

# CASE NOTE: ELECTROMAGNETIC RADIATION AND TELECOMMUNICATIONS NETWORKS

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*Mary-Ellen Horvath considers the recent decision of the NSW Land and Environment Court in **Hutchison Telecommunications (Australia) Pty Ltd v Baulkham Hills Shire Council***

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In the recent decision of *Hutchison Telecommunications (Australia) Pty Limited v Baulkham Hills Shire Council* [2004] NSWLEC 104, the Land and Environment Court of New South Wales (**Court**) considered the “precautionary principle” and confirmed the appropriate regulatory standards to be applied to electromagnetic radiation (**EMR**) emissions from mobile telecommunications base stations. Importantly, the Court held that it was inappropriate and not in the public interest for the Court to attempt to impose a standard that is not recognised by a national regulatory body and, moreover, that the creation of new regulatory standards is not a matter for the Court.

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## BACKGROUND

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On 18 February 2003, Hutchison 3G Australia Pty Limited (**Hutchison**) lodged a development application (**DA**) with Baulkham Hills Shire Council (**Council**) to erect a mobile telecommunications base station - a monopole, approximately 36 metres in height with three panel antennae, located on land owned by Sydney Water in Castle Hill East (**facility**). On 20 August 2003, the Council gave notice of its determination refusing consent for the DA, stating:-

*“The Development Application has been refused on the following grounds:-*

- 1. Based on lack of evidence.*
- 2. Duty of care to the residents.*
- 3. The application is not in the public interest.”*

On 15 September 2003, Hutchison filed a Class 1 Application under s 97 of the *Environmental Planning and Assessment Act 1979* (**EP&A Act**) in the Court, appealing the Council’s decision to refuse the DA.

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## ISSUES

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In its Statement of Issues, the Council identified the following issues:-

- potential adverse health impacts of EMR;
- adverse visual impact; and
- public interest and objectors’ concerns.

Two weeks prior to the hearing the Council resolved to grant consent, subject to certain conditions, many of which were disputed. In essence, the disputed conditions were that:

- the power to the antennae be limited to 10 watts;

- EMR emissions from the facility be measured at less than 1 volt metre (**1V/m**) in any place frequented by a member of the public (the origin of the measurement of 1V/m is addressed below); and
- future mobile operators proposing to co-locate on the new tower must submit details of their proposal to the Council and adhere to the conditions of consent imposed on Hutchison;

The most contentious issue was the potential adverse health impacts and whether the Court had the power to impose a standard which is more stringent than the relevant standard set out in *Radiation Protection Standard - Maximum Exposure Levels to Radiofrequency Fields - 3kHz to 300 kHz* published by the Australian Radiation Protection and Nuclear Safety Agency in May 2002 (**ARPANSA Standard**).

### **Legislative framework**

The Court summarised the operation of relevant legislation and industry codes (at par 17):

*The provision of telecommunications in Australia is governed by a complex regime of Commonwealth legislation. It is necessary to briefly review this to understand the legal framework relevant to this development application and the limits imposed on field strength under the Commonwealth regime. The Telecommunications Act 1997 (Cth) (the Telecommunications Act) in conjunction with the Trade Practices Act 1974 (Cth) regulates the telecommunications industry whilst the Radiocommunications Act 1992 (Cth) (the Radiocommunications Act) regulates the use of the radiofrequency spectrum by the telecommunications industry. Providers of telecommunications services must be appropriately licensed under both the Telecommunications Act and the Radiocommunications Act before they can utilise the radio spectrum to provide telecommunications services. The Australian Communications Authority (the ACA) is the Commonwealth government body which is responsible for administering the Telecommunications Act and the Radiocommunications Act and, in particular, the licensing regime governed by the Radiocommunications Act. The ACA has made the Radiocommunications (Apparatus Licence) Determination 2003 (the Radiocommunications Determination) under the Radiocommunications Act. The Radiocommunications Determination contains additional conditions relating to exposure to electromagnetic radiation which apply to spectrum licences issued under the Radiocommunications Act and stipulates that, in areas where the public have access, the level of emissions must not exceed those contained in the ARPANSA Standard.*

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## **CONSENT AND CONDITIONS**

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### **Power to the antennae to be limited to 10 watts**

The Council's proposed condition to limit the power to the antennae to 10 watts was the result of three considerations:-

- the DA specified 10 watts of power and the Court could only grant consent for that which the Applicant had applied;
- an attempt to restrict future co-location of other carriers who would use the Applicant's pole and equipment; and

- a concern that power above 10 watts could result in EMR emissions which exceed 1 V/m.

The Court accepted this condition by inserting the following sentence into the conditions of consent:-

*The power supply to the antennae must be no more than 10 watts as described in the application.*

The Court's decision was made on the basis that the Court cannot grant consent beyond that which was applied for in the DA. As a result, it is unlikely that this restriction has any general application to carriers.

