

Tuesday, 9 February 2021

OVERVIEW AND SCRUTINY BOARD

A meeting of **Overview and Scrutiny Board** will be held on

Wednesday, 17 February 2021

commencing at **5.30 pm**

The meeting will be held remotely via Zoom (the links to the meeting are set out below)

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Members of the Committee

Councillor Howgate (Chairman)

Councillor Atiya-Alla

Councillor Mandy Darling

Councillor Barrand

Councillor Foster

Councillor Brown

Councillor Kennedy

Councillor Bye (Vice-Chair)

Councillor Loxton

Together Torbay will thrive

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Teresa Buckley, Town Hall, Castle Circus, Torquay, TQ1 3DR

Email: governance.support@torbay.gov.uk - www.torbay.gov.uk

OVERVIEW AND SCRUTINY BOARD AGENDA

1. **Apologies**
To receive apologies for absence, including notifications of any changes to the membership of the Board.
2. **Declarations of Interest**
 - a) To receive declarations of non pecuniary interests in respect of items on this agenda

For reference: Having declared their non pecuniary interest members may remain in the meeting and speak and, vote on the matter in question. A completed disclosure of interests form should be returned to the Clerk before the conclusion of the meeting.
 - b) To receive declarations of disclosable pecuniary interests in respect of items on this agenda

For reference: Where a Member has a disclosable pecuniary interest he/she must leave the meeting during consideration of the item. However, the Member may remain in the meeting to make representations, answer questions or give evidence if the public have a right to do so, but having done so the Member must then immediately leave the meeting, may not vote and must not improperly seek to influence the outcome of the matter. A completed disclosure of interests form should be returned to the Clerk before the conclusion of the meeting.

(Please Note: If Members and Officers wish to seek advice on any potential interests they may have, they should contact Governance Support or Legal Services prior to the meeting.)
3. **Urgent Items**
To consider any other items that the Chairman decides are urgent.
4. **Response to concerns raised by constituents relating to the implementation of 5G technologies** (Pages 5 - 41)
To receive the submitted report in respect of 5G.

(Note: Julia Chisnell, Consultant in Public Health and Councillor Stockman, Cabinet Member for Adults and Public Health have been invited to the meeting for this item.)
5. **Budget Monitoring 2020/21 - Quarter 3** (To Follow)
To consider the submitted report on the latest position in respect of the Council's Capital and Revenue Budgets for 2020/2021.
6. **Draft Interim Climate Change Emergency Task and Finish Report February 2021** (Pages 42 - 46)
To approve the report of the Climate Change Emergency Task and Finish Group for submission to the Cabinet on 23 March 2021.

Instructions for the press and public for joining the meeting

If you are using an iPad you will need to install Zoom which can be found in the App Store. You do not need to register for an account just install the software. You only need to install the software once. For other devices you should just be taken direct to the meeting.

Joining a meeting

Click on the link provided on the agenda above and follow the instructions on screen. If you are using a telephone, dial the Zoom number provided above and follow the instructions. (**Note:** if you are using a landline the call will cost up to 13p per minute and from a mobile between 3p and 55p if the number is not covered by your inclusive minutes.)

You will be placed in a waiting room, when the meeting starts the meeting Host will admit you. Please note if there are technical issues this might not be at the start time given on the agenda.

Upon entry you will be muted and your video switched off so that only the meeting participants can be seen. When you join the meeting the Host will unmute your microphone, ask you to confirm your name and update your name as either public or press. Select gallery view if you want see all the participants.

If you have joined the meeting via telephone, your telephone number will appear on screen and will be displayed for all to see until the Host has confirmed your name and then they will rename your telephone number to either public or press.

Speaking at a Meeting

If you are registered to speak at the meeting and when it is your turn to address the Meeting, the Chairman will invite you to speak giving the Host the instruction to unmute your microphone and switch your video on (where appropriate) therefore please pause for a couple of seconds to ensure your microphone is on.

Upon the conclusion of your speech/time limit, the Host will mute your microphone and turn off your video.

Meeting Etiquette for Registered Speakers – things to consider when speaking at public meetings on video:

- Background – the meeting is public and people will be able to see what is behind you therefore consider what you will have on display behind you.
- Camera angle – sit front on, upright with the device in front of you.
- Who else is in the room – make sure you are in a position where nobody will enter the camera shot who doesn't want to appear in the public meeting.

- Background noise – try where possible to minimise background noise.
- Aim to join the meeting 15 minutes before it is due to start.

Meeting: Overview & Scrutiny Board

Date: 17 February 2021

Wards Affected: all

Report Title: Response to concerns raised by constituents relating to the implementation of 5G technologies

Decision requested for implementation by 31 March 2021.

Cabinet Member Contact Details: Councillor Jackie Stockman, Lead Cabinet member for Public Health, Jackie.Stockman@torbay.gov.uk

Director/Assistant Director Contact Details: Julia Chisnell, Consultant in Public Health, Julia.Chisnell@torbay.gov.uk

1. Purpose of Report

- 1.1 Following receipt of a petition of over 1000 signatures, Torbay Council held a debate on the implementation of 5G technologies on 6 February 2020. Council resolved:

that, in light of the concerns raised by the petitioners in respect of the potential harm of 5G to Torbay's residents, the Overview and Scrutiny Board is commissioned to undertake further investigation of the matter (including participating in Devon County Council's Spotlight Review on Cyber-Security and Health Concerns over 5G Rollout).

- 1.2 A number of Torbay residents took part in the Scrutiny Spotlight Review in February 2020. Councillor Howgate and Julia Chisnell from the Torbay Public Health team attended as observers.

- 1.3 On 17 September 2021 Devon Overview and Scrutiny Committee considered the Spotlight Review summary report and resolved as follows:

that Cabinet be asked to write to the Parliamentary Digital, Culture, Media and Sport Committee, with copies to the Local Government Association, Public Health England and Devon MPs, to request that this Select Committee gives consideration to the earnest concerns expressed by some residents of this County and beyond about the health and environmental impacts of 5G and supports this Government to address those concerns by providing greater reassurance and evidence to the general public that the technology is safe. If such reassurance and evidence cannot be provided, then we suggest further research is urgently undertaken.

- 1.4 Torbay Council Overview and Scrutiny Committee is asked to note the Devon County Council Spotlight Review report and to consider whether the Leader of the Council should be requested to write to the Parliamentary Digital, Culture, Media and Sport Committee in like manner, reflecting the concerns expressed by some of the residents of Torbay around the implementation of 5G.

2. Reason for Proposal and its benefits

We want Torbay and its residents to thrive. We want individuals and businesses to benefit from safe and resilient technologies. And we want people to feel confident that their views are heard.

2.1 The proposals in this report help us to deliver this ambition by responding to the concerns of residents around the delivery of the 5G programme.

2.2 Council asked the Overview and Scrutiny Committee to look further into the concerns expressed by some residents relating to the implementation of 5G technologies and to participate in the Devon Spotlight Review. This paper proposes that Torbay adopt a parallel approach to Devon, responding to the concerns of participants in the review by making representations to relevant national bodies concerning the approach to the roll out of 5G.

3. Recommendation(s) / Proposed Decision

It is recommended:

- (i) that the Overview and Scrutiny Board note the outcome of the Devon Spotlight Review on 5G; and
- (ii) that the Leader of the Council be requested to write to the Parliamentary Digital, Culture, Media and Sport Committee, with copies to the Local Government Association, Public Health England and Devon MPs, to request that this Select Committee gives consideration to the earnest concerns expressed by some Torbay residents about the health and environmental impacts of 5G and supports this Government to address those concerns by providing greater reassurance and evidence to the general public that the technology is safe.

Appendices

Appendix 1: Devon Spotlight review report: attached

Background Documents

- 1 Short briefing on 5G technologies and health: [5G technologies: radio waves and health - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/624242/5G-technologies-radio-waves-and-health-GOV.UK.pdf)
- 2 Ofcom briefing on 5G: [5G mobile technology: a guide \(publishing.service.gov.uk\)](https://www.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/624242/5G-mobile-technology-a-guide.pdf)

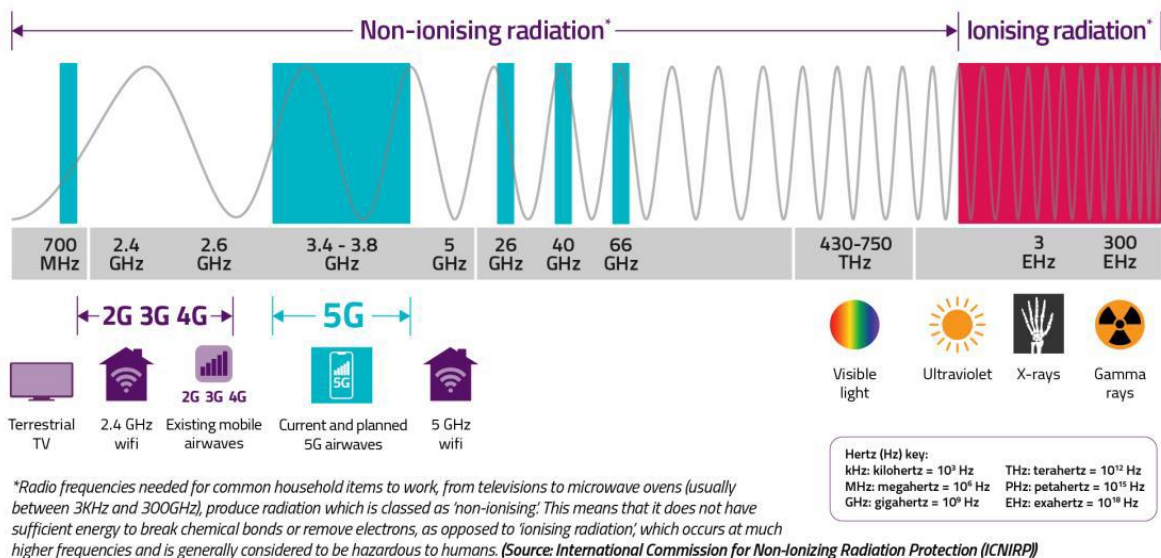
Supporting Information

1. Introduction

What is 5G?

1.1 5G is a technology operating at slightly higher frequencies than existing telecommunications bands.

