

Essay:

Date:

# Renewable Energy is an Expensive Hoax.

## Outline:-

### I: Introduction:-

- \* Rising global energy demand and unequal access to electricity.
- \* Dependence on fossil fuels and their environmental consequences.
- \* Growing role of renewable energy worldwide.
- \* Popular claim: renewable energy is an "Expensive hoax".

\* **Thesis statement:** Renewable energy is not an expensive hoax; rather, misconceptions about cost arise from incomplete economic analysis, ignored externalities, and entrenched fossil-fuel interests.

### II: Understanding the Origins of the "Expensive Hoax" Narrative.

- \* Historical dominance of fossil fuels.
- \* Influence of subsidies and vested interests.
- \* Public misunderstanding of energy economics.
- \* Use of outdated or selective data.

### III: Myth 1: Renewable Energy Is Too Expensive.

- \* Explanation of levelised cost of electricity

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## (LCOE)

- \* Limitations of ~~low~~ LCOE in comparing renewables and fossil fuels.
- \* Ignored costs: pollution, climate damage, fuel price volatility.
- \* Declining costs of solar and wind energy.
- \* Evidence of renewable becoming cheaper than coal in many regions.

## IV: Fossil fuel Subsidies and Market Distortion.

- \* Scale of global fossil fuel subsidies.
- \* Comparison with renewable energy subsidies.
- \* How subsidies artificially lower fossil fuel prices.
- \* Impact on renewable energy competitiveness.

## V: Myth 2: Renewables Consume More Energy than they produce.

- \* Concept of energy payback time.
- \* Comparison between renewable and conventional technologies.
- \* Long lifespan of renewable infrastructure.
- \* Net energy benefits over time.

## VI: Myth 3: Renewable Energy Is Environmentally harmful.

- \* Lifecycle emissions comparison.
- \* Air pollution from fossil fuels vs renewables.

- Health and environmental costs of conventional power
- Land and water use considerations.

### VII: Myth 4: Renewable Energy Requires Too much land.

- Misleading land-use comparisons.
- Distributed generation (rooftop solar, offshore wind)
- Land impact of fossil fuel extraction & waste.
- Case studies of efficient land use.

### VIII: Myth 5: Renewable Energy Is Unreliable.

- Variability of renewable sources.
- Role of energy storage & smart grids.
- Evidence from countries with high renewable penetration.
- Reliability through diversification.

### IX: Myth 6: Hydropower and Bioenergy Are Inherently Harmful.

### X: Renewable Energy Beyond Electricity.

### XI: Economic and Social Benefits of Renewable energy.

### XII: The Real Cost of Not Transitioning

### XIII: Conclusion.

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The global demand for energy is rising rapidly as populations grow, economies expand, and technological advancement accelerates. At the same time, nearly one-fifth of the world's population still lacks access to electricity, and around 2.7 billion people depend on traditional biomass for basic needs such as cooking, lighting, heating. For decades, fossil fuels have powered industrial development and economic growth, but they are now the leading contributors to climate change, air pollution, and environmental degradation. In response to these challenges, renewable energy and energy efficiency have emerged as critical components of a sustainable energy future. Despite their growing role, renewable energy is often dismissed as an "expensive hoax", a claim that warrants careful examination. The idea that renewable energy is expensive hoax is rooted largely in misinformation, outdated data, and distorted market comparisons. While renewable technologies were once costly & less efficient, technological advancements & economies of scale have significantly reduced their costs. Moreover, conventional energy prices often fail to reflect their true environmental and social costs when these factors

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are taken into account, renewable energy proves to be not only viable but essential for long-term sustainability.

One of the most common arguments against renewable energy is that it is too expensive compared to fossil fuels. This belief is often supported by comparisons based on the levelised cost of electricity (LCOE), which calculates the average cost of producing electricity over the lifetime of a power plant. Although LCOE is a useful metric, it has important limitations. It does not account for environmental externalities such as greenhouse gas emissions, air pollution, health impacts, and climate-related damage. Fossil fuel-based power generation impose enormous hidden costs on society, including healthcare expenses & environmental degradation, which are not reflected in electricity prices.

When these external costs are included, conventional energy sources become significantly more expensive. In contrast, renewable energy sources such as wind & solar produce little to no emissions during operation & avoid many of the long-term costs associated with fossil fuels. In many regions, renewable energy is already cost-competitive or cheaper than coal and gas. Technological innovation continues

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to drive down costs, with solar & wind energy experiencing dramatic ~~to drive~~ reductions in price over the past decade. This trend directly challenges the claim that renewable energy is inherently expensive.

Another major factor distorting cost comparisons is the widespread subsidization of fossil fuels. Governments around the world provide substantial financial support to fossil fuel industries through direct subsidies, tax breaks, & price controls. These subsidies artificially lower the price of coal, oil & gas, making them appear cheaper than renewable alternatives. In contrast, subsidies for renewable energy are comparatively smaller & are mainly intended to address high upfront capital costs and encourage market adoption.

The imbalance in subsidies creates an uneven playing field in the energy market. Without accounting for this disparity, it is misleading to label renewable energy as an expensive luxury. In reality, fossil fuels remain competitive largely because they are shielded from their true costs by government support.

Another misconception is that renewable energy technologies consume more energy during production than they generate over their lifetime. This argument suggests that renewables are inefficient & unsustainable. In reality, most renewable technologies recover their energy input within a relatively short period, known as the energy payback with in a few years, after which they continue producing clean energy for decades.

Solar power is often singled out as an exception, but even solar photovoltaic systems recover their energy input well within their operational lifespan. Modern solar panels can last 60 years or more, while conventional power plant often have lifespans of only 10 to 20 years. Over time renewable energy systems deliver far more energy than they consume, disproving the claim that they are inefficient.

Environmental concerns are another area where renewable energy is frequently misunderstood. Critics argue that renewables are as harmful to the environment as conventional energy sources due to emissions & resource use during manufacturing and installation, while it is true that renewable technologies have some environmental impact during their lifecycle, these

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impacts are significantly lower than those of fossil fuels.

Beyond environmental considerations, renewable energy offers substantial economic & social ~~toed~~ benefits. The renewable energy ~~offers substantial economic &~~ sector employs millions of people worldwide & creates more jobs per unit of investment than fossil fuel industries. These jobs span manufacturing, installation, maintenance, and research, contributing to economic diversification and development.

In ~~concl~~ conclusion, the claim that renewable energy is an expensive hoax is not supported by evidence. It arises from incomplete cost analyses, ignored subsidies, & outdated perceptions of renewable technology. When environmental damage & health impacts, long-term economic benefits, & energy security are taken into account, renewable energy emerges as cost-effective & sustainable solution to global energy challenges. Far from being a hoax, renewable energy is a critical opportunity to build a cleaner, healthier & more equitable energy

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system. Busting the myths surrounding its cost is essential for accelerating the global transition toward sustainable energy & securing a better future for generations to come.