



BRIEFING

Chorus and Spark Telecommunications Service Obligations

Date:	4 December 2024	Priority:	High
Security classification:	In Confidence	Tracking number:	0004291

Action sought		
	Action sought	Deadline
Hon Paul Goldsmith Minister for Media and Communications	<p>Agree to sign the attached Chorus deed of variation and Spark waiver letter to recognise CMAR/Country Set retirement.</p> <p>Agree s 9(2)(f)(iv)</p> <p>Agree to sign the attached letters to Chorus and Spark advising of your position on a s 9(2)(f)(iv).</p>	11 December 2024

Contact for telephone discussion (if required)			
Name	Position	Telephone	1st contact
Deborah Salter	Manager Communications Policy	04 901 0786	✓
Hamish Grant-Fargie	Policy Director	04 901 8765	

The following departments/agencies have been consulted
N/A

Minister's office to complete:

- | | |
|---|--|
| <input type="checkbox"/> Approved | <input type="checkbox"/> Declined |
| <input type="checkbox"/> Noted | <input type="checkbox"/> Needs change |
| <input type="checkbox"/> Seen | <input type="checkbox"/> Overtaken by Events |
| <input type="checkbox"/> See Minister's Notes | <input type="checkbox"/> Withdrawn |

Comments



BRIEFING

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Purpose

To seek your agreement to amend the Chorus Telecommunications Service Obligations (TSO) Deed to allow for retirement of some legacy technology in remote areas, s 9(2)(f)(iv) [REDACTED].

Recommended action

The Ministry of Business, Innovation and Employment recommends that you:

- a **Agree** to amend the Chorus TSO Deed to allow the replacement of Customer Multi Access Radio (CMAR) and Country Set (CS) with other technologies to deliver TSO telephone service in remote areas of New Zealand.

Agree / Disagree

- b **Agree** to sign the attached Chorus deed of variation and Spark waiver letter to give effect to recommendation (a).

Agree / Disagree

- c s 9(2)(f)(iv) [REDACTED].

Agree / Disagree

- d **Agree** to sign the attached letter to Chorus advising of your position on amending the Chorus TSO Deed for CMAR/CS retirement s 9(2)(f)(iv) [REDACTED].

Agree / Disagree

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e **Note** the waiver letter to Spark also includes information advising them s 9(2)(f)(iv)

Agree / Disagree

Deborah Salter
Manager, Communications Policy
Building, Resources and Markets, MBIE

..... / /

Hon Paul Goldsmith
**Minister for Media and
Communications**

..... / /

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Background

1. As you are aware, we have been in discussions with Chorus on a Telecommunications Service Obligations (TSO) deed of variation. The TSO facilitates local residential telephone service (TSO telephone service). The copper network that supports TSO telephone service also supports the delivery of copper-based broadband in rural areas.
2. There are estimated to be approximately 1658 households with active telephone connections enabled through Customer Multi Access Radio (CMAR) and Country Set (CS) technologies that Chorus advises are no longer able to be maintained. Around 485 of these households are covered by the Telecommunications Service Obligations, ie they fall within the TSO footprint. The proposed deed of variation would enable Chorus to transition CMAR/CS customers to a modern and broadly equivalent satellite service.

Waiver for aligning Spark TSO requirements with Chorus TSO deed of variation

3. Spark has sought a waiver for its TSO Deed in the areas where Chorus is retiring CMAR/CS technology to ensure it has certainty that it is not liable for providing the local residential telephone service where Chorus is no longer providing it with an input service. We have negotiated this with Spark alongside the Chorus deed of variation.

s 9(2)(f)(iv)

4. s 9(2)(f)(iv)

Retirement of CMAR/CS technologies

5. We have been working with Chorus and Spark for some time to find a satisfactory solution to enable replacement of CMAR/CS technology with modern alternatives. This process has taken longer than we would have liked because of significant disagreements between Chorus and Spark on how customers should be transitioned, and whether the TSO should apply where commercial services can meet the functional and pricing requirements that currently apply to the TSO telephone service.

Why does Chorus need TSO amendments to transition away from CMAR/CS?

6. Some of the TSO requirements cannot be delivered through alternative modern technologies, which is why Chorus has sought an amendment to the TSO. While we are cognisant of the fact that CMAR/CS technology is reaching the end of its functional life, TSO amendments and a change in technology could impact customers and we have therefore been working to:
 - a. allow for the transition to alternative technology in CMAR/CS areas, and
 - b. ensure that the key functional elements of the TSO service are retained, namely voice calling (most importantly, 111 calling) and the price constraint for the TSO voice product.
7. To inform advice to you on the potential impact of the TSO amendments we worked with Chorus to undertake targeted consultation with customers who would be impacted by the change in technology.

Consultation feedback

8. Chorus sent letters to the 1658 remaining CMAR/CS customers in early October notifying them of the planned transition to alternative technologies. 485 of these customers have telephone connections that are within the TSO footprint and are therefore covered by the Chorus and Spark TSO Deeds. These 485 customers were asked for their views on the proposed transition and 38 responded with a submission. The main concerns raised in the submissions related to the reliability of an alternative service and cost. Many respondents also noted that they are without mobile coverage and therefore depend heavily on landline access. **Annex One** provides a detailed summary of the feedback received from the submission process.
9. Separately to the consultation feedback gathered by Chorus, three end users have written to you concerned about the proposed change.

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Key deed amendments and risk assessment

10. Below we outline the key elements of the deed of variation. In short, the variation allows Chorus to procure and deliver an 'alternative residential voice service' as an alternative to the traditional TSO telephone service. We have also included a discussion of any areas of remaining risk as well as mitigations.

