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3rd November 2022

Objection by Dr Joseph to 5G Mast at Mere Green Road Sutton Coldfield B75 5BW (Application Number: 2022/07221/PA)

I am a molecular biologist by discipline and I would like to **object strongly** to the installation of a 5G mast at Mere Green Road, Sutton Coldfield, B75 5BW, for the following reasons:

1. The proposed 20m high streetworks column supporting 6 no. antennas, 2 no. 0.3m dishes and ancillary equipment, the installation of 2 no. equipment cabinets and development ancillary would be contrary to paragraphs 8.55 and 8.55 A-C of the Birmingham UDP 2005, Policy PG3 and TP12 of the Birmingham Development Plan (2017), Telecommunications Development: Mobile Phones Infrastructure adopted as a Supplementary Planning Document and the National Planning Policy Framework for the following reasons:
 - a. It will be **very conspicuous and by virtue of its size and siting, be exposed and prominent in the street scene. It would have an undue and adverse impact/effect on the visual amenity of the area**, thus not reinforcing local distinctiveness. The proposal would cause undue harm to residential amenity in this location especially in respect to the outlook from dwellings adjacent and the associated impact on the wider location which would not, reduce in time as a feature in the street/ location.
 - b. The siting of the proposed telecommunications equipment would be **harmful to pedestrian safety as it is to be sited within the middle of a busy stretch of footway**, which would cause obstruction, particularly to school children going to school on Mere Green Road.
 - c. The proposed telecommunications equipment would **lead to less than substantial harm to the setting and appearance of the adjacent grade II listed building 'St James Church, 59 Mere Green Road, B75 5BW'**, which would not be outweighed by the social and economic benefits associated with the proposal.
 - d. The **submitted alternative site location search is unsatisfactory** and a more robust consideration of alternative sites such as street structures, existing buildings or street locations is required.



2. The planned 5G mast at B75 5BW is right next to the Lidl car park which is adjacent to Mere Green Primary School, thereby **exposing children and adults to untested frequencies of 5G electromagnetic radiation (EMR)**, which is dangerous.
3. Cornerstone quote the Stewart report (updated in 2010), saying the evidence did not suggest that exposures to EMR below international guidelines could cause adverse health effects. They state that they adhere to the Stewart report and ICNIRP rules, but **since 2010**, there have been **many publications pointing to actual harm of EMRs on children's health by mobile base stations** – e.g. Meo et al (2019) ⁽²²⁾ studied exposure of adolescents at 2-10 $\mu\text{W}/\text{cm}^2$ EMR exposure from a mobile base station **200 metres** from a school and this resulted in **impairment of spatial working memory and attention, and delayed motor skills**. They state that mobile base stations should be **'installed away from thickly populated residential zones particularly in or near the school buildings** or there must be some system to shield human beings from RF-EMF'.
4. Councillors are potentially liable for any harms caused by the policies enacted. I doubt whether the Council's **Public Liability insurance** provides cover for adverse health effects caused by 5G emitting devices and equipment authorised by the Council. If it does not, it's possible that **councillors could be held individually liable in any future claims for damages**.
5. The \$21 billion reinsurance company Swiss Re Group, which is one of the world's leading reinsurance providers, recently rated **5G as a "high impact" liability risk**, citing concerns about its biological effects, and potential claims for health impairments.
6. Currently Michael Mansfield QC is challenging the UK Government over 5G related health risks, ²⁷ while in the USA, the Federal Communications Commission **has been successfully sued for failing to ensure that its guidelines adequately protect against the harmful effects of electromagnetic radiation**.²⁹
7. In a landmark legal ruling in November 2021, campaigners in Brighton and Hove ²⁸ **succeeded in overturning local authority approval for a 5G mast to be sited close to a primary school**. At judicial review, it was found that the Council "failed to address the health impacts" of the mast. The council was ordered to pay claimants costs of £13,340. This finding has significant implications for all councils dealing with 5G applications, as it means there is a legal responsibility to investigate possible effects on health. **The technology cannot simply be assumed to be safe**.
8. Two UK cases, one for an **electro-hypersensitive child who was classed as disabled** and needing an ECHP ²⁵ and for a **social worker who won 'early ill health retirement'** for disabling 'Electromagnetic Hypersensitivity (EHS) which stopped her being able to work', ²⁶ show that it would be difficult for Sutton Coldfield Council to shield people from exposure to radiation from a phone mast near a school or shops should they go on to develop or suffer with electro-sensitivity because of exposure to radiation from the mast.
9. Key scientific literature shows **negative non-thermal biological effects** occur as a direct result of extremely low EMR levels, (2-10 $\mu\text{W}/\text{cm}^2$) which **are several orders of magnitude lower than the current safety limits** (10,000,000 $\mu\text{W}/\text{m}^2$) set by ICNIRP (International Commission for Non-ionising Radiation Protection). These effects are being ignored by the mobile and broadband industry as well as bodies like the ICNIRP and WHO. Our government relies upon PHE, which in turn relies on the ICNIRP, to give us guidance regarding the safety of 5G.
10. Ofcom's published results ⁽²³⁾ at 5G sites (1.5% of 10,000,000 $\mu\text{W}/\text{m}^2$ for 3G-5G) and (0.039% of 10,000,000 $\mu\text{W}/\text{m}^2$ for 5G only) still equate to 150,000 fold higher and 3,900 fold



