



mobile inSite

news, issues and science on mobile
telecommunications deployment

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Editorial

Welcome to the October 2009 edition of *Mobile InSite*, the Mobile Carriers Forum's newsletter on news, science and policy decisions about mobile telecommunications networks.

Our feature story for this edition reports on a statement from the International Commission on Non-Ionizing Radiation Protection (ICNIRP) confirming the validity of its 1998 radiofrequency safety guidelines and the protection they provide to all individuals under all exposure circumstances. This is significant because the ICNIRP guidelines form the basis of Australia's safety standard. Importantly, the statement says the guidelines took account of all of the scientific literature available on the subject, including all of the INTERPHONE studies published to date.

The MCF's state-based regional committees continue to improve state government policies that regulate the location and form of mobile network base stations. Never in the MCF's ten years of operation has there been so much

interaction with state governments. Reviews of planning policies that impact telecommunications deployment are currently taking place in Queensland, New South Wales, Victoria and Tasmania. In each state there is scope to improve current policies which can be complex and ambiguous, and sometimes have little regard for the need for base stations to be located close to where people expect service.

Also in this edition is a particularly interesting article about the most comprehensive literature review ever conducted on electromagnetic hypersensitivity. The study has found no evidence the symptoms reported by affected individuals is connected with exposure to radio signals from mobile phones or base stations.

Finally, we round out this edition with details of this year's highly anticipated Science & Wireless conference, hosted by the Australian Centre for RF Bioeffects Research. The conference will take place at Swinburne University in Melbourne on



17 November, and will feature keynote speaker Dr Bernard Veyret of ICNIRP talking about the state of science. Dr Veyret's talk will be followed by a response from the Australian Radiation Protection and Nuclear Safety Agency, providing the Australian perspective on the facts.

As always we'd appreciate any feedback from our stakeholders within industry, government and the community about any of the stories in this edition.

Matt Evans

Program Manager
Mobile Carriers Forum

ICNIRP confirms 1998 safety guidelines are still valid

The international agency with the task of setting worldwide safety standards for mobile phone technology has published a statement about their 1998 radiofrequency safety guidelines and confirmed that they still protect all individuals under all exposure circumstances.

The International Commission on Non-Ionizing Radiation Protection (ICNIRP), recognized by the World Health Organization (WHO) for expertise in setting worldwide safety standards for mobile phones, released the two-page statement to confirm that their guidelines are still valid until further notice.

“... it is the opinion of ICNIRP that the scientific literature published since the 1998 guidelines has provided no evidence of any adverse effects below the basic restrictions and does not necessitate an immediate revision of its guidance on limiting exposure to high frequency electromagnetic fields [emitted by mobile phones],” the review said.



The ICNIRP statement on the EMF guidelines can be found at:

[WEBSITE LINK](#)

Importantly, the review of the guidelines took account of all of the scientific literature available on the subject, including all of the INTERPHONE studies published to date.

“However, individual national and multinational results published thus far do not indicate an elevation of the risk of cancers in the head with cell phones within 10 years of first use. More data are needed before conclusions can be drawn for longer durations,” ICNIRP said.

Specifically on the subject of base station exposures, ICNIRP said the available scientific evidence did not justify any reason for concern.

“Epidemiological data on possible health effects of chronic, low-level, whole-body exposure in the far-field of radiofrequency (RF) transmitters are poor, especially because of lack of satisfactory individual exposure assessment. The few studies with adequate exposure assessment did not reveal any health-related effects,” ICNIRP said.

ICNIRP also commented on the debate regarding thermal and non-thermal effects.