Key element of deed of variation	Risk assessment	Mitigations
<p>Reliability of service</p> <p>Assessment of reliability of the alternative residential voice service.</p>	<p>Low. Satellite connections for landline service can be subject to rain fade, disrupting communications. However, the frequency and duration of such disruptions is normally minimal overall. The age and condition of CMAR/CS technologies also means that the existing services can have reliability issues.</p>	<p>We have included a 'fit for purpose' service requirement in the deed of variation to provide some assurance that alternative landline service delivered wirelessly is satisfactory.</p>
<p>111 emergency calling</p> <p>Assessment of whether customers of the new alternative residential voice service will be able to reliably make 111 emergency calls.</p>	<p>As per above, there is a low risk that alternative residential voice service customers are unable to make 111 calls in adverse atmospheric conditions eg 'rain fade'.</p>	<p>The deed of variation includes a requirement that Chorus must ensure that the alternative residential voice service makes 111 emergency calling available. However, there remains a risk that adverse atmospheric conditions could prevent 111 calls from being connected.</p>
<p>Cost</p> <p><u>Service cost</u> - there is a price cap for ongoing TSO service.</p> <p><u>Set-up/transition costs</u> – some customers have raised transition costs as an issue.</p> <p><u>Electricity</u> - some consumers have raised issues around electricity given the existing CMAR/CS technologies operate independently of a customer's electricity connection.</p>	<p><u>Service Cost</u> - the price cap from the TSO is carried through to the deed of variation and therefore there is no risk associated with ongoing costs of service.</p> <p><u>Transition costs</u> - we were concerned that consumers would be expected to pay for transition costs if we did not address this in the deed of variation itself.</p> <p><u>Electricity costs</u> - there is a risk that those consumers who are 'off grid' will expect the cost of their power supply (set-up and ongoing costs) for the new technologies to be covered as part of the</p>	<p><u>Service costs</u> – not applicable as existing price cap of approximately \$71 per month remains in place.</p> <p><u>Transition costs</u> – we have secured a clause in the deed variation which puts the onus of Chorus to cover these costs.</p> <p><u>Electricity costs</u> – the existing TSO deeds do not require Chorus to provide a power connection, and we do not consider it is reasonable for Chorus to cover power supply costs as part of the transition. We will</p>

	<p>transition. This is because CMAR/CS technologies are powered independently and so people could utilise them without having a reliable power supply. The replacement technologies will need a power supply.</p>	<p>supply your office with reactive lines to manage this risk.</p>
<p>Requests for reinstatement of service</p> <p>The supply of the alternative service would continue only while the connection remains active for the customer that was initially provided the service. For example, this means that if a person decides to transition off the alternative residential voice service, then sells their house, the new owner will not be able to request the alternative service.</p>	<p>Low consumer impact. While there may be instances where people move into houses expecting to get a TSO service, the numbers of consumers impacted by this will be relatively low. We are also mindful that there are a range of modern technologies that can provide connectivity to remote areas of New Zealand, and these technologies are not tied to consumer premises in the same way as CMAR/CS technologies.</p>	<p>There are no direct mitigations for this risk in the deed of variation, however around 10 per cent of CMAR/CS households are estimated to have access to mobile coverage while ≈100 per cent have access to alternative satellite broadband services such as Starlink or Gravity. Over time, the arrival of direct to device satellite services will provide consumers with the ability to text, and possibly make voice calls, from almost anywhere in New Zealand.</p>
<p>Availability of fax</p> <p>The requirement to provide fax will not be carried forward to the alternative residential voice service.</p>	<p>Some consumer risk that a small number of people/companies are still using fax. We sought feedback on this point through consultation but did not gain sufficient feedback to justify carrying forward the requirements.</p>	<p>There are alternatives that can be procured to deliver these services over broadband, but these would come at an additional cost. We will provide reactive lines to your office should you receive any questions.</p>
<p>Availability of medical alarms</p> <p>Will medical alarms work with the alternative residential voice service?</p>	<p>You have an open Ministerial letter from one CMAR/CS customer that has a St John medical alarm. Our engagement with St John suggests that while its medical alarms have the technical ability to work with the alternative residential voice service, but St John does not currently offer medical alarms outside the cellular network footprint.</p>	<p>We have met with St John and will work with the organisation and other medical alarm suppliers to establish what might be required for medical alarms to be commercially offered to customers of the alternative residential voice service.</p>

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Risks

14. While the majority of the risks and mitigations are noted in the table on pages 5 and 6 it is also worth noting that the CMAR/CS s 9(2)(f)(iv) will be of particular interest to rural communities. s 9(2)(f)(iv)

Release note:
the figure of
50,000 was as
at June 2023

There is still a sizeable group of up to 50,000 households that have TSO telephone service. Further, there are a total of up to 84,000 copper customers in rural areas (broadband and telephone service).¹ s 9(2)(f)(iv)

Next steps

Implementing the deed amendments

15. Subject to your agreement to the Chorus TSO Deed amendments we recommend you sign the attached execution copy of the Deed of Variation in **Annex Two** and send the letter to Chorus advising them of your decision, attached as **Annex Three**.
16. As noted above, we have also been negotiating a waiver letter with Spark as it has sought clarity that is not obliged to supply a service in areas where Chorus must make the alternative residential voice service available. If you agree to this waiver we recommend you sign the attached letter at **Annex Four**.

s 9(2)(f)(iv)

17. s 9(2)(f)(iv)

Annexes

Annex One: Customer feedback on proposed CMAR/CS changes

Annex Two: Deed of Variation for retirement of CMAR/CS technology

Annex Three: Letter to Chorus on Deed of Variation s 9(2)(f)(iv)

Annex Four: Spark waiver letter for retirement of CMAR/CS technology s 9(2)(f)(iv)

¹ Chorus Investor Presentation. Figure as at 31 October 2024.

