

At-a-Glance Issue Overview: Energy Sources

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What are Fossil Fuels?

- Fossil fuels are high carbon energy sources like coal, crude oil, and natural gas that are formed from fossilized remains of plants and animals.
- Buried deep underground, fossil fuels are difficult to extract and need to be refined or processed in order to be used by consumers.
- When burned, fossil fuels release large amounts of energy used to create electricity.
- Burning fossil fuels also releases greenhouse gases like carbon dioxide into the atmosphere.
- Once burned, fossil fuels cannot be replenished.

What is Renewable Energy?

- Renewable energy is produced from sources that are naturally replenished, like wind, sunlight, and flowing water.
- Solar energy is collected from sunlight and converted directly into electricity.
- Wind energy is harnessed with turbines that turn a generator to produce electricity.
- Since the sun and wind are intermittent sources of energy, batteries are produced to store electricity to use during unfavorable conditions.
- Hydroelectric energy uses the natural flow of moving water to generate electricity.

Wisconsin Energy Overview

- In 2005, Wisconsin Act 141 set a statewide goal that 10% of total retail sales of electricity in Wisconsin would come from renewable resources by 2015. The state achieved this goal in 2013 and has remained in compliance every year since.
- In 2020, coal-fired power plants provided 39% of Wisconsin's electricity, down from a high of 82% in 1997.
- In 2020, natural gas fueled 35% of Wisconsin's utility-scale generation, a share that is almost four times larger than a decade earlier.
- In 2022, Governor Evers released the Wisconsin Clean Energy Plan, which aims for 100% of the state's electricity to be carbon-free by 2050.

Why New Fossil Fuel Projects are Controversial

Arguments that support delaying or canceling new fossil fuel projects

- Converting to renewable energy will be cheaper for households in the long run.
- The renewable energy sector has the potential to create more jobs than the fossil fuel industry.
- Burning fossil fuels releases carbon dioxide and other chemicals that contribute to global warming and climate change, with high ecological and economic costs.
- Burning fossil fuels also releases harmful air pollutants, which negatively affect plants, animals, and humans living in proximity to energy plants.
- It would be more expensive to do nothing and let fossil fuels continue to change the climate than to invest in renewable energy and slow climate change.

Arguments that oppose delaying or canceling new fossil fuel projects

- Fossil fuels are reliable and can maintain the current demand for energy. Renewable energy sources are not reliable or powerful enough to meet the energy needs of society.
- Coal, natural gas, and oil are relatively easy to transport anywhere in the world.
- Fossil fuel projects and related industries create a lot of jobs.
- It will cost a lot of money to convert to clean energy, which will disproportionately affect poorer households.
- Society has already invested a lot of research into the safe and efficient use of fossil fuels, making them relatively cheap to use.