FACT SHEET

All-Electric Construction: A Good Deal for Minnesota

All-electric building codes lead to lower construction costs in Minnesota by encouraging developers to bypass the cost and complexity of installing new gas lines. These homes have roughly the same utility bills as mixed-fuel homes, which use both gas and electricity. Those savings are projected to improve over time as gas prices rise.

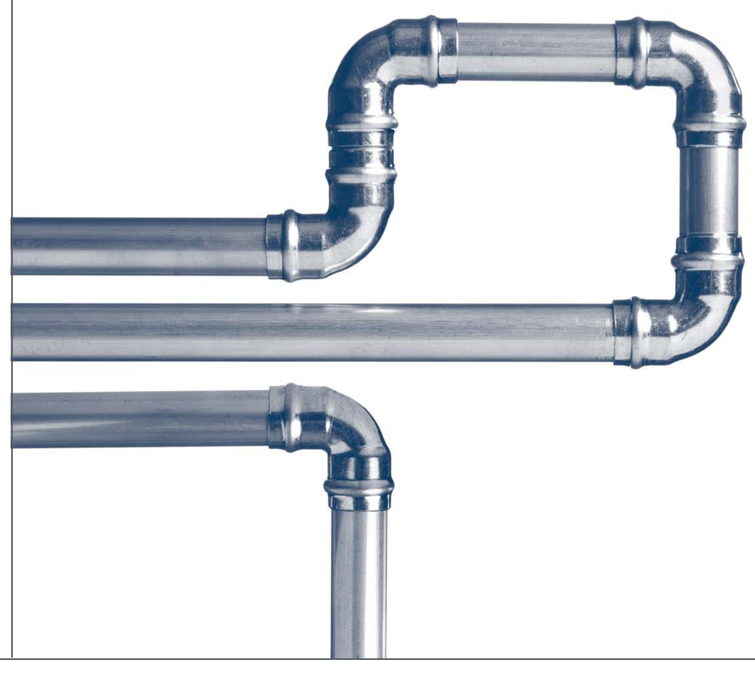
Building all-electric reduces upfront costs.

All-electric, single-family homes cost $650 less to construct in Minnesota than mixed-fuel homes, which use both gas and electricity.[1] Adopting an all-electric building code will reduce construction costs while allowing these homes to emit less carbon over time as more renewables power our electric grid.

"What about building electric-ready?"

Electric-ready building prepares households to go all-electric on their own timeline while preventing future upgrade costs. Households that electrify from the start can save even more money by eliminating the cost of gas piping entirely.

Gas piping increases the cost to construct a typical single-family home in Minnesota by **$2,930**[2].