higher than the safe levels ($<1 \mu\text{W}/\text{m}^2$) set by the Building Biology and Austrian Medical Association standards which don't ignore the above negative effects.⁽¹⁵⁾

11. The proposal would **not be suitably distant from potentially electro sensitive users**, and disagrees with the principles of the Development Plan policies.
12. I appreciate that the local planning authorities should not "set health safeguards different from the International Commission guidelines for public exposure", but **our local council has an obligation to safeguard the health of its constituents** by virtue of s. 2B of the National Health Service Act 2006:

2B Functions of local authorities and Secretary of State as to **improvement of public health**

(1) Each local authority must take such steps as it considers appropriate for **improving the health of the people in its area.**

(2) The Secretary of State may take such steps as the Secretary of State considers appropriate **for improving the health** of the people of England.

(3) The steps that may be taken under subsection (1) or (2) include—

- (a) providing information and advice;
- (b) **providing services or facilities designed to promote healthy living** (whether by helping individuals to address behaviour that is detrimental to health or in any other way);
- (c) **providing services or facilities for the prevention, diagnosis or treatment of illness;**
- (d) providing financial incentives to encourage individuals to **adopt healthier lifestyles;**
- (e) providing assistance (including financial assistance) to help individuals to **minimise any risks to health arising from their accommodation or environment;**

This is a positive duty on our local council. **This is in conflict with the NPPF. Where there is a conflict, the health considerations must take precedence.**

13. There are people in our council area who are electro hypersensitive which means that they are suffering from radiation sickness. So while our local council, Birmingham may not "set health safeguards different from" the International Commission guidelines, **it can take health into account in relation to considering whether these antennae are permitted by our local council to be placed around the area. Your planning guidance states that you can take matters of health into account.**
14. There are upwards of 800,000 people in the UK who are experiencing serious health problems because of the masts, antennae and general radiofrequency radiation which is being escalated with the government's blessing. **This is wrong.**
15. Cornerstone state the "*very high level of mobile phone use and ownership is a very clear indication of the public's overwhelming acceptance of the benefits of mobile communications, requiring the installation and maintenance of base stations...*" This

acceptance is only because the **public are currently unaware of the large body of evidence pointing to its harm on all species.**

