

How Does Electrification Decarbonize Your Home?

[Elevate](#) is a nonprofit that seeks to create a just and equitable world in which everyone has clean and affordable heat, power, and water in their homes and communities.

Electrification is one step in the process of reducing or eliminating the carbon dioxide emissions that contribute to climate change from a building's energy sources.

Michigan's [MI Healthy Climate Plan](#) has identified decarbonization of buildings a part of what needs to happen for Michigan to reach carbon neutrality by 2050. This includes repairing and decarbonizing buildings to reduce emissions related to heating Michigan homes and businesses by 17% by 2030. We can do this by reducing utility costs for families and added benefits, like improved indoor air quality.

1 ENERGY EFFICIENCY

The first step of building decarbonization is to make the building as energy efficient as possible. At your home, this could mean something like [adding insulation](#), so that heat doesn't escape during the winter, and your heating system uses less energy. Other energy efficiency solutions include using LEDs, [ENERGY STAR](#) appliances, and a smart thermostat. These improvements make the building more comfortable and save money on energy bills

2 ELECTRIFICATION

The next step for decarbonization is [electrification](#), that's what we call replacing the equipment that uses fossil fuels with electric technology. As our grid uses more renewables and our homes adopt rooftop solar, we will reduce carbon emissions. One example of electrification is replacing your furnace and hot water heater, which burns natural gas, with heat pump technology, which uses electricity to heat and cool. Another key electrification step is swapping your gas stove with an electric stove.

3 RENEWABLE ENERGY

Once all the gas equipment has been replaced and the building is all-electric, we focus on where the energy for our building comes from. Traverse City Light and Power have a plan for 100% renewables by 2040. While currently some electricity still comes from fossil fuels, the lifecycle carbon footprint of the electric equipment is lower than natural gas and as [TCLP adopts more renewables](#), homes will reduce carbon emissions. To reduce immediate carbon emissions from electric equipment owners can install [rooftop solar](#).

4 MANAGED ELECTRICITY LOADS

With more and more people using electricity instead of gas to power their homes, it's clear that the demand for electricity will go up. To manage this higher demand for electricity, we can shift energy use to different times of the day to reduce the impact on the energy grid and reduce carbon emissions even more.



ELEVATE

Equity through climate action