MINNEAPOLIS, MINNESOTA

$650

savings from building all-electric instead of mixed fuel

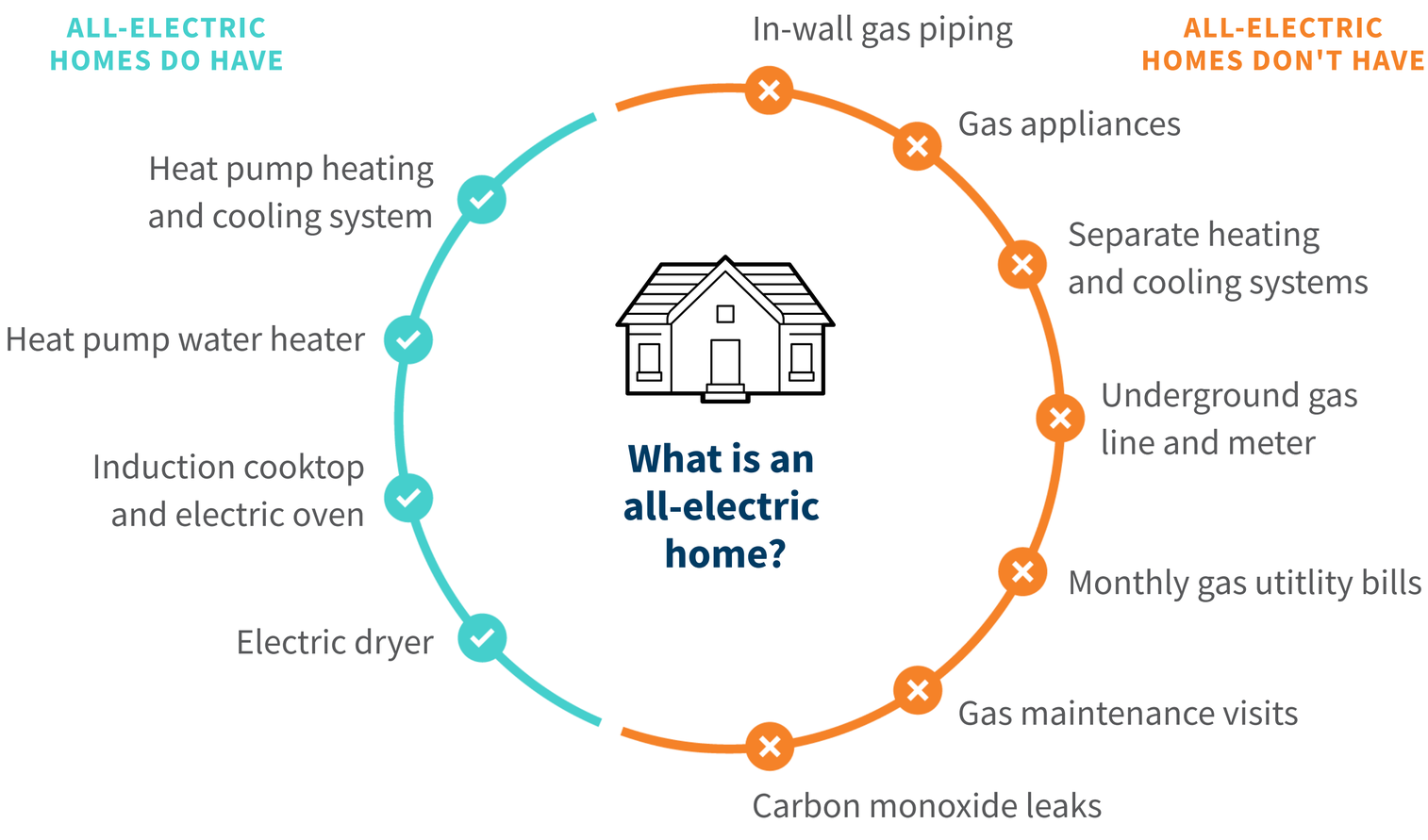
MINNESOTA STATEWIDE

$630–$670

savings in other locations

Simpler construction saves money.

All-electric homes cut out unnecessary materials and equipment. Constructing homes with gas requires a new underground extension from the gas main, a gas meter, and piping throughout the home to gas-powered appliances — an added cost of $2,930 per home. These homes also typically have separate heating and air conditioning systems. All-electric homes operate without gas infrastructure and use a single efficient heat pump for heating and cooling.



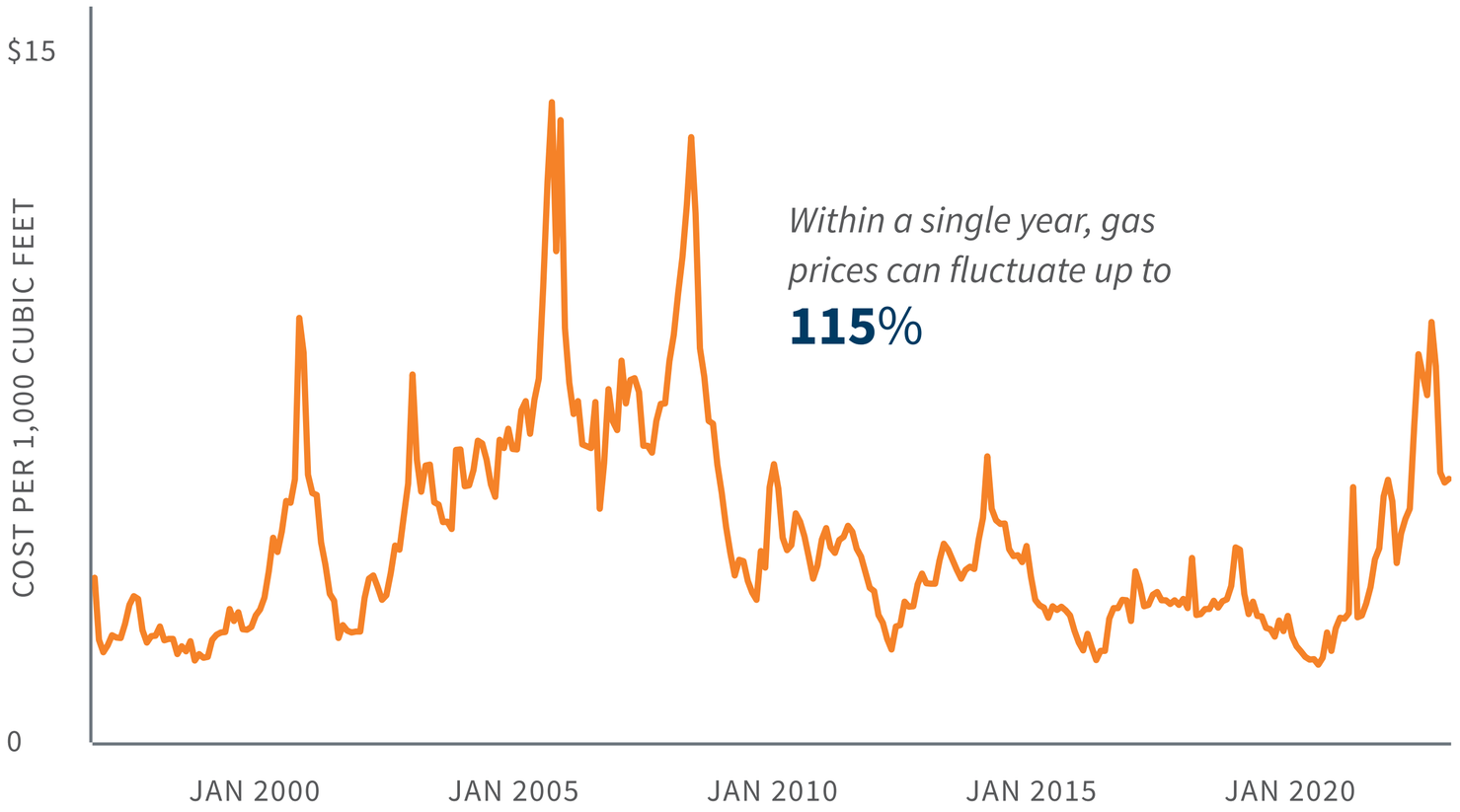
New all-electric homes reduce utility bills.

