Filing Receipt

Filing Date - 2023-07-20 01:50:59 PM

Control Number - 55067

Item Number - 416

Michael & Deborah Holyfield
1222 Denton Creek Drive
Justin, Texas 76247
Tract #1558

Request to Intervene in PUC Docket No. 55067

Two years ago, my wife and I purchased a home for our daughter and two grandchildren (Katelyn, then 9 and Liam then 6). It is located at 1222 Denton Creek Drive, Justin, Texas, 76247 (Oncor Tract #1558) in the Legacy Ranch Development. The house cost significantly more than we initially planned on spending but because it was near perfect, we pushed ahead. We committed a significant portion of our Net Worth to this purchase because we felt we were providing a blessing that would improve every aspect of their lives (both now and in the future).

In June, 2023 Denton County fixed the value of the property at $535,000.

On July 13, 2023, I attended the Oncor Meeting at the Justin City Hall and learned that one of the proposed routes for this two-times 345 kV circuits, plus space for an additional 138 kV circuit, potentially 828 kV total was located 200ft from our daughter's two year old dream home.

828 kV / 828,000 Volts / Eight Hundred Twenty Eight Thousand Volts directly across the street from where my daughter and grandkids sleep.

This is a nightmare.

Testimony

My Testimony will encompass five areas of concern plus a number of questions.

1 **Health Concerns**
2 **Massive Decrease in Property Value**
3 **PUC's Violation of its Policy of Prudent Avoidance**
4 **Flood Plane**
5 **Beavers in the Pond and other Wildlife at Risk**
6 **Questions**
7 **Evidence**

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1 Health Concerns

The Texas Public Utility Commission has studied the issue of possible health effects from exposure to magnetic fields related to transmission lines. The Commission has concluded there is no conclusive link between potential health issues and exposure to electric and magnetic fields. Interestingly, the PUC did not say that there was No Risk.

Does the PUC office any of their staff anywhere in the state of Texas within 200ft of a dual 345mV transmission line. I suspect that the answer to that question is "No". The PUC staff would not stand for it because they would be concerned for their safety.

I am worried that my grandchildren's health will be negatively impacted. Being less than 200ft from a dual 345kV (690kV with the potential of an additional 138kV circuit being added … that is **828kV** less that 200ft from my grandkids) cannot be healthy for any living thing particularly children.

This is insane.

BingAI (artificial intelligence) tells me that in order to achieve a safe EMF reading of 0.5 milligauss (mG) or less you need at least 700 feet. I have additional evidence to support this concern. Please see the Evidence Section.

2 Massive Decrease in Property Value

Just like anyone with any common sense realizes that it cannot be healthy living next to a 690kV – 873kV transmission line, property values will plummet based only on the knowledge that these lines are going to be built.

I still have 13 years of payments on a 15 year mortgage.

Will the PUC buy my house at the full pre-Transmission Line value?

This will be devastating to my wife's and my personal finances and remove the benefit that we believed that we were providing for our daughter and grandkids.

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3 PUC's Violation of its Policy of Prudent Avoidance

The PUC claims to always follow a policy of Prudent Avoidance. Prudent Avoidance is defined as limiting of exposures to electric and magnetic fields that can be avoided with reasonable investment of money and effort.

In the case of Route 179 that that enters Justin, Texas by crossing Highway 156 on Segment I7. At this point I7 has been heading west for ~ 1,000ft. With no turns and continuing in the same westerly direction there is an additional ~2,000ft of open land with zero structures straight ahead.

Inexplicably, instead there is a 90° turn to the north ~750ft directly towards multiple single family homes developments. I believe that Segment J3 starts here. The route then takes another 90° turn to the west for ~200ft, another 90° turn to the north for 200ft and finally another 90° turn to the west for ~400ft.

