

Economic feasibility of alternative energy essay sample



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Introduction

The employment of alternative energy has become an important issue in the current world because other forms of energy have caused significant harm to the environment because of emission of dangerous impurities. Some policy makers suggest the use of fossils, natural sources or energy while others suggest the use of nuclear energy as a viable source of energy. However, the major challenge for countries adopting the use of alternative energy has to deal with the impending challenge of economic feasibility of such sources.

This paper is written to critically analyze the economic feasibility of alternative energy sources.

Since the initial oil embargo, governments and policy makers have believed that alternative sources of energy are critical to meet escalating demand of energy (Sinor Consultants, 2009). There are various reasons leading to the belief that alternative fuels are the solution to the increasing consumption of oil which exceeds the available oil reservoirs. Some of the reasons include energy security, future projections of increased oil prices, reducing impurities to the environment and greenhouse gases (Abbott, Rogers, Sloboda, 2006). However, policy makers and most governments react differently to the above challenges. For example studies show that when oil quality is improved, combustion can be improved through improving combustion engines and after treatment exhaustions (Sinor Consultants, 2009). In that light, it is possible for countries to shun from employment of alternative energy.

Consequently, this study also asserts that there many financial implications which come with the implementation of alternative energy sources. For example setting up a nuclear plant calls for significant financial commitment to ensure that it runs efficiently and effectively (Bows et al, 2006). Most developed countries are able to sustain such nuclear plants like the United States and Europe because they have the financial capabilities to do so. However, developing countries like Iran which have already employed nuclear power production have raised major concerns of their ability to sustain such projects because of the financial implications involved (Sinor Consultants, 2009). Other major concerns with the use of nuclear energy, comes from such plants being used for military and terrorism purposes. Such challenges could lead to the destruction of solid economies build over many decades and at the same time cause irreversible financial damages.

The UK has played a major role in supporting the use of alternative fuels for example running electric power plants which are fueled by poultry litter (Mochan, 2008). Such a project is however subject to challenges like sustainability and the consistent availability of raw materials which is the poultry litter. According to (Mochan, 2008) poultry plants are also expensive to sustain since they need various processes and machinery to process the raw materials to eventually fuel the generation of electric power. Studies show that depending on the size, one such plant can even cost 9 million US dollars (Sinor Consultants, 2009). Such can discourage, the employment of such a plant and more especially in developing countries which may lack the financial resources to support a poultry litter electric plants. Other studies also state that poultry litter produces nitrogen oxide which is also an

impurity to the atmosphere and thus means to ensure that Nitrogen levels are reduced require significant financial resources (Mochan, 2008).

This study asserts that feasibility analysis of alternative fuels will be highly determined by the ability of crude oil to meet higher standards of ensuring that they are safer for use (Sinor Consultants, 2009). For example, crude oil will not stop to be used because of the availability of alternative sources of energy. Currently, oil and other automobile industries have been able to reduce impurities in gasoline so that automobile burning of the gasoline does not release a lot of impurities to the air (Sinor Consultants, 2009). Such improvements in crude oil stand in the way of ensuring that alternative sources of energy are adopted. Thus it can be argued that there exists a pull and push between crude oil and alternative sources of energy.

Consecutively, in most parts of the world, economies are facing hard times because of increased prices of gasoline and crude oil products (Sinor Consultants, 2009). For example, the US economy has been in the limelight because of challenging economic times which have seen oil products keep on escalating. According to Abbott, Rogers, Sloboda, there are growing concerns that the rate of oil consumption exceeds the available reserves (2006). In this light, there is need for both developed and developing countries to find alternative sources of fuel. Use of alternative sources of energy will play an integral role in ensuring that other industrial sectors are well catered for in terms of energy needs and requirements. Alternative sources of energy can thus be used to strengthen energy infrastructure of countries and at the same time lead to social economic development.

Nuclear energy can be employed to produce a safe energy source which will play an integral role in environmental protection (Bows et al, 2006).