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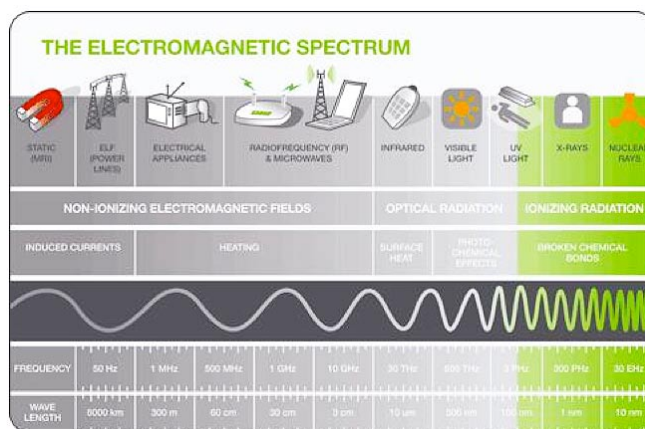
ICNIRP confirms 1998 safety guidelines are still valid

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So far, the only established mechanism for health risks from mobile phone radio signals is from tissue damage related to intense and prolonged heating. This mechanism is well understood and ICNIRP's guidelines employ large safety factors to guard against any possibility of excessive heating.

However, some people who suggest mobile phones can cause health effects claim biological non-thermal effects can be caused without any excessive heating and below the limit of the standards. To date though, non-thermal effects have never been proved.

“With regard to non-thermal interactions, it is in principle impossible to disprove their possible existence but the plausibility of the various non-thermal mechanisms that have been proposed is very low. In addition, the recent in vitro [test tube] and animal genotoxicity and carcinogenicity studies are rather consistent overall and indicate



The electromagnetic spectrum. Mobile phone radio signals are located in the non-ionizing radiofrequency spectrum.

that such effects are unlikely at low levels of exposure. Therefore, ICNIRP reconfirms the 1998 basic restrictions in the frequency range 100 kHz–300 GHz until further notice.”

The statement follows a recent ICNIRP review of mobile phones and brain tumor risk published in the science journal *Epidemiology*. ICNIRP found

no convincing evidence mobile phone use is associated with brain cancer.

“Overall the studies published to date do not demonstrate an increased risk within approximately 10 years of use for any tumor of the brain or any other head tumor... For slow-growing tumors... the absence of association reported thus far is less conclusive because the observation period has been too short,” the review concluded.

The ICNIRP brain tumour risk review can be found at:

[WEBSITE LINK](#)

ICNIRP also recently published a 358 page RF review prepared as an input to the WHO EMF project.

[WEBSITE LINK](#)

MCF says there are opportunities for improved regulations in state planning reforms

The Mobile Carriers Forum (MCF) has encouraged state government planning ministers to “stay on course” with improvements to state planning systems, following delays and potential changes that could put the effectiveness of some of the reviews at jeopardy.

MCF Program Manager Matt Evans said reviews taking place in four states to help make planning systems more efficient could be in danger of failing if the states hold onto old policies that don’t recognise the importance of wireless telecommunications.

“At present, the states are reviewing or actively reforming their state planning and development approval (DA) systems and the policies that underpin these systems. This has created opportunities across Australia’s eastern seaboard for the introduction of consistent controls for new telecommunications facilities into local

council planning instruments. The MCF has for many years promoted the code of practice for telecommunications facilities in Victoria as a model for other States to follow,” Mr Evans said.

“Most states are heading down this path, but some have veered off course. The MCF is calling on the states to recognise the importance of wireless telecommunications and stay on course with the planning reforms,” Mr Evans said.

Queensland

The Sustainable Planning Bill was passed by parliament on 16 September 2009. The new Queensland Sustainable Planning Act 2009 (SPA) will replace the Integrated Planning Act 1997 (IPA). While introducing a number of new concepts and taking a more simplified approach to drafting, the SPA does not completely throw

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MCF says there are opportunities for improved regulations in state planning reforms

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out the frameworks created under the IPA. The overall framework for regulating development has been retained, including the Integrated Development Assessment System (IDAS) with modifications aimed at improving its efficiency and effectiveness.

