



An Coimisiún um
Rialáil Cumarsáide
Commission for
Communications Regulation

Migration from Legacy Infrastructure to Modern Infrastructure

Submissions to Consultation (Individual
Respondents)
Non-Confidential

Submissions to Consultation

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An Coimisiún um Rialáil Cumarsáide
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1 Lárcheantar na nDugaí, Sráid na nGildeanna, BÁC 1, Éire, D01 E4X0.
One Dockland Central, Guild Street, Dublin 1, Ireland, D01 E4X0.
Teil | Tel +353 1 804 9600 Suíomh | Web www.comreg.ie

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Content

Section	Page
1 Individual Respondents	4
Individual Response 1	4
Individual Response 2	5
Individual Response 3	6
Individual Response 4	7
Individual Response 5	9
Individual Response 6	10
Individual Response 7	13
Individual Response 8	14
Individual Response 9	15
Individual Response 10	15
Individual Response 11	15
Individual Response 12	15
Individual Response 13	16
Individual Response 14	16
Individual Response 15	16
Individual Response 16	17

1 Individual Respondents

Individual Response 1

As a 73 year old person, living alone, I am really concerned about losing my landline.

I think that the choice for a copper traditional landline must not be removed from the public. The network is there so long, it is very reliable, it has a much clearer reception and sound quality than the digital version (important when older and hearing problems, so I see no reason to have it discontinued).

Also:

There will be many negative consequences getting rid of existing copper landlines altogether and having only digital telecommunications. People should have the choice.

- If the internet goes down, for whatever reason; a power outage caused by storms, maintenance work, cut off by electricity suppliers, sabotage, hackers etc, digital VoIP landlines will not work - unless you have your own back-up power. Copper landlines have, more often than not, stayed working during power outages as they are independent of home electrical power and the main electricity grid and have their own exchange and power generators. This has been the case for decades.

- If there is no power or internet connection for a few hours or longer, the alternatives are having a power supply back-up or a charged up mobile phone (that's assuming nearby mobile phone masts still get power in a power cut). Everyone, especially those who are vulnerable, should have immediate access to emergency services. Lives will be put at risk if the more reliable landlines are removed.

- Having to use or have a mobile or smart phone instead of a copper landline is not a viable option for some people, including:

- Those of us who do not have or want a mobile phone due to adverse effects on our health and being unable to tolerate using them or being near any wireless/smart devices.
- Others who have made the choice not to have smart phones.
- Elderly people who are not able to use a mobile or smart device, and more comfortable with traditional landlines.
- Not everyone wants, needs or is able to use a mobile phone and no one should have to get one, and pay a monthly contract, when we have a safer and more reliable existing network.

There are some people who do not want, or need, broadband installations at their homes either which would be necessary to facilitate VoIP landlines. Current traditional fixed telephone landlines are what most of us have, are used to and they are the most reliable telecommunications technology.

- It is very important to have the option of turning off our routers (and wifi) at night or when out or not in use, as a safety measure and to avoid wastage of energy. The new system would mean either that when people turn off their routers, they would also be turning off their home phone system, or there would be no option to turn it off at all, neither of which is acceptable.
- Many older and vulnerable people rely on Emergency Response wearable alarms which need to be connected to their home landlines, in case of an emergency and to feel more secure in their own homes. It is not known if all these systems will still work on VoIP when installed, but they definitely will not work if there is a power cut or the internet goes down. How will a vulnerable person call for help if they don't have power, a working landline or a mobile phone? And what if they don't have a charged mobile phone or mobile coverage? All this will cause considerable anxiety to many. It could also be used as an excuse to install even more mobile phone masts and base stations.
- As well as Emergency Response systems, the changeover may also impact burglar alarms and other systems connected to landlines. There is uncertainty around this and it seems from Openeir's White Paper that customers and the providers of these systems will have to work this out for themselves. (p 14)
- The copper landline network is already fully in place and has worked successfully for decades. It doesn't make economic or environmental sense to remove it and it would be extremely wasteful to discontinue and rip out this national, efficient, safe and important service. Maintaining the existing network would be more beneficial for the environment, our security, safety and health, than a network that needs to be plugged in and requires more data and energy consumption.
- VOIP lines are less secure than traditional landlines and can be hacked more easily.

