

Mr Shane Breheny,  
Chief Executive Officer, Powercor Australia  
Locked Bag 14090  
Melbourne Victoria, 8001

31/12/2012

NMI [REDACTED]

Dear Mr Breheny,

The forced rollout of smart meters that use microwave technology to convey data back to the utilities in every house in Victoria is both callous and cruel to those who suffer from EHS and is likely to have a catastrophic impact on long term health of the general public as a whole. The Government and power utilities such as Powercor are acting irresponsibly by ignoring people such as me who appear to be seriously affected by the wireless emissions. The Victorian State Government does not recognise EHS as a real syndrome possibly so that they can avoid their responsibilities and duty of care to ensure people are not made to suffer unnecessarily. To the government and organisations such as yours we are a statistical anomaly. What is worse, your organisation has not only failed to give any assurances regarding the health and safety of wireless emission from smart meters, but continues to deploy this dangerous technology knowing full well that there are people suffering from their effects. When challenged, your organisation simply defers blame to the government. This is of course unacceptable as Powercor, not the government, has chosen the technology for implementing the Advanced Metering Infrastructure and as such the onus is on Powercor to furnish proof that wireless communications from a meshed network of smart meters are safe.

I have reviewed the mandate from the Order in Council and there is nothing specifically mentioned that wireless must be implemented by power utility companies such as yours. In fact, if you refer to Schedule 1 Section 3. "Introductory notes on the impact and choice of technology" [1]

*"The Victorian Government is technology neutral in its approach to AMI and has limited its role to defining a minimum functionality and service levels. The distributors are evaluating multiple technologies (eleven technologies are under evaluation) and will make the final decision as to what package of meter and communications technology meets the performance requirements given the physical environments across the State, customer density and topology."*

So I have to ask the question, why wasn't a hard/direct line option considered like some European countries have implemented? I noted that the original technology recommendation by the government that was considered the most cost effective solution for communicating power usage data back to the power utilities was based on distribution line carrier (DLC) communication model. [2]

For your record, my sensitivity to RF has dramatically increased over the last 6 months since I wrote to you. My life has been completely thrown upside down. I can no longer sleep in my bedroom or work in my home office, both located at the front of my residence. Instead I am forced to sleep in my lounge room located at the back of the house to minimise my exposure and reduce the symptoms I am experiencing. I cannot work in the front garden for more than 10 minutes or take a walk around the housing estate without suffering from severe headaches and fatigue which is quite debilitating – I am only 43. Even going to public places where there are large numbers of people talking on mobiles or walking in areas in close vicinity to mobile phone towers is unbearable for me and takes me days to recover. I never had this problem before. It has only started since the rollout of smart meters in my street. Taking pain suppressing/anti-inflammatory medications reduces the intensity of my headaches but this is not a satisfactory solution as I am simply masking the problem and likely to damage my liver and other organs due to unwanted side effects the medications may have. I want to make it very clear that I have never been one to be prone to headaches

and I have not changed anything in the way I live. The only thing that has changed is the whole neighbourhood is now transmitting microwaves almost constantly. My employment in the IT industry is now at risk as I am finding I cannot work effectively on customer sites where wireless networks are used. These had never been a major issue for me in the past as long as I did not use/enable my wireless adapter in my laptop. To some degree I expect I was less vulnerable at the time because intensity of the wireless signal drops by the distance squared (inverse square law). But now this has become less relevant as I have become sensitised to even lower power densities. Of more of a concern is that my wife and daughter are also beginning to feel the same symptoms.

As I had previously advised you I am sensitive to wireless, that I have known that wireless causes me issue beyond a reasonable doubt because I get the similar headaches when I use my mobile for 30 seconds or more. I had taken preventive actions to reduce my exposure and was able to live comfortably without issue. Yet this has not dissuaded your organisation from rolling these infernal devices into my neighbourhood and flooding my house with unwanted microwaves. Do you think for one moment that they are not going to cause biological effects? We are electrical systems, and like all things electrical, are subject to interference when exposed to EMF/EMR such as microwaves.