As part of the reform, the Queensland Government has also released the Draft Queensland Planning Provisions (QPP) for public consultation. The draft QPP can be found at:

[WEBSITE LINK](#)

“The MCF is pleased the Queensland provisions have been included in the form of a telecommunications facilities code. The provisions outline performance outcomes for telecommunications facilities where development is self assessable. However, the devil is in the

detail, and the MCF will be making a submission to clarify the many inconsistencies in the code,” Mr Evans said. Submissions are due by 23 November 2009.

New South Wales

New South Wales has completed the public exhibition of its telecommunications and broadband code, with more than 25 submissions received. The MCF is awaiting advice from the Department of Planning regarding their consideration of submissions before the code becomes operational with the amendments to the 2007 Infrastructure SEPP.

“New South Wales has progressed further than any other state in the past year, and we commend them for their hard work on this important issue,” Mr Evans said.

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MCF says there are opportunities for improved regulations in state planning reforms

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Tasmania

The Tasmanian Government has released a draft planning directive which includes a list of types of telecommunications facilities that do not require a planning permit from local councils. Whilst the MCF has welcomed a state wide and uniform approach, the draft directive is generally consistent with the telecommunications schedule already found in most council planning schemes.



The MCF will make a submission to the state government identifying potential lost opportunities for the directive to fast track approval of certain types of facilities that have negligible impact and are exempt from approval in other states. Submissions are due by 26 October 2009.

Victoria

The Victorian State Government has commenced a review of its planning system, following 21 years of operation. The MCF has made a submission in response to a discussion paper which was recently released by the Victorian Minister for Planning, Justin Madden. The review will simplify current laws, remove redundant provisions, and strengthen timeliness in the planning process, including an examination of planning permit processes leading to development approval.



The MCF said new proposals should be assessed uniformly and on their merits, with an estimated 10% of existing sites for telecommunications facilities being established on council owned or managed land.

“The MCF has recently written asking for the support and intervention of the COAG Local Government and Planning Ministers’ Council for a separation in council’s dual roles in the leasing of land for telecommunications facilities, and the role of council as a consent authority for planning and development,” Mr Evans said.

BioInitiative Report not a reliable source says COMAR



A respected US expert group, the Committee on Man and Radiation (COMAR), has looked at the quality of various reviews of the science surrounding mobile phones and health and says the *BioInitiative Report* is selective and should not be relied on as a source of information for the public.

COMAR is a technical committee of the Engineering in Medicine and Biology Society (EMBS) of the Institute of Electrical and Electronics Engineers (IEEE) and its primary area of interest is biological effects of non-ionizing electromagnetic radiation, including radiofrequency (RF) energy.

COMAR produced the Technical Information Statement because they were concerned that the public were receiving inconsistent information via the media and the internet and they wanted to “identify quality sources of scientific information on potential health risks from exposure to RF energy”.

An abstract of the statement can be found here:

[WEBSITE LINK](#)

“This report summarizes the conclusions from several major reports and comments on the markedly different conclusions in the *BioInitiative Report*,” the statement said.

COMAR reported that the *BioInitiative Report* did not provide a balanced view or comprehensive review of the science surrounding mobile phone and health.

“There is no indication of how the members of the committee were chosen or how balance was provided in the group of contributors, a majority of whom have public records of criticism of existing exposure standards and guidelines,” the statement said.

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BioInitiative Report not a reliable source says COMAR

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The *BioInitiative Report* contains instances of internal inconsistency; for example, it notes in one section that “A weight-of-evidence approach has been used to describe the body of evidence between health endpoints and exposure to electromagnetic fields (ELF and RF)” and, in another, that a weight-of-evidence approach is “unscientific,” the statement said.

COMAR reported that the *BioInitiative Report* “is a selective, rather than a comprehensive, review of the literature in various topical areas”.

“COMAR concludes that the weight of scientific evidence in the RF bioeffects literature does not support the safety limits recommended by the BioInitiative group,” the statement says.

This follows similar criticism by several government agencies and health authorities.

The Health Council of the Netherlands reviewed the *BioInitiative Report* in September 2008 and concluded it is a selective review of existing research and does not present a balanced

analysis considering the relative scientific quality of different studies.

