Dear Dr Lester,

Thank you for responding to the email that I had sent to you, the Victorian Health Department and the Radiation and Health Advisory Committee some months back. As you probably are aware now I followed your advice and made contact with the ACMA regarding my health condition and they responded with the following:

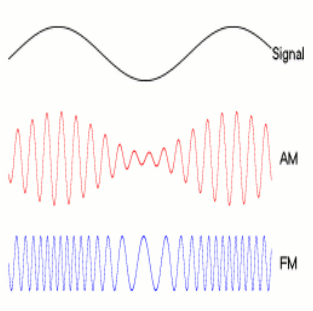
"The deployment of smart meters across Victoria is an initiative of the Government of Victoria.

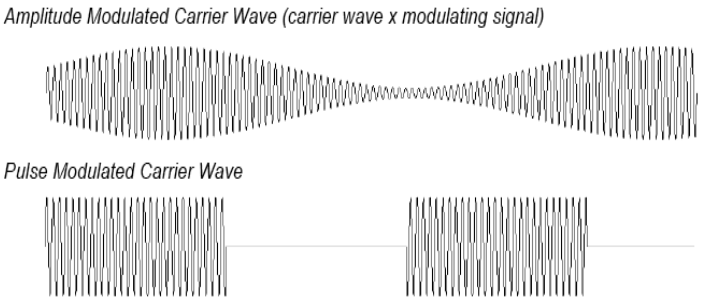
The Australian Communications and Media Authority (ACMA) is not a provider or regulator of health services. As such, the ACMA cannot provide advice about the potential health impacts of radio communications devices."

Of course I would expect that health issues would be the prime concern of a health department and so I request again for the Health department to reconsider looking into this issue as a priority as it is not going to go away.

Having read your letter it concerns me that it appears that you or your advisors have not read my emails fully or have perhaps misunderstand my sensitivity. I had previously explained very carefully the range of frequencies (WIFI, mobile phone and smart meter emissions) that I am sensitive to. Yet you mention that you have been advised that 75% of an individual's everyday exposure from radiofrequency radiation is from commercial television and radio services (I assume you are referring to AM and FM signals). There are some important facts that you need to consider before you dismiss offhandedly the validity of my condition.

1. I have never claimed to be sensitive to RF from Radio and TV broadcasts which are at lower frequencies. Just like some people who have peanut allergies, this does not always mean they are sensitive to all tree nuts (almonds, macadamia nuts etc.) the same is true for radio frequencies.
2. Another fundamental difference is RF from Radio and TV broadcasts are delivered as a continuous wave with either the amplitude or the frequency modulated. Smart Meters and Mobile phone emissions on the other hand are pulsed and it has been shown in research[1] that pulsed fields can be more biologically active than continuous (uninterrupted) fields of the same frequency and power density. The same research also showed that exposures to these radiations appear to have an cumulative effects on living organisms (very similar characteristics to ionising radiation!)





[1] *The effect of exposure duration on the biological activity of mobile telephony radiation*
http://www.sciencedirect.com/science/article/pii/S1383571810001336

3. I appear to be sensitive to pulsed radiation and the frequency range of sensitivity from my own personal exposure testing looks to be in the range of 800Mhz to several Gigahertz.
4. Radio and TV transmitters are tens of kilometres away from where I am living. Power densities of RF diminishes rapidly with distance (inverse square law i.e. intensity is inversely proportional to the square of the distance). Radio transmitters from smart meters are within 3 meters of my bedroom (there are two smart meters in this location).
5. Can you provide scientific evidence that substantiates your claim that 75% of an individual's exposure is from commercial TV and Radio as I do not believe this is correct? This may have been the case 10 to 15 years ago but with mobile phone towers installed in and around every suburb, wireless routers and DECT phones in many people's houses and now smart meters being installed on all houses and small businesses. This would suggest the exposure ratio to RF is definitely skewed towards localised transmitters.
6. The health services officer of the county of Santa Cruz who views the relationship of AMI technology to existing usage of wireless devices in an entirely different light to that of ARPANSA, your department and Victoria's Department of Primary Industries' (DPI). Dr Namkung stated 'Additionally, exposure is additive and consumers may have already increased their exposures to radiofrequency radiation in the home through the voluntary use of wireless devices such as cell and cordless phones, personal digital assistants (PDAs), routers for internet access, home security systems, wireless baby surveillance (baby monitors) and other emerging devices. It would be impossible to know how close a consumer might be to their limit, making safety an uncertainty with the installation of a mandatory Smart Meter'
7. The last sentence in point 6 is of critical importance when our standards say "*In situations of simultaneous exposure to fields of different frequencies and depending upon the nature of exposure and the distribution of RF absorption within the body, the combined effects of exposure to multiple frequency exposure sources may be additive*." (rps3 page 18).

