Question 1: Do you agree we have identified the most relevant cost drivers to take account of in our charging approach?

1. General comments

OneWeb believe that the UK and Ofcom should not impose a fee for the handling of satellite filings. We believe that Ofcom is already paid for this activity, and that any "costs" are more than offset by the £13.7bn contributed to the UK economy by the UK space sector.

OneWeb feel that should Ofcom decide to change course and begin to charge a filing fee, it is likely be perceived as a penalty for being a UK-notified satellite operator, quite possibly to the detriment of HMG's ambitious policy goal for the UK to be home to 10% of the global space industry by 2030.

If, however, costs are to be recovered then OneWeb agrees with Ofcom's assessment of cost bases, which consider three main drivers, i.e.:

- Type of filing activity;
- Filing coordination requirement or not; and
- Filing period.

However, in the building up of a cost and charging model based on these drivers, Ofcom has not provided enough transparency and justification as to why the models and fees should be those proposed in the document, and risks appearing disproportionate, arbitrary, and even capricious in its conclusions.

In particular we have concerns regarding:

- the specific reasons and metrics behind the proposed weighting factors of activities in Table 5. Ofcom justifies this as to be "based on our best judgement";
- why Ofcom believes, in section 5.9 bullet point "2. Filing coordination requirements", that NGSO filings may require a greater degree of coordination than that of GSO filings (see also footnote 19). And thus, why Ofcom believes that (see section 1.20) "on average a NGSO filing takes approximately 50% more effort to manage annually than a GSO filing";
- the relevance of Table 4; this table only provides a total amount of type of filing made and does not differentiate between GSO, NGSO and possibly also non-coordinate;

Furthermore, understanding that Ofcom requires a given number of full-time employees (FTEs) to perform the satellite filing work, it would be very useful if Ofcom could publish in detail how

the £1.07 million is arrived at, and on that, how such £1.07 million relate to the different types of activities performed.

2. Specific comments

OneWeb wants to pick up the point raised above for section 5.9 of the consultation, which has direct implication on the "effort weighting" for NGSO filings being a "4.5", rather than the "3" given to the GSO filings and thus on the charges in Table 7 proposed for NGSO being higher than GSO.

NGSO

On this point, OneWeb believes that Ofcom has not provided any justification as to (1) why it believes that a greater coordination effort is required for NGSO filings and (2) the consequence of this being that the "effort weighting" in Table 5 is proposed to be "4.5" instead of being equal or less than that of GSO filings (i.e., being "3").

OneWeb would like to clarify that on the point mentioned in Footnote 19 the on-going revision of the cost recovery of NGSO filings at the ITU is related to the work that the BR has to perform when processing NGSO filings – which is very different from the filing management activities carried out by Ofcom for the same filing – and it is unrelated to the coordination requirements of the filing, that is, it is not a consequence of an 'additional level of coordination'.

Hence, we take the opportunity here to clarify that the recurring burden that the coordination of a NGSO filing imposes on Ofcom, in particular when compared to a GSO filing, may be equal if not less than that of GSO filings. NGSO systems subject to Section II of Article 9 generally have to fulfil (as also do GSO networks) international coordination requirements with other NGSO systems and GSO networks, depending on the frequency assignments and bands in the filing. In particular we highlight the following:

 NGSO-to-NGSO coordination (equivalent to GSO-to-GSO coordination) The coordination between NGSO systems is normally held in a series of operatortooperator meetings with little involvement from Ofcom. Hence, the effort required by Ofcom on an annual basis per NGSO filing for NGSO to NGSO coordination is therefore very low. NGSO-to-GSO – in bands subject to Article 22 limits for protection of GSO networks With regards to bands subject to NGSO e.p.f.d. limits, the NGSO systems are not subject to coordination and therefore no coordination efforts are required by Ofcom.

Depending on the coexistence mechanisms between NGSO and GSO, the only effort required by Ofcom would be a one-off review and submission of technical information per filing; which is similar to what it has to do for GSO networks. Again, for this case, Ofcom's effort along the lifetime of the NGSO filing would be equal if not even lower than that for a GSO filing.

NGSO-to-GSO – in bands subject to 9.11A coordination (equivalent to a GSO-to-NGSO coordination)

Finally, for NGSO-to-GSO coordination in bands subject to 9.11A, the coordination is generally dealt with in operator-to-operator meetings, or at the bilateral meetings between national regulatory agencies (NRAs) organised by Ofcom.

In such a case, the effort required from Ofcom is not different than that required for the coordination of GSO filings.

