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**Radio Spectrum Policy – Unit B4**

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ORS/MS/KH

**Draft RSPG Opinion on the role of radio spectrum policy to help combat the climate change**

Dear Sir or Madam,

the terrestrial broadcasting network is part of Austria's critical communications infrastructure and, with around 430 sites, serves 98% of the population. It is used by the public broadcaster ORF and almost all private radio and television broadcasters to provide the population with low-threshold terrestrial broadcasting signals. By broadcasting high-quality information from licensed radio and television broadcasters, independent broadcasting as a whole makes an indispensable contribution to diversity of opinion and media to serve the general public by using the autonomous broadcasting network.

In this context we want to highlight the importance of the frequency band 470-694 MHz for providing a low-threshold access to broadcast as there is still a high demand of terrestrial TV and radio, which will not change beyond the year 2030.

Already, around 80% of data traffic on the Internet is video content. This is yet another reason for the need for terrestrial television. If the data volume transferred via linear television were to be transferred to conventional streaming services, the streaming volume would increase even more, which would also have a massive impact on the CO2 footprint.

This is why we (among other Broadcast Network Operators in the European Union) have identified the issue of the carbon emissions associated to the distribution of TV programs as a strategic issue.

We are generally supportive of the various recommendations in the RSPG opinion, especially on the usefulness of development of methodologies to assess the impact of ECS wireless services energy efficiency. Preliminary findings in (ongoing) studies confirm that terrestrial broadcasting is a very energy efficient platform . (please refer to Part 1 for details).

Because of increased complementarity, intertwining and sometimes substitutability between wireless and fixed ECS, the Draft Opinion should not limit the scope of the methodologies and assessment only to wireless ECS services. (please refer to Part 2 for details and to Proposal 1 for consideration in the Final Opinion).

We think it is warranted to consider aspects regarding climate in upcoming EU spectrum policy decisions, such as preparation of the WRC -23 or EU harmonization decisions. (please refer to Part 3 for details and to Proposal 2 for consideration in the Final Opinion).

Having said this, we may elaborate in detail:

## **I. Part 1- Studies on energy efficiency**

95% of European households have at least one TV set, 85% watch TV at least once a week, and the average viewing time is 3h32 per day including non-viewers, 90% of it being consumed live. Similarly, radio reaches 84% of European citizens weekly, with an average radio listening of 2h22 per day.

By their natural adaptation to a one-to-many distribution mode, and because of the very simple and direct link to the user terminal, terrestrial broadcasting is a very energy efficient way to distribute broadcast programs.

A BBC study published in 2020 comparing the energy efficiency of the various television service distribution platforms allowed to conclude that TV distribution and viewing can account for a non-trivial share of national electricity use and that digital terrestrial broadcast is the least electricity-intensive distribution platform, compared to cable, satellite and streaming which are of a similar order and, x 2.5 times higher per device - hour of viewing.

This example shows the value of rigorous methodology and study to assess energy consumption of ECS services. Obviously, the wider the scope of the study and involvement of various stakeholders, the easier it is to draw conclusions that will be valid for European policy. The recommendation 1 by RSPG is very much welcome: it is important to promote the development of methodologies with European wide relevance involving ECS stakeholders and all interested parties.

We have voluntarily engaged in such effort for television distribution. In order to gather evidence ORS joined a project whose scope was being defined by an independent contractor and in equal association with a variety of sponsors operating in various countries (with European wide interest) and including BNE (Broadcast Networks Europe), DTT transmission operators, but also leading TV channels present on all platforms, one SVOD operator and one neutral technology actor.

The project has commissioned an independent management consultancy and is also supported by a leading academic laboratory. This long-term project was launched in July 2020. Final results are expected in autumn 2021 and pending a decision by the sponsors, are likely to be made publicly available.

The study focuses on the compared energetic performance of Digital Terrestrial Television and the growing TV distribution platform of IPTV and OTT. **Intermediate results confirm the findings of the BBC study and validates that terrestrial broadcasting is a very energy efficient platform.**

## II. Part 2- Scope

The scope of this assessment should not be limited to wireless ECS services, because there is increased complementarity, intertwining and sometimes substitutability between wireless and fixed ECS.

It is relevant for stakeholders and for policy makers to compare not only the RF components but also whole transmission chains used for ECS at system level.

For television distribution, various wireless and fixed platforms coexist, compete and cooperate (ie. DTT, IPTV, OTT through fixed and wireless networks, cable and satellite). Therefore, a meaningful comparison must consider for instance:

- a DTT transmission chain, including the broadcast network component and the receive antenna,
- the OTT chain which will include an internet transmission network and the network interface and Wifi router,
- or the IPTV chain which will typically include a specialized multicast network, a network interface part and a service interface (IP TV box).

As we see it, we need to compare various ECS chains, which themselves are made of a series of wireless and non wireless components.

This is why we recommend that **methodologies should not only address wireless ECS but also incorporate in a consistent manner ECS fixed technologies so as to allow system level comparisons, taking into account the complementarity and intertwining of fixed and radio components in modern ECS networks and services.**

## III. Part 3- Emphasis on the climate

The results of these assessments are one factor to consider in upcoming EU spectrum policy decisions, such as preparation of the WRC -23 or EU harmonization decisions. Long term protection of terrestrial broadcasting spectrum allocation is a concrete step to combat climate change.

The fight against climate change involves reconsidering some of the basic hypothesis and reasoning which have prevailed in the past decades. We note that the Draft Opinion rightly recommends taking the energy efficiency assessment into account for funding research and in elaborating MS strategies on which a EU wide strategy could be put forward.

While energy efficiency may be only one factor among others to consider, it would seem contradictory if it were ignored while recommending on the other hand to carry assessments. This is why we think it is warranted **to consider energy efficiency and other climate related aspects in upcoming EU spectrum policy decisions, such as preparation of the WRC -23 or EU harmonization decisions.**

#### IV. Proposals for the Final Opinion

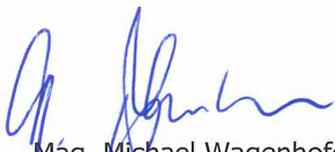
Based on the above, our Proposals for the Final Opinion are as follows:

1. On recommendation 1) Add at the end: "***Those methodologies should incorporate in a consistent manner ECS fixed technologies so as to allow system level comparisons, taking into account the complementarity and intertwining of fixed and radio components in modern ECS networks and service.***"
2. Add a new recommendation (2 or after): "***RSPG invites the European Commission and Member States to always take energy efficiency and other climate related aspects into account in preparation of EU spectrum harmonization decisions or positions in international fora.***"

For further information please do not hesitate to contact us!

With best regards

**Österreichische Rundfunksender GmbH & Co KG**  
**(Austrian Broadcasting Services)**



Mag. Michael Wagenhofer  
Managing Director



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