16. Wireless carriers have conceded to U.S. Senator Richard Blumenthal **that they are not aware of any independent scientific studies on the safety of 5G technologies.** ⁽⁷⁾
17. **Safer underground fibre optic wired technology** has already been used for **Northumberland County Council and National Parks England** – we should be doing the same for the safety of our children and the public. ⁽²⁴⁾ **Lower cost 5G masts should not be installed at the expense of damaging our health.**
18. The current plans for the roll out of 5G are **misguided** by Public Health England (PHE) which relies entirely on ICNIRP safety guidelines on EMR which have been shown to be **deeply flawed** – see Pall, M. (2018) ⁽¹⁾, Hardell & Nyberg (2020) ⁽³⁾, Naren et al. (2020) ⁽¹⁵⁾, and Hertsgaard & Dowie (2018) ⁽¹³⁾.
19. The ICNIRP safety guidelines are **flawed** because:
 - a. They **assume average EMR intensities and average SAR** can be used to predict biological effects and therefore safety. In fact, negative non-thermal biological effects occur approximately 100,000 times below current allowable levels.
 - b. They **ignore demonstrated biological heterogeneity** and established biological mechanisms
 - c. They **ignore pulsed EMRs which are much more biologically active than are non-pulsed** EMRs of the same average intensity
 - d. They **ignore complex sinusoidal dose-response curves**
 - e. They also **ignore many important scientific reviews which show non-thermal negative biological effects** caused by EMRs
 - f. There are many articles which state **that EMRs produce diverse non-thermal effects through voltage gated calcium channels (VGCCs) in cells and produce negative biological effects such as oxidative stress, cellular DNA damage and increased calcium signalling** but the voltage sensor of the VGCC is ignored by the 2020 ICNIRP safety guidelines. (see the following articles for which Pall, M. 2018 (1) & Doyon PR et al, (2017) ⁽⁴⁾ Herbert MR & Sage C (2013) ⁽⁹⁾, Panagopoulos et al (2002) ⁽¹⁰⁾ .
20. **Negative non-thermal biological effects of electromagnetic radiation** listed in the literature across humans and other species are : (see References below from Pall (2018) ⁽¹⁾)
 - a. **Lowered adaptive immune responses or immune system dysregulation which directly affects our ability to fight Covid-19**
 - b. Cardiac effects, including tachycardia, bradycardia and arrhythmias, and ventricular developmental defects
 - c. Cancer including initiation, promotion and progression (Morgan et al 2015) ⁽¹⁸⁾
 - d. Pathological damage to multiple organs (e.g. liver, kidneys, uterus, bladder, testis)
 - e. Trace element disturbances in tissues
 - f. Ocular damage
 - g. Lowered fertility
 - h. Hormonal dysregulation
 - i. Neurological / neuropsychiatric effects
 - j. Sleep disruption
 - k. Memory, motor skill, attention, cognition impairment
 - l. Apoptosis / programmed cell death
 - m. Oxidative stress / free radical damage
 - n. Single strand and double strand breaks in cellular DNA