Annex One: Customer feedback on proposed CMAR/CS changes

Address	General Comments	Reliable Mobile Coverage	Continuous Access Calling	Mains Electricity?	Existing Broadband Service?	Do you fax?	Do you see any complications transitioning?
s 9(2)(a), Pūrākaunui, Clutha District	We have no mobile coverage so if we lose power we will lose all WiFi calling	No, no coverage at all	No but we are farming and located on the coast with lots of surfers and recreational divers	Mains power	Mains power to Starlink	No	Yes if we lose power we will have no access to WiFi calling as no service at all
s 9(2)(a), Akaroa, Christchurch	We need a service that works 24-7. Due to the exposed location the power can go out from time to time and then we use the copper network as the WiFi needs power to work	No coverage within 1 km	This is home to s 9(2)(a) people and the base for a farming enterprise that employees staff where there is a risk of injury	No alternative power source	Yes electricity	Yes but less often	Loss of power or WiFi connection would mean we cannot access help in an emergency as we have no cell phone coverage and that is unlikely to change here
s 9(2)(a), Ihuraua, Tararua District	Crazy I have a s 9(2)(a) because of s 9(2)(a) and totally rely on the landline. I have no mobile service except through wireless connection which relies on electricity. So no power no communication and therefore no medical alarm	No, only through wireless which requires the power	Yes. I have s 9(2)(a) and use the ambulance frequently. Also a monitor that tracks s 9(2)(a)	Connected to mains power only	Wireless broadband. Heart monitor	No	I will be left completely vulnerable s 9(2)(a)
s 9(2)(a), Matakitaki, Tasman District	Open to suggestions	NO	YES	Yes electricity	Yes	Yes	Must have a reliable easy to use

							service because of remoteness
s 9(2)(a) [redacted], Crail Bay, Marlborough District	The location and network is more important than the equipment. Chorus / Spark have been negligent in not upgrading the system. There are plenty of reliable inexpensive systems available. Such as Microtec and Ubiquity.	No	Yes. s 9(2)(a) is type 1 diabetic	Mains. Plus emergency generator	Yes	No	Our preferred connection would be via the cell network. We would need some sort of external aerial and box
s 9(2)(a) [redacted] Raupunga, Wairoa District	We are rural with unreliable mobile phone coverage. We definitely need to keep a landline for emergency purposes	It's patchy	Yes	Mains	Mains	No	Only in a power outage
s 9(2)(a) [redacted], Serpentine, Central Otago District	Yes, it is alright for the majority of people but for customers like us where there is no cell service, it is extremely difficult.	No we don't have reliable coverage!!!! We can use WiFi calling when we are at the house but this all depends on the internet and if it is working. We rely on the home phone in case the power is out!!!	No	It is connected to mains power	There is no broadband in the area that we live	No not to fax documents	Yes I absolutely do as we are relying on the power and internet service to work

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s 9(2)(a) [redacted] Akaroa, Christchurch		No	Safety. We have been snowed in. Fire. Emergency/accident health - we are [redacted] s 9(2)(a) [redacted]. As we are out of range we are not confident a 111 call from a cellphone will work and cannot try this out really - test it!	Yes, mains power.	Rural phone	No	Yes. The rural property is in a gully of mature, tall trees. Will Starlink work?
s 9(2)(a) [redacted], Waverley, South Taranaki District	It is a shame to see a communication service that doesn't rely on a power source to operate disappear.	No we have terrible mobile coverage most of the time not enough to make phone calls.	Yes if there is an accident on farm.	Yes mains power	Yes mains power	No	Yes phone connectivity in our workshop and limited to no communication capabilities when the power is off
s 9(2)(a) [redacted] Taihape, Rangitikei District	The copper phone line is our only way of reaching emergency services in the event of a power outage.	We don't have any mobile coverage at the house, need to travel 3 kilometres up the road to get enough mobile coverage to make a call.	Being a working farm there is hazards and risks due to working with animals every day. We often have visitors on the farm of a variety of ages so there is always a chance we could and have needed emergency services.	It is connected to mains power.	We do power a broadband modem off mains power.	No	Any system that is reliant on mains power to work in the event of a power outage (which can be frequent out here) we are left, not easily being able to contact emergency services if needed.

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<p>s 9(2)(a) [redacted] Rangiwahia, Manawatu District</p>	<p>Our phone line (CMAR/Country Set) service is provided by Farmside. This provider also includes our email addresses. Our internet is provided by InspireNet via an ADSL MetroLan. Their VOIP requires a number change. We do not want to change number</p>	<p>No. Only via WiFi calling (requires power)</p>	<p>We are rural. We have no cellphone coverage without power. We deserve to be able to have access to 111</p>	<p>Mains power</p>	<p>We don't have broadband (not available). We use ADSL MetroLan connection provided by InspireNet (requires mains power)</p>	<p>No</p>	<p>Sort of - if we change to VOIP through existing internet provider we are required to change our phone number. This comes at a cost to business (promotional materials etc). We don't have cellphone coverage without power (WiFi calling)</p>
<p>s 9(2)(a) [redacted] Papatowai, Clutha District</p>	<p>While I appreciate the problems maintaining the present network, there is a huge issue in this district in that there is no cellphone coverage for Spark and Skinny phones, only OneNZ and 2Degrees.</p>	<p>Only for OneNZ and 2Degrees. We operate s 9(2) (a) [redacted] 2 self contained holiday houses, and our present landline is used by incoming guests to check in remotely with us from our farm near Gore, and to communicate during their stay</p>	<p>No, but guests, particularly overseas or non-English speaking guests would be without an emergency service if they did not have a functioning cellphone</p>	<p>Yes, but there is no alternative electricity if power goes down, quite often in this isolated area. Guests presently have the option to use the landline in these situations</p>	<p>We provide broadband for our guests, available only when they have obtained access to the houses. Not everyone is proficient in emailing or contacting us through the internet. Older guests appreciate the landline</p>	<p>No</p>	<p>The complication is communication with our guests if they have a Spark cellphone. I would suggest that the provision of Spark cell phone service from the local cellphone tower needs to be done before the landline service is withdrawn.</p>