These last three 90° turns take the transmission line directly in the middle of the Legacy Ranch development, where instead of the residents of Legacy Ranch not being exposed to any electric or magnetic fields the path meanders inside the development whose residents are now exposed from all direction to dangerous electric and magnetic fields.

This is not Prudent Avoidance.

Actual Prudent Avoidance would have caused the planner to have Segment I7 continue west for another 2,000ft of open land thus Prudently Avoiding exposing the entire Legacy Ranch community to the dangers of electric and magnetic fields.

This alternative would have also save the Texas tax payer money by removing four unnecessary and costly 90° turns. For this reason, I demand that the PUC remove J3 from any consideration.

4 Flood Plain

The Legacy Ranch development was required to develop and implement a comprehensive and complex Drainage Plan to guarantee that all drainage from the entire development would becontrolled and contained inside the development. The implementation of this plan did not go smoothly. It took many months of work and rework to achieve its goal. The plan is so detailed

that it identified places that homeowners could not plant trees because a single tree planted counter to the plan could negatively impact the overall Drainage Plan.

The largest and most important component of the plan was the flood plain and the pond that was built on the land between the north and south sections of Legacy Ranch. The pond was to collect all the water coming from all the homes in the development.

Segment J3 is proposed to run right through the middle of the floodplain/nature area.

If a single tree could mess up the Drainage Plan, how could three 175ft tall Transmission towers not have a massive negative impact?

5 Beavers in the Pond and other Wildlife at Risk

The flood plain and the pond provide the Legacy Ranch community the opportunity to see wildlife that otherwise would not be present in a neighborhood like this.

My daughter is pretty sure that she saw a beaver in the pond. Some folks would likely says that is not possible. I am including in my evidence section an article titled 'Texas Tech: Beavers found in Lubbock for first time in 5,000 years'.

Other folks have seen many different bird species… some of them possible endangered. Shouldn't someone from Texas Parks and Wildlife be called in to make the proper assessment on the total impact of this Transmission line project on all the wildlife?

6 Questions

I am hopeful that someone from Oncor or the PUC could answer these questions:

a. What is the maximum EMF reading that will ever be experienced 200ft from an 828kV Transmission Line? Please express the answer in mG (milligauss) units.

b. What is the acceptable maximum EMF exposure for an 8 year old boy and an 11 year old girl, 200ft from an 828kV Transmission Line? Please express the answer in mG (milligauss) units.

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c. What is the cumulative effect of the EMF exposure for an 8 year old boy and an 11 year old girl, 200ft from an 828kV Transmission Line? For a year? For 5 years? For 10 years (when my grandson will be out of high school)?

d. Are there any Oncor or PUC employees officed anywhere in the State of Texas in a building that is 200ft away from an 828kV transmission line?

e. Does any current PUC commissioners live or have immediate family members that live within 200ft from an 828kV transmission line?

f. Does any of the Oncor Executive Leadership Team or Oncor Board of Directors live or have members of their immediate families that live in a house that is 200ft away from an 828kV transmission line?

g. What is the reduction in property value that Oncor/PUC would asses to a house 200ft away from an 828kV transmission line with 175ft towers?

h. If the PUC's position is that there is no conclusive link between the EMF from high voltage transmission lines and potential health issues why did they implement a policy of Prudent Avoidance that says they should limit the exposure to electric or magnetic fields that can be avoided with reasonable investment of money and effort?

i. Why did Oncor/PUC not follow the policy of Prudent Avoidance when they chose to run segment J3 directly through the flood plain/nature of Legacy Ranch, requiring three 90° turns instead of continuing due wet from segment I7 into 2,000ft of open land?

j. Will Oncor/PUC do the proper hydrology study to see what three 175ft high voltage transmission towers will do to Legacy Ranch's drainage/flood plain plan?

k. Will Oncor/PUC do the proper environmental assessment to ensure no endangered or other wildlife will be put at risk by this plan?

7 Evidence

Please see attachments to this email to find supporting evidence.