The report can be found here.

[WEBSITE LINK](#)

In December 2008 the Australian Centre for Radiofrequency Bioeffects Research (ACRBR) reviewed the *BioInitiative Report* and concluded:

...it merely provides a set of views that are not consistent with the consensus of science, and it does not provide an analysis that is rigorous-enough to raise doubts about the scientific consensus.

The ACRBR also noted that the state of science in this area is continually being debated and updated by a number of expert bodies comprising the leading experts in this field and strongly urged people to consult these views for a balanced assessment of the research.

[WEBSITE LINK](#)



State says planning objectors may be forced to pay fees

Victorians could be forced to pay for the right to object to proposed developments in their community as part of a new 'market-type' approach, Planning Minister Justin Madden suggested during a speech to the Law Institute of Victoria in September.

Mr Madden also indicated he may seek more effective ways of dismissing "frivolous and vexatious objections" to proposed developments, as the Victorian government undertakes a major review of planning fees and laws, *The Age* newspaper reported.

[WEBSITE LINK](#)

However, Mobile Carriers Forum (MCF) Program Manager Matt Evans said the mobile phone industry actively encourages community



Victorian Planning Minister Justin Madden says he may seek more effective ways of dismissing "frivolous and vexatious objections" to proposed developments.

feedback when installing new mobile phone towers and welcomed community involvement in the planning process.

"Mobile phone carriers seek community and local council input when deploying new infrastructure as part of the industry's ACIF Code for deployment. The code promotes transparent decision-making by requiring carriers to inform local councils and notify communities when installing new towers."

More information about the ACIF Code can be found at:

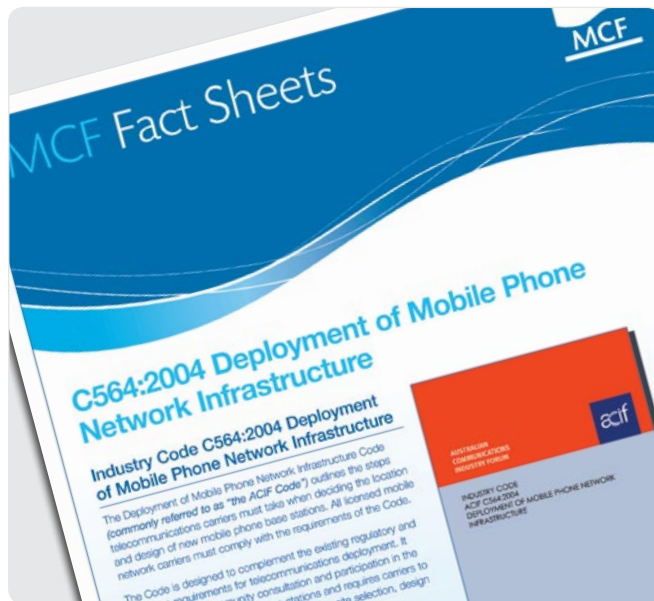
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Mr Evans said the MCF made a submission in May to the Victorian government on the planning reforms. He said the MCF and its member carriers are important stakeholders in

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State says planning objectors may be forced to pay fees

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The ACIF Code for deployment promotes transparent decision-making by requiring carriers to inform local councils and notify communities when installing new towers.

the planning system, with approximately 100 planning permits issued each year for new mobile telecommunications towers in Victoria.

“We have a large stake in ensuring that the permit process is working efficiently and strikes a reasonable balance between the provision of important telecommunications services and the need to protect the environment from adverse impacts arising from telecommunications infrastructure,” Mr Evans said.

He said the MCF welcomes the proposed introduction of a ‘Code Assess’ track in the new planning system, which is a shorter 14-day

application process that provides much greater certainty than the current 60-day process.

“This presents an opportunity to identify telecommunications facilities for a shortened ‘Code Assess’ track, such as freestanding towers in industrial or rural areas, and to create specified performance standards and pre-determined criteria along the lines of what is currently proposed in NSW,” Mr Evans said.