Currently the effects of global warming are costing economies colossal amounts of money and that can be avoided if the issue of global warming is addressed. Global warming is simply the over heating of climate due to depletion of the ozone layer which is catalyzed by impurities in the atmosphere caused primarily by the use of unrefined crude oil which releases impurities to the atmosphere. Studies show that fossil fuels like coal and gas are responsible for increasing carbon dioxide in the atmosphere leading to the depletion of ozone and with which negative implications for instance adverse climatic changes come along (Abbott, Rogers, Sloboda, 2006).

This study also asserts that failing economies could highly benefit from the use of safer alternative fuels for instance nuclear power (Bows et al, 2006). Nuclear power does produce harmful products in the atmosphere making them safer to use. Existing studies show that use of nuclear power enhances management of electric vehicles and at the same time enhances the higher hydrogen production in sea water which is vital for the water recovery and management. Seawater plays an integral role in regulating climates since it also ensures that living things in water are not endangered. Nuclear power can enhance transportation sectors of countries and thus leading to the development of social economic progress of countries.

The economic feasibility of alternative sources of energy is guaranteed because currently the rate of oil consumption is more than the oil reserves being discovered around the world (Sinor Consultants, 2009). This will
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require that at one point alternative sought to supplement the existing oil reserves. For example, studies show that the US is highly depended on availability of concrete energy sources and this means that since it does not have enough energy reservoirs then it has to seek alternative sources of energy (Royal Society, 2007). On the other hand, as long countries don't take note of taking care of the environment, more money will be spend on dealing with the implications of negative effects on the climate and environment. For instance, global warming has been known to lead to various irreversible climatic changes which affect food production and well being. Global warming is known to cause diseases like cancer and birth defects which have no known cure. This paper asserts that governments will be forced to spend colossal amounts of money to take responsibility of their misconstrued policies of the preferred types of fuels. Alternative fuels which don't produce by products of carbon dioxide are vital in ensuring that agricultural production is enhanced.

Studies show that most alternative sources of energy can be used with reliability and consistency (Royal Society, 2007). For example nuclear power can be extended over extended period of time with the guarantee of consistency in the energy provided. The US has already undertaken such successful studies, which reveal that base load power is readily available and in most cases can be gauged over 90% of the time (Royal Society, 2007). Both developed and developing countries are in dire of constant provision of energy that is constant for social economic development. According to Makhijani, nuclear power costs can be argued to be much more competitive and stable (2001). Nuclear energy can be used to supplement the available

oil products and at the same time ensure that nuclear energy is provided at lower prizes which can be afforded by citizens of all social economic classes.

Most alternative sources of energy are readily available and can be found more easily compared to other oil products. For example, fossil fuel is readily available on the surface of the earth while uranium can be found anywhere in the crust of the earth. In that manner, with conducive prices alternative fuels can be allotted fair prices. This study found out that alternative fuel industries do not have to occupy large areas and that means they can save a lot of land (Makhijani, 2001). Alternative sources of energy can guarantee that economies of countries gain a competitive edge in terms of constant and effective development.

Conclusion

The economic feasibility of alternative fuels entails many issues and factors. For example, improvements on available oil products can lead to diversion from usage of alternative sources of energy. The major concerns that have led to the use of alternative fuel comes in terms of prices of gasoline and other oil products, dangerous emissions which come from the burning of such products. However, the use of alternative source of energy could also be faced with various challenges for example, increased funds to sustain and run the alternative sources of energy. This study found out generating electricity from poultry fossil could cost \$9, 000, 000 in setting up the plant and sustaining it. In the above light countries which are challenged social economically may not be able to meet higher financial obligations of funding alternative sources of energy. This study also found out that with the

increasing consumption of oil products, oil reserves are getting depleted at a very fast rate and hence the need to venture in alternative sources of energy. On the other hand, owing to the higher prices of oil products alternative sources of energy can be employed to provide fuel at lower prices.

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