Safe distance for homes from high electrical lines

Specification of line	Vertical Clearance	Horizontal Clearance
Less than 650 V AC	2.5m	1.2m
650 V - 11 kV AC	3.7m	1.2m
11kV - 33kV AC	3.7m	2m
More than 33 kV AC	3.7m plus .30 metre for every additional 33kV or part thereof	2m plus .30 metre for every additional 33kV or part thereof

As per electrical regulations, these are the clearances that a building needs to have from power distribution lines.

As per these regulations, a 440KV power transmission line which passes at 7.4 metre vertical height and 5.7 metr within limits. That however is absurd.

3. A far more advanced clearance zone for buildings near high tension electrical lines is laid down by *The Haryana I RERA regulations. (Page 18)*

	Horizontal clear
High voltage lines upto and including 11kV	11.5 metre
High voltage lines above 11kV and upto and including 33kV	15 metre
High voltage lines above 33kV and upto and including 66kV	18 metre
High voltage lines above 66kV and upto and including 132kV	27 metre
High voltage lines above 132kV and upto and including 220kV	35 metre
High voltage lines above 220kV and upto and including 440kV	52 metre

As per Haryana state RERA, these are the clearances that a building needs to have from power distribution lines.

While, the reasons for such liberal clearances from high tension power lines in HRERA regulations is not spec benchmark.

So what is the ideal clearance zone for Safe distance for homes from high tension e

There is a simple and effective answer to this question. It is based upon drop of magnetic field values, as we move a

1. We suggest that a safe zone is where magnetic fields are less than 1 **milliGauss (.1 microTesla). This is as su norms.**
2. **Between 1 milliGauss and 4 milliGauss is the tolerance zone.** It is not safe. However, it is under the tolerar **Environmental protection agency (US), Bio-Initiative report among some others.**
3. While, current in electricity carrying conductors can vary with season, power load and a host of other factors, across variety of scenarios.
4. These numbers are indicative. It is to give a direction and indicative threshold. One should always ascertain E
5. If you have a child or a pregnant lady at home, it is pertinent that you should look at the safe zone.
6. In many cases it may be physical difficult or even impractical to follow these limits. However, we would advi often and in as many cases as possible.

