

# Electric and magnetic fields

Duke Energy is committed to safety for our customers and our employees.

- The company funds, participates in and monitors research aimed at answering questions and addressing property owners' concerns about electric and magnetic fields (EMF).
- Electric fields are created by voltage present when an appliance remains plugged in, even when switched off. Magnetic fields, by contrast, are present only when electric current is flowing, so if an appliance is switched off it will normally not create magnetic fields.
- Extremely low-frequency electric and magnetic fields are all around us – in power lines as well as electrical wiring in buildings, electric motors and appliances, TVs, computers, hair dryers, etc.
- Proximity to an electric device is often more a factor in the strength of the magnetic field than the size of the device.
- Numerous studies have been conducted over the past 30 years in an attempt to determine whether an association exists between exposure to magnetic fields and human health.
- There have been studies that pointed to some association between EMF and human health, and others that found no association at all.
- Virtually all laboratory studies on animals and cells have failed to establish a consistent association between EMF and human health.
- An EMF report completed by the National Institute of Environmental Health Sciences to the U.S. Congress states, "The lack of connection between the human data and the experimental data (animal and mechanistic) severely complicates the interpretation of these results." Given the limitations of current scientific knowledge, we are not able to determine the potential effect of EMF on human health.
- What scientists do know is that electric and magnetic fields dissipate rapidly as one moves away from the source.

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