

OPINION:

The Electric Butterfly PV system has several key advantages over **natural gas power**:

1. **Energy Independence:** PV provides energy independence by generating electricity directly at the point of consumption. This reduces dependence on centralized power grids and fossil fuel imports. With solar panels installed on rooftops or in local communities, individuals and businesses can generate their own electricity, enhancing energy self-sufficiency.

2. **Limited Fuel Availability during Disasters:** During natural disasters or emergencies, such as hurricanes or earthquakes, the gas supply infrastructure can be damaged or disrupted. This can result in limited or no access to natural gas, rendering natural gas generators ineffective during critical times.

In the 2021 snowstorm that knocked out power for most of Texas, “The sustained freezing temperatures hampered natural gas primarily in the upstream sector. Upstream producers in the fields struggled with things like frozen wellheads and icy roads that prevented trucks from servicing well sites.

Natural gas production in Texas fell from around 21 billion cubic feet of gas to less than 14 billion, and gas moving from more than two dozen West Texas processing plants to pipelines fell by 85%” according to the energy consulting firm Wood Mackenzie. “
[\(https://www.statesman.com/story/news/politics/politifact/2021/03/05/texas-natural-gas-pipelines-dont-freeze-blame-power-outage/4596289001/\)](https://www.statesman.com/story/news/politics/politifact/2021/03/05/texas-natural-gas-pipelines-dont-freeze-blame-power-outage/4596289001/)

2. **Environmental Friendliness:** Solar power is a clean source of energy that produces no greenhouse gas emissions or air pollutants during operation.

Natural gas power plants emit carbon dioxide, methane, and other pollutants, contributing to global warming and air pollution.

3. **Lower Operational Costs:** Once installed, Electric Butterfly systems have minimal operating costs. The primary expense is the initial installation, after which sunlight is free. Natural gas power plants or generators require ongoing fuel costs and maintenance expenses, making them more expensive to operate in the long run.

4. **Diverse Applications:** PV systems can be deployed at various scales, ranging from small-scale residential installations to large-scale solar farms. It is adaptable and can be integrated into different environments, such as deserts and steep terrain. Natural gas power plants, on the other hand, require specific infrastructure and access to natural gas reserves.
5. **Renewable and Sustainable:** Solar power is derived from a renewable and virtually limitless source of energy. In contrast, natural gas is a fossil fuel that is finite and non-renewable.
6. **Safety:** Natural gas is explosive, and there have been an estimated average of 4,200 home structure fires per year in the U.S.A. which started with the ignition of natural gas. These fires caused an average of 40 deaths per year. The statistics, incident descriptions from NFPA publications and reports from the National Transportation Safety Board (NTSB) show that most major gas incidents involved some type of leak.

(<https://www.nfpa.org/-/media/Files/News-and-Research/Fire-statistics-and-reports/Hazardous-materials/osNaturalGasPropaneFires.ashx>)

Since 1959, there have been hundreds of natural gas pipeline failures throughout the world, resulting in thousands of deaths.

(https://en.wikipedia.org/wiki/List_of_pipeline_accidents)

7. Noise and Vibration:

Natural gas generators can produce noise and vibrations during operation. The generators produce approximately the same decibel levels as a leaf blower (80-90dB). This can be a concern in residential areas or places where noise restrictions are in place.