*"The scientific data so far just doesn't help the electrosensitives," says Louis Slesin, editor and publisher of Microwave News, a newsletter and website that covers the potential impacts of RF-EMFs. "The design of some of these studies, however, is questionable." He adds: "Frankly, I'd be surprised if the condition did not exist. We're electromagnetic beings. You wouldn't have a thought in your head without electromagnetic signals. There is electrical signalling going on in your body all the time, and the idea that external electromagnetic fields can't affect us just doesn't make sense. We're biological and chemical beings too, and we know that we can develop allergies to certain biological and chemical compounds. Why wouldn't we also find there are allergies to EM fields? Shouldn't every chemical be tested for its effects on human beings? Well, the same could be said for each frequency of RF radiation." [3]*

You mention that the frequency used by smart meters is similar to my cordless phone in which I stated I was less sensitive too. I would like to make a correction to my original statement. I had incorrectly assumed that the said phone operated on a 900 Mhz frequency and did not take the time to confirm this. When I read your response to the letter I sent in May I was perplexed as to why I would not feel anything with the cordless phone but am feeling effects from smart meters so I decided to investigate and confirm my cordless phone's operating frequencies. The cordless phone I have is a "Uniden Extend -A- Phone 10 channel ULTRACLEAR Plus" and upon looking at the operating manual found that it actually operates on the following frequencies:

10 channels between - Receive Frequency: 30.075 ~ 30.300 Mhz (10 Channel)  
Transmit Frequency: 39.775 ~ 40.000 Mhz (10 Channel)

I have no specific sensitivity to these frequencies and I have no way of reliably detecting it.

Now in regards to 900 Mhz frequencies, you may recall that I did specifically mention I get serious effects when using a mobile phone, even quicker than when I use a wireless network. Mobile phones share similar properties to smart meters in that they are both pulsed and operated in a similar band. Australian GSM phones (Optus - 2G) and WCDMA (Optus 3G) operate in the 900 Mhz band. So I would like to reaffirm to you that I am extremely sensitive to this frequency.

#### **Energy Safe Victoria (ESV) Media Release 17 May 2012 "Smart Meters are safe concludes Energy safety regulator"**

To use the ESV report to state smart meters are safe is farcical. The said report, which you included in your letter to me, is too narrow focused to be used as an assurance for smart meter safety. The main issue is that the primary focus of the report was on high voltage (HV) injection. The draft report was open for public

comment “to ensure that it addresses the key issues that are a concern for the community”. I sent the same letter I sent to your organisation, the DPI and Mr O’Brien for their response which called into question the health and safety of wireless emission particularly since the IARC in May 2011 stated that microwave emissions are a class 2B carcinogen. Disappointingly none of the public’s concerns, including mine, were addressed. Instead I received an email from the ESV stating the following:

*“Energy Safe Victoria is the regulator for electrical safety, which includes electricity and infrastructure. We have no legislative role in relation to radio frequencies, which are administered by ACMA.*

*Our report was originally designed to review safety issues relating to smart meters affected by high-voltage injection. The report was never designed or intended to take a detailed look at RF as this does not fall within our regulatory framework.”*

It is most unfortunate that this report is being used by organisations such as yours and the government to state smart meters are safe. This may be true from the perspective of HV Injection events but they are most certainly not from the RF emissions point of view.

The Department of Primary Industries (DPI) state in their Health fact sheet that ‘health authorities around the world, including ARPANSA and the World Health Organization, have examined the scientific evidence regarding possible health effects and, using prescribed exposure limits, concluded that the weight of evidence does not demonstrate the existence of health effects’ (Department of Primary Industries, 2011) .

Leaving aside the fact that it is far too early to conclusively predict what the health effects might end up being from AMI technology, the World Health Organization has not concluded that the ‘weight of evidence does not demonstrate the existence of health effects’. On the contrary, the World Health Organization on 31st May of 2011, whilst acknowledging that the evidence is still accumulating, classified ‘radiofrequency electromagnetic fields (EMFs) as possibly carcinogenic to humans (Group 2B), based on an increased risk for glioma, a malignant type of brain cancer, associated with wireless phone use’ (IARC, 2011). These frequencies are in the same band as that employed by smart meters.

Dr Robert Baan of the WHO International Agency for Research on Cancer (IARC) was the keynote speaker at ENA’s EMF Scientific Workshop on 22<sup>nd</sup> November in Melbourne. He stated that the decision to extend the monograph to include exposure from wireless devices other than mobile phones was quite deliberate. In reference to children using mobile phones he stated that ‘the average RF energy deposition is two times higher in the brain and up to ten times higher in the bone marrow of the skull, compared with mobile phone use by adults’ (Baan, 2011).

Accordingly, one would assume that the same principle would apply in AMI technology, making children considerably more vulnerable to exposure from radiofrequencies than adults.