As I mentioned in my previous letter to you, it is far too early to conclusively predict what the health effects might end up being from AMI technology implemented using wireless. This is because there have been no studies commissioned to determine whether there are health impacts associated with smart meter transmissions. To say smart meter emissions are safe is libellous because it cannot be scientifically or medically substantiated. I can however categorically state that my health issues only developed in earnest when smart meters were rolled out in my street and they are alleviated by going to areas where there are low EMR. I am happy to submit myself to testing to prove that my claims can be substantiated yet nobody wants to investigate. I have nothing to gain politically or financially by claiming I am sensitive. Instead I am being faced with ridicule by ignorant and uninformed people who claim it must be in my head because they don't feel a thing.

Your claims that "ICNIRP guidelines has provided no evidence of any adverse health effects below the basic restrictions" completely disregards the evidence that exists and contradicts this statement. Evidence from independent researchers such as Dr Henry Lai, N.P. Singh and J. L. Philips who all found evidence that RF from mobile phones (similar frequencies and also use pulsed radio emissions like smart meters) showed genotoxic events. Where the IARC in May 2011 indicated that wireless RF is a Group 2B possible carcinogen. Please do not point me to the EMC report or DPI's statements in response to the IARC classification because they completely trivialise and make a mockery of the Group 2B carcinogen rating by associating it to pickled vegetables, coffee and joinery. Why they didn't mention DDT, burning coal, dry cleaning chemicals and lead is very disconcerting. It should also be noted that the IARC rarely downgrades a rating and is more likely to elevate this rating as more evidence accumulates especially when one considers the latest study by Hardell (2013).

"*By reviewing key epidemiological studies, some of which have been published since the IARC review, addressing methodological critiques of their own and other studies, and reporting the results of a meta-analysis of their own and the IARC coordinated Interphone study, Hardell et al provide new and compelling evidence for IARC to re-evaluate its classification of "a possible carcinogen", with a view to changing that assessment of electromagnetic radiation from mobile phones, cordless phones, and other wireless devices at least to a 'probable human carcinogen,' i.e. Group 2A*"[2]

It should also be noted that Dr Paolo Vecchia who was Chairman for ICNIRP (2004 – 2012) had presented at the Radiation Research Trust conference in September, 2008. In his presentation, he made it very clear that, "**the ICNIRP guidelines are neither mandatory prescriptions for safety, the 'last word' on the issue nor are they defensive walls for Industry or others**."

"ICNRP maintains that guidelines for limiting exposure have been developed following a thorough review of all published scientific literature" (ICNIRP, 1998).

"*The criteria applied in the course of the review were designed to evaluate the credibility of the various reported findings (Repacholi and Stolwijk 1991; Repacholi and Cardis 1997); only established effects were used as the basis for the proposed exposure restrictions*."

Because scientists are unable to fully explain how non-thermal effects with potential health implications are happening they have been disregarded when developing the exposure restrictions. This of course does not mean such effects do not exist.

"*Induction of cancer from long-term EMF exposure was not considered to be established, and so these guidelines are based on short-term, immediate health effects such as stimulation of peripheral nerves and muscles, shocks and burns caused by touching conducting objects, and elevated tissue temperatures resulting from absorption of energy during exposure to EMF*."

Here we have admission that the guidelines are for short term protection only! Cancer can take 20-30 years to develop and there have been no tests that I am aware of that have been performed over such a long period of time to determine whether RF could be in fact be a possible carcinogen.

