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**DEC 18 2025** 

Good morning,

PUBLIC SERVICE COMMISSION

My name is Darla Decker and I reside at 2853 Liletown Road in Greensburg, Kentucky. The home where I reside is noted as Receptor 23 in the information presented to you by Exie Solar for reference. Thank you for the opportunity to address the Commission today.

I would like to reiterate the information I presented at the Local Comment meeting in Green County a few weeks ago, specifically as it relates to living directly adjacent to high voltage transmission lines and the risk of childhood leukemia associated with such. I have a couple of articles addressing that issue that I will tender today.

In Item #56 of the First Data Request, the Board requested that Exie provide a description of the proposed transmission line and alternate route. Exie did not mention anything about an alternate route for the transmission line. In addition, in Item #24 of the PSC's Second Data Request, this question was again posed. This time, Exie answered with the statement that no alternate route was proposed as part of the application. While there is more than sufficient space within the project footprint for an alternate route, Exie has failed to address that issue. It is unreasonable for Exie to insist on placing the transmission line directly alongside homes when another route would be just as viable and perhaps with an even shorter distance to the switchyard and substation. The project contains plenty of space for placement of the transmission line farther away from homes without additional acquisition of property leases. There are numerous access roads already planned, so that would not be anything more than what they already have mapped out.

In Item 97 of the First Data Request, Exie states that views of the project from non-participating landowners would likely appear through narrow window openings and would be fleeting in nature. Also, in the Motion for Deviation, Exie stated that the visual aspects of the project would only be momentary for local persons. According to the site plan provided by Exie, that statement is grossly incorrect. How can the viewscape interruption be fleeting or momentary when our property, along with that of our neighbors, is basically surrounded by the project? For us, the altered viewscape will be constant. Also, as far as any screening is concerned, there is no screening that can accomplish blockage from our home as our property sits above the field that is slated to contain panels behind our house.

Lastly, I would like to address the statements made by Exie as they relate to the neighborhood maps we previously provided. They addressed this in Item No. 37 of the Second Request. I went back and took another look at KRS 278.700(6), and I did not find that it mentioned any of the objections Exie listed, such as being unreasonably shaped, arbitrary and narrow, not including outbuildings, being contiguous, and such. The statute is pretty simple and is not hard to understand. My question is, does the applicant get to determine whether we are a residential neighborhood? As you are aware, and not surprisingly, they didn't identify any neighborhoods on the interior of the project, even though they exist. Exie did go on to say that if you determine that we are to be considered a neighborhood, they do not want us to have any setback other than the footage they are already planning for placement of the project. We again ask that you review

our situation and that our residential neighborhoods be deemed as such and that we be afforded appropriate setbacks.

It is very concerning that, for whatever reason, Exie refuses to acknowledge there is an issue for the neighborhoods located in the interior of the site and that they continue to fail to offer relief for persons residing immediately next to the project.

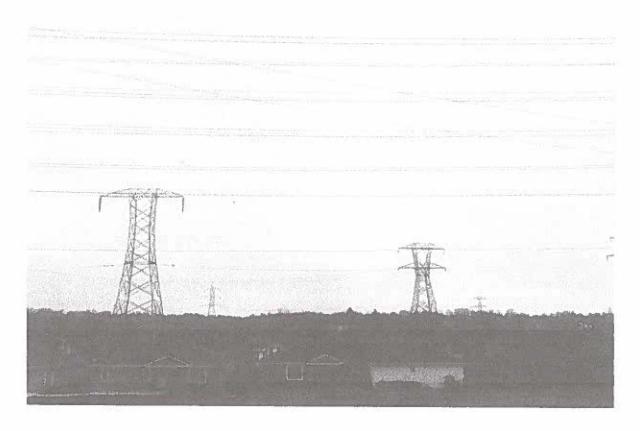
I also have a few neighbors who could not be here today. They have asked that we submit items on their behalf as well.

Thank you!



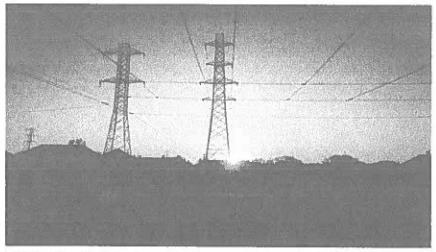
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# EMF and Childhood Leukemia: Examining the Evidence



Epidemiological studies on EMF and **childhood leukemia** show mixed results, with some suggesting a **twofold increase** in risk with ELF-MF exposure above 0.4μT while others find no significant link. The IARC classifies ELF-MF as "possibly carcinogenic," with proposed mechanisms like **oxidative stress** and DNA damage remaining unconfirmed.

# **Epidemiologic Evidence Linking EMF to Childhood Leukemia**



While the link between electromagnetic fields (EMF) and **childhood leukemia** has been widely investigated, it remains a topic of considerable debate.

