TCF Submission to Auckland Council
On Auckland's Draft Future Development Strategy
31 July 2023

Introduction

1. Thank you for the opportunity to comment on the <u>draft Future Development Strategy for Auckland.</u>

2. This submission is provided by the New Zealand Telecommunications Forum (TCF). The TCF is the telecommunications sector's industry body which plays a vital role in bringing together the telecommunications industry and key stakeholders to resolve regulatory, technical and policy issues for the benefit of the sector and consumers. TCF member companies represent 95 percent of New Zealand telecommunications customers.

3. The focus of our submission is on the critical role that telecommunications infrastructure will play in the growth of Auckland. For example, quality connectivity (internet and phone) is essential to plans to address housing shortfalls through housing intensification, and to reduce emissions by having more places of business close to where people live.

4. We cover the following issues in our submission:

   a. Connectivity challenges that come from denser residential and commercial areas

   b. The role telecommunications can play in helping to reduce emissions

   c. Resilience issues and adapting to climate change

   d. Efficient and equitable infrastructure investments.

Telecommunications and the planning system

5. The planning system is both an enabler and a barrier to getting connectivity to the people of Auckland. The telecommunications industry engages with the planning system (and central government resource management laws) to be able to install, maintain and upgrade network infrastructure such as fibre optic cables, cell towers, poles and antennas. We apply for resource consents and designations, make submissions on plans and seek plan changes.

6. As the built environment of Auckland intensifies, so does our need to engage with the planning system. For example, suburban buildings are getting taller as medium density housing standards (MDRS) rules apply, permitting buildings up to 12 metres, taller than the permitted height for a mobile connectivity site. Wireless signals are more likely to be obstructed by buildings, and without mitigations we expect to see coverage blackspots appearing.

7. The first picture below shows the status quo. The second picture shows where we need to get to in terms of pole versus building height.

Wireless signals do not travel easily through obstructions, and this can result in blackspots within the wider network coverage areas (where customers are in the shadow of a building) and can lead to radio emission safety concerns. Tight equipment envelopes limit our ability to deploy new antenna for new growth or sharing.

The ideal height for mobile antennas is 5m taller than surrounding buildings and obstructions, with space for additional antennas used for sharing the mast and growth.
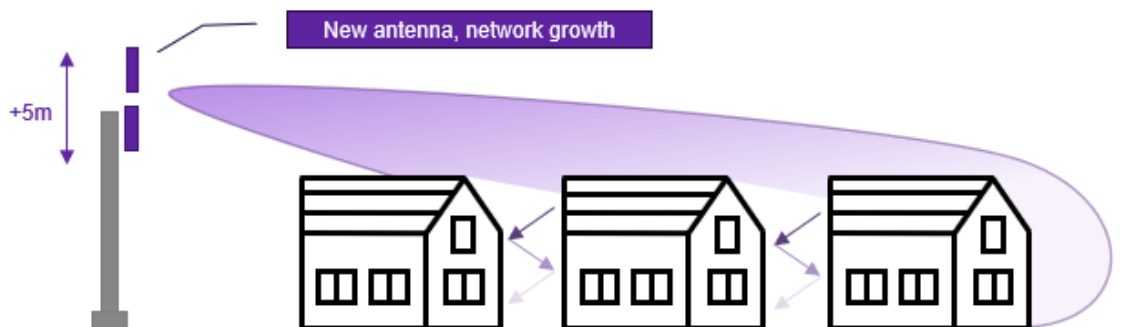
8. This will have an impact on the quality of mobile connectivity experienced by people in Auckland. We also expect this situation will increase resident concerns about radio emissions from towers. While existing towers broadcast from antennas that are typically above nearby residences, the same antenna will be located at a similar height to upper floors in a three to six story building.

9. There is also an issue where we use poles for street lights to co-locate telecommunications equipment. With local authorities deploying narrower and shorter streetlights of around six metres to accommodate LED lights, this reduces the height envelope for new cell sites.

10. In short the issue we have is one of pole height. The allowed heights under NESTF (the National Environmental Standards for Telecommunications Facilities) have not kept pace with changes in allowed building heights. While we have repeatedly raised this issue with MFE and MBIE, they have told us that changes will not be made under the RMA, and may not even make it into the first National Planning Framework. This means we need to seek resource consents or plan changes to be able to install mobile sites that are tall enough to avoid black spots. These processes take a lot of time and are very costly.

