

From: s47F
To: s22(1)(a)(ii)
Subject: FW: 5G Liability misinformation [SEC=UNCLASSIFIED]
Date: Wednesday, 4 December 2019 10:37:27 AM
Attachments: [image001.png](#)
[image003.png](#)
[image004.png](#)
[image005.png](#)
[SONAR Publication 2019_WEB_quality.pdf](#)

You may also be interested in this as part of prep for Friday.

From: s47F
Sent: Wednesday, 4 December 2019 10:36 AM
To: s47F @arpansa.gov.au>; s47F @arpansa.gov.au>;
s47F @arpansa.gov.au>
Cc: s47F @arpansa.gov.au>
Subject: 5G Liability misinformation [SEC=UNCLASSIFIED]

Hey folks,

Just a heads up that if you are asked any questions in TTAS etc around liability from 5G networks, there is an opportunity to debunk it a little. An example of their claims is below. I've attached the actual report but it is noteworthy that this relates more to do with Cyber-attacks, espionage, delays in implementation due to "political friction" and only potential claims for health impairment. It is worth if asked just noting that the liability is more to do with our risk factors than health.

Released under FOIA by DITRDCA

 **Electrosensitivity Australia - ES-Au** 11 hrs · 🌐

"Swiss Re, the world's second largest reinsurance company, classified 5G as a "high impact" liability risk in its 2019 annual risk report, putting it in the same category as climate change. Read the report "

<https://www.5gcrisis.com/.../swiss-re-classifies-5g-as-a-high...>



5GCRISIS.COM

Swiss Re Classifies 5G as a "High Impact" Liability Risk

Swiss Re, the world's second largest reinsurance company, classified...

👍 🙄 😬 15 1 Comment 10 Shares

👍 Like 💬 Comment ➦ Share

Most Relevant ▾

Cheers,
s47F

s47F
Assistant Director
Government and International Relations
Office of the CEO

Australian Radiation Protection and Nuclear Safety Agency
619 Lower Plenty Road, Yallambie VIC 3085 AUSTRALIA

Phone +61 s47F Mobile s47F
Email s47F @arpana.gov.au
www.arpana.gov.au





The Hon Greg Hunt MP
Minister for Health
Minister Assisting the Prime Minister for the
Public Service and Cabinet

Ref No: MC20-900206

The Hon Paul Fletcher MP
Minister for Communications, Cyber Safety and the Arts
Member for Bradfield
PO Box 6022
Parliament House
CANBERRA ACT 2600

21 OCT 2020

Dear Minister

I refer to your letter of 27 September 2020 concerning the draft Australian Government response to the report from the inquiry conducted by the House of Representatives Standing Committee of Communications and the Arts into the deployment, adoption and application of 5G in Australia, The Next Gen Future.

I understand that officials from my Department and the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) worked with officials from the Department of Infrastructure, Transport, Regional Development and Communications in the development of the draft Government response.

I support the draft response as a whole, and in relation to my own areas of responsibility, I am comfortable with the proposed response to Recommendation 10.

In response to your request for relevant funding information, I note that ARPANSA received \$2 million in funding through the 2019–20 Mid-Year Economic and Fiscal Outlook to upgrade its Electromagnetic Energy laboratory and support measurement studies. No additional relevant measures were announced in the 2020–21 Budget.

Thank you for writing on this matter.

Yours sincerely



Greg Hunt

cc: Senator the Hon Richard Colbeck
Minister for Aged Care and Senior Australians, Minister for Sport

From: s47F [redacted]@health.gov.au>
Sent: Friday, 29 May 2020 4:51 PM
To: s22(1)(a)(ii) [redacted]
Cc: s47F [redacted]@arpansa.gov.au
Subject: FW: Draft response to Inquiry into 5G in Australia report [SEC=OFFICIAL]

Hi s22(1)(a) [redacted],

Thanks for the opportunity to comment.

s47C [redacted]

In line with this I have suggested some text below.

Happy to discuss.

Cheers,

s47F [redacted]

Recommendation 10

The Committee recommends that ARPANSA implement a suitable mechanism to consult with members of the community regarding the safe levels of electromagnetic radiation.

The Government *notes* this recommendation.

s47C [redacted]

s47C

From: s22(1)(a)(ii) @communications.gov.au>
 Sent: Wednesday, 27 May 2020 12:51 PM
 To: s47F @arpansa.gov.au>; s47F @acma.gov.au>; s47F @health.gov.au>
 Cc: s47F @acma.gov.au; s47F @arpansa.gov.au>; s22(1)(a)(ii) @communications.gov.au>; s22(1)(a)(ii) @communications.gov.au>; s22(1)(a)(ii) @communications.gov.au>
 Subject: Draft response to Inquiry into 5G in Australia report [DLM=For-Official-Use-Only]

Good afternoon All

The Department of Infrastructure, Transport, Regional Development and Communication is taking the lead in preparing the Government’s response to the Report of the *Inquiry into 5G in Australia* undertaken by the Communications and Arts Committee.

I have put together initial draft responses to Recommendations 10 & 11 which are about communications activities relating to EME.

s47C

[Redacted]

[Redacted]

Due to the delay in the report being finalised, and the need for the Government’s response to be cleared through a number of Ministers, we would be grateful for your feedback on the attached by **COB Monday 1 June**.

If you would like to talk through our draft response, please don’t hesitate to give me a call.

Many thanks

s22(1)(a)

“Recommendation 10

The Committee recommends that ARPANSA implement a suitable mechanism to consult with members of the community regarding the safe levels of electromagnetic radiation.

The Government *notes* this recommendation.

s47C

s47C

Recommendation 11

The committee, welcoming the Australian Government’s decision to establish a new community information campaign on 5G, recommends that the Government work closely with the ACMA to develop an integrated and comprehensive campaign that can respond to concerns raised about the new network.

The Government *supports* this recommendation.

s47C

s22(1)(a)(ii)

Assistant Director / Infrastructure Deployment / Telecommunications Market Policy Branch
Department of Infrastructure, Transport, Regional Development and Communications

P +61 2 6271 s22(1)(a)(ii)

s22(1)(a)(ii)@communications.gov.au

2 Phillip Law Street, Canberra ACT 2601
GPO Box 594 Canberra, ACT 2601

communications.gov.au / @CommsAu
arts.gov.au / @artsculturegov
infrastructure.gov.au / @infra_regional

For Official Use Only

NOTICE: This email message is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply email and destroy all copies of the original message.

This message has been content scanned by the Axway MailGate.

"Important: This transmission is intended only for the use of the addressee and may contain confidential or legally privileged information. If you are not the intended recipient, you are notified that any use or dissemination of this communication is strictly prohibited. If you receive this transmission in error please notify the author immediately and delete all copies of this transmission."

"Important: This transmission is intended only for the use of the addressee and may contain confidential or legally privileged information. If you are not the intended recipient, you are notified that any use or dissemination of this communication is strictly prohibited. If you receive this transmission in error please notify the author immediately and delete all copies of this transmission."

Released under FOI Act by DITRDCA

From: s47F [redacted]@acma.gov.au>
Sent: Thursday, 11 June 2020 5:08 PM
To: s22(1)(a)(ii) [redacted]
Cc: s22(1)(a)(ii) [redacted]; s22(1)(a)(ii) [redacted]; s47F [redacted]
Subject: RE: Draft response to Inquiry into 5G in Australia report [DLM=For-Official-Use-Only]
[SEC=OFFICIAL]
Attachments: Recommendation positions.docx

Hi s22(1)(a) [redacted]

Table of ACMA responses against the recommendations as discussed.

Regards

s47F [redacted]
Manager
Technical Regulation and Carrier Infrastructure Section
Licensing and Infrastructure Safeguards Branch

Australian Communications and Media Authority

T +61 3 s47F [redacted] F +61 3 s47F [redacted]
M s47F [redacted]
E s47F [redacted]@acma.gov.au
www.acma.gov.au

From: s22(1)(a)(ii) [redacted]
Sent: Wednesday, 27 May 2020 12:51 PM
To: s47F [redacted]; s47F [redacted]; s47F [redacted]
Cc: s47F [redacted]; s47F [redacted]; s22(1)(a)(ii) [redacted]; s47F [redacted]; s47F [redacted]
Subject: Draft response to Inquiry into 5G in Australia report [DLM=For-Official-Use-Only]

Good afternoon All

The Department of Infrastructure, Transport, Regional Development and Communication is taking the lead in preparing the Government's response to the Report of the *Inquiry into 5G in Australia* undertaken by the Communications and Arts Committee.

I have put together initial draft responses to Recommendations 10 & 11 which are about communications activities relating to EME.

s47C

Due to the delay in the report being finalised, and the need for the Government's response to be cleared through a number of Ministers, we would be grateful for your feedback on the attached by **COB Monday 1 June**.

If you would like to talk through our draft response, please don't hesitate to give me a call.

Many thanks

s22(1)(a)(i)

"Recommendation 10

The Committee recommends that ARPANSA implement a suitable mechanism to consult with members of the community regarding the safe levels of electromagnetic radiation.

The Government *notes* this recommendation.

s47C

Recommendation 11

The committee, welcoming the Australian Government's decision to establish a new community information campaign on 5G, recommends that the Government work closely with the ACMA to develop an integrated and comprehensive campaign that can respond to concerns raised about the new network.

The Government *supports* this recommendation.

s47C

s22(1)(a)(ii)

Assistant Director / Infrastructure Deployment / Telecommunications Market Policy Branch
Department of Infrastructure, Transport, Regional Development and Communications

P +61 2 6271 s22(1)(a)(ii)

s22(1)(a)(ii)@communications.gov.au

2 Phillip Law Street, Canberra ACT 2601
GPO Box 594 Canberra, ACT 2601

communications.gov.au / @CommsAu

arts.gov.au / @artsculturegov

infrastructure.gov.au / @infra_regional

For Official Use Only

Released under FOI Act by DITRDCA

s22(1)(a)(ii)

SEQWATER sub no. 343 – Appeared at hearing 19 November 2019

s22(1)(a)(ii)

- Safety concerns re EMEs and the need for precise written/diagrammatic information about where workers should not be allowed to go – red zone!

s22(1)(a)(ii)

s22(1)(a)(ii)

Released under FOI Act by DITRDCA

Summary of hearing process

- Similar to Estimates, the agency/person appearing before the Committee has the opportunity to read a prepared statement, or to table the statement.
- Once the statement is read/tabled, the Committee will proceed to ask questions. These questions are usually independent of the statement, but some may be in response to information provided in the statement.
- At the first public hearing on 19 November 2019, those appearing were provided with 30 minutes and answered approximately 5 or 6 questions.

Appearing at public hearing – 6 December 2019

- The Department appears to have been allocated one hour from 1:15-2:15pm.
- Proposed approach
 - Provide a short, targeted statement correcting the record on deployment issues raised in submissions by some of our stakeholders (eg. TMR, SEQWater) and EME issues
 - Seek advice from s47F as to whether we can provide a number of directed questions for government MPs to ask to get particular points or issues on record (eg. EME announcements etc)

Issues emerging from submissions

s22(1)(a)(ii)

s22(1)(a)(ii)

Electromagnetic Energy (EME)

Key themes from submissions	Possible response
<ul style="list-style-type: none"> Research is out of date, unsuited to new 5G technologies 	
<ul style="list-style-type: none"> Research by telcos is biased and not to be trusted 	
<ul style="list-style-type: none"> Precautionary approach v precautionary principle 	
<ul style="list-style-type: none"> Inescapable exposure (i.e. 24/7) 	
<ul style="list-style-type: none"> ICNIRP claims 	
<ul style="list-style-type: none"> Need to stop the 5G roll out until proof the technology is safe 	
<ul style="list-style-type: none"> Conflated understanding of technology (e.g. telco use compared with military use of mmWave technologies – different intent, power and outcome) 	

Issues raised by stakeholders

s22(1)(a)(ii)

Released under FOI Act by DITRDCA

s22(1)(a)(ii)

Released under FOI Act by DITRDCA

s22(1)(a)(ii)

Released under FOI Act by DITRDCA

9. Telstra (Submission 296)¹

s22(1)(a)(ii)

s47C

s22(1)(a)(ii)

- EME and health
 - Occupational safety – new RadioWorkSafe mobile app and website outlines the basic safety steps for working on base stations, buildings and other facilities with radio TX antennas. Also provides building and facility managers with information to provide a safe work place and to manage access around mobile and communications antennas.

s22(1)(a)(ii)

- EME research and education –
 - government to establish a broad-based communications campaign explaining that 5G technology is safe, there are robust regulatory settings in place.
 - The campaign should include research from Department of Health and the Chief Medical Officer.

s22(1)(a)(ii)

10. Vodafone Hutchison Australia (VHA) (Submission 319)

s22(1)(a)(ii)

- Recognises Australia's EME regulations some of the most comprehensive and stringent in the developed world.

11. Optus (Submission 338)

- Barriers to be addressed to allow efficient deployment of 5G

s22(1)(a)(ii)

- Addressing EME safety concerns – Industry and government need to work harder in this space

s22(1)(a)(ii)

12. AMTA / Communications Alliance (Submission 335)

s22(1)(a)(ii)

Released under FOI Act by DP/TP/DCA

s22(1)(a)(ii)

- Support ongoing Government funding for EME research and communications

s22(1)(a)(ii)

15. Telecommunications Industry Ombudsman (TIO)

s22(1)(a)(ii)

- Monitors complaints received about 5G and EME – generally refers to ACMA and ARPANSA

16. ACCC (Submission 340)

s22(1)(a)(ii)

s22(1)(a)(ii)

- Recommends a proactive approach to EME to ensure 5G network deployments do not meet significant opposition and that community anxiety is lessened.

17. SEQ Water (Submission 343)

s22(1)(a)(ii)

- Submission proposes:

s22(1)(a)(ii)

- Carriers to update the EME Guide for Site Safety for deployments based on actual inspection, not just desktop investigation

s22(1)(a)(ii)

s22(1)(a)(ii)

Released under FOI Act by DITRDCA

EME – Talking points

- Many of the submissions to this inquiry show that there is significant misinformation being circulated about 5G.
 - We are working across Government to consider how information about how RF EME from telecommunications is most effectively communicated to the community.
 - This includes how the information should be delivered and what information is useful.
- The Government has a long standing program which funds research into, and public information about, radio frequency electromagnetic energy (RF EME).
 - Activities under this program – a public information program and a domestic research program - are currently delivered by ARPANSA and NHMRC.
 - ARPANSA also sets the public exposure standards against which the telecommunications sector is regulated.
- The Communications Portfolio provides information on the safety regulation of EME from telecommunications facilities.
 - Like our colleagues, we routinely update this information to address emerging issues.
 - We [have/are about to] update the information on our website to make it more accessible and easier to find.
- The Australian Communications and Media Authority (ACMA) as the regulator of the sector, provides information to the public about regulation of EME, and enforces industry's compliance with the public exposure standards.
- We are very mindful that the inherently complex nature of RF EME makes it difficult meet the range of information needs of the public.
 - This is why ARPANSA also has the talk-to-a-scientist program which enables those people with highly technical questions to speak directly to experts.
- It is important that the public has access to up-to-date information from industry about all their wireless sites, particularly the Radio Frequency National Site Archive.
 - Industry plays an important role in demonstrating to the public that they are complying with the regulatory standards.

No	Name	State	Theme	Primary Concern	Secondary Concern	Submission Suggestions	DoCA Comment
1	Mr Gary Fouche	Unknown	EME	That the long term health affects of 5G are investigated.		Requests the Inquiry incorporate investigation of long-term health effects of mmWave, small cell deployments in densely populated areas.	
2	Mr Kody Finlay	Unknown	EME	Health effects from non ionizing radiation given off by RF EMR.		Halt the rollout of 5G till peer-reviewed evidence is provided	
3	Soroptimist International of Karratha and Districts Incorporated	WA	EME	Harm caused to humans, animals, insects, and in fact, all living organisms, by assault from the myriad of man-made electro-magnetic radiation frequencies.	Unprecedented level of surveillance (public, private and criminal). Erosion of civil liberties (some under guise of National Security)	Advocate for: the adoption of the 'precautionary principal' and, a stop to the deployment of 5G Wi-Fi in Australia, until there is substantial research that can prove there are no acute, nor chronic adverse health impacts caused by widespread application of this technology. Feel it would be expedient and prudent to install fibre-optic networks 'from the node, to the home and business premises' - safer and faster alternative to Wi-Fi.	
4	Mr Gary Slee	WA	EME	Man-made pulsed non-ionising radiation in the spectrums used by 2,3,4 and 5G's are not safe and cause non-thermal chronic health conditions particularly with the increasing intensity and duration of pulsed radiation output. Standards and studies focus on the health effects from ionising thermal acute effects not non-ionising chronic effects (which Mr Slee is concerned about) - Quotes many US Navy studies - Concern about condition known as Electro-hypersensitivity (EHS) Health Effects - on living organisms - man-made non-ionising pulsation radiation	Not enough testing of products/devices/gadgets	Finds wireless threatening but no concerns with 'hardwiring'. Possible mitigating factor to reduce fears of non-ionising radiation and that is 'noise-field technology'. Quotes US Military research project from 1986-1990's - Precautionary principle still applies lower radiation emission standards in line with the Bio Initiative Report	
5	Mrs Glenise Slee	WA	EME	- precautionary principle being ignored	Civil liberties and personal and public security	Ethernet cable connection is the safest and fastest.	
6	Ms Sarah Arrowsmith	VIC	EME	Health effects - EMF radiation - concern for children with neurodiversity (ADHA, ASD, SPD)	Concern of health implications in Education - children being exposed to EMF radiation from 4G	- Halt deployment of 5G - Follow United Nations Convention on the Rights of the Child and Council of Europe Resolution 1815 - to inform teachers, citizens etc about radiation near schools - favour and implement wired telecommunications instead of wireless - prohibit industry from rolling out - to appoint international groups of impartial EMF and health scientists to establish new international safety standards	
7	Confidential	Unknown		- no relief from exposure 24/7		- appoint an international and impartial group of experts to develop a regulatory framework to ensure outer space environment is monitored and regulated	

discuss the principal of 'informed consent' and everyone should have the option to 'opt out'

8 Ms Amanda Fitzgerald 9 Name withheld	VIC Unknown	EME	Lack of informed consent/consequential health effects
10 Mrs Anita Kilby	NSW	EME	Requests that a thorough independent investigation into the health impacts of 5G is carried out before 5G is deployed.
11 Mr Ed Loffeld 12 Name withheld 13 Name withheld	Unknown Unknown Unknown	EME, P&I	Argues that the deployment of 5G is undemocratic, premature, unnecessary, and that EMR alters brain structure.

