

Energy Sources and Renewable Resources

This presentation will explore various energy sources. We will focus on renewable resources. The agenda includes fossil fuels and nuclear power. We will discuss the shift towards sustainability.

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Defining Energy Sources

Energy sources are fundamental to modern society. They power our homes and industries. Understanding these sources is crucial. It helps us in making informed decisions.

Primary Sources

These are raw forms of energy. Examples include solar radiation and crude oil.

Secondary Sources

These are derived from primary sources. Electricity and refined fuels are good examples.



Fossil Fuels: Oil, Gas, and Coal

Fossil fuels have been a cornerstone of energy. They are formed from organic matter. Oil, gas, and coal supply significant power. However, they have notable environmental impacts.

Oil

Crude oil is refined into gasoline. It is used for transportation.

Gas

Natural gas is used for heating. It also generates electricity.

Coal

Coal is burned to produce electricity. It is a major source globally.

Nuclear Power: Fission and Fusion

Nuclear power offers high energy output. Fission splits atoms for energy release. Fusion combines atoms, a promising technology. Nuclear energy faces waste and safety concerns.

1

Fission

Currently used in nuclear reactors. It splits heavy atoms.

2

Fusion

Under development, promises clean energy. It merges light atoms.

3

Safety Measures

Stringent safety protocols are crucial. They prevent accidents.





Renewable Energy: Solar, Wind, Hydroelectric, Geothermal

Renewable energy sources replenish naturally. Solar converts sunlight into electricity. Wind turbines harness wind power. Hydroelectric dams use water flow. Geothermal taps Earth's heat.



Solar

Uses photovoltaic cells. Solar panels capture sunlight.



Wind

Wind turbines convert wind. Clean energy is generated.



Hydroelectric

Dams generate power. Water turns turbines.



Geothermal

Earth's heat produces energy. Hot springs and steam are used.



The Shift Towards Sustainability

Sustainability is key to our future. It reduces environmental impact. Renewable sources gain prominence. They combat climate change and pollution.

1

Policy Support

Government initiatives promote renewables. Subsidies and incentives help.

2

Technological Advances

Innovation improves efficiency. Lower costs make them more competitive.

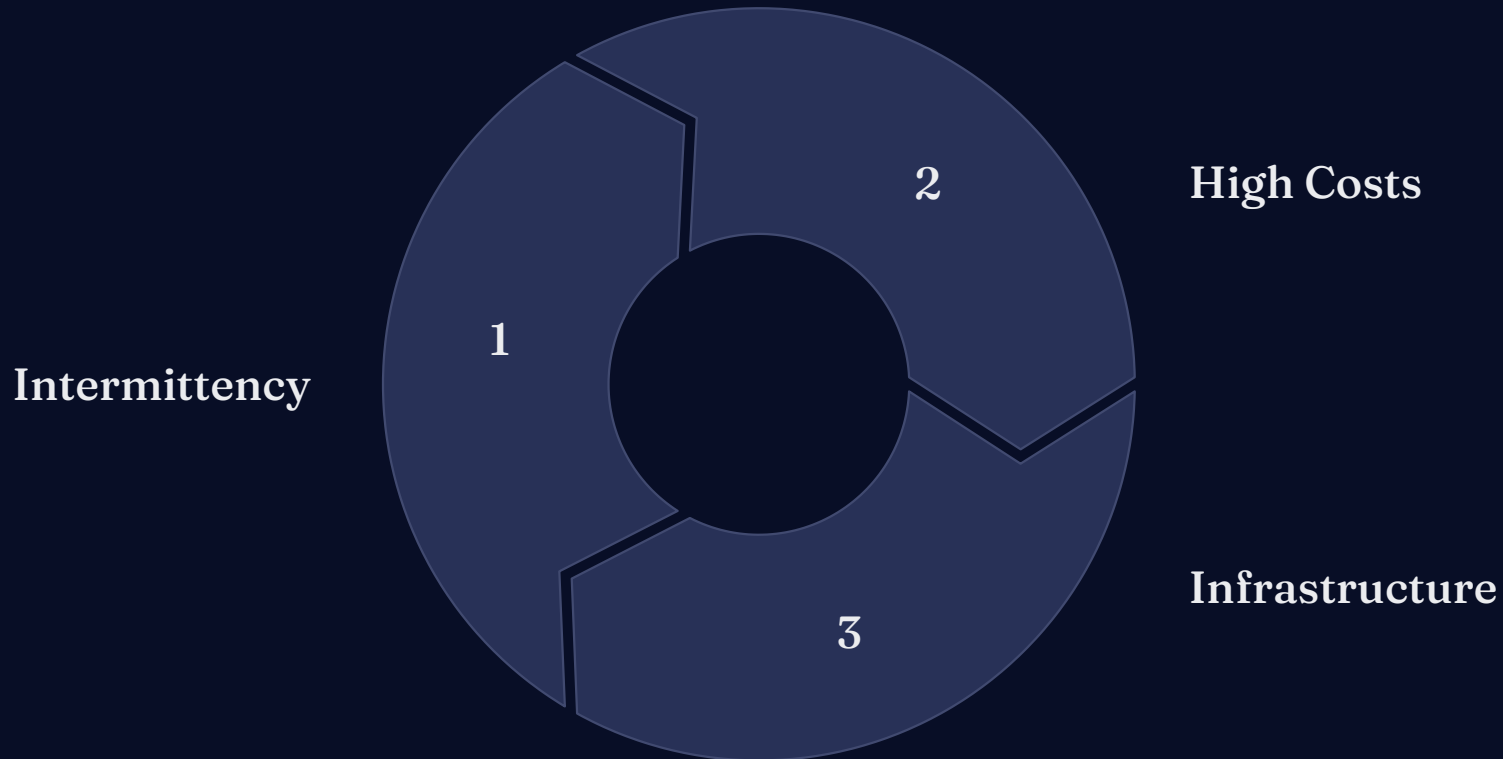
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Public Awareness

Increased awareness drives adoption. Consumers choose green energy.

Challenges and Barriers to Renewable Adoption

Renewables face significant challenges. Intermittency is a major issue. High upfront costs can deter investment. Infrastructure requires upgrades to support the power grid.



The Future of Energy: Towards a Greener Tomorrow

The future hinges on sustainable energy. Continued innovation is essential. A diverse energy mix is important for security. Collective action ensures a greener world.

1 Investment

Increase investment in renewable energy projects.

2 Policy

Implement supportive energy policies.

3 Research

Continue research for enhanced efficiency.

