



Memorandum

Date: February 28, 2023
To: Mayor Vinis and City Council
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Subject: Testimony Submitted

Attached is testimony submitted at the Public Forum on February 27, 2023. A copy of this material is also included with the meeting materials posted on the web at:

<https://eugene.ompnetwork.org/embed/sessions/260547/city-council-work-session-february-27-2023>

Checklist for Low-EMF Computer

Set-up For Any Computer

- ✓ Device always on a table. Feet flat on floor. Screen is at—or slightly below—eye level.
- ✓ The "high-five test:" If you can't properly high-five your computer screen, you're sitting too close. Position monitor at least 24 inches (61 cm) away from you.
- ✓ Reduce glare by adjusting screen tilt/position.
- ✓ Light your area with soft light beside your device (not fluorescent, not strong LED).
- ✓ Use laptops and tablets running on battery-only. Avoid or minimize use during charging.
- ✓ Use a three-prong grounded power cable for laptops, tablets, and desktops.
- ✓ Move electrical wires, chargers, and electric equipment away from your body.

Use Wired, Not Wi-Fi and Not Bluetooth

Use corded (not Wi-Fi, not Bluetooth) mouse, keyboard, printer, speakers, and other accessories.

Connect devices to your modem using ethernet cord. Check if you need an adapter to connect to the ethernet.

After connecting by ethernet cord, make sure Wi-Fi is OFF on device and modem, and make sure Bluetooth is off on devices).

Multiple users? Connect a corded ethernet switch to the modem or to the ethernet, then you can add more ethernet cords to numerous devices.

Remember Settings

- Device settings: Wi-Fi OFF & Bluetooth OFF. If you do this by Airplane Mode, confirm both are OFF.
- Turn OFF wireless antennas in your Wi-Fi router/modem. (Best is to replace with WiFi-free modem.)

Reduce Blue Light on ALL Screens



- Blue light blocker covers are usually available for all screens.
- Blue-blocking eyeglasses.
- Download software that reduces blue light and flicker.

How to Reduce Electromagnetic Fields

Create A Sleep Sanctuary

- ✓ Remove all screens and electronics from bedroom and other sleep areas.
- ✓ Use a battery-powered alarm clock.
- ✓ Do not sleep near a charging device or a charger that is connected to electricity.
- ✓ Do not sleep near a video game that is connected to electricity.
- ✓ At least power OFF wireless and Wi-Fi before bedtime and other periods of non-use. Best Interest is wired (not Wi-Fi).
- ✓ No electrical cords under or near the bed.
- ✓ Turn off AND unplug electric blankets and heating pads before using them.
- ✓ Do not sleep at a wall where an appliance or electrical panel/meter is on the other side.

In Cars & Other Vehicles

Prefer all phones and screens are powered OFF (or at least set to Airplane Mode with both Bluetooth and Wi-Fi OFF.

For GPS prefer without Bluetooth.

Text/call when you are outside the vehicle.

You can turn OFF the vehicle's Bluetooth. Contact manufacturer about turning OFF other wireless antennas.

A mobile phone that is not in Airplane Mode or powered off automatically goes to high power in traveling vehicles, whether or not the phone is actively being used.

Metal surroundings trap and reflect signals, increasing exposures to all occupants.

Smart Meters

(measure consumption of electricity/water/gas)

Smart meters emit several types of EMFs: radiofrequency, magnetic, harmonics.

- Opt out of a smart meters.
- Analogue meters are the safest.
- Join with others in your community to ensure everyone has a free "Opt-Out."

All Electronics Emit EMFs

Even when Wi-Fi is OFF, EMFs spill out of devices because of the electrical or battery power. This applies whether or not the device or appliance has a screen. The intensity of this exposure is reduced by increased distance from the source.

- Do not put electronic devices on laps.
- Keep and use screens and electronics on a table.

Reduce Cell Phone EMF Radiation Exposure

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First and foremost: Minimize your overall use, and prefer a corded phone.