1.2 Where 5G fits in the electromagnetic spectrum:



1.3 There are effectively two forms of 5G. The first will utilise sub 10GHz spectrum (operating in very similar frequencies to current 3G and 4G services). This spectrum has very similar characteristics to current mobile communications technologies that have been in use for 30 years and has also been previously granted use for radio and TV broadcasts. The second, future use, will utilise 24GHz -300GHz spectrum, the so-called millimetre wave frequencies associated with more revolutionary 5G aspects.

Action to date by Torbay Council

1.4 Following receipt of a petition of over 1000 signatures, Torbay Council held a debate on the implementation of 5G technologies on 6 February 2020.

1.5 The wording of the petition was as follows:

'The undersigned residents of Torbay do not consent to 5G street furniture on Council property such as lamp posts and buildings. This technology is being imposed on us and we want a moratorium on any roll out of 5G infrastructure on Council managed property until it can be proven to be safe and the technology insurable.'

1.6 Following debate, Council resolved:

that, in light of the concerns raised by the petitioners in respect of the potential harm of 5G to Torbay's residents, the Overview and Scrutiny Board is commissioned to undertake further investigation of the matter (including participating in Devon County Council's Spotlight Review on Cyber-Security and Health Concerns over 5G Rollout).

1.4 A number of Torbay residents took part in the Scrutiny Spotlight Review in February 2020. Councillor Howgate and Julia Chisnell from the Torbay Public Health team attended as observers.

Devon County Council Spotlight Review

1.5 On 17 September 2021 Devon Overview and Scrutiny Committee considered the Spotlight Review summary report and resolved as follows:

that Cabinet be asked to write to the Parliamentary Digital, Culture, Media and Sport Committee, with copies to the Local Government Association, Public Health England and Devon MPs, to request that this Select Committee gives consideration to the earnest concerns expressed by some residents of this County and beyond about the health and environmental impacts of 5G and supports this Government to address those concerns by providing greater reassurance and evidence to the general public that the technology is safe. If such reassurance and evidence cannot be provided, then we suggest further research is urgently undertaken.

2. Options under consideration

2.1 Torbay residents took part in the Devon Spotlight Review and their views were taken into account in the findings.

2.2 A copy of the Spotlight Review is attached. The aims of the review were:

- To understand the underlying concerns from some members of the public concerning 5G technology
- To explore the validity of these concerns
- To identify the ways in which Council should or should not support the roll out of 5G.

2.3 The format of the review was:

- A survey
- Focus groups
- Interviews with experts were planned but not undertaken due to the Covid-19 pandemic.

2.4 Findings from the survey and focus groups are included in the attached report. Particular concerns were expressed around:

- Lack of awareness and understanding of 5G
- Fears about risks to health and the environment.

2.5 Summary conclusions from the review were:

- Although not included within the scope of the review, reliable scientific sources indicate no specific health risks from the roll out of 5G technology although they continue to keep possible health impacts of all aspects of mobile telecommunications under review
- Those responding to the survey and participating in the review were more likely to be those with concerns around 5G implementation so would not necessarily be representative of the population as a whole
- A number of residents locally, and elsewhere, were significantly concerned about the potential health and environmental impacts of 5G technology
- A high proportion of those engaged in the review felt there was a lack of information and understanding communicated to the public about the impact of 5G.

3. Financial Opportunities and Implications

3.1 None identified.

4. Legal Implications

4.1 None identified.

5. Engagement and Consultation

5.1 The Devon Scrutiny survey and Spotlight review was an extended form of consultation process involving Devon and also Torbay residents.

6. Purchasing or Hiring of Goods and/or Services

6.1 Not applicable.

7. Tackling Climate Change

7.1 No specifics identified.

8. Associated Risks

8.1 Risks are around an expressed lack of public confidence in the information supporting the roll out of 5G technology.

Corporate Infrastructure and Regulatory Services
Scrutiny Committee

5G Spotlight Review

September 2020

1. Recommendation

The Spotlight Review ask the Corporate Infrastructure and Regulatory Services Scrutiny Committee to consider this report and conclusion and recommend that Cabinet:

Write to the Parliamentary Digital, Culture, Media and Sport Committee with copies to the Local Government Association, Public Health England and Devon MPs to request that this Select Committee gives consideration to the earnest concerns expressed by some residents of this County and beyond about the health and environmental impacts of 5G and supports this Government to address those concerns by providing greater reassurance and evidence to the general public that the technology is safe. If such reassurance and evidence cannot be provided, then we suggest further research is urgently undertaken.

This recommendation is made because Devon County Council Scrutiny function is not established to address issues of national concern and does not have the ability to make recommendations that affect planning policy or national guidance.

2. Introduction

2.1 This Spotlight Review was established at the end of 2019 following concerns from Councillors about 5G raised by the large interest from members of the public presenting formal questions to public meetings of the Council. Since July 2019, 21 questions relating to 5G have been brought to DCC Full Council meetings from members of the public. Furthermore, in the same time frame, 37 questions relating to 5G have been brought to DCC Cabinet meetings from members of the public.

2.2 The advancement and subsequent roll out of 5G technology is an issue of increasing concern to policy makers. Recently, the concern of the potential involvement of Huawei in the rollout of 5G has been a matter for ongoing discussion in Westminster.¹

2.3 The Government has stated their “ambition for the UK to be a global leader in the next generation of mobile technology - 5G The UK Government’s strategy for future digital infrastructure is set out in the Future Telecoms Infrastructure Review (FTIR)², published on 23 July 2018. The focus is to support a “market expansion model” for 5G in the UK. This means supporting a competitive market of mobile network operators and promoting innovation that could deliver new

¹ Russon M, BBC, *Fresh UK Review Into Huawei Role in 5G Networks*, (24/05/2020) <https://www.bbc.co.uk/news/business-52792587>

² Department for Digital, Culture, Media & Sport, *Future Telecoms Infrastructure Review*, (23/07/2018)

solutions to challenges such as rural coverage. The Government has a target that most of the population will be covered by a 5G signal by 2027.”³

2.4 At the Autumn Statement 2016, the Government announced its intention to invest in a nationally coordinated programme of 5G testbed facilities and trials, as part of over £1bn of funding announced to boost the UK’s digital infrastructure.⁴ The results of these test beds have yet to be published. The Government also wrote to all Local Authority Chief Executives in support of 5G in November 2019 stating that “local authorities will share collectively an annual £2.35 billion of efficiency savings, from reduced social care costs for the elderly through 5G monitoring, to savings through smarter street lighting” (Appendix 2).

2.5 Recognising the role that scrutiny can have in bringing different agencies together to collectively problem solve, the scope of this Spotlight Review was:

- a. To understand the underlying concerns from some members of the public concerning 5G technology.
- b. To explore the validity of these concerns.
- c. To identify the ways in which DCC should or should not support the rollout of 5G.

2.6 After some initial research it was felt that it would be beneficial to create a light touch survey for interested residents of Devon to shape the direction of the spotlight review and the questions it might ask. As point (a) in the scope. This was entirely to ascertain the underlying concerns with scope to identify any anticipated benefits of the technology based on awareness and viewpoints. This was not consultation nor a proportionally balanced opinion poll of Devon residents.

2.7 To explore these views further, the spotlight review hosted a series of focus group sessions with participants of the survey at County Hall on the 18th November. This was held as multiple concurrent round table discussions at several scheduled sessions throughout the day. It should be highlighted that the survey and group sessions should not be considered as an accurate reflection of all Devon residents but only a small section of them. The survey and group sessions were not undertaken in a truly scientific manner. Nevertheless, they have value of highlighting some views of some residents.

2.8 Following the outbreak of the COVID-19 Pandemic, this piece of work was temporarily put on hold as all scrutiny task groups and Spotlight reviews were. The planned next step of the work would have been to conduct in depth semi-

³Department for Culture, Media and Sport and HM Treasury, *Next Generation Mobile Technologies: A 5G Strategy for the UK*, (March 2017)
https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/597421/07.03.17_5G_strategy_-_for_publication.pdf

⁴ HM Treasury, *Autumn Statement 2016*, (November 2016)
<https://www.gov.uk/government/publications/autumn-statement-2016-documents/autumn-statement-2016>

structured interviews with experts in the fields of concern identified. These witnesses would have been identified and contacted by the scrutiny team in response to the lines of enquiry identified through the survey and focus groups.

2.9 During lockdown there has been significant lobbying and contact from anti-5G protestors, including a YouTube video being made about the scrutiny review. The Leader of the Council responded to e-mails calling for the swift conclusion of the review with an explanation that dealing with covid-19 and vulnerable people have been the highest priority for the entire Council at this time.

2.10 At the same time planning applications for 5G masts are being submitted across Devon. During this period it has become clear that there is no jurisdiction whereby the County Council could reject a 5G mast planning application, even if it was minded to do so. The planning issues around Exeter and other areas in Devon underline the limitations of the County Council's power and influence in this matter.

2.11 Considering these factors, the Spotlight review and the Scrutiny Chairs and Vice Chairs of Scrutiny group have decided to conclude the review in the current stage and publish the results of the survey and focus groups to support the recommendation of this report. This is an unusual step for a scrutiny review to take and reflects the unprecedented times we are in and the limitations in the Council's power under planning legislation. This report contains supporting information intended to be used as a basis for further exploration.

