

# DECISION

PUBLIC VERSION

**Renewal of the right of use for radio spectrum  
allocated to MEO - Serviços de Comunicações e  
Multimédia, S. A. for the digital terrestrial  
television broadcasting service associated with  
Multiplexer A**

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## DECISION

### **Renewal of the right of use for radio spectrum allocated to MEO - Serviços de Comunicações e Multimédia, S. A. for the digital terrestrial television broadcasting service associated with Multiplexer A**

#### **1. Framework**

##### **1.1. Renewal request**

By request received on 06 December 2022, MEO – Serviços de Comunicações e Multimédia, S.A. (MEO), "... holder of the Right of Use of Frequencies ICP-ANACOM no. 06/2008 [<sup>1</sup>] does hereby submit a request under the provisions of paragraph 15 of [the above title<sup>2</sup>] (...) and under articles 41 and 188, paragraph 2 of Law no. 16/2022 of 16 August<sup>3</sup>, to renew [said right of use]". This request was subject to the "premises" indicated in the final request and in accordance with a set of terms and condition which are detailed below and assessed in section 3.1.

MEO opened its request to renew the right of use with a set of considerations which it identified (point 6 of the request) as an "important set of vicissitudes" relating to events occurring during the term of this right. In MEO's view, these "vicissitudes" have impacted provision of the Digital Terrestrial Television (DTT) service, and also the economic-financial expectations held by the company when presenting its proposal to the public tender:

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<sup>1</sup> Right of use of frequencies, on a national basis, for the digital terrestrial television broadcasting service, associated with Multiplexer A (MUX A), intended for the transmission of unrestricted free-to-air television programme services, the title of which has been reissued by determination of ANACOM's Board of Directors of 22 June 2017 (DTT DUER), available at: <https://www.anacom.pt/render.jsp?contentId=1413969&languageId=1> and [https://www.anacom.pt/render.jsp?categoryId=217562&languageId=1&tab=.](https://www.anacom.pt/render.jsp?categoryId=217562&languageId=1&tab=)

<sup>2</sup> Pursuant to paragraph 15 of the title, "The right of use of frequencies is granted for a period of 15 years from the original issuance of this title, expiring on 9 December 2023, and may be renewed under the terms of the LCE".

<sup>3</sup> Certainly by lapse, MEO based its request for renewal on article 41 and 188 of Law no. 16/2022 of 16 August, whereas it meant to refer to the articles indicated but rather of LCE - Lei das Comunicações Eletrónicas (Electronic Communications Law) which is approved by this law. ANACOM corrected this error in accordance with the terms of paragraph 2 of article 108 of CPA - Código do Procedimento Administrativo (Administrative Proceeding Code).

- (i) Lack of success of the 5th channel;
- (ii) Lack of use of the shared capacity reserve for high-definition (HD) transmission;
- (iii) Digital Dividend 1;
- (iv) Amendments made to the terrestrial coverage obligations imposed by ANACOM decision of 01 October 2015;
- (v) Modifications to the legal framework governing the DTT service following publication of Resolution of the Council of Ministers no. 37-C/2016 of 8 July (RCM no. 37-C/2016)<sup>4</sup> and the entry into force of Law no. 33/2016 of 24 August (Law no. 33/2016)<sup>5</sup>;
- (vi) The reduction in the price of the DTT service charged to television operators subsequent to ANACOM decision of 22 November 2018; and
- (vii) Digital Dividend 2.

To this purpose, given that some of these premises are invoked repeatedly by MEO, ANACOM considers it essential to make the following clarifications, albeit in summary. The company is aware of these situations and is in no position to disregard them.

– ANACOM totally rejects the “vicissitudes” set out in (i), (ii), (iii), (v) and (vii) above.

– As regards the “vicissitude” identified in (iv), as MEO is aware and as results from the decision of ANACOM which MEO references and which is public<sup>6</sup>, even while the company makes reference to the alleged “alterations to terrestrial coverage obligations” resulting from that decision, it was by means of this decision that certain determinations imposed by Decision of 16 May 2013 were implemented, resulting from MEO’s own requests for additional allocation

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<sup>4</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=1391120&languageId=1>.

<sup>5</sup> Available at: <https://dre.pt/dre/detalhe/lei/33-2016-75194222>.

<sup>6</sup> Available at: [https://www.anacom.pt/streaming/Decisao1out2015TDT.pdf?contentId=1367979&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/Decisao1out2015TDT.pdf?contentId=1367979&field=ATTACHED_FILE).

of spectrum. As such, the decision of 01 October 2015 sought merely to ensure “stability” of information as regards type of coverage, based on information that the company itself provided and with levels of coverage which the company said it was already providing. Its aim was to ensure that the company was complying with the obligations to which it was subject and to allow a more detailed subsequent evaluation of the service provided to the end-user and its evolution.

- Finally, with respect to the “vicissitude” indicated in (vi), as is public knowledge, ANACOM’s activity is governed by the principle of legality, which means that it is required “to act in accordance with the law, within the limits of the powers assigned to it and in line with the respective purposes of the law”<sup>7</sup>. The decision referenced by MEO was made by ANACOM in full observance of the legal regime set out in Law no. 33/2016. Furthermore, it is noted that part of these “vicissitudes” (as MEO calls them), particularly those identified in (iii), (iv) and (vi), refer to disputes that are being settled between the parties in court through competent judicial proceedings, to which, in this respect, we refer, for all due and legal purposes.

## **1.2. Legal regime applicable to the renewal of Rights of Use for Radio Spectrum**

Under the terms of its Statutes (approved by Decree-Law no. 39/2015 of 16 March) and of applicable legislation, it is an assigned responsibility of ANACOM “to ensure an effective management of radio spectrum, involving the planning, allocation and monitoring of spectrum resources, and the coordination between civil, military and paramilitary radiocommunications” (see article 8 of paragraph 1, point e) of ANACOM’s Statutes).

At present, ANACOM undertakes this responsibility under the terms of LCE2022 - Lei das Comunicações Eletrónicas (Electronic Communications Law), approved by Law no. 16/2022 of 16 August. This law transposes Directive (EU) 2018/1972 of the European Parliament and of the Council of 11 December 2018 establishing the European Electronic Communications Code<sup>8</sup> and revokes Law no. 5/2004 of 10 February (LCE2004 - Electronic Communications Law), which was in force when Right of Use of Frequencies ICP-ANACOM no. 6/2008 was allocated.

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<sup>7</sup> See article 3 of the CPA.

<sup>8</sup> Available at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32018L1972&from=fr>.

It is this right of use for digital terrestrial television broadcasting services associated with Multiplexer A (MUX A) which MEO now seeks to renew.

In this context, before incorporating and assessing the request formulated by MEO, it is important to outline the legal regime which is applicable to **renewal of Rights of Use for Radio Spectrum<sup>9</sup>) as set out in (current) article 41 of the LCE – noting that the company made its request with basis in these provisions.**

Under the terms of article 41 of the LCE, ANACOM, as National Regulatory Authority (NRA)<sup>10</sup>, "*(...) shall assess in a timely manner the need to renew rights of use for radio spectrum for the provision of electronic communications networks and services, on its own initiative or upon request of the holder of the right submitted to the NRA at least 18 months and not earlier than five years before the expiry date.*" (see paragraph 1).

In accordance with the same legal provision, "*prior to renewing rights provided of use for radio spectrum, the NRA shall reassess and define the conditions associated with such rights, which shall be proportionate, transparent and non-discriminatory, pursuant to article 39, without prejudice to the fees applicable for the respective renewal pursuant to article 168 (...)*" (see paragraph 2 of this article). By adopting its decision on the renewal of the right of use for radio spectrum, ANACOM is required to take the following into account (see paragraph 3 of article 41 of the LCE):

- a) *The fulfilment of general objectives under article 5, paragraph 3 of article 32 and paragraph 2 of article 37 [all of the LCE], as well as public policy objectives under national or European Union law;*
- b) *The need to implement technical measures adopted under article 4 of Decision no. 676/2002/CE<sup>11</sup>;*

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<sup>9</sup> Under the terms of the current LCE (approved by Law no.16/2022 of 16 August), the Right of Use of Frequencies is designated DUER - Direito de Utilização do Espectro de Radiofrequências (Right of Use for Radio Spectrum).

<sup>10</sup> See article 3, paragraph 1, point c) of LCE2022.

<sup>11</sup> Radio Spectrum Decision.

- c) A review of the appropriate implementation of conditions attached to the right in question;*
- d) The need to promote, or avoid any distortion of, competition in line with article 44 [of the LCE];*
- e) The need to render the use of radio spectrum more efficient in light of technological or market evolution;*
- f) The need to avoid severe service disruption."*

In this area, article 41 of the LCE sets out that:

- The renewal of rights of use for radio spectrum for which the number of rights of use is limited (as is the case with the DTT service - MUX A), shall be duly justified and shall be subject to an open, transparent and non-discriminatory procedure, in particular by giving stakeholders the opportunity to express their views on the renewal in the framework of a public consultation procedure (see paragraph 5);
- When deciding whether to renew or to initiate a new selection procedure for the allocation of rights of use for radio frequencies, the NRA shall take into account the evidence gathered in the consultation carried out in accordance with the preceding paragraph which demonstrates existing demand in the market by undertakings other than holders of rights of use for the radio spectrum in question (see paragraph 6).

Finally, the NRA shall reply to the holder within a maximum of six consecutive months from receipt of the request for renewal of the right of use for radio spectrum (see paragraph 7 of said article 41).

Under the terms of paragraph 1 of article 188 of the LCE, "undertakings shall maintain the rights of use for radio spectrum allocated before the entry into force of this law until the expiry of the period stated in the respective allocation title, where such period exists." In turn, paragraph 2 of the same article 2 safeguards the renewal clauses applicable to rights of use for radio frequencies in force on the date on which this law enters into force.

### **1.3. The Right of Use of frequencies subject to renewal**

Upon conclusion of the public tender opened by Regulation no. 95-A/2008 of 25 February<sup>12</sup> and by determination of ANACOM's Board of Directors of 20 October 2008, MEO (known at that time as PT Comunicações, S.A.) was granted one right of use of frequencies, of national scope, for the digital terrestrial television broadcasting service associated with MUX A, for the transmission of unrestricted free-to-air television programme services, and also for the provision of other electronic communications services. Title to this right was subsequently issued on 09 December 2008, as Right of Use of Frequencies ICP-ANACOM no. 06/2008 (DTT DUF)

As is public knowledge, this right of use of frequencies associated with MUX A was essentially allocated in order to accomplish the migration of unrestricted free-to-air television programme services from analogue to digital, ensuring continued provision of a minimum offer to the national population with equivalent conditions for end-users. This migration process led to the release of radio spectrum used by analogue technology, in line with the timetable set out internationally and at European Union level (analogue switch off).

As a result, MEO began transmission of the DTT service on 29 April 2009, with coverage gradually expanded through 2010, until the analogue terrestrial television service was switched off on 26 April 2012.

During the migration process, there were issues achieving stabilisation of the network, especially with the quality of DTT signal reception, leading to (successive) requests from MEO for the allocation of frequencies, corresponding to new radio channels. This resulted in the installation of an MFN network<sup>13</sup> (MFN of SFNs<sup>14</sup>) in overlay configuration. On the other hand, bringing forward the release of spectrum associated with Dividend Digital 2 (with the release of the 700 MHz band), by determination of its Board of Directors of 16 May 2013<sup>15</sup>, ANACOM

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<sup>12</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=979860&languageId=1>.

<sup>13</sup> MFN: *Multi Frequency Network*.

<sup>14</sup> SFN: *Single Frequency Network*.

<sup>15</sup> Decision on the development of the digital terrestrial television network, available at <http://www.anacom.pt/render.jsp?contentId=1161025>.

defined the model for the evolution of the DTT network associated with MUX A. In its follow-up, ANACOM deliberated on the terrestrial coverage obligations applicable to the DTT DUF on 01 October 2015<sup>16</sup>. These obligations were formulated and applied based on information supplied by the company itself on the coverage that it was providing. ANACOM also took this opportunity to determine re-issuance of this title<sup>17</sup> in order to incorporate the amendments arising from these two determinations, together with the changes resulting from previous decisions:

- Alteration of frequencies for the Autonomous Region of the Azores, as established in endorsement no. 1 to Right of Use of Frequencies ICP-ANACOM no. 06/2008<sup>18</sup>;
- Alteration of certain operating channels of MUX A in the DTT service, enacted by determination of 09 March 2011<sup>19</sup>;
- Replacement of channel 67, assigned to MEO for the mainland territory, with channel 56, ordered by determination of 04 April 2011<sup>20</sup>; Identification of the points which define the area associated with each one of the allocations set out in Annex 1 to the Decision on the evolution of the DTT network (MUX A) of 24 October 2013<sup>21</sup>.

Subsequently, through Resolution no. 37-C/2016, the Council of Ministers resolved:

(i) To determine termination of the following capacity reservations in MUX A:

- a) Reservation of capacity for the free unrestricted access television programme service to be licensed under the terms of Law no. 27/2007 of 30 July<sup>22</sup> (Lei da Televisão -

<sup>16</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=1368580&languageId=1>.

<sup>17</sup> Re-issuance of the title was executed with ANACOM decision of 22 June 2017, as described below.

<sup>18</sup> Available at:

[https://www.anacom.pt/streaming/Averbamento\\_Mux\\_A.pdf?contentId=1067991&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/Averbamento_Mux_A.pdf?contentId=1067991&field=ATTACHED_FILE).

<sup>19</sup> Decision on the alteration of certain operating channels of MUX A of the digital terrestrial television broadcasting service (DTT), available at: <https://www.anacom.pt/render.jsp?contentId=1076911&languageId=1>.

<sup>20</sup> Final decision regarding the replacement of channel 67 (838-846MHz) assigned to MEO for the territory of mainland Portugal, with channel 56 (750-758 MHz) on 04 April 2011, available at: <https://www.anacom.pt/render.jsp?contentId=1081451&languageId=1>.

<sup>21</sup> Decision relating to the identification of points that define areas associated with award of DTT network development frequencies set out in Annex 1 to the Decision on the evolution of the DTT network, available at: <https://www.anacom.pt/render.jsp?contentId=1179103&languageId=1>.

<sup>22</sup> Available at: [https://www.pgdlisboa.pt/leis/lei\\_mostra\\_articulado.php?nid=923&campo=tabela=leis](https://www.pgdlisboa.pt/leis/lei_mostra_articulado.php?nid=923&campo=tabela=leis).

Television Law), as under paragraph 1 of Resolution of the Council of Ministers no. 12/2008 of 22 January (RCM no. 12/2008<sup>23</sup>) – the “5th channel”;

- b) Reservation of capacity for broadcasting, in non-simultaneous mode, of high-definition programme services distributed on MUX A, as under paragraph 3 of RCM no. 12/2008 – the “shared HD channel”;

(ii) To determine the reservation of capacity in MUX A as necessary for:

- a) Two television programme services in SDTV<sup>24</sup>, to enable availability of the nationwide public service programme services of RTP3 and RTP Memória through the DTT service;
- b) Two television programme services in SDTV, to enable the opening of a public tender for the granting of a licence, under the terms of the Television Law, for two television programme services with free unrestricted access.

In the same year, approval was given to Law no. 33/2016, which aims to promote the expansion of the offer of programme services on DTT, under appropriate technical conditions for provision of the transport service and broadcast of the DTT signal, and with the guarantee of price control.

Within the scope of its transitional provisions, Law no. 33/2016 made provision for ANACOM to amend the title of the DTT DUF held by MEO, as operator of the digital terrestrial network, with a view to accommodating the changes enacted by this law.

To this extent, complying with the provisions of RCM no. 37-C/2016 and Law no. 33/2016, with regard to capacity reserves in MUX A and the regime applicable to pricing of the DTT service, and further implementing the decision of 01 October 2015 regarding the re-issuance of the title of the DTT DUF, on 22 June 201<sup>25</sup>, ANACOM approved the amendment of the DUF and its re-issuance.

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<sup>23</sup> Available at <https://www.anacom.pt/render.jsp?contentId=979869&languageId=1>.

<sup>24</sup> Standard definition television.

<sup>25</sup> Available at: <https://www.anacom.pt/render.jsp?categoryId=392281&languageId=1&tab=>.

By ANACOM decision of 22 November 2018<sup>26</sup>, ANACOM imposed the application of an annual price of 885.1 thousand euros per Mbps on MEO, in compliance with the principles and requirements established in paragraphs 3, 4 and 6 of article 4 of Law no. 33/2016 and in paragraphs 18.2., 18.3. and 18.7. of the DTT DUF that resulted from the decision of 22 June 2017. This resulted in a reduction in the prices charged to television operators for provision of the DTT service.

Subsequently, on 04 October 2019, in the decision regarding alterations to the DTT network (MUX A) in the context of the release of the 700 MHz band (Digital Dividend 2), and the respective development plan and timetable<sup>27</sup>, ANACOM, amended the DTT DUF in order to provide MEO with the radio resources required to maintain the overlay network solution and free up channel 56<sup>28</sup> (see Endorsement no. 1). As such, new frequencies were incorporated into the DTT DUF<sup>29</sup> in accordance with the allocations/areas set out in Annex 1 to said decision, and the use of these frequencies was made subject to the conditions defined in the right of use, under the framework set out in the determination of 16 May 2013 (see above).

Subsequently, through Resolution of the Council of Ministers no. 2/2021 of 5 January<sup>30</sup> (RCM no. 2/2021), and taking into account the recommendation contained in Resolution of Assembleia da República (Assembly of the Republic) no. 62/2020<sup>31</sup> of 04 August – which recommends “... that the Government take the necessary measures to expand the offer of public service television programme services through digital terrestrial television” – “...and taking into account the change in the national television panorama, (...) the increase in the offer of on-demand video services and the growing importance of video sharing platforms”, the Government decided to re-evaluate the launch of the public tender for two programme services

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<sup>26</sup> Available at:

[https://www.anacom.pt/streaming/Decisao22nov2018\\_vpublica.pdf?contentId=1463461&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/Decisao22nov2018_vpublica.pdf?contentId=1463461&field=ATTACHED_FILE).

<sup>27</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=1493731&languageId=1>.

<sup>28</sup> The radio channel of the Montejunto transmitter was also altered (from channel 49 to 48) and the channels to be broadcast in the Autonomous Regions were defined.

<sup>29</sup> Identified in Endorsement no. 1 to the DTT DUF, contained in Annex 4 of the decision in question.

<sup>30</sup> Available at: <https://dre.pt/dre/detalhe/resolucao-conselho-ministros/2-2021-152850635?ts=1673626602533>.

<sup>31</sup> Available at: <https://dre.pt/dre/detalhe/resolucao-assembleia-republica/62-2020-139472785>.

of a commercial nature to be transmitted over DTT, as recommended by RCM no. 37-C/2016. Instead, it decided to extend the DTT offer to two services from the public television service concessionaire.

As such, the Council of Ministers resolved:

(i) To reallocate the capacity reserve in MUX A referred to in paragraph 5 of RCM no. 37-C/2016, necessary for two television programme services in SDTV. This should be reallocated, *"under the principles of universality and national cohesion, to RTP - Rádio e Televisão de Portugal, S. A., [RTP], so that, within the scope of its public television service activity, the offer of free unrestricted access television programme services provided through the (...) [DTT] platform could be supplemented with provision of:*

*a) the RTP África programme service;*

*b) a new programme service dedicated to knowledge, under the terms of the public radio and television service concession contract renegotiated between the State and the concessionaire, and provided that the necessary financial conditions for this purpose are fulfilled."*

(ii) To authorise the concessionaire of the public television service (RTP) to use the capacity reserve which, under the terms of RCM no. 37-C/2016, *"...was intended for the RTP Memória program service, for part of or the entirety of a 24-hour day, for the broadcast of a programme service aimed at children and young people".*

Subsequently, through Resolution of the Council of Ministers no. 10-B/2021 of 17 February 2021<sup>32</sup> (RCM no. 10-B/2021), the Government decided:

- a) To suspend reassignment of the capacity reserve in MUX A to a new programme service dedicated to knowledge, as referred to in paragraph 5 of RCM no. 37-

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<sup>32</sup>Available at: <https://dre.pt/dre/detalhe/resolucao-conselho-ministros/10-b-2021-157772256>.

C/2016, until the end of the 2020-2021 academic year, as determined by paragraph 1 of RCM no. 2/2021;

- b) To determine that during this suspension, the capacity reserve would be reallocated for the broadcast of video and audio signals with pedagogical-didactic content to be supplied by the Ministry of Education for the purposes of the #EstudoEmCasa - *Ensino Secundário* (Secondary Education) broadcast.