	Tolerance zone	Safe Zone
	Magnetic field	Magnetic fiel

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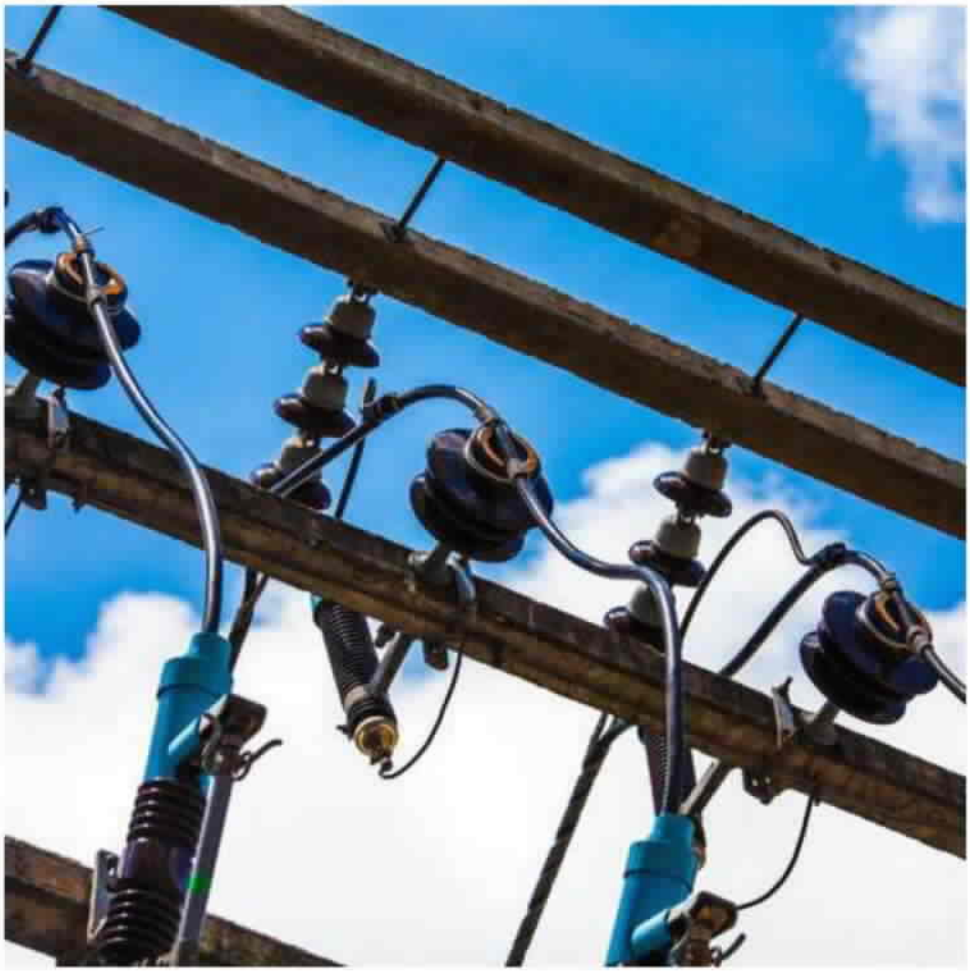
	Tolerance zone	Safe Zone
	Magnetic field is less than .4µT	Magnetic field is less than .1µT
132KV AC line	60-100 metres	100 + meters
440KV AC line	100 -150 metres	150 + metres

What is the safe distance for homes from high tension electrical lines? Here are the tolerance and safety values and clearar distances from high tension power cables.

Orgon Energy

Regulations and Guidelines for Safe Distances from Power Lines



To ensure public safety, various organizations and regulatory bodies have established guidelines and regulations for safe distances from power lines.

These guidelines take into account the potential health risks associated with EMF exposure and aim to minimize the risk to individuals living or working near power lines.

In most countries, the guidelines for safe distances from power lines are based on the "exposure limits" set by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) and the Institute of Electrical and Electronics Engineers (IEEE). These exposure limits are designed to protect against both the thermal and non-thermal effects of EMF exposure.

The recommended safe distances vary depending on the voltage of the power lines. For example, the ICNIRP guidelines recommend a minimum distance of 50 meters for power lines with a voltage of 220-380 kilovolts and a minimum distance of 10.5 meters for power lines with a voltage of up to 110 kilovolts. These recommendations are based on the assumption that the power lines are operating at full capacity.

It is important to note that these guidelines are intended to be a general recommendation and may not account for all individual circumstances.

Factors such as the height of the power lines, the configuration of the electrical system, and the presence of other conductive structures can affect the EMF levels at a given distance.

Factors to Consider When Determining the Ideal Distance

While the recommended safe distances provide a general guideline, it is important to consider additional factors when determining the ideal distance from power lines. These factors can help you assess the potential risks and make informed decisions about your safety. Some of the key factors to consider include:

- **Voltage and capacity of the power lines**: Higher voltage power lines generally have higher EMF levels. Additionally, power lines operating at full capacity may emit higher levels of EMFs compared to those operating at lower loads. Understanding the voltage and capacity of the power lines near your home or workplace can help you assess the potential risks.

- **Configuration of the electrical system:** The configuration of the electrical system, including the number of power lines and their proximity to each other, can affect the EMF levels at a given distance. Power lines that are closer together or parallel to each other may result in higher EMF levels.

- **Distance and height of the power lines**: The distance and height of the power lines from your home or workplace can affect the EMF levels. Generally, the EMF levels decrease with increasing distance from the power lines. However, it is important to note that the EMF levels can vary depending on the height of the power lines and the location of the measurement.

