GENERAL ORDER

Decision of the President's Chamber of the Bundesnetzagentur (BNetzA / Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railways) on the proceedings for the award of frequencies in the 3400 to 3600 MHz band for Broadband Wireless Access (BWA); Decision issued under section 55 (3) and (9), section 61 (1), section 132 (1) and (3) TKG (Telecommunications Act).

- File reference: BK 1- 07/ 009

The Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen (BNetzA / Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railways) hereby issues the following decision through the President's Chamber under section 55 (3) sentence 1 and (9), section 61 (1), Section 134 (1) 1st alternative in conjunction with section 132 (1) and (3) TKG of 22 June 2004 (Federal Law Gazette I page 1190) on the award of frequencies in the 3400 to 3600 MHz band for broadband wireless access:

1. Frequency spectrum

   Frequency spectrum in the 3400 to 3600 MHz band is available for broadband wireless access (BWA). The spectrum available in the 3452 MHz – 3494 MHz band and in the 3552 – 3594 MHz band is to be used for BWA.

2. Frequency assignment areas

   Thirty regions will be created. The individual regions will be numbered consecutively from 1a to 27a (cf. overview in annex 1).

3. Available spectrum, section 55 (5) para. 2 TKG

   The following spectrum is available in the bands 3410 to 3494 MHz (lower band) and 3510 to 3594 MHz (upper band) in the individual regions (cf. annex 2):

   In regions 1a to 13, 15 to 24b and in regions 26 and 27a:
   - from package D the paired 7 MHz channels 10, 11 and 12
   - In region 14a:
     - from package C the paired 7 MHz channels 7, 8, and 9.

   In regions 25 (Upper Palatinate) and 28 (Lower Bavaria) no spectrum can currently be assigned from the band 3400 to 3600 MHz (see annex 1 for all 30 regions covering the entire territory of the Federal Republic).

   The basic spectrum package in a region is 2 x 21 MHz (paired). Assignees in the band 3400 – 3600 MHz for BWA may also apply for 2 x 7 MHz (paired), 2 x 14 MHz (paired) or 2 x 21 MHz (paired) as an extension.

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1 In case of divergent interpretation of the German and English text, the German text shall prevail.
Frequenzpaket A: 21 MHz gepaart, 3410 MHz - 3431 MHz / 3510 MHz - 3531 MHz
Frequenzpaket B: 21 MHz gepaart, 3431 MHz - 3452 MHz / 3531 MHz - 3552 MHz
Frequenzpaket C: 21 MHz gepaart, 3452 MHz - 3473 MHz / 3552 MHz - 3573 MHz
Frequenzpaket D: 21 MHz gepaart, 3473 MHz - 3494 MHz / 3573 MHz - 3594 MHz

On account of existing frequency usage rights for Wireless Local Loop, the frequencies are not available in the whole of every region, or not to the full extent (for details see annex 2).

External guard channels will not be provided between the spectrum packages. Assignments will be made subject to the emissions complying with the block edge mask in ECC Rec 04-05 (cf 5.2).

4. Two stages of award
Spectrum is assigned for BWA in two stages. First, applications can be made for assignment of frequencies under section 55 (3) sentence 1 TKG. If demand exceeds supply in any region, frequency assignment will be preceded by award proceedings under section 55 (9) in conjunction with section 61 (1) TKG.

5. Frequency usage conditions, including the degree of coverage with the frequency usage
5.1 Frequency spectrum available in the band 3400 to 3600 MHz is for Broadband Wireless Access (BWA) use.

Use will not be restricted to particular technologies. Subject to the conditions of use, all the available technologies can be deployed.
5.2 The frequency assignments are subject to the following conditions of use:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplex mode, duplex spacing</td>
<td>FDD, 100 MHz or TDD</td>
</tr>
<tr>
<td>Channel spacing</td>
<td>Multiples of 0.25 MHz as per CEPT/ERC/REC 14-03</td>
</tr>
<tr>
<td>Block edge mask</td>
<td>as per CEPT/ECC/REC/(04)05 – 2006</td>
</tr>
<tr>
<td>Frequency tolerance</td>
<td>± 20 ppm</td>
</tr>
<tr>
<td>Max permissible spurious emissions</td>
<td>ZST: -50 dBm, TST: -40 dBm at the antenna port</td>
</tr>
<tr>
<td>Position for FDD operation</td>
<td>Transmitting frequencies: ZST: upper band, TST: lower band</td>
</tr>
</tbody>
</table>

¹ Other block edge masks are permitted, as long as there is agreement on this among all the assignees concerned. The Agency must be informed accordingly in writing.

5.3 The frequencies must be used in such a way that a spectral power flux density of -122 dBW/(MHz m²) is not exceeded at the border of the Federal Republic of Germany, as long as these are not preferential frequencies. When preferential frequencies are used this figure only becomes relevant at a distance of 15 km beyond the border (for details see annex 2).

At the boundaries of the regions themselves, a spectral power flux density of -122 dBW/(MHz m²) may not be exceeded at a distance of 7.5 km beyond the regional boundary.

Assignees in adjacent regions with the same spectrum package may diverge from these determinations, provided they have mutually agreed to this. The Agency must be informed accordingly in writing.

5.4 The frequency assignments are valid until 31 December 2021.

5.5 The following condition is attached to an assignment: within a region, service must be provided to a minimum number of municipalities in a particular period, as shown in the table below (15% by 31 December 2011 and 25% by 31 December 2013).
<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td>Nordfriesland / Dithmarschen</td>
<td>1a</td>
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<td>63</td>
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<tr>
<td>Holstein-Ost</td>
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<tr>
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<td>-</td>
<td>-</td>
<td>29</td>
<td>49</td>
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<tr>
<td>Niedersachsen-Nord</td>
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<td>-</td>
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<td>92</td>
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<tr>
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<td>-</td>
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<tr>
<td>Vorpommern</td>
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<td>-</td>
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<td>74</td>
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<tr>
<td>Niederrhein</td>
<td>8a</td>
<td>40</td>
<td>-</td>
<td>-</td>
<td>6</td>
<td>10</td>
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<tr>
<td>Köln/Bonn</td>
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<td>-</td>
<td>14</td>
<td>24</td>
</tr>
<tr>
<td>Detmold / Arnsberg</td>
<td>9a</td>
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<td>-</td>
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<td>23</td>
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<tr>
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<td>-</td>
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<td>25</td>
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<tr>
<td>Sachsen-Anhalt</td>
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<td>-</td>
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<td>Brandenburg-Nord</td>
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<tr>
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<tr>
<td>Trier / Koblenz</td>
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<tr>
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<td>107</td>
<td>179</td>
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<td>-</td>
</tr>
<tr>
<td>Rhein / Main</td>
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<td>319</td>
<td>-</td>
<td>-</td>
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<td>79</td>
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<tr>
<td>Kassel / Gießen</td>
<td>16</td>
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<tr>
<td>Thüringen</td>
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<td>-</td>
<td>-</td>
<td>132</td>
<td>221</td>
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<tr>
<td>Halle / Leipzig</td>
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<td>-</td>
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<tr>
<td>Dresden / Lausitz</td>
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<td>-</td>
<td>-</td>
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<td>74</td>
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<tr>
<td>Chemnitz</td>
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<td>293</td>
<td>-</td>
<td>-</td>
<td>43</td>
<td>73</td>
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<tr>
<td>Stuttgart / Karlsruhe</td>
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<td>-</td>
<td>-</td>
<td>63</td>
<td>105</td>
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<tr>
<td>Freiburg</td>
<td>22a</td>
<td>268</td>
<td>-</td>
<td>-</td>
<td>40</td>
<td>67</td>
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<tr>
<td>Tübingen</td>
<td>23a</td>
<td>249</td>
<td>-</td>
<td>-</td>
<td>37</td>
<td>62</td>
</tr>
<tr>
<td>Ober- / Unterfranken</td>
<td>24a</td>
<td>369</td>
<td>-</td>
<td>-</td>
<td>55</td>
<td>92</td>
</tr>
<tr>
<td>Mittelfranken</td>
<td>24b</td>
<td>147</td>
<td>-</td>
<td>-</td>
<td>22</td>
<td>36</td>
</tr>
<tr>
<td>Schwaben</td>
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<td>408</td>
<td>-</td>
<td>-</td>
<td>61</td>
<td>102</td>
</tr>
<tr>
<td>Freising / Erding / Ebersberg</td>
<td>27a</td>
<td>71</td>
<td>-</td>
<td>-</td>
<td>10</td>
<td>17</td>
</tr>
</tbody>
</table>


To meet the coverage requirement, at least one central station for subscriber access must be brought into service in municipalities with a surface area of up to 50 km². At least two central stations for subscriber access must be brought into service in municipalities with a surface area of more than 50 km² and more than 3000 inhabitants.

For municipalities with a surface area not exceeding 30 km² it is sufficient if the distance from the municipal boundary to the nearest operational central station for subscriber access is less than 3 km.

Coverage provided by third parties using the spectrum assigned to the assignee is attributed to the assignee.

Assignees must report to the Agency on the progress of rollout on 31 December of every year, from the time of assignment.

6. **How to apply**

6.1 Applications for frequency assignment may be made as from publication of this Decision in the BNetzA’s Official Gazette (Section 226, Fehrbelliner Platz 3, 10707 Berlin, Germany, e-mail: 226.BWA@bnetza.de). Receipt of assignable frequencies will be
If sufficient frequencies are available in a particular region, frequencies will be assigned when the requirements are met, taking the frequency usage conditions set out in 5.2 und 5.3 as a basis.

Applications should be submitted to the BNetzA in writing, in German, in quintuplicate, and electronically as well.

6.2 Information to be provided in the application
To be stated in the application is the area (cf annex 1) where the frequencies are to be used, section 55 (4) sentence 1 TKG. Applicants may limit their application to a particular region. Applications for more than one region, up to and including all 30 regions in which spectrum is available, are permitted.

Applicants without any usage rights for broadband wireless access in the particular region should apply for the whole of spectrum package C or D (altogether 2 x 21 MHz (paired), cf section 3).

