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Course

Date

Benefits of Technology on Energy

Advancements in technology significantly affect the forms, production, costs, and consumption of energy. However, the effects can be positive as well as negative. Technological innovations lead to a significant rise in energy consumption, which may exhaust natural resources (Jin, Duan, Tang 1). On the other hand, technological advancements help to solve energy challenges, as will be discussed in this study. Thus, it can be stated that technological innovations significantly influence the production of environment-friendly and low-cost energy.

Technological advancements have led to the designing of engines that use environment-friendly sources of energy. For example, hydrogen vehicles do not use petrol. Unlike conventional engines the exhaust product of which is carbon dioxide, hydrogen engines give out water. Companies that have adopted this new technology are Toyota, Hyundai, BMW, Audi, and Honda. These organizations are expected to dominate the market when the need for carbon-free emissions intensifies (Nicoll para. 5). On the other hand, the advancement in ICT will help save the world's energy resources. It must be noted that technology helps to reduce the consumption of energy in many sectors, including transportation, which accounts for a very high emission of carbon dioxide in the United States (Gelenbe and Caseau 5). In conclusion, progress in technological innovations will help in reducing the emission of greenhouse gases.

In addition, the development of new technologies such as 3D seismic technology and nanoengineering helps discover energy reserves. Recently, more advanced techniques of drilling

gas have been employed in the United States to save resources. The use of conventional technologies to extract fuels requires more energy and time (Technology Org sec. 5). As a result, technological innovations need to be utilized for the exploration of coal, oil, and gas in order to meet the increasing demands for energy.

Due to the advancements in technology, the cost of energy in countries such as Germany, Canada, and Australia has significantly declined. This can be achieved by using smart meters to monitor the usage of energy. Such a gadget would provide real-time data on the total cost and consumption of energy. Thus, it will bring behavioral changes in consumers who will learn to use energy responsibly. All these advancements will result in higher energy efficiency and lower electricity bills. Green technology can help consumers monitor the consumption of energy from both homes and offices. Moreover, one can be notified if one forgets to switch off lights or electronic gadgets before leaving for work. Consequently, this would also enhance the security of households (Technology Org sec. 5). For example, fires caused by electricity can be reduced through the use of smart meters that provide real-time data. The United Kingdom is encouraging the use of smart meters to reduce the £5.4 billion it spends for the consumption of energy every year.

The benefits of technological innovations related to the production and consumption of energy include saving the environment, protecting property, and reduction in the costs of energy. On the other hand, technological innovations influence the consumption of more energy, which drains natural resources. To summarize, although technologies such as the ICT may require the consumption of more energy, those are economical in the long-term. In addition, such technologies have a positive effect on the consumption of energy in other industries.

Works Cited

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