- **Presence of other conductive structures**: Other conductive structures, such as metal fences, buildings, or other power lines, can affect the EMF levels in the surrounding area. These structures can reflect or amplify the EMF levels, potentially increasing the exposure.

By considering these factors and conducting a thorough assessment of your environment, you can determine the ideal distance from power lines that ensures your safety and minimizes your exposure to EMFs.

What is the Minimum Safe Distance from Power Lines?

If you live near a power line, what is the minimum safe distance? As we mentioned earlier, electromagnetic radiation can extend from a power line up to a quarter of a mile from the power line.

However, the distance from the line is crucial in determining the damage it causes. The following are the required setbacks to minimize exposure at different distances:

- 100 feet for 50 to 133kV transmission line
- 150 feet for 220 to 230kV transmission line
- 350 feet for 500 to 550kV transmission line

For this reason, it is actually quite difficult to determine the "safe" distance from power lines, as the amount of electromagnetic radiation varies greatly depending on several factors.

Transmission lines can pose several risks. Some of the hazards associated with transmission lines include contact with live utilities, electrocution due to induction currents, fall of materials from height, heavy wind, and lack of ground fault protection[1]. There are also concerns about the effects of electromagnetic fields near the transmission lines on human health [2]. Studies have not clearly proven whether exposure to EMF increases cancer risk[3]. However, there are numerous studies that link living close to power lines with harmful health conditions and diseases including childhood leukemia[4].

I hope this helps. Let me know if you have any other questions.

The safe distance from transmission lines depends on the type of line and the strength of the magnetic field. The strongest magnetic fields are usually emitted from high voltage transmission lines – the power lines on the big, tall metal towers. To be sure that you are reducing the exposure levels to 0.3 milligauss (mG) or less, a safety distance of 700 feet may be needed.[1] For overhead transmission lines, the recommendation is to allow a distance of 5 m.[2] The minimum safe distance from a high-voltage transmission power line that produces a magnetic field over household ambient levels is about 600 feet.[3]

I hope this helps. Let me know if you have any other questions.

Cited sources:

Living near Power Lines

People use so many technologies today and they take most of those for granted. It is really difficult to live without those technologies – you will have a hard time cooking your meal without your microwave, you will feel bored without your TV, and you just cannot see in the dark without any lights.

All these technologies require electricity to operate, and as more and more people are using these technologies, the demand for electricity is increasing too, which has resulted in the increase in the number of transmission towers and overhead wires. What people don't understand is that living near power lines will expose them to the electrical and magnetic energy produced by these high-voltage wires. Long-term exposure can cause several health problems.

Is Living near Power Lines Really Bad?

A simple answer is YES. Some research has already showed evidence of how long-term exposure to these high-voltage wires can lead to several health problems. Here are the most common issues you may experience when living near power lines.

1. Childhood Leukemia

One of the first studies was conducted in 1979 in which researchers studied any relationship between incidence of leukemia in children living near high-voltage power lines and towers. They chose a residential area inside Denver, Colorado to conduct the study and compared the electromagnetic field (EMF) radiation effects on people living at various distances from high-voltage wires and transmission towers. The results were shocking as children living close to power sources were more at risk for childhood leukemia. However, no evidence has been provided to establish a direct connection between childhood leukemia and EMF.

2. Cancer

Another research study conducted in Australia looked for any connection between the incidence of cancer in people living near power lines and transmission towers. The research showed that those who lived within 50 m radius of a power source had 106% of chances to develop cancer as compared to those who lived at least 300 meters away from a power source. This confirmed that there is a connection between exposure to power sources and cancer.

3. Depression

A research conducted on the psychological effects of living close to power lines showed exposure to extremely low frequency EMF might contribute to the number of depression-related suicides in people living close to those power sources. EMF was responsible for disruption in circadian rhythm cycles, alteration in melatonin and serotonin neurotransmitter levels in people living close to those areas.