The MCF’s submission to the Victorian Government’s Planning Review can be found at:

[WEBSITE LINK](#)

WA Tribunal slams council for rejecting tower based on health concerns

Telstra won a battle in the West Australian State Administrative Tribunal in June following a refusal by the Shire of Murray to allow Telstra to build a mobile phone tower at Stake Hill, along the Perth to Bunbury highway.

The Shire of Murray rejected Telstra's proposal in September 2008, citing visual impact and health concerns, despite the Shire's own planning committee recommending the councillors approve the application.

Tribunal member Peter McNab rejected all of the evidence submitted by the Shire and was highly critical of the basis on which the council refused the planning permit.

"The respondent [Shire of Murray] relies upon some objectors' perceptions of potential health problems and submits that Telstra 'is unable to guarantee that the facility will not cause negative



Members of the West Australian State Administrative Tribunal. Pictured far right is Tribunal Member Peter McNab.

health impacts'. Perceptions, without more, are an unsuitable basis for elevating amenity concerns to the point where a proposal, which is otherwise justified and compliant, should be refused planning approval," Mr McNab said.

"Further, it is disingenuous to demand a guarantee of no adverse health impact when all the currently available expert material in this field suggests that the issue simply does not arise on the basis of present knowledge and research."

The WA State Administrative Tribunal ruling can be found at:

[WEBSITE LINK](#)

The Shire of Murray argued that because the site chosen by Telstra was zoned 'Rural' and located next to a 'Special Rural' zone, the application was "contrary to orderly and proper planning" and had "no coordinated strategic approach".

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WA Tribunal slams council for rejecting tower based on health concerns

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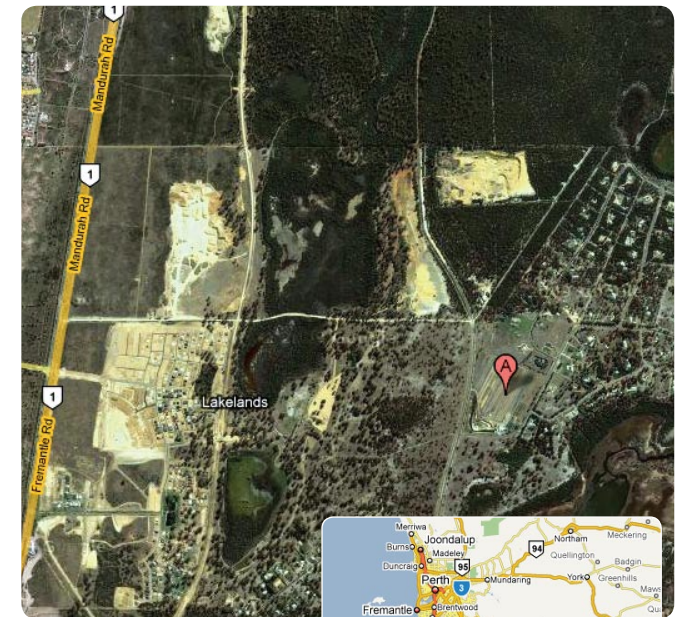
However, in its defence, Telstra said it had performed extensive local government consultation dating back to 2004, and had also contacted all affected landowners near the site. Telstra argued the proposed lattice style tower would have little visual impact, considering the rural nature of the surroundings.

In rebuttal to concerns about the potential health risks, Telstra said the maximum level of radiofrequency energy at the site would only be 0.19% of the Australian Radiation Protection and Nuclear Safety Agency's (ARPANSA) safety standard, equivalent to one five hundredth of the exposure level permitted for the general public.

Mr McNab approved the application saying Telstra selected a suitable rural site with the necessary equipment to provide appropriate service.

“All of these matters also outweigh the concerns expressed by some parties as to the proposal’s visual impact which, in any event, in my view is ameliorated by the distances involved to the nearest habitable dwellings; the proposed screening... and could not, in any event, be said nowadays to be an unfamiliar presence in rural areas.”