s 9(2)(a) Hauturu, Waitomo District	We have no mobile phone coverage at our house - no calls in or out and no text messaging so we rely on our landline to communicate with businesses, family, friends and neighbours. No power means we will have to travel 4 km to get mobile reception.	NO	Not yet but we are older people.	Mains	Yes. But if power goes out we plug in the no power phone and can phone out or receive calls via landline.	No	Yes. No communication except by internet. Isolation.
s 9(2)(a) 22 Stratford		No + no computer service	Yes the other person is on a medical benefit	Generator power + 4 solar panels	No	No	Yes we have a dish for our television. In bad weather there is no service
s 9(2)(a) , RDI Taihape	We have Starlink. Our home phone is with Farmside	We have mobile coverage but once the power goes out we have nothing. It's quite scary as if we have an emergency we have to leave the property and head up the hills (if we can) to get coverage.	No				
s 9(2)(a) Kawhatau Valley Taihape	Welcome a cost effective change if reliable and able to have 24/7 111 calling, phone and internet	No coverage at all	Yes, we are sheep and beef farmers working in a harsh cold winter environment. This is a high risk	No mains power available. Solar also depending on weather,	Use broadband satellite from battery power (turned on only when needed) - no WiFi etc.	No	Satellite communication with telephone is very difficult due to delay we tried this with Farmside but

	usage. Cost is a big factor.		environment 40 minutes drive to the nearest town.	Some generator use as backup.			had to revert to use of landline.
s 9(2)(a) Papanaugi R.D8. Whanganui	As long as it works	No reception at all	Yes. We are elderly	Yes mains power	No	No	No. As long as it is reliable
s 9(2)(a) Dansey's Pass 19.C.R.D Oamaru	We don't have reliable cell coverage. It is weak and prone to dropping out. Wireless broadband is also prone to malfunctioning after weather events. I.e. Strong winds or heavy rain or snow. Satellite maybe a more reliable option.	I have to get right beside a window and even then still prone to dropping out	Not at present	Mains power. Do have a generator.	Yes	No	My current mobile is not compatible with WiFi calling. Could be upgraded for a cost. Not sure about VOIP.
s 9(2)(a) RD2 Oparau 3886.	We currently have WiFi calling at our house through farmside internet provider BUT they are closing this service by 6th January! So we will no longer have any broadband internet service therefore no mobile coverage at our house either and by the end of March, no phone (landline) either.	No - only if we use satellite broadband service	No	Mains power only	Yes but broadband service is closing down by 6th Jan 2025 (Farmside satellite service)	No	Unless we have another internet service in place by the end of the year, we won't have broadband WiFi calling as an option, for cellphone coverage at our house

s 9(2)(a) RD14 Ashhurst	Our current landline still works during a power cut (sometimes these cuts are several days long), other networks require power	No	111 calling is essential for all households, as we don't know when an emergency is going to happen	Yes	Yes		Yes. No electricity - no telephone!
s 9(2)(a) Porangahau ROI 4291		Parts of farm - mobile does not work	St John medical alarm	Electricity	I use bay city communications Timaru & South Island (Trade as farmside). I call landlines & mobiles on this service	No	Cost!!!
s 9(2)(a) Whanganui	The current system is certainly much worse than in previous years. However the advantage is that in a power outage (quite common here) the internet would be unavailable and we would have to buy a generator	No coverage	No, but we are both in our s 9(2)(a)	Mains power	Yes	No	The only connection would be through WiFi & that needs electricity
s 9(2)(a) , Erua National Park, 3948	Approx Nov 2023 our home landline service stopped working - we don't know why - we made multiple calls to have it serviced, it continued to not work, and we have been charged ever since - we have visited Spark shops	No - not at all. Is there any way we can get mobile calling/ coverage without going through WiFi - by using another device, to improve our reception - as	We are very rural - so needs help quicker - as it takes so much longer to get out here - we are physical workers so risk of more injuries.	Our home was on main power - but we presently have no house	We use AONet - as our only source of WiFi - in doing so we had WiFi calling with cell coverage. No mobile coverage is available locally.	No we had no landline available to use, since Oct/ Nov 2023 - we did have a fax but no working line to	Definitely. With no current mobile coverage and being on the last property on a conventional electricity line we frequently experience power cuts. We frequently have no power - so

	and asked for a follow through and always told they can't help us. We require a refund of this dysfunctional service. In August our literal household was burnt down and have no home.	both are currently unavailable - or unreliable.				bring us phone service	no WiFi - so no phone. We are a farm so need communication to function.
s 9(2)(a) RD2. Napier. 4182		No sometimes no network connections	We have kept the landline mainly for 111 calls if needed, Also we care for children ot	Mains power	No	Homeline for business	Yes re 111 call if cell network is down
s 9(2)(a) R.D1. Taumaranui 3991	I have a s 9(2)(a) which requires a landline to work. We do not have cell phone coverage with anyone that could make it work. WiFi calling does not work with the s 9(2)(a). Has to be full cellphone coverage or landline	No	Yes s 9(2)(a) needs landline as no cellphone coverage here	Mains Power	Yes Aonet is the only provider here but we do not have cellphone coverage as WiFi calling does not work for s 9(2)(a)	no	Yes. Has to be a landline or full cellphone coverage - NOT WiFi
s 9(2)(a) Wharekopae, Gisborne	Proof will be in the reliability of new service. Back up power supply of CMAR tech was the saviour for us during Gabriel	No	No	Yes, connected to mains power	Yes - internet service	No	Yes - power supply issues

