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**CONVERSION OF RENEWABLE ENERGY TO ELECTRICITY  
AND ITS IMPACT ON THE EGYPTIAN ENVIRONMENT**

*By*

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**Abstract:**

This paper introduces the evaluation of the technical, environmental, and economic aspects of renewable energy especially in Egypt and the challenge in the using of this energy option instead of using fossil fuels. Current and future policies will be examined to identify their impacts on renewable energy systems.

The current Egyptian energy supply picture, which is heavily weighted toward fossil fuels, has been analyzed in details. The environmental issues in Egypt have been studied in an accurate manner. The importance of renewable energy for Egypt has been discussed in details. This is because the renewable energy is very well suited to meet environmental concerns. The benefits and challenge of renewable energy in Egypt has been considered.

Grid-connected Photovoltaic Energy System (PVES), which can be used for both, distributed and central power generation has been analyzed to be installed in Egyptian sites. Also, the Wind Energy system (WES) has been studied under the consideration of the Egyptian sites.

The price of kWh producing from renewable energy systems such as (WES) and (PVES) has been examined to determine the most economic penetration level today and in the future.

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