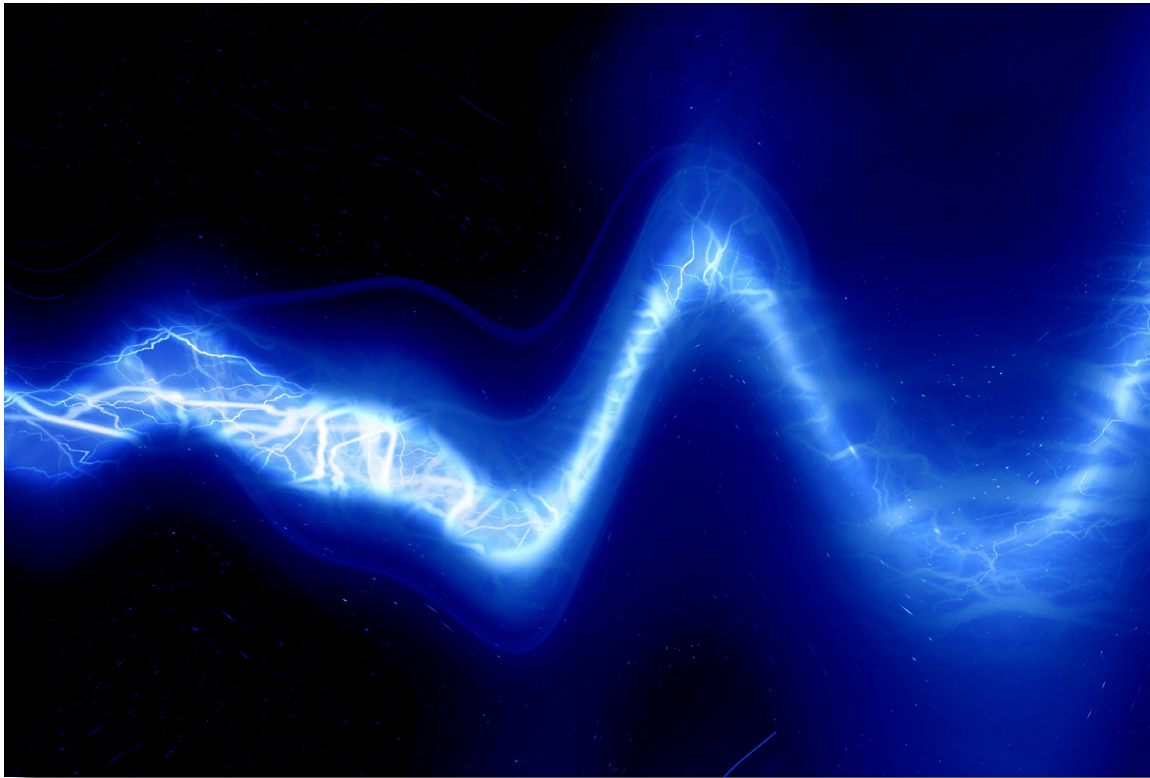


# Microsurge Electrical Pollution (Dirty Electricity)

Fact Sheet



*In a time of drastic change it is the learners who inherit the future. The learned usually find themselves equipped to live in a world that no longer exists. – Eric Hoffer*



**Building Biology Institute**  
The science of healthy buildings

## Microsurge Electrical Pollution (Dirty Electricity) Fact Sheet

This course is an extract and elaboration on this topic from the BBI Electromagnetic Radiation course series. This course is intended for the greater public interested in having a better understanding of electromagnetic pollution. It attempts to be simple enough to allow people learning about the topic for the first time to become conversant about it and yet technical enough to overcome skepticism.

Overall, this course takes a historical perspective. Though dirty electricity has been with us since the late 1800s it was not recognized as a problem until the late 1900s. Thanks to pioneers in the field we now have a unified voice on the subject.

The course discusses the science, dirty electricity-specific health studies, and measurement and mitigation solutions.

Dirty electricity is a ubiquitous problem in modern civilization. It is present everywhere, inside and outside the home. Major sources are utility power, switch mode power supplies (SMPS) used in electronics, AMI meters (due to conducted high-frequency pulsed radiation), Energy efficient lights with a SMPS, variable speed motors in “smart” appliances, PV (Solar) system invertors and utility ground current (especially rural areas)..

Initial epidemiological studies and case studies indicate cause for concern and need for further study. It has been shown that body voltage and body amperage (induced current) increase in its presence. Dirty electricity is linked to cancer, heart disease, diabetes, obesity, Alzheimer’s, multiple sclerosis, ADHD, asthma and just irritation. Applying the precautionary principle is warranted, especially with our most vulnerable populations: children, pregnant women, elderly, electromagnetic-sensitive people, and people already infirmed.

Building Biology consultants holistically evaluate the electromagnetic environment and measure high-frequency radiation, magnetic fields and electric fields including microsurge electrical pollution—MEP (dirty electricity). Wiring errors are a common problem in U.S. homes, which cause excessive magnetic fields and preclude the use of plug-in filters until the errors are fixed. In-side-the-house filters are the last step to cleaning up a polluted electromagnetic environment. Replacing MEP generating or unplugging devices while not being used is the first step.

As a society, we should insist on systemic solutions to the existence of dirty electricity in our environment; built-in filters for appliances and electronics, upgrades to building and electrical codes to install shielded wiring, building power supply line filters and better monitoring and mitigation of ground current.