In addition to these effects, many other published papers have discovered links between living near power lines and a number of other health concerns, including brain cancer, Alzheimer's disease, Lou Gehrig's disease, miscarriage, breast cancer, birth defects, fatigue, hormonal imbalances, decreased libido, sleeping disorders, heart disease, neuro-degenerative disease and more.

Why Is Living near Power Lines Bad?

Power lines are used to transfer high-voltage electric current from place to another, but when the current flows through the lines, it creates two separate fields around

them – a magnetic field and an electric field, both of which are important components of the electromagnetic field. This electromagnetic radiation is responsible for creating negative effects on human body. The magnetic component is even more dangerous because it gives out more EMF. The strength of this magnetic field usually depends on how much current flows through the wires, the voltage and the configuration of those wires.

What Is the Safe Distance to Live near Power Lines?

Ideally, you should be as far from power lines as possible. If you're within 50 m of a 765 kv line or transmission tower, you're more likely to develop cancer and experience increase in triglyceride. When the distance is 507 m, you may experience abnormal EEG's. When you're at least 834 m away from it, you may end up developing issues related to decreased calcium flow. A distance of 1400 m may still result in altered biorhythms, and you may still experience issues related to stunted growth even if you're 2000 m away from a transmission network.

What Can You Do to Protect from EMF?

Sometimes, you think there are no visible power lines in your area, but there may still be underground cables posing health risks. Some household products, such as microwave, computer, blender, clothes washer, etc., can also have EMF. It means even if you think you're far from power lines, it is still a good idea to take some protections from EMFs.

- Don't stick with an old appliance because the older it is, the higher EMFs will be emitted through it.
- EMFs are the strongest when you're 2-3 feet from the appliance. Maintain your distance always!
- Don't spend too much of time around electrical appliances in your home.
- Keep cordless phones, cell phones, clocks and other electrical devices at least six feet from where you sleep.
- Buy some EMF products to counter artificial EMFs, which in turn will help restore balance to the fields around you.

EMFGrid

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EMF And Power Lines: What's a Safe Distance

Do you live near power lines and wonder if you're exposed to EMF radiation?

The earth and your body both produce electromagnetic fields; however, the level of these EMFs are low. Today's modern technology generates higher levels of EMFs, and these EMFs have the potential for serious health risks. They're invisible and don't make a sound.

If you live by high-voltage power lines or a cell phone tower, there's a good chance that you're being exposed to artificial EMFs. Additionally, if you're having health symptoms, it might be a case of Electromagnetic Hypersensitivity (EHS).

Electromagnetic Hypersensitivity

Electromagnetic Hypersensitivity (EHS) is a medical definition for individuals with health symptoms directly related to electromagnetic fields. It's also known as Radiation Sickness, EMF Injured, Electrical Sensitivity (ES), and Microwave Sickness as well as some other names.

Individuals who are experiencing EHS related symptoms can be classified under two categories:

1. Primary EHS Symptoms

- Severe headaches
- Tension headaches

- Pressure in the chest
- Heart palpitations
- Sleep apnea
- Tinnitus
- Fatigue
- Memory loss
- Redness in skin with itching, rashes, and tingling on the arms or face

2. Secondary EHS Symptoms

- Tension and anxiety within the body
- Weak immune system
- Vertigo
- Nausea
- Speech difficulties
- Mood-swings
- Twitching in arms, legs, and fingers
- Depression

Electromagnetic Hypersensitivity (EHS) is the sensitivity of those who are sensitive to electromagnetic fields that results in negative health symptoms impacting daily life. The truth is, a lot of people who are suffering from EHS are not even aware of it.

The Electromagnetic Spectrum

The Electromagnetic spectrum is a graph and scientific name for forms of photon radiation. EMF radiation consists of photons which are light particles, and they travel at the speed of light in a wave-like pattern.