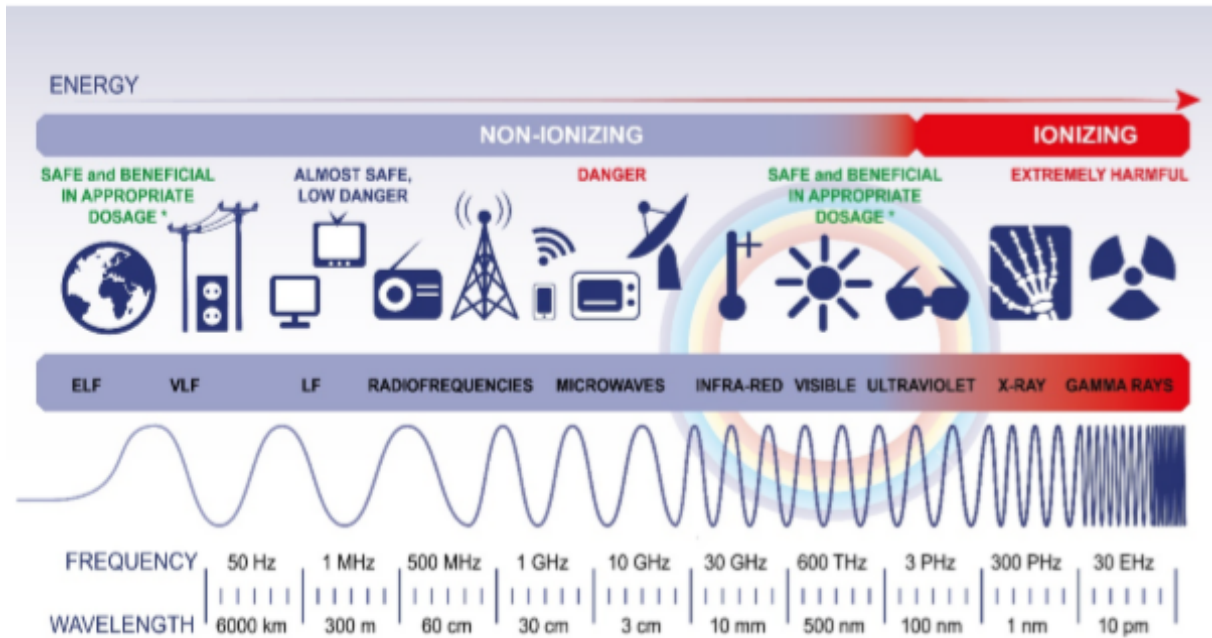
3. 5G Technology

3.1 5G is the new generation of wireless technology. It follows on from 4G and 3G before that. All four major UK mobile networks have launched 5G services. Technology firms are also rolling out 5G-ready devices.⁵

Generation		
2G	Suitable for calls, text messages and very low speed data.	1992
3G	Mobile broadband, faster voice, text and data services.	2003
4G	Faster data, higher capacity and greater responsiveness.	2012
5G	Extremely fast data, higher capacity and almost instantaneous response.	2019

⁵ Christie, L, UK Parliament Post, *5G Technology*, (July 2019) <https://post.parliament.uk/research-s/post-pb-0032/#fullreport>

3.2 5G will utilise a range of frequencies including the millimetre wave part of the spectrum that extends from 30 to 300 GHz. While millimetre waves have not so far been used for cellular communications, they have been used for many other applications, including airport security scanners, anti-collision radar for cars, and to link present-day cellular base stations.



6

3.3 Higher frequency waves can carry more data but their correspondingly shorter wavelengths mean that they are more easily blocked by objects such as trees and houses. So 5G technology is effective only over short distance and will require many more, but smaller, new antennas. In addition to a multitude of small 5G base stations, there will be more satellites in space and the “Internet of Things” will involve billions more wireless devices.

3.4 Ultimately, the enormous data capacity, very fast speed and responsiveness of 5G is purported to bring revolutionary applications such as:

- Autonomous cars, able to detect obstacles, interact with smart signs, follow precise maps and communicate with each other. Potentially this may reduce pollution and congestion and improve passenger safety.
- Smart cities: smart cities will rely heavily on connected devices, bringing new modes of public transport, smart buildings that enable businesses to work more efficiently and enabling better use of resources such as electricity.
- Internet of Things: already gaining pace, the introduction of 5G will provide the infrastructure to connect billions more devices to the internet and revolutionise many sectors including manufacturing, agriculture and retail.

⁶ European Parliamentary Research Service, Effects of 5G wireless communication on human health, (no date)
[https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646172/EPRS_BRI\(2020\)646172_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/BRIE/2020/646172/EPRS_BRI(2020)646172_EN.pdf)

- Immersive entertainment; using Virtual Reality and Augmented reality.
- Communication and collaboration: streamlining communications and supporting remote working.

3.5 Mobile broadband is the first commercial use of 5G. In May 2019 EE became the first operator to launch 5G in the UK and it is now being rolled out by four private mobile network operators; EE, O2, Vodafone and Three. At present 5G covers 57 major towns and cities, each of which are served by at least one of the four operators. These include Belfast, Liverpool, London, Birmingham and Norwich. In Devon only Plymouth has coverage, currently by Vodafone but with EE to follow in Summer 2020. 5G will roll out to at least a further 18 major towns and cities during 2020, including Aberdeen, Blackpool Peterborough, Luton and Worcester.

3.6 Council involvement with the roll out of 5G is solely with respect to street furniture (e.g lampposts) to be used for the implementation of 5G infrastructure.

3.7 In April 2020, a parliamentary e-petition was set up calling for a “delay 5G in the UK until there has been an independent investigation”, stating the desire to “to see a full independent investigation and report to declare the findings on the 5G network in relation to radio activity and the health implications.” This petition had been signed by over 54,000 people at the time of writing. Of this number there are 110 in North Devon, 75 in Torridge and West Devon, 117 in Central Devon, 146 in Exeter, 113 in East Devon, 100 in Newton Abbot, 118 in Torbay, 69 in South West Devon, 51 in Plymouth Moor View, and 91 in Plymouth, Sutton and Devonport. This gives a total of 990 people in Devon, Torbay and Plymouth. Having gained over 10,000 signatures, the petition has garnered enough signatures to have warranted a formal response from the government. This has been summarised as follows

“In relation to 5G, PHE has said that the exposure to radio waves is expected to remain low relative to international guidelines and, as such, there should be no consequences for public health.”⁷ Full response in Appendix 3

3.8 At the time of initiating the 5G review no 5G masts were planned or existing, to the best knowledge of the spotlight review, in the Local Authority area covered by Devon County Council. However, since the project has been live, several planning applications have been submitted. It is highly likely that these will be agreed as they fall under permitted development.

⁷ Department for Digital, Culture, Media & Sport, *Response to: Delay 5G in the UK until there’s been an independent investigation petition*, (11/06/2020) <https://petition.parliament.uk/petitions/312997>

4. Planning Policy

4.1 It should be stated that Devon County Council operates within a two-tier council structure. This means that planning applications and local planning policy is mainly within the responsibility of District Councils. Scrutiny has no role in considering individual developments or making policy which affects planning.

There are, however, strict national and local planning frameworks surrounding telecommunication infrastructure, which is as follows:

The development of certain types of electronic communications apparatus is permitted by Part 16 of the Town and Country Planning (General Permitted Development) (England) Order 2015. There are limitations on the size of apparatus permitted and a requirement that the developer must apply to the local planning authority for a determination as to whether the prior approval of the authority will be required as to the siting and appearance of the development.

The National Planning Framework 2019 (NPPF) sets out the Government's planning policies and how these should be applied in both plan making and the determination of planning applications. Part 10 of the NPPF *Supporting high quality communications* paragraphs 112 to 116 set out the Government's communications infrastructure strategy.

- Paragraph 112 – Supports the provision of 5G, considering that high quality and reliable communications infrastructure is essential for economic growth and social well-being.
- Paragraph 113 – encourages the use of existing masts and where new sites are required (such as for new 5G networks), equipment should be sympathetically designed and camouflaged where appropriate.
- Paragraph 114 – Provides guidance to local planning authorities on dealing with new electronic communications development.
- Paragraph 115 – Provides guidance on the information that should be provided with applications (including applications for prior approval).
- Paragraph 116 - Local planning authorities must determine applications on planning grounds only. They should not seek to prevent competition between different operators, question the need for an electronic communications system, or set health safeguards different from the International Commission guidelines for public exposure.

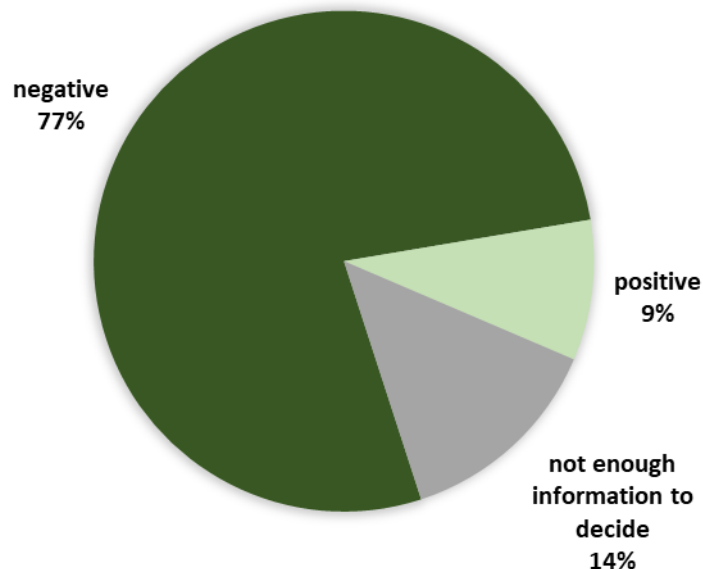
5. Survey Responses

- 5.1 The survey ran for just over six weeks between 18th November 2019 and the 1st January 2020, being extended during this time following a public complaint. The survey was publicised through the DCC communications team press release and tweeted through multiple channels. Several local papers picked up on the survey.
- 5.2 The survey was intended to be filled out by residents of the Devon County Council geographic footprint; however, respondents were not asked to fill in their post code. There is evidence that people from across the Country completed the survey, with the link being shared on predominantly anti-5G social media, and several respondents saying that they lived outside Devon.
- 5.3 The survey was not an opinion poll and the data was not collected in a way to enable any conclusions to be drawn about the number of people across Devon who hold the views of the respondents of the survey. In fact, it is highly likely that only those who feel very strongly about the issue of 5G would have responded to the survey request, this was a self-selecting respondent base.
- 5.4 The results have been correlated and are reflected below:

Question 1

The first question of the survey asked about the attitude of the respondent to 5G,

WHAT IS YOUR OPINION OF 5G?