s 9(2)(a) [redacted] 26RD. Stratford. 4396	As we have no cell phone coverage if the power goes out we have no way of contacting our electricity provider. At present time have phone that doesn't require power so can at least ring	We have no cellphone coverage at all		Mains power	Yes	No	Yes. No different technology available & really don't want it if it was
s 9(2)(a) [redacted]. RD3. Taumarunui	Yes the cost is going to be an issue. It is hard enough as it is. Due to my only source of income is s 9(2)(a) [redacted]	No	Yes due to s 9(2)(a) [redacted]	Mains power	No	No	The Cost?
s 9(2)(a) [redacted] Seddon	No	No	Yes	Yes	Yes	No	Don't know
s 9(2)(a) [redacted] Hinewai Reserve, R.D.3 Akaroa 7583	It's an unfortunate hassle. The best option for me (at Hinewai Reserve H.Q) would be to keep a landline-like service, probably via WiFi link which looks like being available, keeping the same number (s 9(2)(a) [redacted]): After our extreme weather event in December 2021 their number and our other household down the valley (s 9(2)(a) [redacted])	We have no mobile coverage: we are totally out of cellphone range. I don't want cellphone coverage but I do want and need a landline connection or equivalent	Yes, 111 access is essential. We live and work in an isolated rural situation. Accidents and emergencies can happen, and have done so. Thank goodness there were no emergencies during the prolonged lack of telephone connections in December 2021-January 2022	It is connected to mains power, augments by solar panels for water - heating	Only the country set landline telephone	No	It will be a hassle, less so if I can keep my current landline number - s 9(2)(a) [redacted]

	<p>were restored only after an unacceptably long time and we are still angry and disappointed about the shoddy and potentially dangerous phone failures at that time</p>						
<p>s 9(2)(a) RD.2. Te Karaka. 3092</p>	<p>In my s 9(2)(a) so we have trouble with cellphone. Would love to keep my landline if possible</p>	<p>Yes</p>	<p>Yes</p>	<p>Mains power</p>	<p>Yes</p>	<p>No</p>	<p>No. As long as it is reliable</p>
<p>s 9(2)(a) Outram 9074</p>	<p>This survey/questionnaire is a box-ticking exercise to appease regulatory requirements. Unfortunately John Key's govt removed the genuine requirement of analogue technology to all households in NZ to ensure connectivity at all times. So you don't genuinely care. Urban people are provided food, power, water, and clothing resources from rural</p>	<p>No</p>	<p>This is an odd question. Is an 'emergency service' like 111 important and necessary for your household? Yes this house is on a workplace and as such must meet H&S requirement which is access to emergency services at ALL times even when power is not available. A UPS is insufficient for this</p>	<p>Mains power</p>	<p>Yes mains power</p>	<p>No</p>	<p>Yes. Chch earthquake took out cell towers + internet. What cell towers survived to damage failed due to overloading. This decision is short sighted and fails to understand NZ connectivity outside urban zones - unless we are all meant to live in urban zones. Then who will grow food?</p>

	people. Rural people are irrelevant to you. Research Hurricane Katrina and subsequent weather disasters - it was determined that digital connectivity was abysmal so analogue has been reintroduced for emergency services. First responders.						
s 9(2)(a) Matamas	Current system is expensive but has been necessary for communication when our power is out. No cell phone cover. Worried in case of emergency	No	No	Yes. Not reliable in bad weather	Yes - we pay extra for satellite	No	Yes. No coverage in power outages
s 9(2)(a) RD.8 Wanganui	Mobile Coverage would be the way to go	No mobile coverage no internet	I would say so. Accidents can happen any time on farm	Mains power	No internet	Does anybody still fax?	Yes Cost?
s 9(2)(a) RDI, Taumaranui 3991 Aukopae	Reliability issues in a remote area. 35 kms from Taumaranui - taking 45 minutes	No - nothing other WiFi	Yes, I am s 9(2)(a) + no close neighbours, living by myself	Mains power only with frequent outages. At the moment currently using a generator system	Yes	No	Being elderly the technology may be challenging

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s 9(2)(a) Murchison	As long as we have a reliable service are pretty remote & no cell ph coverage	NO	Yes s 9(2)(a) also remoteness of all in area including travellers	Yes mains power - no alternative	Yes	Yes 40 ave pages a month	Likely not but it must be fit for purpose
s 9(2)(a) Kohurotahi Taranaki	Want to keep landline for emergency. No cell phone coverage. Power goes out often so no contact	No	Yes. s 9(2)(a)	Mains	Laptop	No	Yes! Heaps! We have no contact when power goes out (often) if we have no landline. Remember what happened in Gisborne/ Hawkes Bay when flooded!
s 9(2)(a) Pourerere R.D.I Waipour 4271	Yes I do, like many elderly people I am not 'up' with modern technology, and I have a medical alert which needs a good telephone service. Where I am I gather the reception to mobile is patchy unless one has a smart phone	No it seems it unreliable depending where you are	Yes continuous access is necessary. I am elderly on my own with a medical alert	Yes my home is connected to mains' power	No	No	Yes

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Annex Two: Deed of variation for retirement of CMAR/CS technology

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Mark Aue
Chief Executive Officer
Chorus New Zealand Limited
Email: mark.aue@chorus.co.nz

Dear Mark

RETIREMENT OF CMAR/CS TECHNOLOGIES s 9(2)(f)(iv)

I refer to Chorus' requests for a variation of Telecommunications Service Obligations (TSO) s 9(2)(f)(iv) as set out in your letter of 10 October 2024.