'It is easier for hackers and eavesdroppers to intercept VoIP data, thereby breaching our privacy. The packets are disseminated over the internet through unsecured channels and are easily intercepted at any node. Moreover, since the data is digital, it can be stored and manipulated in ways that PSTN data cannot.' <https://www.lifewire.com/are-you-calls-secure-on-landline...>

- Traditional landlines provide clearer, cleaner reception and sound quality than mobile calls or VoIP digital calls which generally have interference and poorer sound. There will be a lot of data traffic on VoIP internet lines, competing with internet usage, streaming, downloading, uploading, online meetings etc, etc

Individual Response 2

I do not want my phone line to be part of this migration for personal reasons

Individual Response 3

In 2004, in accordance with government policy, a mobile phone antenna mast was allowed to be placed beside my home. From the time it was switched on I immediately became very ill. For the next three years high levels of microwave radiation emissions from this mast polluted my home 24/7 - as a result of which I developed microwave radiation sickness, a chronic condition for which there is no cure. The only remedy is avoidance of microwave signals, an impossibility in this microwave age.

Microwave radiation sickness means I cannot use mobile phones, VoiP, nor any devices which use this technology, therefore my copper landline phone is not only an essential link to the outside world, but is my only access to emergency services.

The move to digital networks in Britain has been halted for the same reasons it should be halted here.

1. A digital network is unsafe as it can easily be hacked in to, which is a violation of privacy.
2. It will not work with power outages of various kinds.
3. It gives an unstable connection in that voice quality is usually poor.
4. It is not inclusive in that those with the disability Microwave Radiation Sickness/Electrohypersensitivity (MRS/ES) are not being considered. Such a disregard for our disability group is in breach of all disability legislation
5. The environment. The effects of microwave radiation on all flora and fauna is well known and has been documented in peer reviewed science reports for many years. Amphibians, birds and insects (pollinators) are particularly affected. They are the stakeholders who have no voice but once they are gone we face starvation. We would have a dead planet only for the ecosphere/atmosphere protects us from the background microwave radiation of the universe. That is our safety buffer. However our fascination for manmade pulsed microwaves and all the toys it creates, has filled our once healthy environment with a genotoxic radiation, that is not only using more carbon than all the other industries put together. We are part of and connected to living nature. If the trend for all things digital continues unchecked, nature will continue to be destroyed, and we will end up with a dead zone that there is no going back from.

Please keep our copper landlines, or at least give the option to keep the copper landlines for those with the MRS/ES disability. Most importantly, a discussion needs to be had on the environmental impact of manmade pulsed microwave radiation, by referencing industry independent science reports such as the Bio-Initiative Report.

Individual Response 4

I am very worried about the plan to implement a Copper Switch-Off as mentioned in the Eir white paper 'Leaving a legacy for the Future'.

My main reason for objecting to the copper switch-off is that like others who form a small minority of the population in Ireland, I suffer from electrohypersensitivity and therefore cannot tolerate wireless internet. I don't have Wi-Fi in my home, I connect to the internet on a wired ethernet connection and rely on my landline as essential to make phone calls due to the severe headaches I would get if I use a mobile phone or other device operating with wireless technology.

It is very important that people generally should have a choice in continuing to have the facility of traditional landlines but especially for people like me.

The proposal would seriously disadvantage and isolate me and many other vulnerable people who also rely on landlines as they don't want or have broadband or are unable to use a mobile phone for various reasons including chronic diseases, poor eyesight, arthritic fingers, dyslexia or cognition issues etc. My elderly mother's landline is also essential not just because she is unable to use a mobile phone but also because it is connected to her Emergency Response system which alerts the family in case of a fall or other accident or emergency. This system relies on the use of her landline which would not work with Voip if there is a power cut or the internet goes down. My mother would not be able to call for help in this situation. Our landlines are the only way I can communicate with her if I'm not in her house. When people are at their most vulnerable, the State should ensure that they remain safe, not worsen their situation and not cause considerable anxiety.