Given the above, OneWeb is of the view that the annual (and total) effort required by Ofcom for the coordination activities of a NGSO filing is not higher, and could even be lower, than that required for a GSO filing.

3. UK Space Industry Policy

Lastly, based on the arguments / comments made below in Question 7, OneWeb believes that the Ofcom proposal of a cost recovery model can be seen as being unproportionate and thus may have dilatory effect on the Government policy to attract space sector Foreign Direct Investment in the UK.

OneWeb believe that any costs theoretically incurred by Ofcom in respect of the handling of satellite filings (above and beyond the costs for which Ofcom is already funded), are in effect already offset by the contributions into the UK economy through the sales, taxes, and employment not only of domestic UK satellite operators, but also through increased foreign direct investment (FDI) attracted to the UK currently by the (currently) reasonable procedures for satellite filings in the UK. The latest set of published figures, the 2016 Size and Health of the UK Space Sector Study¹, show that £13.7bn total income is contributed to the UK economy by the Space sector, with a direct gross value add of £5.1bn and indirect contributions of over £250m to the wider economy.

A recent House of Commons Space Sector briefing² notes that FDI into the UK space sector has increased significantly in recent years and that Government has played an important role in stimulating this growth. OneWeb feel that, should Ofcom begin to charge a filing fee, it is very likely to be perceived by the industry as a penalty for being a UK-notified satellite operator and quite possibly to the detriment of HMG's ambitious policy goal for the UK to be home to 10% of the global space industry by 2030³.

Question 2: Are there any other factors you consider we should take account of in our charging approach? Please explain why in your response.

OneWeb agree that Ofcom should observe its three core principles with respect to the introduction of charges and that any system should be:

- transparent and proportionate;
 practicable and easy to implement; and
- provide clarity and certainty.

As highlighted in response 1, we believe that Ofcom may have not properly analysed and modelled the efforts and costs on NGSO satellite filings it manages. As such, we believe that Ofcom should further take time to do such analysis and better modelling of its costs before it goes ahead with a charging regime. We believe that the current consultation document does not provide enough analysis and information for a "transparent", "proportionate" and "fair" cost recovery model for NGSO filings. In particular, we believe that NGSO filings should not be liable to higher charges that those for GSO filings. The basis of our view is provided in response to Questions 1 above and 6 below.

Question 3: What comments, if any, do you have on our charging options 1-4?

Union/1719/Sectoral%20Analyses/34-Space-Report.pdf

¹ https://www.gov.uk/government/publications/uk-space-industry-size-and-health-report-2016

² https://www.parliament.uk/documents/commons-committees/Exiting-the-European-

³ https://www.gov.uk/government/organisations/uk-space-agency/about#priorities

As explained in OneWeb's responses to question 1 and 6, we believe that option three (3), the Ofcom preferred option, in its current form, introduces disproportionate costs on NGSO operators. See full explanations in our responses to Questions 1 and 6. OneWeb believes that Ofcom may have not fully realized how complex and multidimensional the problem really is.

Question 4: What other charging options, if any, do you believe we should consider?

N/A

We understand that Ofcom cannot by law charge for transactions of existing notified assignments and/or satellite filings, however OneWeb would like to point out that the non-recoverable costs of such assignments/filings will not be reduced to zero over time, and that there will always be a residual fixed amount of cost associated to such assignments/filings, which will be subsidized by the government purse.

Question 5: Do you agree that our preferred charging option, option 3, is the best way to meet our objectives? If no, please state your preferred charging option and explain why.

No.

OneWeb believe that Option 3, in its current form, introduces disproportionate costs on NGSO operators. OneWeb would like to see a proper justification and reanalysis of the costs associated with NGSO filings as explained in our responses to Questions 1 and 6.

However, OneWeb do believe that it would be fair and proportionate to charge a fee based on an hourly rate for activities identified in sections 5.20, 5.21, 5.22 and 5.23. We believe that even though Ofcom believes that such work is minimal, it is still an activity requiring a percentage of FTEs and fixed costs associated with it. This should be in addition to the other proposed fees under Option 3 if adopted.

Question 6: Do you have any comments on our proposed charging approach (as set out above)?

Section 3.14 outlines the activities that Ofcom undertakes in dealing with satellite filings that are considered to establish the weighting effort of each filing activity/type. As far as the management of filings is concerned (annually, after the submission), the following main activities are identified:

- 1. BR IFIC (publication, review, correspondence, etc.)
- 2. Due diligence activities
- 3. International coordination meetings
- 4. PFD Masks

The activities related to the bi-weekly BR IFIC do not differ greatly for GSO and NGSO filings. The identification of networks is conducted by the operators and the number and frequency of letters that need to be exchanged between Ofcom and other NRAs or the ITU will depend on numerous factors, such as the frequency band, the number of bands included, etc., but it does not necessarily have to be more onerous to perform these activities for an NGSO filing than a GSO filing. In fact, as explained in Question 1, many of the bands that NGSO systems use are subject to No. 22.2, and so the coordination requirements are limited and impose no additional efforts on Ofcom.