- Use speaker phone
- Hold the phone away from head & body.
- Do not carry a powered ON phone in your pocket or bra.
- Reduce active apps & background apps.
- Turn OFF notifications & automatic updates.
- Avoid use when signal is weak.
- Children should not use mobile phones except in an emergency.
- Avoid use inside a metal vehicle as radiation reflects and increases — in a car, van, bus, truck, train, airplane, elevator.
- High data transfers (such as video and photos) increases EMF radiation emissions.

Around the House

- ✓ Replace cordless phone with corded phone.
- ✓ Replace Bluetooth and Wi-Fi with wired connections (including for baby monitors).
- ✓ Arrange to replace your smart utility meter with an analogue meter.
- ✓ Disconnect or remove fluorescent light fixtures.
- ✓ Wire up gaming stations and controllers, TVs, and other entertainment systems.
- ✓ Replace strong LED bulbs.
- ✓ Forward mobile phones to home corded phone line so mobiles can be off more often.

Talk to friends and family so they are aware and can make choices.

Tips & Tricks

Get a battery-powered alarm clock for bedrooms.

Learn how to use a cord to connect your tablet, laptop, and mobile phone to Internet.

Text from your corded computer with online apps.

LCD screens have lower EMFs.

Use an electricity timer or a power strip to power off electrical/electronic items off when not in use.

Purchase, rent, or borrow an EMF meter to "see" the levels in your home.

Safer Charging

- Do not use wireless charging.
- Charge devices away from work/sleep/living spaces.
- Do not use or sleep with a mobile phone/device while it is charging.
- Do not sleep with a powered on device.



Prefer a Corded Telephone

Prefer to have and use a corded telephone (not cordless). If a corded landline is not available, then prefer Voice over Internet Protocol (VoIP) or a telephone line connection from your Internet provider.

Sources of Magnetic Field EMF Radiation

Magnetic fields are linked to miscarriage, leukemia, and more. MFs penetrate through solids (for example: through walls and metal, people and pets). Know sources and distance yourself.

Minimize exposure time.

- Powerlines
- Power strips (and stronger when on)
- Electrical panel
- Appliances
- Microwave oven
- Magnetic induction

- Hybrid cars (measure levels at all seats)
- Overhead projectors
- Electrical wiring errors (electrician can fix)
- Variable-speed motors
- Electrical substation
- ... many other items

Sources of Wireless

- Mobile phones
- Home/office cordless phones
- Cordless phone base stations
- Tablets/Laptops/Desktops
- Wi-Fi router/modem
- Video game consoles and handsets
- Baby monitors (near baby & near parent)
- Wireless-enabled MP3 players
- Signal boosters
- Security home hubs
- "Smart speakers" & virtual assistants
- Wireless peripherals such as headphones, printer, speakers, keyboard, mouse.
- Wearable wireless tech including "smart" watches and fitness wristbands.
- "Smart" appliances
- Wi-Fi
- Bluetooth
- ... many other items

Sources of EMF Due To Electromagnetic Interference (EMI)

The best way to reduce EMI is to remove sources:

- Dimmer switches
- CFL light bulbs
- Fluorescent lights
- Several types of LED light bulbs
- Digital utility billing meters
- Solar panel inverters
- Electronics chargers
- Variable-speed motors (HVAC, portable fans and heaters, other appliances that are stationary or portable, treadmills)
- Electronic power converters
- Devices with switched-mode power supply
- LCD TVs & Plasma TVs
- ... many other items

Safer Lighting

Lights can create EMI if they have a switched-mode power supply.

- Choose incandescent or halogen bulbs (with edison screw base), cleaner LEDs.
- Do not use CFL bulbs.
- Do not use fluorescent light fixtures.
- Minimize/remove bright white LEDs.

Replace Sources of EMI

- Replace dimmer switches with on/off switches.
- Replace CFL and fluorescent light bulbs/fixtures with safer lighting.
- Choose machinery without variable-speed motors.
- Prefer electronics without switched-mode power supply.
- When devices or chargers are not in use, unplug them from the power source.