

HEIR INSURANCE ESSAY CHAMPIONSHIP 2024

Essay Topic: IF I COULD INVENT SOMETHING NEW

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Introduction:

Ever since God created the heaven and earth, man, God's creature, has been inventing something new from its raw form of creation, for man's usage, benefit and comfort. It is expedient to note that since man has been inventing something new, new invention keeps on emerging from generation to generation and can never be exhausted until man gets to his state of perfection. On this note, I am delighted to join the world new inventor by inventing "**Solar Powered Desalination Plant**" acronym, "**SOPODEP**".

What is SOPODEP and how will it work?

SOPODEP is a device that transforms salt water into drinkable water through the conversion of Sun energy to heat energy directly or indirectly to drive the desalination process. This new device will address global water shortage by harnessing sun energy to convert sea water into fresh drinkable water. SOPODEP mimics earth's natural water cycle, i.e., the process that generates rainfall. This has been practiced by human as a rudimentary water treatment process since the time of the ancient Greek.

Firstly, utilizing SOPODEP technique would provide a sustainable solution to water scarcity, especially in arid coastal regions of Nigeria such as Sokoto, Zamfara, Kebbi and Jigawa. By relying on solar power, they would operate with a significant lower carbon foot prints, unlike traditional distillation plant (i.e. boiling and condensation of sea water), thereby leaving salt and impurities behind, making them an eco-friendly option for addressing the growing national need for clean drinking water. SOPODEP can also provide drinking water in areas where no natural supply of potable water exists.

Secondly, SOPODEP also helps quality and habitat protection. Desalinized water generally meets standards for water quality. SOPODEP can also reduce pressure on fresh water supply that comes from areas that need protection. By treating ocean water rather than removing it from sources that may also be habitat for endangered species, this

important fresh water bodies can be preserved. SOPODEP also offers a sustainable solution for long term fresh water needs by drawing on the vast and unbounded resources of the ocean. The system can sustainably help commercial and problem of water scarcity and to a certain extent, reduce the use of other local natural water resources, such as Agriculture or underground water storage.

Finally, SOPODEP has a wide range of impurity elimination. Desalination system removes unwanted compound from sea water, namely salt, bacteria, viruses and other pollutants, by adopting a versatile and very effective water treatment technology known as “Reverse Osmosis” which provides greater flexibility for water treatment. Reverse Osmosis is a membrane treatment process primarily used to separate and dissolve solute from water.

In conclusion, the plant is capable of performing consistently and dependably, especially under difficult circumstances, the removal of excessive salinity from sea water which would be beneficial to people.