There are other reasons also why landlines should be retained.

- In the event of a power cut and consequent loss of internet for whatever reason such as maintenance work, being cut off by electricity suppliers, sabotage, hacking, or a major weather event which due to climate change are becoming much more frequent, a VOIP system would not work whereas landlines would be more reliable in such a situation – they have more often than not stayed working during power outages as they are independent of the main electricity grid;
- If there is no power or internet connection for a few hours or longer, the alternatives are having a power supply back up or a charged up mobile phone (that's assuming nearby mobile phone masts still get power in a power cut). Everyone, especially those who are vulnerable, should have immediate access to emergency services and as mentioned above, not everybody owns or can use a mobile phone and this will automatically put lives at risk in the case of emergency if the more the reliable landlines are removed.

Nobody should be forced into having to buy a mobile phone.

These are just a few of hundreds of websites with details of studies which confirm the adverse effects of electromagnetic radiation of wireless technology and therefore why people should not be forced in the event of a power cut or internet outage to use a mobile phone:

Approximately 3,800 papers: <http://www.bioinitiative.org>

23,840 papers: www.EMF-portal.org

Over 1,600 scientific papers: <https://www.powerwatch.org.uk/science/studies.asp>

- Traditional copper landlines have, more often than not, stayed working during power outages as they are independent of home electrical power and the main electricity grid and have their own exchange and power generators. This has been the case for decades.
- Traditional landlines provide clearer, cleaner reception and sound quality than mobile calls or VoIP digital calls which generally have interference and poorer sound. There will be a lot of data traffic on VoIP internet lines. Good clear reception is important for everyone and especially the hard of hearing;
- The copper landline network is already fully in place and has worked successfully for decades. It doesn't make economic or environmental sense to remove it and it would be extremely wasteful to discontinue and rip out this national, efficient, safe and important service. Maintaining the existing network would be more beneficial for the environment, our security, safety and health, than a network that needs to be plugged in and requires more data and energy consumption;
- Landlines use safe technology, they are much more reliable, more secure and not dependent on the internet.
- It's very important to have the option of turning off our routers (and wifi) at night or when not in use, as a safety measure and to avoid wastage of energy. The new system would mean either that when people turn off their routers, they would also be turning off their home phone system, or there would be no option to turn it off at all, neither of which is acceptable.
- Decent broadband signals are not available everywhere in the country, so if this proposal is implemented, it would leave many in already isolated communities even more isolated;
- The changeover may also impact burglar alarms and other systems connected to landlines;
- VOIP lines are less secure than traditional landlines and can be hacked more easily.
<https://www.lifewire.com/are-you-calls-secure-on-landline-or-voip-3426537>

These articles from the UK outline similar concerns on this issue:

<https://www.mirror.co.uk/money/bt-end-landline-phones-sparking-25544885>

<https://www.mailplus.co.uk/edition/comment/letters/167105/is-the-proposed-axing-of-landlines-by-2025-a-betrayal-of-the-most-vulnerable>

<https://www.msn.com/en-gb/money/technology/dame-esther-rantzen-axing-landlines-and-shifting-to-digital-is-a-betrayal-of-the-most-vulnerable-and-many-could-be-cut-off/ar-AAVnSUj>

Please ensure that traditional landlines are retained for the whole population, not just the vulnerable.

Thank you for reading my submission.

Individual Response 5

I have serious concerns about Openeir's plans to decommission and remove Ireland's copper landline infrastructure and hope that ComReg will consider the consumers and the many reasons why this is a bad idea.

It is a fact that that tradition landlines tend to stay working during electrical power outages, even in storms. Obviously this would not be the case with internet based landlines.

With reference to the survey carried out for ComReg in 2021, titled *Consumer awareness and attitudes to information and battery back-up in a power outage* the results of which show -

- 17% of those with a traditional fixed landline with a power cable have a misperception that their home landline telephone will work in a power outage.
- 41% of those with a traditional fixed landline with no power cable have a misperception that their home landline telephone will not work in a power outage.
- Majority of broadband users are aware of a potential impact of a power outage on service, but 12% of VoIP landline users and 6% of broadband users have a misperception that service will work during a power outage

So this means that traditional fixed landlines with no power cable, the most commonly used, will work or are more likely to work in a power outage. And that VoIP and broadband telephones will not work during a power outage - or if the internet goes down.

