



Climate Change and Minnesota

What can we do?

Based on trends, Minnesota’s carbon dioxide emissions in 2025 will reach 200 million metric tons per year. This is a 68 % increase from 1990. There are ways to reduce CO2 emissions. The best options involve using less energy, which means developing more *efficient* homes and communities. This includes thinking in new ways about our need for energy.

A New Understanding of Energy

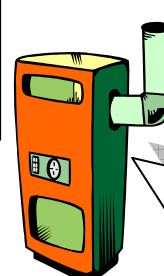
People are used to “buying” lots of energy. We buy energy every time we fill our automobile tanks with gasoline, and pay for electricity or natural gas in our monthly bills. The entire energy system has been built to “sell” you energy. This is what is called a “supply-based” energy system.

BUT, people are really most interested in getting the *service* that energy provides, which are called energy “services.” People want light to read a book, or a warm comfortable home. We have been trained to think we can *only* have light and warm homes through buying electricity or energy (natural gas, wood).

BUT, you can have a warm home and light to read through many ways that don’t require you to buy more energy. If your house retains heat (what is called thermal efficiency), or takes advantage of the heat provided by the sun (passive solar), or you have a furnace that is highly efficient – *then you are getting more energy services without buying more energy and paying higher energy bills!*

Efficiency AND Equity

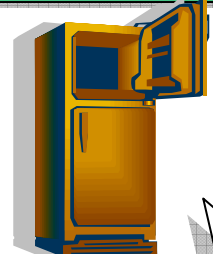
High efficiency appliances can greatly reduce energy bills AND emissions of greenhouse gases. *We can do more with less.* Minnesota has great potential for lowering its energy use. **EVERYONE** should have the opportunity to reduce their energy bills through efficiency. *By using less energy, we are making a difference in reducing the causes of climate change.*



Gas furnaces over 15 years old average 65% efficiency.

If your furnace is over 15 years old, this means that for every dollar you pay, you may only receive 66 cents worth of heat or what is called energy service!

Households in the Midwest paid a total average of **\$1096** during the 2005-2006 winter heating season. If your furnace was 15 years or older, \$384 of this was *in wasted energy*. If you owned a 95% efficient furnace, you would have paid an average total bill of only **\$749 !**



On average refrigerators manufactured before 1993 cost over \$50 more per year to operate than new efficient models, and those made before 1980 about \$150 more!

Replacing a refrigerator bought in 1990 with an efficient model would save enough energy to light the average household for nearly four months.

Global Warming Working Group.

Environmental Justice Advocates of Minnesota - Women’s Environmental Institute
Center for Earth, Energy and Democracy at the Institute for Agriculture and Trade Policy

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