

# Mobile Phone Coverage (Non-Spots)

**Great Asby Area**

**Independent Research**

**March 2021**



**Noel Taylor**

**(Great Asby Resident)**

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## Acronyms

DCMS	Department for Digital, Culture, Media & Sport
DSML	Digital Mobile Spectrum Limited
EAS	Home Office Extended Area Service Programme
ESN	Extended Area Services Network
IS	Industry Sector
MNOs	Mobile Network Operators
MVNOs	Mobile Virtual Network Operators
Ofcom	Office of Communications
PNS	Partial Not Spots
RHF	Right Honourable Friend
RSN	Rural Services Network
SRN	Shared Rural Network
TCA	Trade and Cooperation Agreement
TNS	Total Non-Spots

## Background, Intentions and Synopsis

The purpose of this paper is to provide a summary report on the independent research conducted during Feb - March 2021 to ascertain the current position regarding potential mobile phone coverage improvements in the Great Asby area.

As noted above, the research is conducted on a purely independent basis for personal education, although the information sourced is being made available to the Parish Council et al (through this paper) in the anticipation of further representations being actioned to progress mobile phone coverage on a more formal basis through community representatives.

The paper sets out the timeline of organisational representative contacts (essentially via email) and the responses received.

### <sup>1</sup>Ofcom Statement:

On 9 March 2020 the Government announced that it had entered into an agreement with the four mobile operators to provide grant funding to deliver a 'Shared Rural Network'. Under the terms of this agreement, each mobile operator has committed to providing good quality data and voice coverage to 88% of the landmass by 30 June 2024, and 90% by 30 June 2026, subject to certain conditions (including the provision of funding for elements of the programme).

### Government Policy:

On the 11<sup>th</sup> March the Department for Digital, Culture, Media & Sport (DCMS), published a <sup>2</sup>Policy Paper:

[Policy paper](#)

[Shared Rural Network \(SRN\) - transparency commitment publication](#)

This Paper is included as [Appendix M](#)

### <sup>3</sup>Shared Rural Network

The government announced on [9 March 2020](#) that it had agreed a £1 billion deal with the four Mobile Network Operators (MNOs) to deliver the SRN. The programme is made up of private and publicly funded elements:

- The four MNOs will collectively invest over £530 million in a shared network of new and existing phone masts. This investment is in areas of partial commercial coverage, referred to as partial not spots (PNS) - areas where there is currently coverage from at least one, but not all operators.

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<sup>1</sup> Accessed 23.03.2021 [Mobile coverage obligations - Ofcom](#)

<sup>2</sup> Accessed 28.03.2021 **Error! Hyperlink reference not valid.**

<sup>3</sup> Accessed 23.03.2021 [Government breakthrough on £500 million support package to boost rural mobile coverage - GOV.UK \(www.gov.uk\)](#)

- Government will invest over £500 million to target hard-to-reach areas where there is currently no coverage from any operator (Total Not Spots or TNS).

We are already starting to see improvements as a result of the SRN programme. Devauden in Wales became the first rural community to benefit from the programme, when a mast went live in the village on 17 June 2020. This was followed by Longnor in the Peak District on 23 July.

Initial radio plans have now been submitted to the regulator, Ofcom, and an open, fair and transparent competitive procurement process for the publicly funded elements of the programme has commenced.

On 27 January 2021, the operators O2, Three and Vodafone announced a new joint venture to build and share 222 new mobile masts to boost rural coverage across the United Kingdom and deliver the first stage of the SRN. This programme of investment will increase coverage in each of the UK nations - 124 new sites will be built in Scotland, 33 in Wales, 11 in Northern Ireland, and 54 in England, with each operator leading on 74 of the new sites.

On 23 February 2021 EE announced it will upgrade more than 500 4G sites in 2021 as part of the SRN to extend coverage in rural areas across the UK. This will include 333 in England, 132 in Scotland, 76 in Wales, and 38 in Northern Ireland.

On 10 March representatives of the UK's mobile operators, EE, O2, Three and Vodafone signed a key agreement in the development of the Shared Rural Network. The contract sets out how the four organisations will work together to build new sites that will deliver mobile broadband in areas where there is no existing 4G coverage from any operator (total not spots).

### **Information Challenges**

Readers will note the 'challenge' in attempting to identify the specific developments which could improve mobile coverage for the community of Great Asby. The following pages summarise the extended range of stakeholders with an interest and direct or indirect responsibility.

### **Potential Local Initiatives**

One of the most informative responses received is from Henry Parker Senior Manager, Policy & Public Affairs for BT (Beyond Limits) which includes the EE Network. The information provided discusses the recently approved mobile mast at Maulds Meaburn which could improve the situation although as we are aware the topography of the area may still present challenges. Mr Parker also signposted to a Government initiative primarily aimed at Emergency Services First Responders which will see the building of additional masts. This initiative known as the <sup>4</sup>Home Office Extended Area Service Programme (EAS) and there is an intention the masts will be opened to commercial networks which may assist.

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<sup>4</sup> Accessed 23.03.2021 **Error! Hyperlink reference not valid.**

## **Monitoring of Developments**

It is perhaps pertinent for all formal community representatives at Parish, District, County Council and Authorities with a responsibility for oversight, to highlight the importance of ensuring the Asby Parish is adequately included in the future development of mobile coverage and is not inadvertently omitted through the challenges of inter-agency communication.

