

## 5G Network Deployment Pilots Call for Views

### Response by ES-UK

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As a national charity involved with people adversely affected by wireless energy, we are deeply concerned that the plans for wireless 5G Network Deployment appears to be going in the wrong direction for the future health and economic security of the UK.

#### 1. 5G wireless is an established 2B human cancer agent

All 5G wireless is already categorised by the World Health Organization's International Agency for Research on Cancer as a 2B (possible) human carcinogen. Leading experts now state that human and animal evidence requires that it should be reclassified as a 2A (probable) or 1 (certain) human carcinogen.

#### 2. 5G wireless is an established cause of other adverse health effects

In addition to being a cancer agent, wireless at 5G frequencies causes numerous adverse health effects. These include changes in: gene expression, DNA, calcium dynamics, bacteria, resistance of antibiotics, cellular apoptosis and proliferation, inter-cellular communication, sleep, cognition, the fetus, oxidative stress, the eyes and skin.

#### 3. 5G wireless deployment will weaken the UK economy

Downstream health effects from these adverse changes include long-term illnesses severely damaging to the UK economy. In addition to cancer, immune conditions and disturbed sleep and cognitive deterioration, wireless affects autism, ADHD, dementia and infertility. The many countries which have lower safety limits than the UK will flourish economically more than the UK. This is why President Putin has told his advisers that Russia has simply to wait for countries like the US and UK to develop widespread long-term ill health and consequent economic decline because of their absurdly high levels of radiation, obviating the need for any conflict to achieve economic superiority. This fits with the news that President Trump is apparently trying to play down the major NTP study due in Feb.2018 confirming wireless radiation like 5G as a definite carcinogen.

#### 4. The UK is receiving outdated advice from its DH and PHE on 5G radiation

The DH, like its agency the PHE, still follows the WHO's ICNIRP, a pro-wireless industry group spun out of the atomic weapons industry, which aims to maximise the use of all radiation. This private group is a small clique of like-minded members who follow Schwan's mistake of 1953 and still refuse to accept the established adverse non-thermal effects, even though the majority of scientists have long accepted them.

#### 5. The UK lacks appropriate safety limits for 5G

At present the UK still has limits for only short-term acute effects for 5G, such as heating based on 6 minutes' exposure. It does not yet use international biological limits for non-thermal effects. Levels for radiofrequency radiation, power density, in  $\mu\text{W}/\text{m}^2$  (microWatts per metre squared):

Natural levels:	0.000001
Biological limits (long-term, Bioinitiative):	6.0
Limits in some countries (e.g. Italy, Russia):	100,000
Limits in UK (1.8 GHz, 6 minutes, heating):	9,200,000

## **6. 5G radiation destroys and harms wildlife**

Higher frequency radiation like 5G destroys and harms wildlife as well as humans. Insects, trees and bird nests are especially vulnerable. Damage to chromosomal DNA can be passed on genetically. Complete sterility and failure to reproduce has been found after five generations of exposure to typical mobile phone mast radiation.

## **7. Dangers of 5G transmitters on lampposts and in residential areas**

All experts agree that the key to preserving people's health amid manmade wireless radiation like 5G is to ensure as much reduction as possible in radiation exposure in sleeping quarters. This is because the body repairs damage from manmade daytime radiation exposure during sleep. Therefore, to locate 5G transmitters on lampposts typically outside bedrooms is disastrous for health. People living near phone masts have increased ill health, with 80% of studies showing cancer rates up to five times higher within 500 metres, along with other specific adverse symptoms and neurological effects.

## **8. 5G dangers for sensitive people: shielding necessary**

Some people are especially sensitive to wireless radiation, or become hyper-sensitive when a transmitter like a mobile phone mast, wireless smart meter, or 5G antenna is located close to their home. Such people have to buy expensive shielding or seek sanctuary in wild areas, camping or living in cars. Therefore, companies installing 5G transmitters in residential areas should provide appropriate shielding for those adversely affected. Since 2000 Sweden has provided such shielding at public expense.

## **9. Education needed on reducing wireless exposure**

Governments around the world are increasingly advising people how to reduce their exposure to wireless radiation. The UK government should do likewise. In particular, it should require this for any 5G trials and provide appropriate remediation measures.

## **10. Connectivity by fibre optic cables in every house and business in UK**

To avoid the established health hazards of wireless, the UK government should be legally ensuring fibre optic cable networks, a Fixed Wireless Access, to and throughout every house and business in the UK. All residential and work premises should have fibre optic cables built into each room with access points in each room, just as with electricity power cables and lighting. Other countries are already banning wireless, especially for sensitive populations like children, the elderly, pregnant women and the ill.

It is vitally important that any plans for 5G comply with the established evidence of health dangers from this type of radiation. For further information see, for instance: "[Selected Studies on ES and EHS](#)" available on the ES-UK website under Research.

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