The solutions and alternatives given for these likely events, with increasing bad weather, threats of power outages, risk of cyperattacks, are for consumers to buy a battery back-up for their VoiP phones or use a mobile (which also needs charging).

These are ludicrous suggestions and do not consider the elderly and vulnerable people who rely on traditional landlines for communication, social interaction and emergency response systems, and do not want to use or learn to use a mobile phone. Think of the considerable stress and anxiety these changes and uncertainties would have on elderly and vulnerable people.

Openeir do not even give a clear strategy on how or if various special services and emergency alarms systems will work on the new technology, relinquishing the responsibility to other providers and consumers to find out and sort it for themselves and likely have to pay for alternative solutions. (page 14 of Openeir's White Paper - Leaving a Legacy)

For vulnerable users reliant on special services for medical emergency and users providing critical national infrastructure, more time may be needed to identify suitable replacement services. Such users may request the withdrawal period to be extended from 12 months to 18 months. While such services are not the responsibility of open eir, open eir will work with the existing retail providers to facilitate solutions where possible.

However, these services may no longer rely on an open eir connection, and it may be that alternative solutions are available in the wider market, which may be a choice for the consumer or business to purchase instead

And then there are people who can not use mobile phones due to wireless radiation causing pain and illness. Are they to be forced to get and pay for something that damages their health in case they are left without a landline.

If ComReg and Eir are advising that people should get, and pay for, back-up power packs to give emergency power to VoIP/broadband landlines and have mobiles in the likely event of power outages, then there is obviously little faith in the reliability of this new infrastructure.

I ask that ComReg and Eir leave the copper infrastructure as it is so that people can make the choice whether they want to use a safer more reliable landline network that has been working so well for so long in Ireland

Thank you for the opportunity to make this submission.

Individual Response 6

I would like to make the following submission in respect of this consultation.

The removal of the copper landline network and replacement with fibre/internet based telephone technology will have a negative impact on many people. It is an unnecessary programme that should not go ahead for the following reasons.

Openeir and Comreg must have consideration for all the people who rely on and have used traditional telephone landlines for decades not just for social interaction with family, friends, doctors and others, but in emergencies and for medical alarm home systems. The framework proposes to do away with this extremely reliable infrastructure in favour of fibre and VoIP technology which will require connection to a modem which needs to be electrically powered in the premises all the time.

If there is a power outage due to increasing storms, maintenance work or the electrical grid goes down, or the internet goes down for a variety of reasons, including maintenance work, cyberattack, hackers etc, digital VoIP landlines will not work

The copper landline network has proven to be much more reliable and more often than not landlines have stayed working during power outages as they are independent of home electrical power and the main electricity grid and have their own exchange and power generators. This has been the case for decades.

ComReg's own Consumer Survey in 202 found that: *41% of those with a traditional fixed landline with no power cable have a misperception that their service will not work in a power outage* <https://www.comreg.ie/media/2021/12/ComReg-21143a.pdf>

Which of course means that traditional fixed landlines with no power cable do work in a power outage, whereas VoIP landlines won't as they have to have electrical power at the premises.

If there is no power or internet connection for a few hours or longer, what are the emergency alternatives? A home power back-up and a well charged mobile phone if mobile phone masts have their own generators.

Having to use or have a mobile or smart phone instead of a copper landline is not a viable option for some people, including:

- Those of us who do not have or want a mobile phone due to adverse effects on our health from the pulsed microwave radiation and being unable to tolerate using them or being near any wireless/smart devices.
- Others who have made the choice not to have smart phones.
- Elderly people who are not able to use a mobile or smart device, and more comfortable with traditional landlines.
- Not everyone wants, needs or is able to use a mobile phone and no one should have to get one, and pay a monthly contract, when we have a safer and more reliable existing network.