Chorus retirement of CMAR/CS technology

Chorus has sought a relaxation of Telecommunications Service Obligations (TSO) in relation to the retirement of Customer Multi Access Radio (CMAR) and Country Set (CS) technologies for TSO telephone connections.

I note that there was a significant number of telephone users who expressed reservations about the proposed change in the consultation feedback received. Concerns were expressed about a range of issues including the reliability of a satellite/wireless service (given rain fade and loss of mains power, for example), continued access to connectivity for medical alarms, and cost.

In allowing the use of satellite and other technologies to replace CMAR/CS equipment for the delivery of telephone service it is imperative there are adequate consumer protections. Accordingly, in agreeing to allow an alternative service that makes use of these technologies, provisions have been included in the deed of variation ensuring that telephone users receive a satisfactory service.

Based on discussions that Chorus has had with officials, I understand that Chorus is now willing to proceed on the basis of the attached finalised deed of variation to enable Chorus to use satellite and other wireless technology to serve telephone users and retire CMAR/CS equipment. I have signed the deed of variation and attach this for Chorus to execute.

s 9(2)(f)(iv)

s 9(2)(f)(iv)

Yours sincerely

Hon Paul Goldsmith
Minister for Media and Communications

cc: Tristan Gilbertson, Telecommunications Commissioner, Commerce Commission

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Annex Four: Spark waiver letter for retirement of CMAR/CS technology s 9(2)(f)(iv)

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John Wesley-Smith
General Manager, Industry and Regulatory Affairs
Spark New Zealand
John.Wesley-Smith@spark.co.nz

Dear John

TSO waiver - CMAR and country set areas

1. I refer to the *Telecommunications Service Obligations (TSO) Deed for Local Residential Telephone Service* between the Crown and Telecom Corporation of New Zealand Ltd and Telecom New Zealand Ltd, dated 8 November 2011 (**Spark TSO Deed**). I also refer to the *Telecommunications Service Obligations (TSO) Deed for TSO Network Service* between the Crown and Chorus Limited and Chorus New Zealand Limited, dated 8 November 2011 (**Chorus TSO Deed**).
2. Terms used but not defined in this letter have the meanings given to those terms in the Spark TSO Deed.
3. I understand that customer multi-access radio (CMAR) and country set (CS) network technology used to deliver the local residential telephone service in some remote areas has become obsolete.
4. Accordingly, the Crown and Chorus intend to enter into a deed of variation to the Chorus TSO Deed to be dated on or about the date of this letter. The effect of this deed of variation will be to relieve Chorus of its obligation under the Chorus TSO Deed to provide TSO network service in certain circumstances.
5. Spark uses the access network owned and operated by Chorus to provide the local residential telephone service.
6. In accordance with clause 40 of the Spark TSO Deed, I waive the Crown's rights to require the application of the Spark TSO Deed (except to the extent it relates to 111 call services) to any premises or access point where Chorus is not obliged under the Chorus TSO Deed to provide TSO network service to that premises or access point.
7. The waiver in paragraph 6 of this letter is effective from the date of this letter and will continue indefinitely.

8. s 9(2)(f)(iv)



Yours sincerely,

Hon Paul Goldsmith
Minister for Media and Communications
Date:

cc: Tristan Gilbertson, Telecommunications Commissioner,
Commerce Commission

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Document 11

Kia ora Nicholas,

Attached are some suggested edits and comments from us.

Any questions, let me know.

Cheers,

Jon

Jon Rolfe
SENIOR POLICY ADVISOR

Communications Policy | Building, Resources and Markets Group
Ministry of Business, Innovation & Employment – Hīkina Whakatutuki

Jon.Rolfe@mbie.govt.nz | Waea/Telephone: +64 (04) 9012145

Level 14, 25 The Terrace, Te Puāwai o te Aroha – Pastoral House, Wellington



From: Nicholas Hall [TSY] <Nicholas.Hall@treasury.govt.nz>
Sent: Thursday, October 31, 2024 2:52 PM
To: Hamish Grant-Fargie <Hamish.Grant-Fargie@mbie.govt.nz>
Cc: Deborah Salter <Deborah.Salter2@mbie.govt.nz>; Jon Rolfe <Jon.Rolfe@mbie.govt.nz>;
Mark Hodge [TSY] <Mark.Hodge@treasury.govt.nz>
Subject: RE: Meeting Briefing Request - Rural Broadband infrastructure [REDACTED]

Hi Hamish,

This meeting was delayed so I'm just getting back to this now. Could you review the attached document and flag out if there are any issues? No rush here, could you get back to me in two weeks by November 13?

Kind Regards,

Nicholas Hall

Nicholas Hall | Graduate Analyst – National Infrastructure Unit | **Te Tai Ōhanga – The Treasury**

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Nicholas.hall@treasury.govt.nz



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From: Hamish Grant-Fargie <Hamish.Grant-Fargie@mbie.govt.nz>

Sent: Wednesday, October 2, 2024 11:49 AM

To: Nicholas Hall [TSY] <Nicholas.Hall@treasury.govt.nz>

Cc: Deborah Salter <Deborah.Salter2@mbie.govt.nz>; Jon Rolfe <Jon.Rolfe@mbie.govt.nz>

Subject: RE: Meeting Briefing Request - Rural Broadband infrastructure [REDACTED]

Thanks Nick. Here are a few quick thoughts from Jon and I:

- RBI investment has ended – RBI funding has come to an end, so there is no appropriated funding that can be repurposed.
- Broadband vs voice services – while we generally agree that further RBI investment for fixed wireless purposes is questionable in the presence of ubiquitous satellite broadband services, we note that current satellite services do not provide a “voice” service in the way that a cellular RBI styled service does. Also, a Starlink connection isn’t mobile in the same way that a cellular service e.g. a farmer who has a Starlink

service can't make voice over internet protocol (VOIP) calls away from the Starlink terminal and any associated WIFI access point.