- o. Increased intracellular calcium levels causing chronic effects
21. **Many scientists globally have asked for a moratorium on the deployment of 5G** until the risks associated with this new technology have been investigated, but responses from the EU seem to have thus far **prioritized industry profits to the detriment of human health and the environment.** Hardell & Nyberg (2020) ⁽³⁾
 22. This means that the current situation in the United Kingdom is a **violation of Human Rights** similar to that which has been tabled to the United Nations Human Rights Council in early 2019 for Australia by S.J. Toneguzzo. (See <https://www.radiationresearch.org/wp-content/uploads/2019/03/pace-UN-Human-Rights-Council-5G-statement.pdf>)
 23. The **deployment of 5G without safety testing in the UK violates over 15 international agreements, treaties and recommendations**, including article 7 of the International Covenant on Civil and Political Rights and principle 9 of the Declaration of Helsinki of 1964. (see links as follows:
<https://treaties.un.org/doc/publication/unts/volume%20999/volume-999-i-14668-english.pdf>
 and <https://www.wma.net/policies-post/wma-declaration-of-helsinki-ethical-principles-for-medical-research-involving-human-subjects/>)
 24. We should be **invoking the precautionary principle on 5G, and re-evaluating and revising current safety limits, as well as putting a moratorium on the roll out of 5G.** Naren et al. (2020) ⁽¹⁵⁾ stated that 5G should only be deployed after having safety testing, as the EMR exposure levels they see with 2-4G are well over the safe limits set by Building Biology, Austrian Medical Association, and the BioInitiative standards which do take into account non-thermal negative biological EMR effects. The denser networks needed to support 5G will mean that the **unsuspecting public will be exposed to continuously higher levels of electromagnetic radiation indoors and outdoors.**
 25. The **precautionary principle has already been applied** by multiple local city councils in England (**Brighton, Hove, Devonshire, Shepton Mallet, Somerset, Frome, Totnes, Wells, Glastonbury, Trafford**) and other rightly concerned countries like **Nigeria, Slovenia**, etc. – see URL links 5 and 6 in References for a full list.
 26. **James Lin** (2022)³⁰ has reviewed the epidemiological studies on the link between EMR and cancer and finds that the principle of ‘there are consistent indications from epidemiological studies and animal investigations that **RF exposure is probably carcinogenic to humans.** The principle of ALARA—**as low as reasonably achievable**—ought to be adopted as a strategy for RF health and safety protection.
 27. Central Government should not be dictating to local planning authorities and contending with them to insist that they “**not seek to determine the health safeguards of the planning proposal**” (paragraph 116 of the NPPF) and whether the ICNIRP guidelines for public exposure are deeply flawed. This is **interfering with local planning authority decision making, authority and independence** in choosing outcomes that are best for its people and community.
 28. We should be insisting that **adequate safety testing is done for 5G, and that current safety limits are re-evaluated** in the light of the overwhelming body of current scientific literature which points to non-thermal negative biological responses across multiple species, not just human beings.⁸ Naren et al. (2020) ⁽¹⁵⁾ state that “If 5G networks are deployed without careful analysis of expected exposure levels, **almost all people in the area of coverage may be exposed to dangerous levels of power flux density, the outcomes of which, in the near future, may turn out to be calamitous.**”



29. We should be **consulting and informing constituents of their rights in those parts of the UK, for whom 5G has been rolled out**, without safety testing, as well as putting a halt to access to 5G, until we are aware of the full impact of 5G on, not just humans, but also on all species. This is because we now know that existing low level EMR, is already damaging humans as well as less complex species such as plants, insects, birds and lower mammals.¹⁵
30. Having assessed the latest data on EMR we should be trying to:
- a. protect our public from harmful EMR by doing safety testing of 5G
 - b. prioritise the use of safer wired fibre optic solutions in our homes, shopping centres, airports, hospitals, workplaces and schools
 - c. encourage families to protect their future generations by minimising the use of portable devices (mobile phones, tablets, laptops) (see letter requesting the same in reference 8 below)
 - d. suggest urgent research on the safety and efficacy of shielding methods combined with use of generators emitting weak pulses of similar frequency, intensity, and waveform with the natural atmospheric resonances - Panagopoulos & Chrousos (2019) ⁽¹⁰⁾
 - e. understand the molecular mechanisms underlying the EMR potential challenges to multiple biological systems, to improve preventive strategies - Santini et al. (2018) ⁽¹¹⁾
 - f. put in place mobile and broadband industry-independent safety and usage regulations to protect our public and all species
 - g. advise appropriate restrictions on the use of EMR emitting mobiles and all portable devices in order to protect the health of all users, i.e. not with respect to only one organ but with respect to our bodies as a whole, as well with respect to the health of the delicate ecosystem around us.

Not everyone in every community in this country needs or wants superfast broadband / mobile connectivity. Individual connectivity needs are different across this country.

If gigabit connectivity is necessary for particular industries, the council needs to ensure that it **doesn't compromise the safety, health and wellbeing of people**, where lower speed connectivity is sufficient for a given community. Where gigabit connectivity has to be installed for functional and economic reasons, they should remove long term EMR exposure of all constituents in that area, by using **wired fibre optic solutions**, which protects populations from chronic and possibly acute diseases. Naren et al. (2020) state: "The **carcinogenic nature of EMR which results in mutation of sperm cells as well as testicular cancer has also been reported**. Thus, **the probability that future generations will inherit unhealthy or low-immunity genes is also increased**." **This has a massive impact on residential areas and schools.**

The literature shows the existence of **damaging outcomes to multiple reproductive systems** both human (Santini et al 2018) and other species like rat (Yang et al 2018 ⁽²⁰⁾) and mice (Li et al 2017 ⁽²¹⁾), by EMR, backing up Naren et al. (2020) ⁽¹⁵⁾ in their prediction that future generations are most at risk.