Last year the Federal Government amended the Telecommunications (Low-impact Facilities) Determination 2018 to encompass small cell antennas so that communities, councils and state authorities would be denied the opportunity to have a say about where these antennas are located.

Halt the rollout of 5G until it is proven safe.

14 Mr Karl Wilson	QLD	EME, P&I	Argues that public safety regulatory authorities need to prove that 5G is safe. Compliance with ARPANSA's RPS3 Standard does not guarantee safety, it is out of date. Some of the assumptions underpinning this Australia standard have been scientifically discredited (for example, that only thermal exposures cause health problems). Radio-frequency electromagnetic fields are classed as a Group 2B carcinogen by the International Research for Cancer.
15 Mrs Mandy Mason	WA	EME	Argues that the rollout of 5G is undemocratic, premature, and unnecessary.
16 Ms Judy O'Donnell	VIC	EME, security	There will be an increased risk of cyber attacks.

Deployment of 5G networks is becoming undemocratic – the community has not been informed with non-bias information. I read that last year the Federal Government amended the Telecommunications (Low-impact Facilities) Determination 2018 to encompass small cell antennas so that communities, councils and state authorities would be denied the opportunity to have a say about where these antennas are located. By favouring the rights of the telecoms industry over those of the community, the Federal Government has demonstrated a disregard for the principles of democracy don't you think?

Address the potential cumulative harms of densification. Insist that public safety regulatory authorities prove that densification is safe and that any deployment of 5G is regulated appropriately. Urges for the deployment of 5G to be halted until there is sufficient independent, peer-reviewed evidence to prove that it is safe.

17 Mrs Candice Bauer	QLD	EME	Hopes that 5G will not be rolled out until it is proven to be safe. These are Broomhall settled words and have been used in numerous letters from constituents to MPs.
18 Mr Robert Heron	Unknown	Security	This inquiry is a sham because it does not consider national security. Telecommunications infrastructure is a matter of national security.
19 Mrs Sue-Ellen Anastasiadis	VIC	EME	Has grave concerns about the rollout of 5G due to RF exposure levels and subsequent health effects.

If we were serious, we would be partnering ASIO with an IPCore developer and a manufacturer, designing and auditing our own in-house netlists and producing our own secure supply-chain for 5G radios. Calls for an immediate halt to the deployment of 5G in Australia.

20	Name withheld	Unknown			
21	Mr Zak Muscat-Retsas	VIC	EME	Provides peer reviewed articles showing that exposure to low level electromagnetic frequencies is sufficient enough to cause a multitude of negative health effects.	Calls on the Government to investigate 5G and to halt 5G deployment.
22	Ms Elena Brennan	QLD	EME, P&I	Argues that the deployment of 5G is undemocratic, premature, unnecessary, and reinforces social and educational problems. Concerned about the speed with which towers are being installed without community consultation, overriding worldwide, independent scientific studies of the dangers of 5G.	Last year the Federal Government amended the Telecommunications (Low-impact Facilities) Determination 2018 to encompass small cell antennas so that communities, councils and state authorities would be denied the opportunity to have a say about where these antennas are located.
23	Ms Kaye Handley	WA	EME		
24	Mrs Di Christiansen	QLD	EME	Concerned about being bombarded by EMF radiation.	Halt the roll out of 5G until it can be shown that it is a safe technology.
25	Name withheld	Unknown			
26	Name withheld	Unknown			
27	Ms Lyn Craven	NSW	EME	Provides research showing human skin acts as an antenna for 5G radiation.	Argues that ARPANSA and ICNIRP is in breach of the Nuremberg Code.
28	Mrs Tanja Price	Unknown	EME	5G will be a high density rollout so the exposure to man-made radiation is going to be higher and more intense, it will be 24/7 and inescapable.	The telecommunications industry itself has acknowledged that they have spent zero dollars on researching the safety of 5G. Use fibre optic cabling wherever possible.
29	Mrs Elizabeth Green	WA	EME	Concerned at the speed 5G is being rolled out. Wants to know if 5G causes cancer and other health problems.	
30	Ms Susan Oddy	QLD	EME	Calls for the 5G rollout to be stopped, reduced RF emissions from each base station in Australia, reject ARPANSA's radiation protection standard.	<ol style="list-style-type: none"> halt the 5G rollout until independent scientists can assure that 5G and the total radiation levels caused by 5G together with 2G, 3G, 4G, and Wi-Fi will not be harmful for humans, especially infants, children and pregnant women, as well as the environment and animals reduce the current total radio-frequency emissions from each base station in Australia to a substantially lower level consistent with other countries adopting the precautionary approach, so 100,000uw/m2 per base station or less reject the ARPANSA radiation protection standard as a measure of public safety appoint an independent committee of medical professionals and biological scientists who understand, recognise and specialise in the non-thermal biological risks of radio-frequency radiation, to advise and make recommendation on a new public exposure limit

31	Name withheld	Unknown		Requests a moratorium before the deployment of 5G, especially over 10GHz.	
32	Ms Dianne King	VIC	EME	The roll out of the 5G network is a direct attack on the civil liberties of the Citizens of Australia and not inline with what you would expect from a democratic country. I request from you, the representatives of the citizens of Australia, that the 'Precautionary Principle' be applied to the roll out of the Fifth Generation of Mobile Phone Technology.	How can the government ignore the thousands of peer reviewed studies that prove there is definite cause for concern? How can the government continue to fall back on the rhetoric that the studies done by ARPANSA and WHO prove that its safe. These studies prove no such thing.
33	Mr Justin Picone	NSW	EME	Concerned about the security and health effects of EMF. Requests Government bans 5G and researches the health effects of EMF radiation.	Halt the rollout of 5G. Impliment wired telecommunications instead of wireless.
34	Mr Brian Woodward	Unknown	EME		Ban 5G. Investigate the health effects of EMF radiation to develop regulations to minimize the negative effects.
35	Ms Chantal Dray	Unknown	EME	Main concerns are the densification of infrastructure which will increase the radiation, the constant exposure to electro pollution, adverse health effects, lack of insurance on emissions, and the security of personal data.	Our government and ARPANSA have surrendered their responsibility for setting safe limits on RF radiation by deferring to ICNRIP, the regulator for international standards. ICNRIP, the self appointed world regulator body, is an unaccountable private organisation, which was funded with industry money. Lloyds of London has refused to insure illnesses caused by EMFs.
36	Mrs Nicola Bludau	NSW	EME	Argues that no scientific study concludes 5G is safe. However, many scientific studies show EMF is not safe.	A campaign should be set up to educate people on the risks of radiation.
37	Mrs Ashia Trimby	Unknown	EME	There have been thousands of studies that link low-level wireless radiation exposures to numerous biological effects.	ARPANSA's RF standards only consider 6 minutes of exposure and do not take into consideration the latest scientific research. The City of Brussels has banned the 5G network. Geneva has also blocked the 5G rollout. US cities are also pushing back against 5G deployment.
38	Captain Graham Bates	Unknown	EME	Millimetre microwave irradiation from 2G – 5G technology causes cell mutations, cancer and death.	The only option is to stop the 5G rollout before it is too late.
39	Mrs Linda Moullae	Unknown	EME	The effect EMF has on bees is a significant reduction in successfully hatching the honey bee queens. Argues there is clear evidence that existing wireless radiation causes cancer, DNA damage and a wide range of health problems.	The Precautionary Principle should be applied. Hard wiring of all wireless radiation transmitters. Reduction of safety limits that are more in line with European countries. Isolate 5G to cities.
40	Ms Michelle Georgiou	NSW	EME	Concerned with the 5G towers and transmitters that are in her street.	The industry has minimal studies on the safety of 5G.
41	Ms Michelle Card	NSW	EME	He recommends an independent assessment of possible health implications of the 5G network.	Says that 5G can penetrate the skin and should not be used in urban areas.
42	Dr Don Maisch	Unknown	EME, P&I		Deployment of 5G is undemocratic. Is concerned about the deployment of 5G because it is still untested.
43	Mr Michael Harper	TAS	EME	Has EMF sensitivity from a 4G tower near his house.	Hopes the Committee will avoid uncritically accepting expert assurances that 5g is safe.

44	Mr Arthur Moore	Unknown	EME	Believes that the effects of 5G on health have not been carefully studied.	Also believes that radiation bombards communities where 5G towers are operational.	
45	Lesley King	Unknown	EME	Concerned that 5G has not been tested to be safe.	Believes there is evidence that 5G is a military technology and has been used on the battlefield. Worries about how Government could use 5G for surveillance, weaponry and to control people.	Declare a moratorium on the rollout of 5G. Recommend that independent scientists are commissioned to investigate the safety of 5G. Recommend an investigation into the potential misuses of 5G.
46	Name withheld	Unknown	Unknown			Recommends the Committee thoroughly investigate the effect of 5G on people, animals and the environment
47	A McKendry	Unknown	EME	Research on the health effects of 5G is concerning.		Requests a Parliamentary Moratorium on the rollout of 5G.
48	Name withheld	Unknown	Unknown			
49	Ms Danielle Gigante	Unknown	EME	Concerned that the health concerns stated by leading scientists have been ignored.		
50	Name withheld	Unknown	Unknown			
51	Ms Bridget Kidcaff	Unknown	Unknown	5G is not safe for humans, animals or any life forms. To roll out this network without "independent" thorough tests will be catastrophic for mankind. Population control on a large scale.		
52	Ms Ona Henderson	Unknown	EME	Argues that 5G is potentially one of the biggest disasters of our time.	5G is medically dangerous and harms the environment, including birds and bees.	5G should only be deployed in areas where it is demanded. There should be a plebiscite held before 5G is deployed.
53	Mr Marc Cottrell	Unknown	EME	Objects to 5G being deployed in residential areas. Base stations are placed too close to homes.		
54	Ms Daisie Finn	Unknown	EME	Argues that over 10,000 peer reviewed studies show undeniable health implications.		Calls for the rollout of 5G to be halted immediately.
56	Mrs Angela Kelly and Mr Dean Kelly	Unknown	EME	States that there are no studies that prove 5G is safe.	Scientists and physicians around the world are expressing concerns about the biological and environmental impacts of 5G.	Wants the rollout of 5G to be stopped immediately and reversed.
57	Ms Samantha Willcocks	Unknown	EME	Is concerned about the health impacts, violations to privacy, security and safety, and about Parliament approving technologies that could have adverse effects. There is conclusive scientific research and evidence, from places that already have deployed 5G networks, that 5G has harmful side affects.		Requests a moratorium on 5G deployment.
58	Mr Damien Moffatt	Unknown	EME		Wants a ceasing of deployment, adoption and application of 5G.	Cease deployment of 5G.
59	Name withheld	Unknown	Unknown			
60	Mr Anna Wise	Unknown	EME	Implores the government to adopt the precautionary principle and immediately stop the deployment of small cells in densely populated areas.	No known independent studies on the adverse effects of Radio Frequency-Electro Magnetic Fields (RF-EMF) to date have been done for 5G.	Halt 5G deployment.

s22(1)(a)(ii)

62	Natural Medicine Clinic	NSW	EME	There is no evidence that 5G is safe. The technology is being rushed through untested. The population are Guiney pigs.	There is strong correlation between brain cancer and testicular cancer and mobile phones.	There is no need for 5G as fibre optic cables are a much safer technology.
63	Name withheld		Unknown			
64	Mrs Christiena Ennis	WA	EME	International research has established significant scientific evidence that the electronic smog from 5G technology has the capability to negatively and severely impact human, animal and environmental wellbeing, as well as the capacity to extend the already intrusive surveillance of our lives. There are however many peer reviewed scientific studies highlighting the correlation between EMR exposure with an increased risk of many types of cancer, including breast cancer and Leukaemia.		Advocates for the Government to cease the roll-out of 5G technology in favour of fibre optics. The government should assist with the education of our society, especially our youth and their parents, in the safe use and application of technology. The government must call for independent testing to be done of the 5G wavelengths used to ensure without a shadow of doubt that it is in fact safe for the community at large
65	Mr Karl Wise		Unknown	EME	There are so many peer-reviewed articles showing evidence that 5G isn't safe for humans, insects and plants on Earth.	
66	Ms Muriele Tesauri		Unknown	EME		Urges the Committee to reconsider not only the 5G roll out but also how schools are using wireless technology.
67	Mrs Helen Tricarico		Unknown	EME	Radio-frequency electromagnetic fields are classed as a Group 2B carcinogen by the International Research for Cancer (IARC) and as our levels of exposure are continually increasing, more relevant research is warranted.	Lloyds of London have included policy exclusions for electromagnetic fields. Requests that the rollout of 5G be halted.
68	Stop 5G Northern Rivers Group	NSW	EME	Most of the technologies hyped as "only made possible by 5G" (e.g. smart cars, smart homes and cities, Virtual Reality, Augmented Reality, 3D video and the Internet of Things) do not require 5G and can be achieved with 4.9G and Wi-Fi.		The Federal Government should undertake a risk analysis of the potential impact of 5G on the Australian economy, taking into account: - whether there is a business case for its roll out; - whether 5G's connectivity problems can be solved; - whether 5G has any realistic use cases or benefits.
69	Ms Tracey Scott		Unknown	EME	Is in Fear of harm to herself, her child, her animals and to all of nature.	
70	Mr Ewen Kloas	QLD	EME	Is greatly concerned about the rollout of 5G without full disclosure of the health impacts.		Proposes that the rollout be stopped and a public debate be had about the pros and cons of the technology.
71	Name withheld		Unknown			
72	Ms Kathrin Soroko			EME	Is concerned about the health effect 5G will have on her heart condition.	Calls for the Committee to put a moratorium on the rollout and deployment of 5G.

73	Name withheld	Unknown			
74	Ms Diane Martin	EME	Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk, cellular stress, increase in harmful free radicals, and genetic damages. There has been substantial loss of bee populations and migratory birds around the world since the rollout of 5G. There is substantial evidence from well credentialed medical doctors, scientists, researchers and policy makers form all over the world, showing the effects of the 5G radiation	Current ARPANSA regulations for exposure need to be re-evaluated and tested on a greater demographic.	Begin a moratorium on 5G until it is proven safe.
75	Mr Garry Daud	Unknown			
76	Name withheld	Unknown			
77	Name withheld	Unknown			Asks the committee to consider the health impacts of 5G.
78	Mr Brian McLauchlan	Unknown		There are also significant unquantified risks in 5G installations in the areas of human health, privacy and protection of intellectual property, net energy impact and carbon footprint of 5G, and personal and business security.	
79	Name withheld	Unknown	A lot of the promotion of 5G around machinery and plant monitoring does not actually require 5G.		
80	Mrs Vanessa Comiskey	Unknown			
81	Name withheld	Unknown	Our current radiation protection standards are inadequate.	The 5G experiment on humanity goes against the Nuremburg code.	Would like the Government to stop the 5G rollout.
82	Mrs Rebecca Phillips	TAS			
83	Name withheld	Unknown	Has at least four towers near her home and believes a cancer cluster already exists on her street.	Believes that the 4G network has damaged her significantly and fears the introduction of 5G.	Asks for an investigation into the safety of 5G on public health.
84	Mr David Phare	Unknown			
85	Ms Tanya Braithwaite	Unknown			
86	Name withheld	Unknown	Is strongly against the rollout of 5G and any other advanced technology that is proven to emit harmful radiation.		
87	Name withheld	Unknown	5G will cause the Australian public to be exposed to non-ionizing electromagnetic radiation.		Needs to be administrative accountability for the rollout.
88	Ms Fiona Ferguson	Unknown			
89	Ms Rosalyn McNulty	WA			
90	Mr John Evans	Unknown			
91	Name withheld	Unknown	Is very concerned about the rollout of 5G.	Is concerned about ARPANSA's maximum current safety limit of radiation level mW/m2 is 10,000.	Wants to see more research into the possible negative effects.
			Does not consent to 5G being tested on him and has serious concerns for humanity and the planet.	The existing network can be used more efficiently to increase speeds for the time being while safety testing and alternative technology's can be explored.	

