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Renewable Energy: A Solution to Japan's Energy Crisis

As world population increases steadily, fossil fuel deposits around the world continue to be consumed; estimates state that all current known deposits will run dry by 2088. Fossil fuel consumption not only causes environmental pollution, but its resulting greenhouse gases accelerate global warming, leading to destructive changes in climate patterns and rising sea levels. On one hand, fossil fuels are an indispensable part of daily life, but they also cause irreversible damage to the environment. On the other hand, renewable energy sources are more expensive and less convenient to develop compared to fossil fuels, but they are a great alternative to fossil fuels as an environmentally-friendly energy source. While the impact of global warming and fossil fuel consumption has been well researched, there has been little effort towards promoting renewable energy to replace fossil fuels as the primary energy source in Japan. Specifically, I explore the dangers of fossil fuel dependence on large fossil fuel-importing countries, Japan's energy situation and energy policy changes, and the need for Japan to develop and expand its solar and hydroelectric power facilities. The mechanisms behind solar and hydroelectric power generation and reasons supporting that they are the most suitable renewable sources for Japan will also be explained. Finally, the feasibility of applying intriguing new technologies to Japan's energy infrastructure will also be examined. I foresee that renewable energy sources will become an increasingly larger primary energy source as countries, including Japan, invest more money and effort into replacing fossil fuels with renewable energy sources.

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