In terms of due diligence, it is our understanding that the frequency of meetings and the content of the annual reports is no different for projects involving GSO or NGSO filings. In fact, the information specified in Table 1 of the Procedures seems to be the same, regardless of the type of orbit. Therefore, it can be concluded that the effort required from Ofcom for such activity would not be greater for an NGSO filing.

For the effort required by Ofcom for coordination activities of NGSO filings we believe that these are not greater than that of GSO networks and we have provided our response and reasoning in Question 1 above.

Finally, the submission of PFD masks is not a recurring/annual cost, as it is generally only required to be submitted once in the lifetime of an NGSO filing. The effort required for this submission, averaged over the lifetime of the filing, would certainly be offset by the greater effort that the coordination of GSO filings require, as explained in our response to Question 1.

Based on these elements, we fail to understand how Ofcom can conclude that, as stated in Section 1.20, "on average a NGSO filing takes approximately 50% more effort to manage annually than a GSO filing" and we urge Ofcom to reconsider its proposal in Table 5 (Section 5.46) to charge a 50% higher annual fee per NGSO filing than per GSO filing.

We would also like to draw Ofcom's attention to the fact that, even if the annual effort required by Ofcom to maintain a NGSO filing was higher than that for a GSO filing, this delta cost would only be related some, but not all the cost categories that the average annual costs (initially £1.07M) include.

The breakdown of costs provided in Section 3.34 includes the following main categories:

- Spectrum projects and programmes (45%): FTE cost of staff and others, such as international cost in support of Agenda Item 7;
- International membership (15%): memberships for ITU and CEPT; ICT and property common costs (39%).

While the FTE cost of staff and ICT/Property could be directly prorated to the effort/time spent on a filing to work out the proportion that that filing should be charged of these costs, some of the other categories could not. For instance:

- 1. why would an NGSO filing have to recover 50% more than a GSO filing of Ofcom's ITU and CEPT membership costs?
- 2. Similarly, the costs of the international work in support of Agenda Item 7 should be allocated equally to all filings, while in the current proposal, an NGSO filing would be recovering a 50% higher cost for this activity than a GSO filing.

We urge Ofcom to consider this aspect when finalising its effort weighting (as in Table 5) as well.

Question 7: Do you have any comments on our proposals for implementing our charging approach?

OneWeb appreciate that there is a Government Directive for Ofcom to recover the costs of associated with processing UK satellite filings, however we believe that this could be detrimental to the Government's ambitions to grow the UK space sector, in particular to attracting new investment in the UK's space sector.

For instance, the UK Space Agency sets out its role as: "ensuring that the UK retains and grows a strategic capability in space-based systems, technologies, science and applications. We lead the UK's civil space programme in order to win sustainable economic growth, secure new scientific knowledge and provide benefit to all citizens."⁴

OneWeb ask Ofcom to consider this aspect carefully as the proposed cost recovery policy could be detrimental to the UK Government's ambitions to grow the UK space sector by attracting new investment in the UK's space sector.

The UK's Space Innovation and Growth Strategy (IGS) 2014-2030 Space Growth Action Plan (SGAP)⁵ published in 2014 by a joint team drawn from industry, Government, and academia, set out action points and recommendations to: "*Make the UK the best place to grow existing and new space businesses and attract inward investment by providing a regulatory environment that promotes enterprise and investment in the UK.*"

⁴ https://www.gov.uk/government/organisations/uk-space-agency/about

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/298362/igsac tion-plan.pdf

For instance, SGAP Action 2.3 directed that: "Ofcom should prioritise the interests of UK satellite operator companies creating wealth, employment and taxes in the UK, in matters related to access to international satellite spectrum allocated by the International Telecommunication Union (ITU), treatment of satellite network filings by the UK to the ITU and to framing of international satellite regulations at the ITU".

OneWeb believe that to introduce new charges for satellite filings, whilst not representing a substantial increase in satellite operators' overall costs, sends the wrong signal to both existing and potential investors in the UK space sector and implies that the UK Government now no longer place importance on attracting, retaining and adding value to FDI investment in the UK space sector by providing a regulatory environment that promotes enterprise and investment in the UK.

Question 8: Do you have any other comments on matters arising from this consultation?

No further comments.