92	Mr George Neofitou	Unknown	EME	People should consider that the present day electronic brains will eventually completely outthink their makers.	
93	Name withheld	Unknown			
94	Mrs Maria Vulciu	Unknown	EME	5G can destroy the delicate balance of life on this planet.	
95	Name withheld	Unknown		5G has a negative impact on bees and birds.	Halt 5G until it is tested properly and it is proven safe.
96	Menkit Prince	Unknown	EME	5G towers have been stopped due to health concerns. 5G is a military weapon in the millimetre wave range used for crowd dispersal and battlefield interrogation.	No safety testing has been done because it would fail. It cannot be safe.
97	Gino Lorenzon	WA	EME	5G has the capacity to inflict harm on humans and wildlife in its surrounding vicinity. ARPANSA has deemed the technology safe, but the organisation is not independent and is acting in the interests of the telco's. In the same way as we're promoting careful use of antibiotics and pesticides, to allow for healthy soils and gut bacteria, we should be aware of the harm done by 5G to fauna and flora, on our skins, in the air, in our neighbouring agricultural areas.	Urges the committee to err on the side of caution when it comes to safety concerns of 5G and microwave radiation technology. Demands extensive and truly independent studies and tests with the help from expert scholars, scientists and industry experts.
98	Mrs Ilse Broekaert	Unknown	EME	Emphasises that we do not know what the possible long-term effects are because no appropriate research has taken place that proves that it is safe.	An independent and long-term study should be mandatory before the implementation of 5G. Ask that the Standing Committee consider recommending a moratorium be put in place to halt the rollout of the 5G technology until it is proven without a doubt that it will be safe.
99	Ms Maria Arranz	Unknown	EME	5G and the IOT will play a key role in the future of our society and economy and we support its deployment across the entire state to Tasmania.	
100	TasICT	TAS	5G		
101	Name withheld	Unknown			
102	Mr Peter Dray	Unknown	EME	5G will require deployment of thousands of antennas which increase massively RF Radiation at microwave pulsed frequencies in our environment.	5G is untested and the risks are being ignored. RF emissions are not insurable. There is a lack of information and safety warnings.
103	Dr Murray May	Unknown	EME	The deployment of 5G in Australia rests on assumptions about the ARPANSA RF Standard. Australia's regulation of RF radiation by ACMA is flawed, risking public health.	The safety of 2G, 3G, 4G and WIFI is at best questionable and at worst non-existent and as there are no studies to prove that 5G has been proven safe to humans and the environment.
104	Mrs Louise Nennstiel	Unknown	EME	The rolling out of 5G networks in Australia and globally poses a substantial threat to humanity and all life.	Fibre optic cabling is a safer alternative.
105	Mrs Jean McQueen	Unknown	EME	Concerned about the deployment of 5G.	Ask that the Precautionary Principle be enacted.
106	Mr Peter Matthews	Unknown	EME	Has well-founded concerns about the deployment of 5G because of the multitude of 'non-telecom' or 'government body' reports and tests done over the past twenty years.	Stop the rollout of 5G.

107	Name withheld	Unknown		Federal, State, and Local Governments, and the Telecommunications Industry have not addressed 5G rollout health concerns.		The Precautionary Principle be applied urgently to stop the rollout of 5G in Australia. ARPANSA's standards need to be updated.
108	Ms Joanne Grant	Unknown	EME	Believes a 4G tower near his home has reduced the bee population.		Suggests more studies are by independent parties.
109	Mr Daniel Roman	VIC	EME	Is opposed to a 4G tower being placed at a hospital where he works.	There needs to be changes to the OHS Act to include EMR.	Fibre optic or ethernet would be a quicker and safer option.
110	Mr Mark Capp-Perucic	VIC	EME		Concerned about how the application of 5G may compromise privacy and safety.	
111	Name withheld	Unknown				The Precautionary Principle should be employed.
112	Ms Renee Jones	Unknown	EME	ARPANSA's standards are the least protective in the world.		
	Cancer Information & Support Society	Unknown	EME	Radiofrequency wavelengths are classified by the WHO as potential human carcinogens. 5G will increase exposure to potentially harmful radio frequencies. There are increasing rate of brain tumours among young people. 230 scientists say 5G can increase the risk of cancer. New exposure should not be approved. 5G will result in increased exposure without their informed consent.		
113	Support Society	Unknown	EME		Many WHO advisors state that wireless radiation should be re-classified either as a 'probable human carcinogen' or a 'known human carcinogen'.	
114	Ms Kathryn Beacraft	Unknown	EME	Is a naturopath who has patients who are already affected by Radiation and Wi-Fi.		
115	Dr Richard Cullen	Unknown	EME	The Nuremberg Code explicitly covers experimental deployment of technologies, requiring explicit consent of human subjects. No such consent has been sought from the Australian public.	5G technology is thus being deployed using assumptions that the technology is safe rather via direct, independent and objective scientific testing establishing safety.	
116	Mrs Linda Wood	Unknown	EME	The internet has been hijacked by commercial interests.		
117	Mr Cameron Turner		EME	Independent research shows that EMR is not safe.	Is concerned about the effect on reproductive systems.	Consider wired fibre optic cabling instead.
118	Name withheld	Unknown				
119	Mrs Georgina Lock	Unknown	EME	Objects to the deployment of 5G and 4G due to the thousands of published studies, showing clear evidence of the biological harmful effects to humans, animals, insects, trees and plants.	ARPANSA has set Australia's limit of exposure at 1 million times higher than independent health based exposure standards. ARPANSA has the worst safety guidelines in the world.	
120	Ms Moana Reihana	Unknown	EME	5G health concerns include cancer and DNA damage. Industry has done no health and safety studies on 5G.	5G can and has been used for crowd control. Research is suggesting neurological damage, damage to genes, contribution to cancer, amongst others.	The effects of 5G need to be understood before it is applied.
121	Miss Emma Taylor	Unknown	EME	5G has not been tested for long term safety. Barrie Trower mentions that microwaves are a silent and efficient weapon damaging people's neurological and immunity systems.	5G could be used by Governments to silence those considered undesirable.	Fibre optic and or telephone lines could be used instead.
122	Maria Hoffmann	Unknown	EME			

123	Mrs Denise Oldale	Unknown	EME	Objects to the deployment of 5G due to health concerns.		Apply Precautionary Principle based on the evidence already available that this new technology needs more testing.
124	Ms Emma Tobin	Unknown	EME	According to many studies, signs and symptoms of long-term exposure of radio frequency radiation include dizziness, sleep troubles, chronic fatigue, inability to think clearly, headaches, nausea, anxiety, nose bleeds, reduced fertility, stress – DNA damage that can lead to cancer. ARPANSA are unfit to protect us in regards to the deployment of 5G rollout and it has been corrupted by industry.		Apply the precautionary principle until 5G is proven safe.
125	Ms Gay Schulz	Unknown	EME		ARPANSA's claim of 'no established evidence of harm' is clearly false.	Investigate why ARPANSA is not fulfilling its role. Until there is published peer reviewed research that proves there is no impact from 5G on wildlife the government should be ultra cautious in rolling out a technology.
126	Mr Mark Reardon	Unknown	EME	Concerned that 5G will cause the bee colony to collapse which will be devastating for food production.		
127	Name withheld					
128	Caniaba P&C	Unknown	EME	Has not heard of any studies that prove there will be no health risk from 5G. Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines.	Belgium has halted their 5G rollout.	
129	Ms Naomi Cook	NSW	EME	5G has not had short or long term, animal nor human specific safety testing.	Over 10,000 peer reviewed, independent scientific studies have found harm to biological lifeforms from EMR. Insurance agency Lloyds of London will not insure for EMR related injury/human damage. Belgium, France, India and other governments are passing laws and/or issuing warnings about children's use of wireless devices. France has banned Wi-Fi use in nursery schools.	5G deployment should be halted. Safer options such as fibre optic cables should be explored.
130	Miss Sara Schulz	Unknown	EME, security	In 2011 the WHO international agency for research on cancer classified RFR as a potential 2B carcinogen.		
131	Name withheld	Unknown				
132	Ms Lydia Camilleri	Unknown	EME	5G will impact the Health of all life on Earth. Living in a 5G society will be living with radiation 24 hours a day.	Ethical consideration should be made over profit.	
133	Name withheld	Unknown				
134	Name withheld	Unknown				
135	Miss Katie Green	WA	EME	The reports of cancer increase in children in close proximity to so called smart towers, is not a coincidence.		
136	Mrs Lisa Mozes	Unknown	EME	ARPANSA and our Government show a reckless disregard for science, they choose to ignore the independent scientific research indicating serious risks of harm to the environment and public health.		A Royal Commission is the next step. Urges that the precautionary principal be adopted. Moratorium on 5G until it has been proven safe.

137	Mrs Carole Newton	Unknown	EME	The 5G rollout should be paused to understand the consequences of adopting the technology. Dose dependent damage to sperm production from 2.45 GHz Wi-Fi radiation. Brain tumours occur more often on the habitual side of use of cell phones. Heart tumours are caused in rats exposed to cell phone radiation. Parotid gland tumours are increased by 49 per cent, on the side of cell phone use. Cellular stress, mitochondrial damage, cancer risk all elevated.	Installation and deployment - Telstra received an official warning by ACMA this year for failing to comply with consultation plans.	Fibre and wired transmissions should be considered.
138	Mrs Natasha Hantler	Unknown	EME	Wireless technologies require more energy than wired. Wireless technologies are unreliable. Wireless connection makes us vulnerable to security and privacy exposure. Wireless is linked to bee colony collapse.		
139	Ms Rebecca King	Unknown	EME	Even low level exposure of EMFs/radiation has a negative accumulative effect on humans. Concerned about the impact of 5G on the insect population, particularly bees.		Proposes wires internet. We must explore the impacts of wireless communication technology before moving forward with 5G.
140	Mrs Michelle De Aguiar	Unknown	EME			
141	Ms Sally Green	NSW	EME			Why isn't fibre optic cabling being rolled out?
142	Ms Lydia Kirkpatrick	Unknown	EME	The wireless industry has admitted that it has done zero health and safety studies on 5G. Meanwhile, dozens of independent studies indicate that 5G is a risk to all biological life.	Is concerned about the current effects of electromagnetic radiation on bees, bugs, butterflies, plants, trees and animals. The capability of 5G encompasses technology that can significantly increase damage to human life. The electromagnetic fields, DNA damage, cancer and neurological and behavioural disorders have all been prevalent since the growth of EMF radiation.	Stop the rollout of 5G until studies are done and a new review of acceptable EMF levels is finished.
143	Name withheld	Unknown				
144	Name withheld	Unknown				
145	Name withheld	Unknown				
146	Mrs Martha Bridi Simcox	Unknown	EME	A review of the ecological effects of RF-EMF 2013 review of 113 published studies found in 65% of the studies (50% of the animal studies and about 75% of the plant studies) RF-EMF had a significant effect on birds, insects, other vertebrates, other organisms and plants.		The legal "Precautionary Principle" does and should rightly underlie all legislation, Council Policies, and Regulations.
147	Name withheld	Unknown				
148	Ms Leilani Innis	Unknown	EME	Does not consent to the increased risk of involuntary, inescapable exposure to wireless radiation that the deployment of 5G will transmit.	Does not consent to the increased risk of harm to diverse plant and wildlife. Does not consent to the increased risk of privacy being violated.	It is in the public's interest to find safer alternatives. Fibre is safer, faster, more reliable, and far more cyber secure and energy efficient than wireless.

149	Mrs Hayley Clarke	QLD	EME	<p>There is compelling evidence already for eight distinct types of great harm caused by EMF. Research has been stacking up with many concerns all over the world of the devastating impact of 3G, 4G and any energy that is not conducive with the human body, animals and the environment but media is not talking about it.</p>	<p>Take immediate measures to halt the deployment of 5G and to apply the Precautionary Principle. Hold an inquiry into the deployment, adoption and application of 5G. Prohibit the wireless/telecommunications industry through its lobbying organizations from persuading officials to make decisions permitting further expansion of RF radiation, including ground- and space-based 5G until it is proven safe.</p> <ol style="list-style-type: none"> 1. Adopt a precautionary approach and call for a moratorium on the rollout of 5G in Australia until this technology can be proven safe. 2. Full transparency and disclosure of the risk benefits assessment criteria (and weightings) when setting human exposure limits. 3. Acknowledge and take into consideration the independent scientific evidence when setting realistic exposure limits in Australia to minimise potential risks of overexposure. 4. Profile of Australia and whether 5G is fit for purpose
150	Ms Enca Crosbie	Unknown	EME	<p>5G is being rolled out without peoples' consent. 5G has not been proven safe. Has no confidence in ARPANSA's safety standards.</p>	<p>Industry should not be permitted to self-regulate for compliance purposes, which can also be perceived as a conflict of interest. The capability of Industry to ensure compliance with such a rapid rate of deployment is problematic.</p>
151	Ms Sue Marx	Unknown	EME	<p>Unlike our phone and our wifi which can currently be turned off, 5G towers will be emitting and exposing us 24/7.</p>	<p>Concerned for schools in my area, as research has shown that young children may be adversely affected.</p> <p>Reconsider the 5G rollout. Use fibre optic cabling.</p>
152	Mr George Carey	WA	EME	<p>ARPANSA has set limits from mobile phone emission towers of 10 watts per kilogram. The standard has only measured the exposure over 6 minute periods. Test equipment is not easily accessible from ARPANSA at their table below indicates. This will make it difficult for responsible parents to assess the risk in their homes and businesses from their exposure and children's exposure to non stop 5G radiation. Existing public safety standards limiting radiation levels in nearly every country of the world look to be thousands of times too lenient. Rolling out 5G breaks UNESCO's Precautionary Principle.</p>	<p>ARPANSA has set limits from mobile phone emission towers of 10 watts per kilogram. The standard has only measured the exposure over 6 minute periods. Test equipment is not easily accessible from ARPANSA at their table below indicates. This will make it difficult for responsible parents to assess the risk in their homes and businesses from their exposure and children's exposure to non stop 5G radiation. Existing public safety standards limiting radiation levels in nearly every country of the world look to be thousands of times too lenient. Rolling out 5G breaks UNESCO's Precautionary Principle.</p>
153	Mr Gwilym Summers	Unknown	EME, P&I	<p>Telcos have been given approval to rollout 5G without any community consultation, consent of the general public, nor is there any evidence of the safety of such technologies. 5G has not been proven safe for humans. More testing is required.</p>	<p>5G has been shown to kill bees.</p>
154	Ms Lalune Croker	Unknown	EME	<p>Australia has flawed RF EMR safety standards and an urgent need for these to be dramatically revised. Industry is bring undue influence on policy and scientific studies.</p>	<p>Putting in tens of millions of 5G antennae without a single biological test of safety has got to be about the stupidest idea anyone has had in the history of the world.</p>
155	Name withheld	Unknown	EME	<p>5G has many short and long term negative effects.</p>	<p>5G has many short and long term negative effects.</p>
156	Ms Phillipa Holden	Unknown	EME	<p>Australia has flawed RF EMR safety standards and an urgent need for these to be dramatically revised. Industry is bring undue influence on policy and scientific studies.</p>	<p>Putting in tens of millions of 5G antennae without a single biological test of safety has got to be about the stupidest idea anyone has had in the history of the world.</p>
157	Ms Susan Speers	Unknown	EME	<p>5G has many short and long term negative effects.</p>	<p>5G has many short and long term negative effects.</p>

158	Ms Mary Berry	Unknown	EME	The rollout of 5G is undemocratic, premature and there is no evidence it is safe.	5G can be used for crowd control.	
159	Mrs Hilary Thompson	Unknown	EME	Many people with the appropriate expertise are speaking out about the dangers to health of 5G.		
160	Ms Marian Porter	Unknown	Various	The rollout of 5G is undemocratic, premature, unnecessary, reinforces social and educational problems, and is contrary to government interests.		
161	Mrs Elysse Strachan	Unknown	EME	There is no longer any question to whether RF Radiation is harmful. There is overwhelming evidence, with over 10,000 studies that show RF Radiation is harmful to human health.	The deployment of 5g is a breach of The Nuremberg Code as well as a breach of the UN Convention on the Rights of a Child. We do not consent to be experimented on.	Halt the rollout of 5G until it is proven safe. Use fibre optics. Independent testing of towers and antennas to make sure they are within safe limits.
162	Mrs Mandy Carman	Unknown	EME	Objects to the deployment of 5G because of the impact on personal security. Devices can be hacked. Risks for illegal surveillance and violations of data protection rules.	Wired transmissions are faster, safer, reliable, and far more cyber secure and energy efficient than wireless transmissions.	
163	Name withheld	Unknown				
164	Name withheld	Unknown				
165	Mrs Mimi Chiappalone	Unknown		No public consultation about 5G deployment.	Concerns of increased cancer risk from 2G, 3G, 4G and especially 5G.	
166	EMR Australia	Unknown	EME, P&I	Australians" democratic rights have been contravened by Federal legislation that empowers telecommunications companies to construct radiating infrastructure while disempowering the community, local and state, governments from having a meaningful say about its rollout/location. Legislation that is unfairly weighted in favour of industry over the community is undemocratic and breeds resentment.	No science shows 5G is safe. The International Agency for Research on Cancer (IARC) has classified radiofrequency radiation as a Class 2B carcinogen. ARPANSA's radiation standard and the Guidelines of the ICNIRP do not protect adequately against the harmful effects of radiofrequency radiation.	Halt the rollout of 5G until it is proven safe.
167	Australian Centre for Electromagnetic Bioeffects Research	NSW	Supports 5G	It is true that there are countries that have lower RF-EMF limits than are in the ARPANSA RPS3. However, these are not science-based. That is, they do not show that there is science that has demonstrated that the RF-EMF limits used in the RPS3 are not safe, but have adopted non-scientific reasons for lowering their limits	There is no impediment to 5G deployment in Australia on the basis of concerns regarding potential adverse health effects from the technology.	
168	Edward Parker	Unknown	EME	Many of the known illnesses, disorders and diseases of the past have increased at least 300-fold since the introduction of untested wireless and electrical technology from the 1990s.	Insurance companies will not insure any telecommunication company, because they know how dangerous EMR exposure is to human health and that ELF and RFR emissions are classified as 2B Carcinogenic.	
169	Ross Pointer	Unknown	EME	Would like to see some independent and credible research undertaken to determine the effects of 5G technology on the health of both humans and our native wildlife.	There are alternatives to 5G that will provide similar levels of technological efficiency.	