- s 9(2)(ba)(i) [REDACTED]
- Competition, company and sovereign risks – as you've noted, there are risks to NZ becoming over-reliant on a company that has limited presence in NZ and s 9(2)(g)(i) [REDACTED]. The other issue is that Starlink currently has a monopoly on mass market satellite broadband services, and has a track record of increasing prices over time. From a policy perspective, we would like to see multiple satellite providers active in the NZ market to manage company specific risks and ensure long term positive outcomes for consumers.

Happy to chat if any of this is unclear or if you have any follow-up questions.

Hamish

From: Nicholas Hall [TSY] <Nicholas.Hall@treasury.govt.nz>
Sent: Wednesday, October 2, 2024 10:40 AM
To: Hamish Grant-Fargie <Hamish.Grant-Fargie@mbie.govt.nz>
Cc: Deborah Salter <Deborah.Salter2@mbie.govt.nz>; Jon Rolfe <Jon.Rolfe@mbie.govt.nz>
Subject: RE: Meeting Briefing Request - Rural Broadband infrastructure [REDACTED]

Hi Hamish,

The Minister is meeting with s 9(2)(a) [REDACTED]. This was one of the topics that s 9(2)(a) [REDACTED] requested to cover. From a quick google search, s 9(2)(a) [REDACTED] business is about s 9(2)(a) [REDACTED] for their clients. I don't intend for this section of the briefing to be too long and I envision high level discussion points on the topic for the meeting briefing.

Kind Regards,

Nicholas Hall

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From: Hamish Grant-Fargie <Hamish.Grant-Fargie@mbie.govt.nz>

Sent: Tuesday, October 1, 2024 5:03 PM

To: Nicholas Hall [TSY] <Nicholas.Hall@treasury.govt.nz>

Cc: Deborah Salter <Deborah.Salter2@mbie.govt.nz>; Jon Rolfe <Jon.Rolfe@mbie.govt.nz>

Subject: RE: Meeting Briefing Request - Rural Broadband infrastructure [REDACTED]

Hi Nick,

Happy to assist on this, as there are a few dimensions to it. Are you able to elaborate at all as to who Minister Bishop is meeting with and where that suggestion has come from?

Cheers, Hamish

From: Nicholas Hall [TSY] <Nicholas.Hall@treasury.govt.nz>

Sent: Tuesday, October 1, 2024 4:55 PM

To: Hamish Grant-Fargie <Hamish.Grant-Fargie@mbie.govt.nz>

Subject: Meeting Briefing Request - Rural Broadband infrastructure [REDACTED]

[REDACTED]

Hi Hamish,

I hope you're doing well and enjoying the extra hour of daylight we are getting!

I've been commissioned to produce a meeting briefing for Minister Bishop, one of the topics requested to be covered is:

- Rural Broadband infrastructure – Repurposing of RBI funds towards LEO satellite solutions (Starlink) will dramatically reduce costs to deliver rural connectivity and shorten time to delivery by years. Could provide short path to significant economic growth in rural NZ.

Do you have any opinions/ insights on this topic that could be useful for me to mention in the briefing?

For me, without looking at numerical calculations, it does make sense that Starlink s 9(2)(g)(i)

[Redacted text block]

Kind Regards,

Nicholas Hall

Nicholas Hall | Graduate Analyst – National Infrastructure Unit | **Te Tai Ōhanga – The Treasury**

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Nicholas.hall@treasury.govt.nz



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Rural Broadband Initiative and Starlink

s 9(2)(a) has expressed interest in discussing opportunities to repurpose Rural Broadband Infrastructure funds towards low earth orbiting satellite solutions (specifically, Starlink, a satellite internet network developed by private spaceflight company SpaceX). s 9(2)(a) considers that satellite solutions could reduce the cost to deliver rural connectivity, and shorten delivery timeframes for rural broadband infrastructure.

The Rural Broadband Initiative (RBI) provides broadband connectivity to under-served rural homes and businesses. It has an increasing average cost per premise as the percentage of total coverage grows, due to remaining (i.e. unconnected) properties becoming increasingly further away and harder to reach. This is likely why s 9(2)(a) is interested in discussing the potential for Starlink as an alternative. However, we note that government funding for RBI (in the Media and Communications portfolio within Vote Business, Science and Innovation) is coming to an end, so there is no appropriated funding that could be repurposed towards satellite solutions or other alternatives at this time.

Another government-funded rural connectivity programme, the Remote Users Scheme, is focused on increasing the availability of broadband connectivity to the estimated 5,200 end-user locations with no or slow (<10 MBps) internet. This has included providing one-off grants for end user locations to install Starlink hardware, which is effectively what s 9(2)(a) is suggesting using RBI funding for. Applications for funding through this programme close at the end 2024.

The following background perspectives on satellite connectivity solutions may be helpful to support you in this discussion:

- In general, there is broad sentiment that further funding for rural broadband connectivity via terrestrial fixed wireless is likely to have diminishing returns, especially with the ever-expanding reach of satellite broadband services. However, we note that current satellite services do not provide a 'voice' service in the way that cellular-type rural broadband infrastructure does (i.e. a Starlink connection isn't 'mobile' in the same way that cellular service is). For example, a farmer who has a Starlink service can't make Voice-Over-Internet Protocol (VOIP) calls away from the Starlink terminal and any associated WIFI access point.
- s 9(2)(ba)(i)
[Redacted]
- There are inherent price and resilience risks that would be associated with New Zealand becoming over-reliant on a single private provider. Starlink currently

has dominance over mass market satellite broadband services, and has a track record of increasing prices over time, which could disadvantage consumers – especially in lower-income rural communities. Additionally, dependency on a single service provider could lead to issues if Starlink faces operational challenges in future – noting that Starlink currently has limited presence in, or links to, New Zealand. If satellite connectivity solutions are being considered, we would want to see multiple satellite providers active in the New Zealand to manage company-specific risks, minimise price surging, and ensure long term positive outcomes for consumers.