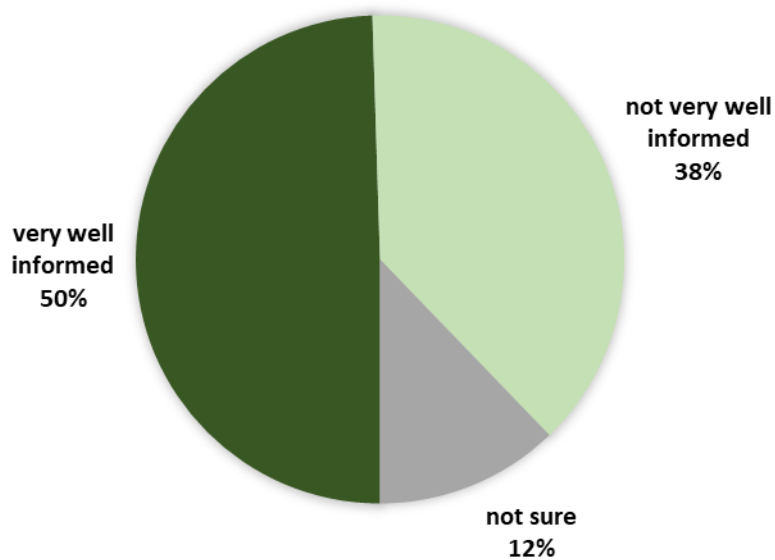
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The overwhelming response was negative, with over 1,000 people reporting this. This was anticipated with people who have strong feelings, particularly negative

ones being more likely to fill in surveys of this nature. Only 9% of respondents were positive and 14% said that they did not have enough information to decide.

Question 2&3 information and awareness of 5G

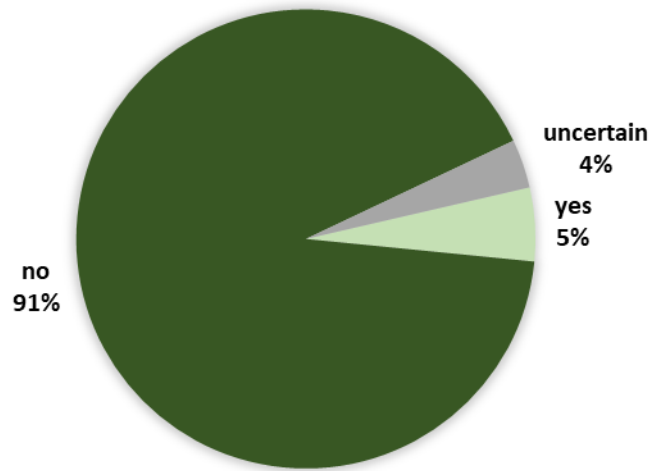
TO WHAT EXTENT DO YOU FEEL INFORMED ABOUT 5G TECHNOLOGY?



Respondents were split when asked if they felt well informed, with half feeling very well informed, and the rest either not sure (12%) or not very well informed (38%). More significantly on the graph below, nine out of ten people said that not enough had been done to raise awareness of 5G. This is a key finding and demonstrates the need for more reliable information to be shared on this subject.

The chart over the page amplifies this finding. When asked, 91% of respondents said that not enough had been done to raise awareness of 5G, with only 5% saying that enough had been done.

**IN YOUR OPINION HAS ENOUGH BEEN DONE TO RAISE
AWARENESS OF THE IMPLEMENTATION OF 5G
TECHNOLOGY**

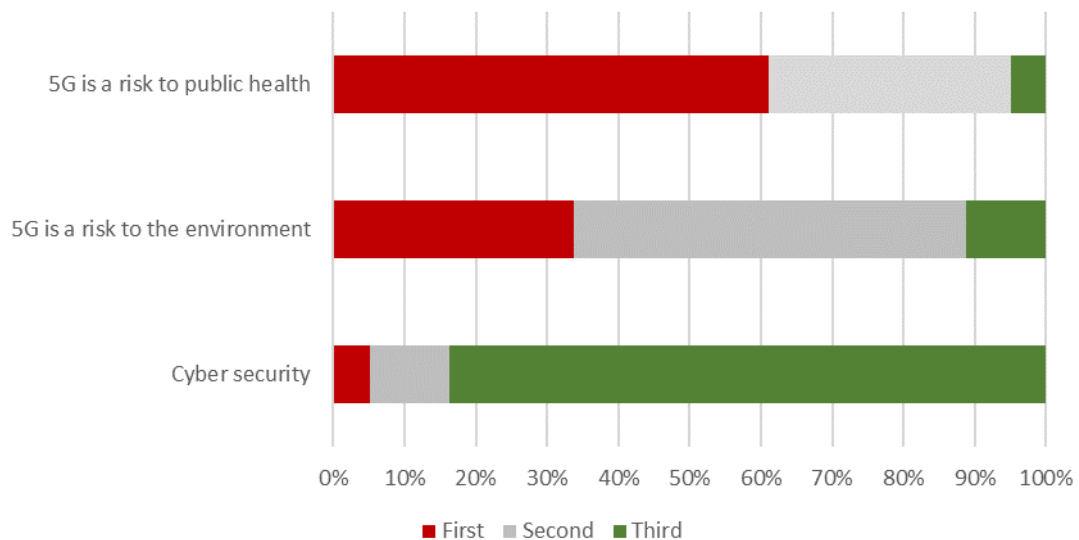


Question 4: 5G Concerns

Initial research undertaken by the scrutiny team suggested that there were three main objections to the roll out of 5G. This question was written to understand the extent to which respondents agreed on the order of priority of concerns, and to ascertain what respondents were most concerned about.

The question in full was: *'If you have concerns about 5G can you order the following statements into what concerns you the most? (skip this question if it does not apply).'*

What concerns you the most?

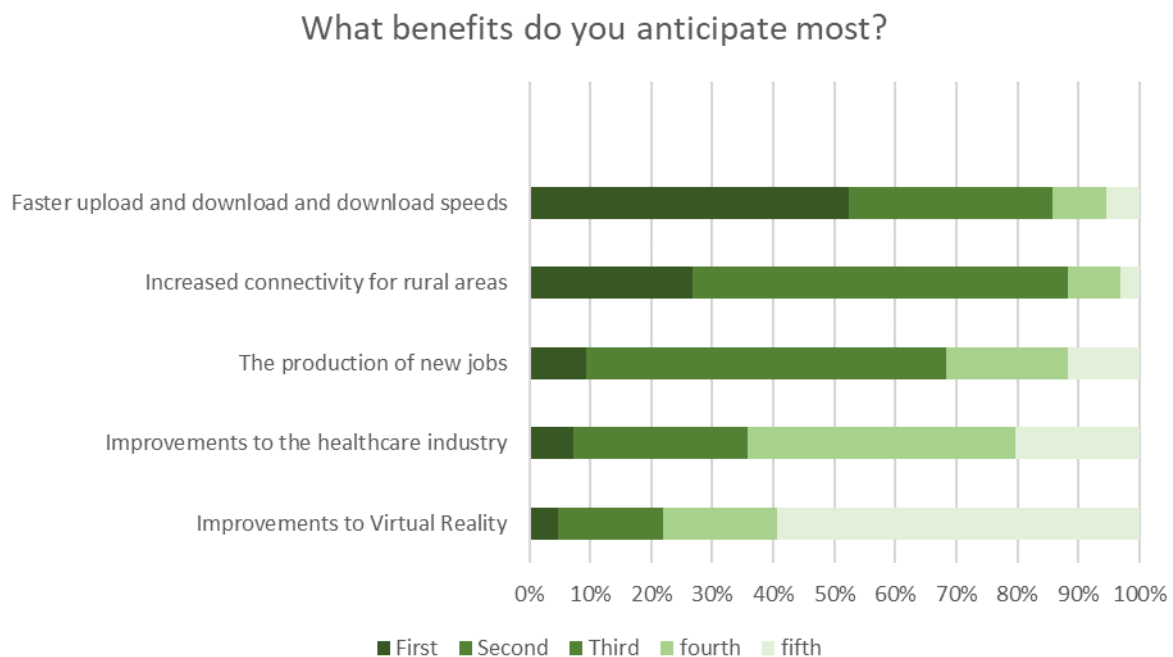


Clearly more people were concerned about public health, and the risk to the environment, with more than 60% of people putting public health as their number one priority and more than 30% putting the environment. Fewer people were concerned about cyber security with less than one in twenty putting it as their first concern.

Question 5: Benefits

This was a difficult question for some respondents who felt that there was not the option to tick 'no benefits', and many people explained this in the free text box. Whilst this could be borne in mind for similar questions in future, question 4 regarding concerns also did not offer this option. So, for those who only saw positive impacts of 5G the same criticism would apply. Respondents could skip either question.

The question in full was: 'Can you put the following proposed benefits in order of what you anticipate the most? (skip this question if it does not apply)'



Question 6. Can you explain what has led you to your viewpoint? If possible, please provide reference to any evidence and/or information that you believe we should consider.

There were significant anti-5G internet links shared as part of this question that are too numerous to list here.

As is expected with the volume of responses there was significant duplication in evidence cited.

Often mentioned, however, was that in May 2011, the International Agency for Research on Cancer (IARC) classified radiofrequency electromagnetic fields (as emitted by mobile phones) as “possibly carcinogenic to humans”.⁸ All scientific publications available by May 2011 were evaluated and the human evidence for an association was found to be “limited”. This means that some but not all epidemiological studies showed an indication of an increased risk of cancer, but not with enough confidence to assume a causal link. The list of substances in this classification includes items such as pickled vegetables, while common products like processed meat and alcoholic drinks fall in higher categories.

Often mentioned was also the United States National Toxicology Program (NTP), which was a ten-year study to evaluate the effects of exposure to mobile phone emissions on rodent health. Animals were exposed for 10-minute on, 10-minute off increments, totalling just over 9 hours each day. Power levels used started at the highest level permitted today and extended much higher. The report found statistically significant increases in the number of rats and mice with tumours in organs at one or more of the exposure levels studied, including the brain, prostate gland, pituitary gland, adrenal gland, liver and pancreas. However, the researchers determined that these were equivocal findings, meaning it was unclear if any of these tumour increases were related to RF. “The levels and duration of exposure to RFR were much greater than what people experience with even the highest level of cell phone use and exposed the rodents’ whole bodies. So, these findings should not be directly extrapolated to human cell phone usage,” said John Bucher, Ph.D., NTP senior scientist. “We note, however, that the tumours we saw in these studies are similar to tumours previously reported in some studies of frequent cell phone users.”⁹

The responses also often referenced that in December 2018 the journal, *The Lancet; Planetary Health* published an article entitled “Planetary electromagnetic pollution: it is time to assess its impact”. It quoted a recent evaluation of 2266 studies (including in-vitro and in-vivo studies in human, animal, and plant experimental systems and population studies) that found that 68% demonstrated significant biological or health effects associated with exposure to anthropogenic electromagnetic fields. It concludes “This weight of scientific evidence refutes the prominent claim that the deployment of wireless technologies poses no health risks at the currently permitted non-thermal radiofrequency exposure levels. Instead, the evidence supports the International EMF Scientist Appeal by 244 scientists from 41 countries who have published on the subject.”¹⁰

Question 7: If you would like the Councillors to consider one thing about 5G what would it be?

