

The Main Disadvantages of Natural Gas (Guide in 2023)

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Natural gas has been hailed as the solution to our energy problems on the one hand, and a potential environmental nightmare on the other. Although natural gas is the obvious choice as a replacement for highly pollutant fuels as a major energy source, there are several advantages and disadvantages associated with natural gas. There is no perfect energy source, and natural gas energy is no exception. This fuel has its own disadvantages and as well as advantages that will affect its future as an energy source.

In this article, we overview the disadvantages of natural gas. Read this new blog in Linquip to find out more.

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Disadvantages of Natural Gas (Reference: thewire.org)

What is Natural Gas?

An example of a fossil fuel is natural gas, which may be utilized for electrical production, heating, and cooking. Vehicles can also be fueled with this nonrenewable fuel. Natural gas is created when decomposing plants and animals are subjected to extremely high temperatures and pressure while submerged under the earth's surface for an extended period of time (about a million years).

Natural gas is colorless and odorless, has a high concentration of methane, and includes only a small number of other hydrocarbons. It is one of the most commonly utilized energy sources in the world since it is easily flammable.

Features of Natural Gas

Environmentalists and ecologists have been describing the characteristics of natural gas for decades. The following are some notable characteristics of natural gas:

- Natural gas is readily accessible and plentiful since it comes from the environment.
- Because of the high levels of methane in natural gas, it is very combustible.
- Natural gas has no flavor, no taste, and no odor.
- Natural gas is lighter than air because it has a density that is lower than that of air. Hence, it can quickly evaporate into the air in the event of a breach.
- Natural gas's high methane and low carbon content make it less corrosive.

Sources of Natural Gas

The earth's surface is mined for natural gas. It is created by the underground decomposition of plants and animals. Natural gas is abundantly present in specific types of rock formations on the earth; thus, professionals search for these features while harvesting natural gas. Researchers utilize sound wave detecting technologies and gravitational pulls to determine the region where natural gas is abundant and accessible.

After the location is found, specialists drill wells all around the area for a depth of around 6,000 feet and then utilize pipes to retrieve the gas. The gas is then treated and made suitable for usage in power plants once it is extracted.

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What are the Disadvantages of Natural Gas?

- **Toxic Nature**
- **It is Highly Inflammable**
- **It is Non-Renewable Source of Energy and will eventually die out**
- **Polluting Water and Earth**
- **Greenhouse Gas Emissions**
- **Leakage**
- **Relatively Expensive Storage**
- **Costly Pipelines**
- **Long Processing Process**
- **Impurities**
- **It is Difficult to Harness**
- **Growth in Terrorism and Violence**
- **It is Less Suitable for Dense Metropolitan Areas**

Toxic Nature

[Natural gas](#) can be poisonous. Inhaling large quantities of gas is very unhealthy. Methane is asphyxiant. Which means that it takes away all your oxygen and causes death.

Highly Inflammable

Natural gas is a highly flammable substance that can cause significantly more damage should there be an accident. Natural gas leaks can cause fire or explosion if not handled carefully. It is colorless, tasteless, and odorless and cannot be detected by smell unless an odorant is added to it. Because natural gas is highly combustible, mishandling can lead to bad explosions. The main problem with natural gas is that it is odorless, and leaks cannot be detected unless some odorant has been added to it.

Non-Renewable Source of Energy will Eventually Deplete

Like other sources of fossil fuel energy, natural gas energy is going to deplete eventually and does not form a sustainable answer to mankind energy questions. While the current large discoveries have made natural gas cheap, these will also become empty.

Pollution of Water and Earth

Hazards associated with natural gas production and drilling are not as well-known as with other fossil fuels, and regulations have not kept pace with production. Natural gas leads to air pollution as some gas escapes into the air and it's not possible to capture all the natural gas that is released. This pollution as one of the most important disadvantages of natural gas has raised huge concerns for causing toxicity to nearby water, drinking water, human health, animals, and ecosystems.