In the case of potential long-term effects of exposure, such as an increased risk of cancer, ICNIRP concluded that available data are insufficient to provide a basis for setting exposure restrictions, although epidemiological research has provided suggestive, but unconvincing, evidence of an association between possible carcinogenic effects and exposure at levels of 50/60 Hz magnetic flux densities substantially lower than those recommended in these guidelines. In-vitro effects of short-term exposure to ELF or ELF amplitude-modulated EMF are summarized.

Transient cellular and tissue responses to EMF exposure have been observed, but with no clear exposure–response relationship. These studies are of limited value in the assessment of health effects because many of the responses have not been demonstrated in vivo. Thus, in-vitro studies alone were not deemed to provide data that could serve as a primary basis for assessing possible health effects of EMF. " (ICNIRP, 1998)

The main problem that I have with the ICNIRP guidelines are that they do not acknowledge non-linear effects which have been shown by scientist like Dr Leif Salford, nor issues of chronic exposure, nor complex frequency and modulation effects and so they are ignored. All of these are features of modern digital microwave communications.

[2] Mobile Phone Radiation a Probable Human Carcinogen (2013)

I would also recommend that you read the Bioinitiative report 2012 which states very clearly in their report why ICNIRP guidelines are useless and provide no protection for long term exposures to RF emissions below the thermal threshold/basic restrictions.

Below is an excerpt from the Bioinitiative Report 2012 (section 3 page 8.)

"S*ome International Exposure Standards at Cell Phone Frequencies Professional bodies from technical societies like IEEE and ICNIRP continue to support 'thermal – only' guidelines routinely defend doing so:*

a) by omitting or ignoring study results reporting bioeffects and adverse impacts to health and wellbeing from a very large body of peer - reviewed, published science because it is not yet "proof" according to their definitions;

b) by defining the proof of "adverse effects" at an impossibly high a bar (scientific proof or causal evidence) so as to freeze action;

c) by requiring a conclusive demonstration of both "adverse effect" and risk before admitting low-intensity effects should be taken into account;

e) by ignoring low - intensity studies that report bioeffects and health impacts due to modulation;

f) by conducting scientific reviews with panels heavily burdened with industry experts and under-represented by public health experts and independent scientists with relevant low-intensity research experience;

g) by limiting public participation in standard - setting deliberations; and other techniques that maintain the status quo."

I have also included a short extract from my letter to ARPANSA which I had included in previous correspondence to you and the Radiation and Health Advisory Committee in case it was overlooked.

'We now live in a wireless-saturated normality that has never existed in the history of the human race. Our health and wellbeing is held hostage by conflicts of interest and Industry interference with concerned scientists and doctors like Dr. George Carlo, Chairman, Science and Public Policy Institute saying:

"Prompted by some early work by Dr. Henry Lai, we have continued to array the published studies in terms of funding source – i.e. as either independent or industry funded or otherwise influenced. Data shows that mobile phone industry funded/influenced work is six times more likely to find "no problem" than independently funded work. The difference is statistically significant. The industry thus has significantly contaminated the scientific evidence pool, with the clear purpose of making sure that a general "weight of evidence" analysis would always tilt in the favour of their position."

These are the very same tactics that were used by the Tobacco Industry with research on smoking.'

I think it is very important to recognise that any future epidemiological investigations on the potential harm of RF has been significantly compromised because finding areas of low RF with sufficient populations to serve as a control will be impossible. Epidemiologists in future studies will need to consider when investigating cancers and RF that we are exposed both voluntarily and involuntarily to a large range of RF emitting devices every day and so this likely to confound any potential evidence that may exist. An analogy would be like trying to verify whether smoking causes cancer and taking your sample of smokers and non-smokers from the same location i.e. people who frequent pubs before the law was introduce to ban smoking in enclosed public places. Non-smokers being bar staff who we know now were passive smokers. When it comes to wireless we are all passive recipients to RF exposure which is going to significantly distort results of any study performed and is likely to lead to a "no effect" being suggested.

I am supported in my view by the recent commentary provided in response to a recent Swedish study that gives more evidence suggesting the IARC rating should be upgraded to a Group 2A probable carcinogen.

Exposure misclassification biases toward the null hypothesis

"A Swiss personal monitoring study found that mobile phone use currently accounts for one-third of total exposures to wireless and microwave radiation, with routers and base stations accounting for the rest.

