation.

The contrast between a great alternative energy system and one that is used on only home must be observed. Nuclear power would not be used to power a home because of the possible contamination and nuclear infiltration of radioactive isotopes that would be dangerous to live around. Water power dams on the small scale are currently available commercially, just as solar cells and wind towers. Just as the large scale solar station takes up a great amount of space, a home powered solar station will either need a piece of land to keep the cells on, or take up all of the roof.

Just some other factors that must be considered when comparing alternative energy forms are the organization and size needed for a system. As the earth becomes more dense, people must judge the value of great alternative energy systems that use up large portions of the earth. The organization must also be carefully laid out to ensure maximum utilization of space, and great energy efficiency.