## Organisational Representatives Contacted and Responses Received

Org Representative	Role	Organisation	Date Initiated	Date Responded	Appendix Ref	Response
Bill Kerr	Chair	Asby Parish Council	23.02.2021	24.02.2021 24.02.2021		Advised the Parish Council is not currently pursuing any mobile initiatives but will agenda on the next Council meeting in April. Acknowledged copy email sent to Matt Warman MP
Matt Warman MP	Parliamentary Under Secretary of State (Minister for Digital Infrastructure)	UK Government	24.02.2021	24.02.2021 08.03.2021	A	Confirmation of receipt Letter from the Ministerial Support Team, Department for Digital, Culture, Media and Sport. (See <a href="#">Appendix A</a> )
Neil Hughes	Councillor	Cumbria County Council	24.02.2021	25.02.2021		Acknowledged copy email sent to Matt Warman MP
Nick Cotton	Councillor & Member for YDNPA	Cumbria County Council Yorkshire Dales National Park Authority	24.02.2021	25.02.2021 25.02.2021 11.03.2021	B D	Acknowledged copy email sent to Matt Warman MP and kindly offered to research current situation with Officers from CCC & YDNPA. Response to Nick Cotton from Gary Smith. Director of Conservation & Community. YDNPA (See <a href="#">Appendix B</a> ) Response to Nick Cotton from Jonathan Harris. Senior Programme Manager with Connecting Cumbria, a partnership between Cumbria County Council and BT. (See <a href="#">Appendix D</a> ) See Also Presentation made by Jonathan Harris re 4G & 5G (25.09.2019) <a href="#">PowerPoint Presentation (bcs.org)</a>
Neil Hudson MP	MP for Penrith & The Borders	UK Government	24.02.2021	25.02.2021 10.03.2021	C	Acknowledged copy email sent to Matt Warman MP – Read Receipt Telephone call from Neil Hudson’s PA re support and signposting to Neil’s Website and information regarding previously raising the matter in Parliament. (See <a href="#">Appendix C</a> ) <sup>5</sup>
Joan Raine	Councillor	Eden District Council	24.02.2021	25.02.2021		Acknowledged copy email sent to Matt Warman MP – Read Receipt
Sandy Lancaster	Councillor YDNPA Appointed Member	Eden District	24.02.2021	25.02.2021		Acknowledged copy email sent to Matt Warman MP – Read Receipt
Lucie	Not known	Shared Rural Network	20.03.2021	20.03.2021 22.03.2021 22.02.2021	E	Responses (x3) to request for information to the Shared Rural Network (SRN) & (See <a href="#">Appendix E</a> )
Gareth Elliott	Head of Policy and Communications	Mobile UK	20.03.2021	23.03.2021	F	Response received to request for information to Mobile UK (See <a href="#">Appendix F</a> ) See also <a href="#">Appendix L</a> in which Gareth has provided a published statement to <sup>6</sup> Rural Services Network
Henry Parker	Senior Manager, Policy & Public Affairs	BT Beyond Limits	23.03.2021	23.03.2021	G	Response received to request for information to EE / BT Networks (See <a href="#">Appendix G</a> )

<sup>5</sup> Accessed 10.03.2021 [Dr Neil Hudson MP raises the need for better rural broadband and phone signal connectivity with the Prime Minister | Penrith and the Border](#)

<sup>6</sup> Accessed 10.03.2021 [Rural Mobile Coverage – The Shared Rural Network - Rural Services Network \(rsnonline.org.uk\)](#)

n/a	n/a	Ofcom	24.03.2021	n/a	H	<sup>7</sup> Website Analysis re Coverage Checker. (See <a href="#">Appendix H</a> )
Marc Booth	Parliamentary and Public Affairs Communications Manager	O2 Telefonica	23.03.2021	26.03.2021	J	Response received to request for information to O2 Telefonica Networks (See <a href="#">Appendix J</a> )
Tom Corcoran	Lead Political and Parliamentary Affairs Manager	Three	23.03.2021	24.03.2021	I	Response received to request for information to Three Network (See <a href="#">Appendix I</a> )
Kamala Mackinnon Emily Ellis	Director of External Affairs Government Affairs Executive	Vodafone	23.03.2021	26.03.2021	K	Response received advising request for information has been forwarded to relevant teams.

<sup>7</sup> Accessed 14.03.2021 [Ofcom launches one-stop mobile coverage checker - Ofcom](#)

## Appendix A

Ministerial Support Team  
4th Floor  
100 Parliament Street  
London SW1A 2BQ  
E: [enquiries@dcms.gov.uk](mailto:enquiries@dcms.gov.uk)  
[www.gov.uk/dcms](http://www.gov.uk/dcms)

Noel Taylor  
[noelsian.taylor@btopenworld.com](mailto:noelsian.taylor@btopenworld.com)  
8 March 2021  
Our Ref: TO2021/04349

Dear Mr Taylor,

Thank you for your correspondence of 24 February to the Parliamentary Under Secretary of State (Minister for Digital Infrastructure), Matt Warman MP, regarding mobile phone coverage. I am replying as a member of the Ministerial Support Team at the Department for Digital, Culture, Media and Sport (DCMS).

The government understands the frustration arising from the impact that poor mobile coverage has on some communities, particularly in rural areas. Now more than ever, digital connectivity is vital to enable people to stay connected. I would like to reassure you that the government recognises the importance of having good quality mobile coverage where we live, work and travel, including in Great Asby. We are committed to extending geographic mobile coverage to all areas of the UK, as well as providing an uninterrupted mobile signal on all major roads.

On 9 March 2020, the government announced a deal with the mobile network operators to deliver the Shared Rural Network programme. This agreement will see the government and industry jointly invest over £1 billion to increase 4G mobile coverage throughout the UK to 95% geographic coverage by the end of the programme. The Shared Rural Network will also provide guaranteed extra coverage to 280,000 premises and 16,000 km of roads. There will also be further indirect improvements over time, including a boost to 'in car' coverage on around 45,000 km of road and better indoor coverage in around 1.2m business premises and homes

Since signing the agreement, initial radio plans have been submitted to the regulator, Ofcom, and an open, fair and transparent competitive procurement process for the publicly funded elements of the programme has commenced. The exact site deployment plans will be managed by the mobile network operators themselves in order for them to best deliver the agreed coverage outcomes. At this time, and until the operators' final radio planning exercise is complete, we are unable to provide any details on the precise location or number of new or upgraded masts that may be delivered where you live as a result of the Shared Rural Network.

However, you might like to know that on 27 January 2021 the mobile operators Three, O2 and Vodafone announced a joint venture to build and share 222 new masts to boost coverage across the UK to deliver the first stage of the Shared Rural Network. While on 24 February 2021, the mobile operator EE announced it will upgrade more than 500 4G masts in 2021 as part of the SRN to extend coverage in rural areas across the UK.

I would encourage you to get in contact with the operators in your area to ascertain their plans. We expect that operators will consult with local communities and consumers will feel the benefit of the programme long before it reaches its conclusion.  
I hope this information is helpful.