Considering the specific term established in RCM no. 10-B/2021 for the duration of the suspension determined therein, it is concluded that the suspension should be lifted at the end of the 2020/2021 academic year. This means that the available capacity was once again subject to reservation, as set out in RCM no. 2/2021, i.e.: it was once again reassigned, "under the principles of universality and national cohesion, to RTP for provision of (i) the RTP África programme service", and (ii) "a new programme service dedicated to knowledge, under the terms of the public radio and television service concession contract renegotiated between the State and the concessionaire, and provided that the necessary financial conditions for this purpose are fulfilled" (see RCM no. 2/2021).

On 06 April 2022, ANACOM approved the final decision regarding the proposal presented by MEO to overcome lack of coverage by the DTT service by terrestrial means in the town of Baião, São Marcos da Serra, municipality of Silves<sup>33</sup>. This led to changes in the DTT DUF, with the addition of new frequencies under the terms set out in Endorsement no. 2, contained in Annex 2 to this decision<sup>34</sup>, and whose use was subject to the conditions defined in said right of use, in line with the framework defined in the determination of 16 May 2013 (referenced above).

Finally, by decision of 08 August 2023<sup>35</sup>, ANACOM amended the DTT DUF, incorporating the provisions of RCM no. 2/2021, together with the updating of information relating to terrestrial

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<sup>33</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=1720997&languageId=1>.

<sup>34</sup> Radio channel 28 (526-534 MHz) was included in the above title, in accordance with the award/area contained in Annex 1 to the decision in question.

<sup>35</sup> The legal references contained in the DTT DUF were also updated, in light of the revocation of LCE2004 by Law no. 16/2022 of 16 August, which approves LCE2022 in annex thereto. Decision Available at: [https://www.anacom.pt/streaming/decAutonomizacaoAlteracaoDUF\\_TDT08082023.pdf?contentId=1749421&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/decAutonomizacaoAlteracaoDUF_TDT08082023.pdf?contentId=1749421&field=ATTACHED_FILE).

coverage obligations following ANACOM's decisions of 04 October 2019 and 06 April 2022. The changes introduced are contained in Endorsement no. 3 to the DUF.

As a result, the title that substantiates the right of use of frequencies attributed to MEO, whose renewal is now being assessed, contains a set of conditions imposed on that company – general conditions (chapter II of the title) and conditions associated with the right of use of frequencies (chapter III of the title) – and capacity reservation, transport and pricing obligations (chapter IV of the title). These conditions must now be reassessed in accordance with the provisions of the LCE. This assessment will be carried out, respectively, in the points 4.1, 4.2 and 4.3 below, of this decision.

## **2. Markets - television broadcast free to end-users**

This section presents the definition and characterisation of the market of television broadcast free to end-users in Portugal. It is in these markets that the decision associated with MEO's request to renew the DTT DUF (or, according to the new terminology resulting from LCE2022, the DTT DUER) will have a direct impact.

### **2.1. Description of service**

The television broadcasting service consists of the transmission of television communications by means of radio waves or any other appropriate form, intended for reception by the general public. This transmission is carried out unilaterally (i.e., in one direction) and simultaneously to multiple reception points.

Broadcasting of television content can be carried out over different platforms: (i) terrestrial networks (including the DTT platform); (ii) electronic communications networks at a fixed location; and (iii) satellite broadcast networks (which encompasses subscription services and the DTT service – complementary satellite solution).

## **2.2. Definition of the retail market for free television or unrestricted free-to-air television programme services**

In the overwhelming majority of cases, television offers available over electronic communications networks at a fixed location and subscription offers supported on satellite broadcast networks (DTH) present very different characteristics from the end-user's point of view compared to those supported on terrestrial networks, including the complementary satellite solution (i.e., free unrestricted access programme services):

- due to the fact that they are not free for the user, requiring a contract to be signed between customer and provider and, consequently, payment of a monthly charge and, sometimes, activation and installation fees;
- due to the fact that services are offered, in most cases, as part of a bundle with electronic communications services at a fixed location;
- the possibility of contracting premium services.

On the other hand, and as can be seen in section 2.4, in most cases, demand for subscription TV offers is complementary to demand for offers supported over terrestrial networks, insofar as they are consumed simultaneously.

Therefore, following the decisions of AdC - Autoridade da Concorrência (Portuguese Competition Authority) and previous analyses by ANACOM in processes involving this market<sup>36</sup>, ANACOM considers that, at retail level, offers supported over terrestrial networks (including the complementary satellite solution – DTH), are in a separate market that is distinct from paid offers supported over other networks, i.e., the free-to-air television retail market or free unrestricted access programme services<sup>37</sup>.

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<sup>36</sup> AdC. (2009). Processo Ccent. 30/2009 - PTC/RETI. AdC. (2006). Processo Ccent. 8/2006 – Sonaecom/PT. ANACOM. (2007). ICP-ANACOM determination of 02 August 2007 relating to the wholesale market of broadcasting services for the delivery of content transmitted to end users,

<sup>37</sup> Available at: <https://www.anacom.pt/render.jsp?categoryId=383999>.

### 2.3. DTT in Portugal

In Portugal, the free television broadcasting service for end-users is currently supported by DTT, a technology that replaced analogue terrestrial transmission following the analogue switch-off process in April 2012.

The process of DTT deployment in Portugal began with two public tenders<sup>38</sup> in February 2008, which aimed to promote the development of DTT for the provision of services to end-users, based on a complementary model of free-to-air television (free unrestricted access – in the terminology of the Television Law), which, in the first place, would enable the switch off (Multiplexer A), and paid television (unrestricted access subject to subscription or restricted access – in the terminology of the Television Law), which would constitute a competitive platform in the subscription television market (Multiplexers B to F).

The DTT platform associated with MUX A, the DUF of which was granted to MEO, largely replicates the offer supported by the old analogue terrestrial system, making the 4 national generalist channels, RTP1, RTP2, SIC and TVI freely available from the outset, together with 2 regional channels available respectively in the two autonomous regions (RTP Açores and RTP Madeira). At the end of 2012, the Parliament channel (ARTV) also began broadcasting free-to-air. The offer also includes an electronic programme guide and, depending on the user's equipment, a recording facility. In 2016, transmission of RTP Memória and RTP3 (information channel) also began via DTT<sup>39</sup>.

### 2.4. DTT usage and retail user profile

In its most recent report “Means of Access to the TV Signal”, ANACOM characterised the use of DTT in 2022<sup>40</sup>. The main results of this analysis are presented below.

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<sup>38</sup> Tender regulations available at: <https://www.anacom.pt/render.jsp?categoryId=268822&themeMenu=1>.

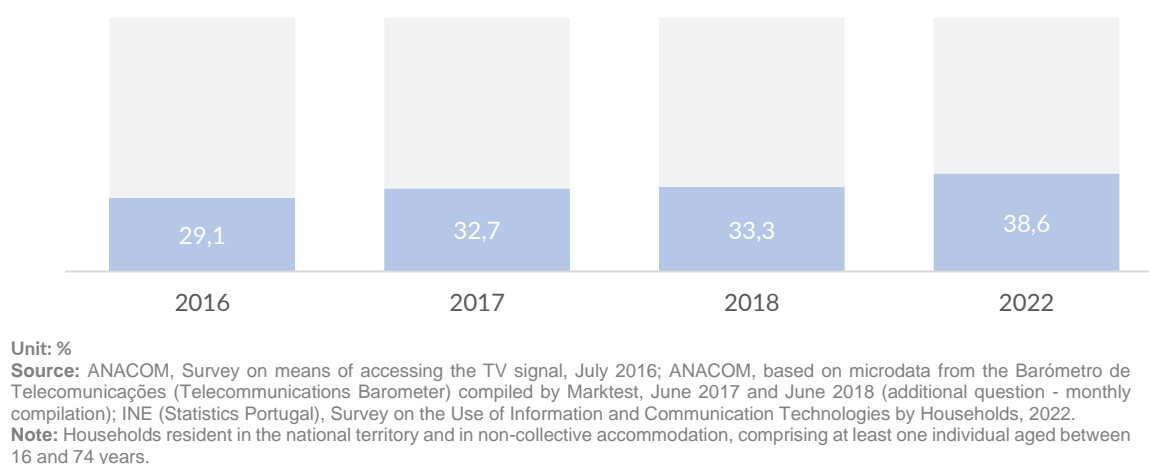
<sup>39</sup> Under the terms of paragraph 3 of RCM no. 37-C/2016 and article 3, paragraph 3 of Law no. 33/2016, see section **Error! Unknown switch argument.** *above*.

<sup>40</sup> ANACOM. (2023). “Means of Access to the TV Signal”. Available at: <https://www.anacom.pt/render.jsp?contentId=1737161&languageId=1>.

### 2.4.1. Service penetration rate

In 2022, DTT was used by 38.6% of households, not necessarily on an exclusive basis. Compared to 2018, the percentage of households with access to DTT in their homes increased by 5.3 percentage points (33.3% in 2018 and 38.6% in 2022) (**Error! Unknown switch argument.**).

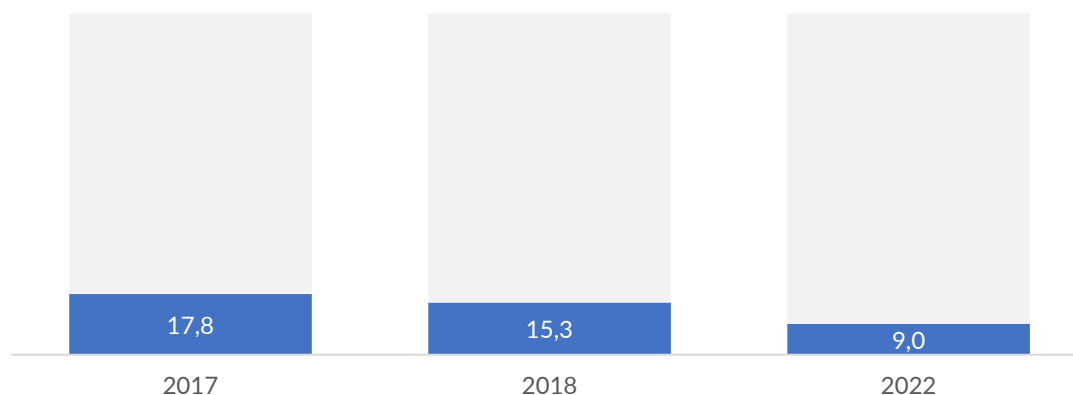
**Figure 1-** Trends in DTT use by households in main residence



Around 29.2% of households had both subscription television (STV) and DTT in their main residence, and in these homes, DTT tends to be used on alternative televisions. In the case of households with DTT, the majority simultaneously had access to the paid television service (75.6%).

In 2022, only 9.0% of families used DTT in their main residence on an exclusive basis, that is, they did not have STV services. This value is significantly lower than that recorded in 2018 (15.3%), corresponding to a decrease of 6.3 percentage points (**Error! Unknown switch argument.**).

**Figure 2-** Trend in the exclusive use of DTT by households in main residence



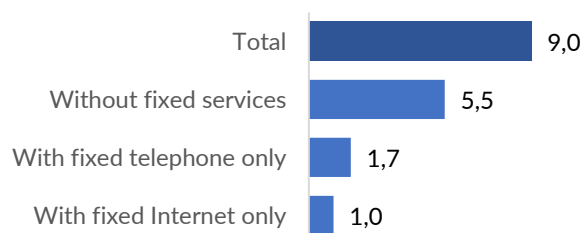
Unit: %

**Source:** ANACOM, based on microdata from the Barómetro de Telecomunicações (Telecommunications Barometer) compiled by Marktest, June 2017 and June 2018 (additional question - monthly compilation); INE (Statistics Portugal), Survey on the Use of Information and Communication Technologies by Households, 2022.

**Note:** Households resident in the national territory and in non-collective accommodation, comprising at least one individual aged between 16 and 74 years.

Families that access the TV signal only via DTT tend not to have fixed electronic communications services. According to the survey, 5.5% of families used DTT only and did not have any fixed electronic communications service. The combination of DTT with landline telephone (1.7%) or fixed Internet (1.0%) is relatively low (**Error! Unknown switch argument.**).

**Figure 3-** Exclusive use of DTT by households in main residence



Unit: %

**Source:** INE (Statistics Portugal), Survey on the Use of Information and Communication Technologies by Households, 2022.

**Note:** Households resident in the national territory and in non-collective accommodation, comprising at least one individual aged between 16 and 74 years.

### 2.4.2. Televisions with access to DTT

In 2022, there were 2.3 million television sets in Portugal with access to DTT. Of these, 90% were in the household's main residence and 10% in a secondary family residence<sup>41</sup>.

On average, there were around 1.6 televisions with access to DTT in a habitual residence and 1.3 televisions in a second residence<sup>42</sup>. The distribution of the number of televisions with access to DTT by NUTSII is directly related to the regional distribution of households, with the North region reporting the highest percentage of televisions with DTT (39%) **(Error! Unknown switch argument.)**.

**Table 1** - Distribution of television sets with DTT access by NUTSII

	Private households	Televisions with DTT access
North	33%	39%
Centre	22%	23%
Lisbon Metropolitan Area	29%	25%
Alentejo	7%	6%
Algarve	5%	4%
Autonomous Region of the Azores	2%	1%
Autonomous Region of Madeira	2%	2%

Unit: %

Source: INE (Statistics Portugal), 2021 Census, Survey on the Use of Information and Communication Technologies by Households, 2022.

Note: Households resident in the national territory and in non-collective accommodation, comprising at least one individual aged between 16 and 74 years.

### 2.4.3. The profile of the DTT end user

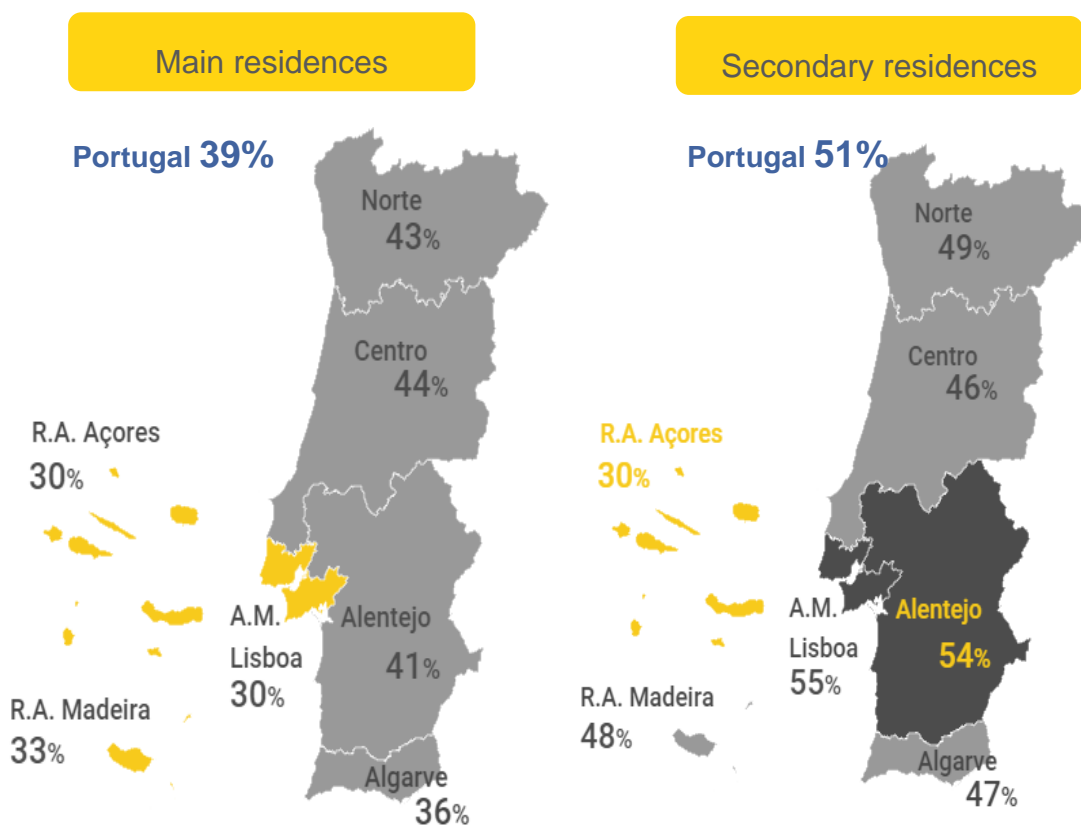
The use of DTT by households varies depending on geographic location, family type and income.

<sup>41</sup> INE (Statistics Portugal), Survey on the Use of Information and Communication Technologies by Households, 2022.

<sup>42</sup> INE, 2022.

In main residences, the Centre, North and Alentejo regions recorded rates of DTT penetration above the national average (44%, 43% and 41%, respectively) (**Error! Unknown switch argument.**). The Autonomous Regions and the Lisbon Metropolitan Area had the lowest DTT penetration rates (between 30% and 33%). In secondary residences, DTT penetration exceeded 50% in the Lisbon Metropolitan Area (55%) and Alentejo (54%) regions.

**Figure 4-** Penetration of DTT by NUTSII



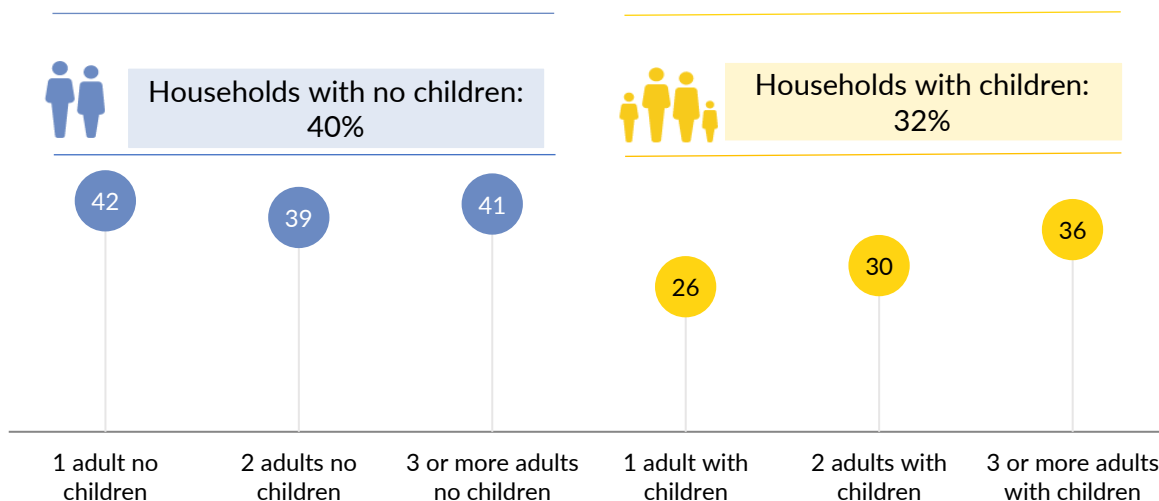
Unit: %

**Source:** INE (Statistics Portugal), Survey on the Use of Information and Communication Technologies by Households, 2022.

**Note:** Main residences: Households residing in the national territory and in non-collective accommodation, comprising at least one individual aged between 16 and 74 years; Secondary residences: Households residing in the national territory and in non-collective accommodation, comprising at least one individual aged between 16 and 74 years, and with a secondary residence.

By family type, household with no children tend to report a higher DTT penetration rate (40%) compared to families with children (32%) (**Error! Unknown switch argument.**). Large families also showed a greater propensity to have DTT, especially alongside STV.

**Figure 5** - DTT penetration according to family typology



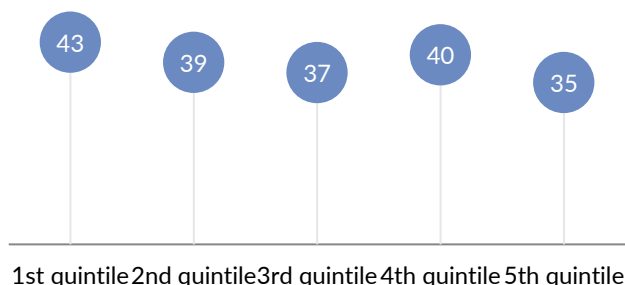
Unit: %

Source: INE (Statistics Portugal), Survey on the Use of Information and Communication Technologies by Households, 2022.

Note: Households resident in the national territory and in non-collective accommodation, comprising at least one individual aged between 16 and 74 years.

Household income also influences the rate of DTT penetration. Families at the lowest income level (1st quintile) reported a penetration rate of 43% while families at the highest income level (5th quintile) reported a penetration rate of 35% (**Error! Unknown switch argument.**).

**Figure 6-** DTT penetration rate by income quintile



Unit: %

**Source:** INE (Statistics Portugal), Survey on the Use of Information and Communication Technologies by Households, 2022.