There are some people who do not want, or need, broadband installations at their homes either which would be necessary to facilitate VoIP landlines. Current traditional fixed

telephone landlines are what most of us have, are used to and they are the most reliable telecommunications technology.

I turn off my router at night time, when I am out of the house and not being used. This is so as not to waste electricity and as a safety precaution. I don't have a mobile phone as the radiation from them cause me considerable pain, as does wifi. My landline is also a lifeline and I know it works day and night, even in a power outage, if I need it. Other people turn off their routers for health reasons so that wifi radiation exposure in their homes is reduced at night, which is critical for restorative sleep. It is important that people can turn off power to their routers at night and other times. A VoIP system would mean either that when people turn off their routers, they would also be turning off their home phone system, or there would be no option to turn it off at all.

Many older and vulnerable people rely on Emergency Response wearable alarms which need to be connected to their home landlines, in case of an emergency and to feel more secure in their own homes. It is not known if all these systems will still work on VoIP when installed, but they definitely will not work if there is a power cut or the internet goes down. How will a vulnerable person call for help if they don't have power, a working landline or a mobile phone? And what if they don't have a charged mobile phone or mobile coverage? All this will cause considerable anxiety to many.

As well as Emergency Response systems, the changeover may also impact burglar alarms and other systems connected to landlines. There is uncertainty around this and it seems from Openeir's White Paper that customers and the providers of these systems will have to work this out for themselves. (p 14)

The copper landline network is already fully in place and has worked successfully for decades. It doesn't make economic or environmental sense to remove it and it would be extremely wasteful to discontinue and rip out this national, efficient, safe and important service. Maintaining the existing network would be more beneficial for the environment, our security, safety and health, than a network that needs to be plugged in and requires more data and energy consumption.

VoIP lines are less secure than traditional landlines and can be hacked more easily.

'It is easier for hackers and eavesdroppers to intercept VoIP data, thereby breaching your privacy. The packets are disseminated over the internet through unsecured channels and are easily intercepted at any node. Moreover, since the data is digital, it can be stored and manipulated in ways that PSTN data cannot.' <https://www.lifewire.com/are-you-calls-secure-on-landline...>

Traditional landlines provide clearer, cleaner reception and sound quality than mobile calls or VoIP digital calls which generally have interference and poorer sound. This is a particular problem for elderly people and people with hearing difficulties. Similarly elderly or other people with deteriorating eyesight or visual impairment who are used to and comfortable with their landline telephones should not be expected to struggle with the screen and intricacies of a mobile phone.

One of ComReg's roles is to protect consumers. ComReg and Eir are fully aware of the considerable adverse health risks from wireless technology, and that there are an increasing number of people in this country, and worldwide, whose are sick from radiation from wireless and mobile technology. ComReg and Eir are also aware of the growing number of people across the country concerned, objecting to and protesting about more phone masts and mobile infrastructure being installed.

One of ComReg's roles is to protect consumers. Keep the existing network and allowing choice for consumers to use either traditional reliable copper landlines or very new and not so reliable VoIP landlines would be a good start.

The traditional copper landline network is a wonderful, reliable technology that has served us well for decades. It's not broken and it doesn't need to be replaced.

Individual Response 7

To whom it may concern,

The proposal for the migration from legacy infrastructure to 'modern infrastructure' by removing the in situ copper network is extremely shortsighted and removes any fall back or redundancy or back up. It would be strategically shortsighted and should Not be implemented.

For your information and necessary attention please

Individual Response 8

I would like to express my concern at the proposal of Open Eir to switch off completely and permanently the analogue/digital exchange based

Telecommunications Network, in favour of virtual circuits that are cloud and computer dependent. I have four great fears;-

- 1) Espionage, the ability of an enemy to remotely destroy all communications by bugging, diversion and/or attack.
- 2) Hacking. This can happen any time and repeatedly, disrupting EVERYTHING and leaving the country and business organisation vulnerable to existential and blackmail threats. Without a fallback emergency physical telecommunications network we would be totally isolated, possibly for years, plunging Ireland back to the dark ages.
- 3) Environmental. We are regularly being informed of the possibility of frequency damage by sunspots and severe electrical storms. There is, in the current tense situation between nations of EMP or the use of very powerful Directed Energy Weapons capable of wiping out computer networks.
- 4) Remote operation, where we have no physical control equipment in the country

I believe that it is important that we should always be ready for the what if situation and feel the existing networks should be retained for the above reasons and also for customer choice, not everybody is computer literate and a 'real' telephone is easy to use.