In derogation of this, assignees can also apply for 2 x 7 MHz (paired), 2 x 14 MHz (paired) or 2 x 21 MHz (paired) in the band 3400 – 3600 MHz for broadband wireless access as an extension.

The subjective requirements for frequency assignment as referred to in section 55 (4) TKG (reliability, efficiency and specialist knowledge) must also be set out and demonstrated. Ownership structure – indirect as well – in the applicant's company must also be stated in the application.

Applications are to be accompanied by a frequency usage concept providing information on efficient and interference-free use of frequencies pursuant to section 55 (5)sentence 1 para. 4 TKG.

The information to be included in the application is given in annex 3.

7. Award procedure
7.1 If, in any region, demand exceeds supply, frequency assignment will be preceded by award proceedings in accordance with section 55 (9) in conjunction with section 61 (1) TKG.

7.2 Frequencies are awarded in accordance with section 55 (9), sentence 1, 2nd alternative and section 61 (1) and (2) TKG by way of an auction in accordance with section 61 (5) TKG.

7.3 If the situation referred to in 7.1 is given, decisions about the matters referred to in section 61 (4) sentence 2 paras. 1 to 4 TKG and the decision about the determinations and rules for conducting the auction will be made known in accordance with section 55 (9), section 61 (1) and (2) and section 5 TKG in separate proceedings following a public hearing.

Reasons
A) Starting situation
The BNetzA held an auction procedure for the assignment of frequencies for broadband wireless access (BWA) in the frequency band 3400 to 3600 MHz back in 2006. Four frequency packages of 2 x 21 MHz (paired) in a total of 28 regions were auctioned in accordance with a decision by the President's Chamber of the BNetzA on 26 September 2006.
In order to facilitate a large number of different business models, the assignment of frequencies and determinations in relation to frequency usage regulations was organised as transparently as possible. Even though the assignment of frequencies was still limited to the fixed satellite service, the BNetzA offered the prospect of frequencies also being used for mobile services. The ITU-R - World Radiocommunication Conference 2007 has already adopted a primary mobile communications assignment for the frequency band 3400 to 3600 MHz. There are plans to expand the purpose of use of frequencies to mobile applications as soon as the planning regulations Frequency Band Allocation Plan Ordinance (Frequenzbereichszuweisungsplanverordnung) and the Frequency Allocation Plan (Frequenznutzungsplan) have been amended following implementation of the results of the ITU-R - World Radiocommunication Conference 2007 at national level.

This move will take the decision by the European Commission of 21 May 2008 “To harmonise frequency band 3400-3800 MHz for terrestrial systems capable of providing electronic communications services in the Community” (K(2008)1873 final) into account.

It is a strategic goal of the BNetzA to make frequency regulation more flexible, the implementation of which is to be consistently pressed ahead with (cf. “Strategic Aspects of Spectrum Regulation” of 9 June 2004, Notification 199/2004, Official Gazette 12/2004, p. 629). Transparent assignment of frequencies is part of the overall concept of achieving more flexible frequency regulation. The aim is to reduce access barriers to frequencies and to promote innovation and more effective competition in order to offer consumers the greatest possible selection of services at competitive prices. Against this backdrop, alternative wired access technologies like the ones used with BWA are capable of making a substantial contribution to achieving better broadband penetration in Germany.

The auction procedure was completed on 15 December 2006. However, frequency package D was not assigned at the auction in 24 regions (region 1-13, 15-24 and 26), and frequency package C was assigned in region 14. These frequency packages are hence still available in the above-mentioned regions. Due to the existing WLL assignments, however, the frequencies are not available in the whole of every region or not to the full extent.

In the meantime, WLL spectrum assignments have been revoked in the rural counties of Freising, Erding and Ebersberg. This means an additional 2 x 14 MHz and the guard channel of 2 x 7 MHz required for WLL are now available in these rural counties, with the spectrum available now totalling at 2 x 21 MHz (paired).

On 30 August 2007, the BNetzA issued a general award of additional spectrum in the frequency band 5755 to 5875 MHz for commercial public, broadband, fixed distribution systems; broadband fixed wireless access (BFWA) (Decision 47/2007; Official Gazette 17/2007).

The BNetzA plans to assign the remaining spectrum in the frequency band 3400 to 3600 MHz in accordance with the determination set forth in the Decision by the President’s Chamber of 26 September 2006. To this end, the public was given the opportunity to submit comments by 21 May 2007 (Notification no.103/2007, Official Gazette 4/2007). This publication also announced the basic availability of further spectrum in the frequency band 3600 – 3800 MHz for BWA. Eight parties submitted comments. In addition to requesting a swift assignment of this spectrum, these comments also included notification of demand and expressions of interest.

On the basis of the Decision of 26 September 2006, the President’s Chamber drew up the draft of a decision on the procedure to assign frequencies for broadband wireless network access in the frequency band 3400 to 3600 MHz and published it both in the Official Gazette of the BNetzA on 5 March 2008 (Notification no. 202/2008, Official Gazette 4/2008) and on the BNetzA’s website. The parties concerned were hence given the opportunity of a hearing pursuant to section 55 (9), section 61 (1) TKG. All parties concerned had to submit their comments by 16 April 2008. Those who submitted comments on the draft decision by the President’s Chamber included the operators of radio networks for broadband wireless access, mobile network operators, satellite communication service providers and system manufacturers.
The comments received were evaluated and were taken into account within the framework of the decision.

The frequencies available in the band 3400 to 3600 MHz are once again available for assignment in two stages of award. The frequencies will be assigned insofar as possible, subject to application. Only in the event that more applications are filed in one or several regions than the number of frequencies available, will the allocation be preceded by an auction pursuant to section 61 TKG. The two stages of award correspond to efficient administrative action as it implements a swift procedure in accordance with section 10 sentence 1 Verwaltungsverfahrensgesetz (Administrative Procedures Act).

B) Specific substantiation

The Decision by the President’s Chamber is based specifically on the following considerations:

Re item 1. Frequency spectrum

The following was argued on this point:

Two parties submitting comments hold the view that because BWA frequencies were assigned to 3 nationwide licensees and 2 regional licensees in December 2006, there is no further demand for frequencies for this technology. They think the frequency band from 3.4 and 3.8 GHz should be reserved for future broadband system technologies such as LTE-Advanced and should not be assigned until this technology becomes available.

In one of the views submitted, it stated that in order to protect satellite applications in the band 3600 to 3800 MHz for BWA transmission, a maximum interference power flux density of 154.5 dBW /(m² * 4kHz) should be allowed. This value was specified at the WRC 2007 for IMT services (International Mobile Telecommunications) and should also be defined as the maximum “national” interference level within Germany.

The Chamber rules as follows on this point:

a) Frequency band 3400 to 3600 MHz

In accordance with the Frequency Allocation Plan for fixed satellite service, the frequency band 3400 to 3600 MHz is available for broadband wireless access in accordance with the Frequency Usage Plan.

The main goal of implementing broadband wireless access (BWA) is to provide subscribers with wireless connections. However, this is not intended to rule out the possibility of other applications such as infrastructure connections being implemented with these frequencies. This description of the purpose of usage of BWA also corresponds to the determinations at international level (cf. CEPT/ECC/DEC/(07)02 on availability of frequency bands between 3400-3800 MHz for the harmonised implementation of Broadband Wireless Access Systems).

The current Frequency Usage Plan only allows frequencies to be used for fixed satellite services in the relevant frequency band meaning that the use of frequencies is currently limited to these services. Nonetheless, it is already foreseeable at this point in time that developments in this area are moving in the direction of portal and mobile applications in future and that the market for broadband wireless access is expanding accordingly. The ITU-R - World Radio Conference 2007 issued a primary mobile radio allocation for frequency band 3400 – 3600 MHz. There are plans to expand the purpose of use of frequencies to mobile applications as soon as the planning regulations have been adapted by implementing the results achieved at the ITU-R - World Radio Conference 2007 at national level. To this end, the decision adopted by the European Commission “To harmonise frequency band 3400-3800 MHz for terrestrial systems capable of providing electronic communications services in the Community” was taken into account.
Decision 95/2005 (published in the Official Gazette of the BNetzA of 21 December 2005) created the possibility to file applications for the registration and assignment of frequencies for broadband wireless access. A total of 1,221 applications were submitted by 102 applicants. As the applications for assignment greatly exceeded the frequency capacity available in the regions, frequencies were assigned in accordance with the Decision by the President’s Chamber of the BNetzA of 26 September 2006 by way of auction.

At the hearing held on 21 February 2007 (Notification no.103/2007, Official Gazette 4/2007), the eight parties submitting comments demanded a swift assignment of this spectrum. The comments submitted also included notification of demand and expressions of interest. Four of the BWA assignees had indicated that they require additional spectrum in order to operate the BWA network.

Where the parties submitting comments requested that the frequency band be reserved for future broadband system technology such as LTE-Advanced and that the assignment of the frequency band be deferred until this system is available, the Chamber points out that pursuant to Section 1 TKG, the BNetzA is obliged to observe the principle of technology neutrality. This means assignees are free to choose their technology provided they observe the conditions of use. Against this backdrop, it is not possible to reserve frequencies for the use of certain technologies.

In all other respects, the operative provision was amended in editorial terms and the specific frequency bands were listed individually in order to rule out any misunderstandings.

The operative provision will be phrased as follows in accordance with item 1 as dealt with at the hearing:

Frequencies from the band 3400 to 3600 MHz are available for broadband wireless access (BWA). The available spectrum in the band between 3452 MHz – 3494 MHz and 3552 MHz – 3594 MHz is to be made available for BWA.

b) Frequency band 3600 to 3800 MHz

The frequencies of the band 3600 to 3800 MHz are used by wireless distribution systems. The use of these frequencies in certain areas means interference-free BWA operation cannot be guaranteed or that the frequencies in these areas are not available for BWA use in order to protect wireless distribution systems for BWA usage. Although the aim is to transfer frequencies of wireless distribution systems, it will not be possible to do so in the short term due to the importance of the transmission paths.