**Note:** Income per equivalent adult is considered, which is obtained by dividing the net income of each household by its size in number of equivalent adults (using the modified OECD equivalence scale) and its value attributed to each household member. The modified OECD equivalence scale assigns a weight of 1 to the first adult in a household; 0.5 for the remaining adults and 0.3 for each child, within each household.

## 2.5. The wholesale provider and the network

MEO currently owns the digital terrestrial transmission platform that supports the free access television service in Portugal. Previously, PT Comunicações S.A. (PTC) owned the main analogue terrestrial television transmission network in Portugal, which was, however, discontinued following the analogue switch off<sup>43</sup>.

The DTT network covers a significant percentage of the Portuguese population compared to other transmission technologies. In fact, its coverage reaches 100% considering the whole set of terrestrial<sup>44</sup> and (complementary) satellite platforms.

<sup>43</sup> In this regard, it is recalled that Rede Teledifusora Independente, S.A. (RETI), owned by the Grupo Media Capital, was the owner of an analogue terrestrial television transmission network. PTC acquired exclusive control over this group in 2009 (for additional information see operation Ccent. 30/2009, available at [https://www.concorrencia.pt/sites/default/files/processos/ccent/AdC-CCENT\\_2009\\_30-Decisao-VNC-final-net.pdf](https://www.concorrencia.pt/sites/default/files/processos/ccent/AdC-CCENT_2009_30-Decisao-VNC-final-net.pdf)).

<sup>44</sup> Only considering the terrestrial platform, DTT coverage reaches a value of [SCI] [ECI] %, on the territory of mainland Portugal, and [SCI] [ECI] % and [SCI] [ECI] %, in Madeira and the Azores, respectively.

## 2.6. Business model, pricing and wholesale revenue

Currently, MEO provides television broadcasting services to the following television operators: RTP, SIC and TVI. These operators offer free unrestricted access channels in the context of DTT. MEO also broadcasts ARTV.

These operators (RTP, SIC and TVI) pay MEO a fee for the capacity occupied by each available channel and generate revenues from the sale of advertising in their programming, the price of which varies depending on audience and the coverage area of the network operator's broadcast.

According to the information currently available, in 2020, MEO obtained total profits from the DTT service of [SCI] [ECI] million euros, a value identical to that recorded in 2019. In 2021, total annual revenues increased by around [SCI] [ECI] %, to [SCI] [ECI] million euros, due to the transmission by RTP, between 08 February 2021 and 30 June 2021, of the contents of #EstudoEmCasa 2020/2021 for Secondary Education, through the DTT service<sup>45</sup>. According to MEO's estimates, total revenues in 2022 will be line with 2020.

In the case of national channels, the value varies between [SCI] [ECI] and [SCI] [ECI] million euros per annum, depending on the capacity occupied by each channel and the shared functionalities<sup>46</sup> (**Error! Unknown switch argument.**).

<sup>45</sup> Under the terms of Resolution of the Council of Ministers no. 10-B/2021 of 17 February, as already explained above.

<sup>46</sup> In the particular case of RTP's national channels (RTP1, RTP2, RTP3 and RTP Memória) the teletext service is shared between the various RTP channels, as this was the solution found to occupy finite and limited capacity.

**Table 2** – Annual value per current channel paid by television operators and ARTV to MEO

Channel	Price per channel (Euros)
RTP1	[SCI]
RTP2	
RTP A	
RTP M	
TVI	
SIC	
RTP3	
RTP Mem.	[ECI]
ARTV	420 000,00
<b>Total</b>	<b>[SCI] [ECI]</b>

Unit: Euros

Source: ANACOM

## 2.7. Definition of the wholesale market of free digital terrestrial broadcasting to end users

As mentioned above, taking into account the information available on the characteristics and price of the offer and AdC's decisions in processes involving this market, ANACOM considers that, at retail level, offers supported on terrestrial networks (including the complementary solution via satellite – DTH), make up the free-to-air television retail market.

It is now important to define the wholesale market which is connected to this market. To this end, an analysis of substitutability is carried out on the demand side and on supply side.

On the demand side, wholesale customers currently do not have an alternative to the current TV signal distribution network, meaning that, following a hypothetical and small, but significant and non-transitory, increase in the price of the television broadcasting service, they would not have an option of migrating their services to an alternative terrestrial network.

On the supply side, ANACOM has argued that there are other technological solutions (e.g. solutions supported over fixed electronic communications networks or satellite broadcast networks), which could provide a service equivalent to the TV signal distribution service provided by MEO. However, coverage by these networks is not currently equivalent to that of the network that currently supports the DTT service. Moreover, given the price currently charged and the (relatively short) horizon of the substitutability analysis for the purposes of market definition, it is deemed unlikely that the operators of these alternative networks would decide to enter this market following a hypothetical and small, but significant and non-transitory increase in the price of the television broadcasting service. Even if such operators did decide to enter the market, end customers would likely incur switching costs (e.g. for electronic communications equipment or services), which may indirectly but significantly reduce this competitive pressure.

In summary, the wholesale market linked to the retail free-to-air television market is considered to be the wholesale market for digital terrestrial broadcasting of free unrestricted access television channels, including complementary DTH coverage, as provided for in the DTT DUF (referred to below as the wholesale market of free digital terrestrial broadcasting to end users<sup>47</sup>).

Following definition of the product market and given that the wholesale digital terrestrial television broadcasting service is provided under the same conditions throughout the national territory, with the DTT DUF having assigned this geographical scope to MEO and there being no particularities that justify any geographical division, it is concluded that this market covers the entire national territory of Portugal.

## **2.8. Offer structure, barriers to entry and potential competition**

MEO is a monopolist in providing this service, holding 100% market share.

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<sup>47</sup> Including complementary DTH coverage.

With regard to barriers to entry, the wholesale DTT market is characterised by the existence of strong and persistent barriers to entry, for the reasons detailed below.

On the one hand, due to regulatory limitations, there is only one service provider. In this specific case, only MEO has the spectrum to offer this service, following the public tender awarded to it, holding title to the (sole) right of use of frequencies for the digital terrestrial television broadcasting service, associated with MUX A.

On the other hand, investments and sunk costs associated with the provision of the wholesale DTT service throughout the national territory are substantial. These investments are also a source of economies of scale and range.

The size and persistence of barriers to entry, which are also barriers to expansion, mean that potential competition is reduced or non-existent.

Furthermore, any new entrant would, expectedly, have higher costs compared to the costs faced by MEO. In fact, compared to any new operator, MEO benefits from economies of experience, economies of scale and scope associated with an expanded network (and shared with other services), and a set of investments that have already largely been amortized, resulting in lower costs.

Therefore, there is no evidence that any new operator would be able to offer prices significantly lower than those currently charged, which would be reflected in a reduced level of substitution of wholesale suppliers by television operators.

Finally, given the significant costs of developing these networks, it is deemed unlikely that any television operator would decide to develop its own broadcasting network.

It should also be noted that the installation of passive infrastructure by a hypothetical new entrant is not always possible, and it may not be easy to duplicate certain towers and masts given the current situation. This could result in end-users needing to repoint their antennas once more. These additional switching costs would constitute an increased barrier to entry into this market (due to lock-in effects).

## **2.9. Counterpower of wholesale customers**

As for the counter-power of wholesale customers, this is very limited due to the fact that, given the legal and regulatory framework, there is only one operator in the wholesale market.

This operator is also, in the short/medium term, the only one that guarantees national coverage. This fact, associated with the national coverage obligations inherent to television licences and the business model itself – in which the majority of revenues are related to the audience of the transmitted programmes and, therefore, to the broadcast coverage area of the network operator – further limit the negotiating power of customers.

## **2.10. Conclusion**

DTT continues to be used by a significant number of households (around 39% of the total), although only 9.0% of households use it exclusively to consume free unrestricted programme services. It is noteworthy that households on lower incomes (1st quintile), families without children and families living in the Centre, North and Alentejo regions of Portugal have a greater propensity to have DTT. Any renewal of MEO's DTT DUER will therefore have an impact on significant strata of the population, as well as on the free television retail market and the wholesale market for free digital terrestrial television broadcasting to end users.

Given the current legal and regulatory framework, MEO has a 100% market share in the wholesale market for free digital terrestrial television broadcasting to end users, and customers have limited negotiating power. Meanwhile, it is deemed unlikely, in the medium term, that there will be any reduction to these high barriers to entry or that competition will develop in these markets.

## **3. Consideration of the renewal request**

It is reiterated that on 06 December 2022, MEO submitted a request to ANACOM for renewal of the DTT DUER with basis in article 41 of LCE2022.

The DTT DUER was awarded to MEO for a period of 15 years, and may be renewed, under the terms of the [previous] LCE<sup>48</sup>.

In this context (of the previous LCE) the renewal request should be submitted to ANACOM by the respective holder at least one year before the end of the respective period of validity (see paragraph 15 of the DTT DUF, as invoked by MEO in the renewal request, and paragraph 2 of article 33 of LCE2004). Therefore, under the legal regime of the LCE2004, MEO had until 09 December 2022 to submit the renewal request to ANACOM.

As already mentioned, the (new) LCE was published on 16 August 2022 and came into force, as far as is relevant for the present purpose, 90 days following its publication<sup>49</sup> (14 November 2022), so that the renewal request was submitted by MEO under the new LCE2022.

Under the terms of this new Law, ANACOM is required to "assess in a timely manner the need to renew rights of use for radio spectrum for the provision of electronic communications networks and services, on its own initiative or upon request of the holder of the right submitted to (...) [ANACOM] at least 18 months (...) before the expiry date." (see Article 41, paragraph 1 of LCE2022, with our emphasis) – compliance with this rule means, in theory, that MEO was required to submit a request for renewal by 09 June 2022).

Clearly it would be impossible for MEO to comply with a legal deadline that, at the date of its supposed fulfilment, had not yet been legally established. In effect, MEO could not, by 09 June 2022, comply with the provisions of a law that did not exist at that time, given that it was only approved by Assembleia da República (Assembly of the Republic) on 21 July 2022, was only published on 16 August 2022 and did not enter into force until 14 November 2022. In other words, with the LCE2022's entry into force on 14 November 2022, it would be impossible for

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<sup>48</sup> The right of use of frequencies is granted for a period of 15 years from the original issuance of this title, expiring on 9 December 2023, and may be renewed under the terms of the LCE (see point 15 of chapter II of title ICP-ANACOM no. 06/2008).

<sup>49</sup> See paragraph 1 of article 13 of Law no. 16/2022 of 16 August, available at: <https://dre.pt/dre/detalhe/lei/16-2022-187481298>.

the holder of the DTT DUF (MEO) to comply with the requirement to submit the respective renewal request at least 18 months before its expiry<sup>50</sup>.

Therefore, with regard to the timeliness of the request, ANACOM cannot but conclude that the **request is timely** in relation to the LCE2004, given that it was objectively impossible for MEO to comply with the new deadline established in the LCE2022, and given that the company's rights cannot be harmed in requesting the renewal of the DUER to which it holds title.

In its request, MEO also invokes paragraph 2 of article 188 of the LCE2022, according to which "the provisions of article 41 shall be without prejudice to the renewal clauses applicable to rights of use for radio frequencies in force on the date on which this law enters into force".

MEO's DTT DUF only states (paragraph) 15, that it may be renewed under the terms of LCE2004<sup>51</sup>.

To this extent, by referring to the law, MEO has only advanced the legal expectation of obtaining a decision on the renewal (or not) of its right of use under the legal terms in force.

In fact, ANACOM understands that the safeguard provided for in paragraph 1 of article 188 of LCE2022 aims only to safeguard clauses contained in the titles themselves, which have specific conditions established for their renewal, such as, for example, if it were stated that the DUER

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<sup>50</sup> Likewise, the provisions of paragraph 1 of article 41 are considered not to be applicable to ANACOM in this case, when it establishes that "the NRA shall assess in a timely manner the need to renew rights of use for radio spectrum for the provision of electronic communications networks and services, on its own initiative or upon request of the holder of the right (...) at least 18 months (...) before the expiry date."

<sup>51</sup> Article 33 sets out provisions on the matter:

(...)

*2 - Rights of use are renewable, for the periods set out in the previous paragraph and taking into account the criteria for their establishment, upon request from the respective holder presented to the NRA at least one year before the end of the respective period of validity.*

*3 - In the case referred to in the previous paragraph, the NRA is required to respond to the holder within a maximum period of six months, conducting for this purpose the general consultation procedure provided for in article 8, and may:*

- a) Oppose the renewal of the right of use based on a duly reasoned decision;*
- b) Grant the renewal request under the same conditions specified in the initial granting of the right of use, including the validity period of the right;*
- c) Grant the renewal request with the imposition of conditions other than those specified in the right.*

could be renewed for another 'x years', subject to certain conditions – which is not the case with paragraph 15. of DTT DUF.

In this context, notwithstanding the above in terms of the timeliness of the renewal request, a request submitted under the “new” LCE, as is this case, is to be assessed and decided in light of the provisions of that law insofar as they refer to DUER renewals.

Since this is a matter of succession of laws over time, and since the legislator, in the consideration that precedes legislative production, did not see fit to define a transitional regime clarifying the temporal effectiveness of LCE2022, it is important to resort to the rules governing the application of law over time, as set out in article 12 of the *Código Civil* (Civil Code).

The general rule defined in the article in question establishes that the law only provides for the future and has no retroactive effect unless the legislator specifically grants it such effectiveness.

It follows from the same article that when the law directly sets out conditions governing the substantial or formal validity of any facts or their effects, in cases lacking clarity, it is to be understood that the law only covers new circumstances. When it refers to legal situations, aside from the facts that gave rise to said situations (enduring situations), the new law applies to situations already applicable and existing upon its entry into force (see paragraph 2 of the article in question).

In fact, given the general rules on the application of the law over time set out in article 12 of the Civil Code, ANACOM understands that assessment of this renewal request is to be governed by the legal regime established by the LCE2022, since the request was formulated during the validity of the LCE2022 and relates to a title which, albeit issued under the LCE2004, persists during the validity of the new law.

A different understanding would determine that any request for renewal of a DUER granted under the “previous” LCE, which comes to be presented under the new Law, would have to be evaluated within the legal framework arising from the former, in particular based on the provisions of its article 33.

It is noted, regarding the renewal of DUER, that recital (129) of the CECE states the following: "In deciding whether to renew already granted rights of use for harmonised radio spectrum, competent authorities should take into account the extent to which renewal would further the objectives of the regulatory framework and other objectives under Union and national law. (...). Competent authorities should be able to make their determination in this regard by allowing for only a limited duration for renewal in order to prevent severe disruption of established use. While decisions on whether to renew rights assigned prior to the applicability of this Directive should respect any rules already applicable, Member States should also ensure that they do not prejudice the objectives of this Directive » (emphasis added).

Therefore, in agreeing to consider the request made by MEO, it is understood that **the decision to renew DTT DUF, particularly with regard to the applicable conditions, must follow the legal regime established in article 41 of LCE2022.**

Remaining within the scope of these preliminary considerations, it should be noted that, in accordance with the provisions of paragraph 6 of article 41 of the LCE, ANACOM is required to appraise the option of not renewing the DTT DUF, with a view to undertaking a new procedure selection process to allocate the DUER. However, in this specific case, no other interested parties (besides MEO) are known to be interested in the immediate use of this spectrum at this time. In any case, the public consultation to which the draft decision was submitted, prior to this decision, did not find any indication of there being demand or otherwise in the market.

Moreover, ANACOM considers that opting for a new selection procedure would require time and involve a series of substantial investments. Given the impact that this delay and the impact that implementation of a new network could have on users and consumers (as already mentioned above), this option can be ruled out from the outset.

In this context, it is relevant to evaluate the request for renewal of the DTT DUF presented by MEO, which, in coherence with the LCE now in force, will be **called DUER - Direito de Utilização do Espectro de Radiofrequências (Right of Use for Radio Spectrum).**

### **3.1. Premises presented by MEO**

This section summarises each of the five premises which were identified by MEO in its request for renewal of the DTT DUER and sets out ANACOM's position in relation to these premises. In fact, MEO, in the request it presents, considers it essential that a renewal of its right of use “has an underlying guarantee safeguarding the company’s legal, economic and financial position, ensuring a necessary predictability and stability in the conditions of providing the service for the new period of duration of the DUF, on which basis the request for renewal of the DTT DUF is made subject to certain premises.”

#### **3.1.1. First premise: DUER DTT renewal period**

MEO requests that the right of use be renewed for seven years, effective from 10 December 2023 to 10 December 2030. The applicant considers this period to be appropriate so that “(...) the objective of public interest underlying provision of this service is fulfilled and that the necessary time is provided to carry out an assessment and decide on the model of free television access in the future, also depending on the decisions that are taken in relation to the UHF band”.

- **ANACOM's position**

With regard to the renewal of the DTT DUER for seven years, it should be noted that the LCE does not establish a period, minimum or maximum, for which rights of use may be renewed.

The legislator thus grants the applicant legitimacy to request the renewal of their right of use for any period as they see fit, and likewise grants ANACOM the flexibility, based on a consideration of the criteria and interests in question and having completed all legally established procedures, to establish the period for which a right of use of a scarce public asset (the radio frequency spectrum) should be renewed - in this case the DUER held by MEO for the provision of free access DTT services.

ANACOM is generally responsible for ensuring efficient management of the radio frequency spectrum (see article 32, paragraph 1 of the LCE), and when exercising this responsibility, the

public interest in its various aspects must be taken into account. In particular, ANACOM is required to promote harmonisation in the use of the radio spectrum by electronic communications networks and services across the European Union, consistent with the need to ensure effective and efficient use thereof and to pursue the objective of delivering benefits to consumers, such as competition, economies of scale and interoperability of networks and services, in accordance with article 33 and the Radio Spectrum Decision<sup>52</sup> (see article 31, paragraph 2 of the LCE). ANACOM must also take into account the social, cultural and economic value and further, within the scope of its assigned powers and responsibilities, contribute to ensuring the implementation of policies aimed at promoting cultural and linguistic diversity and media pluralism (see article 32, paragraph 1 and article 5, paragraph 5, both of the LCE).

Therefore, and with specific regard to the appraisal that ANACOM must carry out within the scope of the DUER renewal request, it is important to bear in mind the need to implement for the new period of duration of the DUF the technical measures adopted under article 4 of the Radio Spectrum Decision (see article 41, paragraph 2, point b) of the LCE).

In this context, any uncertainty regarding spectrum availability for the DTT service<sup>53</sup> from 2030, as a result of Decision (EU) 2017/899 of the European Parliament and of the Council of 17 May 2017<sup>54</sup> (Decision (EU) 2017/899) justifies consideration as to the establishment of a renewal period for MEO's DTT DUER that is appropriate and compatible with the provisions of this decision.

In fact, the above EU Decision on the use of the 470-790 MHz frequency band in the Union, establishes (article 4) that:

"Member States shall ensure availability at least until 2030 of the 470-694 MHz ('sub-700 MHz') frequency band for the terrestrial provision of broadcasting services, including free television,

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<sup>52</sup> Decision no. 676/2002/EC of the European Parliament and of the Council of 7 March 2002 on a regulatory framework for radio spectrum policy in the European Community, available at: <https://www.anacom.pt/render.jsp?contentId=987320&languageId=1>.

<sup>53</sup> The transmitters that make up the DTT network in Portugal use the 470-694 MHz frequency band.

<sup>54</sup> Available at: <https://eur-lex.europa.eu/legal-content/PT/TXT/PDF/?uri=CELEX:32017D0899&from=pt>.

and for use by wireless audio PMSE on the basis of national needs, while taking into account the principle of technological neutrality. Member States shall ensure that any other use of the sub-700 MHz frequency band on their territory is compatible with the national broadcasting needs in the relevant Member State and does not cause harmful interference to, or claim protection from, the terrestrial provision of broadcasting services in a neighbouring Member State. Such use shall be without prejudice to obligations resulting from international agreements, such as cross-border frequency-coordination agreements.”

In Portugal's case, from the point of view of cross-border coordination, it might become necessary to establish agreements with the authorities responsible for managing the radio frequency spectrum in the following countries (should they decided in future to introduce a use other than the broadcasting service in the sub-700 MHz band):

- Spain – in mainland Portugal and the Madeira Archipelago;
- Morocco – in the territory of mainland Portugal south of Palmela and in the Madeira Archipelago.

It should be noted, however, that such a scenario (a change in the use of the sub-700 MHz band in Spain and Morocco) appears unlikely in the short term and would constitute a derogation from the current Radiocommunications Regulations of the International Union of Telecommunications (ITU).

