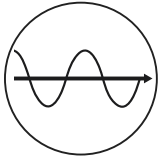


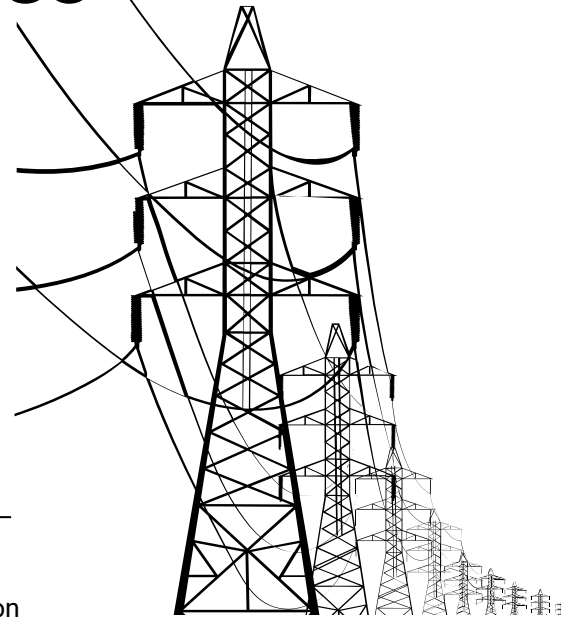
# High-Voltage Power Lines EMF & Health



## What Are EMFs?

High-voltage power lines and substations emit electric and magnetic fields (EMF), forms of non-ionizing radiation known as extremely low-frequency (ELF) EMF. People and animals are exposed to this EMF when near a power line, substation, or electrical grid infrastructure.

Magnetic fields are commonly measured in milligauss (mG).



## Childhood Leukemia

Multiple epidemiological studies have reported an association between long-term residential exposure to ELF-EMF from power lines and childhood leukemia at levels of 3-4 mG. Industry limits allow 2,000 - 9,100 mG.

The World Health Organization's International Agency for Research on Cancer classified ELF magnetic fields as possibly carcinogenic to humans in 2002, based largely on childhood leukemia research.

"The scientific evidence, especially leukemia, brain and breast cancer, and Alzheimer's disease, associated with EMF exposure is sufficiently strong to warrant policy action."

-David O. Carpenter, MD  
Director, Institute for Health  
and the Environment  
University at Albany, New York



## Other Health Concerns

A 2026 study of over 3.5 million people linked exposure to EMF from power lines to increased deaths from Alzheimer's.

A large body of peer-reviewed research has also reported adult cancers, miscarriage, sleep changes, genetic damage, and other biological effects.

## U.S. Is Falling Behind

Over 20 countries and regions have policies or recommendations to limit EMF exposure, some set at levels thousands of times more restrictive than industry limits.

- **Netherlands:** Prohibits exposure levels above 4 mG for new homes, schools, and daycares. Government has bought out homes beneath high-voltage power lines to reduce exposure.
- **Finland:** Radiation authority advises avoiding homes with levels over 4 mG and recommends low EMF exposure.



## A Lack of U.S. Federal Safety Standards

EPA efforts to develop safety limits for EMF exposure ended after federal funding was cut decades ago.

The industry uses limits that primarily protect against short-term effects such as nerve and muscle stimulation. These limits (IEEE and ICNIRP) do not address health effects from long-term exposure, like cancer.

**No Safety Consensus:** Hundreds of scientists are calling for protections to reduce EMF exposure due to research reporting adverse effects. See [EMFScientist.org](http://EMFScientist.org)



## Wildlife Needs Protection

Research on honeybees has reported changes in stress responses, learning, behavior, and pollination activity tied to EMF exposure.

Studies of birds and other wildlife have reported effects on behavior, reproduction, growth, DNA, and endocrine function.

Scientific  
References  
[EHSciences.org](http://EHSciences.org)



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