Current standards rest on the assumption that permitted levels of microwave radiation from mobile phones do not induce any measureable change in temperature or biological effect. Several independent avenues of research have shown this assumption to be incorrect.

Misclassification of exposure is well known to bias toward the null hypothesis, or to a finding of "no effect" when, in fact, an effect may well be present. None of the studies carried out on cell phones thus far, including those of Hardell, has taken into account these important other exposures, many of which have changed quite recently and continue to rapidly expand."

Source: Mobile Phone Radiation a Probable Human Carcinogen (2013)

The last paragraph above is significant because despite the missclassification of wireless phone users in the interphone study (cordless phone users were clumped in with the control subjects), researchers did find an increased incidence of brain tumours in people who were classified as heavy users. Of course at the time the study was conducted heavy users are normal users by today's standards.

It is very unlikely that investigations in the future will find significant differences in cancer rates between candidates and controls due to the fact we are all being constantly bathed in manmade RF whether we like it or not. Instead we will only be able to look at the yearly figures of specific cancer types for increased incidence per 100,000 people over time. The reality is we are seeing significant increases year on year without any adequate explanation as to the cause. Breast cancer, leukaemia, testicular cancer, prostate cancer all going up and this coincides with the fact that we are now being full body irradiated by mobile phone towers, wireless access points that blanket the city, WIFI at home, DECT phones, baby monitors, wireless security and now smart meters. When the smart meter HAN is activated along with smart appliances this will add further unnecessary and unwanted wireless burden onto our environment further clouding the issue.

You have endorsed smart meters as being safe but have you considered all evidence when making such a decision and do you have a background in non-ionising radiation to make such endorsements? ARPANSA'a RF standards do not offer "proof of safety" and only provide protection against acute exposures resulting in thermal damage only. Non-thermal interactions are mentioned in passing in the standards which also suggest there is not enough evidence to include them. However APRANSA also says that non-thermal effects cannot be ruled out. In recent correspondence to ARPANSA's CEO I was advised that our RF standards do provide non-thermal protection for pulsed radiation but this is limited to protecting us against unwanted nuisance effects such as microwave hearing. Not cancer, not DNA damage, not disruption to cellular processes or leaky membranes or holes in the blood brain barrier all of which have been attributed by independent scientist to EMR below the thermal threshold. Microwave hearing which the standards are supposedly protecting us against is one of the more common anecdotal symptoms that people are claiming i.e. tinnitus (ringing in the ear) and other sounds that only developed after installation

of smart meters. I therefore think it is therefore fairly safe to assume that the non-thermal threshold in our RF Standards has not been set low enough. I therefore request you to please reconsider your stand on this issue, demonstrate the duty of care expected of a Chief Health Officer and start an investigation into this serious issue. I now know of more than 200 other people who are facing a similar issue. Some of them, like myself, have contacted you to no avail. We are not going to go away and if anything our numbers are likely to swell. I have attached with this letter a document that highlights the dangers of microwaves. As far as I know there have been no studies performed on the potential health impacts smart meters may have on the unsuspecting public so I believe you are acting irresponsibly by saying that smart meter emissions are safe especially as there is no definitive proof of safety. Even Powercor will not give any health assurances in writing which is most unusual especially if everyone is so confident that EMR from smart meters is safe.

You mentioned that EMC report was independently reviewed by Professor Andrew Wood. This is not correct. He was one of the contributing authors of said report. I would also challenge the independence of some of the contributors of the EMC report because there is evidence that they have worked closely with the Telecommunications Industry (Telstra) in the past which could be seen as a possible conflict of interest. Was the report peer reviewed by independent scientists and did it look at possible health impacts? No, the tests only looked at emission levels compared to what is considered by Australia's RF standards to provide a "high level" of safety. A "High level" of protection does not mean I am fully protected and being someone who is sensitive to RF I do not feel I am being adequately protected at all.

I would like to conclude by saying I find it very disturbing that advice on medical opinions are being given by people who don't have a medical background. Associate Professor Brad Cassels, who I believe to be an honest an amiable gentleman, is an ionising radiation expert and should never have been tasked to investigate my health issue because he does not have sufficient expertise in either non-ionising or medical diagnosis to be making recommendations in regards to my condition.

Yours Sincerely,

[redacted] (B.Sc. Monash)