### **AMI Meter Electromagnetic Field Survey Report from EMC**

The Victorian government relied on the AMI Meter Electromagnetic Field Survey from EMC Technologies in coming to its conclusions regarding the safety of smart meter technology. This report, whilst examining radiofrequency levels from smart meters, as well as electric and magnetic fields in the ELF range from the meters themselves, failed to check building wiring for increased transients and harmonics (‘dirty’ electricity) as a result of AMI. Effectively, if this occurs, it means that all household wiring may effectively act as an antenna, radiating high frequencies. A number of people are sensitive to high frequency harmonics, experiencing symptoms resembling radio wave sickness when exposed to them, ranging from headaches, palpitations, asthma, deteriorating vision, and digestive problems through to high blood sugar levels and multiple sclerosis (Havas, 2006, pp. 259-268).

Although Section B of the AMI Meter Electromagnetic Field Survey claimed to be based on the 'best available evidence from Australian and International studies on the safety and health effects of AMI meter EMF' (EMC Technologies, 2011, p. 31), overall conclusions appear to be very lightweight. As an example, comment on the Interphone study (referred to in point 5 on page 31), includes little critical analysis of the study itself. These details are widely available on the internet, as the methodology used by the study was highly controversial (it also took more than three years for the results to be released due to internal wrangling). Specifically the study defined an exposed person as one who made as little as one call per week for six months, the cut-point for the heaviest users equalled about ½ an hour per day, ignored cordless phones (thereby skewing both sets of data), and did not include data on children or adults over the age of 59 (both of whom have been deemed vulnerable sections of the community in terms of RF exposure). Even with all these failings, other scientists point to the study's findings which showed that the risk of glioma is increased somewhere between 40% and 96% with as little as 1640 cumulative life time hours, which is a truly alarming figure given that the latency period of brain tumours is generally regarded as being 15-30 years (Sage, 2010).

Point 11 also unnecessarily trivialises IARC's classification of RF as possibly carcinogenic. (Incidentally, although this is a minor error in the paper, the review was conducted in May, not June as stated by EMC Technologies, which explains the press release date of 31st May (IARC 2011).) Dr Baan (author of EMC's reference 26, Carcinogenicity of radiofrequency electromagnetic fields) was at pains to state at the EMF Scientific Workshop that the press's spin in comparing the 2B classification for RFs to the same classification for coffee and pickled vegetables 'ridiculed the seriousness of their work' (Smith, J. 2011, pers. comm., 22 November). (Incidentally the 2B classification is also shared with DDT and lead, although EMC Technologies neglect to mention that). Baan also explained at the workshop why it is so difficult to design animal experiments in this area that mimic human behaviour (rodents don't run around with mobile phones!), stating that it was also very difficult to interpret the results (an attendee at the workshop pointed out that the initial studies into lung cancer also couldn't obtain evidence from animal studies). EMC Technologies however seem to view this in a different light, raising it in their summary at point 12 as a lack of substantive evidence in this area.

DPI's Health Fact Sheet states that the 'EMC Technologies study found that radiofrequency exposures from smart meters are lower than other household devices such as mobile phones and baby monitors' (Department of Primary Industries, 2011). However this ignores the fact that a significant proportion of Victorians refuse to use devices such as mobile phones or baby monitors because of sensitivities or concerns about future health implications. Further, these items all entail an element of choice as to whether they are used, and how they are used, unlike AMI.

The Health Services Agency of the County of Santa Cruz views the relationship of AMI technology to existing usage of wireless devices in an entirely different light to that of DPI. Dr Namkung states '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' (Namkung, 2012, p. 3). In her concluding remarks she states 'there is no scientific data to determine if there is a safe RF exposure level regarding its non-thermal effects' (Namkung, 2012, p. 5).

Victorian power distributors such as Powercor have claimed that transmissions will only occur four to six times per day. Transmissions consist of microwaves broadcast omni directionally, akin to the ripples that