170	Kalindra McColl	Unknown	EME	<p>Many leading scientists are warning against the probability that 5G will destroy, or at least significantly harm, the inhabitants of this planet. Thousands of studies already in circulation conclude that both 2G and 3G technologies are responsible for the significant rise in serious longer term health problems in humans.</p> <p>The proliferation of telecommunication towers needs to be studied carefully in the interest of public health and safety.</p>	<p>The implementation of 5G in Australia, and globally, will cause a phenomenal increase in CO2 emissions, and will spread tonnes of harmful toxins into our already sick natural environment</p> <p>Insurance companies are refusing to indemnify Telecommunications Corporations</p>	<p>Say no to 5G and use alternatives that are already available.</p> <p>Must reject the incursion of this harmful 5G technology.</p>
171	Mr Michael Gersch	Unknown	EME			
172	Name withheld	Unknown				
173	Name withheld	Unknown				
174	Name withheld	Unknown				
175	Alexandra Ward	Unknown	EME	<p>Radiofrequency radiation has not been proven to be safe. Australian and international standards do not protect against the thermal effects of exposure.</p>	<p>Radiofrequency radiation is a class 2B carcinogen.</p>	<p>Halt the rollout of 5G. Ensure that alternative technologies are available. Protect vulnerable people. Establish 5G-free areas. Demand funding for long-term studies by independent researchers.</p>
176	Name withheld	Unknown				
177	Name withheld	Unknown				
178	Name withheld	Unknown				
179	Ms Dee (Diane) Barnett	Unknown	EME	<p>5G has not been proven safe. Calls for a moratorium on the deployment of 5G until further independent research is conducted.</p>	<p>Believes that the ICNIRP (Draft) Guidelines of July 2018 Appendix A/B are deeply flawed on many levels and have failed on truly addressing protecting different populations.</p>	<p>Recommend an immediate reduction of the ARPANSA current setting of 10,000,000 uw/m2 to 100,000 uw/m2 or less.</p>
180	Professor Katherine Georgouras OAM	Unknown	EME	<p>The APANSA Standard refers to short term thermal effects which is not appropriate for chronic affects at levels below heating. It is essential that APANSA produce scientific studies that show the technology is safe.</p> <p>Australia's spectrum legislation has shortcomings that may hinder the deployment of 5G and other advanced wireless technologies.</p>		
181	Professor Jock Given	VIC	Spectrum legislation Supports			
182	Australia and New Zealand Driverless Vehicle Initiative	NSW	5G; 5G uses	<p>Driverless vehicles have the potential to provide significant road safety, economic, environmental and social benefits. Severe short term health effects are already being recorded in areas that have adopted 5G. Therefore, long term affects are also very likely.</p>		<p>Asks that the needs of driverless vehicles with respect to 5G are adequately taken into account.</p>
183	Anna Plimm		EME			
184	Miss Katie Fisher	Unknown		<p>5G has the capability to cause health problems, from increased numbers of autism in children, to brain cancer and other detrimental health issues in people and animals.</p>		
185	Anthony Harris	Unknown	EME	<p>The safety of 5G is untested.</p>	<p>Prominent scientists are very concerned about 5G.</p>	<p>Viable alternatives exist that should be pursued.</p>

s22(1)(a)(ii)

187 Name withheld Unknown
 188 Name withheld Unknown

189 Mr Leo Leung	Unknown	EME	ARPANSA's standards are outdated. ARPANSA provides not one iota of evidence that its exposure standard is based on scientific research. There are volumes of researched evidence showing many adverse health effects from EMR. EMR emissions are potentially carcinogenic and have been linked to chronic illnesses.	Insurers refuse to compensate any Wi-Fi related illness. Peer reviewed studies have been done that prove conclusively that EMFs and RMFs increase the mortality of bees even at our	Transfer the review and development of the Electromagnetic Radiation Protection Standard back to Standards Australia. Set up a technical committee with representatives from the CSIRO, related industry sectors and associations, community-based and consumer organisations, trade unions and professional, technical or trade associations. Review and analyse the peer reviewed science on non-thermal biological effects from RFEMR. Acknowledge the possibility of harmful non-thermal effects by reducing the averaging time of one minute for all exposure conditions (as per the 1985 Australian standard) rather than the current six minutes averaging time frequencies between 100kHz and 10GHz to reduce the peak exposure levels.
190 Ms Helen Langlois	Unknown	EME	The frequencies that Telstra are planning to use have been tested by the military and they have been proven to damage human health.	current levels of exposure. With the advent of 5G, this increase to this exposure level will be exponential.	More research needs to be done including medical doctors and biologists, not only the telecommunication experts.
191 Name withheld	WA	EME			

Released Under FOI Act by DP/DPDCA

192	Ms Sarah Davis	Unknown	EME	Concerned about the damage 5G can do to the cellular genome, DNA and chromosomal structure and increase the risk of immune dysfunction, nervous system damage and endocrine system disruption.		Adopt a precautionary principle and immediately halt the rollout of 5G. Immediately implement a panel of truly independent international and impartial EMF and health science experts to establish new safety standards. Follow the United Nations Convention on the Rights of the Child and Council of Europe Resolution 1815 by informing the public, including teachers and physicians, about the health risks to adults and children from 5G and other RF exposure. Implement an independently developed community education program regarding 5G and what it's capabilities really are, then implement a process for seeking consent for any amended deployment plan
193	Mr Michael Grant	Unknown	EME, Environment	The frequencies that will be used by 5G are known to be harmful to all forms of biological life and this has been known for decades, going all the way back to World War 2.	Millions of healthy trees are going to be cut down because they block the millimetre wave frequencies used by 5G technology. This is already happening in the UK.	
194	Mrs Karen Orlando	Unknown	EME	The worldwide rollout of 5G technology without consent defies the Nuremberg Code. Wireless telecommunication technologies create electrosmog in the MHz range which disrupt insect and bird orientation.		Cease the adoption of 5G immediately and conduct research into its safety for humans, other living organisms and the environment. Recommend and implement wired telecommunications via fibre optic cable. Look to countries such as Brussels and Swiss Cantons who have halted the rollout of 5G.
195	Name withheld	Unknown				Opting for wired technology. Re-instate a Department within the CSIRO to conduct proper independent research. Consider leaving our food bowl areas and agricultural areas 5G free to preserve them.
196	Ms Rebecca Schutze	Unknown	EME	Wireless radiation causes adverse health effects including oxygen not being able to sufficiently carried through the body via blood cells.		Insist on suitable liability insurance from those that want to introduce these military style frequencies to communities.
197	Rose Harvey	Unknown	EME	Electo-Hypersensitivity is a growing health and disability issue world-wide.	There are no Re-insurers world-wide willing to insure the insurance companies of 5G providers.	Urges a moratorium to be considered immediately.
198	Miss Veronica Clarke	Unknown	EME	No extensive scientific research has been done on 5G. The WHO has classified radio frequency radiation as a group 2 possible Human Carcinogenic.	Scientific studies show a correlation between our dying bee population and the increase in mobile phone use.	Calls for a moratorium on the adoption of 5G.
199	Name withheld	Unknown				

200	Lyn Anderson	Unknown	EME	If 5G is rolled out all humans, animals and plants will be exposed 24/7 to levels of RF radiation that is tens to hundreds of times greater than what exists today.	High frequency fields have the ability to penetrate the human body.	Halt deployment of 5G. Follow the UN Convention of the Rights of the Child. Implement wired communications. Prohibit industry lobbyists from persuading officials to further expand RF radiation. Appoint independent groups to develop a framework that will ensure human safety.
201	Mrs Amy Westnedge	Unknown	EME	5G causes an increased risk of cancer and risks to immune function, nervous system health, reproductive health and DNA damage. 5G will impact all biological forms of life. Many of the world's leading scientists have appealed to the WTO about the health risks caused by radiation from wireless devices.	The telecommunications industry has conducted no 5G health and safety studies.	Cease 5G deployment. Create a safety inquiry panel to implement appropriate safety standards. Seek informed consent from the public.
202	Mr Kyle Rogers	Unknown	EME			Use fibre optic technology. Officially recognise Electrosensitivity (EHS) as a functional impairment. Create safe spaces in the community for people with EHS. Give people with EHS exemption from NBN services. Allow them to be reconnected to copper wire and land lines in their homes. Halt the deployment of 5G until it is proven safe. Recommends independent, up-to-date, Australian standards.
203	Electrosensitivity Australia	VIC	EME	Due to long term exposure to RF EMF, people in Australia have developed EHS and related symptoms. There is no proof whatsoever that 5G is safe. 5G standards are decades out of date.	There was a Parliamentary Inquiry into EMR held back in 2001. It recommended that a precautionary approach be taken. Recommendations were not followed.	
204	Mr Christopher Jones	WA	EME			
205	Name withheld	Unknown				
206	Name withheld	Unknown				
207	Mrs. Laurie Levine	Unknown	EME	As there is no public consultation or consent obtained for this 5G experiment, it is a breach of the Nuremberg Code.		Further testing of 5G is required. Fibre optic cables should be used as they are faster, more reliable and secure.
208	Ms Grace Viljoen	Unknown	EME	There is a lack of 5G safety studies. Negative outcomes of EMF include an increased cancer risk, genetic damage, learning and memory impairments and development of neurological disorders. Concerned about the security of her personal information with IoT, including the potential for eavesdropping on consumer networks, even with encryption, and a degree of unexpected exposure activity from devices that capture audio and video.	Studies show that electromagnetic radiation has an effect on bees, insects and birds.	Wants a moratorium on 5G until studies prove it causes no harm to human health and ecology.
209	Ms Carmela Leone	Unknown	Security			
210	Name withheld	Unknown				
211	Elaine Townsend	Unknown	EME, security	Significant studies and research which has been completed overseas outlining the harmful health affects to both humans and animals	Security rights have not been sufficiently address and or researched prior to the installation of the proposed towers.	
212	Mr Chris Patterson	Unknown	EME	A letter has been signed by over a hundred international scientists asking for the 5G rollout to be delayed.		Asks the committee to be well informed by scientists not aligning with business intending to deploy 5G.
213	Name withheld	Unknown				
214	City of Melbourne	VIC	EME	Long term effects of radiation from 5G have not been tested. No research shows ongoing 5G radiation is safe.		Wants a moratorium to be placed in Australia and the current deployment halted.

215 Ms Angela Toohey 216 Name withheld	Unknown Unknown	EME	Rolling out untested 5G is the biggest threat we currently face.	There has been no testing into health effects on humans and other living things.	Rollout should be stopped until the technology is proven safe.
217 Mrs Jennifer Robertson	NSW	EME	ARPANSA's regulations are out of date.	The health effects have not been studied.	5G must not be deployed until it is proven safe.
218 Ms Susan Howlett	Unknown	EME	There has not been enough long term research done on the health implications of 5G. Wireless radiofrequency radiation was classified as a Class 2B "Possible Human Carcinogen" by the World Health Organization's International Agency for research on Cancer in 2011.	The top 300 insurance companies world wide have said they will not cover 5G, saying that it has the highest long-term risk rating and therefore will not be covered. 5G frequencies interfere with bees navigation systems.	Government needs to invest in safer and smarter fibre optic cabling all the way to each home, rather than towers.
219 Ms Anne Dormer 220 Name withheld	Unknown Unknown	EME	There are no safety studies on 5G worldwide.	Radio frequency radiation has the capacity to cause a variety of health symptoms and illnesses. Radiation limits in Australia do not reflect conservative practices of other nations.	An immediate halt to the rollout of 5G. Appoint and fund independent scientists and researchers to undertake studies on health impacts.
221 Mrs Phoebe Coffey	WA	EME	Globally more than 240 well-respected scientists who have published peer-reviewed research on the biologic and health effects of nonionizing EMF have signed the International EMF Scientist Appeal, which calls for stronger exposure limits.	Professor Martin Pall shows the eight pathophysiological effects caused by non-thermal microwave frequency EMF exposures.	Halt the roll out of 5G until extensive, long-term, nonindustry funded research has been completed.
222 Ms Tashi Lhamo 223 Name withheld	Unknown	EME	5th Generation wireless technology is being deployed without any safety testing or safety assurance for children. Not a single non-industry funded, scientific peer-reviewed study can be found globally that will attest to the safety of children and wireless technology. Due to the experimental and non-consensual nature of 5G deployment, it violates the internationally recognised Nuremberg Code. 5G will generate vast amounts of component e-waste every few years when upgrades are needed and trees will need to be cut down to serve signal capacity.	Professor Martin Pall has noted that when ARPANSA was questioned on its high safety exposure standards, they failed to provide "not one iota of evidence that its exposure standard is based on scientific research or that it protects us from any, let alone all harmful effects nor that it protects people of all ages and health status against all known adverse effects of RF (the word they are using for microwave frequency) exposures". there is an urgent need for more research on the links between EMFs and childhood leukaemia and brain cancer, before our children are saturated with 5G frequencies.	
224 Ms Kerry Howell 225 Name withheld	Unknown Unknown	EME	Many studies from around the world have proven people are addicted by Wi-Fi, particularly children and the mentally ill.		
226 Ms Elisabeth Cummins 227 Name withheld	Unknown Unknown	EME, privacy	The International Agency for Research on Cancer, which is part of the WHO, in 2011 classified Radio Frequency Radiation as possibly carcinogenic to humans.	It is widely accepted that children are much more sensitive to rf radiation.	