11. The Council can help address these issues by making changes to the Auckland Unitary Plan (AUP). Chapter E26 Infrastructure needs review and amendment to enable infrastructure to better support growth in Auckland. More specifically, the following provisions need updates:

    a. E26.2.3.1 activity table - network utilities and electricity generation – all zones and roads. With a focus on the activities A31 to A42, especially poles, cabinets and antennas in the road

    b. E26.2.5.1 activities within roads and unformed roads. With a focus on:

        i. clause (2) re building area

        ii. clause (3) re height

    c. E26.2.5.2. activities within zones in E26.2.3.1 activity table. With a focus on:

        i. clause (3) re height

    d. E26.2.5.3. specific activities within zones in Table E26.2.3.1. With a focus on:

        i. minor infrastructure upgrading

        ii. clause (6) re antennas attached to buildings

      iii.   clause (7) re standards E26.2.5.3(8) - (10)

      iv.   clause (8) re the maximum number of antennas

      v.   clause (9) re the maximum number of antennas in the Business – Local Centre Zone and Business – Neighbourhood Centre Zone

      vi.   clause (11) re masts and attached antennas identified as permitted activities in Table E26.2.3.1

  e. E26.2.6. Assessment – controlled activities. With a focus on:

      i.   E26.2.6.2. re assessment criteria

  f. E26.3. Network utilities and electricity generation – vegetation management

  g. E26.4. Network utilities and electricity generation – trees in roads and open space zones and the notable trees overlay

  h. E26.9. Network utilities and electricity generation – special character areas overlay – residential and business

  i. E26.10. Network utilities and electricity generation – Sites and Places of Significance to Mana Whenua Overlay

  j. E26.11. Network utilities and electricity generation – volcanic viewshafts and height sensitive areas overlay

  k. E26.12. Network utilities and electricity generation – Auckland War Memorial Museum Viewshaft, Local Public Views, Ridgelines Overlays

  l. Notification, review the need for mandatory notification of applications when required in E26.

12. The points we make below about the telecommunications sector's role in emissions reduction and resilience rely on these planning issues being addressed.

The role that telecommunications can play in emissions reduction

13. Principle one of the draft strategy talks about reducing greenhouse gas emissions. Ensuring all Aucklanders have access to quality connectivity will be key to reducing emissions. Internet access helps in a number of ways:

  a. Avoiding transport emissions by enabling more people to work and study from home. This goes beyond connecting people virtually, to enabling secure remote access to systems and services, and monitoring of physical assets. A consequential life cycle assessment was undertaken in 2022 to measure how working from home one day a week affects the size of an employee's carbon

footprint. [This study](#) found that the average New Zealand office worker who works one day a week from home will save 4.2kg in carbon emissions per day, compared to commuting into the office every day.

    b. Using smart technology to reduce energy consumption for individual households and public institutions such as schools and hospitals. This includes smart thermostats, heat pumps, and water heaters, and demand management technologies to support grid decarbonisation and reduce peak demand by controlling and coordinating energy heavy activities such as EV charging.

    c. Using smart cities technology to help tackle climate change. For example, for traffic management, optimising refuse collection, monitoring pollution, optimising street lighting, ride sharing, energy metering, and switching on devices at times to optimise energy use.

5. The smart technologies we mention rely on sensors and telecommunications networks to record and relay data.

6. [A recent study](#) found that digital technology, as an enabler of a variety of actions, could collectively reduce annual emissions 7.2 Mt by 2030 - the equivalent of 42 percent of Aotearoa New Zealand's current emissions budget targets.

7. We recommend that internet access and digital enablement more generally be included as part of climate change mitigation part of the Future Development Strategy.

Resilience and adapting to climate change

14. Principle two of the draft future development strategy talks about adapting to the impact of climate change, and highlights the importance of resilient infrastructure.

15. As an industry, we are investing in the resilience of our infrastructure. However, resource management settings and local planning rules can be a barrier to doing this. For example, we use roadside cabinets to store telecommunications equipment and keep it safe from the elements. This includes equipment such as batteries which provide backup when power fails. The size of the cabinets dictates the amount of equipment that can be stored and consequently the capacity to enhance performance and resilience.

16. Similar to the pole size example discussed above, outdated provisions in the NESTF have not kept up with new technology and resilience requirements. Small increases to the allowed height and footprint of cabinets will address this. Without these changes telecommunications network providers need to seek costly and time consuming resource consents for each cabinet.

17. The Council can help address these issues by reviewing aspects of the Auckland Unitary Plan that affect telecommunications, especially the provisions concerning cell sites (pole height, antenna size and cabinet) located in the road. These are outlined above in paragraph 11.

Efficient and equitable infrastructure investments

18. Under principle three the draft strategy notes that ownership of the infrastructure that Aucklanders rely on is spread among different agencies with different priorities, meaning it can be difficult to get coordinated management and delivery. This includes privately owned infrastructure such as telecommunications.

19. The draft goes on to propose the introduction of integrated planning, to coordinate investment and planning. More integrated planning is something the telecommunications industry very much supports. The lack of planning to integrate infrastructure with land use development is a barrier to providing the connectivity that Aucklanders need. Too often connectivity is an afterthought in housing developments and road transport projects, reducing options and making the process of installing telecommunications infrastructure more expensive and time consuming.

20. When the Council is considering how to allocate its budget for critical infrastructure it needs to consider contributions from developers. It also needs to consider providing access to infrastructure funds to both publicly and privately owned infrastructure. The pace of new housing development in Auckland means it is not possible for network utility operators to fund new infrastructure in all places. This could slow down housing plans.

Questions about this submission

21. The New Zealand Telecommunications Forum would be happy to answer any questions about our submission. Please contact kim.connolly-stone@tcf.org.nz in the first instance.