move out when a stone is dropped into water. However this ignores the fact that, with the exception of SP AusNet which utilizes a WiMAX network operating in the 2.3 GHz band (EMC Technologies, 2011, p. 8), other distributors are using Mesh Radio Networks. As pointed out by EMC Technologies this means that ‘an AMI Meter does not need to be able to communicate directly with an Access Point’ (also referred to as a collection point or relay station.....which in appearance is just another smart meter, although it hosts an additional antenna). ‘Therefore the network is dynamic and adaptive, but it also means that, other than the periodic transmissions during the routine meter read time, the meter may transmit randomly at other times, either to maintain link with Back Office or to act as relay for neighbouring meters’ (EMC Technologies, 2011, p. 7). In other words, in addition to scheduled transmissions and status checks, microwaves, carrying other households’ data, may end up being received and transmitted on by your smart meter, as part of a separate duty cycle. So individual consumers have no idea how much traffic is going to be transmitting via their own smart meter once the system is operational. EMC Technologies however were satisfied that a duty cycle of 2.5% (equating to a maximum of 36 minutes’ transmission per day), represented a worst case scenario (EMC Technologies, 2011, p. 2). Unfortunately, this conflicts with findings of other people here and overseas; in some instances smart meters ‘emit frequencies almost continuously, day and night, seven days a week’ (Namkung, 2012, p. 3).

### **RF Standards are out of date and irrelevant for long term public health and safety**

From my research of ARPANSA’s RF Standards I have noted that they have not been updated since April 2002 and are in fact based on even older guidelines published in 1998 called the 1998 Guidelines of the International Commission on Non-Ionizing Radiation Protection (ICNIRP). So, not only are our standards out dated, they do not take into consideration any of the latest scientific findings and developments which are the basis for determining public health policy. In other words, without updating the RF standards, the health policy regarding smart meters is not evidenced based. Moreover, the standards address short term acute exposure only with measurements being recorded for a 6 minute period for both SAR as well as RMS Electrical and Magnetic Fields – this does not, and cannot answer the question of what happens in the long term after people are subjected to continuous long term exposure to pulsed RF radiation. This is further complicated by the fact that it appears by default that installed smart meters are actually transmitting 100’s to 1000’s of times a day (I have personally verified this using an EMR meter on a number of smart meters in my street) rather than what is being told to us by the power companies such as yours who advise us that transmissions occur every 4 hours. Technically your organisation is correct in that “power usage” data for a single household is transmitted every 4 hours but what your personnel neglect to tell us when questioned is that smart meters in many cases are being set up in a meshed network which results in a large number of transmissions simply to keep the network up and to potentially pass on power usage data from other houses (refer to table 2-1 further on in this letter).

Unfortunately there does not appear to be any current, relevant public safety standards for pulsed RF involving chronic exposure of the public, nor of sensitive populations, nor of people with metal and medical implants that can be affected both by localized heating and by electromagnetic interference (EMI). ARPANSA RF Standards only provide protection for acute exposures where heating maybe in effect, that is, compliance with the limits will eliminate the possibility of RF burns or shock. It would be more appropriate to call them RF “cooking standards” as they provide no guarantees when it comes to constant long term exposures to Radio Frequencies from established and documented non thermal affects (even those that are well below the “reference levels” advised in ARPANSA’s RF standards).

The ARPANSA RF Standards are riddled with uncertainties that have remained unanswered 10 years since the time they were last published. The typical response documented in the RF standards is “more research

is needed". As such ARPANSA RF standards cannot provide any long term assurances in their current form and are best for research purpose only. Please refer to the attached letter to ARPANSA that questions the relevance of our standards when it comes to providing the public long term health assurances to chronic exposures of pulsed microwave emissions. The same letter also illustrates the dangers posed by radio frequencies to biological organisms including humans.

When set-up in a meshed network, smart meters (see Table 2-1 below) are transmitting 1000's of times a day. With respect to health this frequent transmission of RF is further exacerbated when smart meters are installed close to locations such as bed rooms and living rooms where a significant portion of a person's life is spent.

**Electric:** Table 2-1 presents scheduled electric SmartMeter™ system messages and their durations. As noted in Response 1, the information presented applies only to the 900 MHz radio. Table 2-1 presents data for all "scheduled" messages; i.e., those inherently required to sustain communications in the network that occur routinely without user intervention. "Non-Scheduled" messages created only at non-recurring times are addressed in Response 3.

**TABLE 2-1**

Electric System Message Type [a]	Transmission Frequency Per 24-Hour Period: Average [b]	Transmission Frequency Per 24-Hour Period: Maximum (99.9 <sup>th</sup> Percentile) [c]
Meter Read Data	6	6
Network Management	15	30
Time Synch	360	360
Mesh Network Message Management	9,600	190,000
<b>Weighted Average Duty Cycle</b>	<b>45.3 Seconds<sup>d</sup></b>	<b>875.0 Seconds</b>

The electric system message types are defined as:

- Meter Read Data refers to the messages generated by each meter to transmit energy usage data.
- Network Management refers to network tasks that need to be performed to maintain the health of the network (e.g., route establishment).
- Time Synch refers to network administration messages needed to update the internal clock in the NIC.
- Mesh Network Message Management refers to activities required to forward routed messages.