In fact, it should be noted that Spain, as a member of the European Union, is bound by article 4 of Decision (EU)2017/899, benefiting from the safeguards for the broadcasting service provided for therein. Additionally, it appears that Spain enjoys a very high DTT penetration rate, with very significant use of the spectrum in the sub-700 MHz frequency band in its territory, associated with the broadcasting service.

In the case of Morocco, there are also no known plans or expressions of interest in the short/medium term to introduce uses other than the broadcasting service in the sub-700 MHz frequency band in its territory.

It is also mentioned in this regard that at the next World Radiocommunications Conference (WRC-23), which will take place in December this year, use of the 470-960 MHz band will be re-examined, with consideration to the possibility of changing the table of assignments in Region 1 (Europe including Russia, Middle East and Africa)<sup>55</sup> to add the mobile service (except aeronautical mobile) in band 470 -694 MHz, or to defer this discussion to WRC-27 or later.

In parallel, at EU level, the High-Level Radio Spectrum Policy Group (RSPG) is currently focusing on the strategy of using the 470-694 MHz band after 2030 and is responsible for developing and detailing possible scenarios from that date onwards<sup>56</sup>.

However, although the broadcasting service has its protection guaranteed within the EU until 2030, article 4 of Decision (EU) 2017/899 (transcribed above) allows spectrum in the 470-694 MHz band to be used for the provision of terrestrial electronic communications services prior to 2030, provided that such use does not cause harmful interference to the provision of terrestrial broadcasting services in a bordering Member State and does not require protection from the provision of such services.

Currently, the transmitters that make up the DTT network in Portugal use the 470-694 MHz frequency band. Therefore, if the option were taken to make use of this flexibility, use of this spectrum for the provision of terrestrial electronic communications services prior to 2030 would mean that this band could no longer be used by the DTT network.

In the international context, as mentioned above, the 470-694 MHz frequency ("sub-700 MHz") band continues to be assigned to the broadcasting service in Region 1 on a primary basis, However, this does not rule out a change to the situation at ITU level.

To this extent, both due to its quantity and its propagation characteristics, it is important to highlight the potential interest in this spectrum for use by the terrestrial electronic

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<sup>55</sup> Region 1 of the International Telecommunications Union broadly includes the European and African continents.

<sup>56</sup> See GPER work programme for the 2022-2023 two-year period, Available at: [https://rspg-spectrum.eu/wp-content/uploads/2022/02/RSPG22-006final-work\\_programme\\_2022\\_and\\_beyond.pdf](https://rspg-spectrum.eu/wp-content/uploads/2022/02/RSPG22-006final-work_programme_2022_and_beyond.pdf).

communications service, allowing additional growth in the use of mobile data and answering the need to cover the national territory with high-speed services.

In this context, a renewal could, at most, be considered within a shorter period than requested by MEO, anticipating the possibility that this spectrum might be used for other services before 2030.

However, there is great uncertainty about the use of this spectrum in the future. This advises and justifies a renewal not shorter than the seven years requested by MEO. Furthermore, it should be noted that, for as long as Spain uses the band for DTT, in application of article 4 of Decision (EU) 2017/899, it will not be possible to demand protection for terrestrial electronic communications service in Portugal, a situation that significantly limits interest in the use of this band by this service in our country.

On the other hand, it is also important to consider the public interest in the use of this spectrum from a social and cultural standpoint, and in this sense, the renewal of the right of use granted to MEO for the requested period, which is in line with international decisions that are currently being adopted, allows: (i) continuity of the DTT service and, underlying this, supports the public interest in guaranteeing the broadcast of television programme services under a free, unrestricted access regime, and the public television service in particular<sup>57</sup>, to the entire population, (ii) guarantee of free access to culture and information, highlighting the relevance of the DTT service during the COVID-19 pandemic as a channel of communication between the State and the population, enabling the transmission of useful information to the entire population at any given time, along with content especially prepared for distance learning, (iii) promotion of social and territorial cohesion, (iv) at the present time, insofar as models of development are being considered for the DTT network, a continuity solution, without financial impact on more vulnerable social groups, with lower levels of literacy and older people for whom DTT provides a link to the world.

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<sup>57</sup> "(...) to the extent that it represents a factor for the promotion of pluralism, diversity, social inclusion and national cohesion, as well as of culture and education" (see article 2 of Law no. 33/2016).

In view of the above, ANACOM takes the position that renewing the DUER held by MEO for a period of seven years (i) is permissible under the provisions of the LCE regarding the DUER renewal period, (ii) appears to be appropriate insofar as, at the present time, it corresponds to the period for which the 470-694 MHz band is safeguarded for broadcasting services under Decision (EU)2017/899, (iii) allows continuity of the DTT service which supports free unrestricted access television programme services, including the public television service, during the period that the above European Decision safeguards these services and, to this extent, (iv) ensures regulatory predictability for all stakeholders and (iv) ensures regulatory predictability for all participants and (v) has no impact on the population using the DTT service.

Concluding on this aspect, **ANACOM considers that a renewal of the DUER DTT for a period of 7 (seven) years is appropriate and justified.**

### **3.1.2. Second Premise: Maintenance of current technological conditions (DVB-T<sup>58</sup> and MPEG4)**

MEO states, in its application, that "(...) this renewal request is also made on the premise that the technology currently used to provide the DTT service (i.e. DVB-T and MPEG4) remains unchanged throughout the entire period of renewal of the DTT DUF, since any technological change, at this stage, taking into account the proposed renewal period, would entail a new project with disproportionate costs and a new process of migration (...)".

- **ANACOM's position**

Regarding the possibility of maintaining current technological conditions (DVB-T and MPEG4) proposed by MEO, in contrast to a possible change in the technological system (for example, adopting DVB-T2<sup>59</sup>) or the compression standard (e.g. HEVC<sup>60</sup>), it is important to recall that this topic was the subject of studies carried out in the recent past, specifically, within the scope of

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<sup>58</sup> Digital Video Broadcasting - Terrestrial.

<sup>59</sup> Digital Video Broadcasting – Second Generation Terrestrial.

<sup>60</sup> High Efficiency Video Coding.

the previous process of migration of DTT transmitters broadcasting in the 700 MHz band to the sub-700 MHz band.

In fact, it is recalled that, in order to evaluate the various possible migration scenarios, ANACOM commissioned a study<sup>61</sup> in October 2016 with the aim of sustaining, both in technical and economic terms, the migration scenario to be adopted. This study included participation by several television and electronic communications operators, who had opportunity to express their positions on this subject. The final report of the study, received in March 2017, proposed two alternative scenarios, as follows:

- Base scenario, where the only change is to the radio channel for each station, with the entire network structure and technology remaining unchanged (maintenance of DVB-T/MPEG-4 (H.264/AVC) technology);
- More complex scenario in which, along with the migration process, there would be a technology update (evolution to the next generation of DVB-T2/HEVC (H.265) technology, enabling a significant increase in the number of television programme services available on the multiplexer).

With respect to option of maintaining DVB-T/MPEG-4 (H.264/AVC) technology, the study found that the cost of network migration would be low. This option would not result in costs for the user, as it would only be necessary to re-tune the receiver (STB – set-top-box or television). The communication campaign would be less complex and more cost-effective, and from the user's point of view, there would be no noticeable changes to the reception of television channels via DTT.

In the case of the option to advance to DVB-T2/HEVC (H.265) technology, the study found that the cost of migrating the network would be very high, as current reception equipment would have to be replaced with new equipment compatible with these technologies. From the end user's point of view, substantial improvements would be noticeable with this scenario, as it would be possible to add more television channels available and improve the quality of existing

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<sup>61</sup> Future Development of DTT in Portugal

channels. However, the end user would likely incur costs when purchasing new reception equipment. The cost of the communication campaign would also likely be higher, as the population would have to be made aware of the need to acquire reception equipment for the new technology.

Subsequently, Law no. 33/2016 was published, which established (paragraph 1 of article 5) that ANACOM and ERC - Entidade Reguladora para a Comunicação Social (Media Regulatory Authority) should conduct technical, financial and legal studies to provide an analysis of the different options for further expanding the DTT offer. As a result, ANACOM undertook and submitted a new study<sup>62</sup> to Assembleia da República (Assembly of the Republic) and the office of the then Secretary of State for Infrastructure (SEI) on 22 December 2017. This new study corroborated the advantages and disadvantages of the possible scenarios for migration set out in the first study and confirmed its conclusions.

Finally, ANACOM organised a Workshop on the future of DTT in Portugal, which took place on 30 May 2018 at Fundação Portuguesa das Comunicações (Portuguese Communications Foundation) in Lisbon, with participation by various interested parties, including:

- Independent regulatory bodies and other public entities - Autoridade da Concorrência (Portuguese Competition Authority), Entidade Reguladora para a Comunicação Social (Media Regulatory Authority) and Direção Geral do Consumidor (Directorate General for the Consumer);
- Television operators (RTP, SIC and TVI);
- The main electronic communications operators (MEO, NOS, NOWO and VODAFONE);
- Various figures from civil society and other entities of private law (Obercom, ACIST, ANMP).

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<sup>62</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=1427736&languageId=1>.

At this Workshop, participants took stock of the DTT experience in Portugal and discussed future perspectives for DTT at a national level, given the necessary release of the 700 MHz band. As a result of these discussions, a convergent position emerged supporting the adoption of the simplest migration scenario (maintenance of current technological conditions: DVB-T and MPEG4).

In these circumstances, and in view of the results obtained from the conducted studies, as well as the convergent position that resulted from the Workshop, it is considered that the current technology [DVB-T/MPEG-4 (H.264/AVC)] should be maintained.

Finally, through its decision of 04 October 2019, ANACOM approved changes to the DTT network (MUX A) in the context of the release of the 700 MHz band (development plan and timetable). And with specific regard to the technology used in the migration of the DTT network, ANACOM decided to maintain the outline of the National Roadmap<sup>63</sup>, specifically that: "... migration will take place while maintaining the technology currently used [DVB-T/MPEG4 (H.264/AVC)]".

In the current context, proceeding with a change in technological conditions, including to DVB-T2 transmission technology and HEVC compression, could provide an opportunity to replan the spectrum that goes beyond current planning, with optimisation of spectrum use in the 470-694 MHz band. In fact, DVB-T2 technology is more robust and more efficient when compared to DVB-T, for example by enabling higher speeds and larger single-frequency networks.

However, a change to the DTT network would only be justified if the current capacity of the network was exhausted and there was a demand for greater use, through new programme services and/or an increase in the resolution quality of the video signal.

Furthermore, as already discussed in this analysis, there is no guarantee of spectrum availability for DTT in the 470-694 MHz band beyond 2030, meaning that an investment in the

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<sup>63</sup> Available at:  
[https://www.anacom.pt/streaming/Roteiro700\\_sintese.pdf?contentId=1455678&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/Roteiro700_sintese.pdf?contentId=1455678&field=ATTACHED_FILE).

introduction of a new technology would have to generate a financial return within a period of 7 years, which is deemed unlikely.

In fact, if ANACOM ordered MEO to make a change to the technology used (to DVB-T2 and HEVC), this measure would appear to be disproportionate and inappropriate, given the arguments set out above.

Therefore, taking into account that any change in technology would entail the acquisition of new reception equipment by the population, causing a significant impact due to the costs inherent to such a change (a proportion of DTT users would need to purchase new equipment and could have to repoint antennas), and further noting that the population has undergone a network migration process only recently<sup>64</sup>, it is considered that maintaining the current technology until 2030 appears to be viable solution that does not have an impact on the population.

Furthermore, given that the 2017 assumptions are maintained, in relation to the studies carried out on the expansion of the offer of digital terrestrial television programme services with regard to the future of the DTT network, ANACOM takes the view that maintenance of current technological conditions (DVB- T and MPEG4) corresponds to a continuity solution for the DTT service, does not introduce disruptions in the provision of the service and represents the solution that will have the least impact on the population.

In view of all the above, it is ANACOM's position that the premise of maintaining technological conditions (DVB-T and MPEG4) is justified, since this is the most appropriate and proportionate measure to be adopted by ANACOM.

As such, considering that (i) the maintenance of current technological conditions constitutes a continuity solution for DTT, which means that it has no impact on the population accessing the

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<sup>64</sup> The process of national migration to the new frequencies of the DTT network began on 7 February 2020, with the retuning of the Sines transmitter, advancing from the south of the country to the north, returning south to the Metropolitan area of Lisbon, and then continuing to the Autonomous Regions of the Azores and Madeira. The process was completed on 18 December 2020. Due to constraints associated with the COVID-19 pandemic, the process was suspended on 13 March 2020 and was resumed on 12 August 2020.

service, who will not need to acquire new Set-Top Boxes (STB) or repoint antennas and that (ii) it is unlikely that an investment in the introduction of a new technology would generate a financial return during the period of validity of the renewal of the DTT DUER requested by MEO (seven years), ANACOM considers it appropriate to maintain the current technological conditions (DVB-T and MPEG4) through the period of the title's validity.

### **3.1.3. Third premise: Full utilization of MUX A capacity**

MEO states that its request for renewal "(...) is also made on the premise that the competent authorities will initiate and complete procedures necessary to support full use of the MUX capacity, or that otherwise, the [Applicant] will at least have the guarantee of its legal, economic and financial position being safeguarded with regard to full use of MUX capacity."

- **ANACOM's position**

Since ANACOM is governed by the principle of legality<sup>65</sup>, it acts only in obedience of the law, within the limits of the powers assigned to it, within the scope of its responsibilities and in accordance with its respective purposes.

In this context, ANACOM does not have competence to undertake "procedures necessary to support full use of the MUX capacity", as, in fact, MEO indirectly recognises by referring to "competent authorities", instead of referring specifically to ANACOM.

Likewise, ANACOM does not have powers, under the terms of the legislation that it is responsible for applying – in this case, the LCE and Law no. 33/2016 – to safeguard MEO's "legal, economic and financial position", in the event that "competent authorities" fail to develop appropriate procedures to carry out the reallocation of available capacity in MUX A, currently, under the terms determined by RCM no. 2/2021 (reflected in the DTT DUF by ANACOM decision of 08 August 2023, as mentioned above<sup>66</sup>), on the assumption this is what MEO is referring to.

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<sup>65</sup> See article 3 of the CPA.

<sup>66</sup> See Section 1.3., above.

Naturally, if there is a change in the position taken by the "competent authorities", regarding the reallocation of available capacity in MUX A, ANACOM will not fail to reflect whatever is determined in this matter in the DTT DUER which is granted to MEO.

#### **3.1.4. Fourth premise: Maintenance of current prices per Mbps**

MEO further states that its renewal request is based on the premise of maintaining the level and stability of the current prices (per Mbps) that MEO charges all television operators with which it currently maintains a contractual relationship within the scope of providing the DTT service. The company refers to this premise as "(...) essential to ensure predictability during the 7 years of validity of the renewal of the DTT DUF and to enable the reduction of imbalances in the overall financial results of this provision".

In this context, MEO considers that "(...) the renewal should be seen as an extension of the DTT project, which should be analysed from the perspective of a 22-year project, between 2008 and 2030, particularly for the purposes of exercising the cost orientation of prices as under Law no. 33/2016 of 24 August".

MEO also states that, "considering the net present value of the project, calculated by reference to the year 2023 (last year of validity of the DUF), the company will have incurred a loss in excess of [SCI] [ECI] million euros from provision of the DTT service. This value is calculated using the methodology defined by ANACOM for purposes of the annual control of prices which it exerts on the DTT service, which is based on the results of the Analytical Accounting System used by MEO up to 2019, as audited and certified by ANACOM, with estimates used for the following years and on the assumption that two new DTT channels will be introduced in 2023".

In its request MEO also presents the table below, indicating the estimated results of the project<sup>67</sup> up to 2030, highlighting that "(...) the accumulated loss in 2030 will still be to the order of [SCI] [ECI] million euros (net present value by reference to 2023)".

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<sup>67</sup> Assumptions used by MEO: Entry of two new channels in 2024; CPI: 4% in 2024, 3.4% in 2025/2016 and 2% from 2027; post-tax WACC: 3.63% constant from 2022 (pre-tax of 4.69% and corporation tax (IRC) rate of 22.50%).

**Table 3 – Results estimated by MEO, based on its premises**

	Up until 2023	Until 2030
<b>CAPEX<sup>68</sup></b>	[SCI]	
<b>OPEX<sup>69</sup></b>		
<b>Revenue</b>		
<b>EBITDA<sup>70</sup>- CAPEX</b>		
<b>NPV<sup>71</sup> (2023)</b>		[ECI]

Unit: thousands of euros.

Source: MEO.

- **ANACOM's position**

The current price per Mbps (885.1 thousand euros per year), which MEO intends to see enshrined through the renewal of the DTT DUER (2023-2030), came into force following ANACOM's decision of 22 November 2018<sup>72</sup>, formulated in strict compliance with the principles and requirements<sup>73</sup> established in Law no. 33/2016<sup>74</sup>.

It should be noted that this price corresponds to the annual price per Mbps presented in the proposal (variant scenario) that won the public tender for MUX A<sup>75</sup>.

<sup>68</sup> Capital Expenditure – capital costs or investment in capital goods.

<sup>69</sup> Operational Expenditure – Operating costs.

<sup>70</sup> Earnings before interest, Taxes, Depreciation and Amortization – Earnings before interest, taxes, depreciation and amortization.

<sup>71</sup> NPV – Net present value.

<sup>72</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=1464596&languageId=1>.

<sup>73</sup> Including the following: the price charged by MEO for the DTT signal transmission service must respect the principles of transparency, non-discrimination and cost orientation, be based on the space actually occupied by each television programme service and not exceed the price indicated in the variant scenario of the proposal that won the respective public tender.

<sup>74</sup> See paragraph 3 and article 4 of the identified law, whose legal regime was incorporated into paragraph 18.3 of the DTT DUF (reissued).

<sup>75</sup> However, it is important to note that there are differences of understanding, specifically on the part of MEO, regarding the price to be considered for this purpose. These were expressed both during the prior hearing and public consultation held on the amendment and re-issuance of the DTT DUF, and also in a challenge to the above decision, based on the fact that ANACOM allegedly based its determination on the mistaken assumption, *in casu*, that MEO had committed itself to a price per Mbps based on occupied capacity, when, instead, the price presented to the

From an economic-financial point of view, MEO's decision to request the continuation of this project arises exclusively from expectations of future revenues and costs (between December 2023 and December 2030).

However, in accordance with the current legal framework that ANACOM is responsible for applying, the request presented by MEO for renewal of the DTT DUF must be understood as an extension of the DTT project, insofar as this results from the law itself (DUER Renewal – article 41 of the LCE). The title constituting rights and obligations is maintained through any renewal, and the legal relationship remains the same, even while renewal of the DUER itself implies a reassessment and possible redefinition of the associated conditions.

Furthermore, from a regulatory point of view, paragraph 6 of article 4 of Law no. 33/2016, states that the assessment of pricing conformity must comply with the principles set out in the same Law, and be “based on the eligible investment plan, the reduction of the value of fixed assets and depreciation”.

Therefore, considering what follows from the LCE and paragraph 6 of article 4 of Law no. 33/2016, ANACOM considers the request for renewal of MEO's DUER as an extension of the DTT project. As such, it will be analysed considering a 22-year time horizon (from December 2008 to December 2030).

When assessing compliance with the principles and requirements applicable to the pricing of the DTT service, the time horizon of 2008-2030 is considered. Bearing this in mind and considering the premise presented by MEO of maintaining the current price during the period 2024-2030 (albeit not granting this premise), the project's NPV and Internal Rate of Return (IRR) were estimated in order to ascertain whether there are signs of non-compliance with the principle of cost orientation of prices set out in Law no. 33/2016.

In preparing this 'exercise', the information now made available by MEO was taken into account and the following assumptions made by the company were used:

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tender would have been per channel (which corresponded to a price per Mbps higher than that resulting from ANACOM's decision in compliance with Law no. 33/2016).

- The CAPEX value for the years 2024 to 2030 exceeds [SCI] [ECI] million euros, at an annual average lower than that of the previous 3 years (2021-23);
- Operating expenditure (OPEX) for the years 2024 to 2030 amount to almost [SCI] [ECI] million euros, an annual average that is 43% higher than the average of the previous 3 years;
- The cost of capital rate for the years 2024 to 2030 is constant and corresponds to the cost of capital rate for 2022 (i.e., a post-tax cost of capital rate of 3.63%);
- The tax rate remains constant in the years between 2024 and 2030 and is identical to the rate applicable in 2022;
- Revenues from DTT for the years 2024 to 2030 are based on the assumption that MEO is remunerated in that period for the introduction of two additional channels<sup>76</sup> in January 2024 and that the price will be as indicated by MEO, with the exception of the price of *Canal Parlamento* (ARTV), which for the purposes of this exercise is anticipated as unchanged (420,000 euros per year<sup>77</sup>). Therefore, for calculation purposes, revenues in the period between 2024 and 2030 are constant, amounting to [SCI] [ECI] million euros per annum.