228 Ms Sophie Knox	Unknown	EME, privacy, security	Corporations and government will infringe on our personal liberties. We need further research into the protection of privacy and possible cyber attacks which may effect our security and safety.		Halt 5G until biological testing papers have been released for a long-term study into the effects on people and animals.
Environment and Communities Safe from Radiation Inc.	Unknown	Various including carbon emission, e-waste, human rights abuses, silence of profession als, etc.	Risk 1: Carbon emissions - Communications technology could use as much as 51 per cent of global electricity in 2030.		Effect a moratorium on 5G until an independent risk assessment is undertaken. Establish a transparent and representative task force to undertake the risk assessment.
230 Mr Garth Atkinson	Unknown	EME	Radiation is injuring trees around mobile base stations.	There is strong evidence that radiation adversely effects humans, animals and insects.	
231 Ms Rosa Maria Sierra	Unknown	EME	It is not legally sound to deploy a wireless network fundamentally based on private companies' interests prior to or without community consultation or not giving the community the right to opt out.	Radiofrequency exposure has been linked to serious illnesses, including by the WHO, who classified it as a carcinogenic.	
232 ACMA	Unknown	Supports 5G	ACMA is aware of the heightened industry and community interest in the rollout of 5G networks – particularly with the productivity benefits these networks offer to sectors across the Australian economy.		
233 Name withheld	Unknown				
Joanne Carr and Heath Doolette-Cox	SA	EME, security	5G has the severe potential to catastrophically harm our biological make up as humans from the harmful wireless components this 5G technology emits. 5G uses millimeter waves, such as the levels of radiation utilized by the US Army in crowd dispersal guns called Active Denial Systems.	How can I be assured that my personal security rights are protected with 5G and smart systems being attached to homes? We are also exposing ourselves to the increased risk of hackers and criminals having access to all or our most personal and vital information.	
235 Mrs Julie Madden	Unknown		Before adding to the already existing amount of man made electromagnetic fields already around us (including current wifi and bluetooth technologies), 5G technology needs to be proven to be safe	Professor Martin Pall raises biological impacts from RF.	
236 Mr Jason Thomas	Unknown	EME	ARPANSA is unable to provide a guarantee of safety for the 5G rollout.		
237 Name withheld	Unknown				
238 Name withheld	Unknown				

239	Ms Susie Figgis	Unknown	EME, security	5G has not yet been proven safe and therefore the Precautionary Principle should be adhered to. No known independent studies on the adverse effects of Radio Frequency Electro Magnetic Fields (RF-EMF) have been done to date for 5G.	The application of 5G will lead to a breach of personal security and privacy. Research is showing that the deployment of 5G is likely to lead to a collapse in the bee population.	
240	Ms Catherine Johnson	Unknown	EME			
241	Ms Nichola Atkinson	Unknown	EME	Not enough research has been done on the effects of 5G on the human body, especially babies and children who are most susceptible. Several nations and municipalities around the world have made decisions to halt implementation given the lack of adequate testing of the impacts of Electro-Magnetic Radiation from the 5G frequencies that this technology transmits across upon human health and upon the wider animal, bird and insect life.	There are already more instances of brain cancer than there ever has been before and renowned neurosurgeon DR Charlie Teo is staying that this is coming from mobile phone usage.	Do research into 5G before it is rolled out.
242	Mr Brad Chegwedden	Unknown	EME		The 'precautionary principle' and 'informed consent' which govern risk management of consumption, use, exposure of potentially injurious products and materials appear to be abrogated in this instance of implementation.	
243	Mrs Kylie Taylor	Unknown	EME	Has electromagnetic hypersensitivity.		Have independent experts (not ARPANSA) do research to ensure 5G is safe.
244	Name withheld	Unknown				
245	Greer Chase	Unknown		Does not consent to 5G.		
246	Ms Amie San	Unknown	EME	There has been no proper testing of 5G. ARPANSA last did testing in 2002.	Hundreds of doctors and scientists from some 36 countries have called for a stop to the rollout of 5G.	Stop the rollout of 5G.
247	Mrs Fiona Harper-Harwood	Unknown	EME, security	There are no independent, peer reviewed studies on the adverse effects of RF-EMF to date done for the new higher frequencies of 5G. There is plenty of scientific studies on 2G, 3G, 4G & 4Gx all clearly showing adverse effects.	Personal security threatened from the hacking of wireless technology in the home.	The Precautionary Approach should be taken.
248	Name withheld	Unknown				
249	Name withheld	Unknown				
250	Name withheld	Unknown				
251	Anna Harpley	Unknown	EME	The US Govt Toxicology Study has established that exposure to wireless radiation from 2G, 3G calibre technology is linked to DNA damage and cancer.	5G has not been tested and proven safe although it has been 'deployed' in military settings.	
252	Miss Mikala Dind	Unknown	EME, security	The International Agency for Research on Cancer classified radio frequencies as a 2B potential human carcinogen in 2011. There have been no long term studies on the impact of higher levels of electromagnetic radiation on humans, flora and fauna.	The two largest insurance companies will not insure the telecommunication industry. 5G increases the user's vulnerability to cyber attack.	Calls for a halt to the massive increase in telecommunications facilities due to the consequences, including the potential impact on bees.

253 Ms Vanessa Verstappen 254 Name withheld	Unknown EME Unknown	ICNIRP has no scientific basis for setting long-term exposure guidelines for the general public yet it did so anyway, based only on thermal properties and short-term heating effects. Australia's "independent" body ARPANSA has adopted the standards set by ICNIRIP.	Exposure to RF/MW radiation is known to have a biological effect on animals and humans. Damage to major organs, disruption of important biological processes, and the risk of cancer represent the dangers of RF/MW radiation to living organisms.	Halt the 5G rollout until it is proven safe. There needs to be an independent review of our RF safety guidelines and have the set to safe exposure levels based on all the existing scientific evidence.
255 GSMA	Unknown 5G	The GSMA fully supports the development of 5G in Australia. 5G has the potential to drive new innovation and growth. It will be an evolutionary step, delivering greater societal benefit than any previous mobile generation. 5G has the potential to drive new innovation and growth and is forecast to contribute USD2.2 trillion to the global economy over the next 15 years.	It is important to address some of the misunderstandings that have been raised regarding 5G emissions safety limits. The radio signal exposure characteristics of 5G are similar to those of existing mobile technologies. In particular, 5G uses similar transmission powers and operates in similar frequency ranges to existing mobile and telecommunication technologies. Based on measurements of existing wireless technologies it is expected that there will be no significant increase in overall exposure following the introduction of 5G.	1. Follow the internationally harmonised small cell power classes when developing regulations related to compliance with radiofrequency exposure limits. 2. Adopt simplified procedures for building permits for small cells (if required) based on standardised size, installation requirements and radio characteristics. 3. Accept declarations of compliance and do not require routine post-installation measurement. 4. Exempt small cell installations from location registration requirements. 5. Reduce permit costs for small cells relative to those for macrocells. 6. In respect of RF compliance provide information for consumers and local authorities based on WHO materials and recommendations. 7. Facilitate access to existing structures, electrical power and data backhaul.
256 Ms Claire Morrissy	Unknown EME	Scientific papers show that bee populations are under threat and that they are being impacted by electromagnetic radiation that is emitted from mobile phone towers. The frequencies of 5G will also interrupt the magnetic fields of the earth which the bees use for navigation.	The adoption of 5G potentially poses a threat to bees, birds, wildlife and plants.	Consider using fibre optic cables instead of 5G.
257 Mrs Jennifer Clarke	Unknown EME	The combination of smart devices in the home and 5G technology means the potential damage from cyber attacks is possibly one of the greatest threats to our privacy and safety today.	What study has been done in the world proving wireless radiation will have no adverse affect on bees, birds animals et al?	Require Communications Minister Fletcher place a Moratorium on all telcos implementing 5G infrastructure upgrades and new installations
258 Lord Rob Ding	Unknown EME	The final report of the \$30 million 19 year study (National Toxicology Program) found clear evidence that this radiation causes cancer and breaks DNA.	5G technology has been shown to cause an increased cancer risk, cellular stress, increase in harmful free radical, genetic damages, structural and functional changes of the reproductive system, learning and memory deficits, neurological disorders, and negative impacts on general well-being of humans.	Consider putting a halt to the deployment of 5G, conducting impartial research, and investing in wired fibre optic cable options instead.

260 Mr Timothy Sawyer	Unknown	EME	The number of clients who I would classify as RF-EMF sensitive is increasing.	The power consumption of a 5G small cell is three times greater than the 4G base-station. Power generation in Australia is predominately coal-fired, which would lead to an alarming increase in our carbon footprint.	
261 Name withheld	Unknown				
262 Anita O'Reilly	Unknown	EME	In the early 1990s, the US Military found that the most dangerous frequencies to humans are those within the range 1 GHz to 5 GHz, because these frequencies penetrate all organ systems of the human body and therefore put all organs at risk.	5G frequencies have not been tested for safety by industry or regulatory agencies. Significant scientific evidence demonstrates that EMFs associated with 3G and 4G wireless technologies are closely linked with a range of illness and disease	
263 Mrs Carrie-Ann Layton-Smith	Unknown	EME			Halt the deployment of 5G until it is proven safe.
264 Mr Hugh Dickson	Unknown	EME	5G is a new system, developed from military technology, which has not been properly tested on humans.	5G is possibly carcinogenic.	A moratorium on the rollout of 5G is required.
265 Name withheld	Unknown				
266 Name withheld	Unknown				
267 Mr David Galvin	Unknown		There is an increasing body of evidence that EMF and RF radiation emitted by wireless technologies poses a serious threat to the health of human beings, animals, insects and plant life.		
268 Name withheld	Unknown				
269 Miss Poppy Edwards	Unknown	EME	The levels of radiation from 3G and 4G are already very high.	Cannot consent, chose or control being exposed to 5G.	Look into safer alternatives.
270 Huawei Australia	NSW	Supports	Sets out the enormous cost and consequences to Australia's economy and jobs by excluding Huawei from 5G in Australia.		
271 Name withheld	Unknown				
272 Name withheld	Unknown				
273 Miss Karen Jennings	Unknown	EME	5G has not been properly tested on humans.	5G satellites will cause irreversible effects for humanity.	There should be an independent Royal Commission into ARPANSA and the standards they have set in place.
274 Susannah Jones	Unknown	EME	5G will contribute to the demise of our insect population. Over 250 medical doctor's and scientists band together to make a submission to the UN. Their concerns are stating that wireless radiofrequency radiation is a possible human		
275 Mrs Sandra Skinner	Unknown	EME	Carcinogen	The potential for serious health and safety concerns has not been sufficiently investigated. Communities and individual consumers should have the choice of wired or wireless services.	
276 Jeanette Ball	Unknown	Security, EME	Device and appliances at home are potentially hackable.		

277 Miss Christine Pheaney	Unknown	EME	Has electro-magnetically sensitive to Bluetooth, Wi-Fi, Inverters, 4G and 3G mobile data frequencies.		Limit the pervasiveness of the 5G technology. Perhaps we could have Wi-Fi, Bluetooth and 5G free zones.
278 Miss Abeni Elliss	SA	EME EME, security	Risks of carcinogenesis from RF-EMF exposure is well documented throughout the scientific literature.	ARPANSA is not fulfilling its role as a protective agency due to a complete disregard of current scientific evidence and a lack of precautionary action taken against public RF-EMF exposures.	Urges an immediate moratorium on the deployment of 5G.
279 Jody Wood	Unknown		5G is untested.	More vulnerable to hacking.	Fibre optic cabling be used instead of 5G.
280 Mr Dave Bourke 281 Name withheld 282 Name withheld	Unknown Unknown Unknown	EME	ARPANSA and industry have failed to provide any details of studies where long-term exposure was found to be safe and they have ignored warnings from experts. Professor Martin Pall notes that ARPANSA provided "not one iota of evidence that its exposure standard is based on scientific research".	Honeybee behaviour and biology has been affected by electrosmog since these insects have magnetite in their bodies which helps them in navigation.	
283 Mrs Holly Hunter 284 Name withheld	Unknown Unknown	EME	Thousands of peer reviewed research studies link 5G to ill health effects from exposure.		
285 Ms Louise Dunn	Unknown	EME	5G is untested.	ARPANSA and the telecommunications industry are using information that is outdated and irrelevant to 5G. ARPANSA is ignoring the growing body of scientific evidence demonstrating harm.	The government should support the recommendations of the 250 scientists and medical doctors who signed the '5G Appeal' that calls for an immediate moratorium on the deployment of 5G A moratorium will allow time for further independent and up to date research. Proposes the use of fibre optic cabling.
286 Ann Page 287 Name withheld	Unknown Unknown	EME	Not one single biological test study has been done on 5G.		
288 Mrs Jennifer Zurzolo 289 Name withheld	Unknown Unknown	EME	It is well known our bee population has greatly reduced over the last 10 or so years, just happens to be around the same time as 3g and 4g were introduced.		
290 Mrs Suzanne Ryan 291 Name withheld 292 Name withheld 293 Name withheld 294 Name withheld 295 Name withheld	Unknown Unknown Unknown Unknown Unknown Unknown	EME	Electromagnetic Hypersensitivity Syndrome symptoms appear to be increasing in the community. The proposed 5G small cells installations will increase these EHS sufferers' exposure and symptoms isolating them further.	ARPANSA's RF EMF protection standard protects against short-term thermal (heating) effects for a period of 6 minutes, not long-term exposure.	Appoint an independent committee to review RF EMF exposure limits. Halt the 5G rollout until an independent committee has conducted a review and provided recommendations and exposure limits that will protect human health.

Misinformation appears to be largely driven by social media campaigns, and there is evidence to suggest that messaging in these campaigns is being influenced by foreign actors.

We have conducted considerable testing to confirm our network complies with EME standards. Testing, both laboratory and real world, has confirmed that RF EME from 5G is well within the safety limits specified by standards setting organisations and is comparable to previous generations of mobile technology and Wi-Fi. Testing has shown that RF EME levels from 5G base stations are typically around 1,000 times below safety limits set by ARPANSA. Telstra conducted its testing on the Gold Coast and Brisbane with Ericsson, Narda and Total Radio Solutions, to give a clearer and definitive answer to many of the questions people are asking. Telstra used both the HTC 5G Hub mobile broadband hotspot and the Samsung Galaxy S10 5G smartphone for the survey and configured both devices to produce a high level of data traffic over 5G using download speed tests, 4K video streams, and the iPerf network transmission tool. As far as Telstra is aware, Telstra is the only operator globally to undertake this level of real world testing.

Telstra would like to see a broad-based government communications campaign explaining that 5G technology is safe and there are robust government settings in place, including the monitoring of EME safety standards. Ideally this campaign should incorporate the research from relevant government health experts such as the Australian Health Department and Chief Medical Officer. Telstra strongly supports ongoing funding of EME research and looks to the Australian Government to make sure this research is well funded. Telstra would like training for the medical community so that practitioners are better informed about EME science so that they can better inform patients who present with EME concerns.

296 Telstra

Unknown EME, various

s22(1)(a)(ii)

298 Ms Anat Harari

NSW

Privacy, security, environment

The deployment of 5G technology is intended to be the base for the IoT, Smart cities and driverless cars and all this will enable and be dependent on, around the clock data collection. Potentially all our data will be available wirelessly to companies, corporations, governments and easily hacked and used against us in targeted ads, data ransom scams and the like

Once the IoT and many new internetconnected machine, appliances, devices and other "things", that are all enabled and rely on 5G capacity, will become a worldwide reality, cyber-attacks will become pretty much inevitable.

299 Lynn Carroll

NSW

EME

International guidelines as set out by ICNIRP, an industry funded (NGO), are based on studies of thermal heating effects only. These studies were conducted over 20 years ago.

300 Ms Danielle Young		EME, security, environmental	Is concerned about cancer, infertility and DNA damage from EMR.	With a Smart LED 5G compatible light pole out the front of my house I worry that it can and will be turned into a monitoring device with listening capabilities. Concerned about e-waste and impact on environment, especially bees.	Urges the Inquiry to take the capacity and capabilities of 5G Technology and the wide ranging impacts on everyday lives with the upmost of seriousness.
301 Mr Stephen Wells	NSW	EME	Thousands of independent, peer reviewed studies have shown adverse health impacts to humans from wireless radiation, as well as harm to birds, bees, trees and nature. It is known that 1G – 4G emitted radiation affects development of brain cancer in humans and cancer in animals. The ARPANSA Standard has been discredited by renowned independent scientists as inadequate for the protection of human safety.	5G will introduce new radiation, millimetre-waves, that have not been independently tested for biological safety. There is no scientific evidence to support any claim of 5G safety. Internationally, hundreds of scientists have called for a moratorium on the roll-out of 5G until potential hazards for human health and the environment have been researched.	Fibre optic/Ethernet options should be explored.
302 Ms Beth Marrocco		Unknown	Numerous recent scientific publications have shown that EMF affects living organisms at levels well below most international and national guidelines. Effects include increased cancer risk.		More vigorous research into the health risks and its impact on the environment including flora and fauna prior to any deployment should be commissioned.
303 Lynette Doyle		Unknown	In my search for the reasons for ill health, declining student wellbeing and academic abilities I can across literature and information on electromagnetic radiation and 5G. The more I researched the large body of information and studies the more certain I am that a great portion of the causes for the overall decline is due to electromagnetic radiation.		Electromagnetic radiation should cease in schools as there is no studies to show that it is safe and does not cause harm.
304 Name withheld		Unknown			

s22(1)(a)(ii)

306 Name withheld Unknown
 307 Name withheld Unknown
 308 Name withheld Unknown

s22(1)(a)(ii)

s22(1)(a)(ii)

Oceania Radiofrequency
Scientific Advisory
311 Association

QLD

EME

The prevalence of RF-EMR in our environment has increased enormously in recent decades with toxic effects demonstrated for living organisms and serious possible harm posed for environmental systems.

The entire RF-EMR spectrum (including AM/FM range radio waves, and microwaves) was classified by the WHO's International Agency for Research on Cancer (IARC) as a Group 2B Possible Carcinogen in 2011. Microwave radiation is already having effects on birds, bees and pollinators.

Immediately halt the 5G deployment.
Adopt the 'As Low As Reasonably Achievable' principle with respect for RF-EMR.
Use safer alternatives such as fibre and cable.
Australians should have the right to refuse EMF-RF exposure.
Establish an independent organisation to monitor and advise on EMF exposure.