The intensity of energy in these photons is what make up the different forms of electromagnetic radiation in the electromagnetic spectrum. The spectrum is illustrated in a graph by using terms of wavelength, frequency, and energy.

- Wavelength is calculated in meters.
- Frequency is calculated in cycles per second.
- Energy is calculated in electron volts.

How strong an EMF is depends on its frequency and wavelength. The more waves you have with shorter wavelengths, the stronger the energy will be as you go up the spectrum.

Is It Safe To Live Near Power Lines?

The minimum safe distance from a high-voltage transmission power line that produces a magnetic field over household ambient levels is about 800 feet.

Must Read Does Black Tourmaline Protect from EMF

You can use your personal EMF detector to see if your home is receiving the EMF radiation.

Power lines in suburban areas would be a little less, and for neighborhood power lines suspended on telephone poles is about 100 feet. In all cases, a lot of this depends on the configuration of the power lines and how much electrical current they carry.

Neighborhood power lines and high-voltage transmission lines both make a radiation hazard; however, the diameter of the power line isn't the problem. The problem is in the magnetic component, and the intensity of the electromagnetic field where you live is what becomes the problem.

Technology in this sector has made significant strides towards design and construction applications for high-voltage power lines to lower the number of EMFs emitted.

If your home is at least 800 feet from the nearest power line, you should be ok.

Protection From Power Line Radiation

When it comes to EMF protection with radiation from Wi-Fi routers, computers, laptops, and cell phones, it can be pretty straightforward. Keep a safe distance from electromagnetic sources or move a few things around, and you can keep EMF levels within the safety limit.

Unfortunately, the same can't be said about protection from strong outdoor sources that there's no control over like power lines.

When it comes to radiation from power lines attached to high-voltage transmission towers, a more serious approach is required. Electromagnetic fields are odorless and invisible; therefore, they're not really thought about.

The best way to protect yourself from EMFs if you live near high-voltage transmission tower lines is to:

- Address these concerns with your primary care physician on a regular basis.
- Keep a journal and record symptoms.
- Buy EMF meters and monitor your exposure.

There are a variety of meters that measure different types of EMFs like magnetic fields, radio frequency, and electric fields. The benefit of using these meters is being able to monitor your environment with precise accuracy.

It's also important to remember that your journal can help a doctor make a diagnosis of EMF symptoms or to see if you have electromagnetic hypersensitivity (EHS). The information that you record in your journal will be invaluable as it will help confirm what types of EMFs you need to worry about.

Must Read What is a Smart Meter Guard and Do they Work?

If you don't have a meter or are unsure of power line radiation levels in your area, it may be helpful to know that the highest high-voltage power lines (400kv) usually generate less than 0.5 milligauss at 800 feet.

The strongest telephone pole power lines (33kv) usually generate less than 0.5 milligauss at 100 feet; furthermore, most power lines suspended on telephone poles have even a lower voltage, and their EMF range would extend far less.

Power lines can vary in EMFs, so if you live less than 800 feet from tower transmission lines or within 100 feet of telephone pole power lines, it might be a good idea to test the levels of EMF with a low-frequency gaussmeter.

Below are some tips on how to run an EMF test with your gaussmeter and areas that you should test.

- Measure the EMF in areas where you and your family spend a lot of your time like living rooms, kitchens, and bedrooms.
- A good tip for the bedroom is to place the gaussmeter on a pillow.
- Run a test with the mains switched on and one off. This will help you determine how much EMF is coming from your house and how much radiation is coming from the sub-station or power lines.
- Measure the EMF outside as well, especially where you like to sit or where children play.
- Measure the same locations at different times of the day.
- Record all entries.

If your low-frequency EMF meter show less than 0.5 milligauss, there's no reason to be concerned; however, if your EMF values are above 1.0 milligauss, you have a higher chance of long-term health effects and can experience the symptoms of EHS.

