

"Renewable Energy is an expensive Hoax"

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OUTLINE:

1- Introduction

- Hook
- Background / Content
- Thesis Statement:

Renewable energy is an expensive hoax as it has an expensive Capital Cost, High maintenance Cost, long lasting external or environmental Cost, accelerating purchasing Cost due to governments inconsistent policies and not always suitable to follow 3R's strategies. Therefore, it is a dire need to overcome these Challenges by LCA (Life cycle analysis) process, incentivise government policies and through PPP Collaborations.

2- Main Body paragraphs

2.1- Expensive Capital Cost

2.1.1 High Cost of Solar panels, dams, Wind turbines, electric batteries Construction.

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- 2.1.2 Expensive instalment Cost
- 2.1.3 Transport by Conventional means across the World

2.2 — High Maintenance Cost

- 2.2.1 Desiltation of dams or Water reservoirs frequently.
- 2.2.2. Maintaining the Solar batteries and Wind turbine machineries.
- 2.2.3 Costly maintenance for Charging stations.

2.3 — External / Environmental Cost

- 2.3.1 Extraction of natural resources
- 2.3.2 Damaging the ecosystems
- 2.3.3 Dumping Cost at the end of life cycle Stage.

2.4 — Accelerating purchasing Cost

- 2.4.1 Inconsistent government policies
- 2.4.2 Circular debt and net metering System.

ⓑ Solutions

3.1 — Solution / Recommendations

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3.1.1 life cycle analysis (LCA)

3.1.2 Incentives by government

3.1.3 International emergency to
pursue SDG's goal of zero
Carbon emission

3.1.4 public private partnership

© Conclusion.

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The Essay

This planet is trapped in a vicious cycle as it tries to overcome one challenge leading to numerous other problems due to climate change. Moreover, this is the last generation that can take some actions to save the future generations. Unless, it is already too late. Barack Obama - a US former president - once said while addressing climate change as a global challenge. It is true as hell because in case of shifting from non-renewable energy sources to renewable energy, the same thing is underscored. Renewable energy resources are those resources that can be used repeatedly unlike non-renewables. But in broader context, it has also hidden cost in term of long term as well as short term negative consequences. Therefore, renewable energy

is an expensive hoax as it has an expensive Capital Cost, high maintenance Cost, long lasting external or environmental Cost, accelerating purchasing Cost due to governments inconsistent policies and not always suitable for 3 R's (Recycle, Reuse strategies). Therefore, it is a dire need to overcome these challenges by life cycle analysis (LCA), government policies and PPP Collaborations. Prior To unfold this essay on Renewable energy sources as an expensive hoax, first of all, understand what is the renewable energy sources. These resources are those that can be used again and again, and causing less pollution compared to non-renewable sources such as fossil fuels. But the other side of coin shows another picture.

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Renewable energy sources have high Capital Cost. Capital Cost means the initial cost. For example, Solar panels consist of silicon chips, batteries, supporting infrastructure etc. All these things require a large sum of money. Similarly, construction of dams to harvest hydro power are also an expensive projects. Any Water reservoir building demands an enormous cost. In the same way, Wind turbines, electric vehicles, replacing CNG stations to charging stations are not so easy tasks in terms of economic values. Therefore it is not exaggerated to say; renewable energy sources are an expensive hoax. For instance, in India the cost of establishing charging stations for electric vehicles is 50 million dollars over in limited range, Punjab. Furthermore, the cost of a solar panel in

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Pakistan is 5 to 6 lack to meet the house hold demands. Therefore, the highest Capital Costs of renewable energy resources proves it is an expensive hoax.

After installing, the next costly phase of using renewable energy sources is maintenance phase. During their functional time period, it is mendatory to improve their maintainance and it required a lot of money. For example, dam's beds are continuously covered with muds and rocks through the process of siltation. Thus, it is inevitable to remove debris and muds from it's bases by desiltation. It is an expensive process. Furthermore, Solar batteries and machines of Wind turbines, their blades, E-vehicles batteries all ^{all} need to maintain through timely turning and buffering processes. It required or demands a huge

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amount to harvest energy from renewable energy sources. Similarly, the energy provided to charging stations ^{has been} generated through conventional fuels such as: electricity produced by oil, coal and gas. It is again a source of pollution and depletion of resources as well. That's why, reliance on renewable energy sources ^{are} also demanding a great cost. For example, China, a major solar panels producer, still facing the problems of environmental pollution and paying penalties.

Environmental cost make the renewable energy sources again an expensive deal. It is an external cost, not in terms of monetary values. But their impacts are long lasting and trapped this planet in a vicious cycle. For example, clearing land for construction of dams or wind turbines installations damage their fragile

ecosystem. As the green land is a habitat of enormous birds, insects or animals. This thing not only damage their habitat but also may lead them towards their extinctions. In addition to, cutting trees reduces the sinks of Carbon dioxide. Forests are considered as a source of Carbon Sequestration. Therefore clearing lands for harvesting renewable energy paint the picture of expensive hoax. Similarly, supply of electricity, Construction of Silicon chips^{and} Electric Batteries depends on conventional methods of burning fossil fuels^{and} minings. Extraction of Silicon through minings turn the nearby land into barren or acidic through the process of runoff. This thing breaching the fertility of natural land for example mining activities in Taiwan, according to report^{are} affecting

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their land, causing health problems for their workers and animals. Therefore environmental cost turn the table of sustainability to vulnerability.

Accelerating purchasing cost add fuels into fire of making renewable energy source is an expensive hoax. For example, inconsistent government policies over energy prices or buying cost of electric vehicles, Solar, Wind/Hydro energy is expensive. In Pakistan,

circular debt is a major problem that turn this renewable energy blessings into curse. As Pakistan's government committed with foreign investors to buy energy at the same fixed high price for years.

Therefore, it is binding over government to pay either the same amount of energy should be use or not.

Furthermore, net metering system eroded the credibility of renewable

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energy sources as a sustainable source in Pakistan. For instance, people spend high capital and maintenance cost to produce their own energy/electricity for industrial and domestic purposes. The extra amount of energy bought by government from people is done by net metering system. But the prices set by government for this purchasing is very low. Moreover, taxes by government for production of renewable energy make it an expensive dealing. Therefore, it is just a slogan of "renewable energy" is a cheap, sustainable, pollution free source of energy.

By overcoming these challenges, it is, indeed, an excellent source of energy and it is the need of hour as well. To reduce these challenges government should

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be opt some steps.

Life cycle analysis is the world accepted way to examine the root cause problems of any project. For example LCA of lithium ion batteries, Solar panels, charging stations. Constructions of Wind mills, dams etc should help to analyse external and internal cost. Once the problems are identified it is easy to address them. This process examines the all stages of a project from construction to working and then at the dumping stage impacts. Furthermore, there is an urgent need to adjust the government policies and make easy for people to shift from non-renewable to renewable energy sources. In addition to it, public private partnership also exist to change this hour into a real blessings.

In a nut shell, Re-newable

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energy sources is an expensive deal in terms of high Capital Cost, expensive maintainance cost, environmental cost, government policies and at the last stage of life, dumping costs. Therefore, this planet is trapped in vicious cycle. The solution of one problem rises enormous other challenges and all are due to climate change, bomb busting of population and shifting from needs fulfilment to luxurian life style. That's why, renewable energy sources is an expensive han

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Brain Storming