Yours sincerely,

Darren Bell  
**Ministerial Support Team**

## Appendix B

**From:** Gary Smith <[Gary.Smith@yorkshiredales.org.uk](mailto:Gary.Smith@yorkshiredales.org.uk)>

**Subject:** RE: Mobile Phone Coverage - Great Asby, Cumbria

**Date:** 25 February 2021 at 10:21:40 GMT

**To:** 'Nick Cotton' <[red.pedal@virgin.net](mailto:red.pedal@virgin.net)>

Hi Nick

Well the starting point of course is that this is something that the local authorities are responsible for sorting out. There isn't really a separate 'National Park' angle to this issue (although it always helps if the proposals have at least some regard for the fact that it is a National Park). The Authority has made it clear that we will support the County Councils in their work to roll-out broadband and mobile coverage (NPMP objectives [E1](#) and [F4](#)) through our planning role. I think the decision on the 5G mast at Coverdale last week backs that up very strongly.

Of course, we've gone further than just granting planning permission in the case of B4RN but that's because their approach results in a much lower impact on the natural beauty of the National Park than we get from multiple masts.

As we reported to Members last June, the extent of mobile coverage has increased quite significantly in the Park in the last couple of years (from memory around 15 new masts have been installed or have permission to be installed in the Yorkshire part of the Park).



Gary Smith  
**Director of Conservation & Community**

Direct: 01756 751613

Mobile: 07786 513428

Switchboard: 0300 456 0030

[www.yorkshiredales.org.uk](http://www.yorkshiredales.org.uk)



Yorkshire Dales National Park Authority  
Colvend | Hebden Road | Grassington  
Skipton | North Yorkshire | BD23 5LB

## **Dr Neil Hudson MP raises the need for better rural broadband and phone signal connectivity with the Prime Minister**

Monday, 1 March, 2021

In a Prime Minister's Questions session earlier today Dr Neil Hudson, MP for Penrith and The Border, asked the Prime Minister what his government is doing to address rural not-spots in Cumbria, with some areas receiving little to no broadband and phone signal.

### **Dr Hudson asked:**

“Penrith and The Border struggles with poor broadband and phone signal connectivity, with download speeds around 56% of the UK average. Many of my constituents have been quoted large and unfeasible sums for new cables to be installed, which is often their only option to improve coverage. I welcome the potential of the Shared Rural Network, the Gigabit voucher scheme and the Universal Service Obligation to help, but what reassurance can my RHF give my constituents that Government is striving to address these broadband and phone signal not-spots in rural Cumbria?”

### **The Prime Minister responded:**

“I thank my Honourable Friend for all he does to campaign for the hard to reach areas in rural Cumbria. I know that we are doing all we can as I raise it virtually every day and we are rolling out as fast as we can. We have committed about £5bn to connect those areas, £1bn for the Shared Rural Network agreement and a voucher scheme to target predominantly rural areas but we are intending to get everything we can possibly get done in the next five years.”

### **Commenting after the Commons session Dr Hudson added:**

“It is clear from the Prime Minister's response that rolling out broadband and phone signal capability is high on the government's levelling up agenda, with significant amounts of government funds being put towards improvements.

As part of my 'Better Connectivity' campaign I am determined that this government funding reaches the rural parts of Penrith and The Border which are yet to reap the benefits enjoyed by other parts of the country. Decent digital connectivity, which has become so integral to our work, study and social lives, even more so in the pandemic, is a fundamental necessity and not a luxury. I will keep raising this with Government and I am really pleased that the very top of Government is so receptive.”

## [Appendix D](#)

**From:** "Harris, Jonathan M" <[Jonathan.Harris@cumbria.gov.uk](mailto:Jonathan.Harris@cumbria.gov.uk)>

**Subject:** RE: Mobile Phone Coverage - Great Asby, Cumbria

**Date:** 11 March 2021 at 09:34:50 GMT

**To:** Nick Cotton <[red.pedal@virgin.net](mailto:red.pedal@virgin.net)>

Nick,

Apologies for not keeping you in the loop here. I have been liaising directly with Gary Smith of the YDNP (see attached emails).

If you have the full address and postcode for Noel Taylor I can check the Ofcom coverage data for his neighbourhood – Ofcom publish based on 100m2 grids. You will see from the attached map that mobile coverage around Great Asby is variable.

Regards,

## Appendix E

**From:** SRN Info <info@dmsluk.com>

**Sent:** 20 March 2021 20:15

**To:** noelsian.taylor@btopenworld.com

**Subject:** Thank you for your email Re: Mobile Network Developments for Great Asby Cumbria

Thank you for your interest in the Shared Rural Network (SRN).

The roll out programme and timings for delivery are currently in development and will be published in due course on [www.srn.org.uk](http://www.srn.org.uk).

If your enquiry relates to 4G coverage in your area, please visit the [Ofcom coverage checker](#). For all other queries relating to mobile service, please contact your mobile operator directly.

We endeavour to respond to all other enquiries as quickly as possible.

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**From:** SRN Info <info@srn.org.uk>

**Sent:** 22 March 2021 12:11

**To:** noelsian.taylor@btopenworld.com

**Subject:** Re: Mobile Network Developments for Great Asby Cumbria

Dear Noel,

Thank you for your email.

At this stage, we are not able to confirm which specific areas will benefit from the Shared Rural Network. I recommend you monitor the news page on the SRN website for further updates: <https://srn.org.uk/news/>

Best wishes,

Lucie

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**From:** SRN Info <info@srn.org.uk>

**Sent:** 22 March 2021 15:57

**To:** noelsian.taylor@btopenworld.com

**Subject:** Re: Mobile Network Developments for Great Asby Cumbria

Hi Noel,

The operators have already started upgrading some sites and expect to continue delivering improvements this year.

The following announcements provide a bit more detail:

<https://newsroom.ee.co.uk/ee-to-extend-4g-coverage-in-more-than-500-areas-in-2021-to-boost-rural-connectivity/>

<https://newscentre.vodafone.co.uk/press-release/o2-three-and-vodafone-agree-new-deal-to-enhance-rural-coverage-srn/>

Best wishes,

Lucie

## [Appendix F](#)

**From:** Gareth Elliott <ge@mobileuk.org>  
**Sent:** 23 March 2021 13:38  
**To:** noelsian.taylor@btopenworld.com  
**Subject:** RE: Mobile Phone Coverage - Great Asby, Cumbria

Dear Noel

Many thanks for your email regarding mobile coverage in the Great Asby Area and your request for detailed information regarding developments/proposals for mobile coverage.