Mr McNab also took issue with the Shire of Murray’s strange choice of representative for the Tribunal. Mr R Peake, a senior manager with the Shire, is a member of the planning committee which originally recommended the Shire approve Telstra’s application. Mr McNab said he would have usually called for an adjournment and insisted a lawyer be called in to avoid conflicts of interest, but decided to proceed to prevent further delays.



The location of Telstra’s proposed base station at 25 Lymon Road, Stake Hill (Lakelands), West Australia.



Government finds mobile phone tower emissions more than 300 times below safety standard

A recent Federal Health Department audit of contentious mobile phone base station sites in Victoria and Tasmania has found base station radio frequency (RF) emissions are well within Australia's safety standards.

A measurement program undertaken by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) has again shown that Australia's telecommunications carriers are operating their antennas and base stations at levels hundreds of times below the allowable limit.

The latest survey results for the three sites at: Lalor (VIC), Pascoe Vale (VIC) and Lower Sandy Bay (TAS) revealed that emissions were less than 0.316 per cent of the safety standard, or more than 300 times below the standard.

The three new sites have been added to the government database of independently tested base stations. Sites were selected to cover all carriers, technologies, geography and type of installations and also if they caused significant community concerns.



The survey results for the Pascoe Vale site show the maximum level of RF EME from this base station was only 0.316% of the ARPANSA Standard.

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Government finds mobile phone tower emissions more than 300 times below safety standard

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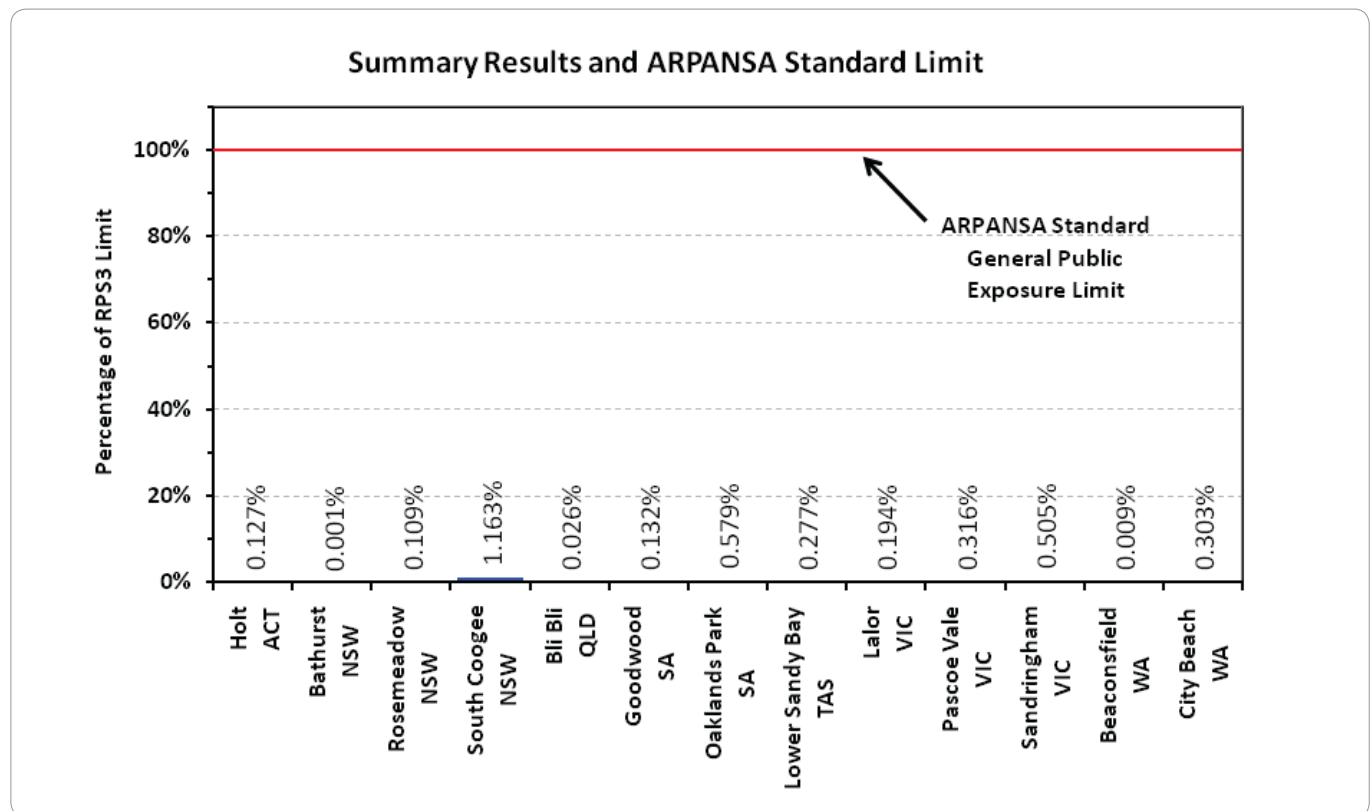
Local councils were invited to nominate base stations to be checked along with suggested sites by members of the EME Reference Group. This group includes representatives from consumer organisations, the telecommunications industry, the health sector, academic organisations, other government organisations and community groups.