⁸ International Agency for Research on Cancer, Press Release no208, *IARC Classifies Radiofrequency Electromagnetic Fields as Possibly Carcinogenic to Humans*, (31/05/2011)

⁹ National Toxicology Programme, *Cell Phone Radio Frequency Radiation*, (no date)

<https://ntp.niehs.nih.gov/whatwestudy/topics/cellphones/index.html>

¹⁰ Bandara and Carpenter, *Planetary Electromagnetic Pollution: It Is Time to Assess its Impact*, *The Lancet Planetary Health*, Volume 2, ISSUE 12, (December 01, 2018)

The responses to this question have been divided by attitudes to 5G by the researchers, using a basic traffic light colouring the free text responses to this question have been divided on the chart below depending upon the attitude expressed in the response, and then collated with similar responses to give a count.

Regarding methodology, each point made was recorded once. Although respondents were asked to make one point to Councillors, many made several, and these were each recorded as one point. For example, if a respondent said; 'have a moratorium, I am concerned about human health' this would be recorded as two separate comments. This means that the total tally will not add up to the number of respondents but is a more accurate way of recording concerns. There are several individual comments that are not represented on the graph below, and were not able to be categorised with other, similar responses.

As is clearly demonstrated the highest repeating comment is to pause or halt the roll out of 5G across the County and to not allow it, this is supported by the three comments below that received large numbers of original responses, highlighting concerns to human health, animals and nature and saying that there is no evidence that 5G is safe. Many of the comments also called for independent research to be carried out by reputable scientists, not linked to mobile technology companies and not financially benefitting from the possible roll out of 5G.

There were some vocal supporters of 5G, who called for it to be in place already.

What one thing should Councillors consider?



Question 8: Public perception of influence

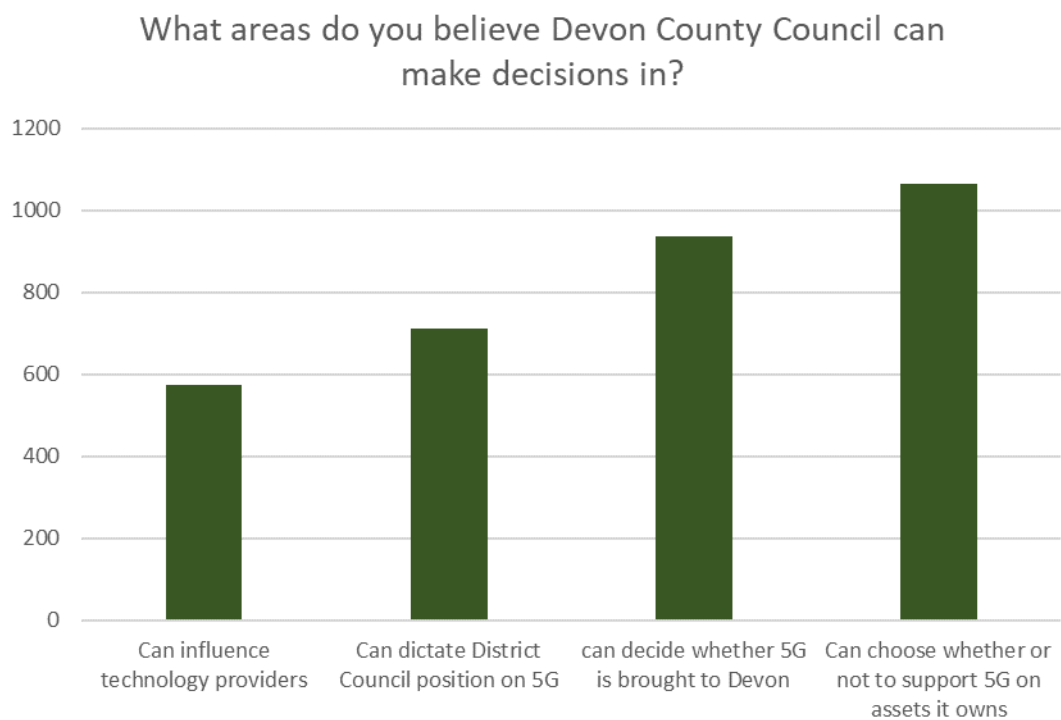
This question was asked to better understand the expectations arising from many of the protestors into the extent that the Council can influence outcomes. Respondents could tick as many boxes as they thought applied.

In some of the free text boxes individuals have reported that the County Council should not use this exercise either as a means to divest itself of power and

responsibilities, or to extend its reach to cover areas that it does not already have power. These suggestions are in no way within the scope of the spotlight review.

Most people believe that Devon County Council can exercise control over its own assets. The situation is in fact more complicated than this, as demonstrated with reference to part 4 of this report on planning policy.

It is an issue of concern that many hundreds of people believe that Devon County Council can decide whether or not 5G is brought to Devon, and significant numbers also believe that the County Council can dictate District Council position and influence technology providers. Neither of these assertions are correct.



6. Focus Groups with survey respondents

6.1 The focus group sessions took the form of five sessions of multiple round table discussions over the course of a day at County Hall. Each table had as many as 10 people engaged in discussion. Each session lasted for one hour. The day was divided into 4 sessions of people with a negative view of 5G and one session of people with a positive view of 5G. There were nearly 150 people at the “negative” sessions and nine people at the “positive session”. There was at least one Councillor on each table who lead the session and an officer who acted as a facilitator.

6.2 Those who responded to the initial survey were invited to this event. However, the event was shared widely on many anti-5G social media groups, so reached a larger audience than intended.

6.3 Many of the people who came into the session welcomed the opportunity to have their views heard by local councillors.

The focus group explored the following questions:

Cyber security

- What is your view on the subject?
- What questions should the spotlight review be asking about this area?

Environmental concerns including on living things

(e.g. trees, bees, birds)

- What is your view on the subject?
- What questions should the spotlight review be asking about this area?

Human Health

- What is your view on the subject?
- What questions should the spotlight review be asking about this area?

Anything else not covered

Facilitators were asked to bear in mind:

- Please try to make sure that everyone is heard
- This review has no bias, this should be upheld in the discussion with people
- This series of focus groups are not intended as committee meetings
- It is not the intention of the scrutiny team to name members of the public in their final report.

7. Is 5G Safe?

7.1 The spotlight review has not reviewed evidence and has not come to a local determination of safety or security of 5G technology. Local Authorities are guided by Central Government direction, law and policy frameworks. The most pertinent of these for 5G and human or environmental health is The International Commission on Non-Ionizing Radiation Protection (ICNIRP), the Germany-based scientific body that assesses the health risks of radio broadcasts.

7.2 It has stated that 5G is safe, according to the international body in charge of setting limits on exposure to radiation, which has updated its advisory guidelines

for the first time in more than 20 years.¹¹ Public Health guidance is based upon the guidelines set:

*“It is possible that there may be a small increase in overall exposure to radio waves when 5G is added to an existing network or in a new area. However, the overall exposure is expected to remain low relative to guidelines and, as such, there should be no consequences for public health.”*¹² Full PHE guidance can be found in Appendix 4

7.3 The Advisory Group on Non-Ionising Radiation (AGNIR) has also carried out reviews of the potential health effects of radio waves, the most recent of which was published in 2012. AGNIR was an independent scientific advisory group that reported to Public Health England until the Group completed its work and came to an end in May 2017. The Group’s remit was ‘to review work on the biological effects of non-ionising radiation relevant to human health and to advise on research priorities. No evidence of health effects below internationally accepted guidelines was established.’¹³

7.4 Cancer Research UK has also found no correlation between mobile phone usage and cancer in this country. It reports that mobile phone ownership in the UK increased by around 500 percent between the 1990s and 2016. The brain tumour incidence rate during that same period increased by around 34 percent, and even that increase is being attributed to better detection and reporting.¹⁴

7.5 Perhaps the most extensive report came from Australia in 2016. Using 30 years (the time mobile networks have been operating in the country) of comprehensive health data for the entire population, it was found that there was no correlation between mobile phone usage and incidents of brain cancer. Reviewing this study, the UK NHS concluded that the size and quality of the data set used was beyond reproach, although it did not track individual risk patterns (such as the difference between heavy and light mobile users). Nonetheless, the NHS was still able to conclude that “when it comes to other risk factors for cancer, such as smoking, poor diet, drinking too much alcohol and lack of exercise, mobile phone ownership is probably not a significant risk to your health”.¹⁵

7.6 The World Health Organisation does advocate further research:

¹¹ Hern A, The Guardian, *5G confirmed safe by radiation watchdog*, (12/03/2020)

<https://www.theguardian.com/technology/2020/mar/12/5g-safe-radiation-watchdog-health>

¹² Public Health England, *5G technologies: radio waves and health*, (03/10/2019)

<https://www.gov.uk/government/publications/5g-technologies-radio-waves-and-health/5g-technologies-radio-waves-and-health>

¹³ Health protection Agency, *Health Effects from Radiofrequency Electromagnetic Fields*, (April 2012),

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/333080/RCE-20_Health_Effects_RF_Electromagnetic_fields.pdf

¹⁴ Williams, S, *Back in the news – mobile phones and cancer*, (14/05/2014)

<https://scienceblog.cancerresearchuk.org/2014/05/14/back-in-the-news-mobile-phones-and-cancer/>

¹⁵ NHS, *Study finds no link between mobile phones and brain cancer*, (09/05/2016),

<https://www.nhs.uk/news/cancer/study-finds-no-link-between-mobile-phones-and-brain-cancer/>

‘... into the possible long-term health impacts of all aspects of mobile-telecommunications. The Organization identifies and promotes related research priorities. It also develops public information materials and promotes dialogue among scientists, governments, and the public to increase understanding around health and mobile communications.’¹⁶

7.7 The Government has taken action on cyber security, banning UK mobile providers from buying Huawei 5G equipment after 31 December 2020. They must also remove the Chinese firm's 5G technology from their networks by 2027. This has been in response to concerns regarding national security due to the potential access to the UK's 5G infrastructure Huawei may grant the Chinese State. “In theory, controlling the tech at the heart of these networks could give Huawei the capacity to spy or disrupt communications during any future dispute.”¹⁷

7.8 Furthermore, as IoT devices connect to 5G networks, they could prove a tempting target for hackers and criminals. “The sheer number of connected assets and devices heightens security challenges,”¹⁸

7.9 Regarding the potential environmental impact of 5G, independent research on the effects of non-ionizing radiation on flora and fauna has shown that “no clear dose–effect relationship [can] be discerned.”¹⁹ Although most agree that further research would be beneficial in this area.²⁰

8. Conclusion

This Spotlight Review looked at concerns from Members of the public who expressed an interest in 5G and primarily listened to their concerns regarding the technology. The work undertaken summarises these concerns. These views cannot be said to be representative of the views of all Devon residents.