It appears likely that much of the radiation that is making people sick (including myself) is simply to maintain the mesh wireless network and not the transmission of power usage data.

This raises the question as to why Power Companies such as yours are deploying meters which are transmitting every few seconds 24/7? There appears to be reluctance to seriously address this issue perhaps because of the implications it may have on the Industry that is pushing these devices on an uninformed public particularly when costs have blown out by billions of dollars.

Some key points regarding the properties of microwaves are listed below:

1. The effects of both non-ionising and ionising radiation is accumulative. Over time, repeated exposure elevates the risk of cancer.
2. Although the exposure levels may be lower for smart meters, the accumulated exposure over time has the potential to be greater and to cause greater harm. We usually operate one mobile phone. However several smart meters are typically located very close to bedrooms and living areas especially when living in a high density arrangement. I have at least 8 smart meters within 30 to 40 metres of my property. Two

meters (next door neighbour's meters) are located within 3m of my bedroom and are not shielded from a frontal aspect i.e. outward facing to my bedroom.

3. Manmade EMF and RF/MW radiation in our environment involve complex mixtures, where different frequencies, intensities, durations of exposure(s), modulation, waveforms and other factors are known to produce variable effects, often more harmful with greater complexity. This will be most evident in households who already have wireless networks, DECT phones (special note here - the base unit of DECT phones does not stop transmitting even when not in use!), Baby monitors, mobile phones, smart meters and nearby mobile base stations. From ARPANSA's RF Standards "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."

4. Microwaves can damage the blood-brain barrier, but it does so at even when the exposure level is reduced a thousandfold. Even more disturbingly, and contrary to what is expected, the damage to the blood-brain barrier worsens when the experimenters reduced the exposure level. Exposure levels can be reduced by increasing the distance and not just the transmission power! Note many smart meters are near bedrooms and living areas. Depending on the technology, microwave emissions have an effective communication range of 100's of meters to many kilometres (WiMAX). From the DPI's website: 900 MHz offers better penetration capabilities through walls and vegetation than the longer range WiMAX operating in the gigahertz bands. In general, the lower the frequency, the better the distance and penetration capabilities. Because of the very short messages sent by the meters, frequency regulators have allowed the SSN system (used by Victoria) to use more power than most other equipment in this unlicensed spectrum.

5. Smart meters are not transmitting 4-6 times a day as we are being told by the power companies especially when set up in a meshed network and can have the potential for their accumulated duty cycle (transmission time) to exceed the amount of time some people use a mobile in a single day (especially the person who has the transmitter that communicates all passed on meter data back to the Utility). In some European countries, governments recommend that children should not use mobile devices yet with smart meters, no-one, including children, have a choice.

6. The body has protective mechanisms to reduce or repair damage when cells are exposed to microwaves (stress response). This mechanism is most efficient when the exposure is continuous or of a reasonable duration. This protective mechanism has been found not to be activated when exposures are of a very short duration – i.e. smart meter emissions.

7. Pulsed microwave radiation is considered to be bioactive and much worse in their effects than continuous waves.

I could write pages and pages on the issues and concerns (and I have in my letter to ARPANSA which I have included with this letter and recommend you take look at).

### **Misinformation**

I stand by my comment about Powercor spreading misinformation. As I mentioned in my original letter to you and again in this response, your staff, when questioned on how often the smart meters transmit data responded with metering data is captured every 30 minutes and sent every 4 hours. When asked whether the smart meter is set up in meshed network or transmitting other people data I am told that they are not sure and would have someone who does ring me back. Unfortunately no one did. If I had not known to ask these questions I would have accepted in good faith that smart meters transmissions occur every 4 hours

which does not sound unreasonable. Checking meters in my neighbourhood with an EMR meter shows this statement is not correct. I have video evidence of meters transmitting from once or twice a minute to once every few seconds. Technically, your staff are correct in that transmissions of power usage data for the home being monitored occurs every 4 hours but in a meshed network other homes data may also be passed along.

I also would like to bring into question your response in regards to government passing a law that makes smart meter installation mandatory. Again I believe that the information provided is not fully correct.

