

6 October 2023

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Dear Sir

**Response to Submissions regarding Proposed Telecommunications Facility
Development Application No: 23006087
4-8 Aldinga Road, Willunga SA 5172**

Please find below a response to the main issues raised within the submissions received, following Council's approval of the above Development Application for a 30m Indara and Optus monopole.

EME and Safety

Optus places very high importance on EME safety. We rely on national and international experts such as the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) and the World Health Organisation (WHO) in relation to guidance on base stations and health. These expert authorities continually review the science on electromagnetic energy (EME) to protect public safety.

The current position of the WHO is available in the Online Q&A (updated 21 February 2020) the WHO state: "Studies to date provide no indication that environmental exposure to RF fields, such as from base stations, increases the risk of cancer or any other disease" <https://www.who.int/news-room/q-a-detail/what-are-the-health-risks-associated-with-mobile-phones-and-their-base-stations> ARPANSA's position is: "Based on current research there are no established health effects that can be attributed to the low RF EME exposure from mobile phone base station antennas." <https://www.arpansa.gov.au/understanding-radiation/radiation-sources/more-radiation-sources/mobile-phone-base-stations>

All of Optus' mobile base stations are designed to comply with the relevant Australian safety standard called RPS S-1 or Radiation Protection Series – S1 (Standard for Limiting Exposure to Radiofrequency Fields – 100 kHz to 300 GHz). RPS S-1 is set by ARPANSA and is based on the safety guidelines recommended by the International Commission on Non-Ionising Radiation Protection (ICNIRP)."

Optus' calculations have the predicted EME level from the proposed facility, at any publicly accessible location as a maximum of 2.03% of the allowable public exposure limit (100%). The calculations do not take into account trees, vegetation or buildings, which may alter the EME levels, generally decreasing them.

The report also provides an approximate calculation for the Willunga Primary School. Refer to Page 2 of the attached EME Report.

Scientific Research

We are aware that there are a number of websites or studies claiming to provide scientific evidence regarding negative health impacts resulting from RF field exposure. Many of them lack any scientific rigor and do not have the formal backing from national and international health authorities such as the ARPANSA and the World Health Organisation (WHO). ARPANSA advises: "ARPANSA and the World Health Organization (WHO) are not aware of any well-conducted scientific investigations where health symptoms were confirmed as a result of radio wave exposure in the everyday environment."

<https://www.arpansa.gov.au/news/misinformation-about-australias-5g-network>

Importantly, ARPANSA also constantly evaluates emerging science, publishing a Literature Survey which is updated monthly, and is available on their website:

<https://www.arpansa.gov.au/research/surveys/radiation-literature-survey>

Visual Impact

Indara and Optus advise that the location of telecommunications facilities in urban and rural communities are now commonplace. Nevertheless, Indara and Optus always seriously consider visual impact when siting and designing telecommunications facilities and ensure to co-locate where reasonable. In this instance there are no viable colocation facilities (existing structures etc) within the search area, therefore necessitating a new facility.

Telecommunications facilities are, by their nature, visible infrastructure within the surrounding environment. Siting facilities in residential or highly visible locations is, unfortunately, sometimes required - when these are the areas where services are required. Mobile phone facilities only have a limited range; and need to be installed in close proximity to the area to be covered. If a facility is located too far from a proposed coverage area, connections would be unavailable, and interference may occur with another facility.

In selecting this location for a new facility at Willunga, Indara and Optus needed to consider the coverage requirements and balance these with the historical, commercial, recreational and residential aspects of the town.

The site selected for the facility is located behind the local commercial district of the town, away from daily pedestrian traffic. The site is easily accessible from existing access routes and no additional access is required. The site is located adjacent to the boundary fence along the southern side of the property. Mature trees are present at the selected site.

The facility is designed as a slimline monopole with a turret mount on the top to support the antennas. The pole would be light grey in colour - which has been shown to blend more readily into the skyscape. The fence surrounding the compound would be built as a security picket fence, thereby providing screening for the equipment cabinet and ancillary equipment inside. This design ensures that the facility presents as a slim and compact structure within the environment. Furthermore, the development approval has required landscaping around the compound perimeter, providing screening of the equipment cabinets and compound itself.