Dirty Electricity

You may have heard of "dirty electricity" at one time or another during your research efforts. Dirty electricity are surges of electrical energy and erratic spikes that travel along building wires and power lines where standard (50-60 hertz) alternating current (AC) should be.

It's also known as power line EMI, line noise, and electrical noise. Dirty electricity is one of the biggest sources of electro-pollution in schools, businesses, and homes today.

Must Read Is Copper An Effective EMF Shield?

Common sources of dirty electricity:

- Solar power systems
- Multi-Speed Fans
- Hair Dryers
- Blenders and mixers
- Microwave Ovens
- Battery charging devices for tablets, cell phones, etc.
- SMART meters and appliances
- Wi-Fi routers and modems
- Cordless phone systems
- Light dimmer switches
- Fluorescent light tubes and bulbs
- Computers and laptops
- Televisions
- Video game systems

- Printers and scanners
- Music entertainment systems

Dirty electricity is made by a lot of different energy-efficient lights, appliances, electronics, and other devices that operate on electricity. In today's modern world, it's more common than ever before because a lot of newer devices don't use standard AC electricity in its natural state. Instead, they have to manipulate the electrical current in order to operate.

Radiation From Power Lines

One of the most popular questions asked by a lot of people is why does the radiation of transformers and power lines cause such serious health problems? Although the issue has been confirmed and studied for years, it seems to fly under the spectrum.

During the late 1970s, a study was done by two researchers named Wertheimer and Leeper. They studied various children in different locations of the United States and compared multiple factors.

What they found was that an excess of high-voltage electrical current was flowing through areas in Colorado. Children who lived near these areas in Colorado had a higher rate of developing cancer than children who lived in other states.

Reasons why radiation in power lines exist:

1. Due to the major expansion in the electrical infrastructure and human population.
2. Due to higher power consumption, existing power lines generate higher magnetic fields.
3. Due to the radiation emitted by power lines today, it's waveform is much more intense.

There has been a lot of technological advancements in electronic non-linear devices like AC adapters, fluorescent lamps, inverter air conditioners, electric dimmer switches, photovoltaic systems, and Plasma TVs as well as other devices.

Radiation in power lines will always exist, and so will the need to know more about the hazards of radiation in power lines. Radiation meters are the best way to monitor the EMF levels in your area to confirm any suspicions of health related problems directly linked to the radiation from electromagnetic fields.

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ABOUT

My name is JR. I've been researching the effects of EMF radiation for years and want to share with you what I've found. This site works best as a way to keep track of all the research going on in the world as it pertains to EMF, EHS, and how our world is more fragile than we know.

Must Read TV Radiation: How To Tell if Your TV Gives Off Radiation and What to Do About It

LOCAL NEWS

Texas Tech: Beavers found in Lubbock for the first time in 5,000 years

The Average Cost Of Gutter Guards In 2023

But the research project officially started November 2023 when — to his shock — he and some others spotted a dead beaver at Mackenzie Park — a creature that they thought had not lived here since prehistoric times.

"When this carcass was discovered, people started thinking well possibly, possibly beaver could be here, but we needed more evidence," Laughlin said.

He set up night vision cameras to capture the nocturnal critters, and in the day, he also saw some telltale signs, including running paths, tunnels and tree stubs they chewed with their large incisors.

But these Lubbock beavers are not regular rodents.

"These beaver are particularly cryptic in their behavior. They really like to keep a low profile. These beaver are kind of like ghosts. I've only seen the beaver in person three times, and only two of those times did I get a good look at it," Laughlin said.

He added that if you come face to face with a beaver, "consider yourself lucky," but do leave them alone. He said to keep your eyes peeled for them crossing the road as you're driving by the Canyon Lakes. It took these beavers 1,000 years to get here, so the least Lubbockites can do is give them a warm West Texas welcome.

But why did the beavers come back at all?

"Wildlife is always searching for new places that it can live, just like we do," Laughlin said.

If you'd like to read more about their research, you can find his peer-reviewed paper here.