

Efficient Fuel-Switching

The Trends and Policies Driving an Electrified Midwest

Our energy systems are changing, and utility programs are changing with it. Changing fossil-fueled equipment for a more efficient version of the same is not always the best choice for meeting state policy goals and utility targets. Utilities and regulators are starting to look more closely at efficient fuel switching (EFS). Most commonly this is in the form of electrification – changing a gas or propane-powered device for an electric one. Some states in the Midwest have updated policies to allow utilities to incentivize fuel switching by their customers, while others have erected barriers against such policies

EFFICIENT FUEL-SWITCHING is changing an end-use (customer equipment) to use a different type of energy that results in reduced energy consumption, reduced greenhouse gas emissions and reduced overall energy costs.

EFFICIENT FUEL-SWITCHING POLICIES

Fuel switching in the Midwest is typically allowed or prohibited by statute, except for Wisconsin, where it is enabled by the rules for the Focus on Energy statewide program administrator, and Missouri, where it is prohibited by rules governing utility promotional practices. In states where statutes allow fuel switching, additional regulatory guidance may help interpret the statutory provisions. Several landmark energy laws have set definitions and standards for fuel-switching in their respective states.

Illinois

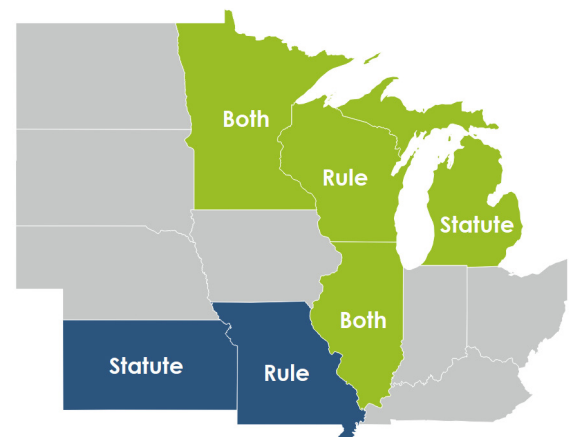
The Climate and Equitable Jobs Act of 2021 allows electric utilities to incentivize and claim savings for electrification programs as part of their energy efficiency portfolios. Measures must reduce total energy consumption at the customer's site for utilities to claim savings. The amount of savings that electric utilities can count towards their cumulative savings goals are capped at 5% per year 2022-25, 10% per year 2026-29 and 15% per year 2030 and beyond.

Minnesota

In Minnesota, the Energy Conservation and Optimization Act of 2021 allows utilities to run fuel-switching programs under the state's energy efficiency framework. To qualify, a fuel-switching program must result in a net reduction of source energy on a fuel-neutral basis, reduce greenhouse gas emissions over the lifetime of the measure and be cost-effective.

Michigan

In 2023, the Michigan legislature passed a suite of energy bills, including SB 273 which expands the state's energy waste reduction standard in part by enabling efficient electrification. The law defines efficient electrification as a measure that reduces total energy consumption at the premises, reduces greenhouse gas emissions over the life of the measure and, for residential and commercial customers interconnected at secondary voltage, provides annual average energy cost savings.



- Fuel switching or substitution allowed
- Fuel switching or substitution prohibited
- No fuel-switching policies or programs established

FUEL-SWITCHING BAN POLICIES

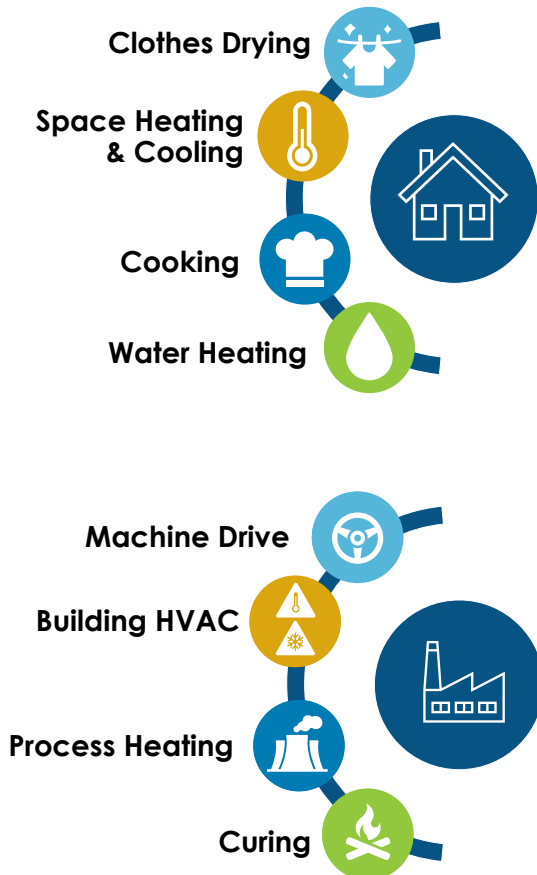
Utility programs are not the only path to electrification as some jurisdictions have considered banning new gas hookups entirely. Throughout the Midwest, state legislatures have largely preempted such attempts by prohibiting local governments from enacting bans on gas and/or propane hookups through local building codes or ordinances. These include some “home rule” states, where building codes are set at the local jurisdiction not the state.

These bans exist in the same states that either have not considered or have blocked utility fuel-switching programs. Though the two policies – fuel-switching and gas bans – have the same outcome of electrified buildings, they do not depend on each other. Fuel switching through utility programs could still be allowed in states shown in grey in the map on the previous page. However, the political landscapes in those states, as suggested by the passage of “ban the ban” policies, could also indicate a reluctance to consider adopting new policies that would allow utility fuel-switching programs.

States with Laws Prohibiting Local Bans on New Gas and/or Propane Hookups

State	Legislation Prohibiting Gas Bans	Year Passed
Indiana	HB 1191	2021
Iowa	HF 555	2021
Kansas	SB 24	2021
Kentucky	HB 207	2021
Missouri	HB 734	2021
Nebraska	LB 867	2024
North Dakota	HB 1234	2023
Ohio	HB 201	2021
South Dakota	SB 174	2023

FUEL-SWITCHING TRENDS



Residential & Commercial Buildings

Drivers

Reductions in cost of equipment and technology, lifetime emissions and air-conditioning electricity use; improvements in load flexibility and indoor air quality.

Considerations

Building energy use in most Midwest states is dominated by heating, met primarily by non-electric fuels. A shift to air-source heat pumps (ASHPs), for example, will likely increase winter peak electricity demand, which could increase the need for additional generating capacity and short-term emissions.

Industrial Facilities & Processes

Drivers

Cost benefits compared with delivered fuels; less fuel price volatility; meeting decarbonization goals; industrial process improvements; improved outdoor air quality and community health outcomes.

Considerations

Many industrial processes, especially those that require high heat, are not designed for electricity use, and complex processes present an additional cost and design challenge.