A typical all-electric, single-family home constructed in Minneapolis, Minnesota will save $580 per year on utility bills. That's 19% less than the annual utility bills for a Minneapolis household living in a new home with gas.[3] These savings largely come from utilizing heat pumps, which are 2–4 times more efficient than comparable gas appliances, for space heating and water heating.

These savings are expected to increase over time as gas prices continue to rise and utilities reform electric rate structures.[4]

This analysis incorporates rates from the largest utility in the state, covering 56% of residents. Rates in other parts of the state are often even more favorable for all-electric homes.

Volatile gas prices can unexpectedly strain budgets in mixed-fuel households.[7]



A typical all-electric home in Minnesota will save

$580

on utilities each year.

By 2030, gas prices are expected to increase as much as

130%[5]

All-electric new homes in Minneapolis built with rooftop solar see

23%

lower bills.[6]

Take action

Minnesota policymakers can advance the economic benefits of all-electric homes in several ways:

- **Educate households and business owners** about incentives available for all-electric new buildings, including federal tax credits offered through the Inflation Reduction Act.
- **Support climate-aligned utility rate reform** that promotes all-electric buildings, including shifting toward higher fixed costs or a tiered time-of-use structure.
- **Establish a timeline and phasing plan** for adopting all-electric codes by 2030.
- **Phase out gas line extension allowances** to prevent the cost of new gas lines from being subsidized by ratepayers.

Learn more

The Economics of Electrifying Buildings: Residential New Construction, RMI, 2022, https://rb.gy/8jqtq

Overextended: It's Time to Rethink Subsidized Gas Line Extensions, RMI, 2021, bit.ly/3DTdNBV

Federal Income Tax Credits and Incentives for Energy Efficiency, Energy Star, 2022, bit.ly/3QyLsZ6

NOTES

1. RMI analysis; methodology from prior analysis, updated using IECC 2018 building standards, current rates, RSMeans regional construction data; RMI, 2022, rb.gy/8jqtq
2. Base gas connection costs from RMI study, adjusted using RSMeans regional construction data; RMI, 2022, rb.gy/8jqtq
3. Updated RMI analysis; RMI, 2022, rb.gy/8jqtq
4. Energy Systems Integration Group, 2023, bit.ly/451Ay2o
5. American Council for an Energy-Efficient Economy, 2023, bit.ly/3s5gT34
6. RMI analysis based on the National Renewable Energy Laboratory REOpt tool, 2023, bit.ly/3Yy9g1g
7. Henry Hub natural gas spot price, US Energy Information Administration, 2023, bit.ly/3KA5OgE

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