Whilst advice from National Bodies such as Public Health England is clear that the Technology is safe, concerns endure. Many individuals from different parts of the Country are so concerned that they have invested in different technology or ways to shield themselves from the threat they perceive. Some other Countries have also demonstrated concern, most notably Switzerland halting the roll out of 5G earlier

¹⁶ World Health Organisation <https://www.who.int/westernpacific/news/q-a-detail/5g-mobile-networks-and-health> accessed Aug 2020

¹⁷ Bowler, T, BBC, *Huawei: Why is it being banned from the UK's 5G network?*, (14/07/2020), <https://www.bbc.co.uk/news/newsbeat-47041341>

¹⁸ Huber N, The Financial Times, *A hacker's paradise? 5G and cyber security*, (14/10/2019) <https://www.ft.com/content/74edc076-ca6f-11e9-af46-b09e8bfe60c0>

¹⁹ Cucurachi et al, A review of the ecological effects of radiofrequency electromagnetic fields (RF-EMF), *Environment International*, Volume 51, January 2013, Pages 116-140

²⁰ Buglife, *Could our obsession with mobile technology destroy wildlife*, (17/05/2018), <https://www.buglife.org.uk/news/could-our-obsession-with-mobile-technology-destroy-wildlife/>

this year amid calls for more specificity in health research²¹. This strongly supports the Spotlight Review's recommendation.

The quest for greater understanding of the science behind 5G is not helped by questionable studies and false information abounding upon the internet. This Spotlight Review acknowledges the clear benefits that 5G would bring and feels that the concerns surrounding 5G should be assessed further by national bodies. It is incumbent upon public bodies to provide transparent reassurance, backed by clear evidence in order to roll out technology with the full consent of the people of this country.

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²¹ Financial Times 'Switzerland halts the roll out of 5G over health concerns Feb 2020' <https://www.ft.com/content/848c5b44-4d7a-11ea-95a0-43d18ec715f5>

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10. Spotlight Review Membership

The Group was chaired by Councillor Carol Whitton and membership of the Spotlight Review was as follows:

Corporate Infrastructure and Regulatory Services	
Councillor Carol Whitton (Chair)	Councillor Alistair Dewhurst
Councillor Claire Wright	Councillor Richard Scott
Councillor Polly Colthorpe	Councillor Jackie Hook
Councillor Ian Hall	Councillor Kevin Ball

The Spotlight review would like to place on record thanks to:

- Charles Hall, work experience student, for initial research and organisation
- Dave Slocombe, Policy Team, for facilitation and research work
- The whole Scrutiny team for facilitation and correspondence responses

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Appendix 1: Concerns and questions resulting from the 18th February focus group sessions with members of the public

This document has been produced following the round table focus group sessions and is a summary of the fifty+ flip chart papers that were recorded on the day. The concerns recorded below are synthesised from the opinions and discussions that took place on the day. In some cases, these concerns were also discussed by the group who were positive about 5G and their responses are also recorded as 'not concerned'. There were 141 people who attended and identified as feeling negative about 5G, and nine people who attended and identified as feeling positive about 5G. This suggests that many people are concerned about 5G but the numbers cannot be used to draw inferences in the general population as individuals' self-selected attendance based upon the initial 5G survey.

The questions are drawn from the concerns and discussions, but in some instances were not voiced on the day and are included to support the Spotlight Review in its next steps.

Background Questions

1. What is 5G? What frequencies will it use?
2. What is the history of 5G?
3. What are the positive attributes of 5G? Why is it being rolled out across the world?
4. Are the positives worth the risks?
5. What is Devon County Council's role, responsibilities and legal liabilities regarding 5G?
6. Will DCC monetarily benefit from the roll out of 5G?
7. How are other Counties approaching 5G?
8. Is there evidence to prove that it is safe?
9. What is Public Health England's stance on 5G, What is this informed by, and could they be clearer in communication with the public?
10. How independent are the International Commission on Non-Ionising Radiation Protection (ICNIRP)?
11. Is 5G defined as an environmental toxin or pollutant by insurers?
12. What is the precautionary principle, and should the council adopt it?
13. Are individuals basing their concerns on misinformation or partial reporting of scientific studies?
14. What testing has been done on the safety of 5G?

Cyber security

Concern: personal data will be harvested and sold.

Concern: 'Smart decisions' will be taken out of the hands of individuals and choice will be decided by the internet of things via big business.

Concern: A recording system will be used to code and stratify the population based on their individual behaviour and deny resources based on this – e.g. China social credit system.

Concern: Personal surveillance will increase – 'big brother' including facial recognition, baby monitors being hacked, smart meters and scanning of houses.

Concern: 5G masts can be weaponised and remotely used to target civilians with microwave radiation for crowd control and murder.

Concern: National security, easier for organisations or other States to compromise security (Cambridge Analytica – influencing elections and Huawei links to the Chinese government)

Not concerned: personal data is already collected by many agencies with limited negative effects. In fact, this can even increase safety.

Not Concerned: Huawei are already here, and the government is taking action to ensure National Security.

Questions:

15. Who is collecting the data?
16. How is it being used?
17. What are the possible applications/implications of data harvesting?
18. How much information can be recorded on individuals?
19. Will additional data be collected on private individuals?
20. Who/which agency controls or regulates data collection?
21. What are the limits of the technology?
22. What is the relationship between 5G and increased personal surveillance?
23. Does the technology enable remote controlling to a dangerous point?
24. Can the intensity of 5G be used to harm humans?
25. Are there surveillance differences to 4G?
26. At a National scale are we more vulnerable with 5G?
27. Do more points of access equal more vulnerability?
28. What safeguards are in place?
29. Are they sufficient?

Environment

Concern: 5G will damage all life.

Concern: 2G, 3G, 4G have already decimated wildlife in National Parks in Australia

Concern: Pollinators, especially Bees will be significantly harmed by 5G, 40% or 60% of insects have already been wiped out by the introduction of mobile phones.

Concern: Migratory birds and some insects navigate using electromagnetic fields, these are significantly disrupted by 5G.

Concern: Trees are damaged by 5G. The Woodland Trust are concerned about the damage to tree roots.

Concern: 5G produces increases in terpenes and makes trees more flammable.

Concern: Trees will be cut down to make way for 5G as they get in the way of masts. (figures 40,000 across Devon). This will contribute to flooding.

Concern: The ethos and appeal of Devon is as a large, rural, agricultural County. With the advent of 5G the countryside will be decimated, losing its visual appeal and harming agriculture.

Concern: Once 5G is rolled out there will be no way to 'opt out'

Concern: We are supposed to be in a climate emergency but the introduction of 5G will require huge amounts of carbon and create an energy tsunami in consumption.

Not concerned: confusing causation with correlation, and environmental collapse is not caused by wireless technology.

Not concerned about 5G – the loss of insect numbers has not been caused by 5G, and farming has had a bigger impact.

Not concerned: Migratory birds already manage with the current 4G networks.

Questions:

30. What is the impact of 5G radiation on DNA of plants and animals?
31. Is there evidence to suggest a cumulative effect (2G, 3G, 4G + 5G) is more significant?
32. Is oxidative stress attributable to 5G?
33. Have environmental assessments been carried out on 5G?
34. What systematic reviews are available on the effects of this technology on the environment?
35. What impact have mobile networks had on insects, particularly bees?
36. What anticipated effect is expected to be seen in bees with the introduction of 5G networks?
37. How are birds, bats and bees navigation affected by radio waves?
38. What impact will 5G have on natural navigation?
39. How does 5G affect tree growth and plant immune systems?
40. What are the views of the Woodland Trust?
41. What agreements are in place to cut down trees across Devon?
42. How many trees are estimated to need to be cut down with the advent of 5G?
43. If trees are cut down will they be replaced?
44. Are the figures given accurate?
45. In other areas that are rolling out 5G are trees being cut down?
46. Are there work arounds? E.g. in LA masts are disguised as tall palm trees, is this planned or feasible?
47. What is the impact of loss of any trees on carbon reduction and climate change?

48. What might the impact be on agriculture?
49. Can 'white zones' be created across Dartmoor and parts of Devon?
50. What is the intended roll out across Devon? What might this look like?
51. Is 5G a mostly urban technology? How does it apply in rural locations?
52. How will 5G contribute to carbon emissions and energy consumption?
53. What impact will 5G have on the climate?
54. Will 5G consume more energy?

Human Health

Concern: The Public Health England guidance is out of date and incorrect.

Concern: Other Countries recognise electro hypersensitivity, but the UK currently does not. GPs currently do not have the awareness. People have moved from Plymouth already.

Is 5G the thalidomide, asbestos and smoking of our time? (publicised as being safe – but actually not)

Concern: 5G poses a significant risk to human health especially in children and young people because it breaks down DNA and cell structures. This includes cancer, brain tumours, neurological conditions including dementia and Parkinson's, diabetes, migraines, male and female fertility, gut bacteria, affecting pacemakers, emotional health and wellbeing including causing ADHD, autism, insomnia and suicide. WiFi also coagulates the blood.

Concern: There is no way to object to planning on health grounds.

Concern: there is a pressure to bring in 5G technology to replace aspects of the health system.

Not concerned: There is no harm to people until the frequency of light – that's why its called 'non-ionising'. There is no effect upon the human body.

Questions

55. What evidence is PHE guidance based upon?
56. How does it take account of non-heating effects of non-ionising radiation?
57. Why do the NHS not recognise electromagnetic hypersensitivity? Are there plans to recognise it, and support it?
58. Will the NHS add electromagnetic hypersensitivity to GP training?
59. Why has there been a rise in electromagnetic hypersensitivity?
60. Will there be a huge pressure on the NHS?
61. What are the effects of 5G on the human body?
62. Which frequencies of radiation are harmful to human health?
63. Why are these conditions recognised in Sweden, but not here?
64. Why are UK exposure limits to non-ionising radiation higher than other countries?
65. Why have Turin, Italy, Belgium, Switzerland halted their 5G roll out plans?
66. What is the role of 5G in the NHS?

