



# Natural gas: essential during energy transition

Vermilion produces natural gas for Dutch households and organizations. We would like to take the opportunity to explain why this is important.

The energy transition is one of the most important concerns of our time. The energy industry is continuously evolving, and as a producer of natural gas, we are a part of this. But even though there are many developments, there simply is not enough renewable energy available to replace natural gas.

## Natural gas makes the energy transition feasible and affordable

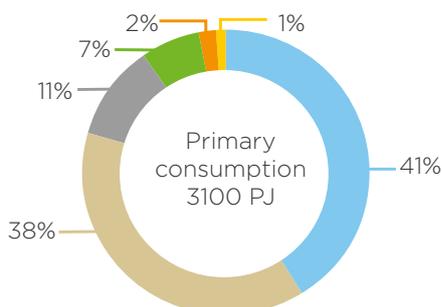
At this moment, over 90% of all Dutch homes still depend on natural gas for heating or a hot shower. The country's industrial sectors also rely on natural gas. Furthermore, natural gas accounts for over 41% of the entire Dutch energy supply – including electricity. This percentage is currently increasing, because less coal is used to generate electricity and there is not enough green energy to replace it. So more and more natural gas is converted into electricity to provide the Netherlands with sufficient energy to meet this demand.

## Dutch gas production remains necessary

The Netherlands does not produce enough gas to meet its needs. As a result of this, a part of the required natural gas is imported from abroad. However, there are three important reasons for the Dutch national government to encourage natural gas extraction in the Netherlands:

1. The carbon footprint of imported gas is at least 30% higher than domestic gas.
2. The Dutch government does not want us to be completely dependent on foreign countries for our energy supply.
3. Gas extraction from small fields generates billions of euros in gas revenues (money that goes to the treasury to be spent for the common good).

That is why gas extraction in the Netherlands is still necessary in the coming years. Please turn over to read how gas extraction works.



**More than 41% of Dutch energy (including electricity) comes from natural gas.**



**9 out of 10 homes in the Netherlands need natural gas for heating or a hot shower.**



## How does gas extraction work?

We can explain gas extraction in four phases:



In this phase, we investigate, using seismic research, whether natural gas may be present in an area. We analyze the signals from this research in detail, using advanced software, to help our geologists determine whether natural gas may be present.

drilling



In this phase, an exploration drill will show the actual amount of natural gas in the field. This job is done very accurately: the diameter of the hole in the ground is already quite small: only 1 meter. The deeper we go, the smaller it gets. When it reaches the gas field - at a depth of more than 2 kilometers - the drill bit is often only tens of centimeters in size, and is directed by the geologists to the designated location. Such drilling takes several weeks and usually operates 24 hours a day - so it is usually the most noticeable phase for nearby residents.



In the third phase, we produce the gas, and the drilling location becomes a production location. During gas extraction, there is little to see, because the gas travels through underground pipelines to the Dutch end users.

However, if maintenance work is required, our technical people will be present at the location. And in case of maintenance work that may be disruptive, we always inform the concerned area well in advance.



If a location no longer produces and no more gas can be extracted, we will see if we can find an alternative use of the infrastructure. If this is not the case, we clean up the location and restore it to its original state.

### And finally:

All our activities are continuously monitored by our own experts and by various independent regulators (KNMI, TNO, State Supervision of Mines and other organizations), and we fully support this: safety is always our first priority!

### More information?

- [www.vermilionenergy.nl](http://www.vermilionenergy.nl)
- [www.hoewerktgaswinnen.nl](http://www.hoewerktgaswinnen.nl)
- <https://www.sodm.nl/sectoren/olie--en-gaswinning>
- [www.rijksoverheid.nl/onderwerpen/gaswinning-uit-kleine-gasvelden/gaswinning-uit-kleine-gasvelden](http://www.rijksoverheid.nl/onderwerpen/gaswinning-uit-kleine-gasvelden/gaswinning-uit-kleine-gasvelden)