### **The Dutch study the precautionary principle**

The Council submitted that the facility's EMR emissions should not exceed 1V/m - a measurement drawn from a singular Dutch study published in September 2003 by the TNO Physics & Electronics Laboratory. The study had not been replicated or peer reviewed by anybody anywhere in the world, however the Council submitted the Court should apply this limit in light of the precautionary principle referred to in the ARPANSA Standard.

One of the objectives of the EP&A Act is to encourage "ecologically sustainable development" and while there this was not defined under the EP&A Act, a definition of this phrase is found in Section 6(2) of the Protection of the Environment Administration Act 1991 (**POEA Act**). On the Council's submission, the Court accepted that, in the absence of a definition in the ARPANSA Standard, an "ecologically sustainable development" and "the precautionary principle" could be defined by the following passage found in the POEA Act:

*... ecologically sustainable development requires the effective integration of economic and environmental considerations in decision-making processes. Ecologically sustainable development can be achieved through the implementation of the following principles and programs:*

*(a) the precautionary principle—namely, that if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation. In the application of the precautionary principle, public and private decisions should be guided by:*

*(i) careful evaluation to avoid, wherever practicable, serious or irreversible damage to the environment, and*

*(ii) an assessment of the risk-weighted consequences of various options. ...*

It was the Council's further submission that the precautionary principle was triggered because further scientific research needed to be carried out before the Court could be satisfied that the ARPANSA Standard was an adequate standard to ensure the safety and health of the community.

Hutchison opposed this submission on the basis that it was against accepted scientific procedure to adopt the implications of a preliminary study and was therefore not in the public interest. In addition, Hutchison argued that it was not within the Court's jurisdiction to impose a "pseudo-standard" or "arbitrary limit" where it had not been approved by a regulatory body.

The Court held that the Council had not been able to show that 1V/m standard was recognised, appropriate or in the public interest and that an application of the precautionary principle had not been triggered. In making this finding the Court directly addressed the issue whether the Court “should impose stricter limits than are contained in the ARPANSA Standard in the absence of another recognised standard.” The Court then noted the decision in *R Hyett v Shire of Corangmite* [1999] VCAT 794 (30 April 1999) where it was held that:

*...the Tribunal is obliged to apply the relevant regulatory standards as it finds them and not to pioneer standards of its own. The creation of new standards is a matter for other authorities.*

The parties agreed that the Applicant was required to comply with the ARPANSA Standard, and that the Applicant did comply with the ARPANSA Standard. On the Applicant’s evidence the estimated level of EMR emissions as a result of the development would be 0.0009 per cent of the maximum exposure limits under the ARPANSA Standard. The Court held that the application of the precautionary principle had not been triggered and that, because the measurement of 1V/m was not a recognised standard approved and imposed by a regulatory body, the proposed condition to restrict EMR emissions to less than 1 V/m should not be included in the conditions of consent.

In *NTL Australia Ltd v Willoughby Council* [2000] NSWLEC 244 (27 November 2000) per Bignold J the respondent Council submitted it should be a condition of consent that EMR emissions be less than the predicted emissions stated in a report by Broadcast Communications Limited (“**BCL Report**”).

The parties and the Court agreed that the relevant standard to be applied was found under the International Commission on Non-Ionizing Radiation Protection (ICNIRP) 1998 Guidelines (“**ICNIRP 1998 Guidelines**”). The maximum non-occupational exposure level under the ICNIRP 1998 Guidelines was 200W/ cm<sup>2</sup> which is the same as the current ARPANSA Standard of 0.08W/kg.

The proposed condition was opposed by the Applicant on the grounds that:-

- the condition ignored the expert evidence showing predicted emissions to be well below the levels set out under the ICNIRP 1998 Guidelines; and
- the condition ignored the existence and appropriateness of the ICNIRP 1998 Guidelines.

The Court held that the proposed condition went far beyond the recommendations made in the BCL Report, “*by in effect elevating to a criterion or standard, the [predicted] levels of electromagnetic radiation*”. The Court also referred to the maximum exposure levels under the ICNIRP 1998 Guidelines as being “*the generally recognised standard*”.

The Court accepted expert evidence presented by the Applicant that there was already an applicable standard and it was therefore inappropriate to attempt to elevate predicted levels into “pseudo standards”.

### **Future co-location**

The Court rejected the imposition of this proposed condition because it attempted to deal with possible future activities and did not relate to the DA. It was further noted that the Telecommunications Act actually encourages co-location and that a carrier proposing to co-locate is generally exempt from any need to obtain development consent as a facility seeking to co-locate on an existing pole will generally constitute a “low impact facility” which does not

require development consent under the EP&A Act. In other words, the Court could not prevent that which the Telecommunications Act specifically permits and encourages.

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## IMPORTANT OUTCOMES

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The key outcomes of the decision of the Court are that:

- the Court cannot grant consent for more than that which is applied for in the development application;
- the Court will not impose a pseudo or arbitrary standard upon EMR emissions where there already exists an appropriate standard approved and imposed by a recognised regulatory body; and
- the Court cannot prevent that which the Telecommunications Act specifically permits and encourages.

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