

Reference: 01483352

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29 July 2022

## Freedom of Information: Right to know request

Thank you for your request for information on 5G towers in Blackpool.

We received this request on 19 July 2022 and have considered it under the Freedom of Information Act 2000 (“the Act”) and the Environmental Information Regulations 2004 (the “EIR”).

### Your request

You asked:

*Following a recent FOI request to Blackpool Council, it appears they do not have the information I have requested - Response is attached.*

*Perhaps you have the information?*

*Please confirm the location of every 5g Transmitter & the relevant providers in the Blackpool area.*

*Please confirm what is considered the legal & safe EMF radiation reading.*

*Please confirm if you received safety reports & EMF radiation readings at the time of installation.*

*Please confirm if the radiation levels are checked & recorded regularly and by whom.*

### Our response

I thought it would be useful for me to first briefly explain the role of Ofcom in relation to electromagnetic fields (EMF).

Ofcom authorises and manages the use of the radio spectrum in the UK. We issue licences and set conditions for the use of spectrum without a licence.

Ofcom is not a public health body. In the UK, the [UK Health Security Agency](#) (UKHSA) is responsible for public health matters associated with radiofrequency electromagnetic fields (EMF), or radio waves. (UKHSA took over these responsibilities from Public Health England on 1 October 2021). UKHSA's main advice is that EMF levels should comply with the internationally agreed levels in the [ICNIRP Guidelines](#).

Taking into account UKHSA's advice, spectrum licences issued by Ofcom require licensees to ensure that their use of equipment (operating above a certain power) complies with the internationally agreed EMF levels in the ICNIRP Guidelines for the protection of the general public (the ICNIRP general public limits).

Separately, some radio masts, including mobile phone masts, are also subject to planning laws. In relation to planning, mobile network operators (MNOs) have entered into [a code of practice for wireless network development in England](#). This Code of Practice explains that MNOs are committed to compliance with internationally agreed levels of exposure to electromagnetic fields and requires MNOs to sign a declaration confirming that they have complied with these levels when applying for planning permission for a new site or a change to an existing site.

Ofcom has no involvement in the planning process for physical structures such as masts, buildings etc that may host radio equipment, or in the enforcement of planning law. This is a matter for local planning authorities. Contrary to the suggestion in the letter from Blackpool Council, Ofcom does not in fact issue ICNIRP certificates. MNOs must self-certify compliance of their installations when applying for planning permission, as set out in the code of practice.

*Please confirm the location of every 5g Transmitter & the relevant providers in the Blackpool area.*

As the communications regulator we collect information, which includes information supplied by UK mobile network operators about mobile sites, for example, to assist with our Connected Nations and Infrastructure Reports. These reports are published annually on our website [here](#).

Whilst we do hold information on mobile sites (including 5G transmitters) within the scope of your request, this information is exempt under section 39 of the Act.

The effect of section 39 is that it exempts information relating to the environment from disclosure under the Act. Requests for such information should be processed in accordance with the EIR. Ofcom considers your request to relate to environmental information within the scope of the EIR and has therefore considered your request under the EIR.

The EIR provides that a public authority may refuse to disclose environmental information requested to the extent, amongst other things, that its disclosure would adversely affect international relations, defence, national security or public safety (regulation 12(5)(a) of the EIR), and in all the circumstances of the case, the public interest in maintaining the exception outweighs the public interest in disclosing the information.

Ofcom has considered your request in light of the relevant statutory scheme. We have also considered advice from HM Government as to the potential implications of disclosure of the location of mobile sites on national security matters. HM Government has raised significant concerns with Ofcom about the release of such information on national security grounds and has advised that disclosure of the information would adversely affect national security.

Taking this into account, Ofcom considers that regulation 12(5)(a) of the EIR is engaged; specifically, that disclosure of the information would adversely affect national security.

In applying this exception, Ofcom has balanced the public interest in withholding the information against the public interest in disclosing it and decided that in all the circumstances of the case the public interest in maintaining the exception outweighs the public interest in disclosure. In assessing this, under regulation 12(2), we have also applied a presumption in favour of disclosure. Annex A sets out the exception in full, as well as the factors we considered when deciding where the public interest lay.

