



# IN A NUTSHELL: NATURAL GAS

## WHY SHOULD YOU CARE?

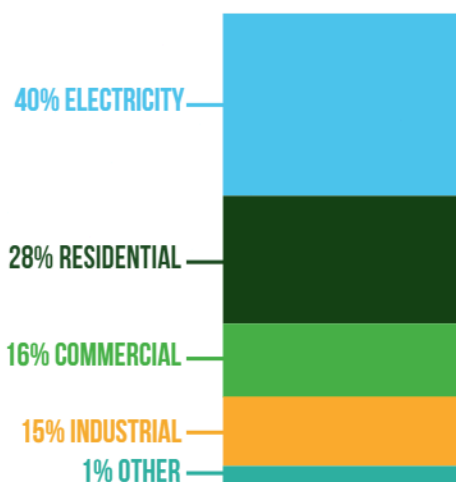
Modern life is made possible by natural gas. When you get out of bed (your sheets and pillows are made of fibers farmed with fertilizer made from natural gas), turn off your alarm clock (powered by electricity generated with natural gas), hop in the shower (with water heated by natural gas), apply shampoo (both the bottle and shampoo contain materials made with natural gas), grab your toothbrush and apply toothpaste (both contain elements made from natural gas) — you get the picture — modern life is made possible by natural gas.

## WHAT IS NATURAL GAS?

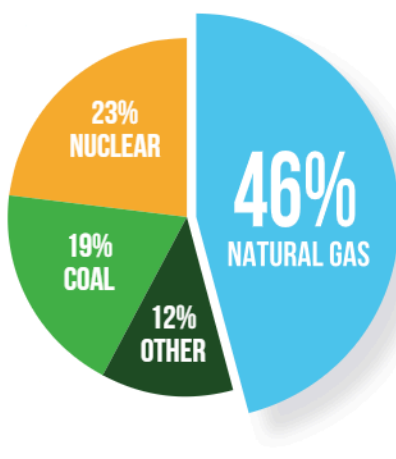
Natural gas is often found deep underground, alongside oil and coal deposits. Oil and natural gas are often processed together by the oil and gas industry. Natural gas is densely concentrated stored energy, making it an efficient fuel for heating homes and generating electricity.

## NATURAL GAS IN MICHIGAN

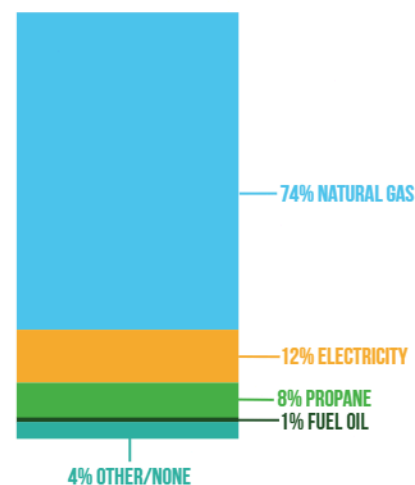
How does Michigan use natural gas?



Where does Michigan get its electricity?



How does Michigan heat its homes?



**Michigan is a top 5 state in residential use of natural gas and top 10 for total natural gas consumption.**

Aside from generating our electricity and keeping us warm in the winter, natural gas is a key ingredient in making the things we use on a daily basis. Here are just a few everyday staples made affordable thanks to natural gas:



**Food:** Around half of all food relies on nitrogenous fertilizers, which are made of ammonia produced from natural gas. Practically every meal you eat requires at least some use of natural gas.

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**Clothing:** Whether as fertilizer for growing cotton or as an ingredient for polyester, the fabrics we wear rely on natural gas.



**Fun:** Ethane, a natural gas liquid, is a major component of plastics. This means sports equipment, makeup, toys, television, nail polish, video game consoles, hiking and camping equipment, automobiles, motorcycles, pet supplies, cell phones, and many other items, require natural gas to be made affordably.



**Health care:** Disposable and sanitized gloves, surgical masks, syringes, IV bags, bottles, packaging, pacemakers, X-ray machines and defibrillators all are primarily made of plastic made possible by natural gas.



**Home use:** Cleaning supplies, PVC pipes, electrical wires, carpets, kitchen and household appliances, tools and furniture all require natural gas or natural gas liquids to be made. Your home furnace, your hot water heater, and your stove may use it, too.

## NATURAL GAS AND THE ENVIRONMENT

Some people worry about natural gas' impact on the environment. Let's address their concerns.



### GREENHOUSE GAS EMISSIONS

Burning natural gas to generate electricity emits greenhouse gases. What is often ignored is that the switch from coal to natural gas has allowed the United States to be a global leader in absolute emissions reductions.



### FRACKING AND GROUNDWATER

Some worry that fracking may lead to groundwater contamination. But studies by the Obama administration, the U.S. Geological Survey, MIT, the University of Michigan, the Department of Energy, Duke University and Stanford found that fracking doesn't pollute ground water.



### FRACKING AND EARTHQUAKES

Some research suggests fracking impacts seismic activity, potentially contributing to minor tremors in some areas. Banning fracking, however, would be an overreaction. The oil and gas industry is already working to prevent these potential impacts. And tens of millions choose to live on the San Andreas fault; clearly, some seismic risks are worth taking.

## TAKEAWAYS

Natural gas fuels our modern life, a fact most people take for granted. Look around you right now — you are not just near a few things made from natural gas but surrounded by them. Limiting the production and use of natural gas will result in higher health care costs, more expensive groceries, rising utility bills, and lower quality of life. This would disproportionately harm those who can least afford it. Energy abundance is the way forward.

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