

Foundation for a Cleaner Future

Electric distribution plan delivers safety, reliability while building grid of tomorrow

At Consumers Energy, we are modernizing our electric distribution system to continue safely supplying affordable, reliable power for Michigan.

We're replacing poles and wires and upgrading substations and key equipment to strengthen the network that keeps power flowing to our homes and businesses every day. Our goal is simple: fewer, shorter and less frequent power outages for our customers.

Just as importantly, we're preparing the power grid to lead the clean energy transformation. That means employing the latest smart technology to reduce energy waste, cut greenhouse gas emissions, give customers more control of their bills and pave the way for more solar power and electric vehicles.

Our five-year, \$5.4 billion Electric Distribution Infrastructure Investment Plan (EDIIP) is a blueprint for serving Michigan today and innovating to meet the challenges of the coming decades.

Learn more on back.

Powering the Clean Energy Plan

We're designing a cutting-edge electric distribution system to support the goals of our Clean Energy Plan, which will eliminate coal and help us achieve net zero carbon emissions by 2040.

The Clean Energy Plan includes a significant ramp-up of solar power throughout the 2020s. We're using software solutions to integrate, manage and coordinate electricity generated by solar and other distributed energy resources. And we're creating the grid infrastructure for electric vehicles in Michigan.

Smart grid tools such as conservation voltage reduction (CVR) optimize the distribution system. By reducing voltage, we lower energy consumption by our customers, cutting carbon emissions and decreasing the need to build new, large power plants.

To learn more, visit:

[ConsumersEnergy.com/change](https://www.consumersenergy.com/change)

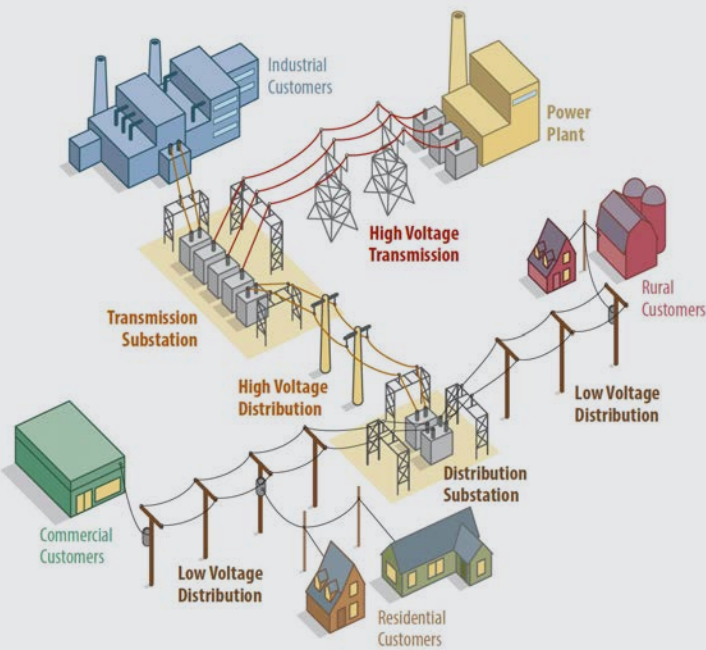




Our Road Map

We're serving our 1.8 million electric customers throughout Michigan's Lower Peninsula with a system that's even more safe, reliable, affordable and clean. Our five-year plan projects a 15-percent improvement in reliability performance by focusing primarily on:

- **Infrastructure upgrades:** Portions of our high- and low-voltage distribution network are aging. We're making prudent, proactive investments to replace or rebuild poles, wires and substations, with a goal of improving 1,000 miles of our system each year.
- **Forestry management:** Even as technology advances, traditional tree trimming is still the most effective way to prevent and shorten power outages and improve system reliability. Our plan includes a significant increase in spending — more than \$500 million over five years — to keep distribution lines clear.
- **Grid modernization:** We're bringing our distribution system into the 21st century with smart meters, sensors and automation devices working together to serve customers. We can monitor our system more effectively, optimize power delivery and solve problems faster, often before customers notice.



Getting the Grid

Our vast system, which includes more than 90,000 miles of electric lines and more than 1,200 substations, is made up of high-voltage distribution (HVD) and low-voltage distribution (LVD) components.

The HVD system receives electricity from the transmission system (not owned by us) at large substations and carries it at either 46 kilovolt (kV) or 138 kV. We can serve only a handful of large industrial customers at that level.

So, our network of distribution substations and smaller transformers step the electricity down progressively for safe delivery to homes and businesses along LVD lines.

Customer Benefits

Safety and security: Nothing is more important than protecting our customers, our co-workers and the communities we serve. From properly training lineworkers to guarding downed wires and employing the latest cybersecurity tactics, we're committed to working safely.

Reliability: Keeping the lights on is job one. We know how frustrating and expensive power outages are for our customers, and we're investing the resources to meet Michigan's peak electricity needs on the hottest summer day.

Affordability: We're determined to provide maximum energy value for every customer dollar. That means carefully considering every investment in our system to ensure it produces effective, efficient results for all customers.

Sustainability: At Consumers Energy we define sustainability as practices that help our communities thrive without putting future generations at risk. We're building Michigan's grid to last and reducing energy waste to protect the planet.

Control: Our system upgrades give customers, who now have smart electric meters at their homes and businesses, more and better ways to save energy and money through energy efficiency and demand response programs. We can also run more of our system remotely and respond to issues faster.

We filed an updated Electric Distribution Infrastructure Investment Plan with the Michigan Public Service Commission in June 2021.

See the full document at [ConsumersEnergy.com/reliable](https://www.consumersenergy.com/reliable)