Over 40 **epidemiological studies** explore this relationship, finding mixed results. Some research indicates a twofold increase in leukemia risk at ELF-MF exposures of  $0.4~\mu T$  or higher. However, other studies show no association, contributing to uncertainty. The International Agency for Research on Cancer (IARC) classifies ELF-MF as "possibly carcinogenic to humans" based on this mixed evidence. The <u>evidence of association</u> observed primarily reflects **statistical correlations**, not direct causation, highlighting gaps in understanding the true impact of EMF exposure on childhood leukemia.

## **Mechanistic Explanations and Biological Effects**

Understanding the **biological mechanisms** behind electromagnetic field (EMF) exposure is essential for evaluating its potential link to **childhood leukemia**. Proposed mechanisms include **oxidative stress**, epigenetic changes, and **DNA damage**, though these aren't fully confirmed for ELF-EMF.

Exposure to RF-EMF may elevate oxidative stress, leading to reactive oxygen species that can damage cells. Changes in DNA methylation and histone modification can affect gene expression, potentially contributing to disease.

Notably, despite the lack of definitive biological pathways, the risk associated with EMF exposure remains a concerning area of study within public health.

Despite these hypotheses, none of the suggested biological pathways for ELF-EMF's role in childhood leukemia have been conclusively validated, highlighting the need for **further research** to clarify these complex interactions.

## **Regulatory Perspectives and Public Health Implications**

As concerns about electromagnetic field (EMF) exposure grow, regulators and public health officials are examining the implications for **childhood leukemia**.

Currently, no federal US standards exist for EMF, but international guidelines, like those from ICNIRP, set **safe exposure limits**. Authorities like the EPA and NIEHS assess EMF risks, while the WHO evaluates potential health effects.

Public anxiety is rising as studies suggest even low levels of EMF can pose risks for children.

- Children's health is at stake
- · Families deserve clear guidelines
- · Precaution is essential for safety
- Awareness must increase for protection

### Conclusion

Studies suggest a potential link between electromagnetic fields (EMF) and **childhood leukemia**, especially in high-exposure areas. Research indicates children near **high voltage power lines** may face a 2.5 times greater risk of leukemia than those further away. While biological mechanisms are still being studied, these findings call for careful consideration. Public health guidelines should adapt as research progresses, and ongoing studies will clarify these connections for future safety regulations.

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LETTER Environ Health Perspect. 2007 Aug; 115(8): A395. doi: 10.1289/ehp.10217

#### **EMFs and Childhood Leukemia**

Michael Kundi 1

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In their otherwise informative and concise review of the current state of evidence concerning risk factors for acute childhood leukemia, <u>Belson et al. (2007)</u> did not correctly address nonionizing radiation and, in particular, power frequency magnetic fields as a possible risk factor for childhood leukemia. This failure may be due to a widespread misconception about the evidence concerning nonionizing electromagnetic fields (EMFs) as a health hazard. It is also apparent in the Churchill County leukemia cluster study published in the same issue, in which <u>Rubin et al. (2007)</u> investigated a multitude of factors, many with sparse or ambiguous previous evidence of an association with childhood leukemia. Although power frequency magnetic fields have been classified as a possible human carcinogen (group 2B) by the International Agency for Research on Cancer (<u>IARC 2002</u>) and by a National Institute of Environmental Health Sciences (NIEHS) working group (<u>NIEHS 1998</u>), based on the evidence of an association with childhood leukemia, these were apparently not considered by <u>Rubin et al. (2007</u>).

In their review of nonionizing radiation, <u>Belson et al. (2007)</u> inappropriately mixed original research and pooled analyses, further contributing to the prevailing confusion. Both <u>Ahlbom et al.</u>

Linet et al. (1997). Hence, it is inappropriate to present results of the latter as an independent source. Almost all epidemiologic studies of residential exposure to power frequency magnetic fields published before 1999 are included in either the pooled analyses of Ahlbom et al. (2000) or Greenland et al. (2000). Only the study of Myers et al. (1990) was not included because authors refused to provide requested data. Although the study of Linet et al. (1997) is often cited as failing to support the hypothesis of an association between residential exposure to magnetic fields and childhood leukemia [it was also cited by Belson et al. (2007)], it actually was one of the most important supporters of an association in the pooled analyses and contributed the greatest number of highly exposed children. Two large and well-conducted studies published after the pooled analyses (Kabuto et al. 2006; Schüz et al. 2001) lend further support to the results of the pooled analyses of an increased risk from high average levels of magnetic field exposure.