It was established to allow community input into the Committee on Electromagnetic Energy Public Health Issues (CEMEPHI) a body that coordinates Australian Government action on electromagnetic energy public health issues.

The highest level of emissions recorded across the 12 audited sites from 2007-2009 was still only 1.163 per cent of the standard.

Results from the three most recent audited sites together with ARPANSA's results for all audited base stations since 2007 can be found at:

[WEBSITE LINK](#)



Sensitivity to towers linked with psychological expectations, not emissions

The most comprehensive literature review ever conducted analysing all the scientific studies on individuals with self-reported electromagnetic hypersensitivity has found no evidence their condition is connected with radio signals from mobile phones or base stations.

Electromagnetic hypersensitivity (EHS) is a medically unexplained illness in which subjective symptoms, such as headaches, skin irritations and fatigue, are reported following exposure to electrical devices.

The review, published in August by Dr James Rubin and colleagues from King's College London, found no robust evidence supporting the theory that mobile phone or base station signals cause the symptoms.

The research paper can be found at:

[WEBSITE LINK](#)

The result supports the group's earlier findings in 2005, which showed nearly all the provocation studies ever conducted on EHS individuals showed they are unable to accurately detect the presence of mobile phone emissions under controlled double-blind experiment conditions.

Dr Rubin's 2005 research paper can be found at:

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Lead author Dr James Rubin from King's College London.

Sensitivity to towers linked with psychological expectations, not emissions

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Of most interest in the latest review was the reports of recent studies which suggest psychological expectations play a role in triggering, maintaining and exacerbating the symptoms. Dr Rubin says the phenomenon known as the nocebo effect, where negative expectations lead to undesirable physiological outcomes, is a likely explanation for the symptoms observed in EHS individuals.

“...many of these studies have found evidence that the nocebo effect is a sufficient explanation for the acute symptoms reported in IEI-EMF [EHS individuals]. Thus while continued experimental research in this area will be required to clarify the role of chronic exposures and to test the

effects of new varieties of electromagnetic emissions, the best evidence currently available suggests that IEI-EMF should not be viewed as a bioelectromagnetic phenomenon,” Dr Rubin concluded.

The results of Dr Rubin’s review is consistent with the recommendations of the World Health Organisation (WHO), who say treatment of affected individuals should focus on the health symptoms, and not on the person’s perceived need for reducing or eliminating emissions.

The WHO fact sheet on EHS can be found at:

[WEBSITE LINK](#)



In Brief

Date confirmed for Science & Wireless 2009

The annual Science & Wireless conference hosted by the Australian Centre for RF Bioeffects Research (ACRBR) will be held again on 17 November at Swinburne University, Melbourne, with keynote speaker Dr Bernard Veyret of the International Commission on Non-Ionizing Radiation Protection (ICNIRP).

