



# Energy Efficiency and Demand Management

## WHAT IS IT?

Energy efficiency and demand management focus on reducing energy waste. These two terms encompass the range of steps that energy users can take to reduce and manage their use, with an aim of lowering overall consumption and shifting usage to the cheapest and cleanest times.

For example, residential customers can add insulation to their home or purchase more efficient appliances to reduce their energy use; install a smart thermostat to automatically manage their heating and cooling most efficiently; or switch over to LED lighting that uses less electricity and lasts longer than older technologies. For business customers, common efficiency approaches include adding control systems that allow more automated and fine-tuned use of lighting, heating, and cooling; upgrading old fluorescent lights to LED or other more efficient technologies; and conducting energy audits to identify inefficient uses of existing equipment. Depending on utility offerings, both residential and business customers may also be able to sign up for rates or programs that lower their bills if they use less electricity when it's in highest demand and most expensive, such as on hot summer afternoons.

## WHY IS IT IMPORTANT?

A common saying in sustainability circles is that “the cleanest energy is the energy you don’t use.” Energy efficiency directly reduces the amount of energy generated from fossil fuel sources, which dominate Ohio’s energy profile today. Demand management focuses on reducing customer electricity usage at the times when demand and prices are highest, and often leverages “smart” equipment like thermostats or hot water heaters that reduce overall energy waste. Perhaps most importantly, energy efficiency and demand management investments are investments directly in local customers’ homes and businesses, which can often entirely pay for themselves over several years in the form of lower bills.

## BENEFITS



**Reduced energy consumption and greenhouse gas emissions (carbon dioxide from fossil fuel generation, methane from natural gas extraction and distribution)**



**Lower bills for customers**



**Local jobs in the energy field (energy auditors, HVAC contractors, etc.) and long-term improvements in housing stock**

## HOW CAN COMMUNITIES IMPLEMENT THIS POLICY?

The main tools for promoting energy efficiency and demand management are customer education, monetary incentives, and financing tools for efficiency measures that require a large up-front capital investment. Local governments can take a number of steps to apply each of these tools:

- Lead the way (and benefit taxpayers) by conducting an energy audit of government buildings and installing cost-effective efficiency measures.
- Enact ordinances to create an “Energy Special Improvement District” and “Property Assessed Clean Energy” financing programs that allow residential and business customers to pay for energy efficiency projects over time through their property taxes.
- Designate someone in local government to coordinate with electric and natural gas utility providers regarding their efficiency offerings. In some cases, these utilities have existing programs to provide their customers with incentive payments for energy efficiency improvements as a nudge in favor of the most cost-effective measures. Local

communities are well-positioned to educate citizens about these programs and provide input for how to best tailor the programs to support local sustainability goals.

- Put electric and natural gas “community aggregation” on the ballot. Under community aggregation, local government takes on the role of bargaining for energy supply on behalf of residential and small business customers who choose to participate. This puts community leaders in a position to set up wide-reaching customer education programs about energy efficiency, help customers identify cost-effective efficiency opportunities, and even fund their own efficiency programs tailored to the community’s needs. Communities can do this individually or band together on a regional scale.