It is also incorrect to characterize the evidence as "some have found a small association ... while others have not ...." First of all, the association is not small, but is comparable or larger than that for all other factors considered by <u>Belson et al. (2007)</u>. Second, the evidence is consistent across different continents, study types, measurement methods, and other factors. Of course, there are potential sources of bias, in particular selection bias. However, thorough investigations of these potential biases have rendered it unlikely that they can completely explain the association. Up to now, there is no other risk factor of childhood leukemia that has been as comprehensively studied concerning possible biases and confounding factors.

It is high time that exposure to power frequency EMFs is recognized as a potential risk factor for childhood leukemia and is properly included in the protocols of cluster studies and in epidemiologic studies of other risk factors as a potential confounder.

#### Editor's note

In accordance with journal policy, Belson et al. were asked whether they wanted to respond to this letter, but they chose not to do so.

#### References

1. Ahlbom A, Day N, Feychting M, Roman E, Skinner J, Dockerty J, et al. A pooled analysis of magnetic fields and childhood leukaemia. Br J Cancer. 2000;83:692–698. doi:

★ Risk Management News · Fire a major hidden danger for solar farms

### Fire a major hidden danger for solar farms

Renewable energy providers underestimate this critical risk, expert says



Risk Management News By Gabriel Olano Sep 08, 2022 / Share

Fire is one of the oldest and most omnipresent risks businesses face and is potentially one of the most devastating. Any business worth its salt has adequate fire safety measures and insurance in place.

However, in many emerging industries, risks are often harder to measure, leading to exposures and losses. One such industry is solar energy, which has been growing rapidly in recent years due to the shift to renewable energy.

A recent report by Firetrace International found that the solar industry is potentially underestimating the risk of fire at solar farms, partly due to a shortage of data on solar farm fires. The report also said that research into the issue has given rise to suspicions that fires at solar farms have been under-reported.

"To be clear, fire risk is present across all utility scale, high voltage, renewable energy from wind to solar to battery storage systems," Ross Paznokas (pictured above), global business development manager, clean energy at Firetrace International, told Corporate Risk and Insurance. "Fire risks cannot be totally engineered out.

"With the expected exponential growth of renewable energy as well as aging infrastructure, the number of fire occurrences will only increase. One thing that operators tend to overlook is addressing these fire risks with fire mitigation strategies. Often, owners will simply rely on their insurance provider to cover a loss, if that does occur, rather than implementing the likes of fire suppression technology."

According to Paznokas, solar asset owners and major OEMs are reluctant to discuss or publicly acknowledge a loss attributable to fire. This means that there is a lack of data and definitive case studies to draw insights from.

With regard to data that is actually available, Paznokas said that the US Department of Energy's Solar Energy Technologies Office cited a study conducted by European testing and certification company TÜV Rheinland, titled Assessing Fire Risks in Photovoltaic Systems and Developing Safety Concepts for Risk Minimization. The study found that in approximately half of 430 cases of fire or heat damage in photovoltaic (PV) systems, the PV system itself was considered the "cause or probable cause."

Meanwhile, a study conducted by the BRE National Solar Centre found that more than a quarter of fires involving solar power systems were caused by the photovoltaics and those fires were all "serious fires," meaning fires that were "difficult to extinguish and spread beyond the area of origin."

"Unfortunately, solar farm infrastructure is not just sitting in a warehouse and can have long lead times, which can result in degradation as parts move through the supply chain," Paznokas said. "There have been numerous solar farm fires ranging from Argentina to the USA and in Europe. In each of these cases, the affected companies have found themselves with hundreds of thousands worth of losses. Accumulated losses come from destroyed equipment anywhere near the fire and lost production for extended periods due to waiting for replacement parts, construction, and recommissioning. In our work, we have seen solar farm fires result in losses which encompass the entire solar farm with the potential to spread and endanger surrounding communities."

The Firetrace study highlighted three major causes of solar farm fires. These are an error in the system design, a faulty product (a design or quality issue), and poor installation practices. Among components, DC isolators pose the highest fire risk, being involved in the outbreak of around 30% of studied fires. Other components that are likely to cause a fire are DC connectors and inverters.

To minimize the risk of solar farm fires, Firetrace and TÜV Rheinland recommended the following steps:

- Ensure solar systems are regularly tested by independent third parties
- · Incorporate additional safety components everywhere possible
- · Create standardized quality assurance measures
- Ensure defective or prematurely aged components are promptly replaced

In the future, as the risk of fire becomes clearer for operators of solar energy facilities, Paznokas predicts that the industry will become more proactive in managing fire risks.

"As is the case with all maturing industries, we feel as though the solar farm industry will embrace the installation of fire suppression systems in the areas of the modules which can be protected," he said. "Additionally, we will begin to see original equipment manufacturers of these key components offering fire suppression fully integrated into their systems from the factory. This will not only address owner and investor concerns, but also help communities understand how safe and affordable systems can benefit the entire area through their provision of cheap, reliable energy."