The frequency band 3600 to 3800 MHz is also being used by a larger number of earth stations of the fixed satellite service via satellite and directional radio equipment at present. In order to safeguard the protection of earth stations, BWA usage is limited or not possible at all in vast parts of the Federal Republic of Germany. Frequency assignment for BWA will therefore always be subject to examination of the individual location requirements. The assignment conditions will be published in a special decision.

The following reasons are authoritative for the above-mentioned restrictions:

The satellite systems operated via satellite within the framework of the fixed satellite service are used to supply points or areas of the earth’s surface with telecommunications. In Germany, they are used, inter alia, for international telecommunications connections when large distances need to be covered and terrestrial paths do not lead to the target point/target area or do not offer the necessary bandwidth. As such, satellites are used as relay stations between the earth stations.

For the fixed satellite service, the three main frequency bands used are those referred to as C-Band, Ku-Band and Ka-Band. The pertinent frequency bands are listed in the following table.
In Europe, the Ku-Band is mainly used. Due to the high rain attenuation in the Ku-band and Ka-band, the C-band is the only band used for international telecommunications connections in countries of the tropical zone (Asia, Africa, South America and Central America). In the C-band, rain attenuation is relatively low. This explains why this is the only frequency band in which reliable satellite connections can be established in the above-mentioned regions. However, as the footprints (global beams) of the satellites are very big, the signal level at the earth stations’ receiver tends to be very weak.

Furthermore, the frequencies of the C-band are used in many satellites for satellite tracking (TT&C - telemetry and telecommand).

All of the larger earth station sites consist of several antennas that are directed towards various satellites. In order to meet the operational requirements, the antennas need to be directed towards all visible satellites and be able to use frequencies from the entire C-band.

In the past, coordination with the applications of fixed satellite services was implemented for the earth station currently operated in the frequency band. The coordinated earth stations therefore need to be protected from interference from stations whose frequencies were assigned at a later date.

For the sake of completeness, it is pointed out here that pure satellite receiver systems are also operated in this frequency band. However, there are no figures available on the actual number as pure receiving installations do not require the assignment of frequencies. As there has been no coordination for pure receivers, their protection cannot be guaranteed either. This primarily involves the reception of foreign TV programmes.

A number of compatibility tests were carried out within the framework of the ITU and CEPT on the introduction of BWA, WiMAX und IMT-advanced. The BNetzA’s compatibility calculations for the individual earth station sites are based on the ECC Report 100 (Compatibility Studies in the Band 3400 - 3800 MHz between Broadband Wireless Access (BWA) Systems and other Services) and ITU-R Recommendation P 452.

As the satellite signals received by the earth stations are very weak owing to the power limiter in the satellite, the large global beams in the C-Band and the large distance between the satellites and the earth stations, the receiver needs to be oriented sensitively. Terrestrial transmitters that are much closer to the earth station proportionately speaking, generate much higher output power at the earth station’s receiver. Furthermore, sector antennas are used for BWA that are intended to safeguard nationwide coverage.

There are relatively large mitigation distances for co-channel sharing that can be attributed to the sensitive receivers at the earth station whose calculations are based on the values of time at which interference is likely to occur and on the distribution conditions in the frequency band. The topography around the earth station was taken into account when the calculations were made.

The mitigation distances could only be reduced if concrete BWA sites were coordinated with the relevant earth station in each individual case. This means the morphology, for instance, could also be taken into account.
In the case of BWA and earth stations operating in adjacent channels, mitigation zones are also needed around the earth stations. ECC-Report 100 and other documents, e.g. ITU-R - Studies Commissions (SG) 4 and 8 contain relevant calculations on how to determine the mitigation distance. Depending on which parameters the calculations are based on, mitigation distances may be as large as 10 km.

In some of Germany’s neighbouring countries, earth stations are also operated in frequency band 3600 to 3800 MHz. These earth stations were coordinated as binding at international level in accordance with the Radio Regulations (Vollzugsordnung für den Funkdienst) and therefore need to be protected from interference.

The international coordination of terrestrial transmitters with earth stations is described in annex 7 to the Radio Regulations. The coordination distances calculated are typically a few hundred kilometres in respect of terrestrial wave propagation; with maritime wave propagation coordination distances of up to 900 km may be needed.

The mitigation distances actually required may be smaller, but they must be coordinated with the relevant neighbouring country. The relevant talks have not yet been brought to a successful conclusion with the neighbouring countries.

It must be ensured for both German and foreign earth stations in any case that no interference is caused. As things stand now, BWA frequencies are either not available, or have limited availability, in the following regions:

- North of the line Berlin/Magdeburg/Hanover/Emsland,
- In Western North Rhine-Westphalia (Ruhr area),
- in Rhineland-Palatinate,
- in Saarland,
- in large parts of Hesse,
- in North and West Baden-Württemberg,
- in large parts of Bavaria and
- in the region of Chemnitz

In order to protect the earth stations of the fixed satellite service in frequency band 3600 to 3800 MHz, the BNetzA will determine mitigation zones in which BWA usage will be either unavailable or available to a limited extent. As indicated above, the BNetzA has defined the mitigation zones on the basis of the ECC-Report 100 (Compatibility Studies in the Band 3400 - 3800 MHz between Broadband Wireless Access (BWA) Systems and other Services) and on ITU-R - Recommendation P452. It is therefore envisaged that the assignment of frequencies in the band 3600 to 3800 MHz will be regulated in a separate procedure in which mitigation entitlements can also be taken into account.

Assignment of these frequencies on a site-related basis following coordination subject to application is under consideration because of the above-mentioned limitations. The BNetzA also sees usage possibilities specifically for local and smaller regional business models.

**Re item 2 Frequency assignment areas**

The following was argued on this point:

Some parties submitting comments hold the view that the envisaged 28 assignment regions are too big in geographical terms. They think that companies pursuing business models that are
oriented to regional or local markets would have difficulty implementing them because the regions are too large. They claim the use of BWA to provide service to rural areas and the use of BWA in conurbations (cities) require oppositional business models, as BWA in conurbations with a high customer density is certainly not capable of being used as a mass medium for providing service to residential customers. They say it is therefore not meaningful to create large frequency assignment areas that mix urban and rural areas.

**The Chamber rules as follows on this point:**

Thirty regions will be created. The individual regions will be numbered consecutively from 1a to 27a (cf. overview in annex 1). The size of the regions takes the limited availability of the frequencies based on existing frequency usage rights into account.

In the Decision by the President’s Chamber of 26 September 2006 (Decision 42/2006, Official Gazette 20/2006) 28 regions were originally created for which the available frequencies could be assigned. These 28 regions were created taking the demographic distribution, socio-geographical and frequency regulatory aspects into account. In order to ensure consistent conditions were created, most of these regions were taken over for the assignment of frequencies that were still available.

The delimitation of regions is oriented to the political boundaries of the rural counties and administrative districts. When defining the regions, endeavours were also made to ensure that connected economic regions and conurbations were not split up, if at all possible. This means that the delimitation of regions does not necessarily follow the political boundaries of the individual Federal Länder or of the administrative districts.

When creating the regions, the Chamber had to weigh up the frequency regulatory aspect of efficient frequency usage against the demand for the creation of as many small regions as possible. Against this backdrop, the creation of 28 regions in the 2006 award decision represented a compromise between the most efficient nationwide frequency assignment and local business models (cf. Decision no. 42/2006, Official Gazette 20/2006, p. 3089).

Bearing aspects of frequency efficiency in mind, the size of the region should not fall short of a certain minimum regional size. This is the only way it can be ensured that the same frequencies can be used in each region without requiring disproportionate coordination effort in each individual case and without granting geographical mitigation distances (co-channel sharing in adjacent areas).

It was not possible to comply with the request made by some parties submitting comments to reduce the size of the assignment regions to the level of rural counties and towns not belonging to a county or even to individual locations. Any such reduction of assignment regions would lead to usage ranges that are no longer compatible with the frequencies assigned being used efficiently – assuming the principle of co-channel sharing is observed. If rural counties were defined as coverage areas, usage ranges of less than 500 m are all that could be achieved. This means the ranges would be not too far removed from ranges that can be achieved with generally assigned frequencies. This would hamper coordination with the users in adjacent counties aimed at reaching agreement on usage parameters that facilitate more efficient use of frequencies in coverage areas in rural counties.

Nonetheless, the Chamber has to take the reduced availability of assignable frequencies into account. Due to existing frequency usage rights for Wireless Local Loop, the BWA frequencies available for assignment are not fully available in all regions. This has led to the definition of smaller assignment regions. In some cases, the regions defined in the award Decision 2006 have actually been actually divided with WLL assignments because of rural counties, resulting in the definition of two separate assignment regions. The assignment regions indicated in annexes 1 and 2 reflect the rural counties and urban counties in which mainly 21 MHz (paired), but no less than 7 MHz (paired) is available for BWA.
In the meantime, WLL spectrum assignments have been revoked in the rural counties of Freising, Erding and Ebersberg. This means there is additional spectrum of 2 x 21 MHz (paired) available in these rural counties that will be combined into Region 27a. This may result in additional coordination effort owing to the geographical location and size of the region. As the frequencies are available in this region, they must be included in the proceedings which means that it is also appropriate in substantive terms to diverge from the minimum size of Region 27a originally specified.

The regions are displayed in an overview in annex 1. Assignment regions that have been amended since award proceedings 2006 can be identified by the addition of the letter a or b to the assignment region number.

The operative provision is amended as follows due to the new size of the regions contrary to item 2 dealt with at the hearing:

30 regions have been created. The individual regions are numbered 1a to 27a (cf. Overview, annex 1).