Both Pall (2018) ⁽¹⁹⁾ and Wilke (2018) ⁽¹²⁾ advocate getting rid of Wi-Fi in schools to protect future generations as well as teachers from EMR damage. Santini et al. (2018) ⁽¹¹⁾ after showing oxidative stress effects of EMR in male and female reproductive systems urge that we should be aiming to get

“a better understanding of the molecular mechanisms underlying EMR potential challenge to our reproductive system in order to improve preventive strategies.”

Affected residents near 5G masts should be informed about scientific data that points to negative non-thermal biological responses to pulsed electromagnetic radiation, and that existing 5G has had no safety testing. Existing installations should be decommissioned until further notice, and future 5G roll outs halted, until adequate safety testing has been conducted. Deployed installations of 5G are already having a direct, negative, cumulative effect on the short term and long term health of the UK public.

Government, PHE, AGNIR, HPA, local authorities and Ofcom **need a rethink of how they assess the safety, ethics and use of not just mobile and broadband technologies.** They heavily rely on a non-independent body (ICNIRP) for their safety guidelines on current EMR limits and are too heavily reliant on segregated government bodies and the mobile and broadband industry, for their understanding of EMR emitting emerging technologies. **Members of the public should be used as independent scrutinisers** in order for government to be held accountable to ensure that they are indeed acting in the best interests of all of the UK population.

<https://www.gov.uk/government/publications/radiofrequency-electromagnetic-fields-health-effects/health-protection-agency-response-to-the-2012-agnir-report-on-the-health-effects-from-radiofrequency-electromagnetic-fields>

If a body such as the ICNIRP displays any scientific bias when assessing the biological impact of emerging EMR technologies such as 5G from the mobile and broadband sectors, without adequate concern for public health, this results in **misguided policy making** by this government and councils, which will result in definite harm to our UK population.

The UNESCO 2005 Precautionary Principle (PP) ⁽¹⁴⁾ states: “Companies need to become partners with the public and the administration, and they thus need to adopt a principled attitude of transparency and knowledge sharing....Yet, **precaution typically involves public consultations, deliberations and hearings that may focus on selected side effects or possible harms.**

Where in the roll out of 5G has there been any consultation from the public of its safety?

Where is the scientific data which should have been scrutinised by independent parties regarding 5G being a good solution for better and safer connectivity?

I have seen none.

Much of the scientific evidence is pointing to deep concern regarding the dangers of 5G to our human population as well as even greater danger to delicate smaller mammals, birds and insects which “will be heavily impacted because of their large surface to volume ratios. The same thing will be true of plants where even large trees have their leaves and reproductive organs highly exposed.” Pall 2019 ⁽²⁾ This is because the type of radiation that 5G consists of, is the type where due to its “**low penetration and very high energy deposition per unit distance**, this can lead to generation of high levels of free radicals in a short distance which in turn increases the risk of skin cancer.” Mortazavi & Mehdizadeh (2019) ⁽¹⁷⁾ .

Naren et al (2020) ⁽¹⁵⁾ state: “5G is set to use frequencies between **30 GHz and 100 GHz and would have a bandwidth of 60 GHz, which is much higher than all previous generations.** Owing to the increased frequency, the wavelengths in 5G communications will be in the order of few millimeters. Shorter wavelengths travel shorter distances; therefore, 5G networks will **be much denser**

compared to existing networks. Due to the extremely high density of BSs, street light access points, separate indoor BSs, relays and Massive MIMO technology employed in 5G, a person will be exposed to **very high levels of power flux densities (PFDs), whether he is indoors or outdoors, or whether or not he is using any wireless devices in close proximity.**