Greenhouse Gas Emissions

Natural gas does contribute to greenhouse gases if it is burnt under inappropriate conditions, and it is inevitable. It is more environmentally friendly than other fossil fuels and produces fewer greenhouse emissions than its counterparts because it burns cleaner, but natural gas still pollutes the environment.

Leakage

Natural gas leaks are very dangerous. Even though it is lighter than air and can disperse easily, a big danger with natural gas is that since it is colorless, odorless, and tasteless, should it start leaking, detection of the leak is very hard.

Relatively Expensive Storage

Even though natural gas is easier to store and transport than other fossil fuels, it has one big storage disadvantage. Its volume happens to be four times as big as petrol volume. Because of this, natural gas storage is much more expensive since more storage space is needed.



Storage of Natural Gas is Relatively Expensive (Reference: hortipoint.nl)

Costly Pipelines

Natural gas requires pipelines for transport and other purposes. It is transported long distances through expensive pipelines secured by expensive systems, and any pipeline leakage leads to extra running costs. The major problem with using pipelines is that they are too costly and are very difficult to maintain. This is because of the fact that they

have to be laid underground. Leakage and pilferage must be checked regularly. The transportation of natural gas through land and sea requires specialized tanks which are not cheap.

Long Processing Process

As natural gas has other components that have to be removed before using it for residential or commercial purposes, it takes a lot of time and manpower to process it and this process raises the complexity and the cost of natural gas production.

Contains Impurities

After refinement and compression, the natural gas formed from biomethane still contains impurities. If the generated biofuel was utilized to power automobiles, it can corrode the metal parts of the engine. This corrosion would lead to increased maintenance costs. The gaseous mix is much more suitable for kitchen stoves, water boilers, and lamps.

Can be Difficult to Harness

To use natural gas, all of the components except methane, have to be extracted. This results in several byproducts such as hydrocarbons (ethane, propane, etc.), sulfur, water vapor, carbon dioxide, and even helium and nitrogen.

Growth in Terrorism and Violence

Natural gas is drilled in some areas like middle eastern and African countries. Colonialist countries give rise to violence and growth in terrorism by despoiling this energy source, and the money goes into the hands of despots who amass trillions of dollars by this fuel.



Natural gas can result in growth in terrorism and violence (Reference: eastafricadaily.co)

Less Suitable for Dense Metropolitan Areas

One of the disadvantages of natural gas is that industrial biogas plants only make sense where raw materials are in plentiful supply (food waste, manure). For this reason, the natural gas formed from biomethane is much more suitable for rural and suburban areas.

Despite the disadvantages, it is remarkable that the entire cycle of producing, processing, transporting, and using natural gas provides us with a total energy efficiency of almost 90%. It is by far the best choice among the fossil fuel energy sources from all aspects. You may wonder What are the advantages of natural gas. We have overviewed this in our previous articles.

So, there you have a list of the cons of natural gas. If you enjoyed this article in Linqip, let us know by leaving a reply in the comment section. Is there any question we can help you through? Feel free to [sign up](#) on our website to get the most professional advice from our experts.

FAQs about The Main Disadvantages of Natural Gas

Does natural gas affect the environment negatively?

Despite the fact that natural gas may be a commercial success, it nevertheless plays a significant role in climate change, water pollution, and air pollution.

Which is not an advantage of natural gas?

These are a few potential drawbacks to think about: Since it is flammable, natural gas must be handled cautiously. Natural gas is not a renewable energy source like other fossil fuels. In fact, natural gas produces greenhouse gases.

Does natural gas affect health?

The American Lung Association states that another result of natural gas is nitrogen dioxide (NO₂), an atmospheric pollutant that can worsen asthma episodes, aggravate other respiratory conditions, and impair lung function.

Does natural gas affect human health?

According to recent research, the Greater Boston area's natural gas used in houses includes varied amounts of volatile organic compounds, which when released are known to be hazardous, connected to cancer, and can create additional health-damaging pollutants, including particulate matter and ozone.

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