The table below summarises the financial flows for the years 2024-2030, as used in the project's economic analysis (between 2008 and 2030).

<sup>76</sup> It should be noted that the estimates presented by MEO with respect to the increase in revenue expected from 2024, corresponding to the introduction of two additional channels in MUX A, assume an average occupancy of [SCI] [ECI] Mbps per channel, which corresponds to a lower level of occupancy than total unoccupied capacity at present.

<sup>77</sup> It is noted that this price is not subject to the principles set out in paragraph 3 of article 4 of Law no. 33/2016 (and, consequently, of the DTT DUF), as the nature of the content broadcast by *Canal Parlamento* is not equivalent to that of a television programme service governed by *Lei da Televisão* (Television Law) and does not benefit from must-carry obligations on the DTT platform. The contract for broadcasting *Canal Parlamento* was concluded between MEO and *Assembleia da República* (Assembly of the Republic) on 09 November 2012 and was subject to an amendment on 27 November 2012, without any changes in pricing.

**Table 4 – Assumptions used in calculating NPV**

Headings (2024-2030)	Values considered in the exercise
Average annual CAPEX	[SCI] [ECI]
Average annual depreciation	[SCI] [ECI]
Average annual OPEX	[SCI] [ECI]
Annual revenue	[SCI] [ECI]

Unit: thousands of euros.

Source: Information provided by MEO.

Taking this into account, the NPV of the project was estimated as negative for the 2008-2030 period, at [SCI] [ECI] million euros<sup>78</sup> at the beginning of the project, which corresponds to an IRR of [SCI] [ECI]. However, it should be noted that NPV is particularly sensitive to fluctuations in operating expenditure (OPEX), which includes energy and personnel costs. These operating costs have seen significant and widespread increases, particularly in the last year, largely due to the international political-economic context. Therefore, it was considered relevant to estimate the variation in operating costs which, even so, would allow the NPV of the DTT project in 2030 to be positive, keeping the remaining assumptions constant. It was determined that NPV would be positive if MEO registered an average annual OPEX value equal to or less than approximately [SCI] [ECI] million euros. This would represent a reduction of around 60% compared to the level currently forecast by MEO for the years 2024-2030 and a reduction of around 45% compared to the years 2021 to 2023.

It is also noteworthy that the estimate of the value of the NPV presented by MEO and which appears in **Error! Unknown switch argument.** ([SCI] [ECI] million euros), does not follow ANACOM's methodology (despite the company's claim that it does), since the value presented is capitalised for the year 2023, and is therefore not comparable with the value presented above by ANACOM.

Taking these assumptions into account, maintaining the price per Mbps (as MEO intends) – does not indicate a breach of the principle of cost orientation of prices throughout the entire

<sup>78</sup> The residual value of the assets associated with the DTT project in 2030 was not considered, as there was no estimate for this value.

project period (with the exception of the additional exercise mentioned above, which considers a very significant variation in operating costs). However, the fact that the exercise, in its analysis beyond 2021, is based merely on forecast data, means that it remains possible that the prices charged will fail to comply with the principle of cost orientation. In the event that the price turns out to be non-compliant, in accordance with Law No. 33/2016, ANACOM would be required to carry out a market analysis, designate the company with significant market power in the market in question and impose appropriate regulatory obligations in accordance with the procedure set out in the LCE.

If this situation were to occur, ANACOM would, as MEO well knows and cannot ignore, in the context of the market analysis imposed by paragraph 5 of article 4 of Law no. 33/2016, be required to assess the need to establish a maximum price charged by the holder of the DUER associated with the operation of MUX A for provision of the DTT service that would differ (i.e., would be lower) from the price currently charged (and proposed by MEO). This would make it impossible to maintain the maximum price per Mbps currently in force. It should also be noted that, in addition to the uncertainty associated with future compliance with the principle of cost orientation of prices, it is also expected that, in the period between 2024 and 2030, the annual profitability of the project will be positive and tend to increase, thus increasing the uncertainty underlying the presented estimates.

In this context, while maintaining the principles and requirements which govern pricing of the DTT service, as set out in Law no. 33/2016, it is not possible to rule out the need to review the prices charged by MEO before 2030, and such a review will become necessary in the event that pricing ceases to comply with the principle of cost orientation.

In view of all the above, considering that it is ANACOM's responsibility to ensure compliance with the procedures set out in Law no. 33/2016 - to carry out an annual evaluation of the need for a revision of prices charged to television operators for the provision of the television broadcasting service, considering that the price charged must comply with the principle of cost

orientation<sup>79</sup>, it must be categorically concluded, **in strict execution of the law, that ANACOM cannot give any assurance that the price per Mbps will remain constant throughout the period of validity of the renewed right of use.**

If the legally established regime is subject to change, ANACOM will not fail to analyse it and act accordingly.

### **3.1.5. Fifth premise: Provision of an automatic financial rebalancing mechanism**

MEO considers it essential that a "legal and regulatory framework be defined that offers effective legal and economic-financial security in the provision of the DTT service", more specifically through "(...) provision of an automatic financial rebalancing mechanism in the event that provision suffers material changes resulting, in particular, from an alteration, by means of legal or regulatory determination, to the conditions existing at the time of renewal of the (...) DTT DUF." The company further states that "(...) this mechanism must be capable of being triggered in the event that MEO is penalised as a result of any additional costs that may be imposed on it (e.g. resulting from additional coverage or investment obligations) or due to a reduction in revenues (that result, for example, from administrative decisions affecting prices charged or the possible removal or non-inclusion of channels)" (emphasis added).

- **ANACOM's position**

Within the scope of this DTT DUER renewal procedure, MEO intends, in short, to see a financial rebalancing mechanism, which would be triggered automatically if the conditions laid down in the DTT DUER at the date of renewal are subsequently amended by legal or regulatory determination.

In this context, the company identifies two situations, which in its opinion, should be covered by such a mechanism, i.e.: (i) the imposition of increased costs and (ii) a reduction in revenues.

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<sup>79</sup> In addition to the principles of transparency and non-discrimination, and based on the space actually occupied by each television programme service and limited by the price presented in the proposal that won the respective public tender (see paragraph 3 of article 4 of the law in question).

This premise is analysed step-by-step.

Firstly, from the point of view of the legislation that ANACOM is required to apply when assessing this renewal request (the LCE and Law no. 33/2016), there is no provision for an appropriate mechanism which responds to the requests put forward by MEO, the existence and application of which would always have to be authorised under the law and subject to the terms and conditions which the law allows. As such, ANACOM has no powers to provide for such a mechanism.

Secondly, from an economic and financial point of view, it is important to highlight that any project, including provision of the DTT service) has risks associated with it, meaning that provision of a mechanism to eliminate any and all risks appears unjustified.

That said, the present renewal procedure implies, among other considerations, a reassessment of the conditions associated with the right of use held by MEO for the provision of the DTT service (as will be seen in the following section). This means that the company will have, with regard to ANACOM's sphere of activity and in the exercise of the powers legally assigned to ANACOM, a stable and predictable regulatory framework with which it can make its decisions.

Therefore, regarding:

(i) Imposition of increased costs resulting, in particular, from additional coverage or investment obligations

As a preliminary point, it is important to bear in mind that ANACOM has never imposed any new burdens on MEO in terms of coverage, nor has MEO been made subject to levels of terrestrial coverage that differ from (or which exceed) those it already declares to provide, following the allocation, upon the company's request, of additional spectral resources for the provision of the DTT service, with the quality levels which it is obliged to ensure.

Indeed, under the terms of the DTT DUF, whenever measurements of quality of service levels demonstrate that the obligation to cover the population by terrestrial means at the percentage

levels defined in this title has not been fulfilled, ANACOM<sup>80</sup> notifies MEO of this fact. The company then has 20 working days to comment on the facts and communicate the solution to be implemented, as well as to present a proposal regarding the provision of information to potentially affected end users.

According to the DTT DUF title, the solution to be implemented by MEO will only and necessarily consist of reinforcing coverage by terrestrial means, in order to guarantee the coverage levels contained in said title. The company is obliged to carry out the proposed solution, fully covering any additional charges that affected users may incur, "(...) including from the repointing of reception antennas, tuning of DTT receivers and/or replacement/tuning of amplifiers" (see points 11.2 to 11.4 of the DTT DUF).

In any case, in the event that MEO fails to comply with the coverage obligations to which it is bound, the cost resulting from the proposed solution to overcome that lack of coverage must be covered by the company.

Allowing the possibility of a financial rebalancing mechanism to operate in these situations, as it seems MEO would like enshrined, would essentially mean compensating the company for its own failures of compliance and would correspond, in practice, to the State bearing the cost of intervention in MEO's DTT network in order to ensure compliance with the coverage obligations to which the company is committed under the terms of the right of use granted to it for provision of the DTT service.

Additionally under the terms of the DTT DUF, whenever a technical solution is implemented (proposed by MEO) that consists of reinforcing network coverage via terrestrial means (especially through the installation of new stations) and involves the allocation of additional spectrum resources to the company for provision of the DTT service (at its request and which are included in the right of use), MEO is obliged to update the terrestrial coverage information made available to ANACOM – an obligation whose observance is essential so that ANACOM

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<sup>80</sup> And without prejudice to any administrative offence proceedings.

is able to monitor the DTT service and ascertain compliance with the respective coverage obligations to which the company is subject<sup>81</sup>.

Once the information in question has been received, it is evaluated by ANACOM. Then, with any changes that may be determined, it will become an integral part of the DTT DUF, binding the company to the minimum values in question from that date onwards.

It is ANACOM's position that this condition, contained in the current DTT DUF, is both justified and proportionate to the extent that additional spectral resources are allocated to MEO for the provision of the DTT service. Therefore, in the present context of renewal of the right of use, it is important to ensure that this procedure and the obligations arising from it remain in place.

Furthermore, it is not seen how an “automatic financial rebalancing mechanism”, which in any case would have to be authorised by law and would only be possible under the terms and conditions which are permitted by law, could be formulated to create proper incentives for MEO to be efficient in the fulfilment its obligations, i.e., to undertake all necessary efforts to ensure the essential stabilization and maintenance of coverage of its DTT network and guarantee the service to all users.

It should be noted that any malfunction of its equipment and consequent repair/replacement would always be compensated, and the cost of implementing the solution proposed by MEO to overcome a coverage gap in the DTT network and non-availability of the service to the population in a given region, particularly for a long period, would not be supported by MEO.

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<sup>81</sup> Taking into account the provisions of paragraph 10.3 of the DTT DUF, MEO is required to provide ANACOM with updates of the information specified in point 3.A of ANACOM's determination of 16 May 2013 (as amended by point 5.2 of the Determination of the Board of Directors of 04 October 2019), regarding changes to the DTT network (MUX A) in the context of the release of the 700MHz band – Development Plan and Timetable. Available at: [https://www.anacom.pt/streaming/dec04102019libertacaoFaixa700.pdf?contentId=1484642&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/dec04102019libertacaoFaixa700.pdf?contentId=1484642&field=ATTACHED_FILE).

(ii) Reduction in MEO's revenues, especially, as a result of administrative decisions on prices charged or the possible removal or non-inclusion of DTT channels.

As regards the first situation (reduction in MEO's revenue as a result of administrative decisions on prices charged, that is, a reduction in the price charged by MEO for the DTT service provided to television operators), any price reduction in this context, will always result from strict application of the regime established by Law no. 33/2016.

As regards the second situation (possible removal or non-inclusion of DTT channels), this is a matter that, as MEO is also aware, does not fall within the scope of ANACOM's assigned responsibilities. In effect, and granting that a possible change to the composition of DTT channels would have an impact on the capacity occupied or available in MUX A and, therefore, on MEO's revenues, any decision on this matter (addition or removal of channels) in the context of the current legal framework will always depend on the initiative of the competent authorities and will subsequently imply coordination between the various authorities with competence in this matter (ANACOM, ERC and the areas of government responsible for communications and media), as well as the DTT television operators.

Based on the position set out in (i) and (ii) above, it is concluded that the legal framework that ANACOM is responsible for applying in the context of the assessment of this renewal request does not enable it to envisage and implement an automatic financial rebalancing mechanism, applicable to the situations listed by MEO.

#### **4. Reassessment of the conditions of DUF ICP-ANACOM no. 06/2008**

Notwithstanding the conclusions reached in the previous section, the DTT DUF makes MEO subject to a set of conditions – general (chapter II of the title), associated with the right of use of frequencies (chapter III of the title) and capacity reservation, transport and pricing obligations (chapter IV of the title). A re-assessment of these conditions within the scope of this renewal procedure should now be performed in accordance with the LCE.

As a preliminary point and bearing in mind that Law no. 16/2022 of 16 August revokes Law no. 5/2004 of 10 February (LCE2004), under which the right of use whose renewal is now being

considered was granted, the opportunity is taken to update the legal references contained (throughout) the title, bringing them into line with LCE2022<sup>82</sup>.

This update throughout the title<sup>83</sup> and the three existing endorsements<sup>84</sup> to the DTT DUF, justifies incorporating the endorsements into the title and republishing it in full as Direito de Utilização do Espectro de Radiofrequências (Right of Use for Radio Spectrum) ICP-ANACOM no. 06/2008 (Renewal) (DTT DUER).

#### **4.1. General conditions (chapter II of the title)**

The full list of general conditions applicable to companies that offer electronic communications networks and services (provided for in paragraph 1 of article 27 of LCE2022) does not include the conditions previously set out in points g) and r) of paragraph 1 of article 27 of LCE2004, i.e.:

- g) "environmental and town and country planning requirements, as well as requirements and conditions linked to the granting of access to or use of public or private land and conditions linked to co-location and facility sharing, including, where applicable, any financial or technical guarantees necessary to ensure the proper execution of infrastructure works"; and
- r) "financial contributions to the funding of the universal service in accordance with articles 95 to 97";

These two general conditions are set out in the body of paragraph 5 of the DTT DUF and are then reflected in this same paragraph in points a) ("Adopt all necessary measures to minimise

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<sup>82</sup> In line with the update implemented by ANACOM Decision of 08 August 2023, in paragraph 17.1 of the title.

<sup>83</sup> With the exception of paragraph 17.1 of the title.

<sup>84</sup> Endorsement No. 1, available at:

[https://www.anacom.pt/streaming/Averbamento1\\_4out2019.pdf?contentId=1541061&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/Averbamento1_4out2019.pdf?contentId=1541061&field=ATTACHED_FILE)

Endorsement no. 2, available at:

[https://www.anacom.pt/streaming/Averbamento2\\_6abril2022.pdf?contentId=1720437&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/Averbamento2_6abril2022.pdf?contentId=1720437&field=ATTACHED_FILE)

Endorsement no. 3, available at:

[https://www.anacom.pt/streaming/Averbamento\\_3\\_ICPANACOM\\_06\\_2008DUFTDT\\_MEOagosto2023.pdf?contentId=1749554&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/Averbamento_3_ICPANACOM_06_2008DUFTDT_MEOagosto2023.pdf?contentId=1749554&field=ATTACHED_FILE).

the environmental impact of infrastructures and deploy as provided for in applicable legislation and in the proposal submitted to tender;" and c) ("Contribute to the financing of the universal service, under terms as may be defined, in accordance with articles 95 to 97 of the LCE[2004]"). It is therefore necessary to confirm whether the removal of references to points g) and r) of paragraph 1 of article 27 of the LCE2004 from the body of paragraph 5 of the DTT DUF entails deletion from the list of general conditions of the title – those mentioned in points a) and c) of paragraph 5 of the title.

Therefore, in relation to the condition set out in point a) of paragraph 5 of the title, it is understood that this condition also arises, as its explicit wording makes clear, from commitments assumed by MEO in the proposal submitted to the public tender. As such, ANACOM considers that said point a) should remain applicable, taking into account the provisions of point g) of paragraph 3 of article 39, applicable ex vi subpoint iv) of point b) of paragraph 1 of article 27 of the LCE.

As regards point c) of point 5 of the title, ANACOM takes the view that it should be deleted.

On the other hand, the LCE does not result in new general conditions to be included in the title.

#### **4.2. Conditions associated with the DUER (chapter III of the title)**

Under the terms of the LCE, ANACOM must reassess and define the conditions associated with the DUER to be renewed. These conditions are to be proportional, transparent and non-discriminatory, with a view to ensuring optimal, effective and efficient use of the radio frequency spectrum (see paragraph 2 of article 41 and paragraph 2 of article 39).

In this context, in addition to the obligations resulting from the law, the conditions which are exhaustively set out in paragraph 3 of article 39 of this law may also be associated with the DUER.

At the same time, paragraph 3 of article 188 of the LCE establishes that "all obligations undertaken by undertakings within the scope of selection procedures carried out prior to the

entry into force of this law shall also continue to apply, and therefore the relevant parts of the respective regulations shall remain in force".

Therefore, in relation to chapter III of the title, by reference to the respective points and considering the changes resulting from the updating of legal references and the incorporation of the three endorsements, ANACOM takes the following position regarding the conditions associated with DTT DUER:

**6.1.** *For the purposes of point a) of paragraph 3 of article 39 of the LCE, the allocated right of use for radio spectrum is intended for provision of the digital terrestrial television broadcasting service, associated with MUX A, for the transmission of unrestricted free-to-air television programme services.*

- This remains applicable, as it follows directly from the object of the regulations governing the tender for the allocation of a right of use of frequencies, reserved for the digital terrestrial television broadcasting service in the National Frequency Allocation Plan, corresponding to nationwide coverage and associated with Multiplexer A (MUX A)<sup>85</sup>, and which resulted in the allocation of the DTT DUER to MEO (see paragraph 3 of article 188 of the LCE and point a) of paragraph 3 of article 39 also of the LCE);

**6.2.** *Notwithstanding the provisions of this title, particularly with regard to the capacity reservation and transport obligations set out in paragraph 17, MEO may, under the terms provided for in paragraph 4 of article 3 of Law no. 33/2016, freely use any remaining capacity on MUX A that cannot technically accommodate other television programme services and complementary services in order to offer other electronic communications services, in accordance with the LCE.*

- It remains applicable to the extent that it follows directly from the provisions of paragraph 4 of article 3 of Law no. 33/2016 that remains in force;

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<sup>85</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=979860&languageId=1>.