Mobile UK itself does not control or hold information about mobile infrastructure deployment as this is the remit of the mobile operators themselves. Could I please ask you to direct your queries to the four mobile operators for which I have provided contact details below for each:

EE	<a href="mailto:henry.2.parker@bt.com">henry.2.parker@bt.com</a>
O2	<a href="mailto:marc.booth@telefonica.com">marc.booth@telefonica.com</a>
Three	<a href="mailto:tom.corcoran@three.co.uk">tom.corcoran@three.co.uk</a>
Vodafone	<a href="mailto:kamala.mackinnon@vodafone.com">kamala.mackinnon@vodafone.com</a>

In addition to the above, I would also suggest that you direct your query to the Shared Rural Network - [info@srn.org.uk](mailto:info@srn.org.uk). This is an agreement between the UK Government and the four mobile network operators to extend rural coverage across the UK.

Current coverage can also be found via Ofcom's website using the coverage checker website – this can be found here - <https://checker.ofcom.org.uk/>

Once again, thank you for your email.

Best regards

Gareth Elliott

Head of Policy and Communications

07887 911 076

**Mobile**<sup>UK</sup>

**#5GCHECKTHEFACTS**

## [Appendix G](#)

**From:** henry.2.parker@bt.com <henry.2.parker@bt.com>  
**Sent:** 23 March 2021 20:53  
**To:** noelsian.taylor@btopenworld.com  
**Subject:** RE: Mobile Phone Coverage - Great Asby, Cumbria

Noel,

Thanks for your note on this. I am sorry that it's taken you as long as it has to get the answers you are looking for. I can answer from the perspective of EE. I can't answer from the perspective of the other 3 operators.

Firstly, I can confirm that we are planning a new 4G site that should support better coverage within the postcode area you've highlighted. It be built near a place called Maulds Meaburn. It has planning consent and we have just agreed a lease with the landowner. Building work should start imminently. From that point we should be able to provide a forecast activation date. This will offer EE coverage only. It may be the other networks have other plans. We have offered to share such sites with them on fair commercial terms but they have declined that offer and will be fulfilling their obligations under the Shared Rural Network separately.

More widely, I note that the centre point of CA16 6 postcode is on the edge of an area that has been identified as one that is reserved for coverage via the [Home Office Extended Area Service Programme \(EAS\)](#). Under this programme, The Government are delivering 292 new mobile masts in areas where there is no EE coverage in preparation for all emergency service communications to be transition to the EE network as part of the new Emergency Services Network. Three of these are planned for locations just over the border in County Durham.

The Home Office have indicated recently that they will be a position to open them up to a commercial 4G service being offered from March 2022 onwards. Exactly what coverage improvements they will bring and where depends on which part of the postcode area you are taking about. If it's the centre, there may be some but it will be limited as they over 10km from that specific location. But the further North West you go, the better the improvement. Geography will have some bearing on that. Obviously hills and dips.

I hope that is helpful.

Kind Regards,

**Henry Parker**  
Senior Manager, Policy & Public Affairs



## [Appendix H](#)

# Ofcom launches one-stop mobile coverage checker

13 August 2015

- **Check mobile operators' coverage, wherever you are, indoors or outside**
- **Help improve the coverage checker by telling Ofcom about your experience**

**People can now check their operator's mobile phone coverage using a simple, powerful online tool launched by Ofcom today.**

Ofcom's [mobile coverage checker](#) provides a single-stop for consumers and businesses across the UK to discover the quality of the mobile coverage in areas where they live and work, or somewhere they intend to move.

Users can simply enter a place name or postcode, to receive data on coverage for each mobile network - down to 100 square metres. The checker uses data provided by EE, O2, Three and Vodafone.

Consumers increasingly expect a reliable mobile service. The new checker therefore shows where reliable coverage is likely to be available, whatever type of handset is used, using new research by Ofcom into the signal strength needed to provide a good consumer experience.

The checker also takes account of the increasing shift from handsets with external aerials to smartphones with internal aerials, which can sometimes be less effective at picking a signal.

Each area has been ranked with a colour-coded system, with green showing the highest likelihood of mobile coverage and red the lowest. The checker shows:

- voice and data coverage by mobile operator;
- coverage inside and outside of buildings; and
- topographical information allowing users to identify areas where there are natural obstructions to coverage, such as valleys and hills.

Helping to improve mobile coverage and quality of service are priority areas for Ofcom. The new checker is designed to support consumers in choosing a service that best suits their needs, while promoting competition between mobile operators.

Ofcom is inviting users to check their coverage experience and leave feedback, which will help refine and improve the tool, with a new version expected in the autumn.

In related work, Ofcom is seeking to improve the process for switching between different mobile providers. Ofcom [outlined possible options](#) to achieve this in July, and will take this work forward in the coming weeks.

Steve Unger, Ofcom's Chief Technology Officer, said: "Access to reliable mobile phone coverage used to be a 'nice to have'. Now it's essential to many people's lives.