Re item 3 Available frequencies:

The Chamber rules as follows on this point:

The following assignment for BWA was issued by virtue of the Decision by the President’s Chamber of the Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen on the arrangement of and choice of award proceedings for the award of spectrum in the 3.5 GHz band for Broadband Wireless Access (BWA) and the determinations and rules for conduct of the proceedings of 26 September 2006 (Decision 42/2006, Official Gazette 42/2006):

<table>
<thead>
<tr>
<th>Assignee</th>
<th>Region</th>
<th>Frequency block</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clearwire Germany GmbH</td>
<td>1 - 28</td>
<td>A</td>
</tr>
<tr>
<td>Inquam Broadband GmbH</td>
<td>1 - 28</td>
<td>B</td>
</tr>
<tr>
<td>Deutsche Breitband Dienste GmbH</td>
<td>1 - 13</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>14</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>15 - 28</td>
<td>C</td>
</tr>
<tr>
<td>Televersa Online GmbH</td>
<td>25 / 28</td>
<td>D</td>
</tr>
<tr>
<td>MGM Productions Group S.R.L.</td>
<td>27</td>
<td>D</td>
</tr>
</tbody>
</table>

The frequencies of block D in regions 1 to 13, 15 to 24 and 26 and the frequencies of block C in region 14 (region designation in accordance with assignment Decision 2006 Decision 42/2006, Official Gazette 20/2006) therefore continue to be available for further assignments. The frequencies are not available in full in the majority of regions owing to existing frequency usage rights in the wireless local loop. Frequency block D in region 27a is available for BWA usage owing to the revocation of WLL spectrum assignments for the rural counties of Freising, Erding and Ebersberg.

In principle, the basic package of frequencies in a region is 2 x 21 MHz (paired). The frequency usage rights are assigned in regions of substantial size. In order to facilitate the provision of service for these larger areas using a cellular network offering relevant data rates to the individual subscribers, the BNetzA deems it necessary to assign 2 x 21 MHz (paired). This frequency package corresponds to the framework recommended for a minimum assignment in
ECC Recommendation (04)05 in annex 1. Notwithstanding this, existing frequency assignees can also apply for 2 x 7 MHz (paired), 2 x 14 MHz (paired) or 2 x 21 MHz (paired) for broadband wireless access in the band 3400 to 3600 MHz as an extension. The BNetzA is basically adhering to the comments made in the Decision by the President’s Chamber of 26 September 2006 on the issue of the basic spectrum package. However, it must be taken into account in this Decision that the existing assignees already have the minimum spectrum of 2 x 21 MHz (paired) which facilitates coverage of larger areas using a cellular network, offering the relevant data rates for the individual subscribers. By providing additional spectrum in the band 3400 to 3600 MHz, the existing assignees will be able to increase the transmission capacities.

The operative provision of the decision had to be amended in editorial terms and implements the amended wording in relation to frequency assignment regions (item 2 of this Decision) in which 30 regions were created. The concrete specification of the municipalities requiring coverage was adapted accordingly to the size of the regions.

The operative provision has been amended in editorial terms and has been rephrased in accordance with item 3 that was dealt with at the hearing:

In frequency bands 3410 to 3494 MHz (lower band) and 3510 to 3594 MHz (upper band), the following frequencies are available in the individual regions (cf. annex 2):

In regions 1a to 13, 15 to 24b and in regions 26 and 27a:
- from frequency package D the paired 7-MHz channels 10, 11 and 12

In region 14a:
- from frequency package C the paired 7-MHz channels 7, 8 and 9.

In regions 25 (Upper Palatinate) and 28 (Lower Bavaria) no spectrum can currently be assigned from the band 3400 to 3600 MHz (see annex 1 for all 30 regions covering the entire territory of the Federal Republic).

The basic spectrum package in a region is 2 x 21 MHz (paired). Assignees in the band 3400 – 3600 MHz for BWA may also apply for 2 x 7 MHz (paired), 2 x 14 MHz (paired) or 2 x 21 MHz (paired) as an extension).

On account of existing frequency usage rights for Wireless Local Loop, the frequencies are not available in the whole of every region, or not to the full extent (for details see annex 2).
External guard channels will not be provided between the spectrum packages. Assignments will be made subject to the emissions complying with the block edge mask in ECC Rec 04-05 (cf 5.2).

Re item 4 Two stages of award

The following was argued on this point:

Some parties submitting comments welcomed the implementation of two stages of award. This means frequencies would be made available on the market swiftly. The parties concerned think this is in the interest of fastest possible market development. One party submitting comments explicitly expressed an interest in the available spectrum and has indicated his intention of filing an application.

Other parties submitting comments are asking for frequencies to be assigned on a first come first served basis. They say regional and local network operators should be given the opportunity to receive frequencies on a kind of trial basis and should be granted fixed frequency assignments if they can prove live operations after a certain period of time has elapsed.

The Chamber rules as follows on this point:

The procedure for assigning frequencies in the band 3400 to 3600 MHz for broadband wireless access is to be implemented in two stages of award. According to the information available at present, there is no concrete evidence to suggest there is a shortage of frequencies in any one or several regions within the meaning of Section 55 subsection 9 TKG. For the assignment of frequencies for broadband wireless access, applications can be filed in an initial step pursuant to Section 55 subsection 3 sentence 1 TKG. If it becomes evident within the framework of the application procedure that the number of applications filed in a certain region or in several regions exceeds the number of frequencies available, the assignment of frequencies will be preceded by award proceedings pursuant to section 55 (9) in conjunction with section 61 (1) TKG.

Section 55 (9) TKG authorises the BNetzA to order that assignment be preceded by award proceedings if and when demand exceeds supply. Demand is deemed to exceed supply if the number of applications filed for a certain frequency (Section 55(9) sentence 1 2nd alternative TKG) exceeds the number of frequencies available or if the BNetzA draws the conclusion that there are not sufficient frequencies available to assign frequencies (Section 55(9) sentence 1 1st alternative TKG). In the event that it is established that frequencies are not available for assignment in sufficient numbers within the meaning of section 55 (9) sentence 1 2nd alternative TKG, an order can be issued to implement award proceedings within the meaning of section 61 (1) TKG. If it actually becomes necessary to implement an auction, the rules for the conduct of the proceedings pursuant to section 61 (4)sentence 2 paras. 1 to 4 TKG and the specific determinations and rules pursuant to section 61 (5) TKG will be defined and a hearing will be organised for the parties concerned.

In its decision of 26 September 2006 (Decision no. 42/2006; Official Gazette 20/2006), the President’s Chamber determined that there were not sufficient frequencies available in the band 3400 to 3600 MHz for frequency assignment. Notwithstanding this, not all of the frequency packages available in the individual regions were put up for auction within the framework of the auction held in December 2006 which means they are still available (cf. item 3). In order to update this assessment of market demand for frequencies for broadband wireless access, the BNetzA held a hearing of the parties concerned in February 2007 on the award of frequencies still available (Notification no. 103/2007 Official Gazette 4/2007). Furthermore, the parties concerned were given the opportunity to comment on the draft of this decision by the President’s Chamber (Notification no.202/2008 Official Gazette 4/2008).
Neither the hearing held in February 2007 nor the hearing held on the draft decision allowed the conclusion to be drawn that frequencies were not available in sufficient numbers to grant all of the assignment applications filed (Section 55 (9) sentence 1 2nd alternative TKG).

Within the framework of the hearing held in February 2007, the vast majority of comments received demanded assignment of the available spectrum within the framework of an application procedure. However, the notification of demand and expressions of interest were of a more general nature. No concrete applications for frequency assignment were filed within the framework of the hearing on the draft decision either. Only one party submitting comments expressed a concrete interest in the available spectrum. Up to now, no specific applications for the assignment of frequencies within the meaning of section 55 (4) TKG have been filed with the BNetzA. According to the information available at present, the Chamber was unable to establish that frequencies were not available for assignment in sufficient numbers within the meaning of section 55 (9) sentence 1 2nd alternative TKG.

It was indicated in the Notification that the BNetzA is planning to place the frequency spectrum available in the band 3400 to 3600 MHz on the market once again in accordance with the determinations in the Decision by the President’s Chamber of 26 September 2006 (Decision no. 42/2006; Official Gazette 20/2006). It was stated in this Decision by the President’s Chamber of 26 September 2006 that the prerequisites of both case scenarios set forth in section 55 (9) sentence 1 TKG were met, namely of frequencies not being available for assignment in sufficient numbers and more than one application being filed for particular frequencies, and that the frequencies in the band 3400 to 3600 MHz were therefore to be assigned by way of award proceedings. However, the basis for estimating that there was a shortage of frequencies available was the BNetzA’s level of knowledge at the time the decision was taken to order award proceedings pursuant to section 55 (9) in conjunction with section 61 TKG in relation to the demand on the market for certain frequencies.

Up to now, the BNetzA has not received any concrete applications for the assignment of frequencies within the meaning of section 55 (4) and (5) TKG as per section 55 (9) sentence 1 2nd alternative TKG. However, the BNetzA did receive comments within the framework of the hearing of February 2007, with the vast majority of parties demanding that the spectrum available be assigned within the framework of application proceedings. However, the notification of demand and expressions of interest in these comments were of a more general nature.

Based on the BNetzA’s experience and information available at this time, no abstract general prediction can be made that there is a shortage of frequencies. Section 55 (9) sentence 1, 1st alternative TKG envisages the possibility of the BNetzA taking a prediction decision to establish a shortage of frequencies. This is the case, without prejudice to the law, when the BNetzA arrives at the conclusion that frequencies are not available for assignment in sufficient numbers (cf. official substantiation on section 53 (9) of the Government draft, Bundesrat printed document 755/03, p. 109). The BNetzA does have some discretionary scope in discharging the duties of frequency assignment and particularly in establishing that there are not sufficient frequencies available within the meaning of section 55 (9) sentence 1, 1st alternative TKG. As such, the BNetzA is urged to proceed from assumptions that both reflect the current level of information and experience and are comprehensible (cf. Decision no. 42/2006; Official Gazette 20/2006).

The level of experience for the frequency band 3400 to 3600 MHz is outlined as follows:

The President’s Chamber (Decision no. 42/2006; Official Gazette 20/2006) established in 2006 that there was a shortage of frequencies for the band 3400 to 3600 MHz. At the auction however, frequency package D in 24 regions and frequency package C in one region were not assigned.

This experience initially suggests that it was possible to meet the concrete demand for frequencies from this band for broadband wireless access in 2006 within the framework of the award proceedings. Furthermore additional frequencies in the band 5.755 MHz to 5.875 MHz were generally awarded for commercial public broadband fixed wireless access in the band.
5.755 MHz to 5.875 MHz in addition to the band 3.5 GHz (Decision 47/2007, Official Gazette 17/2007).