Pall (2019) ⁽²⁾ predict that similar but much more severe effects are likely to be produced by 5G than seen currently and because of the roles of aqueous dissolved ions in producing these deep effects, regions of the body with large such internal “bodies of water” may be expected to produce particularly severe problems such as:

1. **birth defects** because of the role of the amniotic fluids and the increased extracellular water content in the tissues of the foetus
2. **blindness** due to the role of the aqueous and vitreous humours of the eye
3. **kidney failure** due to the water in the kidney
4. **cardiac changes** in the electrical control of the heart, because of the large blood fluids in the heart, circulatory problems, possibly including aortic and other arterial aneurisms. **We are currently seeing a lot athletes collapsing suddenly – why is this?**

Hertzgaard and Dowie (2018) ⁽¹³⁾ state that “ the wireless industry has obstructed a full and fair understanding of the current science, aided by government agencies that have **prioritized commercial interests over human health** and **news organizations that have failed to inform the public about what the scientific community really thinks.** In other words, **this public-health experiment has been conducted without the informed consent of its subjects,** even as the industry keeps its thumb on the scale.”

The following papers also show correlation **between the rollout of 5G and Covid-19:**

1. Angela Tsiang and Magda Havas, (2021) COVID-19 Attributed Cases and Deaths are Statistically Higher in States and Counties with 5thGeneration Millimeter Wave Wireless Telecommunications in the United States. Medical Research Archives vol 9 issue 4, 1-32.
2. Beverly Rubik^{1,2*}, Robert R. Brown, (2021) Evidence for a connection between coronavirus disease-19 and exposure to radiofrequency radiation from wireless communications including 5G. Journal of Clinical and Translational Research 2021; 7(5): 666-681
3. Ronald N. Kostoff, Michael B. Briggs, Alan L. Porter, Antonio F. Hernandez, Mohammad Abdollahi, Michael Aschner, Aristidis Tsatsakis, (2021) The under-reported role of toxic substance exposures in the COVID-19 pandemic. Food and Chemical Toxicology, Volume 145, November 2020, 111687

5G technology that has been implemented in this country is untested as to the long term dangers it is placing mankind under. This is **irresponsible** and needs to be addressed **urgently** by our government and all our regulatory health bodies and local councils.

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2. Pall, M.L. (2019) PhD, Professor Emeritus of Biochemistry and Basic Medical Sciences, Washington State University, martin_pall@wsu.edu, Eight Repeatedly Documented Findings Each Show that EMR Safety Guidelines Do Not Predict Biological Effects and Are, Therefore Fraudulent: The Consequences for Both Microwave Frequency Exposures and Also 5G Second Edition, May 23, <https://drive.google.com/file/d/1r92Ai2UfVpwh7dkl7sy5tvqypR1Hr996/view>
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6. International Actions To Halt And Delay 5G: <https://ehtrust.org/international-actions-to-halt-and-delay-5g/>
7. Wireless carriers concede they are not aware of any independent scientific studies on safety of 5G technologies: <https://www.blumenthal.senate.gov/newsroom/press/release/at-senate-commerce-hearing-blumenthal-raises-concerns-on-5g-wireless-technologys-potential-health-risks>
8. Letter to DCMS at House of Commons by Eileen O'Connor: <https://www.radiationresearch.org/wp-content/uploads/2020/03/UK-Government-Parliament-Committees-Broadband-and-the-road-to-5G-Inquiry-2020.docx>
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25. PHIRE Medical which includes Statements from parents, child and excerpts from 3 Tribunal <https://phiremedical.org/wp-content/uploads/2022/08/Press-Release-EHCP-for-UK-child-with-EHS-2022-PHIRE.pdf>
26. 59-year-old UK social worker won 'early ill health retirement' <https://phiremedical.org/59-year-old-social-worker-wins-early-ill-health-retirement-for-disabling-electromagnetic-hypersensitivity-ehs/>
27. Michael Mansfield QC, Philip Rule and Lorna Hackett of Hackett & Dabbs LLP represent the claimants. <https://actionagainst5g.org/legal-case>
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