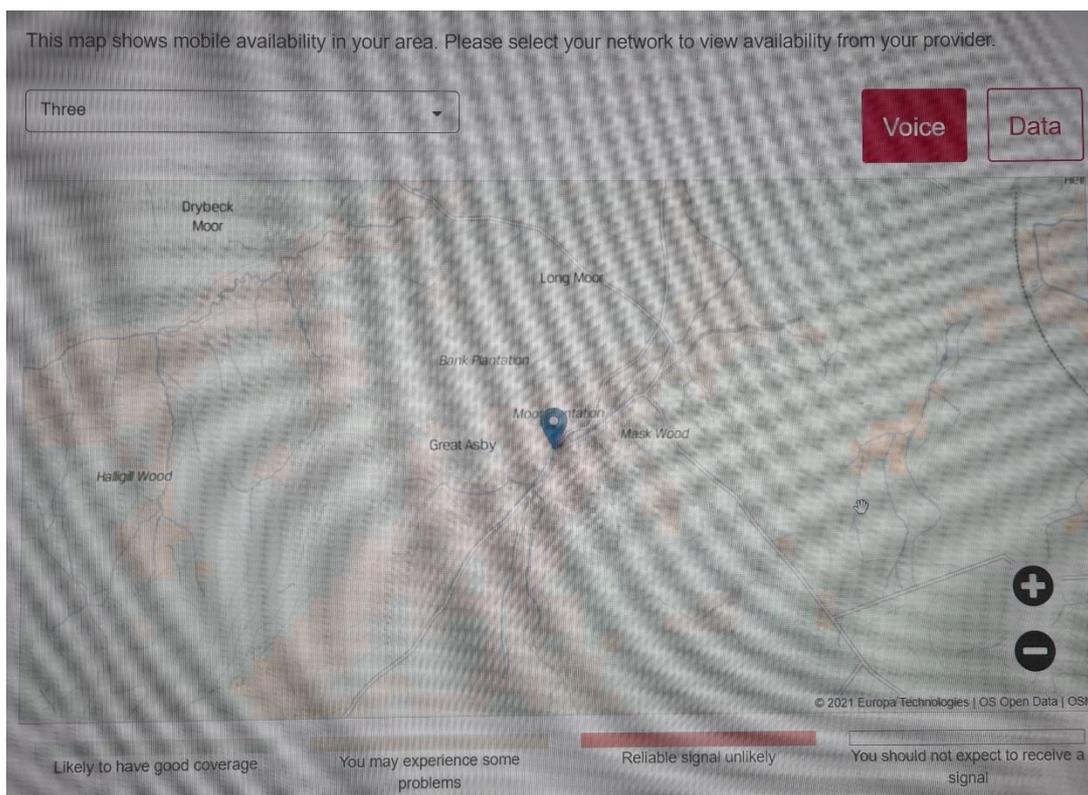
“We believe our checker is the most comprehensive tool available to consumers and businesses to check mobile coverage. We’re encouraging people to feed back after using the checker, so we can continue to improve its accuracy.”

## NOTES FOR EDITORS

1. Based on the Ofcom’s drive testing research conducted for last year’s Infrastructure Report, Ofcom identified that a signal level of at least -86dBm was needed to provide good 2G voice call coverage. This level was used to report on 2G mobile coverage levels in the report. Mobile operators use a lower (-93dBm) signal threshold to determine 2G voice call coverage. While it is possible to make calls at these lower signal levels, it is more likely from the drive test results to lead to consumers experiencing interrupted and/or dropped calls. While Ofcom’s most recent research supports the historic use of -86dBm for traditional phones, a more realistic threshold for modern smartphones is -81dBm.

<sup>8</sup>Example from Mobile Coverage Checker (Based on Three Network – Voice)

Date Reference: 24.03.2021



<sup>8</sup> [mobile coverage checker](#)

## [Appendix I](#)

**From:** Tom Corcoran <Tom.Corcoran@three.co.uk>  
**Sent:** 24 March 2021 12:31  
**To:** noelsian.taylor@btopenworld.com  
**Subject:** RE: Mobile Phone Coverage - Great Asby, Cumbria

Dear Noel,

Many thanks for your email. We are working with DCMS and industry partners to determine which areas will benefit under the partial not-spot segment of the Shared Rural Network programme. The sites will be determined by a range of Government-prescribed metrics that have the aim of connecting the greatest number of people possible. They will also be subject to planning permissions which will be adjudicated on at the local authority level.

The Shared Rural Network is a major programme and involves several different work streams, which we are working through. This means that I do not currently have a full view of what areas will benefit from the full Partial Not Spot programme which includes our 3-way plans with Vodafone and Telefonica, and then Three's unilateral plans.

Once I have that information and I am in a position to share it, I can come back to you.

Many thanks,

Tom



Tom Corcoran  
Lead Political and Parliamentary Affairs Manager

[three.co.uk](https://www.three.co.uk)

**We're building the UK's fastest 5G network**

## [Appendix J](#)

**From:** Marc Booth (UK) <Marc.Booth@telefonica.com>  
**Sent:** 26 March 2021 14:46  
**To:** noelsian.taylor@btopenworld.com  
**Subject:** RE: Mobile Phone Coverage - Great Asby, Cumbria

Dear Noel.

Apologies for not coming back to you sooner, as you can imagine we have a lot going on at the moment given the demands on the network.

We are in the process at this time in looking at coverage and the shared rural network initiative. I have been informed that there is a site in this area being progressed, as it stands this is all the information I have. This is due to a number of factors as with all sites including the business case, customer needs and demand, or to service a specific requirement such as the installation of smart metres.

Any decision to improve coverage will also be determined by such things as the ability to find a suitable location, agree commercial terms, obtaining planning permission and access to power and backhaul.

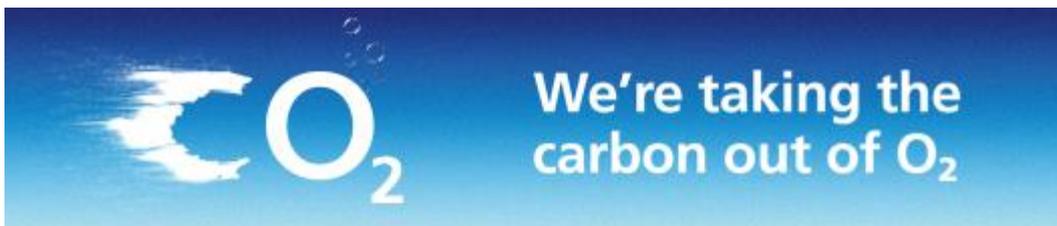
As I get updates in the future I will do my best to update you.

Kind Regards

**Marc Booth | Telefónica UK Limited**

Parliamentary and Public Affairs Relationships Manager

**M +44(0)7710 402822**



## [Appendix K](#)

**From:** Ellis, Emily, Vodafone UK <emily.ellis@vodafone.com>

**Sent:** 25 March 2021 13:22

**To:** noelsian.taylor@btopenworld.com

**Subject:** RE: Mobile Phone Coverage - Great Asby, Cumbria

Dear Noel,

Thank you for your email. It was forwarded onto me by Kamala as I am the casework lead here at Vodafone. I have raised your query with the relevant teams here and will be back in contact shortly with an update. In the meantime if you have any further questions please do not hesitate to contact me.