**7.1.** *The frequencies to be used, in the territory of Mainland Portugal and in the Autonomous Regions, to provide nationwide coverage associated with MUX A, are as follows: (...)*

**7.2.** – *The frequencies indicated in subpoints (i) to (xvi) of point a) of the previous paragraph are used in accordance with the allocations/areas set out in Annex 1 to this title, of which it forms an integral part.*

- These conditions remain applicable, since they identify the spectrum that is the subject of the DUER, for the digital terrestrial television broadcasting service (DTT);

**7.3** *As a result of possible harmonisation at international or EU level, the frequencies indicated in the previous paragraph may be subject to change during the period of this title's validity, in accordance with the provisions of article 21 of the LCE and in the event that reassignment of certain frequencies becomes necessary due to imperatives of frequency management.*

- This condition remains applicable, allowing changes to the frequencies identified in point 7.1. of the title due to imperatives of frequency management, insofar as the LCE continues to allow amendment of the DUER in cases that are objectively justified and in accordance with the principle of proportionality;

**7.4.** *MEO is required, in accordance with its technical plan, to use the 64-QAM modulation system on the broadcast network with a code rate of 2/3 and a guard interval of 1/4 in the territory of mainland Portugal and the 64-QAM modulation system with a code rate of 2/3 and a guard interval of 1/8 in the Autonomous Regions of the Azores and Madeira.*

- This condition remains applicable, since it is an obligation assumed by MEO within the scope of the proposal submitted to the public tender (see point g) of paragraph 3 of article 39 of the LCE);

**8.** *MEO is required to comply with the obligations arising from applicable international agreements on the use of frequencies, in accordance with the provisions of point i) of paragraph 3 of article 39 of the LCE.*

- This condition remains applicable, taking into account commitments made within the scope of international agreements on the management and use of spectrum, promoting more efficient management of this scarce and limited resource;

**9.1.** *MEO shall, in accordance with the provisions of points a) and b) of paragraph 3 of article 39 of the LCE, make effective and efficient use of the assigned frequencies, and is subject to compliance with the following coverage obligations: (...)*

- This condition remains applicable, not least because it refers to a commitment made by MEO within the scope of the proposal submitted to the public tender (see point g) of paragraph 3 of article 39 of the LCE), taking into account the public interest underlying the establishment of coverage obligations. Indeed, and as mentioned above, ANACOM cannot but consider it essential to ensure continuity of coverage of the DTT service throughout the national territory, given the nature and importance of this service;

**9.2.** *For the purposes of point e) of the previous paragraph, MEO is obliged to provide subsidies (covering labour, terminal receiving equipment, antennas and cabling) to customers in areas not covered by digital terrestrial broadcasting so that they do not face any increase in costs compared to the users of digital terrestrial broadcasting.*

- This condition remains applicable, since it refers to an obligation arising from the coverage obligations imposed in paragraph 9.1., specifically, in cases where coverage is provided through the use of complementary means;

**10.3.** *MEO must update the information specified in point 3.A of ANACOM's determination of 16 May 2013, whenever there are changes in the geographic coverage of the network, particularly as a result of the installation of new stations.*

- This condition remains applicable, since it remains essential to make available to ANACOM, in accordance with articles 170 and 171 of the LCE, the information to which this condition refers, thereby allowing ANACOM to monitor the optimisation and evolution of the digital terrestrial broadcasting network;

**11.1.** *Under the terms of the determination of 01 October 2015, MEO is obliged to guarantee a degree of service availability in reception for 99% of the time. To assess the quality of reception, Rec. ITU-R BT.1735-3 is applied, together with its future revisions, considering that whenever a probe records values of the Modulation Error Ratio (MER) parameter at a given location that is lower than the signal-to-noise ratio defined for the adopted network configuration (19.5 dB for a Rice channel), or a quality level lower than Q3, for more than 3.65 days (87 hours and 36 minutes), whether consecutive or interspersed during the period of one year, that location will be deemed as lacking terrestrial coverage.*

**11.2.** *Whenever measurements of quality-of-service levels demonstrate non-compliance with the obligation of population coverage at the percentage levels defined in Annex 2 to this title, without prejudice to the possible instigation of administrative offence proceedings, ANACOM will notify MEO of this fact, giving the company up to 20 working days to comment and to communicate the solution it intends to implement. In such cases, the company is also required to present a proposal regarding the provision of appropriate information to potentially affected end users, and to indicate the amount of time it needs to complete these steps, which ANACOM may alter if it considers the time required to be excessive.*

**11.3.** *MEO is required to execute the communicated solution, in accordance with the previous paragraph and within the allocated period.*

**11.4.** *In accordance with ANACOM's determination of 16 May 2013, the solution to be implemented by MEO, in accordance with the previous paragraphs, will only and necessarily consist of reinforcing the coverage of the network via terrestrial means, whereas MEO is required to guarantee levels of terrestrial coverage as listed in Annex 2 to this title.*

**11.5.** *In the context of the solution to be implemented under the terms of the previous paragraphs, MEO is obliged to update the information on the DTT website (<http://tdt.telecom.pt>) and keep it updated, providing indication of the best-server transmitter, as well as provide information to all potentially affected end users, in accordance with the proposal communicated and subject to validation by ANACOM. MEO is responsible for any additional costs that may*

*be incurred, including as a result of the need to repoint reception antennas, DTT receiver tuning and/or amplifier replacement/tuning.*

- These conditions remain applicable, as they make it possible, on the one hand, to determine whether a given location has terrestrial coverage, as well as the degree of availability of the service at reception, and on the other, for ANACOM to notify MEO whenever coverage of the population is not being provided at the percentage levels defined in Annex 1 to the DTT DUER. As such, the company can be called on to present the solution it intends to implement and a communication plan aimed at affected users, within the period which it has indicated (unless ANACOM considers this period to be excessive). The solutions presented by MEO will translate, solely and exclusively, into improving network coverage via terrestrial means, without disruptions in the service and guaranteeing that each and every citizen enjoys access to DTT, promoting and protecting their interests. ANACOM's Decision of 01 October 2015 remains in force (in respect of all aspects not specifically regulated in the determination of 04 October 2019), whereby, in particular, the assumptions used to measure availability of service at reception remain valid, with the grounds set out therein and to which reference is made for all legal purposes.

**12.** *In accordance with point e) of paragraph 3 of article 39 of the LCE, MEO is required to communicate its intention to ANACOM in advance where it seeks to transfer the right of use of frequencies, setting out the conditions under which it intends to do so, in accordance with article 42 of the above law and as set out at any given time in the National Frequency Allocation Plan.*

- This condition remains applicable, as it follows directly from the law and determines that MEO must previously communicate its intention to transfer the DUER (see point e) of paragraph 3 of article 39 of the LCE), as well as the conditions under which it intends to make such a transfer (see article 42 of the LCE);

**13.** *MEO is required, in accordance with the provisions of point f) of paragraph 3 of article 39 of the LCE, condition to make payment of the following fees to ANACOM: (...)*

- This condition remains applicable and results directly from the law, reflecting the obligation to pay the fees applicable to rights of use, in accordance with article 168 of the LCE (ex vi point e) of paragraph 3 of article 39, as well as paragraph 3 of article 10 of Law no. 16/2022).

*14. MEO is required, under the terms of point g) of paragraph 3 of article 39 of the LCE, to comply with any commitments made in the proposal presented to the public tender, in particular: (...)*

*16. For all purposes, the obligations arising from the terms of the public tender and the commitments assumed in MEO's proposal form an integral part of this title.*

- These conditions (14. and 16.) remain applicable and are to remain unchanged, as they arise from commitments made by MEO and included in the proposal presented to the public tender, safeguarding the inclusion of obligations arising from the terms of the public tender in the title.

*15 The right of use for radio spectrum is granted for a period of 7 years from the date of this title's renewal, expiring on 10 December 2030, and may be renewed under the terms of the LCE.*

- This condition, referring to the validity period of the DTT DUER, now specifies that MEO's title will be renewed for a period of seven years and will expire on 10 December 2030. This stems directly from the request presented by MEO for renewal of the title, which request it made dependent on confirmation of this premise.

The conditions analysed above arise from direct application of the law, obligations and commitments assumed by MEO within the scope of the proposal presented to the public tender and from ANACOM's decisions, adopted within the scope of its powers and in fulfilment of its mission of pursuing the public interest, safeguarding coverage and quality of service requirements. It therefore appears appropriate to maintain these conditions in the renewed DTT DUER.

With regard to the management and efficient use of the radio frequency spectrum, in conjunction with other objectives that it is responsible for accomplishing, ANACOM considers that the current conditions offer a compromise between quality of the service provided by the DTT network, spectral efficiency and the protection and promotion of citizens' interests.

Maintaining the current conditions makes it possible to safeguard: (i) network stability in terms of DTT signal reception quality; (ii) the accommodation of any changes arising from future harmonisation at international or EU level; (iii) compliance with commitments assumed by MEO in the proposal presented to the public tender; (iv) compliance with the obligation of terrestrial coverage of the population, to which MEO is bound by virtue of the DUER and (v) compliance with any obligations resulting from international agreements in terms of spectrum management and use, supporting more efficient management of this scarce and limited resource.

In view of the above, it is ANACOM's position that the list of conditions analysed above must remain applicable to the DTT DUER that is now being renewed.

#### **4.3. Obligations of capacity reservation, transport and pricing (chapter IV of the title)**

By decision of 08 August 2023<sup>86</sup> ANACOM amended DUF ICP-ANACOM no. 06/2008 (reissued), through endorsement no. 3, to reflect the coverage and transport obligations imposed on the company under RCM no. 2/2021.

In this context, it should be noted that following a renewal of the DTT DUER, the title will incorporate all endorsements added to it up to that date.

As regards pricing of the DTT service, the principles and requirements to which pricing is subject, as set out in Law no. 33/3016, remain in force, while ANACOM remains responsible for ensuring compliance therewith – see ANACOM's position with regard to point 3.1.4 above.

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<sup>86</sup> Available at:  
[https://www.anacom.pt/streaming/deciAutonomizacaoAlteracaoDUF\\_TDT08082023.pdf?contentId=1749421&field=ATTACHED\\_FILE](https://www.anacom.pt/streaming/deciAutonomizacaoAlteracaoDUF_TDT08082023.pdf?contentId=1749421&field=ATTACHED_FILE)

ANACOM holds that the obligations established in chapter IV of the title in this regard remain applicable.

In summary, ANACOM takes the position that the obligations contained in chapter IV of the title (in the version resulting from integration of endorsement no. 3 into the title) remain applicable, since they reflect the obligations imposed by legislation (Law no. 33/2016, RCM no. 37-C/2016 and RCM no. 2/2021).

Furthermore, in addition to the above, the LCE and other applicable legislation does not give rise to new capacity reservation, transport and pricing obligations that require inclusion in the title.

## **5. Analysis of the advantages and disadvantages of this decision**

In general, ANACOM considers that this decision promotes the interests of citizens and will have a reduced incremental impact on all entities involved.

On the one hand, with regard to benefits, continuation of the provision of the service beyond the current period allows for the promotion of the interests of citizens and responds to the needs of specific social groups, especially those who have a greater propensity to use DTT, such as households on lower incomes (1st quintile), households without children and households living in the Centre, North and Alentejo regions.

In this case, the incremental impact of this decision is reduced, and in the event that the remaining capacity is used to transmit new channels, may even bring increased benefits for citizens.

On the other hand, renewal of the DTT DUF does not, in itself, change the status quo, i.e., it does not imply additional costs for MEO, for MEO's wholesale customers, for end-users or for the Portuguese State.

Specifically, regarding **the renewal period of the right of use**, different scenarios can be considered.

Renewal of DTT DUF for a period of seven years provides regulatory predictability and ensures availability of the 470-694 frequency band MHz for the provision of terrestrial broadcasting services until 2030.

Non-renewal of the DTT DUF or its renewal for a period of less than seven years, as explained above, would not be justified.

In the first instance, there are no known parties with potential interest in obtaining the DTT DUF to provide this service, and if there were any such parties, they would need to commit substantial investments (and in relation to a reduced period of time), with no guarantee of financial return. On the other hand, the consequent delay in implementing a new network, given the impact that this would have on users and consumers, determines that the alternative (granting renewal of the DTT DUF, following MEO's request) is the most appropriate option.

As regards the second option (renewal of the DTT DUF for a period of less than seven years), while in theory this option could bring forward the possibility of using the spectrum allocated to DTT for other purposes, the uncertainty stemming from this possibility, as well as its impact on the continuity of the DTT service, determines that renewal of the DTT DUER should be granted for the period requested.

Regarding a renewal of the DTT DUF for a longer period, no advantages can be identified as arising from this scenario, particularly considering that MEO itself did not request a longer period and taking into account the potential interest in the ("sub-700 MHz") spectrum band for the provision of other services after 2030, specifically terrestrial electronic communications. However, if a renewal for a longer period were in question, a technological change to the DTT service could also be considered which, otherwise, as mentioned below, would not be justified.

Secondly, with regard to **maintaining the technological conditions**, ANACOM considers that the current situation (i.e., the use of DVB-T/MPEG4 technology) does not result in additional costs for users (e.g., the acquisition of set-top boxes and/or the need to repoint antennas). Adopting a new technology, for example DVB-T2/HEVC, despite having associated advantages (see section 3.1.2) and potentially a positive impact on competitive dynamics in

electronic communications markets<sup>87</sup>, would likely generate significant costs (i.e. technical studies, migration and communication costs and replacement of older reception equipment), with a direct impact on users who use DTT services the most, given the need to acquire new set-top boxes and repoint antennas. Furthermore, these expenses would eventually imply costs for the State, as was seen in the 1st and 2nd Digital Dividends. From a financial point of view, the introduction of this technology could also prevent the operator from deriving a financial return by 2030.

It is concluded, therefore, that maintaining the current technology is justified, as it is the solution with least impact on the population, television operators, the current holder of the DUER and on the Portuguese State itself.

With regard to the imposition of increased costs, particularly as a result of alleged additional coverage or investment obligations, reference is made to the position set out in point 3.1.5. (i) above, reiterating that ANACOM has never imposed new burdens on MEO in terms of coverage, and MEO has not been subject to levels of terrestrial coverage that differ from (or which exceed) those it already declares to provide (point of no return), whereby the maintenance of these coverage obligations does not give rise to any additional costs for MEO within the context of the renewal of the DTT DEUR.

Regarding the premises presented by MEO on the maintenance of the price throughout the validity period of the renewal of the DTT DUER, total use of available capacity in MUX A and an automatic financial rebalancing mechanism, taking into account the factual and legal grounds explained above, such aspects cannot be the subject of a decision by ANACOM in the context of the current DTT DUER renewal procedure.

Moreover, ANACOM is required to comply with Law no. 33/2016 in respect of the principles and requirements applicable to pricing of the DTT service, and it is dependent on the determinations of the "competent authorities" with regard to occupation of the MUX A. Likewise,

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<sup>87</sup> An increase in the number of available channels would reduce incentives to subscribe to bundles of electronic communications services and increase the incentive to subscribe to single-play offers or bundles which do not include the subscription television service, lowering the costs of switching providers and reducing the barriers to entry faced by potential new entrants.

ANACOM has no authority under the law to provide for a financial rebalancing mechanism, as sought by MEO.

## **6. Conclusion**

In view of what has been stated and everything considered, ANACOM takes the position, with regard to the premises presented in the request and as far as it has the power to assess them, that nothing prevents the renewal of the DUER granted to MEO, intended for the provision of the digital terrestrial television broadcasting services, associated with MUX A, for the transmission of unrestricted free-to-air television programme services.

Furthermore, ANACOM considers that no conditions should be imposed other than those previously established, while the conditions already in force should continue to apply.

It is also considered appropriate to update the wording of some of the points and paragraphs of the title, with a view to incorporating the changes arising from entry into force of LCE2022, as well as to proceed with the integration of endorsements nos. 1, 2 and 3 in the right of use.

Finally, it should be noted that the renewal of the DTT DUER granted to MEO does not have the effect on or give rise to the cancellation of any administrative offence proceedings as may have been instigated or which may be instigated in the future due to non-compliance with the obligations contained in the current title DUF ICP-ANACOM no. 06/2008 (reissued).

## **7. Applicable consultation procedures**

Article 10 of the LCE provides that where, in the exercise of its powers, ANACOM intends to adopt measures having a significant impact on the market, it shall publish the draft measure, giving stakeholders the opportunity to comment within a period provided for that purpose, which may not be less than 30 working days.

In compliance with the provisions of articles 121 et seq. of the CPA, the draft decision must be submitted to a prior hearing of interested parties for a period of not less than 10 days.

Article 14 of *Lei da Televisão* (Television Law) determines that the ERC has the right to be heard in matters involving radio spectrum planning for the exercise of television activities, whereby ANACOM has duly notified the ERC of the draft decision, so that it may state its position if it sees fit to do so.

Therefore, by determination of 14 February 2023, ANACOM's Board of Directors approved the draft decision on MEO's request, as now under consideration<sup>88</sup>, which also covered the deliberative point on the change to the DTT currently in force. This was submitted to a prior hearing of the company and other interested parties, under the terms set out in the CPA, as well as to the general consultation procedure under the terms of article 10 of the LCE, in both cases for a period of 30 working days.

The general consultation procedure was initiated on 15 February 2023, with the publication of the draft decision on ANACOM's website, so that comments had to be submitted no later than 28 March 2023. However, the deadline for this procedure was subsequently extended until 13 April 2023 by decision of ANACOM's Board of Directors, adopted on 27 March 2023<sup>89</sup>.

Timely responses to the procedure were received from the following undertakings:

- **ERC** – Entidade Reguladora para a Comunicação Social (Media Regulatory Authority);
- **MEO** – Serviços de Comunicações e Multimédia, S. A. (MEO);
- **RTP** – Rádio e Televisão de Portugal, S.A. (RTP);
- **SIC** – Sociedade Independente de Comunicação (SIC);
- **TVI** – Televisão Independente, S.A., (TVI);
- **VODAFONE PORTUGAL** – Comunicações Pessoais, S. A. (VODAFONE);
- Comments from 9 individual citizens.

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<sup>88</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=1740006&languageId=1>.

<sup>89</sup> Available at: <https://www.anacom.pt/render.jsp?contentId=1742409&languageId=1>.

Upon conclusion of the prior hearing and the public consultation procedure, regarding the amendment of the DTT DUF, ANACOM took the position that there was nothing to justify not proceeding with the amendment, as the only course of action resulting from the law and the nature of the relationships established (taking into account the provisions of article 127 of the CPA), respecting the principle of good administration (see article 5 of the CPA) and for reasons of economy and procedural speed of the decision (in compliance with article 56 of the CPA).

Accordingly, on 08 August 2023, ANACOM considered that the conditions were fulfilled, as on that date, to enable a decision on the alteration of the right of use of DTT DUF frequencies, of which MEO is the holder, entailing implementation of ANACOM's decisions of 04 October 2019 and 06 April 2022, and reflecting the provisions which stem from RCM no. 2/2021.

Regarding the request for renewal of the right of use, once the public consultation and prior hearing procedures were concluded, ANACOM noted the need to take additional steps in relation to the request made by MEO.

Having analysed the contributions received in the context of the above procedures and subsequent to the additional steps taken, ANACOM prepared the respective report on the prior hearing and the general consultation procedure, which forms an integral part of this decision, and which includes summaries of the positions expressed on the draft decision, along with ANACOM's position.

ANACOM has made the comments received available on its website, safeguarding any information of a confidential nature.

## **8. Decision**

Therefore, with the factual and legal grounds set out, and considering the comments received and the positions set out in the report of the prior hearing and the general consultation procedure, which form an integral part of this decision, within the scope of the assigned powers and responsibilities provided for in article 8, paragraph 1, points e) and h) of its Statutes (as approved by Decree-Law no. 39/2015 of 16 March), in pursuit of the general objectives laid down in point d) of paragraph 1 and point d) of paragraph 3, taking into account the provisions

of paragraph 4, all of article 5, as well as the regulatory objectives set out in article 6, all of the LCE, under the powers provided for in article 9, paragraph 1, point b) of its Statutes, the provisions of articles 10, 32, 39, 40, 41 and 163, all of LCE, and point b) of paragraph 1 of article 26 of its Statutes, ANACOM's Board of Directors decides:

1. To grant the request presented by MEO, renewing the DUER held for the DTT service, associated with MUX A, for a period of 7 years until 10 December 2030, in accordance with the draft title of the Right of Use for Radio Spectrum ANACOM no. 06/2008 (Renewal) as in Annex 1 to this decision and forming an integral part thereof, maintaining the conditions currently contained in Right of Use of Frequencies no. 06/2008 (reissued).

Lisbon, 31 October 2023.

## **ANEXO 1**

### ***RIGHT OF USE FOR RADIO SPECTRUM***

#### ***ANACOM No. 06/2008***

#### ***(Renewal)***

By determination of the Board of Directors of ICP Autoridade Nacional de Comunicações (ICP-ANACOM), now Autoridade Nacional de Comunicações (ANACOM), on 20 October 2008, PT Comunicações, SA, now MEO-Serviços de Comunicações e Multimédia, S.A. (MEO), was allocated a right of use of frequencies (DUF) of national scope, for the digital terrestrial television broadcasting service (DTT), associated with Multiplexer A (MUX A), the title to which right was subsequently issued on 9 December 2008.

By determination of 01 October 2015, ANACOM's Board of Directors decided to reissue DUF ICP-ANACOM No. 06/2008, incorporating the provisions of this determination into the title, together with the changes previously set out in endorsement no. 1 to the DUF, in the determinations to change the operating channels of MUX A and also in the determination of 16 May 2013.

By determination of 22 June 2017, ANACOM amended DUF ICP-ANACOM no. 06/2008, in compliance with the provisions of Law no. 33/2016 of 24 August (Law no. 33/2016), which promotes the expansion of the offer of DTT programme services under appropriate technical conditions and with the guarantee of control over the price of the provision of the DTT signal transmission service, and Resolution of the Council of Ministers no. 37-C/ 2016 (RCM no. 37-C/2016) of 08 July, which redefines the capacity reserves in MUX A, deciding to incorporate these changes into the DUF.

By determination of 8 August 2023, ANACOM's Board of Directors decided to amend DUF ICP-ANACOM no. 06/2008, incorporating the provisions of RCM no. 2/2021, and also deciding to integrate the update of information on terrestrial coverage obligations following ANACOM decisions of 04 October 2019 and 06 April 2022.

By determination of 31 October 2023, ANACOM's Board of Directors decided to renew DUER ANACOM no. 06/2008 (Renewal) and update the legal references contained in the title, in accordance with the entry into force of *Lei das Comunicações Eletrónicas* (Electronic Communications Law), approved in annex to Law no. 16/2022 of 16 August and transposing Directive (EU) 2018/1972 of the European Parliament and of the Council, establishing a European Electronic Communication Code. It was so determined to republish the title with the incorporation of all endorsements added to it up to that date.

