

## **"Energy Crisis and the Role of Renewable Energy to Help"**

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### **Abstract:**

The current major energy sources are oil, coal, natural gas, and nuclear energy. These energy sources are used to cover industrial, commercial & residential, and transportation needs as well as for electricity generation.

A quick look at the level of production and consumption of these energy sources compared with the amount of proven reserves of these sources, we can observe that these sources will be available in the future only for a short period of time.

According to the OPEC, oil, for example, is produced at the level of more than 25 billion barrels per year. According to the same source the world proven crude oil reserve is about 1,140 billion barrels. This means that consuming oil at the world current level will last for about another 40 years.

Comparing the level of current consumption of natural gas with the proven natural gas reserve, we can come to the similar figure of 60 years for the remaining life of the world natural gas.

There are also some climate changes such as global warming involved with consumption of these fossil fuels. So based on two facts (limited resources and climate changes) human being can not rely on these fuels.

In this presentation, Dr. Zahedi will address the opportunities provided by renewable energy based distributed generation technologies for meeting the challenge of a sustainable energy supply. The present and future of coal, oil and gas-based central power station as well as the remaining life of these fuel sources are discussed. Dr. Zahedi then explores renewable energy technologies such as solar photovoltaic (PV) as an alternative energy supply with a great future.

### **About the speaker**

Dr. Zahedi is a member of the World Renewable Energy Council, Chairman of Victorian branch of the Australian & New Zealand Solar Energy society (ANZSES) and Group Leader of the Solar Photovoltaic Energy Applications Research Group of Monash University, Melbourne, Australia.