Telecommunications
312 Industry Ombudsman

EME, P&I

TIO receives complaints about 5G products, services and equipment; land access objections about the installation of small cell infrastructure; and EME complaints.

s22(1)(a)(ii)

317 ARPANSA	VIC	Supports 5G	<p>There is no established evidence that low-level exposure to radio waves causes cancer. However, the assessment of potential health risks of exposure to radio waves includes a level of uncertainty. Some epidemiological studies have shown an association between heavy mobile phone use and brain cancer; however, limitations of the methods of these studies prevent conclusions of causality being drawn from these observations.</p>	<p>There is limited research on the effects of electromagnetic fields on the diversity or abundance of insects or bees. The few ecological studies that do exist generally report little or no evidence of a significant environmental impact. The studies that do show an effect, such as the ones listed, suffer from poor scientific method and the reported effect of electromagnetic field exposure cannot be separated from other environmental factors.</p>	<p>ARPANSA has made recommendations for areas where the body of knowledge can be expanded. The research recommendations include ongoing assessment of personal and environmental exposure to radio waves from new and emerging technologies.</p>
-------------	-----	-------------	--	--	--

s22(1)(a)(ii)

319 Vodafone Hutchison Australia	NSW	Supports 5G	<p>Australia has some of the most comprehensive and stringent radio frequency safety and EME compliance requirements in the developed world. Pre-design risk assessments, publicly visible community environmental EME reports, and independently certified site-specific compliance assessments are just some of the requirements that apply to new radiocommunications facilities, technology upgrades to existing facilities, and ongoing site operation.</p>		
320 Australian Local Government Association	ACT	EME; P&I	<p>A number of councils have expressed concerned over the health impacts of electromagnetic radiation from 5G. While ALGA supports the rollout of modern telecommunications infrastructure, it needs to be balanced with proper processes to ensure structure integrity, safety, urban design, and visual amenity is retained and visual interference is minimised.</p>		<p>The Commonwealth should develop and release an issues paper which provides a framework to underpin the rollout of 5G.</p> <p>The Commonwealth Government should lead the agenda on the 5G rollout, rather than leave the rollout to be driven by commercial interests. Commercial interests need to be balanced with planning laws which are deigned to protect public safety, limit environmental impact, and ensure the community has a say in the planning process.</p>

s22(1)(a)(ii)

322 Name withheld	Unknown				
323 Name withheld	Unknown				
324 Name withheld	Unknown				
325 Ms Jude Nicoll	NSW	EME	<p>The evidence suggests our dying bee population is connected to mobile phone use and the EMR this produces.</p>	<p>There have been no safe studies to the health implications of all this microwave activity and how it affects life on earth.</p>	<p>Halt the 5G rollout immediately. Start a commission to ensure the safety of 5G. Prioritise wired connections. Reduce current levels of radio frequency.</p>

326	Name withheld	Unknown			
327	Mrs Lisa Kriewaldt	Unknown	EME	I have noticed a progressive decline in my students' learning and performance capabilities coupled with their general health since the introduction of Wi-Fi and computer technology in the classroom.	There has been no safety testing for 5G whatsoever. In Europe, over 26,000 scientists from more than 40 countries have expressed their serious concerns. Questions the capability of the ARPANSA standard to protect the public. Calls for a moratorium on the rollout of 5G. Wants a review of the exposure limits set by ARPANSA.
328	Mr Hakan Bayar Kemal	Unknown	EME	The social, environmental and human impact of 5G would have devastating consequences to public safety and will cost billions of dollars in ongoing medical and research. There have been many studies from Independent Scientific Sources proving already that exposure to 3G and 4G Radiation has impacted negatively on human health as well as the environment including animals, birds, insects, and plant life	Research shows that up until the 4G spectrum we have lost over 72% of our Honey Bee and insect population.
329	Carolyn O'Brien	Unknown	EME		Moratorium on 5G.
330	Department of Communications and the Arts	ACT	Supports 5G	5G is a potentially transformative technology that could contribute significantly to Australia's future innovation, productivity and international competitiveness. Given its potential significance, it is important that we seek to capture the opportunities that it offers.	There is strict regulation of the EME from telecommunications facilities, so the community can have reassurance that there are no negative health effects from the EME from telecommunications facilities.
331	Name withheld	Unknown			
332	Name withheld	Unknown			
333	Lisa Serpa	Unknown	EME	Concerned that 5G technology will dramatically change our exposure to wireless radiation.	Halt the 5G rollout. Investigate whether 5G technology has any negative and detrimental public health impacts. Investigate what evidence has been published by ARPANSA on how they determined 'safe levels'.

s22(1)(a)(ii)

<p>Australian Mobile Telecommunications Association and 335 Communications Alliance</p>	<p>NSW</p>	<p>Various, EME, supports 5G</p>	<p>Some countries, including several European jurisdictions, choose to adopt precautionary limits which are more stringent than those recommended in the ICNIRP and Australian standards. These limits are adopted for political and social reasons and are not based on any new or different scientific basis. Therefore, these limits also provide no benefit for those countries' citizens in terms of safety from exposure to EME, although in several cases the limits have frustrated the deployment of mobile networks in those countries, and if retained, will also inhibit the deployment of 5G.</p>	<p>The electromagnetic frequencies used for 5G are part of the radio frequency spectrum which has been extensively researched in terms of health impacts for decades. Over 50 years of scientific research has already been conducted into the possible health effects of the radio signals used for mobile phones, base stations and other wireless services including frequencies planned for 5G and mmWave exposures.</p>	<p>Urges the Committee to evoke the precautionary principle, consider halting the deployment of 5G, enlist independent experts to review the literature, and consider fibre optic cabling as an alternative.</p>
<p>336 Ashley Cowcill</p>	<p>Unknown</p>	<p>EME</p>	<p>There exists approximately 15,000 studies clearly demonstrating the detrimental effects of 2G, 3G, mobile phone towers and wifi radiation. These studies are credible, independent, valid, scientific peer reviewed papers published within reputable journals. With the proposed deployment of 5G technology, this will only increase our exposure exponentially.</p>		

s22(1)(a)(ii)

<p>338 Optus</p>	<p>NSW</p>	<p>Various, EME, supports 5G</p>	<p>The research into radio frequency exposure and possible impacts on health is extensive and spans many decades. This research has been conducted by numerous health authorities and experts – including the WHO, ARPANSA and ICNIRP.</p>	<p>It is important that a sufficient body of information and succinct and clear messaging regarding the safety of mobile technology and 5G is provided to communities to counter the misinformation that can be found online or at a grassroots level.</p>
<p>339 Ericsson</p>	<p>NSW</p>	<p>Various, EME, supports 5G</p>	<p>The power levels of the radio signals transmitted by 5G radio equipment will be of similar or lower magnitude as those used in previous networks. 5G devices are being designed and tested to comply with established radio wave exposure limits.</p>	<p>Independent expert organisations have established the exposure limits for radio waves based on many years of research. The limits are recommended by the WHO, among others, and include large safety margins. 5G equipment will meet the same safety standards as the equipment used in previous mobile communication networks.</p>

340	ACCC	ACT	Various	The ACCC notes community anxiety regarding 5G and health impacts. The ACCC considers that the mobiles industry and government have an important role to play in engaging with communities regarding these concerns. A proactive approach will assist in ensuring that network deployments necessary to provide the benefits of 5G do not meet significant opposition and that community anxiety is lessened.		Recommends ongoing monitoring and research into any effects of increased spectrum use. Government and industry take a pro-active approach to ensuring that the community's concerns are addressed, up-to-date and independent evidence guides decision making. ACMA and DoCA monitor the safe deployment of 5G.
341	Australian Communications Consumer Action Network	NSW	Various, EME	A 2019 Roy Morgan survey indicated that 26.1 per cent of Australians surveyed have concerns about the health implications of 5G technology.	ACCAN expects policy makers, regulators, industry and academia to all play a vital roll in ensuring that the Australian community at large have access to understandable, independently verified and comprehensive testing and reporting as the 5G deployment occurs.	Government, industry and standard bodies all work collaboratively to ensure 5G is safe, reliable and provides benefits for all Australians.
342	We say NO to 5G in Australia	Unknown	EME	There is not a single peer-reviewed study that determines whether or not 5G is safe for humans.	The deployment of 5G technology in terms of safe public exposure levels is based on studies reviewed by ARPANSA that ignore the concerns of 100's scientists worldwide about the dangers of non-ionising radiation.	There should be a moratorium placed on the current and future planned deployment of 5G. A full review into ARPANSA in relation to the review process and science that defines our safe levels of exposure to EME.

s22(1)(a)(ii)

344	Communications and Information Technology Training Ltd	Unknown		Industry members involved in deployment of Massive Multiple Input Multiple Output antennas report that strict safety measures, including training in EMR hazards, power shutdowns during tower equipment installation and maintenance and exposure monitoring are standard procedure.		Training in working near live power and in EMR awareness and risk management in the 5G environment should be part of all publicly available radiocommunications field workforce training.
345	Name withheld	Unknown				
346	Name withheld	Unknown				
347	Miss Talula Guralnek	Unknown	EME	There are numerous peer reviewed studies determining exposure to electromagnetic radiation unsafe and can be detrimental to one's health.	The 5G technology emits electromagnetic radiation classed as a 2B carcinogen.	Change to ethernet cable connections.
348	Name withheld	Unknown				

349 Ms Kate Swan	Unknown		The ARPANSA 'standard' bases safe human exposure to EMR on an outdated model, which doesn't account for the majority of the worlds' population and is based on average daily mobile phone usage of 6 minutes per day.		Apply the precautionary principle and enact a moratorium on the deployment of 5G.
350 Ms Mercy Wolf 351 Name withheld	Unknown	EME, privacy	Has grave concerns about the deployment of 5G in Australia on the grounds that it will seriously impact our health, privacy, our personal security and ultimately our freedom. The level of radiation to which we will be exposed to will be exponentially higher than now. Our environment will be saturated day and night.	No independent or long-term safety studies on the frequencies that will make up 5G.	Urge Committee to insist upon an investigation into and a complete revision of the ARPANSA standard, which after 20 years is completely outdated and redundant. Commit to fully exploring and implementing wired technologies which are only safer, more secure and more effective than 5G wireless technologies.
352 Mr Daniel Rossi	Unknown	Security, deployment, power capacity and climate	There are known security vulnerabilities with 4G, 5G, IOT, Wi-Fi and mobile phones and threats to security.	Deployment and capacity concerns as far as overbuilding NBN fibre networks to streets and homes and the business case for this. Power capacity, heat dissipation and tree removal causing loss of tree canopy and threats to the climate.	Fibre internet is the obvious choice for people and businesses moving forward.
353 Mr Benjamin Smith	Unknown	EME	The deployment of 5G in Australia is going about with reckless haste. Media, telcos and Government agencies proselytise the potential benefits as seemingly multitudinous and the risk of harm ostensibly negligible. They base this on the fact that the power densities proposed by any new installation will be within the limits as set by ICNIRP1 in 1998 and adopted by ARPANSA on behalf of the Australian public in 2002.	The ARPANSA Standards are only 'protective' for (the heating effects of) short term exposure. Long term EMF exposure was not considered to be established, and so these guidelines are based on short term, immediate health effects.	The role of ARPANSA and the reliance on ICNIRP should be reviewed.

s22(1)(a)(ii)

355 Earthing Oz	Unknown	EME	There is already concern that the safety standards we have in place for our current technology is outdated and based on guidelines established over 20 years ago.		Invoke the Precautionary Principle in regards to 5G.
-----------------	---------	-----	---	--	--

356	Australian Industry Group	NSW	Deployment, uptake, EME	History and experience has shown that the public becomes more accustomed to the presence and practicality of emerging technologies. Many initial concerns and fears relating to radio, television and earlier generations of mobile technology were resolved or proved groundless through evidence, and regulation focused on specific, genuine and continuing risks.		It is important for Government and Industry to work together to close the gap in promoting the real business value of 5G to encourage business uptake of Industry 4.0 and IoT, as well as to alleviate public concern.
357	Stop Smart Meters Australia Inc		EME	Growing electro-pollution has severely impacted on sufferers' right to freedom of movement, right to work, their standard of living and right to freely participate in the cultural life of the community due to the impact on people's health and the need to minimise exposure to man-made radiation sources.	According to a research paper titled 'The Prevalence of People with Restricted Access to Work in Manmade Electromagnetic Environments', between about 5.0 and 30 per cent of the general population have a mild form of EME sensitivity. Moderate cases represent between 1.5 and 5.0 per cent of the population with a prevalence of less than 1.5 per cent for severe cases.	Immediately halt 5G deployment.
358	Name withheld	Unknown				
359	Name withheld	Unknown				
360	Name withheld	Unknown				
361	Name withheld	Unknown				
362	Name withheld	Unknown				
363	Name withheld	Unknown				
364	Mrs Amy Blackmore	Unknown	EME	Is concerned with ARPANSA's Radiation Protection Standard. The limits specified in the Standard are based on ICNIRP guidelines published in 1998, long before 5G was introduced in Australia. The guidelines are based on short-term health effects, not long-term EMF exposure.	Most insurance companies exclude electromagnetic field radiation exposure due to the high risk it entails, and class it as a pollutant, akin to smoke, chemicals and asbestos.	The Government must invoke the Precautionary Principle to place a complete halt on the deployment of 5G technology.
365	Name withheld	Unknown				
366	Jo McFarlane	Unknown	EME	Concerned about the potential negative effects of 5G on the health of the population, animals and plants.	The number of small cells means that there will be little space left unexposed to radiation.	Implores the Committee to request a moratorium on 5G.
367	Name withheld	Unknown				
368	Mrs Jeanette Bullock	Unknown	EME	These towers emit radiation 24/7 within close proximity to homes and schools where children particularly are at risk.	The massive amount of radiation produced by 5G towers is actually frying the navigational skills of the honey bees and preventing them from returning back to their hives.	Fibre optic cable which would be faster, more reliable and more secure should be considered.
369	Name withheld	Unknown				
370	Name withheld	Unknown				
371	Name withheld	Unknown				
372	Leanne O'Donovan	Unknown	EME	Wireless RF exposure from 5G has been linked to immediate and chronic illnesses including cancer, heart disease, infertility and genetic defects amongst many others. This is substantiated in over 10,000 peer-reviewed scientific papers, including by the WHO, which classifies RF radiation as carcinogenic.	Recently Brussels, Geneva, as well as 21 states of America have moved to halt 5G rollouts in their cities due to the effects it would have on the health of its citizens.	Australia should adopt the precautionary principal.

373 Elena Dawson 374 Name withheld	Unknown Unknown	EME, security	The deployment and adoption of 5G will greatly increase harmful electromagnetic radiation in our environment affecting wildlife and insect populations.	The deployment of 5G carries the capability for smart appliances in our homes to harvest data for third parties. This is a privacy and security violation.	Proposes that fiber optic cable is connected to homes instead of deploying 5G.
375 Mr Doug Maher	Unknown	EME, P&I	Current safety guidelines by ARPANSA may not have envisioned small cell antennas being installed in a much higher density and in closer proximity to the general public with resultant increase in RF-EMF levels which will likely be operating with ever increasing data transmission and power requirements.	The increased RF-EMF exposure health risks of 5G and mmWave exposures have not been subjected to any independent testing in Australia. Biological effects of RF-EMF were however identified in US military research and clinical studies with alarming findings are being found in research today.	The aim of the inquiry should be toward informed adoption of a precautionary approach. Current RF-EMF safety limits and guidelines in Australia should be reviewed and then updated as soon as possible.
376 Mr Marco Sammut	Unknown	EME	The deployment of 5G technology, which is also being applied as a military grade weapon, across the country and the globe without the consent of the people, or any regard for their health concerns, is stripping away all of our basic inalienable human rights.		
377 Ms Deborah Cooper	Unknown	EME	Concerned about 5G deployment because of the likely damaged caused by the short and long-term effects of Electronic Radiation Frequencies on the cellular activities of the body – both human, flora and fauna.		Research on the effects of 5G should be done by organisations outside of the Australian Government.
378 Charlene Joy	Unknown	EME	Microwave radiofrequency electromagnetic radiation from wireless devices acts as an environmental stressor with direct oxidative toxic effects on cellular processes that are not related to heat or to ionization.		Favours more fibre optic cables for wired technology.
379 Mrs Carmen Parra	WA	EME	There has been a lack of public consultation on the rollout of 5G.	5G is a threat due to the serious health risks to humans, animals, insects and plant life. 5G is a threat to personal safety and security due to being able to reach into the home without consent. Small cells will saturate the urban environment.	
380 Mrs Natasha Nero	Unknown	EME	5G infrastructure will substantially increase exposure to RF-EMF. Many harmful effects of RF-EMF have already been proven.	Australia's standards are not safe compared to other nations whose standards are ten times lower. ICNIRP concluded that available data are insufficient to provide a basis for setting exposure restrictions. By its own admission, therefore, ICNIRP has no scientific basis for setting long-term exposure guidelines for the general public.	Requests a moratorium on the rollout of 5G.