In order to meet the demand for spectrum, frequencies from other frequency bands may be available as an alternative to the frequency band 3.5 GHz for the implementation of broadband wireless access.

The assessment that there was possibly a shortage of frequencies is based on the information available to the BNetzA’s at the time. There is currently no evidence to suggest that there is a shortage of frequencies within the meaning of section 55 (9) sentence 1 1st alternative TKG.

The comments received within the framework of the hearing held in February 2007 (Notification no.103/2007 Official Gazette 4/2007) merely contained notification of demand and expressions of interest that do not allow the anticipated demand to be predicted. No specific demand for frequencies was indicated by potential new entrants to the market. However, the successful bidders from the award proceedings 2006 had already expressed an interest in receiving spectrum as an extension. This potential demand was never specified in any concrete detail, nor was any concrete demand presented during the hearing on the draft of this Decision. Only one party submitting comments indicated concrete interest in obtaining additional spectrum. However, this does not facilitate any prediction decision whether there are sufficient frequencies available. In order to be able to estimate the potential demand for additional frequencies among frequency assignees, it would be necessary to have more facts about specific capacity requirements. It must also be taken into account that there are now up to three assignment possibilities for each region if spectrum is divided into packages of 2 x 7 MHz (paired) respectively.

Nonetheless, it cannot be ruled out that in certain regions the number of applications filed may exceed the number of frequencies available. Even if there are up to three assignment possibilities per region, applications could still be filed for up to 2 x 7 MHz (paired) or up to 2 x 21 MHz (paired) depending on the respective business models used in order to avoid a shortage of frequencies within the meaning of section 55 (9) TKG. At the hearing held in February 2007, the network operators that had already been assigned relevant frequencies from the award proceedings 2006 requested that the spectrum be assigned as an extension. In addition, one party submitting comments explicitly expressed interest in the available spectrum at the hearing on the draft Decision and indicated his intention of filling an application for assignment. It can hence be assumed that new entrants to the market can also apply for spectrum and that they would have to apply for the entire spectrum available from 2 x 21 MHz (paired). Against this backdrop, it cannot be ruled out that the number of applications filed in a certain region may exceed the number of frequencies available.

It is therefore both necessary and advisable to assign frequencies in two stages of award and to initiate application proceedings as per section 55 (3) TKG.

Two stages of award are appropriate within the meaning of efficient administrative action as this facilitates the implementation of swift proceedings pursuant section 10 sentence 1 Verwaltungsverfahrensgesetz (Administrative Procedures Act). This is also appropriate in order to create a sound basis for decision-making in the event that frequencies become scarce.

It is not possible to comply with the request made by the parties submitting comments for frequencies to be assigned on a first come first served basis. It is true that frequencies are, in principle, assigned on a first-come first served basis i.e. in the order of which applications are filed. As outlined above it cannot be ruled out that the number of applications filed in a certain region or in several regions exceeds the number of frequencies available, spectrum will initially be assigned by way of two stages of award in order to ensure an objective, non-discriminatory, proportionate and transparent award of spectrum. When implementing two stages of award, the principle first come first served is waived as application proceedings are launched first. In this initial stage applications for spectrum assignment must be submitted within a certain time limit and a decision whether the frequencies are to be assigned subject to application or whether the award is to be preceded by award proceedings is not taken until this time limit has elapsed. This
derogation from the first come first served principle is necessary in order to be able to review whether demand exceeds supply within the meaning of section 55 (9) sentence 1 2nd alternative TKG at a certain time. This gives all interested parties the opportunity to register their demand on an equal footing with the demand of other interested parties. This procedure complies with the requirements under European law for rights to be granted on the basis of selection criteria which must be objective, transparent, non-discriminatory and proportionate within the meaning of Article 9 subsection 1 of the Framework Directive and Article 7 subsection 3 of the Authorisation Directive.

Insofar as parties submitting comments suggested that regional and local network operators be given the opportunity to have frequencies assigned on a temporary basis and be granted fixed frequency assignments when they can prove live operations within a certain period of time, reference is made to section 58 TKG which states that in justified particular cases, notably to test innovative technologies in telecommunications or to provide frequencies required at short notice, frequency assignments which are at variance with the determinations of the National Table of Frequency Allocations or the Frequency Usage Plan may be granted on a temporary basis, on condition that no degradation is caused to any frequency usage entered in the Table of Frequency Allocations or the Frequency Usage Plan. However, the assignment of frequencies on a temporary basis is not intended to test the success of business models. Incidentally, live operations are subject to the assignment of frequencies pursuant to Section 55 TKG in advance. Accordingly, this Decision envisages applications being filed for frequency assignment.

Re item 5 Frequency usage conditions

Re item 5.1 Purpose of use

The following was argued on this point:

One party submitting comments expressly welcomed the information and determinations. In particular the prospect of also assigning frequencies for mobile applications is supported. The BNetzA is urged to endeavour to create the frequency planning prerequisites as soon as possible.

The Chamber rules as follows on this point:

The frequencies will be assigned in order to implement broadband wireless access (BWA). This is intended mainly to provide subscribers with wireless access. However, this will not rule out the possibility of these frequencies being used for other applications such as infrastructure connections. This description of the purpose of use of BWA therefore corresponds to international determinations (cf. CEPT/ECC/REC/(04)05).

The purpose of usage was defined very broadly in order to facilitate as many different business models as possible.

No restrictions are imposed on the technologies used either. This means the BNetzA is observing the principle of technology neutrality (cf. section 1 TKG). It is hence at the discretion of the assignees to choose which technology they wish to use, provided the frequency usage conditions specified are met ((cf. specifically 5.2).

At present, the assignment purpose of frequencies is still limited to the fixed satellite service. The ITU-R - World Radiocommunication Conference 2007 has already adopted a primary mobile communications assignment for the frequency band 3400 to 3600 MHz. There are plans to expand the purpose of use of frequencies to mobile applications as soon as the planning regulations Frequency Band Allocation Plan Ordinance (Frequenzbereichszuweisungsplanverordnung) and the Frequency Allocation Plan (Frequenznutzungsplan) have been amended after the results of the ITU-R - World Radiocommunication Conference 2007 have been transposed at national level. This will also implement the decision by the European Commission “To harmonise frequency band 3400-
3800 MHz for terrestrial systems capable of providing electronic communications services in the Community” (cf. relevant substantiation re 1 a)).

**Re item 5.2 Frequency usage conditions**

The Chamber rules as follows on this point:

Frequency assignees are free to choose what duplex system they wish to use. Both FDD (Frequency Division Duplex) and TDD systems (Time Division Duplex) can hence be used. This means the BNetzA is observing the principle of technology neutrality.

The frequency block edge mask, frequency tolerance and the maximum permissible spurious emissions must be defined in order to ensure interference-free usage of frequencies. The values correspond to the international CEPT/ECC Recommendation (04)05 and CEPT/ERC Recommendation 74-01 as well as ETSI EN 302 326-2.

Other block edge masks than required in CEPT/ECC Recommendation (04)05 are permitted if there is agreement on this among all the adjacent assignees. The BNetzA must be notified of this agreement in writing.

The bandwidth specified for FDD operations corresponds to the national specifications for the 3.5 GHz band in order to safeguard interference-free usage of frequencies.

**Re item 5.3 Safeguarding interference-free frequency usage**

The Chamber rules as follows on this point:

Interference-free use of frequencies is to be safeguarded by the application of frequency-regulatory conditions in accordance with CEPT/ECC/REC/(04)05.

In transnational agreements with the Federal Republic of Germany’s neighbouring countries, it has been specified that the spectral power flux density will not exceed 122 dBW/(MHz m²) in frequency band 3400 to 3600 MHz. For preferential frequencies this value only become relevant at a distance of 15 km beyond the border, for non-preferential frequencies this limit must be observed at the border of the Federal Republic of Germany.

This limit value of spectral power flux density also applies to the facilitation of co-channel sharing in immediately adjacent BWA coverage regions with reference being made to annex 4 to CEPT/ECC/REC/(04)05. Contrary to transnational agreements that provide for a mitigation belt of 15 km between the regions offering BWA coverage, the mitigation belt for each assignee is 7.5 km. In determining the width of this mitigation belt, the BNetzA had to carefully weigh up the interests of frequency assignees in achieving the greatest possible coverage of their regions against the mitigation of adjacent frequency assignees. However, the assignees in adjacent regions with the same frequency packages may diverge from these specifications unless they have signed relevant reciprocal agreements (cf. e.g. Image A 4.2 in CEPT/ECC/REC/(04)05). This gives the assignees a high degree of flexibility in the concrete configuration of the network ensuring they can provide maximum coverage in their regions. The BNetzA must be notified in writing if any such agreements are concluded in order to facilitate swift and objective processing of fault reports.

Final WLL assignments are to be protected from interference caused by other – subsequent – frequency usage. In order to protect frequency usage in WLL coverage areas, the conditions of spectral power flux density being limited to -122 dBW/(MHz m²) at the border of WLL coverage areas are to be observed in accordance with conditions that apply to WLL assignments.

The BNetzA points out that international agreements on border coordination are frequently based on 7 MHz frequency channels. Any such agreements often provide the basis for frequency planning by companies and are extremely difficult to reach. This explains why it is not possible to adapt preferential channels to individual channel rasters at short notice specified by the assignees themselves which means there may be limitations in respect of frequency usage in regions close to the border.
As regards the additional conditions for the use of frequency packages C and D, reference is made specifically to item 3 and annex 2.

Re item 5.4 Assignment for a limited period

The Chamber rules as follows on this point:

Pursuant to section 55 (8) TKG, frequencies are generally assigned for a limited period. The size of the regions requiring coverage and the coverage obligations associated with the assignment determine the length of the limited periods.

Against this backdrop, assignees must be granted enough time to install the network, to implement the business model and to depreciate their investment.

The frequency usage rights for BWA awarded at auction in December 2006 and assigned in early 2007 will expire on 31 December 2021. In order to be able to adapt the frequency usage in the band 3400 to 3600 MHz to regulatory plans that may have been amended by then, the frequencies to be newly assigned will also be limited until 31 December 2021. The envisaged usage period is also sufficient for the implementation of business models and for the depreciation of investments. Even if contrary to former frequency assignments, the periods are now shorter (one to two years less), this alone shall not preclude determination of a limited period for this frequency band.

