Geothermal Heating Costs Vs Natural Gas

[Geothermal](https://iwae.com/resources/glossary/geothermal/) heat pumps are fantastic cooling units that can do the same job as an air conditioner only a whole lot more efficiently. Unlike conventional air conditioners, geothermal can reverse cycle to heat in winter. Which obviously puts them into competition with the most popular heater in America: a natural gas [furnace](https://iwae.com/resources/glossary/furnace/). Because you don't want a second-best heat system, how do geothermal heating costs stack up against the competition?

Geothermal vs Gas

The basic question between geothermal and natural gas comes down to fuel source. A natural gas furnace, obviously, uses natural gas. A geothermal heat pump uses electricity. In a lot of areas around the country, natural gas costs are very low. It is much cheaper to operate a natural gas furnace than to rely on an electric furnace.

Of course, geothermal heat pumps operate very differently than electric furnace units. Geothermal heating costs calculations must take into account Coefficients of Performance ([COP](https://iwae.com/resources/glossary/cop/)). Basically, COP indicates that a geothermal heat pump is so efficient that it can get 300-400% efficiency out of a single dollar's worth of electricity. And that means geothermal heat pumps can operate very, very cost effectively when compared to any kind of heating system. So, where does that leave us?

Basically, geothermal heating costs are going to be as good and often better than what a gas furnace can produce. Which means that not only will a geothermal heat pump operate more efficiently than a conventional air-source unit, but it will also heat overall more efficiently than the best heating systems on the market.

This doesn't mean you should rip out your furnace and replace it with geothermal. What it does mean is that when it comes time to replace your home heating and air system, make sure you keep your options open on geothermal heat pumps.

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