As such, under the terms of DUF ICP-ANACOM no. 06/2008, as originally issued, endorsement no. 1 of 04 October 2019, endorsement no. 2 of 06 April 2022, endorsement no. 3 of 08 August 2023, as well as taking into account the provisions of the following ANACOM determinations:

- (i) Decision on the alteration of certain operating channels of MUX A of the digital terrestrial television broadcasting service (DTT) assigned to PT Comunicações, SA, of 09 March 2011;
- (ii) Decision of 04 April 2011 regarding the replacement of channel 67 (838-846MHz) assigned to MEO for the mainland territory with channel 56 (750-758 MHz);
- (iii) Decision of 16 May 2013 on the evolution of the DTT network (MUX A) and of 01 October 2015 on terrestrial coverage obligations and changes to the DTT DUF (MUX A);
- (iv) Decision relating to the identification of the points which define the area associated with each one of the allocations set out in Annex 1 to the Decision on the evolution of the DTT network (MUX A) of 24 October 2013;
- (v) Decision to correct the decision on the definition of terrestrial coverage obligations and amendment to the DTT DUF (MUX A) of 14 January 2016;
- (vi) Decision to amend the DTT DUF (MUX A) of 22 June 2017;
- (vii) Decision of 4 October 2019 regarding changes to the DTT network (MUX A), in the context of the release of the 700 MHz band;

- (viii) Decision regarding the proposal presented by MEO to remedy the lack of DTT coverage in the town of Baião, São Marcos da Serra, municipality of Silves of 6 April 2022.

In accordance with the provisions of point c) of paragraph 1 of article 9 and point q) of paragraph 1 of article 26, both of ANACOM's Statutes (approved by Decree-Law no. 39/2015 of 05 January), and article 41 of the LCE, this qualifying title, governed by the provisions of the following paragraphs, is hereby renewed:

## **Chapter I**

### **General Part**

1. The present title defines the conditions applicable to the right to use the radio frequency spectrum at a national level, granted to MEO Serviços de Comunicações e Multimédia, S.A. (MEO), legal entity no. 504 615 947, with registered office at Av. Fontes Pereira de Melo, no. 40, 1069-300 Lisbon, for the digital terrestrial television broadcasting service (DTT), in the frequency bands identified in paragraph 7.1. of the present title, intended for the transmission of unrestricted free-to-air television programme services and, also, for the provision of other electronic communications services, under the terms set out in paragraph 6.2.
2. The right to use the allocated radio frequency spectrum is governed by the provisions set out in the LCE, Regulation no. 95-A/2008 of 25 February (Regulation of the Public Tender for the Allocation of a Right to Use Frequencies on a National Basis for the Digital Terrestrial Television Broadcasting Service, hereinafter "public tender"), and the respective tender specifications, both approved by ANACOM, as well as other legislation applicable to the electronic communications sector.
3. MEO is additionally obliged to comply with any regulations as may be published in the future, including where such regulations prescribe provisions not foreseen at the time of

granting the right of use, but which result from needs or requirements for public use of the service provided, under the legal regime set out in article 21 of the LCE.

## **Chapter II**

### **General conditions**

#### **4.**

**4.1.** For the purposes of subpoint iv) of point a) of paragraph 1 of article 27 of the LCE, MEO is required to:

- a)** Implement a technological solution in accordance with the standards and specifications of the European DVB-T system, as specified in standard EN 300 744, with complementary coverage provided by the DVB-S2 system, as specified in standard EN 302307, both based on MPEG-4 – Part-10 – AVC/H.264 video compression and coding technology.
- b)** Disclose, including on its website, all relevant parameters for obtaining access to the service, such as those relating to coding and compression standards for video and audio, API for any interactive applications and PSI/SI tables.
- c)** Ensure that the update of software for reception equipment is in compliance with the DVB-SSU standard, with the possibility of using the enhanced profile;
- d)** Ensure image quality upon reception, in statistical terms, equal to or greater than the quality associated with the PAL standard for services in standard definition, the assessment of which shall, where necessary, be conducted in accordance with standard ITU-R BT500-13 and its future revisions.

**4.2.** Inform ANACOM in advance and on each occasion as to the conditions under which it proposes to make any changes arising from the evolution of DVB

technology, without prejudice to the procedures inherent to making amendments to the title, where applicable.

5. MEO is also subject to compliance with the following conditions set out in subpoint v) of point b) and subpoint viii) of point a), both of paragraph 1 of article 27 of the LCE, whereby it is required to:

- a) Adopt all necessary measures to minimise the environmental impact of infrastructures and deploy as provided for in applicable legislation and in the proposal submitted to tender;
- b) Ensure compliance with technical and operational conditions necessary to prevent harmful interference and limit the exposure of the population to electromagnetic fields in accordance with Decree-Law no. 11/2003 of 18 January, Administrative Rule no. 1421/ 2004 of 23 November, and any ANACOM regulations as may be published in execution thereof;
- c) (Deleted).
- d) Provide ANACOM with the information which is required under paragraph 1 of article 170 of the LCE, and for the purposes set out in article 171 of the LCE.

### **Chapter III**

#### **Conditions associated with the right of use of frequencies**

**6.**

- 6.1. For the purposes of point a) of paragraph 3 of article 39 of the LCE, the allocated right of use for radio spectrum is intended for provision of the digital terrestrial television broadcasting service, associated with MUX A, for the transmission of unrestricted free-to-air television programme services.

**6.2.** Notwithstanding the provisions of this title, particularly with regard to the capacity reservation and transport obligations set out in paragraph 17, MEO may, under the terms provided for in paragraph 4 of article 3 of Law no. 33/2016, freely use any remaining capacity on MUX A that cannot technically accommodate other television programme services and complementary services in order to offer other electronic communications services, in accordance with the LCE.

**7.**

**7.1.** The frequencies to be used, in the territory of Mainland Portugal and in the Autonomous Regions, to provide nationwide coverage associated with MUX A, are as follows:

a) Mainland Portugal:

- (i) Channel 28 (526-534 MHz);
- (ii) Channel 30 (542-550 MHz);
- (iii) Channel 33 (566-574 MHz);
- (iv) Channel 34 (574-582 MHz);
- (v) Channel 35 (582-590 MHz);
- (vi) Channel 36 (590-598 MHz);
- (vii) Channel 37 (598-606 MHz);
- (viii) Channel 40 (622-630 MHz);
- (ix) Channel 41 (630-638 MHz);
- (x) Channel 42 (638-646 MHz);
- (xi) Channel 43 (646-654 MHz);
- (xii) Channel 44 (654-662 MHz);
- (xiii) Channel 45 (662-670 MHz);
- (xiv) Channel 46 (670-678 MHz);
- (xv) Channel 47 (678-686 MHz);
- (xvi) Channel 48 (686-694 MHz);

b) Autonomous Region of the Azores:

- (i) Channel 44 (654-662 MHz);
- (ii) Channel 45 (662-670 MHz);
- (iii) Channel 46 (670-678 MHz);
- (iv) Channel 47 (678-686 MHz);
- (v) Channel 48 (686-694 MHz);

c) Autonomous Region of Madeira:

- (i) Madeira Island, Channel 47 (678-686 MHz);
- (ii) Porto Santo Island, Channel 46 (670-678 MHz);

**7.2.** The frequencies indicated in subpoints (i) to (xvi) of point a) of the previous paragraph are to be used in accordance with the allocations/areas set out in Annex 1 to this title, of which it forms an integral part.

**7.3.** As a result of possible harmonisation at international or EU level, the frequencies indicated in the previous paragraph may be subject to change during the period of this title's validity, in accordance with the provisions of article 21 of the LCE and in the event that reassignment of certain frequencies becomes necessary due to imperatives of frequency management.

**7.4.** MEO is required, in accordance with its technical plan, to use the 64-QAM modulation system on the broadcast network with a code rate of 2/3 and a guard interval of 1/4 in the territory of mainland Portugal and the 64-QAM modulation system with a code rate of 2/3 and a guard interval of 1/8 in the Autonomous Regions of the Azores and Madeira.

- 8.** MEO is required to comply with the obligations arising from applicable international agreements on the use of frequencies, in accordance with the provisions of point i) of paragraph 3 of article 39 of the LCE.

**9.**

**9.1.** MEO shall, in accordance with the provisions of points a) and b) of paragraph 3 of article 39 of the LCE, make effective and efficient use of the assigned frequencies, and is subject to compliance with the following coverage obligations:

- a)** Guarantee, from completion of the network's deployment at the end of 4th quarter of 2010, coverage of 100% of the population, with at least 87.26% of the population covered by digital terrestrial broadcasting, respecting, at a minimum, the following timetable:
- (i) End of 4th Quarter 2009: 78% of the population;
  - (ii) End of 4th Quarter 2010: 87.26% of the population.
- b)** Upon completion of the network's deployment, the coverage of the terrestrial broadcast network must be at least (acceptable coverage, which corresponds in planning terms to 70% of locations) as follows:
- (i) On the territory of Mainland Portugal: 90.12% of the population;
  - (ii) In the Autonomous Region of the Azores: 87.36% of the population;
  - (iii) In the Autonomous Region of Madeira: 85.97% of the population.
- c)** Guarantee on the territory of Mainland Portugal, as from 08 August 2023, fulfilment of the obligations of population coverage, by terrestrial means and per municipality set out in the table in Annex 2 to this title, which forms an integral part thereof, being directly associated with the information contained in the shapefile sent by MEO to ANACOM in attachment to its letter of 06 September 2022.

- d)** Provide indoor portable coverage in the locations indicated in the proposal, in accordance with its technical plan;
- e)** Ensure that the population whose coverage is ensured solely through the use of complementary means, specifically DTH, is provided with at least the same services as in areas covered by terrestrial means, as well as comparable service levels and access conditions for end users.

**9.2.** For the purposes of point e) of the previous paragraph, MEO is obliged to provide subsidies (covering labour, terminal receiving equipment, antennas and cabling) to customers in areas not covered by digital terrestrial broadcasting so that they do not face any increase in costs compared to the users of digital terrestrial broadcasting.

**10.**

**10.1.** (Deleted).

**10.2.** (Deleted).

**10.3.** MEO must update the information specified in point 3.A of ANACOM's determination of 16 May 2013, whenever there are changes in the geographic coverage of the network, particularly as a result of the installation of new stations.

**10.4.** (Deleted).

**11.**

**11.1.** Under the terms of the determination of 01 October 2015, MEO is obliged to guarantee a degree of service availability in reception for 99% of the time. To assess the quality of reception, Rec. ITU-R BT.1735-3 is applied, together with its future revisions, considering that whenever a probe records values of the Modulation Error Ratio (MER) parameter at a

given location that is lower than the signal-to-noise ratio defined for the adopted network configuration (19.5 dB for a Rice channel), or a quality level lower than Q3, for more than 3.65 days (87 hours and 36 minutes), whether consecutive or interspersed during the period of one year, that location will be deemed as lacking terrestrial coverage.

**11.2.** Whenever measurements of quality-of-service levels demonstrate non-compliance with the obligation of population coverage at the percentage levels defined in Annex 2 to this title, without prejudice to the possible instigation of administrative offence proceedings, ANACOM will notify MEO of this fact, giving the company up to 20 working days to comment and to communicate the solution it intends to implement. In such cases, the company is also required to present a proposal regarding the provision of appropriate information to potentially affected end users, and to indicate the amount of time it needs to complete these steps, which ANACOM may alter if it considers the time required to be excessive.

**11.3.** MEO is required to execute the communicated solution, in accordance with the previous paragraph and within the allocated period.

**11.4.** In accordance with ANACOM's determination of 16 May 2013, the solution to be implemented by MEO, in accordance with the previous paragraphs, will only and necessarily consist of reinforcing the coverage of the network via terrestrial means, whereas MEO is required to guarantee levels of terrestrial coverage as listed in Annex 2 to this title.

**11.5.** In the context of the solution to be implemented under the terms of the previous paragraphs, MEO is obliged to update the information on the DTT website (<http://tdt.telecom.pt>) and keep it updated, providing indication of the best-server transmitter, as well as provide information to all potentially affected end users, in accordance with the proposal communicated and subject to validation by ANACOM. MEO is responsible for any additional costs that may be incurred, including as a result of the

need to repoint reception antennas, DTT receiver tuning and/or amplifier replacement/tuning.

**12.** In accordance with point e) of paragraph 3 of article 39 of the LCE, MEO is required to communicate its intention to ANACOM in advance where it seeks to transfer the right of use of frequencies, setting out the conditions under which it intends to do so, in accordance with article 42 of the above law and as set out at any given time in the National Frequency Allocation Plan.

**13.** MEO is required, in accordance with the provisions of point f) of paragraph 3 of article 39 of the LCE, and with a view to the provisions of paragraph 3 of article 10 of Law no. 16/2022, of 16 August, to make payment of the following fees to ANACOM:

- a) The amount due for exercise of the activity of providing electronic communications networks and services, on an annual basis and in accordance with the provisions of paragraph 1 of article 167 of the LCE;
- b) The amount due in respect of the allocation of the right of use of frequencies, to the amount of 75,000 euros, in accordance with point c) of paragraph 1 of article 105 of the LCE and with Order no. 5266-B/2008 of 26 February, published in *Diário da República* (Official Journal) no. 40 (Series II, 2nd Supplement) of 26 February;
- c) The amount due for the use of frequencies, payable on an annual basis, as set out in point a) of paragraph 1 of article 168 of the LCE, to the amount and in accordance with that set out in the Administrative Rules authorised under Decree-Law no. A/2000 of 20 July;
- d) The amount due for the renewal of the right of use for radio spectrum.

**14.**

**14.1.** MEO is required, under the terms of point g) of paragraph 3 of article 39 of the LCE, to comply with any commitments made in the proposal presented to the public tender, in particular:

- a)** Enable reception of unrestricted free-to-air television programme services, electronic programme guides, capable of being programmed by television operators, interactive services, services aimed at citizens with special needs and other associated information contained in the Transport Stream (Services of Programmes and Tables) by users with appropriate reception equipment or also equipment to access other digital terrestrial television broadcasting services, i.e., unrestricted access with subscription or restricted access;
- b)** Duly inform end users as to the associated limitations and possibilities for subsequent upgrade and replacement of equipment that it intends to make available for the reception of the terrestrial component and that does not allow access to all the services referred to in paragraphs 17.1., 17.7. and 17.8., including any high-definition or interactive programme services;
- c)** Facilitate the integration of any future development and operation of interactive services by television operators into a technological platform compatible with the DVB-MHP standard;
- d)** Guarantee the levels of the quality of service and network performance parameters contained in the technical plan of the presented proposal, including a degree of availability of the Digital Broadcast Centre of 99.9995% for a period of 5 years and a degree of final transport and broadcast network availability of 99.9906% for a period of 2 years;
- e)** Commence operation of services no later than 31 August 2009;

- f)** Subsidise the acquisition of reception equipment, under the terms of the presented proposal, by citizens with special needs, by disadvantaged population groups and by institutions of proven social value, until cessation of analogue terrestrial television broadcasting;
- g)** Implement measures to support users, in accordance with the presented proposal;
- h)** Implement a national and regional promotion and information plan on DTT, supported by multiple national and regional media, including television, radio, press, billboards and the Internet, encompassing information and clarification actions, and marketing campaigns, in accordance with the awareness-raising and implementation phases of DTT in Portugal, as described in the presented proposal, notwithstanding, in this context, participation in the group monitoring the digital analogue transition process to be established for this purpose;
- i)** Carry out and disseminate, at least until the cessation of analogue terrestrial television broadcasting, particularly in conjunction with ANACOM, studies and surveys to monitor the transition to DTT, in accordance with the presented proposal, and periodically publish indicators on the process of implementation in Portugal, including the following:
  - (i) Percentage of population with DTT coverage;
  - (ii) Percentage of buildings with a collective antenna ready to receive DTT;
  - (iii) Number of DTT reception devices sold;
  - (iv) Number of television sets with built-in DTT receivers sold;
  - (v) Number of dwellings using DTT;
  - (vi) Number of DTT users;
  - (vii) DTT market share.
  - (viii) Implement the measures contained in the proposal which impact the level of economic activity in the country, as regards development of the national industry of equipment, applications and content.

**14.2.** For the purposes of point e) of the previous paragraph, MEO is to communicate to ANACOM the effective start date of the provision of services.

**15.** The right of use for radio spectrum is granted for a period of 7 years from the date of this title's renewal, expiring on 10 December 2030, and may be renewed under the terms of the LCE.

**16.** For all purposes, the obligations arising from the terms of the public tender and the commitments assumed in MEO's proposal form an integral part of this title.

## **Chapter IV**

### **Capacity reservation, transport and pricing obligations**

**17.**

**17.1.** For the purposes of subpoint vi) of point b) of paragraph 1 of article 27 and article 163 of *Lei das Comunicações Eletrónicas* (Electronic Communications Law), approved in annex to Law no. 16/2022 of 16 August, in conjunction with the provisions of Law no. 27/2007 of 30 July, article 19 of Regulation no. 95-A/2008, of 25 February, of RCM no. 37-C/2016 of 8 July, of articles 2 and 3 of Law no. 33/2016 of 24 August and of RCM no. 2/2021 of 5 January, MEO is required to reserve the capacity necessary for the digital transmission:

- a)** In standard definition (720x576), of unrestricted free-to-air television programme services broadcast in analogue mode via terrestrial hertzian channels held by licensed or concession operators on the date of entry into force of Law no. 27/2007 of 30 July, i.e., RTP1, RTP2, SIC and TVI, throughout the national territory, as well as RTP Açores and RTP Madeira in the respective Autonomous Regions.

**b)** In standard definition (720x576), throughout the national territory, of the nationwide public service program services RTP3 and RTP Memória, whereby the concessionaire of the public television service is able to use the capacity reserve allocated for the RTP Memória programme service, for the entirety or for a part of a 24-hour day, for the broadcast of a programme service aimed at children and young people.

**c)** In standard definition (720x576), throughout the national territory, of the RTP África programme service and a new programme service dedicated to knowledge, under the terms set out in the concession contract for the public radio and television service renegotiated between the State and the concessionaire, and provided that the necessary financial conditions for this purpose are met.

**17.2.** If the necessary technical and financial conditions are met, specifically the existence of remaining capacity in MUX A after fulfilling the capacity reserves provided for in paragraph 17.1., taking into account the provisions of paragraph 3 of article 3 of Law no. 33/2016, MEO is required to reserve capacity for the digital transmission of thematic programme services of the public radio and television service at a national level, provided on a unrestricted access basis with subscription upon the date of entry into force of law no. 33/2016.

**17.3.** The capacity reservation obligations determined in paragraph 17.1. and 17.2. shall not impact the broadcast on MUX A of the video signal made available for this purpose by *Assembleia da República* (Assembly of the Republic), which is safeguarded in accordance with the provisions of paragraph 2 of article 3 of Law no. 33/2016.

**17.4.** MEO is required to ensure transmission, including coding, multiplexing, transport and broadcast, without any requirement for payment from end users:

- a) Of the television programme services referred to in a) of paragraph 17.1., maintaining their current order, when the respective television operators exercise the right to transport under the terms set out in article 94 of Law no. 27/2007 of 30 July;
- b) Of the television programme services referred to in points b) and c) of paragraph 17.1, when the concessionaire of the public television service intends to commence broadcasting;
- c) Of the thematic programme services of the public radio and television service referred to in paragraph 17.2., when the conditions for applying the reservation obligation imposed therein have been fulfilled.

**17.5.** Without prejudice to any other conditions as may be negotiated between the parties, MEO shall not be required to provide the services referred to in the previous paragraph in the event that the respective television operators fail to provide:

- a) Video, audio and data signals at MEO's Digital Broadcast Centre, video and audio signals in SDI (Serial Digital Interface) digital format and data signals in the format defined by MEO;
- b) The information necessary to create the PSI/SI tables (Program Specific Information / Service Information).

**17.6.** Taking as a reference use of the MPEG-4 Part 10 AVC/H.264 compression standard, and without prejudice to paragraph 17.8., the total capacity to be reserved by MEO for the broadcast of the different programme services provided for in paragraph 17.1. shall, at all times and at a minimum, be as follows:

- a) 14.4 Mbit/s and 768 kbit/s, respectively, for the video and audio components of programme services in standard definition, in the territory of mainland Portugal;

- b) 16.2 Mbit/s and 864 kbit/s, respectively, for the video and audio components of programme services in standard definition, in the Autonomous Regions;

**17.7.** In addition to the capacity referred to in points a) and b) and c) of paragraph 17.1. for transmission in standard definition, MEO shall, as necessary, guarantee capacity and ensure the transmission of these television programme services in 16:9 wide-screen format

**17.8.** MEO shall also ensure, if and when requested by television operators whose television programme services are specified in paragraph 17.1. and in relation to these, additional capacity for:

- a) Operation of electronic programme guides (EPG);
- b) Features that provide access to the respective television broadcasts by people with visual and hearing impairment;
- c) Teletext Services.

