

# Unprecedented audit of DTE, Consumers finds power-outage struggles, equipment dating to 1920s

By David Eggert



Credit: Michael Lee/Crain's Detroit Business

DTE Energy Co. and Consumers Energy Co. have struggled with power outages in recent years.

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LANSING — An unprecedented audit of Michigan's two dominant electric utilities shows they are struggling to keep pace with tree-trimming cycles and have old or non-standard equipment, factors in why they lag in reliability and restoring power.

The outside review, which took over a year to complete, was released Monday by the state Public Service Commission, which regulates DTE Electric Co. and Consumers Energy Co. The Liberty Consulting Group, based in Lebanon, Pa., did the 487-page study and compared the companies' performance and infrastructure to two similar investor-owned utilities in Illinois, Commonwealth Edison and Ameren Illinois, and the Lansing Board of Water & Light, which is municipally owned.

Dan Scripps, who chairs the agency, said the audit will be an "incredibly valuable tool as the MPSC continues its work to reduce power outages, shorten the time for restoration of power after storms, and keep residents safe when power lines come down — in short, a roadmap to achieving a grid that meets consumers expectations. The audit underscores that now is the time for both companies to focus more on strategic investments to prevent outages rather than reacting to them."

The analysis says both DTE and Consumers, which together serve more than 4 million customers, ranked in the bottom quarter among all utilities for the average time to restore service in 2022 and 2023. They also fared poorly on the average customer's number of minutes without electricity.

Those findings confirm previous determinations that Michigan customers [endure longer and more frequent disruptions](#) than residents elsewhere do.

Detroit-based DTE, the audit says, has a grid where:

- 45%, or about 1 million, of customers are served by an unground 4.8 kilovolt system that takes more time to locate and fix faults than more modern 8.3 kV and 13.2 kV systems, and exposes workers and the public to a higher risk of being electrocuted.
- Nearly 40% of 4.8 KV substation transformers were installed between 1924 and 1960, and some of its 13.2 kV transformers date to the 1960s.
- The age of service transformers is not tracked.
- Roughly 40% of circuit breakers and reclosers were installed between 1930 and 1960.
- More than half of overhead primary lateral lines are in back lots, where it is harder and more expensive to maintain circuits and trim trees.
- It aims to clear lines of vegetation every five years, but the cycle is five to seven years.
- The number of customers experiencing four or more outages each year, 13%, and eight-plus hours of interruption, 45%, are greater than what is usually acceptable for utilities.

For Jackson-based Consumers:

- There is an unusually high number of different low-distribution voltages due to past mergers with legacy utilities. The diverse and non-standard substation and circuit assets require mobile substations and additional inventory beyond what is needed for standard substations and circuits.
- About 62% of low-voltage poles are small in diameter, making them more susceptible to breaking in storms.
- Up to 18% of customers have infrastructure in difficult-to-service back lots.
- It strives for a tree-trimming cycle of seven years, but it is nearly 10 years because of a backlog.
- More than 10% of customers had four or more outages and over 25% had interruptions of eight hours or more.

Regulators [ordered the review](#) in 2022 after determining that DTE and Consumers had not significantly improved outage prevention and restoration when compared to peer utilities, despite a series of regulatory orders following big storms over the previous decade.

Liberty will present the findings to the three-member commission on Thursday. The audit likely will take days, weeks or even months to fully examine.

DTE Electric President and Chief Operating Officer Matt Paul said the company remains committed to reducing outages by 30% and cutting outage times in half by 2029.

"To meet that commitment, as well as the customer service standards set by the Michigan Public Service Commission, we've been making significant investments as part of our accelerated plan to quickly transition to a smarter grid, aggressively trimming trees, updating our existing infrastructure and rebuilding significant portions of the grid," he said. "We appreciate the audit team confirming that DTE's proposed investment plan will deliver the dramatic improvement in reliability that our customers demand and deserve in the next five years as well as recognizing the talent and experience of our team. They also point out that our plan is both ambitious and aggressive, and we accept that challenge."

"The MPSC audit on our company's storm response has been constructive, and we appreciate the deep experience and expertise Liberty brought to the process," Consumers spokesperson Katie Carey said. "Consumers Energy proactively provided data, information and access to our facilities to Liberty. Michiganders are facing more severe and frequent storms, which is why we announced our Reliability Roadmap in 2023, a blueprint for fewer and shorter outages including no customer going more than 24 hours without power."

DTE and Consumers are seeking authority to raise their electric rates.

DTE's request would increase residential rates by 9.6 %. Residential rates would rise by 8.2% under Consumers' proposal.

The audit says even if DTE substantially improves its reliability performance, outage responses will remain "significant and particularly challenging."

"Even after investments to convert the 4.8kV circuits planned for conversion through 2028, DTE anticipates that it will take another \$20 to \$25 billion dollars, a staggering sum, to convert the remaining 16,000 overhead miles of these circuits by 2040," the analysis says. "Even before considering other system needs that will remain after 2028, the schedule for completing full 4.8kV conversion alone will require yearly costs equal to or greater than the yearly costs of investments to serve all system needs, as the (distribution grid plan) charts them. Addressing reliability and safety thus does not comprise an interlude for DTE, but a long journey that has significant execution risk and potentially very large electricity price consequences."

The review says Consumers' goal to reach essentially the median industry level for a reliability metric within five years "is very aggressive, given the massive efforts and large expenditure increases needed to meet it; meeting it does not appear highly likely and efforts to pursue it may lead to more costly programs, initiatives, and activities."

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