ICNIRP's guidelines are used as the basis for Australia's electromagnetic radiation exposure safety standards.

Dr Veyret is head of the Bioelectromagnetics Laboratory of the 'École Pratique des Hautes Études' in France, and was one of the founding members of the European Bioelectromagnetics Association (EBEA) in 1989. Dr Veyret has

authored 80 papers in peer-reviewed journals and co-authored several national and international expert-group reports on EMF and health.

Dr Veyret will provide an overview of the state of the science, following a busy year for radiofrequency research in the news.

Dr Veyret's talk will be followed by a response from the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), providing the Australian perspective on the facts.

Science & Wireless is a public symposium for raising awareness of mobile phone research.

More information about Science & Wireless 2009 can be found at:

[WEBSITE LINK](#)



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In brief

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Australian INTERPHONE scientist questions prominent neurosurgeon's claims

The head of the Australian arm of the INTERPHONE project on mobile phone safety has called into question claims by a prominent neurosurgeon that there has been an “exponential rise” in the incidence of brain cancer, particularly among teenagers.

University of Sydney cancer epidemiologist Professor Bruce Armstrong “shot down” this “smoking gun” assertion from Dr Charile Teo in August in *The Australian* newspaper.

“I know of absolutely no evidence that there’s an increase in brain tumours in teenagers,” Prof Armstrong said. “I’ve looked at both teens and adults. There is no evidence in Australia.”

“Charlie Teo is convinced there’s a strong association based, I assume, on his personal observation that he had patients who are heavy



Professor Bruce Armstrong says there is no evidence of an increase in brain tumours in adults or teenagers

mobile phone users. Gee, there must be cause and effect. You cannot draw a conclusion from that kind of evidence,” Prof Armstrong said.

The article in *The Australian* can be found at:

[WEBSITE LINK](#)

British Prime Minister responds to tower petition

The British Prime Minister’s office has released a statement supporting the safety standard limits developed by the International Commission on Non-Ionizing Radiation Protection (ICNIRP), following a petition calling on the Prime Minister to permanently remove a base station in the West Midlands town of Kingswinford.



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In brief

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The petition, which gathered 220 signatures, stated the Kingswinford base station had been found to emit the highest levels of radiofrequency energy recorded so far this year by UK communications regulator Ofcom, even though the levels were within the ICNIRP guideline limit.

The Prime Minister's Office responded by saying all mobile phone base stations are expected to meet the ICNIRP guidelines, as directed under the Telecommunications Planning Policy Guidance Note 8 (PPG8) regulations.

"PPG8 also states that, in the Government's view, if a proposed mobile phone base station meets the international guidelines for public exposure – the ICNIRP guidelines – it should not be necessary for a local planning authority, in processing an application for planning permission or prior approval, to give further consideration to the health aspects and any concerns about them," the Prime Minister's Office said.

The petition, and the Government's response, can be found at:

[WEBSITE LINK](#)

Mobile telecommunications' key role in delivering low-carbon future

Mobile technology could cut Europe's annual energy bill by at least \$A61 billion and reduce annual greenhouse gas (GHG) emissions by at least 113 megatonnes CO₂ equivalent by 2020, according to a report by Vodafone.

This represents 18 percent of the UK's annual CO₂e output in 2008 and approximately 2.4 percent of expected EU emissions in 2020, according to the study.

AMTA Chief Executive Chris Althaus said the future of the mobile sector's contribution will depend on the allocation of new radiofrequency spectrum infrastructure for mobile telecommunications given that a low carbon



future will use mobile data solutions, including mobile broadband and the deployment of machine-to-machine (M2M) applications. "The report importantly points out that policymakers must make the 'carbon connection' between ICT and climate change and understand the important role it can play in tackling climate change."

The report can be found at:

[WEBSITE LINK](#)