Re item 5.5 Degree of coverage

The following was argued on this point:

It was claimed that the definition of the coverage obligation needs to be reconsidered. When defining the coverage obligation, three factors should be taken into account. WiMax technology cannot compete with wired technologies such as DSL or VDSL in terms of the bandwidth that can be achieved. Furthermore, it is anticipated that there will be competition from the use of digital dividends which will further hamper the decision to invest in the expansion of BWA in the 3.5 GHz band. It also needs to be taken into account that the availability of mobile WiMAX technology is being delayed.

It has also been stated that the coverage obligation is linked solely to the total number of municipalities and does not focus on the actual coverage situation which means investments made would not be economically efficient. It is also claimed that any such network expansion involves the risk of frequencies being lost due to failure to meet the coverage obligation in full. This calls the certainty of investments into question.

Coverage of a percentage of municipalities that is yet to be defined in which coverage with broadband wired access is not to be expected in the medium term either should be defined as a link to any coverage obligation.

According to the draft decision, it is envisaged that coverage obligations will also be imposed if frequencies are assigned without award proceedings. However, there is no statutory basis to justify this as the statutory basis set forth in section 61 (4) sentence 2 para. 4 TKG only applies to award proceedings but not to frequency assignment subject to application.

It was also claimed that the coverage obligation could discriminate against applicants as in order to meet the coverage obligation it is sufficient to reach the prescribed degree of coverage with the entire BWA spectrum assigned. This means applicants who already have BWA spectrum would not have any coverage obligation of their own in relation to any new spectrum assigned to them. By contrast, new entrants would have to incorporate the coverage obligation into their calculations. This would create a different calculation basis for frequency applications by new entrants and any bids at auctions. One possibility would be to take the expansion of broadband fixed coverage into account in meeting the coverage obligation. It is irrelevant for the aim of providing a broadband service whether service is provided via a wireless or a fixed network.

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It is also proposed that frequencies be assigned on the basis of towns and counties. Much smaller areas could be combined with higher coverage obligations.

Reservations have also been voiced that the coverage obligations imposed within the framework of award proceedings in 2006 would actually be met. Additional incentives would need to be created to ensure that rural areas would also have service.

**The Chamber rules as follows on this point:**

The assignment of frequencies is combined with the obligation to provide service to a minimum number of municipalities within a certain period of time.

The imposition of any such obligation is intended to ensure that the installation of network commence swiftly on the one hand and that rollout be pressed ahead with on the other. The aims are to ensure that the frequencies assigned can be used efficiently and to provide broadband telecommunications services also to regions that have had no service up to now. Providing subscribers with broadband wireless access offers huge potential for frequencies in the band 3.5 GHz. By imposing the coverage obligation in this way, it is ensured that the frequencies assigned are actually being used for subscriber access.

The view that the obligation can only be imposed within the framework of award proceedings as the relevant statutory basis set forth in section 61 subsection 4 sentence 2 para. 4 TKG only applies to award proceedings is refuted.

In principle, a coverage obligation can be imposed within the framework of two stages of award both in the first and in the second stage.

Pursuant to section 61 (4) sentence 2 para. 4 TKG, prior to carrying out award proceedings, the BNetzA shall determine the frequency usage conditions, including the degree of coverage with the frequency usage. The aim of the coverage obligation is to achieve a swift provisioning of telecommunications networks and service in the interest of the consumer in order to ensure that efficient use is made of the frequencies assigned. The imposition of a coverage obligation is hence intended to implement the regulatory goals of the Federal Government to ensure the availability of adequate and appropriate postal and telecommunications services throughout the federal territory (Article 87f of the Basic Law). It is confirmed in particular that the aims of regulation to safeguard user, most notably consumer, interests in telecommunications (section 2 (2) para. 1 TKG), to secure fair competition and to promote telecommunications markets with sustainable competition in services and networks and in associated facilities and services, in rural areas as well (section 2 (2) para. 2 TKG), to encourage efficient investment in infrastructure (section 2 (2) para. 3 TKG) and to secure efficient and interference-free use of frequencies, (section 2 (2) para. 7 TKG) are being met.

By the same token, frequency assignment pursuant to section 55 (5) TKG may be subject to compliance with the frequency assignment regulations pursuant to section 60 TKG to secure efficient and interference-free use of frequencies. This is a constituent part of frequency assignment. The coverage obligation serves to ensure efficient use is made of frequencies within the meaning of section 2 (2) para. 7 TKG. A coverage obligation can therefore be construed as a constituent part of frequency assignment pursuant to section 60 TKG. This means a coverage obligation can also be imposed as the first step in ensuring efficient use is made of frequencies pursuant to section 60 TKG.

It is both necessary and appropriate to impose a coverage obligation both in the first and in the second stage of the proceedings. Award proceedings were held back in December 2006 in frequency band 3400 to 3600 MHz. The successful bidders from these proceedings were assigned frequencies to which a coverage obligation was attached in accordance with the regulations set forth in the Decision by the President’s Chamber of 26 September 2006 (Decision 42/2006, Official Gazette 20/2006). With the current decision, only the remaining
frequencies from the initial award proceedings are once again being made available on the market. Only if a coverage obligation is attached to these “remaining frequencies” can non-discriminatory market conditions be created for the market players. This means that the regulatory aim of securing fair competition with sustainable competition in services and networks within the meaning of section 2 (2) para. 2 TKG is being met. The imposition of a coverage obligation is intended to promote the goal of ensuring frequencies in the band 3400 to 3600 MHz are actually used for subscriber access, without placing a disproportionate burden on assignees. This also takes the regulatory goal of safeguarding user and consumer interests into account by promoting competition in services and networks in rural areas as well pursuant to section 2 (2) para. 2 TKG.

When the standard for the coverage obligation was defined, it was taken into account that transmission paths for the implementation of broadband access are already available above all in densely-populated regions – such as conurbations. This is why the regulation was not selected to provide service to a certain section of the population as this would lead to more frequencies being used in densely-populated areas that already have service. By contrast, the requirement that service must be provided to as many municipalities as possible was intended to ensure there is better coverage in rural areas.

Specifying the coverage obligation corresponds to the award decision by the President’s Chamber of 26 September 2006 (Decision 42/2006, Official Gazette 20/2006). The number of municipalities to be provided with service within a certain time period was measured against the overall number of municipalities in a particular region. If it is claimed in this context that frequencies should be allocated on the basis of municipalities and districts, as higher coverage obligations might be attached to smaller areas, the Chamber points out that, in principle, the Decision by the President’s Chamber of 26 September 2006 (Decision 42/2006, Official Gazette 20/2006) is upheld.

Assignees are obliged to provide service to at least 25 percent of the total number of municipalities. It appears to be both necessary and appropriate to specify this minimum coverage quota. It means that the regulatory goal of ensuring efficient use is made of frequencies in rural areas as well pursuant to section 2 (2) para. 7 TKG is sufficiently met. At the same time, the economic interests of companies also had to be taken into account in the considerations in order to ensure the specified quotas would not place a disproportionate burden on them. When specifying the minimum number of municipalities to which service must be provided it had already been taken into account that, for instance, 100 percent coverage of a region could not be specified as this would be disproportionate on the one hand and would not be taking the actual demand for BWA services into account on the other.

The degree of coverage should not be less than 25% (of the total number of municipalities). As such, it had to be taken into account that frequencies are a limited resource and that the number of network operators is certainly limited. Entitlement therefore had to be juxtaposed with a relevant obligation to use the spectrum assigned. At the same time, the coverage obligation promotes competition in services and networks and the willingness of assignees to allow third parties – small and medium-sized enterprises in particular – to participate in their spectrum. It is not appropriate to specify a quota higher than 25%. This takes the circumstance into account that major investment in network installation currently involves with major imponderabilities regarding the demand situation. For the BWA network operators are not just competing with each other, they also face competition – at least partially – from other infrastructure operators. Insofar as parties submitting comments claimed that when defining the coverage obligation it should be taken into account that BWA is competing with wired broadband access and the use of digital dividends which is a further impediment for a decision to invest in the expansion of BWA in the 3.5 GHz band, this was already taken into account when the degree of coverage was defined. In this connection, it is, however, also pointed out that BWA applications can also be provided both as an alternative to and as an extension of wired services, meaning that – as required by parties submitting comments – it would not be
appropriate to limit the coverage obligation to municipalities that do not have a supply of wired access.

The coverage obligation must be met within three of five years (cut-off date: 31 December 2011 and 31 December 2013) of frequency assignment. It is not appropriate to set a concrete date at this point in time given that it is envisaged that the proceedings will only commence after an application for assignable frequencies has been received or published (cf. specifically item 6.1 of this decision). The time allowed for implementation of this coverage obligation of between three and five years is sufficient and gives the assignees the necessary flexibility to adapt to market and technological trends. This applies in particular to the fact that not all of the technology is fully available yet. The suggestion put forward by one party submitting comments that the coverage obligation should be reconsidered with a view to the delay in the availability of mobile WIMAX technology has already been taken sufficiently into account. In order to promote timely and continual network installation, it was, however, necessary also to define a coverage obligation of 15% within three years of frequency assignment. The aim behind this specification was to ensure that frequency usage can begin as soon as possible.

The frequencies are not available throughout the whole of all regions. The Chamber has taken this fact into account when defining the coverage obligation. For frequency packages C and D, it therefore needed to be taken into consideration that the frequencies are not available throughout the whole of all regions due to the existing WLL assignments. It would not have been appropriate to impose a coverage obligation based on the total number of municipalities of a region. The mean value of the number of municipalities in which the channels 7, 8, 9 and 10, 11,12 in the respective regions are available to the BWA assignees was therefore taken as a basis used to calculate “the number of municipalities to be provided with service in frequency packages C and D”. This resulted in the following computation formulas:

\[
X_{ges}^7 = \frac{X_7 + X_8 + X_9}{3}
\]

\[
X_{ges}^{10} = \frac{X_{10} + X_{11} + X_{12}}{3}
\]

\[
X_{ges} = \text{Mean value of the number of municipalities in which channels 7, 8 and 9 or 10, 11 and 12 are available}
\]

\[
X_7 / X_9 / X_8 / X_{10} / X_{11} / X_{12} = \text{Number of municipalities in which channels 7, 8, 9, or 10, 11 and 12 are available.}
\]

The following example illustrates how these formulas can be applied to the municipalities to be provided with service in the region of Western Pomerania in practical terms with the assignment of frequency package D:

Where a channel was assigned in a county, the number of all municipalities in this county is indicated.

