

Understanding EMF and Noise from Energy Infrastructure

As data centers grow across the U.S., so do questions about electromagnetic fields (EMF) and noise from the electric infrastructure that powers them—such as substations, high-voltage lines and power systems.

We want customers and communities across Michigan to know that the infrastructure supporting digital growth – including data centers – is the same safe, responsible and well-managed system that powers homes, businesses and critical services today.

About EMFs

EMFs are produced anywhere electricity is present, including household appliances, power lines, wireless devices and natural sources such as the Earth's magnetic field.

Most utility-related EMFs fall into the extremely low frequency range, a category the World Health Organization (WHO) has studied extensively.

Reviews by independent governmental and health authorities, including the WHO and the U.S. National Institute of Environmental Health Sciences (NIEHS) have not concluded that exposure to electric power EMF causes or contributes to adverse health effects.¹

It's also important to note that a magnetic field's strength decreases dramatically as distance from the source increases.

What are EMF Levels from Common Sources?



Power Lines
30 mG



Blender
70 mG



Toaster
100 mG



Can Opener
600 mG

About Noise from Energy Infrastructure

Noise from substations, transformers and high-voltage equipment serving data centers – typically a barely perceptible low-frequency hum from magnetization processes – can only be heard very near high-voltage lines.

¹ https://d3u3c9e6sbajfk.cloudfront.net/wp-content/uploads/2026/02/ITC_Fact-Sheet_EMF_2026-0112.pdf

What We're Doing



Designing for Safety: We follow local, state, federal and industry guidelines to ensure EMF and noise remain within safe, regulated levels.



Modern Infrastructure: We continue investing in grid modernization – including system monitoring, equipment upgrades and advanced planning tools – to reduce noise and improve reliability.



Responsible Siting: We work closely with local governments and data center developers to ensure appropriate siting distances and use infrastructure that limits community impact.

Learn More

National Institute of Environmental Health Sciences (NIEHS) – EMF Overview: <https://www.niehs.nih.gov/health/topics/agents/emf>

World Health Organization (WHO) – Electromagnetic Fields <https://www.who.int/health-topics/electromagnetic-fields>

PG&E EMF Findings & Fact Sheets (summarizes WHO findings and U.S. research): <https://www.pge.com/en/outages-and-safety/safety/electric-safety/electromagnetic-fields.html>

Learn More:

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