Technology

Concern: there will be 50,000 new satellites in low orbit.

Concern: There will be much more dirty energy coming through our cables and into houses.

Concern: Beam sending, pulse radiation is more harmful and has a polarising effect on cells.

Concern: 5G represents a huge difference in technology, not just a step up from 4G and will have many thousands more masts.

Concern: Research on this subject is funded by industry and therefore not reliable,

Concern: there have been no independent tests.

Concern: The technology is always on.

Concern: The technology is uninsurable, and public bodies including the Council will not be insured.

Concern: lack of scientific education and awareness could mean that the Country does not make the most of the technology. Many people are misinformed.

Questions

67. How are satellites used in 5G networks?

68. How does this affect the view of the sky at night?

69. What is 'dirty energy'?

70. Are there different types of energy, and what implications does this have?

71. Will the current energy grid cope with the additional 25% requirement?

72. Why aren't we using fibre cabling instead of wireless networks?

73. Are 5G LED streetlights harmful?

74. What is reported in the press on this issue?

75. What are independent agencies saying?

76. What are government agencies saying?

77. What are the results from the government testbed sites across the Country?

78. Can the technology be turned off?

79. What are the distances that 5G affects people?

80. Will the Council's insurance cover 5G, and if not why not?

81. Does the Council need insurance for a service it is not providing?

82. Does the Council have insurance for related things on street furniture it provides?

83. If there were a legal challenge what would be the Council's position?

84. How have other Council's dealt with this?

85. Is the technology unsafe?

86. What information is public opinion based upon?

87. What information should people be listening to?

Anticipated benefits from the 'positive' session:

- Improved faster communication
- Improvements in application of technology such as driverless cars and medical advances including remote GP appointments.
- Improve aspects of people's lives
- In the study of mice and rats the animals lived longer after being exposed.
- There is no evidence that 5G is harmful.



Local Authority Chief Executives

INT2019/11842/DC
November 2019

5G - The Next Mobile Generation

More than any previous generation of mobile networks, 5G has the potential to transform the way we live and improve economic productivity. Networks will have the capacity for millions more devices to be connected at the same time, enabling businesses and communities to operate more efficiently. It will allow cities and communities to manage traffic flow, monitor air quality and control energy usage through real-time management of high volumes of data.

A recent report estimated that local authorities will share collectively an annual £2.35 billion of efficiency savings, from reduced social care costs for the elderly through 5G monitoring, to savings through smarter street lighting.¹ We want the UK to take early advantage of these benefits, so it is good news that all of the four main mobile network operators - EE, O2, Three and Vodafone - have started to deploy 5G networks. We expect 5G to go live in up to 50 cities and towns by the end of 2020. In order to support the deployment of 5G and extend mobile coverage, particularly in rural areas, the Government recently published a consultation on the principle of proposed reforms to permitted development rights, which closes on 4 November.

The National Planning Policy Framework ("the Framework") for England² supports the expansion of high quality communications, including next generation mobile technology, such as 5G. The Framework states that planning applications for mobile base stations should include a statement of compliance with international guidelines on limiting exposure to electromagnetic fields known as the International Commission on Non-Ionizing Radiation Protection guidelines ("the ICNIRP guidelines"³). It also states: "Local planning authorities must determine applications on planning grounds only. They should not seek to prevent competition between different operators, question the need for an electronic communications system, or set health safeguards different from the International Commission guidelines for public exposure."

Public Health England ("PHE") has recently updated its advice in respect of 5G and states: "It is possible that there may be a small increase in overall exposure to radio waves when 5G is added to an existing network or in a new area. However, the overall exposure is expected to remain low relative to guidelines and, as such, there should be no consequences for public health."⁴ I understand that PHE colleagues regularly provide

¹ "The value of 5G for cities and communities", Juniper Research and O2
<https://d10wc7q7re41fz.cloudfront.net/wp-content/uploads/2018/03/Smart-Cities-Report.pdf>
² <https://www.gov.uk/government/publications/national-planning-policy-framework-2>
³ <https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf>
⁴ <https://www.gov.uk/government/publications/5g-technologies-radio-waves-and-health>



Department for Digital, Culture, Media & Sport

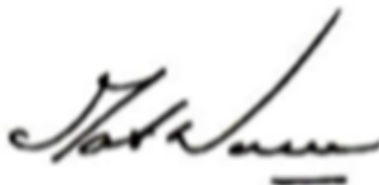
advice to your public health officers across a range of health topics.

In compliance with PHE advice, mobile network operators have committed to follow the ICNIRP guidelines. ICNIRP is an independent organisation which is formally recognised by the World Health Organisation. It issues guidelines on human exposure to electromagnetic fields, based upon the consensus view of a large amount of research carried out over many years. This includes the frequencies used by 5G and all other mobile / wireless technologies. Over the last two decades there have been over 100 expert reports on EMF and health published internationally⁶ with well over 3,000 studies⁶ informing these reviews and the existing scientific exposure guidelines.

Ofoom will carry out audits of mobile base stations on an ongoing basis to ensure that ICNIRP guidelines are not exceeded and publish the results of these audits on its website.

The Department for Digital, Culture, Media and Sport (DCMS) is working with colleagues in Ofoom, PHE and the network operators to provide some workshops for the benefit of council officials to help them understand the technology and the science relating to these health concerns. DCMS officials are also working with both the Local Government Association and the Association of Directors of Environment, Economy, Planning and Transport to support local authorities in this regard and would welcome any further feedback through those channels or directly.

If you or any of your colleagues have any questions, please contact DCMS at enquiries@culture.gov.uk.



Matt Warman MP
Parliamentary Under Secretary of State for
Digital and Broadband

⁶ <https://www.gama.com/publicpolicy/consumer-affairs/emf-and-health/expert-reports>

⁶ <https://www.emf-portal.org/en>

Appendix 3 Petition response:

Delay 5G in the UK until there's been an independent investigation petition government response

Public Health England's (PHE) Centre for Radiation, Chemical and Environmental Hazards (CRCE) takes the lead on public health matters associated with radiofrequency electromagnetic fields, or radio waves, used in telecommunications.

Central to PHE advice is that exposure to radio waves should comply with the guidelines published by the International Commission on Non-Ionizing Radiation Protection (ICNIRP). In compliance with PHE advice, mobile network operators have committed to follow the ICNIRP guidelines. Therefore we have no plans to hold an investigation.

ICNIRP is an independent organisation which is formally recognised by the World Health Organization. It issues guidelines on human exposure to EMF, based upon the consensus view of a large amount of research carried out over many years. This includes the frequencies used by 5G and all other mobile / wireless technologies.

ICNIRP guidelines apply up to 300 GHz, well beyond the maximum (a few tens of GHz) frequencies under discussion for 5G.

Some 5G technology will use similar frequencies to existing communications systems. Other 5G technology will work at higher frequencies, where the main change would be less penetration of radio waves through materials.

PHE updated its guidance, published in October 2019, in respect of 5G and summarised its guidance as follows:

"It is possible that there may be a small increase in overall exposure to radio waves when 5G is added to an existing network or in a new area. However, the overall exposure is expected to remain low relative to the guidelines and, as such, there should be no consequences for public health."

Ofcom undertakes measurements to confirm that transmitter base stations do not exceed the limits set out in the ICNIRP guidelines. Over the last few months, Ofcom has measured 5G sites in 10 UK towns and cities and in all cases, the levels recorded are a small fraction of those in the ICNIRP guidelines.

The maximum measured at any mobile site was approximately 1.5% of those levels – including signals from other mobile technologies such as 3G and 4G. The highest level from 5G signals specifically was 0.039% of the maximum set out in the guidelines.

A summary of PHE advice on 5G can be accessed in the following links:

<https://www.gov.uk/government/publications/5g-technologies-radio-waves-and-health/5g-technologies-radio-waves-and-health>

<https://www.gov.uk/government/publications/mobile-phone-base-stations-radio-waves-and-health/mobile-phone-base-stations-radio-waves-and-health>

ICNIRP's guidance on 5G can be found here:

<https://www.icnirp.org/en/applications/5g/5g.html>

Mobile telecommunications technology has developed through several generations and there are now many 2G, 3G and 4G base stations installed throughout the environment providing services to users of mobile phones and other devices.

Public exposure

Over the decades, since the networks were first introduced, there has been a general trend towards increasing numbers of smaller transmitters that individually provide services to smaller geographical areas and have reducing radiated powers.

Against this background, many measurements have been made and these continue to show that exposures of the general public to radio waves are well within the international health-related guideline levels that are used in the UK. These guidelines are from the [International Commission on Non-ionizing Radiation Protection \(ICNIRP\)](#) and underpin health protection policies at UK and European levels.

In relation to the implementation of 5G devices and networks, this technology is at an early stage and reflects the latest evolution in mobile communications technology. Current technical standards that draw on the ICNIRP guidelines will apply to the products that are developed. UK network operators are already committed to complying with the ICNIRP guidelines.

5G frequencies

With the increase in the volume of information being transferred, more spectrum is being made available and the highest frequencies being discussed for future use by 5G are around 10 times higher than those used by current network technologies, up to a few tens of gigahertz (GHz).

Their use is not new, and they have been used for point-to-point microwave links and some other types of transmitters that have been present in the environment for many years. ICNIRP guidelines apply up to 300 GHz, well beyond the maximum (few tens of GHz) frequencies proposed for 5G.

Research studies

Exposure to radio waves is not new and health-related research has been conducted on this topic over several decades. In particular, a large amount of new scientific evidence has emerged since the year 2000 through dedicated national and international research programmes that have addressed concerns about rapidly proliferating wireless technologies.

The main focus of recent research studies has been on exposure to the types of radio signals used by current communications technologies and at the frequencies they use, up to a few GHz.

Fewer studies have been carried out at higher frequencies but the biophysical mechanisms that govern the interaction between radio waves and body tissues are well understood at higher frequencies and are the basis of the present ICNIRP restrictions. The main change in using higher frequencies is that there is less penetration of radio waves into body tissues

and absorption of the radio energy, and any consequent heating, becomes more confined to the body surface.

