

How Does A Gas System Work?

Natural gas systems are relatively simple in concept. What's complicated is designing them to be as safe and secure as possible for use as an energy source in homes and businesses. The simple concept is: You take the gas out of the ground and use pipelines to get it to customers.

1. **Wellhead** – Natural gas is flushed out of the ground. The pressure of the gas where it exists underground pushes it to the surface after the well is drilled.
2. **Treatment facility** – Once out of the well, the gas is treated to remove any sand, dust, contaminants, water or condensed petroleum liquids.
3. **Storage facility** – Natural gas is compressed and injected into underground storage facilities (like depleted salt caverns or old gas fields) between April and October when demand is low. In colder weather months, the gas is brought back into the distribution system as needed. Purists in the business like to say it's "drawn out."
4. **Compressor station** – Increases gas pressure to keep it moving through a network of underground pipelines.
5. **High-pressure pipelines** – Transport gas to distribution systems, often across long distances. The pipelines can range up to 48 inches in diameter.
6. **Regulator station** – Reduces the pressure of the gas as it enters the distribution system and injects an odorant into the gas so it can be smelled in the event of a leak. Natural gas otherwise is odorless.
7. **Distribution system** – Takes the gas from the regulator station to cities, towns and communities.
8. **Individual pipe and meter connection** – Connects homes and businesses to the distribution system. A gas meter measures the amount of gas consumed by the customer.
9. **Safety valves** – Used to shut off gas to specific areas during construction and emergencies.