I understand the proposals also envisage the complete removal of the copper cabling from the ground, why not just leave it there so that, in the event of any of emergencies mentioned above, it could be quickly put to use again.

When Department of Post & Telegraphs was split into two Semi State organisations, An Post and Telecom Eireann it was never envisioned that such precipitate actions would ever be considered and urge you to refuse the request. If necessary the state should pay the holding company of Eir (whatever it is now called), and annual fee to maintain the network.

Individual Response 9

Dear Comreg,

Keep our copper landlines. The infrastructure is already in place. The elderly are comfortable using the landline. They have suffered enough over the last few years without forcing them to switch to using broadband and mobile devices. The public should have the choice. The landline service has been excellent throughout the pandemic. People use phone watch which is connected to the telephone line for security. People should continue to have the choice without being forced especially when vulnerable onto a wireless system. The security button to keep elderly safe is connected to the landline. Some people do not want modems in their houses. The public need to be made aware and consulted with about this proposal. The majority of people are unaware that this proposal is being considered as it has not been reported in the media in the run up to the deadline on submissions of the public's opinion on the matter. Landlines should remain in place with the option of switching to fibre if so desired. Thank you comreg for your excellent ethics representing the consumer throughout the years

Individual Response 10

To whom it may concern

Please be advised I do not want my phone line to be switched from analogue to digital. I wish to remain on the the copper landline network.

Individual Response 11

To whom it may concern

Please be advised I do not want my phone line to be switched from analogue to digital. I wish to remain on the the copper landline network.

Individual Response 12

To whom it may concern,

No referendum, no asking the people if they agree, corporate companies seem to do as they please.

The land-line as we know it is still being used by many people and a lot are elderly.

I for myself am not a robot and do not agree with the harmful effects of 5g, well proven and documented, so a clear no from me.

Individual Response 13

To whom it may concern,

I felt obliged to send in a submission regarding the switching off of traditional copper landlines.

I am astounded that Openeir (Eir) have taken it upon themselves to do this without a full enquiry and also to make sure that all those totally reliant on their landlines, especially people like my elderly (79) Mum who lives in the middle of nowhere with no internet or mobile phone coverage have not been taken into consideration, before any turn off of landlines should be considered there should already be a working alternative in place.

Openeir which isn't even fully owned by an Irish company but majorly by Xavier Niel's Iliad SA and his Paris-based NJJ Telecom Europe investment fund who obviously don't give a hoot for rural Ireland should maybe trial it in their own country first.

My Mum has become quite stressed about the fact of not having a lifeline, I felt I had to email on her behalf.

Individual Response 14

I need to keep my Landline.

Individual Response 15

Hi,

I disagree entirely with this proposal. Whilst landlines may become more obsolete in a digital world, they still have huge value. For our elderly, who may not be very technically savvy, in emergency situations where mobile phone coverage is poor/non existent not to mention safety. It's very easy for criminals and the like to use jamming devices to interfere and block digital communications. If we get rid of our landlines how are we meant to call for help? Especially for those in rural areas who might be more vulnerable. We pay for our landline, it's a choice. It should remain a choice.

Individual Response 16

Framework for the migration from legacy infrastructure to modern infrastructure 2022

The action put forward in ComReg's framework regarding the 'migration from legacy infrastructure' involves the removal of the traditional copper-wired system currently used for our landline phones to be replaced through connection with fibre broadband infrastructure. This is yet another dramatic leap in the use of modern technology. However, it seems that the affect on many vulnerable and elderly people has not been considered well enough nor does the framework address what happens in the event of an electrical power cut, or the Internet being 'down'. Traditional landline phones have always been exceptionally reliable, providing a secure link to the outside world for social or emergency interactions.