381	Jacqueline Perrott	Unknown	EME	The implementation of 5G is an uncontrolled experiment on the entire human population & all biological life forms.	I have well-founded concerns regarding the link between RF-EMF (Radiofrequency Electromagnetic fields otherwise known as "wireless radiation") and DNA damage, cancer and infertility, in addition to behavioural & learning difficulties in children.	
382	Anna Clark-Doyle	Unknown	EME	The deployment of 5G will blanket all life forms with unprecedented levels of high frequency microwave radiation.	Around the world, health problems are being reported soon after the installation of 5G towers. Wireless radiation is threatening the bee population.	Postpone further rollout of 5G until a definitive and independent health assessment is carried out.
383	N Dawson	Unknown	EME	Allowing the deployment of the 5G network is sheer criminal greed.	Many scientists are warning about the effects on all living creatures.	Halt the rollout.
384	Mrs Michelle Friedman	Unknown	EME	There is no independent research demonstrating the safety of 5G.	The current ARPANSA standards of safety limits for EMR of 10 million micro W/m2 are not aimed at or researched for children. They are also considerably higher compared to other countries.	Undertake the precautionary principle and delay the deployment of 5G until such research is obtained and proven safe.
385	Denise Lockett	Unknown	EME	Not one study has been undertaken by independent researchers to ensure that this technology is safe.	Health professionals worldwide have indicated that 5G will be responsible for changes to DNA, tumours, foetal development, interference with surgical implants and even baby monitors will be affected, with the potential for catastrophic effects on newborns and infants	Place a moratorium on the deployment of 5G. Ensure that an independent study is carried out – a study that is independent of the telecommunications industry and Government.
386	Sally Hedderwick	Unknown	EME	There is no independent research to verify that this technology is safe for humans, animals or the environment. On the contrary, there are numerous independent studies in which scientists say it will have a devastating effect as the RF levels will be much higher than the current 4G levels.	There have been numerous scientists now commenting on the effect 5G will have on health, including effects of foetal and newborn development, effects on young children, brain tumours and parotid gland tumours, effects on DNA, effects of surgically implanted devices.	Delay the deployment of 5G this until a thorough investigation is carried out by independent scientists not linked to the telecommunications industry.
387	Julie Stronell	Unknown	EME	5G was originally designed by the Military as a direct frequency weapon.	There are already known clusters of cancers occurring in close proximity to 5G towers around the world where the technology has already been implemented.	
388	Kathryn Milin	Unknown	EME	Insurance companies will not cover harms caused by smart meters and 5G and have included EMF exclusion clauses in their agreements.	No independent biological studies on the effects of 5G have been referred to by Telco's in ensuring the deployment of 5G is safe.	
389	EMR Surveys	Unknown	EME	The RPS3 Standard was based on research that never represented the types of fields we can expect to received from 5G.		Pause the installation of 5G until safety can be guaranteed.

390 Miss Loren McMath 391 Name withheld 392 Name withheld	WA Unknown Unknown	EME	There have not been safety studies done as to the long term effects of exposure to this kind of electromagnetic radiation.	There have been thousands of studies done on other forms of electromagnetic radiation that show considerable health effects for humans.) ARPANSA's reference data for the levels of electromagnetic radiation that are considered safe are many time higher than nearly everywhere else in the world.	Halt the 5G rollout and look wider then ARPANSA for evidence of the health effects that EMR is already having on the population.
393 Mrs Maureen Kirsch	Unknown	EME	5G is being deployed in the context of already having 3G, 4G, 4GX, smart meters, mobile phones and WI-FI. This is an ever increasing blanket of electrosmog from a growing number of devices. There has been no thorough, independent, government-initiated study undertaken - anywhere in the Western World - of the effects of the 5G capability upon human beings.	ARPANSA's Standard only considers thermal effects to acute short-term exposures and does not take into consideration the biological effects demonstrated by thousands of international studies. It is seemingly impossible to find any government-sourced repudiation of concerns held by world citizens.	Requests a moratorium on the deployment of 5G. There should be an immediate independent investigation into developing stricter guidelines and regulations. Question the veracity of any claim against the healthfulness of 5G deployment.
394 James Moyle 395 Name withheld	Unknown Unknown	EME			Address the cumulative effects of densification and insist regulatory authorities prove 5G technology is safe. Insist that the Committee guarantee the deployment of 5G, AI, and IoT is appropriately regulated.
396 Ms Julie Barber 397 Name withheld	Unknown Unknown	EME, P&I	The ARPANSA standards are inadequate to guarantee safety and must be updated before further 5G deployments.		
398 Mr Troy Lock	Unknown	EME	Low intensity non thermal effects were found by the US National Toxicology Program to cause clear evidence of cancer and DNA damage in rodents, the same cancers that occur in humans from long term mobile phone use. These effects occurred below ARPANSA safety guidelines of 10,000MW/m2.		A moratorium is urgently required. Wired transmissions through fiber optic cable is more energy efficient, faster, and is more cyber secure for personal security. This system is also safer for bees and other wildlife.
399 Ms Amanda Doolan-Harris	Unknown	Security, EME	Wireless networks including the proposed 5G network are susceptible to hacking thus putting my personal security at risk.	Research is showing an increase in the collapse of bee colonies with a strong link to electromagnetic radiation.	
400 Ms Melissa Davey 401 Name withheld	Unknown Unknown	EME	Several large insurance companies have highlighted RF EMF and 5G as having a high risk and have opted not to insure for injury as a result of this technology. Insurance companies do not want to insure for electromagnetic radiation because it is simply far too risky.	Scientists across the world are calling for a precautionary approach to RF EMF and 5G. In 2017 over 180 scientists and doctors issued a declaration calling for a moratorium on the increase in 5G cell antennas citing human health impacts and impacts on wildlife. In 2015, 225 scientists urged for the development greater protective policy, guidelines and safety education.	An update of the current safety guidelines to take into account the biological effects of RF EMF is warranted. The use of safer alternatives such as the network of fibre optic cabling and other wired connections within the NBN should be encouraged and increased.

402 Ms Helen Cahill	Unknown	EME	Has been electrically sensitive for eight years due to 3G and 4G. Fears the rollout of 5G.	Lloyds of London Insurance will not insure for wi fi related injury. 5G has been likened to asbestos and cigarette smoking.
403 Name withheld	Unknown			
404 Name withheld	Unknown			
405 Ms Melinda Turner	Unknown	Organisati on	When I viewed the existing government safety body's website and it's Organisational Chart, I could not find health scientists with training on the effects of radiofrequency technology (EMR in the microwave and millimetre waveband width) i.e.. biochemists, epidemiologists, neuroscientists or toxicologists.	Parliament to assess the history and structure of our national radiation safety organisation in relation to its ability in the present era to effectively assess the burgeoning body of health data on 5G and pulsed EMR.
406 Name withheld	Unknown			
407 Mrs Deanne Hislop	Unknown	EME	The deployment of 5G will significantly increase high frequency radiofrequency radiation in urban areas.	The adoption of 5G enabled devices in the home will create a safety hazard that could result in the loss of life should any natural or community disaster occur.
408 Name withheld	Unknown			
409 Name withheld	Unknown			
410 Mr Crispin Wellington	Unknown	EME	My concern is that the standards that regulate the capability of 5G deployment in Australia ("Radiation Protection Series 3 - Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields - 3 kHz to 300 GHz" (ARPANSA, 2002), are not based on contemporary evidence.	There have been more than 500 studies that have found harmful biologic or health effects from exposure to RFR. Relatively little is known of the effect of terahertz radiation on biological systems, but what few studies have been done on it's interaction with living tissue are a cause for concern. The Government allow the deployment of "5G NR sub6GHz" equipment but prevent the deployment of any "5G NR mmWave" equipment.
411 Ms Janina Koesling	Unknown	EME	The 5G radiation has an effect on the brain structure and function going as far as changing a person's behaviour. It influences the electrical control of the heart and produces arrhythmias and changes that can be life threatening.	5G influences the chromosome structure and can lead to chromosome breakages. Stop the planning of 5G.
412 Ms Jay Ward	Unknown	Various	It is premature of the Australian government to rubber stamp the telecommunications industry's plans for society's future before addressing questions such as do Australians want driverless cars.	
413 Miss Judith Anne Buchan	Unknown	EME	5G is unnecessary – we haven't even fully utilized 4G. 5G is NOT just a tweaked improvement adjustment to 4G – it is a completely different and way stronger, more pervading and interruptive to human biological systems.	5G harms bees.
414 Name withheld	Unknown			

415	Ms Andrea Weber	Unknown	EME, privacy, security	It's being promoted that 5G will enable us to have faster and better access on our devices, so how does this bring a benefit when these studies are linking such activities to impaired sleep and cognitive function, decrease in family and social interaction as well as the potential for addiction, anxiety and depression.	
416	Ms Sue-Ellen Middleton	Unknown	EME, privacy, security	Personal privacy and security will be compromised through the adoption of 5G. 5G will support the IoT, meaning that our home appliances will be connected and have the ability to communicate with third parties. All of our information will be captured by a mesh (cloud), and this information is potentially hackable.	The widespread application of 5G is a serious health concern, as according to my research, it appears that there aren't any studies that show that 5G is safe.
417	Miss Merridee Pilkington	Unknown	EME	In 2017 a group of more than 200 scientists' and doctor's sent an appeal to the United Nations, voicing their concerns regarding the role out of 5G worldwide. "We recommend a moratorium on the roll-out of the fifth generation, 5G for telecommunication until potential hazards for human health and the environment have been fully investigated by scientists independent from the industry. RF EMF has been proven to be harmful for humans and the environment".	There been reports over the last two decades of low-level, non-ionizing microwave radiation on bird and bee health. It drives birds away from their nests, effects their plumage, locomotion, reduced survivorship and death By favouring of the rights of the telecommunications industry over those of the community, the Federal Government demonstrates a disregard for the principles of democracy.
418	Mr Michael Goebel	Unknown	EME	Radiation-emitting antennas are being installed outside and close to peoples' homes without their approval and despite their objections.	I recommend a halt to the roll-out of 5G technology and the upgrading of current 3 and 4G phone towers for use by the 5G network until independent research is conducted to prove uncontroversibly that it is safe for use around humans, animals, insects, birds etc. and non damaging to the environment.
419	Name withheld	Unknown			
420	Name withheld	Unknown			
421	Name withheld	Unknown			
422	Name withheld	Unknown			
423	Mrs Lauren Newman	Unknown	EME	International Agency for cancer research on Cancer in 2011 classified radiation as a Class 2B carcinogen. This decision was made by the study of long term mobile phone users.	Scientists have found from peer reviewed studies many harmful effects, some include: DNA damage, chromosome damage, changes to enzymes, interruption of the cell cycle and cell communication, reduced immunity, sperm damage, effects on hormones, free radical damage, cellular stress, and changes to brainwave patterns.
424	Mr Kevin Schaffer	Unknown	EME	Current Australian Safety Guidelines are only based on thermal (heating) effects, even though many non-thermal effects occur at levels many orders of magnitude lower.	Confirmed reports from the Netherlands that 5G tests were linked to large numbers of bird fatalities from apparent sudden cardiac death. One report of mass deaths of birds flying through EMF from a microwave relay.

s22(1)(a)(ii)

426	Name withheld	Unknown			
427	Name withheld	Unknown			
428	Mr Martin Oliver	Unknown	EME	<p>We know that 5G, unlike the other G's, extends into the millimetre wave band, and that human health effects from millimetre wave radiation are untested. Telecommunications executives have admitted this under questioning in the US Senate.</p>	<p>Millimetre wave radiation is likely to concentrate on the body's surface, resulting in a risk of skin and eye damage. Scientifically speaking, it is considered more potentially harmful than sub-millimetre RF radiation.</p> <p>The 5G rollout should be discontinued.</p>
429	Ms Jacqui Murphy	Unknown	EME	<p>Radio Frequency Exposure does damage, especially around my young developing children.</p>	<p>I have well-founded concerns about the exposure of insects to the Radio Frequency Fields and the damage it can do to them, especially the bees as we need them to pollinate the food we grow.</p>
430	Mr Steven Evans	Unknown	Power, EME	<p>In the Netherlands, there was a small scale test of 5G deployed to see how the service would fair. During the trial hundreds of birds spontaneously went into cardiac arrest and died when they flew over the trial zone.</p>	<p>As we will need to install many, many times more antennas and transmitters all over Australia, the amount of power required out of the power grid would substantially increase. It could potentially use more electricity than we have available at present. In 2011, the International Association for Research on Cancer (IARC) and the WHO categorised wireless radiation as a 'possible' carcinogen (Group 2b); a cancer-causing substance.</p>
431	Ms Una Phelan	Unknown	EME	<p>Not one safety study has been undertaken to prove that the deployment of 5G technology is safe.</p>	<p>In light of the strong scientific evidence that 5G will bring about widespread illness to human health and adverse impacts to the environment, we call on our regulators to implement the precautionary principle.</p>
432	Ms Lauren Dry	Unknown	EME	<p>EMR is classified as a pollutant alongside smoke, chemicals and asbestos.</p>	<p>ICNIRP Guidelines are failing to encompass the totality of the dangers that RF Radiation presents.</p> <p>The Australian government must not take it upon themselves to remove the inherent right to health from the population by sanctioning the deployment of 5G at the peril of both its' individual citizens and workers, and its' economic future integrity, in totality.</p>
433	CR Dominic WYKanak	Unknown	First Nations Peoples response	<p>This Inquiry is asked to seek out and include the views of First Peoples as Custodians of Country to which this species of EMR known as 5G may be introduced in the Consultations for 5G deployment as it may have serious Intergenerational adverse Health impacts and be averse to the positive restorations for Our People under the Principles of 'Close The Gap'.</p>	

434 Mrs Liz Marshall 435 Name withheld	Unknown Unknown	Security, EME	IoT leaves us vulnerable to cyber attack which could be devastating to our economy as well as our day to day lives. We are becoming so reliant on wireless technology and should there be an attack on the system, we will be rendered helpless.	The long term effects of 5G on humans and the environment are unknown, the short term studies that have been done raise alarm bells at the very least and show that the risk is too great all round.	Apply the duty of care when considering 5G.
436 Ms Tess Hansel 437 Name withheld	Unknown Unknown	EME	All radio frequency emissions are possible carcinogens, as classified by the WHO in 2011. From a study carried out from 1999 to 2018, results showed tumour growth in laboratory subjects/rodents.	The major telecommunications companies are rolling out the technology stating that the safety levels set by ARPANSA meet the 5G requirements. The problem here is that no testing has every been conducted on human beings as to the safety of using 5G technology.	The government, and this committee in particular, should research the dangers 5G poses to all Australians. That all installations be halted until thorough safety testing is carried out.
Main Roads Western 438 Australia	WA	Safety	The rollout of 5G technology needs to address any safety concerns for all parties inclusive of maintenance personnel and road users.		
439 Ms Annette Chen	Unknown	EME	Governments and the telecommunications industry have admitted no non-industry funded Research has been done on health implications of the 5G network.	Some of the health effects found in published, peer-reviewed scientific research for exposure to radiofrequency radiation include: tumours, cancer, DNA damage, impaired learning and memory, oxidative stress, cancer and neurodegenerative diseases such as Alzheimer's, impaired fertility and miscarriages, and this is based on existing technologies and networks.	
440 Ms Sheila Masters	Unknown	EME	If the telecommunications industry's plans for 5G come to fruition, no person, no animal, no bird, no insect and no plant on Earth will be able to avoid exposure, 24 hours a day, 365 days a year, to levels of RF radiation that are tens to hundreds of times greater than what exists today, without any possibility of escape anywhere on the planet.		
441 Ms Mel Smith	Unknown	EME	There is an undeniable potential for negative microbiological effects to the environment, which is a massive threat to life – all life, not just humans. Just as there was a mountain of research indicating a link between smoking and lung cancer from the 1950's not acted upon until the late 1980's, there is now an avalanche of valid research linking electromagnetic radiation to a host of illnesses.		A fibre optic municipal broadband is as a safer alternative for the health of the nation and our environment, towards a sustainable future
442 Ms Jane Refshauge 443 Name withheld	Unknown Unknown	EME			Promote the roll out of the fibre optic cable to the home and then wired within the home to corded phones and devices.
444 Ms Jessica Brosnan	Unknown	EME	The 5G small cell towers are proposed to be fixed onto street lamps and other street furniture on a global and local scale which gives me grave concerns for the continual bombardment of EMF radiation without our consent.	There are substantial independent peer-reviewed studies which demonstrate clear evidence of harm, including cancer, infertility and anxiety in children.	

445 Ms Simone Glove	Unknown	EME, privacy, security	We are headed for a 'tobacco, asbestos' type tsunami of unfathomable magnitude if this 5G deployment is not halted and many experts agree.	The capability of 5G allows for massive data harvesting and increased potential for cyber hacking due to the interconnectivity and the 'Internet of things'.	
446 Ms Renee Gray	Unknown	Environment	For 5G to be able to function as desired, many large trees will need to be removed as they will be seen as obstacles for the 5g signal.		Perhaps focusing more on the use of safer and more reliable fibre optic cable, could reduce the need to push our environment in to a further state of damage.
447 Mr Paul Clune	Unknown	EME	Documented studies about the effect of the emissions there from have revealed serious impacts (cancer and death) on the health and well being of people living in the vicinity of 4G installations.		
448 Ms Molly Knight	Unknown	EME	There have been no health studies done by government to see if 5G is safe for human life, and for our natural environment. Yet there have been many scientists and doctors that have presented peer reviewed papers, around 14,000 approximately, that have been wilfully ignored by our government.	How can we continue to have an advisory board ARPANSA that has very outdated safety levels, developed for technology that was available in 2002? And has not been revised to the levels of radiation from 3G and 4G, let alone 5G.	Industry cannot continue to be self regulated, we know from many issues in the past, and current, that industry self regulation just doesn't work, and opens the door to corruption and deceit.
449 Name withheld	Unknown				
450 Dr Yapa Bandara	Unknown	EME	The deployment of 5G would lead to a massive increase in environmental levels of microwave radiation.		Carry out broad investigations before any implementations.