<table>
<thead>
<tr>
<th>Western Pomerania</th>
<th>Number of municipalities in which the channel is available</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kreise und Kreisfreie Städte</td>
<td>Channel 10</td>
</tr>
<tr>
<td>Greifswald, Stadt</td>
<td>0</td>
</tr>
<tr>
<td>Neubrandenburg, Stadt</td>
<td>1</td>
</tr>
<tr>
<td>Stralsund, Stadt</td>
<td>1</td>
</tr>
<tr>
<td>Demmin</td>
<td>0</td>
</tr>
<tr>
<td>Mecklenburg-Strelitz</td>
<td>55</td>
</tr>
<tr>
<td>Müritz</td>
<td>67</td>
</tr>
<tr>
<td>Nordvorpommern</td>
<td>0</td>
</tr>
</tbody>
</table>

C:\Dokumente und Einstellungen\stab04-2b\Desktop\23.07. 226-1 BWA-Entscheidung E\2. BWA President’s Camber Decision Stand 16 06 08_EN V2.doc
The definition of the coverage obligation needed to specify when a municipality was deemed to have service. As such it is not assumed that one central station alone is capable of providing service to the whole of every municipality.

The municipal structure varies greatly in the individual regions. There are a few regions that have a large number of smaller municipalities (e.g. Trier/Koblenz which has 1,454 municipalities). And there are a few other regions that have a much smaller number of municipalities but they cover a much larger surface area (e.g. Münster which has 102 municipalities). Then again, there are municipalities that have a relatively large surface area but low population density. On the other hand, some municipalities cover an extremely small surface area. As the coverage obligation was defined generally for a certain percentage of municipalities in a region, the different municipal structures had to be taken into account. To this end, determinations were issued in order to compensate for inequities regarding the different municipal populations per region.

The following applies:

In order to meet the coverage obligation, at least one central station for subscriber access must be brought into service in municipalities with a surface area of up to 50 km².

For municipalities with a surface area not exceeding 30 km², it is enough if the distance from the municipal boundary and the next operational central station for subscriber access is less than 3 km. When defining what coverage is, it was assumed that the minimum coverage reach of a central station is 3 km. This means that several municipalities are deemed to have coverage within the meaning of the coverage obligation if one central station is operated for subscriber access.

The following example illustrates this:

The following example illustrates the coverage of municipalities with a surface area of less than 30 km². A central station provides service to the city of Marne, all the other municipalities with dark shading whose boundaries are within the radius \( r = 3 \text{ km} \) of the central station are also deemed to have service within the meaning of the coverage obligation.
A municipality covering an area of more than 50 km² is, in principle, deemed to have coverage within the meaning of the coverage obligation if at least two central stations are operated for subscriber access. In order to determine the surface area, it is assumed that a central station has an average reach of 4 km maximum. With this regulation it is possible that a second base station may need to be brought into service in municipalities with a surface area of more than 50 km² even though this would not be necessary in terms of economical efficiency or coverage, as these municipalities have a low population density.

In order to prevent this from happening, it was incorporated into the regulation for these municipalities that each municipality must have a minimum population of 3,000. The population was to be measured in such a way that setting an excessively high population would not call the intent and purpose of the special regulation for municipalities covering large surface areas into question. Otherwise a large number of municipalities would not come under the regulation. On the other hand, the population could not be measured too low as it this could have proven to be a disproportionate burden on network operators in particular.

The following example illustrates the coverage obligation for municipalities with a surface area of more than 50 km² and with a population of more than 3,000:

The example illustrates coverage of municipalities in the rural counties of Emsland (BWA region Weser-Emsh). The municipalities of Klein Berßen, Groß Berßen, Hüven... (shaded in light grey) have a surface area of less than 30 km² and are hence deemed to be provided with service, as in the previous example, if their boundaries are within the radius (r = 3 km) of a base station (location in one of these municipalities or of an adjacent municipality). All the municipalities with dark shading have a surface area of more than 50 km² and a population of more than 3,000 which means that at least two base stations need to be brought into service within the meaning of the coverage obligations. At least one base station must be brought into service for all other municipalities in order to meet the coverage obligation.
It is pointed out explicitly that a municipality is also deemed to have service if the service is provided by third parties who are using the spectrum assigned to the assignee. This makes it clear that within the framework of the coverage obligation, coverage provided by parties other than the assignee is assigned to the assignee. The aim is for assignees to use spectrum they have been awarded at auction in order to provide service to parts of a region that could potentially be unattractive in their business model. Reference is made in particular to the possibilities of transferring spectrum and of transferring frequency usage rights.

Imposing a duty to report is intended to secure efficient use of frequencies within the meaning of the regulatory aim set forth in section 2 (2) para. 7 TKG. Even though the coverage obligations do not need to be met for three to five years, it is appropriate for the BNetzA to be kept informed about the degree of frequency usage. The reservations expressed by parties submitting comments about meeting the coverage requirement by imposing an independent duty to report on the level of the respective network installation and network expansion of an assignee had already been taken into account.

The operative provision of the decision needed to be amended in editorial terms. It implements the amended operative provision on frequency assignment regions (item 2 of this decision) in which the 30 regions were created. The specific definition of municipalities requiring service was adapted accordingly to the size of the regions.

N.B.:

Insofar as frequency usage rights with a coverage obligation have already been assigned in frequency band 3.5 GHz, reference is made to the following:

The coverage obligation is imposed with the assignment of frequencies and is attached to the usage rights assigned accordingly. In principle, the assignees are obliged to use all the frequencies assigned (cf. section 63 (1) TKG). However, in order to meet the coverage obligation, all that is needed is for the prescribed degree of coverage to be reached with the total BWA spectrum assigned, but not also with each individual frequency block. In order to use the BWA spectrum assigned and hence to meet the coverage requirement, existing BWA network infrastructures may also be used.

Any allegations made by parties submitting comments that the coverage obligation was discriminating against new applicants since the coverage obligation did not apply to applicants who already had BWA spectrum is refuted. As the coverage obligation is attached to assignable usage rights, it becomes a constituent part of the respective frequency assignment and hence...
applies in full to all assignees. This means it is irrelevant whether the frequency assignee already has BWA spectrum or not. It also means that the coverage obligations do not just apply to new entrants, as claimed by the parties submitting comments. On the contrary, they apply equally to all assignees. The allegation that new assignees are being discriminated against is therefore unfounded.

The response to the claim that the expansion of broadband fixed coverage should also be taken into account regarding the fulfilment of the coverage obligation as it is irrelevant for the aim of ensuring broadband services are also available in rural areas whether this is achieved wirelessly or via a fixed network is as follows:

As the coverage obligation is attached to frequency usage rights assigned for broadband wireless access (BWA), this means that the coverage obligation can only be met with frequencies that can also be used for broadband wireless applications – in accordance with the specifications set forth in the Frequency Usage Plan. If fixed broadband wireless access was also taken into account in meeting the coverage requirement, the latter could be met with an aliud. Yet this would contravene the regulatory aim of ensuring efficient use is made of frequencies in section 2 (2) para. 7 TKG. Another objective of the coverage obligation is to ensure that broadband wireless telecommunications service is also provided in regions that have had no service up to now. The aim of providing frequencies in the band 3.5 GHz is to enable BWA applications to be used specifically as an alternative to or as an extension of wired services.

**Re item 6 Application proceedings**

**Re item 6.1 Implementation of application proceedings**

The following was argued on this point:

It is requested that the frequencies be assigned on a first come first served basis.

The Chamber rules as follows on this point:

In contrast with the draft of the President’s Chamber that was dealt with at the hearing, the operative provision will be amended in editorial terms and will clarify that applications for frequency assignment can be filed from the time this Decision is published in the BNetzA’s Official Gazette. The BNetzA will launch proceedings upon receipt of a frequency assignment application by publication in the Official Gazette in which the receipt of a frequency assignment application is published and a time period is set within which all market players can also file application for frequency assignment. Applications must be filed within eight weeks of the publication of the notice in the Official Gazette.

As a rule, frequencies are assigned on a first come first served basis – as demanded by one of the parties submitting comments, in other words, in the order of which applications are filed. The launching of application proceedings within a specific time limit helps to facilitate objective, transparent, non-discriminatory and proportionate proceedings. This is the only way it can be established whether the number of applications filed for these specific frequencies exceeds the specific spectrum available. It is necessary to set a time limit for the filing of applications in order to be able to check whether there is a shortage of frequencies at any given time.

This procedure ensures proceedings will be implemented in an objective, transparent, non-discriminatory and proportionate way that meets the requirements under European law set forth in Article 9 para. 1 of the Framework Directive and Article 7 para. 3 of the Authorisation Directive. This is the only way all interested parties can be given the opportunity to represent their needs on an equal footing with the needs of other interested parties. The application proceedings subject to a time limit ensure that frequency assignments do not depend on applications being filed on a purely coincidental basis and that other interested parties are not excluded from frequency assignments. Only the institution of application proceedings in which all incoming applications are processed equally renders it possible to identify a specific
individual shortage of frequencies and to establish whether demand actually exceeds supply within the meaning of section 55 (9) sentence 1 2nd alternative TKG. Without any such time window, award proceedings would only be initiated if several applications were coincidentally filed at the same time.

The purpose of instituting application proceedings extends beyond merely establishing and predicting demand. This means the filing of applications is binding and is not just construed as a mere expression of interest.