Many thanks,

Emily



**Emily Ellis**

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**Ready?**





## RURAL MOBILE COVERAGE – THE SHARED RURAL NETWORK

The Rural Services Network believes that a Digitally Connected countryside is vital for the future of rural communities and the growth of the Rural Economy. Improving digital connectivity (both fixed broadband and mobile) is a key part of our campaign calling on Government to develop a Rural Strategy. Many rural economies have been held back by poor connectivity.

This week, we've been talking to **Gareth Elliott, Head of Policy and Communications at Mobile UK** to understand more about the Shared Rural Network.

Gareth said:

*"Having good mobile coverage is widely recognised as being essential for the future prosperity of the rural economy and for rural communities. People increasingly want the flexibility to work from home and many sectors such as farming, tourism and transport are using mobile connectivity to increase productivity and improve services. This has become ever more important as the country grapples with the COVID-19 pandemic and the UK has been put into lockdown with mass home working and the need to connect with family and friends virtually.*

*Patchy mobile coverage is therefore one of today's real concerns as the world becomes ever more connected. In the UK, many of the rural areas currently get only partial coverage or none at all. Ofcom's most recent data states that 91% of the country receives 4G coverage from at least one operator and 66% from all four. Happily, the industry and the Government has come together with an unprecedented proposal that will significantly extend coverage and eliminate the vast majority of partial not spots, areas not covered by all four operators."*

What is the Shared Rural Network?

The proposal is called the Shared Rural Network and it is backed by both the Government and all four of the mobile network operators, who are jointly investing £532 million themselves along with a further £500 million of public investment. The Shared Rural Network agreement was officially signed on 9th March 2020.

How will it work?

The Shared Rural Network programme is made up of two parts: eliminating partial not spots and building new coverage. Industry will be investing £532 million to tackle the first part. This will involve the four network operators installing their own radio equipment on each other's existing masts, resulting in new 4G coverage from all mobile companies. As this involves all four operators it goes further than previous Ofcom recommendations, which would have required only two operators to extend to 90% of the UK's landmass, and will eliminate a substantial majority of partial not spots where currently there is only one or more operator.

The second element involves the Government investing £500 million to build new masts for use by all four operators and thus extend 4G into areas where there is currently no coverage. The overall outcome from these two elements is that the four operators will provide 4G coverage to 84% of the UK's landmass, with each individual operator providing a minimum of 90% 4G coverage, and in addition 95% of the UK's geographic area, and virtually all premises, will be able to get 4G from at least one operator.

What role do Local Authorities play in the Shared Rural Network?

Rural local government and businesses will have an important role to play in ensuring that the Shared Rural Network programme runs according to plan. Upgrades and new infrastructure will require interaction with planning departments, and so having policies and guidance in place to prepare will enable more efficient deployment, and landowners. The industry is already engaging with local bodies across the country and, in the coming months, once we have a more detailed idea of the build plan, will be seeking to reach out further.

The Shared Rural Network is an exciting project that marks a step change in 4G coverage across the UK. It is also ambitious with completion set for 2025/26. The industry stands ready and we look forward to working with local council bodies to bring mobile connectivity to rural areas across the United Kingdom.

**Graham Biggs of the Rural Services Network highlighted:**

*“At the Rural Services Network, we welcome initiatives that will bring greater connectivity to our rural communities provided that care is taken when developing the network in protected landscapes. Rural Communities, along with the rural economy, have been disadvantaged by poor connectivity and at the current time, having access to broadband and mobile telephone connectivity is vital.”*

For more information on the Shared Rural network visit: <https://www.mobileuk.org/shared-rural-network>

The four mobile operators have also released a statement about the importance of protecting critical infrastructure at this time:

<https://www.mobileuk.org/news/mno-statement-protecting-our-critical-infrastructure>

## Appendix M

<https://www.gov.uk/government/organisations/department-for-digital-culture-media-sport>

1. The Department for Digital, Culture, Media & Sport (DCMS) is publishing information in relation to the SRN programme, as required by Article 3.7 of the UK-EU Trade and Cooperation Agreement (TCA). This transparency notice provides information on how the programme meets subsidy principles set out in Article 3.4 of the TCA which are now binding under domestic law by virtue of s.29 of the European Union (Future Relationship) Act 2020. In line with these commitments, a UK state subsidy online database has been set up and will be administered by BEIS. The award of Grant Funding is made by the Authority under section 13A of the Industrial Development Act 1982.

2. The [government announced on 9 March 2020 that it had agreed a £1 billion deal with EE, O2, Three and Vodafone, the four Mobile Network Operators \(MNOs\), to deliver the SRN](#). The network will be underpinned by spectrum licence coverage commitments on individual MNOs to ultimately reach 90% coverage each, which together will deliver a collective footprint of 95% geographic coverage. The programme is made up of private and publicly funded elements:

- The four MNOs will collectively invest over £530 million in a shared network of new and existing phone masts. This investment is in areas of partial commercial coverage, referred to as partial not spots (PNS) - areas where there is currently coverage from at least one, but not all operators.
- Government will invest over £500 million to target hard-to-reach areas where there is currently no coverage from any operator (Total Not Spots or TNS). As part of the government funded element of the programme, government will also fund upgrades and deployment for all four MNOs on mobile sites being built to deliver the Home Office's Emergency Services Network (ESN - Extended Area Service Network) Programme. References to the TNS project and TNS subsidy include this element of the funding, as it relates to the additional radio equipment on upgraded Home Office sites.

3. As part of the public investment, DCMS is committing grant funding of £354m to Digital Mobile Spectrum Limited (DMSL), a joint delivery vehicle which the four MNOs have repurposed to be the recipient of the grant funding and to support such delivery. The funding will be to enable the TNS deployment and purchase of the radio equipment required to upgrade the Home Office sites. The grant funding period will amount to 20 years, commencing in February 2021, with capital expenditure taking place over a six year period.

4. Under the terms of the TCA, interested parties are entitled to request further information in relation to this grant funding. Requests must be made in writing to [enquiries@dcms.gov.uk](mailto:enquiries@dcms.gov.uk).