*Please confirm what is considered the legal & safe EMF radiation reading.*

As noted earlier in this letter, UKHSA's main advice is that EMF levels should comply with the internationally agreed levels in the [ICNIRP Guidelines](#) for the protection of the general public. Taking into account UKHSA's advice, spectrum licences issued by Ofcom require licensees to ensure that their use of equipment (operating above a certain power) complies with the ICNIRP general public limits.

*Please confirm if you received safety reports & EMF radiation readings at the time of installation.*

Spectrum licensees that operate radio equipment above a specified power level are required under the terms of their licence to check that their equipment complies with the ICNIRP general public limits, and keep records showing how they have ensured compliance.

Licensees are not required to submit safety reports or EMF radiation readings to Ofcom at the time of installation. However, Ofcom carries out compliance checks of licensed radio equipment as part of its ongoing spectrum assurance work programme. If a licensee is found to be operating in breach of its licence (including e.g. where it does not have an appropriate EMF record) then there are a range of enforcement options available to Ofcom (which can include revoking licences, issuing financial penalties and instigating criminal or civil proceedings, some of which may require equipment to be closed down).

In addition, Ofcom is carrying out an ongoing programme of EMF measurements near to mobile sites to ensure they comply with the ICNIRP general public limits. Our [website](#) provides information on recent testing and measurements of EMF levels that we have taken near mobile sites. Our [published measurements](#) have consistently shown that EMF levels are well within the ICNIRP general public limits.

*Please confirm if the radiation levels are checked & recorded regularly and by whom.*

Please see answer above.

I hope this information is helpful. If you have any further queries, then please send them to [information.requests@ofcom.org.uk](mailto:information.requests@ofcom.org.uk) quoting the reference number above in any future communications.

Yours sincerely,

Katherine Childs

If you are unhappy with the response or level of service you have received in relation to your request from Ofcom, you may ask for an internal review. If you ask us for an internal review of our decision, it will be treated as a formal complaint and will be subject to an independent review within Ofcom. We will acknowledge the complaint and inform you of the date by which you might expect to be told the outcome.

The following outcomes are possible:

- the original decision is upheld; or
- the original decision is reversed or modified.

#### Timing

If you wish to exercise your right to an internal review **you should contact us within two months of the date of this letter**. There is no statutory deadline for undertaking internal reviews and it will depend upon the complexity of the case. However, we aim to conclude all such reviews within 20 working days, and up to 40 working days in exceptional cases. We will keep you informed of the progress of any such review. If you wish to request an internal review, you should contact:

Corporation Secretary  
Ofcom  
Riverside House  
2a Southwark Bridge Road  
London SE1 9HA

If you are not content with the outcome of the internal review, you have the right to apply directly to the Information Commissioner for a decision. The Information Commissioner can be contacted at:

Information Commissioner's Office  
Wycliffe House  
Water Lane  
Wilmslow  
Cheshire  
SK9 5AF