The main concern here relates to members of the population who rely on their landline phones for social interaction, for emergencies and for use of personal alarm systems connected using traditional methods. There are also those who suffer from electrohypersensitivity/microwave sickness (EHS) for whom hardly a week goes by without some further assault on their ability to survive in an environment laden with radiofrequency electromagnetic radiation (EMR). The exchange of the traditional copper-wire system by a fibre system will require a modem that is switched on all day, and/or a mobile phone, which will attract the nearest, strongest signal. This places those who are EHS in an untenable situation. It is understood that ComReg does not have any specific role in relation to the health effects of Non-ionising Radiation (NIR) electromagnetic fields – but they do have responsibility for protecting consumers under the Communications Regulation Act 2002. It is imperative therefore that they make themselves aware of this, now well-known and clearly evidenced, environmental intolerance that affects an estimated 3% to 5% of the population.

There are two major issues involved in awareness about the functional impairment EHS, an intolerance that appears now to be further threatened by having no prospect of making a phone call without having to use some form of modern EMR. The first is specifically addressed in a recent submission sent to the Irish Government and also to ComReg. <https://es-ireland.com/2021/12/16/december-2021-ecsubmission-to-irish-government-on-icnirp-guidelines/> This spells out the problems regarding the current EMR guidelines as created by the International Commission for Non-ionizing Radiation Protection (ICNIRP). It also presents information regarding the affects suffered by EHS along with up-to-date scientific evidence regarding these, as well as highlighting the well-known conflict-of-interests of this somewhat industry led commission who produced these guidelines.

The second major issue is the fact that the basic science being used regarding biological effects of EMR contained in the ICNIRP standards and adopted by ComReg and all

Government Departments is inappropriate being based only on thermal effects i.e. the Specific Absorption Rate (SAR). The Radiological Protection Act 1991 (non-ionising radiation) Order 2019, S.I. No. 190 of 2019 defines 'non-ionising radiation' as consisting of photons. Current science would strongly disagree with this. Take, for example, the work of Professor Dimitri Panagopoulos (National Centre for Scientific Research, Athens) who, in *Horizons in World Physics – Volume 296* (July 2018) states "Realization of the fact that man-made electromagnetic fields/radiations do not consist of photons, but of continuous polarized waves leads to better understanding of their action on living organisms. Not realizing this leads to a science that is totally disconnected from reality." Professor Panagopoulos also collaborated with Associate Professor Olle Johansson of the Karolinska Institute and Dr. George Carlo of the Institute for Healthful Adaptation, USA in their published study '*Evaluation of specific absorption rate as a dosimetric quantity for electromagnetic fields bioeffects*' in PubMed.gov (23750202) 2013, US National Library of Medicine, National Institutes of Health. They strongly suggest that the use of safety standards based on the Specific Absorption Rate (SAR) i.e. the thermal effects, as promulgated by the ICNIRP is inappropriate because the 'vast majority of the recorded biological effects from man-made non-ionizing environmental radiation are non-thermal ... the biological/health effect is determined by tiny amounts of energy/power absorbed by specific biomolecules, which cannot be calculated.' Professor Panagopoulos's theory is supported by other scientists around the globe e.g. physicist Dr. Leendert Vriens of the Netherlands. (see reference in recent interview at:

<https://es-ireland.com/2022/04/28/insights-on-wireless-radiation-from-a-physicist-dr-leendert-vriens/>

Given ComRegs responsibility for protection of consumers a re-evaluation is needed regarding the EMR standards being used and the science it supports prior to any further increased use of EMR as e.g. in the changeover from a copper wire system to a fibre system for landlines. Current scientific knowledge means that ComReg cannot justify the use of telecommunication guidelines that are not biologically sound and that are based on obsolete science. The fear and apprehension caused by the possibility of losing our ability to, in the worst case scenario, protect ourselves must be accounted for in any action taken by ComReg. To this end please consider a postponement of any action to remove our landlines until the truth about the standards and the science being used are independently reviewed and until the consequences of any action, particularly to the 3% to 5% of the population who are EHS and only use landlines, have been taken into account.