Summary

It is possible that there may be a small increase in overall exposure to radio waves when 5G is added to an existing network or in a new area. However, the overall exposure is expected to remain low relative to guidelines and, as such, there should be no consequences for public health.

PHE is committed to monitoring the evidence applicable to this and other radio technologies, and to revising its advice, should that be necessary.

Draft Interim Climate Change Emergency Task and Finish Report

Report to Overview and Scrutiny Board – 17
February 2021

Report to Cabinet – 23 March 2021

1. The Overview and Scrutiny Board established a Climate Change Emergency Task and Finish Group in July 2019, which comprised of Councillors Atiya-Alla, Barrand, Brown, Bye, Mandy Darling, Foster, Kennedy and Loxton, Chaired by Councillor Howgate. The Task and Finish Group was launched with a short video filmed by the Overview and Scrutiny Co-ordinator which was shared as part of the call for evidence.
2. The call for evidence generated the following online response:
 - Facebook
 - Reached 5,800 accounts
 - Was shared 31 times
 - Received 7 comments
 - Twitter
 - 3,206 impressions
 - 15 retweets
 - 14 likes
 - Linkedin
 - 871 impressions
 - No shares
 - 6 likes
 - No comments
3. The Task and Finish Group considered this feedback at its inaugural meeting and Members appreciated the time and effort that members of the public had taken to make their submissions. During this call for evidence it became apparent that Torbay Council was missing out on the opportunity to be part of a Devon wide approach to tackling climate change.
4. Devon Climate Emergency. The Devon Climate Emergency Response Group (DCERG) is made up of senior officers from 25 organisations including councils, emergency services, businesses and voluntary organisations and was established to provide the strategic coordination of a collaborative response to the Devon Climate Emergency.
5. The DCERG provided a considerable evidence base and has established that Torbay's biggest carbon contributors were housing and transport. During November and December a number of thematic hearings were held and topics included; land, sea and food, the built environment, mobility, energy and waste, spatial planning, behaviour change and procurement/ consumption. The key findings of these hearings can be found on the following webpage: [Thematic Hearings – Devon Climate Emergency](#). The

findings of these hearings along with all other evidence that has been gathered was considered by a series of Citizen's Assemblies, these then fed into the Devon Carbon Plan. Upon the completion of the Devon Carbon Plan the member organisations would be expected to produce a climate change action plan.

6. DCERG process aside, the Task and Finish Group recognised that in the meantime, there were steps that could be taken to reduce carbon. Teams across the Council were asked to 'take stock' of previous and current organisational activity on tackling climate change in terms of reducing emissions and improving climate change resilience. The response helped to add detail to the current organisational understanding of the issue and helped to inform ongoing and upcoming work both within Torbay and across wider Devon.
7. Due to the Covid-19 Pandemic, officers from Torbay Council were only able to support the wider Devon work, pending the appointment of a dedicated Climate Emergency Officer, Jacqui Warren, who started work at Torbay Council on 16 December 2020.
8. Following a verbal update on climate change at the Overview and Scrutiny Board meeting held on 16 September 2020, the Task and Finish Group met again on 23 November 2020 and considered the following documents:
 - Ten questions to ask if you are scrutinising climate change – with some initial feedback from the Senior Planning and Public Health Officer;
 - Paper on Devon Climate Declaration;
 - Paper on Devon's Timeline to Net-Zero Carbon; and
 - Confidential draft Devon Carbon Plan – due to go to public consultation from 7 December 2020 to 15 February 2021 (all Members were invited to an event on 7 December 2020 to launch the draft Devon Carbon Plan and ask questions).
9. Members acknowledged the positive work already being undertaken by the Council such as the retrofitting of energy measures to existing buildings through the Cosy Devon Partnership, new solar farms and looking to install charging points in some of the Council car parks to enable overnight charging of electric or hybrid vehicles.
10. The Panel recognised the importance of addressing climate change in all decision making and felt that this should be emphasised further through report templates and guidance documents to ensure maximum impact. The Council should also lead by example to encourage the public to engage in the changes required to reduce carbon and improve health across Torbay such as electric cars, greater take up of walking, cycling and use of public transport, changes to the way our homes and buildings are heated and insulated. Members noted that whilst Councillor Atiya-Alla had been appointed as the Climate Change Champion there was not a Cabinet Member with a specific role to lead on this important issue to ensure that it is developed at the highest political level within the Council.
11. Members discussed in detail the proposed target date of 2030 for Torbay Council and Torbay as an area being carbon neutral and the work needed to

assess what would be required to achieve this and the possibility that there may be two different target dates.

12. The Panel welcomed the Cabinet's final Revenue and Capital Budget proposals for 2021/2022 included the following in respect of climate change but felt that larger investment would be needed in order to become Carbon Neutral by 2030:

Our **commitment to tackle climate change** continues with £150,000 available over three years to develop and deliver a proactive and effective tree planning scheme, which will include community participation and the launch of a supportive Tree Warden scheme.

We will seek to establish a portal to help residents across Torbay to make energy efficient changes to their homes. Our Climate Change Reserve will also be increased so that we are able to develop a range of other initiatives to help us meet our ambition of being a Carbon Neutral Council (£90,000).

Capital Budget – A Climate Fit for the Future - £4.8m through the investment of solar farms at Brokenbury and Nightingale Park.

13. The Panel met on 3 February 2021 with the new Climate Emergency Officer, Jacqui Warren, in order to progress and finalise the initial work of the Panel and to agree a way forward. Jacqui presented the submitted paper which outlined an initial approach to be achieved in 2021 - April 2022 to deliver 10 key actions (an interim draft of the proposed key actions was shared on screen at the meeting) to tackle the Climate Emergency whilst also allowing some time to refresh the Torbay Climate Change Strategy (2014-2019) and co-design and develop with partners, new longer term action plans to work towards a Carbon Neutral (CN) council and CN Torbay (community). By April 2022 this approach would enable the Council to demonstrate progress in working towards achieving the Community and Corporate Plan's priority to become a CN Council and work with others to create a CN community.
14. The proposed approach would also allow Torbay Council to take into consideration further evidence that was being developed through the [Devon Carbon Plan](#) (the Panel considered the Council's draft response to the Interim Devon Carbon Plan as set out in Appendix 2 to the submitted briefing paper). This work was ongoing and would conclude by the end of 2021. This would help the Council to understand, at a strategic level, how Devon would achieve net zero carbon by 2050 and the role(s) it would need to play in achieving this work locally. It would also provide further evidence on the deliverability of achieving carbon neutrality in Torbay by 2030.
15. The briefing identified the following longer term actions (to be completed by April 2022):

Council Operations

- Created a new Corporate Carbon Neutral (CN) programme including:
 - New CN Policy (to set out some CN principles for all of the Council to follow).

- New CN Officer Group and senior responsible officer (to be responsible for developing and delivering council actions and Council Action Plan).
- Established the carbon footprint for the Council (the amount of carbon dioxide released as a result of council operations/activities. It will be vital to monitor this and establish annual reduction targets in line with Torbay's CN target).
- Explored strengthening decision making processes in light of the Climate Emergency (including the use of CN Impact Assessment tool).
- Explored carbon literacy training for staff and members (to raise staff and members awareness).
- Developed a Torbay Council CN Action Plan 2022 - 2030 (including a list of prioritised actions that the Council commits to deliver up to 2030).
- Gain approval from Cabinet to deliver the Torbay Council CN Action Plan.

Torbay-wide

- Developed with partners and community groups a review of the existing Torbay Climate Change Strategy (2014 – 2019) and developed a new Torbay-wide CN Action Plan 2022 – 2030 (list of resourced, prioritised actions, pipeline of projects and future funding strategy).
- Supported the development of the Devon Carbon Plan (including active engagement in the Devon Citizen Assembly).
- Embed the results of the Devon Carbon Plan into the new Torbay-wide CN Action Plan.
- Developed a CN pipeline of projects (this is designed to create a list of investment ready projects capable of securing future funding as it arises).
- Held a public consultation and series of events to develop the new Torbay-wide CN Action Plan (this is to test the draft plans and gauge the appetite of residents and businesses to deliver certain actions) – extent determined by available resources.
- Created a coalition of partners to deliver the plans.
- Gained approval from Cabinet for the new Torbay-wide Strategy and CN Action Plan.

(The full documents from this meeting can be found at [Agenda for Overview and Scrutiny Task-and-Finish Group on Wednesday, 3 February 2021, 5.00 pm \(torbay.gov.uk\).](#))

16. The Panel received a verbal update on the Local Transport Action Plan and Local Cycling and Walking Infrastructure Plan which had recently been launched for consultation – further details can be found at [Local Cycling and Walking Infrastructure Plan - Torbay Council](#). Members also noted a Statement on Environmental Sustainability provided by the Torbay and South Devon NHS Foundation Trust, whom the Council was working with as well as South Devon College to see how we can take action to reduce the impact of the climate change across Torbay.

17. The Task and Finish Group reflected and debated all of the information provided to them, both in writing and orally. On being put to the vote, the following recommendations were proposed (unanimously).

The Board recommends to the Cabinet:

- (i) that all reports to Councillors include enhanced information on how the decision will impact on climate change;
- (ii) that, in order to achieve consistency in the application of our Environmental Policies, the Assistant Director Planning, Housing and Climate Emergency be requested to develop and issue a guidance document setting out how Policies in the Local Plan relating to climate change should be complied with. That guidance should explain compliance will mean submitting a statement, similar to the design and access statement, explaining how the policy is being considered;
- (iii) that the Panel would welcome a Cabinet Member to be responsible for taking the lead on driving forward mitigations and preventative actions to address the climate change emergency;
- (iv) that the Torbay Council draft consultation response to the Interim Devon Carbon Plan set out at Appendix 2 to the submitted report be endorsed;
- (v) that the Climate Emergency Officer be requested to ensure the proposed initial 10 key actions are prioritised to show the actions that will achieve the biggest impact at the top of the list and that future action plans be also prioritised in this way;
- (vi) that the Climate Emergency Officer be requested to work with relevant lead officers to ensure wider publication of the Cosy Devon Partnership and Exeter Community Energy schemes to ensure that Councillors and residents are aware of what is on offer;
- (vii) that the proposed approach outlined in the submitted report to address the climate change emergency and enable Torbay to be Carbon Neutral by 2030 be endorsed; and
- (viii) that a cross party climate change emergency working group be established to include the relevant Cabinet Member and other interested parties to take this important issue forward.