If there are sufficient frequencies available in a region, frequencies are assigned within six weeks (pursuant to section 55 (4)4 sentence 3 TKG) provided the frequency assignment conditions on the basis of the frequency usage conditions pursuant to item 5 are met. If the number of applications filed for certain frequencies exceeds the number of frequencies available, the assignment will be preceded by award proceedings under section 55 (9) in conjunction with section 61 (1) TKG.

It is pointed out in this context that pursuant to section 63 (1) TKG, a frequency assignment may be revoked where use of the assigned frequency for the intended purpose has not commenced within one year of the assignment or where the frequency has not been used for the intended purpose for more than one year. In order to secure efficient and interference-free use of frequencies, frequency assignments are attached to the secondary condition as per section 60 (2) sentence 1 TKG that obliges assignees to report to the BNetzA each year on the progress of rollout (network installation and network expansion).

The operative provision will be amended in editorial terms and rephrased as follows:

Applications for frequency assignment can be filed from the time this decision is published in the Official Gazette of the BNetzA (Section 226, Fehrbelliner Platz 3, 10707 Berlin, Germany). The receipt of applications for assignment are published in the Official Gazette and on the BNetzA’s website. All market players can file applications for frequency assignment within eight weeks of this publication.

If frequencies are available in sufficient numbers in a region, frequencies are assigned provided that the frequency assignment requirements are met on the basis of the frequency usage conditions pursuant to 5.2 and 5.3.

Applications should be submitted to the BNetzA in writing, in German, in quintuplicate, and electronically as well (cf. annex 3).

Re item 6.2 Information to be provided with applications

The Chamber rules as follows on this point:

In the application, the region (cf. annex 1) must be designated in which frequency usage rights are to be acquired. Applicants can limit their application to a specific region. It is permissible to file applications for several regions right up to all 30 regions in which frequencies are still available.

Applicants who do not yet have any frequency usage rights for broadband wireless access in the respective region must indicate the entire frequency package C or D (totalling 2 x 21 MHz (paired)). In derogation of this, assignees in the band 3400 to 3600 MHz can also apply for a 7 MHz channel (paired), for two 7-MHz channels (paired) or for three 7 MHz channels (paired) as an extension (cf. specifically item 3).

Pursuant to section 55 (4) TKG, the applicant has to show that the subjective requirements for frequency assignment are satisfied (reliability, efficiency and specialist knowledge). Ownership structure – indirect as well – in the applicant's company must also be stated in the application. A frequency usage concept must also be attached to the application providing information on efficient and interference-free use of frequencies.

The information that needs to be supplied in applications is outlined in annex 3.
Pursuant to section 55 (4) TKG, the applicant has to show that the subjective requirements for frequency assignment with regard to efficient and interference-free use of frequencies are satisfied. In the applications for frequency assignment, applicants must prove that they meet the subjective criteria of reliability, efficiency and specialist knowledge. As such, reliability is aimed at ensuring the relevant statutory requirements are met. Efficiency relates in particular to the applicant having the necessary resources and financial resources to install and expand and operate a BWA network. Specialist knowledge means the applicant has to have the necessary knowledge, experience and skills.

In order to prove they meet the criterion of efficiency, documents such as written financial declarations by the parent company, other affiliated companies or credit institutes must be submitted. Mere declarations of intent or pledges of endeavours are not recognised as proof that this criterion is met. Where financial pledges have been made by parent companies or other affiliated companies, they must be submitted in the form of “hard sponsorship declarations”. Applicants can choose what form of proof of efficiency they wish to submit. The mere submission of a balance sheet will not release applicants from their duty to disclose.

Pursuant to section 55 (5) sentence 1 para. 4 TKG, it must also be ensured that the frequencies assigned are actually used within the meaning of assignment prerequisites. For this reason, the applicants must state within the framework of a frequency usage concept that they actually need the frequencies. This applies in particular to applicants who already have spectrum for BWA.

Re item 7. Award proceedings

Re item 7.1 Award proceedings

The Chamber rules as follows on this point:

If the number of applications filed for certain frequencies exceeds the number of frequencies available, the assignment will be preceded by award proceedings under section 55 (9) in conjunction with section 61 (?) TKG.

According to the Chamber’s current level of knowledge, neither concrete individual nor general abstract shortage of frequencies for the use of broadband wireless access can be assumed so that it must be determined in application proceedings whether regions exist in which the actual demand outstrips the number of frequencies available. If this proves to be the case, the assignment of frequencies will be preceded by award proceedings under section 55 (9) in conjunction with section 61 (?) TKG. If this proves to be the case, the assignment of frequencies is preceded by award proceedings as per section 55 (9) sentence 1 2nd TKG.

Re item 7.2 Choice of award proceedings

The following was argued on this point:

Some of the parties submitting comments agreed to this procedure. On the other hand it is noted that the auction procedure is more suitable for achieving the regulatory goals.

The Chamber rules as follows on this point:

Pursuant to section 61 (1) and (2) TKG, the assignment of frequencies for broadband wireless access is to be preceded by an auction as per section 61 (1) and (2) TKG. There are no apparent reasons why an auction should not be deemed suitable award proceedings.

Pursuant to section 61 (2) sentence 1 TKG, as a general rule, the proceedings laid down in (5) are to be conducted, except where such proceedings are not likely to secure the regulatory aims according to section 2 (2) TKG. Claims that the bidding procedure is more suitable for securing the regulatory aims are refuted. The Chamber considers an auction procedure to be an option that is permissible under the rule of law that is also capable of ensuring the regulatory
aims set forth in section 2 (2) TKG are met. Having the option of an auction procedure helps to represent the interests of users, particularly consumer interests in the field of telecommunications pursuant to section 2 (2) para. 1 TKG. The bidding procedure is an open, transparent and objective way of facilitating swift market entry in particular. An auction enables the award decision to be made swiftly without requiring suitable network operators to go through a protracted selection process. At the same time, the selection criterion that makes efficient use of frequencies helpsto achieve the regulatory aim of promoting competition (cf. official substantiation, Bundesrat printed paper 755/03, p. 109 on section 59).

Bidding proceedings should not be implemented unless they are suitable for meeting the regulatory aims set forth in section 2 (2) TKG.

Pursuant to section 61 subsection 2 sentence 2 1st alternative TKG this may be the case, in particular, when frequencies have already been assigned, without being preceded by an auction, in the relevant product and geographic market for which the radio frequencies may be used in observance of the Frequency Usage Plan.

It could be assumed that preference is given to the auction procedure if asymmetrical market entry conditions were created for new competitors by changing the award proceedings. In particular the fact that in the past frequencies for wireless subscriber access were assigned as point-to-multipoint microwave service (wireless local loop) in the band 3.5 GHz at auction does not militate against auction procedures. It was outlined in the Decision by the President’s Chamber of 26 September 2006 (Decision no. 42/2006; Official Gazette 20/2006) that the choice of proceedings for the assignment of frequencies for SLL applications was still made on the basis of the exemption set forth in section 11 subsection 2 sentence 3 TKG 1996 (cf. Official Gazette of the Regulatory Authority 11/98 of 10 June 1998, Decision 55/1998), which was not incorporated into the Telecommunications Act amendment of 2004.

It is also established in the Decision by the President’s Chamber of 26 September 2006 that the fact that frequencies for WILL were originally assigned in an auction procedure does not mean frequencies for a wider purpose of usage – broadband wireless access specifically – cannot be assigned in different award proceedings. It states specifically in this Decision:

“The example given in section 61 subsection 2 sentence 2 TKG for the potential non-suitability of an auction procedure […]This may be the case, in particular, when frequencies have already been assigned, without a prior auction, in the relevant product and geographic market for which the radio frequencies may be used […] is at best an indication that an auction procedure may not be the most suitable assignment procedure. The very fact alone that the case scenario outlined in the example above applies does not necessarily mean that the auction procedure would apply. The protective purpose of the above-mentioned regulatory example is to prevent asymmetrical market entry conditions from creating unreasonable competitive disadvantages, meaning that all award proceedings need to be taken into account when examining the suitability of an auction procedure.

In this particular case, the purpose of usage was defined very broadly in terms of the relevant product and geographic market with the result that there may be substitution relations with other frequency usages. These refer, inter alia, specifically to UMTS, WLAN in the 2.4- and 5 GHz band, WLL and broadband trunked radio. Frequencies for these frequency usages have been assigned in a number of different ways. For these frequency usages, frequencies have been assigned using all the statutory assignment possibilities.”

In December 2006, all the frequencies available in the band 3400 - 3600 MHz were awarded by way of auction. There is no need to diverge from this in the current proceedings. In order to secure fair competition and to promote telecommunications markets with sustainable competition in services and networks within the meaning of section 2 subsection 2 para. 2 TKG, an auction is therefore a suitable way of awarding the frequencies for broadband wireless access that were not assigned in December 2006.
Re item 7.3  Decisions on the rules of assignment and auction

The Chamber rules as follows on this point:

Decisions relating to the rules for conducting the auction pursuant to section 61 subsection 4 sentence 2 para. 1 to 4 TKG and to the determinations and rules for conducting an auction pursuant to section 55 subsection 9, section 61 subsection 1, subsection 2, und section 5 TKG cover the eventuality that demand exceeds supply within the meaning of section 55 subsection 9 sentence 1 2nd alternative TKG, in separate proceedings following a public hearing.

The BNetzA is currently planning to adapt the decision on the rules for conducting the auction and the determinations and rules for conducting the auction to the determinations issued in the Decision by the President’s Chamber of 29 June 2006 (Decision no. 42/2006; Official Gazette 20/2006).

Instructions about the right to appeal

Proceedings can be initiated against this decision within one month after its promulgation, to the Verwaltungsgericht in Köln (Cologne Administrative Court), Appellhofplatz, 50667 Köln, in writing or to be recorded by the document clerk of the court office. The proceedings must name the plaintiff, the defendant and the subject of litigation. It should contain a specific motion. The facts and evidence to be used as justification should also be given. In accordance with section 137 (1) TKG, the proceedings have no delaying effect.

An adequate number of copies of the proceedings and attachments must be provided so that all parties involved can receive a copy.

Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen

The President’s Chamber  Bonn, 23 June 2008

Dr. Henseler-Unger  Kurth  Kindler
Associate judge  Presiding judge  Associate judge