You mentioned in your letter to me that the Victorian Parliament passed a law in August 2006 for the rollout of the Advanced Metering Infrastructure. I assume you are referring to the Energy Legislation (Hardship, Metering and Other Matters) Act 2006 which includes "Act No. 60/2006 New Division 6A of Part 2 inserted After Division 6 of Part 2 of the Electricity Industry Act 2000 insert— 'Division 6A—Advanced Metering"? There is nothing in this act that says that an advanced metering infrastructure is to be rolled out. Instead it includes a definition of what Advanced Metering Infrastructure and a Licence condition requiring compliance with Order under section 46D. Now when one looks at Section 46D Orders in relation to advanced metering infrastructure it says:

The Governor in Council **may** by Order published in the Government Gazette—

- (a) specify a process for determining who is to be a relevant licensee;
- (b) specify the minimum functionality required of advanced metering infrastructure supplied or installed by or on behalf of a relevant licensee and the associated services and systems required for its support;
- (c) specify minimum standards of performance and service that must be met by a relevant licensee in respect of the provision, installation, maintenance and operation of advanced metering infrastructure and associated services and systems; Etc.

This act as you are aware on its own does not compel power companies to install an advance meter infrastructure. Instead the alleged mandate for installation is based on an Order of Council that does not pertain to electricity consumers – it is a directive to power distributors only. The Victorian Government Gazette S200, dated 28th August 2007, Para 14.1, states; "Each distributor must use **its best endeavours** to install a remotely read interval meter....". "Best endeavours" is hardly a black and white statement indicating mandatory and compulsory installation. I have yet to find any legislation or legal document from you or the Government that explicitly states that smart meters must be installed on every Victorian residential property that is connected to the power grid. Nor have I seen anything in writing that explicitly states the penalty for failing to comply with such a request.

## **Conclusion**

I have no intention of giving up on this issue and will use all avenues available to bring this issue to a head, including going public or until I receive a satisfactory resolution. As I am sure you aware now, I am not some uninformed member of the public. I have extensively studied independent research that shows RF/microwaves do have biological effects that can be harmful when exposed over long periods of time below the thermal threshold. Your organisation is not prepared to give me health assurance and I want to know why? Why are you continuing with the rollout with this unsound and unproven technology?

The burden of ensuring safety lies with your company and no one else. Powercor and its representatives have so far failed to provide a health and safety surety except with respect to HV Injection events.

Powercor and its representatives have failed to meet its responsibilities under section 98 (a) of the *Electricity Safety Act 1998* which requires power Utilities "to design, construct, operate and maintain their networks to minimize as far as practicable hazards and risks to the safety of any person arising from the supply network."

The purpose of this letter is to also serve Powercor and its representative's notice, that I have advised you and your company (Powercor) of ill effects caused by smart meter microwave radiation emissions, effects that were not present prior to the smart meters rollout in our neighbourhood. Powercor and its representatives have been advised that there are potential long term health effects including cancer that have been attributed to pulsed wireless emissions. A copy of this letter will be given to my lawyer so that when science eventually does catch up to what medical professionals are only now seeing i.e. provide a causal link between long term exposures to pulsed microwave radiation and health issues such as cancer, Powercor and its representatives will be held accountable without any recourse to claim ignorance.

I am not specifically anti Powercor nor would I have been against smart meters if it had been done properly, where:

- 1) Real benefits could be realised by the customer. Instead of
  - Providing an option in the future for hand held devices showing energy usage, which is a gimmick and not likely to see huge reductions in energy usage or cost savings for the customer. It will also increase the amount of microwaves in the environment because it requires the enablement of a separate 2.4 Ghz wireless transmitter to establish a HAN.
  - Gauging customers for a supply problem during peak demand
- 2) We were given a say rather than having smart meters rammed down our throats using stealth and bullying tactics
- 3) If it had not bypassed normal legislative processes rather than using the undemocratic process of Order in Council
- 4) It had used a more robust technology for transmitting data back to the utility that did not utilise wireless transmitters.

Yours Sincerely,

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## References

[1] Victorian Government Rule Change Proposal (Jurisdictional Derogation) Advanced Metering Infrastructure Rollout - August 2007

<http://www.aemc.gov.au/Media/docs/Victorian%20Government%20Proposal-80f738b8-7cce-4c1d-9690-f55e4b59e52f-0.pdf>

[2] Advanced Metering Infrastructure Cost Benefit Analysis

<http://www.dpi.vic.gov.au/smart-meters/publications/reports-and-consultations/advanced-metering-infrastructure-cost-benefit-analysis/2.-background>

[3] [http://www.earthisland.org/journal/index.php/eij/article/warning\\_high\\_frequency](http://www.earthisland.org/journal/index.php/eij/article/warning_high_frequency)