**Annex A**

**Regulation 12(5)(a) of the Environmental Information Regulations 2004**

<p><b>The exception</b></p> <p><i>Regulation 12(5)(a) of the Environmental Information Regulations 2004 – a public authority may refuse to disclose information to the extent that its disclosure would adversely affect international relations, defence, national security or public safety.</i></p> <p>The regulation is engaged because disclosure of this information would adversely affect national security.</p> <p><b>The public interest test</b></p> <p>Regulation 12(5)(a) is subject to the public interest test.</p> <p>Key points:</p> <p>Ofcom can refuse to disclose information under this exception only if in all the circumstances of the case the public interest in maintaining the exception outweighs the public interest in disclosing the information. In assessing this, under regulation 12(2), Ofcom must also apply a presumption in favour of disclosure.</p> <p>In carrying out the public interest test, Ofcom should consider the arguments in favour of disclosing the information and those in favour of maintaining the exception, attaching the relative weight to each argument (for and against disclosure) to decide where the balance of public interest lies.</p> <p>We have set out the matters Ofcom have considered in reaching its decision with respect to the public interest below.</p>	
<p><b>Factors for disclosure</b></p>	<p><b>Factors for withholding</b></p>
<ul style="list-style-type: none"> <li>• <b>Transparency:</b> There is always a general public interest in transparency. The EIR implements EU Directive 2003/4/EC on public access to environmental information. Recital 1 of the preamble to the Directive states this public interest: <ul style="list-style-type: none"> <li>• <i>“Increased public access to environmental information and the dissemination of such information contribute to a greater awareness of environmental matters, a free exchange of views, more effective participation by the public in</i></li> </ul> </li> </ul>	<p>HM Government has advised Ofcom that:</p> <ul style="list-style-type: none"> <li>• Disclosure of this information raises significant concerns on national security grounds and would adversely affect national security.</li> <li>• Specifically, disclosure would create an increased threat to the UK’s Critical National Infrastructure (CNI). CNI is those critical elements of infrastructure (including assets, facilities, systems, networks or processes), the loss or compromise of which could result in</li> </ul>

*environmental decision-making and, eventually, to a better environment.”*

- **Accountability:** Mobile sites produce electromagnetic fields (EMF) or radio waves. At high enough levels, EMF can impact public health. As a result, the UK Health Security Agency (previously known as Public Health England (PHE)), an expert health body, advises that spectrum users should ensure that EMF levels comply with the internationally agreed levels in the ICNIRP Guidelines. Some individuals may have concerns about the potential health effects of EMF and want to know the location of any mobile site in their local area and whether the EMF levels from such mobile sites comply with the levels in the ICNIRP Guidelines.
- **Information already in the public domain:** Some local planning authorities have published information on the location of mobile sites (including on proposed sites). Information on mobile site locations is also available on some open source websites and mobile network operators’ (MNOs) websites may indicate the general location of some masts (as well as future roll-out plans).
- The location of mobile sites and other technical data is published in some other countries including in Ireland and France.<sup>1</sup>

major detrimental impact on the confidentiality, integrity, and availability of networks, or delivery of essential services (including those of the emergency services).

- Government has strong concerns about publishing the requested information and has advised that publishing mobile site information constitutes a security risk (in particular publishing aggregated information in a single dataset).
- Government’s concerns centre on four areas:
  1. **Espionage / sabotage:** Publishing the requested information could enable an attacker to remotely survey which mobile sites would be of interest from an espionage, sabotage or disruption perspective.
  2. **Jamming:** Publishing the requested information could enable the jamming of radio signals.
  3. **Physical security:** Information relating to hub sites (mobile sites that act as their own radio coverage site and also serve to ‘daisy chain’ other sites), switch sites, and data centres would be of particular concern from a national security perspective. The physical security of hub sites will become even more important as features such as Mobile Edge Computing become widely available.
  4. **Developments in emergency services communications:** In the future, knowledge of commercial networks could help enable an attacker to target the UK’s emergency service communications network to a degree that knowledge would not have enabled in the past. This

<sup>1</sup> [http://siteviewer.comreg.ie/#explore \(Ireland\); https://www.cartoradio.fr/index.html#/cartographie/stations \(France\)](http://siteviewer.comreg.ie/#explore (Ireland); https://www.cartoradio.fr/index.html#/cartographie/stations (France))