- The above risks notwithstanding, it is worth noting that satellite connectivity solutions may offer an alternative to provide more resilient communication networks during emergency events. During Cyclone Gabrielle, amid the fibre and mobile network outages, many (though not all) users of Starlink anecdotally noted that their connections were holding strong.

Talking points:

- s 9(2)(f)(iv)



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Telecommunications Service Obligations

What are these and how do they impact rural connectivity?

What are Telecommunications Service Obligations (TSOs)?



Telecommunications Service Obligations have their origin in the privatisation of Telecom in the early 1990s. Essentially the Government imposed some obligations on Telecom to protect consumers as part of the privatisation process (e.g. free local calling)



As the regulatory framework evolved, these obligations were converted into TSO instruments that are established under the Telecommunications Act via an agreement between the Crown and a TSO provider



TSO instruments generally focus on ensuring that core telecommunications services are available and affordable to consumers



Current network TSO instruments



Spark^{nz}

The Spark TSO Instrument requires Spark (with support from Chorus) to supply the “*local residential telephone service*”



Obligation only applies to network footprint “as it was at 20 December 2001”. The obligations fall away from specified fibre areas (currently ≈87% of households)



While the *local residential telephone service* has its origins in legacy fixed line voice and dial up services, Spark has the ability to propose “a new service ... as an alternative to all or part of” these services i.e. the TSO instruments are intended to be tech neutral



Ministers have historically waived antiquated reporting requirements on dial-up services, and MBIE will provide you with advice on extending this waiver shortly



Spark’s instrument also has a free local calling requirement and a CPI cap on price increases that applies unless the “overall profitability” of Sparks fixed line business would be “unreasonably impaired”



Current network TSO instruments

CHORUS

The Chorus TSO instrument requires Chorus to provide a wholesale “baseband service” to enable Spark (and any resellers) to deliver the *local residential telephone service*



While the TSO instrument requires a voice service, it facilitates ADSL and VDSL broadband services



Chorus estimates that around 50% (or approximately 50,000) copper connections are not within the TSO footprint i.e. 50% are new connections post December 2001. CIP has recently funded Chorus to upgrade some copper lines as part of the rural capacity upgrade program.



Chorus’ instrument also has a cap on prices unless the “overall profitability” of Chorus’ fixed line business would be “unreasonably impaired”



The Telecommunications Act allows Spark and Chorus to seek compensation from the Crown for their respective TSO instruments should they impose net costs on the TSO provider i.e. Spark and Chorus can seek a TSO cost determination. However, Spark has agreed it will not seek compensation in its TSO instrument

Some issues with the current TSO requirements



- Low Earth Orbit (LEO) satellites now provide coverage to almost all New Zealand, and generally offer a higher quality service than the current TSO services (noting that technically speaking TSO services are not broadband services)



- Successive governments have invested significantly in rural cellular network coverage and capacity that overlaps with the copper network in many NZ locations



- Chorus has advised that it is getting harder to secure the skills and equipment necessary to maintain their copper network. However, we don't have visibility over whether these issues are driving significant costs for Chorus



- Despite the presence of the TSO obligations on Chorus, the company has announced that it intends to withdraw copper services within 10 years. Chorus also considers that the TSO as no longer fit for purpose



Balancing considerations



Tech neutrality - the TSO instruments can accommodate new technologies



Affordability - copper prices are generally around 50% to 60% of standard satellite or fixed wireless prices in rural areas. A standard Starlink service is \$159 per month while rural fixed wireless prices can range from \$95 to \$159 per month, depending on location. By comparison, copper broadband connections range from \$75 to \$112 per month depending on the chosen supplier

Consumer impacts - while the roll-out of fixed line fibre networks has reduced the importance of copper networks, there are still around 90,000 New Zealand households outside fibre areas that have copper connections

Traffic jam risks - if the copper network is withdrawn, the internet traffic that is currently carried by this network needs to be carried by EITHER:



Mobile networks, which are often already capacity constrained in rural areas. s 9(2)(j)

OR



Satellite operators, which face technical constraints when significant numbers of consumers fall within a single satellite's coverage beam

OR



New fibre connections, which will be uneconomic or very expensive to construct for the last 5% to 8% of rural consumers.

Balancing considerations



Satellite connectivity is useful but not perfect - the LEO satellite market is currently a monopoly for mass market residential connections. ^{s 9(2)(g)(i)}

There are also questions over:



Whether the current 'standard' price of \$159 per month and 'deprioritised' price of \$79 per month are introductory prices that will significantly increase over time as Starlink builds its customer base to attract consumers (the \$79 plan, in particular, is only offered in a handful of countries)



Whether Starlink will begin to geographically price discriminate i.e. increase prices in areas where their network is congested (as they have done in parts of the USA)



Whether Starlink's current service quality is able to be maintained as more customers connect (we understand that some stop sell areas have already been designated by Starlink)

Fibre footprint risk - ^{s 9(2)(ba)(i)}

^{s 9(2)(f)(iv)}



What is MBIE's advice on the TSO?



MBIE's previous advice has been to:

s 9(2)(f)(iv)



s 9(2)(f)(iv), s 9(2)(g)(i)



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