Released under FOI Act by DITR/DCA

House of Representatives

5G Inquiry – EME quick reference information

Synopsis of EME regulation from

Radio frequency EME standards are set by the Australian Radiation and Nuclear Protection Authority. Compliance with these standards for the telecommunications sector is achieved through carrier licencing conditions administered by the Australian Communications and Media Authority (ACMA). Industry also imposes compliance with EME standards through the *Mobile Base Station Deployment Code*, which is registered with the ACMA and enforceable.

Evidence of compliance is part of carriers' record keeping obligations. Carrier do upload their accredited compliance certificated onto the Radio Frequency National Site Archive (www.rfnsa.com.au).

Regulatory requirements to comply with EME Standards

Apparatus licences are issued by the ACMA under the [Radiocommunications Act 1992](#) and are subject to licence conditions set out in this Act. Under paragraph 107(1)(f) of the Act, the ACMA may determine, by written instrument, additional licence conditions for the particular apparatus licence types. For example, the [Radiocommunications Licence Conditions \(Apparatus Licence\) Determination 2015](#) (the Apparatus LCD) sets out the conditions to which a licence issued under sections 100 or 100B of the Act is subject.

Under Part 3 of the Act the ACMA has made two determinations that impose EME exposure requirements on licensees of radiocommunications transmitters:

- the Apparatus LCD, which applies to all apparatus licences other than temporary community and commercial broadcasting licences, community broadcasting licences and datacasting licences.

Section 66 of the *Radiocommunications Act 1992* also requires that that spectrum licences include:

- a condition specifying the maximum permitted level of radio emission, in parts of the spectrum outside such a part, that may be caused by operation of radiocommunications devices under the licence
- a condition specifying the maximum permitted level of radio emission, outside that area, that may be caused by operation of radiocommunications devices under the licence.

The EME conditions apply to transmitters that operate under both apparatus and spectrum licences. The Apparatus LCD requires licensees to ensure that the level of emissions from a transmitter under their control does not exceed the reference levels for general public exposure set out by the [Australian Radiation Protection and Nuclear Safety Agency \(ARPANSA\)](#) in its [Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300 GHz \(2002\)](#) (the ARPANSA Standard).

Telecommunications Code of Practice 2018 – Compliance with RPS3 is required under:

Chapter 2 (Inspection of land), Sections 2.7 (Conditions in the Act for carrier conduct - Compliance with industry standards)

Chapter 4 (Low-impact facilities), Section 4.7 (Conditions in the Act for carrier conduct - Compliance with industry standards)

Chapter 5 (Temporary defence facilities, Section 5.7 (Conditions in the Act for carrier conduct - Compliance with industry standards)

Chapter 6 (Maintenance of facilities), Section 6.7 (Conditions in the Act for carrier conduct - Compliance with industry standards)

Mobile Phone Base Station Deployment Code – Compliance with EME safety requirements is included throughout. The Industry Code also details when, where and how EME safety and compliance documentation must be sent/made available to the public, and where and when EME warning signs must be installed.

Telecommunications Act 1997

Schedule 3, Part 1 (General Provisions, Division 6 (Facility installation permits), 27 Criteria for issue of facility installation permits:

(g) where the facility is proposed to be located near a community sensitive site, including residential areas, childcare centres, schools, aged care centres, hospitals, playgrounds and regional icons:

(i) the community has been fully consulted, and wherever possible, has agreed to the facility; and

(ii) alternative less sensitive sites have been considered; and

(iv) efforts have been made to minimise electromagnetic radiation exposure to the public.

NB: No Facility installation permits have been issued.

From: s22(1)(a)(ii)
Sent: Thursday, 23 May 2019 9:52 PM
To: s22(1)(a)(ii); Kathage, Tristan
Cc: s22(1)(a)(ii)
Subject: FW: FYI - Triple J Hack - Is 5G dangerous? [SEC=UNCLASSIFIED]
Attachments: Brief - 5G Report on Hack.docx

UNCLASSIFIED

Hi s22(1)(a)(ii)

Thanks for this. Interesting indeed. I made a couple of changes to the first page, but also had a question – could you please answer?

s22(1)(a)(ii)

From: Kathage, Tristan
Sent: Thursday, 23 May 2019 6:36 PM
To: s22(1)(a)(ii) @communications.gov.au>; s22(1)(a)(ii) @communications.gov.au>
Cc: s22(1)(a)(ii) @communications.gov.au>
Subject: RE: FYI - Triple J Hack - Is 5G dangerous? [SEC=UNCLASSIFIED]

UNCLASSIFIED

Thanks – looks good to me – I fixed a minor typo. This is interesting, so perhaps send out to the division.



Tristan Kathage

Assistant Secretary / Competition Branch
 Department of Communications and the Arts

P +61 2 6271 1951

M s22(1)(a)(ii)

Tristan.Kathage@communications.gov.au

2 Phillip Law Street, Canberra ACT 2601
 GPO Box 2154 Canberra, ACT 2601

From: s22(1)(a)(ii)
Sent: Thursday, 23 May 2019 4:07 PM
To: s22(1)(a)(ii) @communications.gov.au>; Kathage, Tristan
 <Tristan.Kathage@communications.gov.au>
Cc: s22(1)(a)(ii) @communications.gov.au>
Subject: RE: FYI - Triple J Hack - Is 5G dangerous? [SEC=UNCLASSIFIED]



Dear all,

Please find attached my summary of *Hack's* report on 5G.

As per the attached, while the report represents a balance of perspectives on 5G from across the scientific community, the overall conclusion is that radio frequency radiation is not known to cause cancer. I don't believe that a formal response or briefing is required, but it may be worth contacting ARPANSA to acknowledge Dr Karipidis' contribution to the report for positive stakeholder outreach purposes.

Kind regards,

s22(1)(a)(ii)



s22(1)(a)(ii)

Policy Officer / Infrastructure Deployment / Competition
Department of Communications and the Arts

P +61 2 6271 s22(1)(a)(ii)

s22(1)(a)(ii)@communications.gov.au

My pronouns: she/her

2 Phillip Law Street, Canberra ACT 2601
GPO Box 2154 Canberra, ACT 2601

communications.gov.au / @CommsAu

arts.gov.au / @artsculturegov

INTERNATIONAL YEAR OF
INDIGENOUS LANGUAGES
www.arts.gov.au/IY2019

I would like to acknowledge the traditional custodians of this land on which we meet, work and live. I recognise and respect their continuing connection to the land, waters and communities. I pay my respect to Elders past and present and to all Aboriginal and Torres Strait Islanders.

From: s22(1)(a)(ii)

Sent: Thursday, 23 May 2019 8:45 AM

To: Kathage, Tristan <Tristan.Kathage@communications.gov.au>

Cc: s22(1)(a)(ii)@communications.gov.au; s22(1)(a)(ii)@communications.gov.au

Subject: FW: FYI - Triple J Hack - Is 5G dangerous? [SEC=UNCLASSIFIED]

UNCLASSIFIED

FYI – s22(1)(a)(ii) is about to listen to it, and provide a summary.

s22(1)(a)(ii)

From: media

Sent: Thursday, 23 May 2019 8:44 AM

To: s22(1)(a)(ii) @communications.gov.au>; s22(1)(a)(ii) @communications.gov.au>;

Kathage, Tristan <Tristan.Kathage@communications.gov.au>; s22(1)(a)(ii)

@communications.gov.au>; s22(1)(a)(ii) @communications.gov.au>; s22(1)(a)(ii)

@communications.gov.au>; s22(1)(a)(ii)

@communications.gov.au>

Cc: s22(1)(a)(ii) @communications.gov.au>; media <media@communications.gov.au>

Subject: FYI - Triple J Hack - Is 5G dangerous? [SEC=UNCLASSIFIED]

UNCLASSIFIED

FYI please find attached a segment on Triple J Hack last night concerning 5G and EME.

Kind regards,



s22(1)(a)(ii)

Assistant Director / Content, Media and Strategy / Communications

Department of Communications and the Arts

P +61 2 6271 s22(1)(a)(ii)

M +61 s22(1)(a)(ii)

Released under FOI Act by DITRDCA



Australian Government
Department of Communications and the Arts

triple j's Hack reports: 5G rollout

Date: 22 May 2019

Source link: <https://podcasts.apple.com/au/podcast/hack/id78995043>

Segment length: 30 min

Summary: The *triple j* radio segment, *Hack*, investigates growing community concerns that 5G mobile networks will cause cancer. While the report represents a differing scientific perspectives on 5G, the overall conclusion is that radio frequency radiation is not known to cause cancer.

There were three themes raised:

- 5G will lead to better mobile services. It will facilitate driverless cars and virtual reality, but also reduce congestion and increase the amount of data able to be transferred.
- The views of the scientific community vary, with some scientists urging caution until more is known about 5G, while others believe that the effects of 5G can be safely predicted based on previous research and modelling.
- EME is regulated in Australia, with appropriate safety limits put in place. These exposure limits are based on scientific research and protect all members of the public. Measurements taken by Telstra indicate that their facilities are consistently emitting EME at lower levels than Australia's exposure limits.

There were four experts reflecting a range of opinions:

- Professor Rodney Croft, Australian Centre for Electromagnetic Bio-effects Research at the University of Wollongong. Prof Croft discusses the frequencies used by 5G and their lower penetration capabilities.
- Professor Dariusz Leszczynski, University of Helsinki. Prof Leszczynski advised that, from his position of expertise with the WHO, he believes that there is cause to be more cautious about radio frequency radiation.
- Don Maisch PhD, EMFacts Consultancy. Dr Maisch claims that Australia needs to revise its safety standards in light of 5G.
- Dr Ken Karipidis, Australian Radiation Protection and Nuclear Safety Agency. Dr Karipidis advised that the Australian limits are based on scientific evidence and consider the safety of all members of the public

A full transcript is provided below.

www.communications.gov.au
www.arts.gov.au
www.classification.gov.au



Page 1 of 4

FULL TRANSCRIPT - report section only:

Tom Tilley: Will the 5G network give you cancer? It sounds like a crazy question, but a lot of people are worried about the new 5G mobile networks being rolled out around Australia. As you've just heard, people are also concerned about 4G, 3G, right back to the first mobile phones in the 90's. So, today we're going to find out if you've got anything to worry about when it comes to 5G, if you've got any questions put them to our radiation expert in just a moment, call 1300 055 536. First, here's Alice Matthews looking at the research on 5G.

Alice Matthews: You're at a festival, it's packed and you're just trying to send a text. But, it's not really getting through or it's taking ages. That's because the network is clogged AF. But, the rollout of the 5G network is supposed to fix an issue like that. It's meant to enable us to basically everything we can do already but faster and better. Driverless cars and VR will also be banking on the technology.

Rodney Croft: The main difference between [5G] and previous technologies is that it will, in the long run, use higher frequencies of electromagnetic fields and allow much larger amounts of data to be transferred.

That's Professor Rodney Croft, from the Australian Centre for Electromagnetic Bio-effects Research at the University of Wollongong. It says, with 5G there will be antenna sites built over time, each covering a smaller area, which means high frequencies and short wavelengths. Previous generations like 3G, with fewer antennas, have long wavelengths and those long waves are better at penetrating solid objects. For example, our heads.

Rodney Croft: Certainly the older ones penetrated further into the head. The higher the frequency, the more superficial the penetration. So, in the long run, when they get to 28 GHz, what you'll find is that the absorption of energy will be very much in the skin.

Now, concerns about the health effects of this electromagnetic radiation have been around since mobile phones became a thing back in 1987. Like, can those long radio waves penetrate our brains and cause cancer? In short, no. But in 2011, 30 international experts on a World Health Organization research team classified all radio frequency emissions as a possible carcinogen (i.e. something that could cause cancer). Adjunct Professor Dariusz Leszczynski was one of them.

Dariusz Leszczynski: This classification of cell phone radiation as possible carcinogen could be upgraded, in my opinion, to classification as a probable carcinogen.

Professor Dariusz Leszczynski is a biochemistry expert in radiation and health from the University of Helsinki. He concedes there's no evidence of radiofrequencies causing cancer, but he says there's evidence suggesting using mobile phones over long periods of time increases the risk of developing brain cancer. He reckons it's too soon to be rolling out 5G. That's mainly because he says not enough research has been done on how those new shorter wavelengths will affect our skin, or how they might interact with, say, UV radiation. And he wants to know more about how 5G could impact different people.

Dariusz Leszczynski: Billions and billions of people are exposed to this low-level radiation and, so meaning we are all in danger. No, not all are in danger, only some more sensitive. But our problem is, who are those more sensitive?

But Professor Rodney Croft from UoW disagrees. He says all the health concerns around 5G are totally unfounded.



Rodney Croft: The reality is that we know a lot about the mechanisms involved with the interaction of electromagnetic fields and the body and we know that the only effect we're going to see is a very small temperature rise. So, with the old ones, when it came to, for instance, the brain, we were looking at about a .1 degree temperature rise. Here, we're probably going to have a similar temperature rise, but it's just going to be more superficial at the skin rather than in the brain. So, there's really no reason to think that there's going to be a problem with such small temperature rise because the body is very used to having small temperature rises.

And, if that's not good enough for you, ask [Dr Karl](#):

Dr Karl: Mobile phones have never been proven to cause cancer with their 1G, 2G, 3G and 4G, we can be fairly confident we'll find the same with 5G because it's non-ionising. Sure, it will sit in your skin and warm it up a tiny amount, so tiny you won't be able to measure it.

It is important to note that electromagnetic safety is regulated in Australia. Don Maisch, who's done a PhD in telecommunications standard settings, says our safety standards need to be revised in light of 5G.

Don Maisch: Basically, unanswered questions, is this safe? You know, with the amount of antennas that will be required, outside of buildings, on streets, inside buildings, is there evidence this may be a health hazard?

Telstra, who is rolling out the next generation network, says its test results show electromagnetic energy levels are similar to existing 3G and 4G networks, and well below the safety limits. But Don Maisch says there are other safety issues that need to be considered.

Don Maisch: I think one of the main issues is driverless vehicles. 5G would be necessary for that because you need very fast data to transfer. So, like, if you're driving down a road at 120km/h, in your driverless car, and a kangaroo jumps out in front of you, you don't want buffering.

TRANSCRIPT - live segment.

Note, parts of this transcript may be paraphrased.

Tom Tilley: Okay, from the text line: *Switzerland, Italy, France, Austria, the list goes on... Russia, China, have RF exposure limits 100-1000x less than Australia. They recognise there could be non-thermal biological effects. If they can do 5G with better protection, why can't we?*

Let's put that question to Dr Ken Karipidis from Australian Radiation Protection and Nuclear Safety Agency, and they actually set the safety limits. Ken, thanks for joining us. Do all those countries have stricter safety limits than we do?

Ken Karipidis: Look, there are some parts of the world that have lower limits. But you will find that they're not scientifically based. So, they may have had community pressure and they thus reduced their limits, but they're not based on any scientific evidence.

Ok, so, from looking at your website, our safety limits are between 3 kHz and 300 GHz, is that right?

Ken Karipidis: Correct.

s47C



Department of Communications and the Arts

May 2019

Do those standards consider people who are particularly sensitive to radiation?

Ken Karipidis: Yes, so, our standards are made for all people, including people that have certain ailments and certainly people of different ages, and everyone else.

Alright. Chris, what's your question?

Chris (member of the public): Yeah mate, just wondering how we can rollout the 5G network when there's been no major independent biological studies?

Alright, thanks for the question Chris. Ken?

Ken Karipidis: Ok, so, at the moment the 5G network would be rolled out using current frequencies, so it's not going to be anything new. In the future, 5G is going to use millimetre waves or high frequencies, and there has been quite a bit of research done on millimetre waves. You should know that there are other technologies that have been using millimetre waves. So, there's radar technologies, or there's satellites that use millimetre waves, so it's not something new. It's something that we've had before and there's certainly been quite a lot of research looked into that issue.

Alright, we don't have much more time, but how do you work out what a safe level of exposure is? Because, there are so many radio frequencies around, just like radio and TV broadcast, but there's also X-rays. We're way more careful there, you know, particularly something like an MRI, where we wear protection. So given the level of radiation and then the level of exposure, the length of exposure, how do you work out what's safe?

Ken Karipidis: Ok, so, a lot of those things... So radiation is not one thing. So, there are many different types of radiation, including X-rays like you mentioned but also ultra violet from the sun. So, this is what we call radio waves or radio frequency radiation. With radio frequency radiation the only established health effects is that of rising temperature. So, when radio waves are powerful enough they can cause high temperatures. So we base our standards on enough temperature that can cause health effects.

Okay, interesting... [REPORT ENDS]

Released under FOI by DITRDCA