While the power poles and lines are apparent within the streetscape, the necessity for such infrastructure is balanced against the visual impact. Existing infrastructure - including light and power poles, flag poles and a communications tower - are evident within the streetscape. The proposed facility is in character with these existing design elements. The proposed telecommunication facility has been designed and located to reduce visual impact as much as possible.

Given that clear line of sight is essential to the operation of any telecommunications facility, it is not possible to completely mitigate all impacts on surrounding views. While Indara and Optus endeavor to minimise the visual prominence of the facility wherever it is possible to do so, there must be a balance between amenity and service, without undue compromise to either. Accordingly, Indara and Optus have sought to implement this balance by choosing a location that best minimises the potential visual impact. The proposed facility will be partially screened by the existing vegetation that near the location and some proposed landscaping around the proposed compound.

It is also worthwhile noting that telecommunication panel antennas must be at a height above all obstructions to operate efficiently. The facility has been proposed at its minimum height to achieve the technical coverage requirements for the site. We are of the view that the facility is well absorbed by the surrounding visual environment. We have also designed the facility at the lowest technically feasible height reduce visual impact.

Site Selection

Optus constantly monitors its network for usage and performance. The Proposed Facility is an important part of Optus's infrastructure network program within the Willunga region, which includes both adding capacity to the existing sites which serve the area and the introduction of new sites.

A new facility at Willunga will provide added coverage and capacity to the network to ensure the local community can continue to rely on the network for mobile telephony, internet, search and rescue, emergency alerts, 000 calls etc.

Optus understands some locations where we need to place our facilities are more sensitive than others. Optus works diligently to find a balance between providing high quality services and minimising our impact on the community and the local environment. In addition to technical requirements, Optus has considered a number of

other important non-technical criteria when selecting a site, including:

- the potential to co-locate at an existing telecommunication facility;
- the potential to locate on an existing building or structure;
- the visual impact on the surrounding area and the need to obtain relevant town planning approvals;
- the proximity to community-sensitive locations and areas of environmental heritage or significance; and
- the type of and ability to secure tenure at the site.

In this instance the absence of sites to co-locate upon, required a new monopole to provide service.

Proximity to Sensitive Uses

All of Optus' base stations are designed to comply with the ARPANSA Standard. Our engineers conduct a thorough EME compliance assessment as part of the base station design.

For each base station, an EME Environmental Report is prepared by Optus and can be accessed by members of the public via the Radio Frequency National Site Archive (RFNSA) at www.rfnsa.com.au. You can search via location. The Environmental Report estimates the maximum cumulative EME emitted from the base station. The estimated levels have been calculated on the maximum mobile call and data capacity anticipated for a particular site. This estimation does not allow for possible radio signal attenuation due to buildings and the general environment. As such actual EME levels will generally be significantly less than predicted, due to path losses and the base station automatically transmitting power to only serve established phone calls and data transmissions.

We recognise the sensitivity associated with proposals near residential areas and we try hard to strike a balance between providing services and minimising our impact on the community and the local environment. Distances at which infrastructure must be sited from community sensitive locations based on an arbitrary distance does not necessarily reflect a precautionary approach. For example, infrastructure sited further from a sensitive area may mean devices need to operate at greater power to and may result in higher exposures.

Once a base station becomes operational or is modified, a Site Compliance Certificate is prepared by a National Association of Testing Authorities (NATA) Assessor to certify that the site has been assessed and complies with the Radio Frequency Human Exposure Limits as specified by the Australian Communications and Media Authority (ACMA) License Condition Determination (LCD) and the requirements of RPS S-1. A copy of the Site Compliance Certificate for a site can be accessed via the RFNSA.

In summary, Optus relies on the advice of a number of international and national health authorities including the World Health Organisation (WHO) for overall assessments of health and safety impacts. The WHO and other public health authorities advise that

there is no substantiated scientific evidence that radiofrequency technologies that operate within national and international safety standards (for Australia RPS S-1 and the ICNIRP guidelines), including mobile phones and base stations, cause any adverse health effects.

Notification of the Development Application

A development application was lodged with the City of Onkaparinga Council (via SA Planning Portal) and the notification process is required to be determined by Council. In this instance it was determined that notification was not required for the facility and accordingly Development Approval was given following Council's assessment. Please note however that Building Approval is still required as part of the approvals process.

Notwithstanding this, should anyone have any queries in relation to the proposal I can be contacted on my details below.

Yours sincerely



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