	<p>is due to the Emergency Services Network programme switching emergency service communication from the private Airwave network to a commercial network.</p> <ul style="list-style-type: none"><li>• Government acknowledges that detailed technical information is not requested, making such an attack more difficult. However, site location provides the starting point for an attack to gain and build additional and more detailed information that may then make any subsequent attack more likely to succeed.</li><li>• Government is also concerned that disclosure of information on mobile sites for the Blackpool area would set a precedent for disclosure in response to requests about other geographic areas, resulting in further aggregation of information on mobile sites.</li><li>• Current open source options are of much more limited use to a potential attacker than the data being requested - the data set being requested has the potential to be more damaging due to both its granularity and authoritative status.</li></ul> <p>Taking into account the factors in favour of disclosure, we have also taken into account the following:</p> <ul style="list-style-type: none"><li>• Some of the publicly available data (such as local planning data) has not been updated for several years and is likely to be inaccurate and incomplete. Further, MNOs' websites only provide general location information and do not disclose specific site locations.</li><li>• On accountability, we do not set EMF safety levels but we do carry out proactive testing of EMF levels near to mobile sites to check they comply with the internationally agreed levels in the ICNIRP Guidelines. Our <a href="#">website</a> provides information on recent testing and measurements of EMF levels that we have</li></ul>
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	<p>taken near mobile sites. Our <a href="#">published measurements</a> have consistently shown that EMF levels are well within the internationally agreed levels in the ICNIRP Guidelines. We also provide a <a href="#">service</a> where individuals can request Ofcom to carry out EMF measurements near mobile sites.</p> <ul style="list-style-type: none"><li>• There have been a significant number of attacks on mobile sites in recent years and publishing information on the location of sites risks further sites being attacked. Such attacks always have an adverse impact such as customers losing mobile signal and mobile operators incurring additional costs but they can have severe consequences, for example, where a mobile site that supports critical communications for the emergency services is attacked; the impact can be particularly serious in the current climate if there is disruption to a hospital's communications systems. Such attacks can also cause physical harm to employees of mobile operators, emergency services personnel and the general public.</li></ul>
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<p><b>Reasons why public interest favours withholding information</b></p> <ul style="list-style-type: none"><li>• The greater likelihood of the adverse effect, the greater the public interest in maintaining the exception. This is affected by how extensive the adverse effect is – in this case the adverse effect on national security has the potential to affect the security of the United Kingdom and its people, and the opportunity for the adverse effect to arise is ongoing.</li><li>• The impact of the adverse effect on national security also has the potential to harm the United Kingdom and its people and is therefore severe.</li><li>• The open source information that provides similar data may present inaccurate, partial or out-of-date data, which makes them of much more limited use to a potential attacker. Using these open source information websites would not yield the same level of accuracy as would be contained in the information requested.</li><li>• Much of the other publicly available data does not disclose specific site locations or has not been updated for several years and is similarly likely to be inaccurate and incomplete.</li></ul>	
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- The security risk is also materially higher when all of the requested information is aggregated into a single user-friendly dataset, and published.
- We have carefully considered whether the arguments around transparency and accountability may outweigh the arguments in favour of withholding the information. In doing so, we have taken into account the national security risks identified above as well as (i) the fact all of our EMF measurements to date have shown that EMF levels are well within the internationally agreed levels in the ICNIRP Guidelines; and (ii) the high risk of attacks on mobile sites which can have significant adverse consequences.
- On balance, the arguments against disclosure – including the likelihood and severity of the adverse effect on national security, and the increased threat to national security in respect of the requested information when compared to the information already in the public domain - carry greater weight than the arguments in favour of disclosure. Therefore, the public interest in maintaining the exception outweighs the public interest in disclosure.

### **Regulation 12(5)(a) exception**

I have delegated authority from the Ofcom Board to make decisions in relation to Ofcom's obligations under the Environmental Information Regulations 2004 (EIR).

Taking into account the advice from Government on the potential implications of disclosure, in my reasonable opinion, disclosure of the information requested would adversely affect national security. Regulation 12(5)(a) of the EIR therefore applies.

In applying this exception, I have balanced the public interest in withholding the information against the public interest in disclosing the information. I have set out above the factors I considered when deciding where the public interest lies.

I have decided that in all the circumstances of the case, the public interest in maintaining the exception outweighs the public interest in disclosing the information. In assessing this, I have applied a presumption in favour of disclosure.

Disclosure of the information requested is therefore refused under regulation 12(5)(a) of the EIR.

If you have any queries about this letter, please contact [information.requests@ofcom.org.uk](mailto:information.requests@ofcom.org.uk).

Signed:



Date: 29 July 2022

Helen Hearn

Interim Group Director, Spectrum