**17.9.** MEO can reinforce the binary rates referred to in paragraph 17.6. with the additional capacity referred to in the previous paragraph that is not being used.

**17.10.** The values stipulated in paragraph 17.6. may be reviewed every two years, upon a proposal from MEO that is reasoned and recognised as such by ANACOM.

## **18.**

**18.1.** According to the variant scenario presented under the terms of paragraph 3 and paragraph 4 of article 9 of Regulation no. 95-A/2008, MEO may, in return for the guaranteed coverage levels and the characteristics of the offer that television operators may make available to their users, charge television operators an

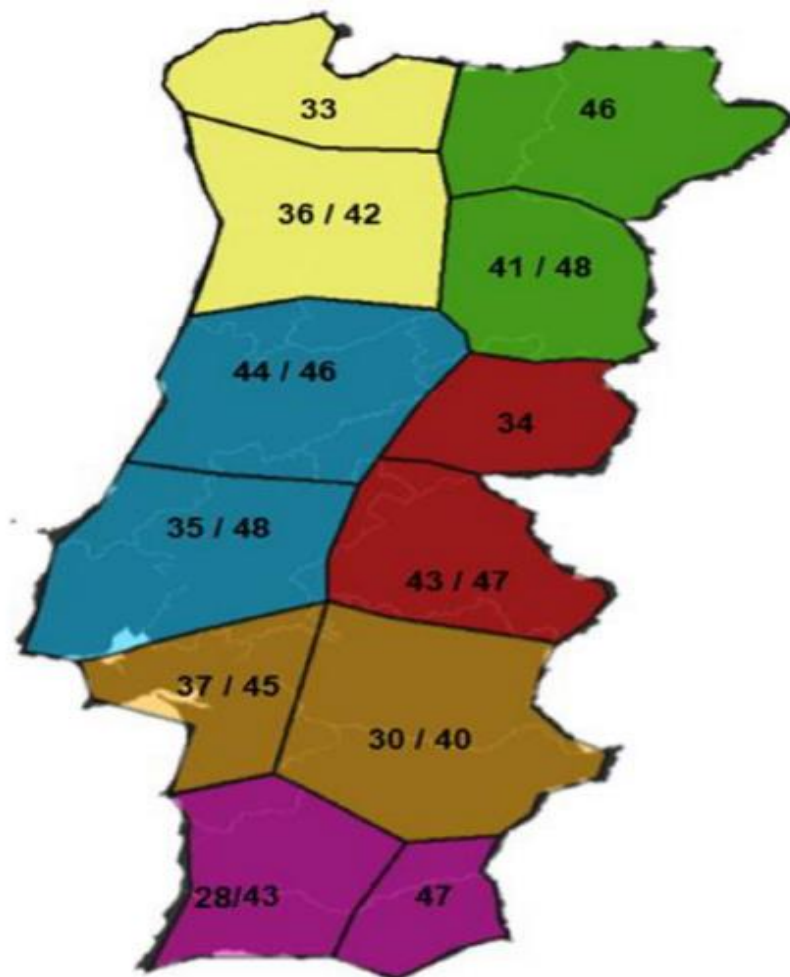
average annual price for providing the service per Mbit/s, in the first ten years from the date of issuance of this title, in accordance with the presented proposal.

- 18.2.** From the entry into force of Law no. 33/2016, the price for the transmission service of the DTT signal provided by MEO, including coding, multiplexing, transport and broadcasting (transmission service), shall, in accordance with the terms of this same Law, respect the principles of transparency, non-discrimination and cost orientation, be based on the space actually occupied by each television programme service and not exceed the price indicated in the variant scenario of the proposal that won the respective public tender.
- 18.3.** The price of the signal transmission service for regional programme services in the Autonomous Regions is proportionally reduced according to the size of the network in the geographic space to which it relates and cannot exceed the values applicable as on the date of entry into force of Law no. 33/2016.
- 18.4.** The prices referred to in the previous paragraphs must be agreed between MEO and the operators holding title to the programme services subject to the capacity reservations indicated in paragraph 17.
- 18.5.** The agreed prices, and any changes to said prices, are to be communicated to ANACOM within a maximum period of 30 days after the respective agreement is signed.
- 18.6.** The price to be charged by MEO for provision of the signal transmission service for each programme service may not exceed the maximum price that, after hearing Autoridade da Concorrência (Competition Authority) and Entidade Reguladora para a Comunicação Social (Media Regulatory Authority), may be set by ANACOM in accordance with the conditions referred to in article 2 and in paragraphs 3 and 4 of article 4 of Law no. 33/2016, fulfilling the criteria required by the EU regulatory framework for the imposition of ex ante regulatory measures.

**18.7.** MEO is required to review the prices charged for the provision of the DTT signal transmission service to television operators whenever ANACOM deems it necessary, as provided for in paragraph 6 of article 4 of Law no. 33/2016.

Lisbon, 31 October 2023

## ANNEX 1



**NOTE:** The points that define the areas associated with the allocations included in the present map are those identified in ANACOM's Determination of 24 October 2013.

## Annex 2

Municipality	% of population with terrestrial coverage
Abrantes	88.01%
Águeda	89.99%
Aguiar da Beira	59.74%
Alandroal	93.79%
Albergaria	82.95%
Albufeira	99.46%
Alcácer do Sal	67.86%
Alcanena	82.46%
Alcobaça	93.46%
Alcochete	100.00%
Alcoutim	19.38%
Alenquer	84.15%
Alfândega da Fé	77.27%
Alijó	73.95%
Aljezur	77.72%
Aljustrel	62.68%
Almada	99.81%
Almeida	59.76%
Almeirim	89.83%
Almodôvar	48.56%
Alpiarça	100.00%
Alter do Chão	94.76%
Alvaiázere	94.37%
Alvito	26.08%
Amadora	100.00%
Amarante	83.24%

<b>Amares</b>	<b>98.81%</b>
<b>Anadia</b>	<b>81.04%</b>
<b>Ansião</b>	<b>84.63%</b>
<b>Arcos de Valdevez</b>	<b>82.05%</b>
<b>Arganil</b>	<b>61.18%</b>
<b>Armamar</b>	<b>93.49%</b>
<b>Arouca</b>	<b>76.51%</b>
<b>Arraiolos</b>	<b>55.90%</b>
<b>Arronches</b>	<b>74.53%</b>
<b>Arruda dos Vinhos</b>	<b>89.77%</b>
<b>Aveiro</b>	<b>99.38%</b>
<b>Avis</b>	<b>73.06%</b>
<b>Azambuja</b>	<b>80.53%</b>
<b>Baião</b>	<b>83.17%</b>
<b>Barcelos</b>	<b>96.65%</b>
<b>Barrancos</b>	<b>84.19%</b>
<b>Barreiro</b>	<b>100.00%</b>
<b>Batalha</b>	<b>92.68%</b>
<b>Beja</b>	<b>94.55%</b>
<b>Belmonte</b>	<b>97.49%</b>
<b>Benavente</b>	<b>97.49%</b>
<b>Bombarral</b>	<b>92.83%</b>
<b>Borba</b>	<b>85.77%</b>
<b>Boticas</b>	<b>83.35%</b>
<b>Braga</b>	<b>98.44%</b>
<b>Bragança</b>	<b>84.16%</b>
<b>Cabeceiras de Basto</b>	<b>86.13%</b>
<b>Cadaval</b>	<b>88.93%</b>

<b>Caldas da Rainha</b>	<b>93.59%</b>
<b>Caminha</b>	<b>83.31%</b>
<b>Campo Maior</b>	<b>92.77%</b>
<b>Cantanhede</b>	<b>91.28%</b>
<b>Carrazeda de Ansiães</b>	<b>80.32%</b>
<b>Carregal do Sal</b>	<b>89.38%</b>
<b>Cartaxo</b>	<b>78.71%</b>
<b>Cascais</b>	<b>100.00%</b>
<b>Castanheira de Pera</b>	<b>83.11%</b>
<b>Castelo Branco</b>	<b>94.73%</b>
<b>Castelo de Paiva</b>	<b>80.83%</b>
<b>Castelo de Vide</b>	<b>82.73%</b>
<b>Castro Daire</b>	<b>38.81%</b>
<b>Castro Marim</b>	<b>67.05%</b>
<b>Castro Verde</b>	<b>87.64%</b>
<b>Celorico da Beira</b>	<b>86.77%</b>
<b>Celorico de Basto</b>	<b>85.88%</b>
<b>Chamusca</b>	<b>67.74%</b>
<b>Chaves</b>	<b>89.18%</b>
<b>Cinfães</b>	<b>77.93%</b>
<b>Coimbra</b>	<b>89.90%</b>
<b>Condeixa-a-Nova</b>	<b>72.67%</b>
<b>Constância</b>	<b>92.56%</b>
<b>Coruche</b>	<b>85.38%</b>
<b>Covilhã</b>	<b>96.07%</b>
<b>Crato</b>	<b>71.21%</b>
<b>Cuba</b>	<b>77.62%</b>
<b>Elvas</b>	<b>96.95%</b>

<b>Entroncamento</b>	<b>100.00%</b>
<b>Espinho</b>	<b>86.40%</b>
<b>Esposende</b>	<b>91.60%</b>
<b>Estarreja</b>	<b>98.29%</b>
<b>Estremoz</b>	<b>85.06%</b>
<b>Évora</b>	<b>96.32%</b>
<b>Fafe</b>	<b>92.36%</b>
<b>Faro</b>	<b>99.89%</b>
<b>Felgueiras</b>	<b>89.50%</b>
<b>Ferreira do Alentejo</b>	<b>74.34%</b>
<b>Ferreira do Zêzere</b>	<b>88.84%</b>
<b>Figueira da Foz</b>	<b>86.91%</b>
<b>Figueira de Castelo Rodrigo</b>	<b>90.57%</b>
<b>Figueiró dos Vinhos</b>	<b>67.34%</b>
<b>Fornos de Algodres</b>	<b>76.32%</b>
<b>Freixo de Espada à Cinta</b>	<b>65.35%</b>
<b>Fronteira</b>	<b>65.09%</b>
<b>Fundão</b>	<b>92.40%</b>
<b>Gavião</b>	<b>61.13%</b>
<b>Góis</b>	<b>27.25%</b>
<b>Golegã</b>	<b>89.24%</b>
<b>Gondomar</b>	<b>99.70%</b>
<b>Gouveia</b>	<b>79.73%</b>
<b>Grândola</b>	<b>65.34%</b>
<b>Guarda</b>	<b>92.21%</b>
<b>Guimarães</b>	<b>98.40%</b>
<b>Idanha-a-Nova</b>	<b>78.90%</b>
<b>Ílhavo</b>	<b>99.28%</b>

<b>Lagoa</b>	<b>94.59%</b>
<b>Lagos</b>	<b>89.34%</b>
<b>Lamego</b>	<b>89.55%</b>
<b>Leiria</b>	<b>90.75%</b>
<b>Lisboa</b>	<b>99.99%</b>
<b>Loulé</b>	<b>95.71%</b>
<b>Loures</b>	<b>93.51%</b>
<b>Lourinhã</b>	<b>87.33%</b>
<b>Lousã</b>	<b>94.91%</b>
<b>Lousada</b>	<b>96.58%</b>
<b>Mação</b>	<b>38.89%</b>
<b>Macedo de Cavaleiros</b>	<b>73.65%</b>
<b>Mafra</b>	<b>94.23%</b>
<b>Maia</b>	<b>99.22%</b>
<b>Mangualde</b>	<b>91.59%</b>
<b>Manteigas</b>	<b>82.05%</b>
<b>Marco de Canaveses</b>	<b>88.23%</b>
<b>Marinha Grande</b>	<b>98.47%</b>
<b>Marvão</b>	<b>55.16%</b>
<b>Matosinhos</b>	<b>98.93%</b>
<b>Mealhada</b>	<b>80.15%</b>
<b>Meda</b>	<b>87.18%</b>
<b>Melgaço</b>	<b>54.01%</b>
<b>Mértola</b>	<b>51.82%</b>
<b>Mesão Frio</b>	<b>95.91%</b>
<b>Mira</b>	<b>57.98%</b>
<b>Miranda do Corvo</b>	<b>50.31%</b>
<b>Miranda do Douro</b>	<b>58.72%</b>

<b>Mirandela</b>	<b>86.51%</b>
<b>Mogadouro</b>	<b>60.37%</b>
<b>Moimenta da Beira</b>	<b>89.53%</b>
<b>Moita</b>	<b>100.00%</b>
<b>Monção</b>	<b>97.63%</b>
<b>Monchique</b>	<b>64.80%</b>
<b>Mondim de Basto</b>	<b>81.11%</b>
<b>Monforte</b>	<b>78.81%</b>
<b>Montalegre</b>	<b>58.87%</b>
<b>Montemor-o-Novo</b>	<b>61.61%</b>
<b>Montemor-o-Velho</b>	<b>97.11%</b>
<b>Montijo</b>	<b>99.36%</b>
<b>Mora</b>	<b>64.20%</b>
<b>Mortágua</b>	<b>83.91%</b>
<b>Moura</b>	<b>59.03%</b>
<b>Mourão</b>	<b>76.59%</b>
<b>Murça</b>	<b>48.84%</b>
<b>Murtosa</b>	<b>98.55%</b>
<b>Nazaré</b>	<b>92.47%</b>
<b>Nelas</b>	<b>91.55%</b>
<b>Nisa</b>	<b>94.12%</b>
<b>Óbidos</b>	<b>96.94%</b>
<b>Odemira</b>	<b>36.54%</b>
<b>Odivelas</b>	<b>99.94%</b>
<b>Oeiras</b>	<b>100.00%</b>
<b>Oleiros</b>	<b>45.02%</b>
<b>Olhão</b>	<b>99.66%</b>
<b>Oliveira de Azeméis</b>	<b>92.41%</b>

<b>Oliveira de Frades</b>	<b>47.33%</b>
<b>Oliveira do Bairro</b>	<b>94.32%</b>
<b>Oliveira do Hospital</b>	<b>79.48%</b>
<b>Ourém</b>	<b>80.66%</b>
<b>Ourique</b>	<b>55.04%</b>
<b>Ovar</b>	<b>91.41%</b>
<b>Paços de Ferreira</b>	<b>96.11%</b>
<b>Palmela</b>	<b>100.00%</b>
<b>Pampilhosa da Serra</b>	<b>64.34%</b>
<b>Paredes</b>	<b>94.91%</b>
<b>Paredes de Coura</b>	<b>94.24%</b>
<b>Pedrógão Grande</b>	<b>51.15%</b>
<b>Penacova</b>	<b>45.57%</b>
<b>Penafiel</b>	<b>93.05%</b>
<b>Penalva do Castelo</b>	<b>89.12%</b>
<b>Penamacor</b>	<b>96.02%</b>
<b>Penedono</b>	<b>91.32%</b>
<b>Penela</b>	<b>70.37%</b>
<b>Peniche</b>	<b>94.85%</b>
<b>Peso da Régua</b>	<b>96.94%</b>
<b>Pinhel</b>	<b>78.42%</b>
<b>Pombal</b>	<b>83.38%</b>
<b>Ponte da Barca</b>	<b>81.89%</b>
<b>Ponte de Lima</b>	<b>94.23%</b>
<b>Ponte de Sor</b>	<b>74.85%</b>
<b>Portalegre</b>	<b>84.50%</b>
<b>Portel</b>	<b>81.23%</b>
<b>Portimão</b>	<b>99.84%</b>

<b>Porto</b>	<b>100.00%</b>
<b>Porto de Mós</b>	<b>83.06%</b>
<b>Póvoa do Lanhoso</b>	<b>96.98%</b>
<b>Póvoa do Varzim</b>	<b>99.20%</b>
<b>Proença-a-Nova</b>	<b>85.34%</b>
<b>Redondo</b>	<b>99.36%</b>
<b>Reguengos de Monsaraz</b>	<b>96.80%</b>
<b>Resende</b>	<b>82.33%</b>
<b>Ribeira de Pena</b>	<b>87.38%</b>
<b>Rio Maior</b>	<b>92.07%</b>
<b>Sabrosa</b>	<b>74.84%</b>
<b>Sabugal</b>	<b>65.53%</b>
<b>Salvaterra de Magos</b>	<b>91.87%</b>
<b>Santa Comba Dão</b>	<b>93.87%</b>
<b>Santa Maria da Feira</b>	<b>92.04%</b>
<b>Santa Marta de Penaguião</b>	<b>91.70%</b>
<b>Santarém</b>	<b>80.85%</b>
<b>Santiago do Cacém</b>	<b>78.50%</b>
<b>Santo Tirso</b>	<b>97.78%</b>
<b>São Brás de Alportel</b>	<b>100.00%</b>
<b>São João da Madeira</b>	<b>100.00%</b>
<b>São João da Pesqueira</b>	<b>82.36%</b>
<b>São Pedro do Sul</b>	<b>76.45%</b>
<b>Sardoal</b>	<b>30.98%</b>
<b>Sátão</b>	<b>80.85%</b>
<b>Seia</b>	<b>62.98%</b>
<b>Seixal</b>	<b>97.74%</b>
<b>Sernancelhe</b>	<b>78.91%</b>

<b>Serpa</b>	<b>83.57%</b>
<b>Sertã</b>	<b>89.02%</b>
<b>Sesimbra</b>	<b>99.29%</b>
<b>Setúbal</b>	<b>97.87%</b>
<b>Sever do Vouga</b>	<b>49.36%</b>
<b>Silves</b>	<b>88.79%</b>
<b>Sines</b>	<b>99.60%</b>
<b>Sintra</b>	<b>98.45%</b>
<b>Sobral de Monte Agraço</b>	<b>74.65%</b>
<b>Soure</b>	<b>87.75%</b>
<b>Sousel</b>	<b>57.48%</b>
<b>Tábua</b>	<b>93.18%</b>
<b>Tabuaço</b>	<b>80.09%</b>
<b>Tarouca</b>	<b>86.98%</b>
<b>Tavira</b>	<b>96.38%</b>
<b>Terras de Bouro</b>	<b>64.82%</b>
<b>Tomar</b>	<b>80.38%</b>
<b>Tondela</b>	<b>92.02%</b>
<b>Torre de Moncorvo</b>	<b>92.72%</b>
<b>Torres Novas</b>	<b>91.74%</b>
<b>Torres Vedras</b>	<b>80.47%</b>
<b>Trancoso</b>	<b>86.82%</b>
<b>Trofa</b>	<b>98.73%</b>
<b>Vagos</b>	<b>87.63%</b>
<b>Vale de Cambra</b>	<b>87.40%</b>
<b>Valença</b>	<b>99.88%</b>
<b>Valongo</b>	<b>96.19%</b>
<b>Valpaços</b>	<b>61.85%</b>

<b>Vendas Novas</b>	<b>74.20%</b>
<b>Viana do Alentejo</b>	<b>75.86%</b>
<b>Viana do Castelo</b>	<b>94.23%</b>
<b>Vidigueira</b>	<b>94.20%</b>
<b>Vieira do Minho</b>	<b>84.80%</b>
<b>Vila de Rei</b>	<b>70.17%</b>
<b>Vila do Bispo</b>	<b>57.73%</b>
<b>Vila do Conde</b>	<b>98.04%</b>
<b>Vila Flor</b>	<b>65.80%</b>
<b>Vila Franca de Xira</b>	<b>89.41%</b>
<b>Vila Nova da Barquinha</b>	<b>77.41%</b>
<b>Vila Nova de Cerveira</b>	<b>99.15%</b>
<b>Vila Nova de Famalicão</b>	<b>95.97%</b>
<b>Vila Nova de Foz Côa</b>	<b>89.37%</b>
<b>Vila Nova de Gaia</b>	<b>99.14%</b>
<b>Vila Nova de Paiva</b>	<b>52.03%</b>
<b>Vila Nova de Poiares</b>	<b>87.43%</b>
<b>Vila Pouca de Aguiar</b>	<b>82.22%</b>
<b>Vila Real</b>	<b>90.77%</b>
<b>Vila Real de Santo António</b>	<b>89.33%</b>
<b>Vila Velha de Ródão</b>	<b>83.32%</b>
<b>Vila Verde</b>	<b>90.46%</b>
<b>Vila Viçosa</b>	<b>100.00%</b>
<b>Vimioso</b>	<b>42.09%</b>
<b>Vinhais</b>	<b>60.52%</b>
<b>Viseu</b>	<b>93.65%</b>
<b>Vizela</b>	<b>99.94%</b>
<b>Vouzela</b>	<b>56.87%</b>





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**ANACOM** AUTORIDADE  
NACIONAL  
DE COMUNICAÇÕES

October 2023