**I)The subsidy pursues a specific public policy objective to remedy an identified market failure or to address an equity rationale such as social difficulties or distributional concerns (“the objective”).**

5. The objective of the aid is to deliver 4G coverage from at least one MNO to 95% (i.e. the collective footprint where services are available from one or other of the operators) of the UK by the end of the programme, a priority identified in the 2017 UK government manifesto. As part of the programme, the grant recipient will support the MNOs in the MNOs' delivery and build of the network infrastructure. The MNOs will subsequently deliver services from that infrastructure to extend mobile coverage across the UK including into parts of the country where it has been challenging for operators to deploy commercial networks. The programme will capture positive externalities that stem from mobile connectivity including economic impacts (GDP, productivity and job creation) and wider social benefits (network effects and digital inclusion).

6. There is a strong case for intervention in the TNS target areas to remedy market failures and the socio-economic consequences of poor coverage to businesses and consumers. Thirty-five years of commercial investment in mobile networks has left some rural areas unconnected, given that higher infrastructure costs (remoteness and geographical challenges) and lower benefits (lower population density) make it commercially unviable to provide network coverage. Absent intervention, there is no reasonable expectation that this lack of investment will be remedied in the near future. The historical use of spectrum auctions has not found an effective and lasting solution to widespread good coverage. In its consultation on the award of the 700 MHz and 3.6-3.8 GHz spectrum bands, Ofcom considered that improving the availability of good mobile coverage beyond the levels likely to be delivered by competition alone would bring significant social benefits to the UK, and therefore that intervention is necessary. Technical and commercial models for delivering coverage such as the use of auctions have been exhausted, requiring an alternative model involving some level of public funding but also a more efficient and collaborative approach.

7. Consumers generally prioritise price when choosing a provider, posing little incentive for operators to compete on marginal coverage benefits. Although evidence suggests rural consumers may be willing to pay some premium to cover the cost of

greater coverage, prices are set nationally and there is no differentiation between the customers based on their location, which means operators do not differentiate services based on geography or provision of service.

8. As more activities and public services move online-only (homework, flexible/remote working, access to public administration), there is an inherent need for reliable connectivity. This has been heightened during the COVID-19 pandemic. Some of this can be achieved via substitution of wifi or broadband from a home connection, but an increasing number of households and businesses are mobile-only and not all households have access to reliable fixed broadband connections. Additionally, a fixed telephone connection is not a substitute for mobile in all cases. Consumers who are more vulnerable (vulnerably housed, some young people, tenants who move frequently) can benefit most from access to public services often only have connectivity via a mobile phone.

9. The TNS subsidy awarded by DCMS forms an integral part of the coordinated effort required by government and industry to create a joint solution to remedy market failure, aggregating benefit streams and sharing costs, offering consumers not only coverage, but an increased choice of services across multiple MNOs.

## **II) The subsidy is proportionate and limited to what is necessary to achieve the objective.**

10. The SRN programme is structured so that its publicly funded elements address areas where market failures persist, and are therefore targeted at 4G 'white areas' i.e areas where there is no coverage and which are unlikely to see any roll-out in the near future.<sup>[footnote 1]</sup>

11. Public funds will be targeted at the improvement of coverage in TNS areas. The programme is intended to take advantage of opportunities for broader efficiencies as the grant will provide for MNO deployment on Extended Area Services (EAS) masts being built as part of the Home Office's Emergency Services Network programme. Given the clear cost savings involved, the SRN will also encourage the use of existing infrastructure where practical - with those savings passed back to government. There will also be a consultation process to ask industry to provide us with details of existing infrastructure which may be of assistance, informed by mapping exercises.

12. The TNS investment is proportionate and is limited to resolving the infrastructure need at cost. Specifically, the TNS build is done on a cost recovery basis, with only costs expended on eligible items available for grant funds. If any government funded sites become commercially viable for any MNO in the life of the programme, ongoing government support to the relevant MNO for operational expenditure will cease and clawback mechanisms for a proportion of capital expenditure have been provided for. Under the terms of the grant agreement, DMSL and key project participants are required to run procurements of subsidised contracts in a manner compliant with the Public Contracts Regulations 2015 and in all cases to conduct procurement activity so as to ensure fair and effective competition across the market.

13. Commercial analysis indicated that a competitive process for the construction and operation of the SRN infrastructure would not be appropriate, and that a direct grant to DMSL was the only viable solution, justified under conditions of Standard 5 of the Government Functional Standard for General Grants. Namely, as the only organisation jointly owned by the MNOs, DMSL was considered the only organisation which can guarantee delivery of mobile coverage to all customers, share commercially sensitive information in a competition law compliant manner and create a joint radio plan.

## **III) The subsidy is designed to bring about a change of economic behaviour of the beneficiary that is conducive to achieving the objective and that would not be achieved in the absence of the subsidy being provided.**

14. In rural and remote areas of the UK where there is no good<sup>[footnote 2]</sup> mobile coverage provided by any MNO, there is a limited commercial case for other types of market-driven, private investment, due to the low population density and high costs of delivering coverage. Even though there may be isolated premise coverage via fixed networks in TNS areas, such services do not address the need for mobile broadband where people live, work and travel. This intervention seeks to address this failure. In the thirty-five years in which the mobile networks have been in place, private investment has demonstrably not achieved full coverage of the UK landmass where people live, work and travel.

15. The rural areas which are most likely to benefit from the SRN project do not present commercially attractive opportunities for roll-out in the normal course of business especially given that building sites in those remote rural areas is significantly more expensive. Changing investment and infrastructure requirements of the industry suggest that dense, highly integrated urban networks, focussed on 5G deployment will be target areas of investment in the coming decade. It is clear, therefore, that without SRN, the MNOs would not be able to justify investment in the target areas on purely commercial terms. Without the SRN programme, the MNOs would not be subject to any other obligations to actively target the areas in scope (excluding any legacy coverage obligations in the MNOs' spectrum licences).

16. Government undertook a rigorous economic assessment of the SRN against a short list of alternative options, in accordance with requirements of HM Treasury's Green Book. Two alternative scenarios were assessed including a 'do minimum' option (namely Ofcom's 700 MHz spectrum auction license obligations), and a more ambitious SRN option which would deliver 97%, rather than 95% aggregate coverage. The SRN in its current form was found to deliver greater coverage outcomes for a significantly lower government spend. While the operators assessed the costs of each option using publicly available information, government commissioned detailed economic analysis to quantify the benefits and inform the right level of intervention. It illustrated that mobile devices have become vital tools, facilitating access to a range of activities and services and leading to a range of positive externalities outlined in paragraph 27.

**IV) The subsidy should not normally compensate for the costs the beneficiary would have funded in the absence of any subsidy.**

17. As outlined in paragraph 6, the subsidy is not compensating any costs that the beneficiary would have funded in the absence of a subsidy. It is not anticipated that investment in TNS areas will be commercially viable in the near future, due to prohibitive costs and low population density. The subsidy is also limited to compensation of cost, and forms part of a broader market initiative to drive the maximised sharing of infrastructure and enable efficiencies in currently underserved areas.

**V) The subsidy is an appropriate policy instrument to achieve a public policy objective and that objective cannot be achieved through other less distortive means**

18. An industry-led approach provides a unique opportunity to address the "objective" in an equal and shared way. In such a case it also has the potential to extend coverage more extensively and at better value for money for taxpayers than alternative interventions such as conditions placed in spectrum auctions - while spreading the benefits of the programme across all mobile consumers.

19. The SRN programme is outcome focussed, with the aim of reaching an aggregate 4G mobile geographic coverage of 95% coverage (i.e. the collective footprint where services are available from one or other of the operators) across the UK and ensuring good quality 4G coverage where people live, work and travel. 4G is the main technology providing mobile broadband, and the standard for good quality mobile coverage in the UK and worldwide. No other technology such as satellite or fixed wireless access can currently provide the same level of mobile service at the same prices.

20. The UK government considered that the SRN proposal delivered a better outcome for rural consumers and businesses at lower cost to government than available alternatives (including previous proposals from Ofcom to include coverage obligations in its forthcoming spectrum auction), as the SRN will result in each MNO reaching 90% geographic (compared to two of the four MNOs reaching 90% through the auction obligations) and an aggregate coverage of 95%. The SRN will also be delivered at a lower cost to government (just over £500 million, including funding provided to the Home Office for use of EAS sites) compared to the auction obligations (where total discounts estimated at up to £800 million were potentially available).

21. The use of a grant to a joint venture was considered the most appropriate method of ensuring funding for the MNOs to deliver the programme. This model is preferred because it is simpler and the terms of the grant require the recipient to conduct procurement for the build of the programme in an open and fair way and in accordance with public procurement regulations. In this way, the broader supply chain will have an open opportunity to bid to deliver works.

**VI) The subsidies' positive contributions to achieving the objective outweigh any negative effects, in particular the material effect on trade or investment between the Parties.**

22. The TNS subsidy targets areas of total market failure. We expect to see positive effects throughout the digital infrastructure ecosystem, together with socio-economic benefits throughout the UK. An open and fair approach to procurement will also ensure that the supply chain can participate and benefit, addressing any material effects on trade or investment between the Parties.

23. The subsidy will have little materially negative effects on trade and investment between the UK and EU. As outlined against previous principles, the subsidy has been limited to the minimum necessary required to target market failures, therefore minimising any impacts on trade or investment. Any further negative effects are mitigated by the fact the open procurement will be open to all suppliers, including EU bidders. The subsidy covers only the costs incurred by the project, meaning that there cannot be an indirect subsidy that boosts any of the recipients' positions in the EU market.

24. Wireless infrastructure providers and large or small work contractors will have opportunities to compete and provide an offer for engaging in the standing up and potential ownership of infrastructure as part of a consistent procurement framework. DMSL will ensure that these providers have an opportunity to bid for contracts in the provision of the infrastructure.

25. The UK mobile market currently has four MNOs who own spectrum licences for the purposes of mobile coverage (EE, O2, Three and Vodafone), each of which are partners in the SRN programme. By the UK government providing funding for all of the MNOs to build and share infrastructure in TNS areas, it will ensure they will be able to operate, and fully compete against each other for customers in previously uncovered areas.

26. The SRN will ensure the widest level of technology agnostic wholesale access to relevant infrastructure. In addition to all MNOs - wholesale access to the grant funded sites will need to be afforded to any new entrants to the mobile market. UK Mobile Virtual Network Operators (MVNOs) also present in the market, buy wholesale capacity from the four UK MNOs and resell this to consumers, negotiating to offer their services using one of the MNOs' spectrum and infrastructure. The programme is also likely to enhance competition for MVNOs as they are able to offer further choice to consumers in these previously uncovered areas.

27. The positive externalities that stem from increased mobile coverage are extensive, outweighing any negative effects:

a. Consumers will have more reliable access to emergency services, and will allow for emergency calls from mobile devices in total not spots that see coverage for the first time.

b. Consumers in rural areas will get improved choice as more providers will offer coverage for the first time; they will get fuller value from their contract where they live, work or travel as partial not-spots are closed and total not spots covered for the first time as they get to use up more of their data allowance than now.

c. Consumers will benefit from improved access to mobile banking, government services and shopping and online navigation.

d. Improved connectivity can also help to reduce the 'digital divide'.

e. Network effects from improved connectivity between remote and urban areas raise the value of the network across the UK; it can contribute to social inclusion for vulnerable socio-economic groups.

f. Improved mobile broadband can drive economic growth by enhancing productivity and improving sales for rural businesses.

g. Improved indoor coverage can facilitate flexible working which reduces travel time and improves productivity in rural areas.

h. Rural tourism will be boosted as more people are attracted to areas that have good coverage, leading to increased spend in the local economy.

i. More coverage will enable new applications in industry sectors where rural connectivity is required (e.g. IoT in farming and health businesses based in these areas).

j. The TNS framework will contribute to minimising the impact on the natural environment in the rural areas by providing sharing opportunities of a limited number of sites.

1. The majority of intervention areas currently receive no 3G coverage, though there is overspill. The MNOs initial calculation suggest that the current level of 3G overlap into the TNS areas would be around 4.1% or 0.35% of absolute geographical coverage. (This figure may be subject to change as MNO radio plans develop). [↗](#)
2. Ofcom defines 'good' coverage as a level of quality that provides consumers with the kind of experience they expect today: reliable voice calls and a high probability of access to data speeds of at least 2 Mbps. [↗](#)

## Appendix N

### Contact Information

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