



Bundesnetzagentur

**Key elements
of the
Federal Network Agency for Electricity, Gas,
Telecommunications, Post and Railway
for the
award of frequencies
in the band 790 MHz to 862 MHz
for realizing electronic communications services (ECS)**

TRANSLATION¹**Award of frequencies in the band 790 MHz to 862 MHz for realizing electronic communications services (ECS)**

The first key elements have been developed by the Federal Network Agency on the award of frequencies in the band 790 to 862 MHz (so-called „digital dividend“) that constitute the framework conditions for award.

Quick use is to be made of the potential of the “digital dividend” to ensure broadband Internet coverage for the population, in particular in rural areas. To this end, the Federal Network Agency has prepared key elements to structure the discussion at an early stage and submit concrete proposals to all parties involved. The outline conditions mainly provide that the frequencies in rural areas are to be awarded together with the frequencies in the band 1.8 GHz, 2 GHz and 2.6 GHz. Integrating these considerations into the already advanced preparatory work on the award of higher frequencies provides a special opportunity to award frequencies quickly in the 800 MHz band.

Based upon the following key elements, the Federal Network Agency will prepare a draft of the President's Chamber decisions in accordance with section 55 (9, 61) TKG on which comments are to be invited in June 2009.

Key elements**KEY ELEMENTS for the award of frequencies in the band 790 MHz to 862 MHz^{2 3} for realizing electronic communications services (ECS)****I. Starting situation**

- The draft of the second ordinance on the modification of the Ordinance concerning the Table of Frequency Awards (Bundesrat official document 204to09 as of 04 Mar 2009, which can be obtained on the Internet at <http://totowww.bmwi.de/toBMWitoNavigationtoroot,did=292256.html>), provides in usage regulation 36:

"Frequency band 790 to 862 MHz shall be used in agreement with the federal states as soon as possible for broadband mobile Internet coverage. Its main purpose is to close rural broadband gaps. The mobile service in the frequency band 790 to 862 MHz is not allowed to cause interference for the broadcasting service."

In addition, the draft amendment details:

"It will be checked to what extent these conversion costs must be adequately borne by future frequency users in the case of new award. Concrete information cannot be provided until frequencies are awarded."

¹ In case of divergent interpretation of the German and English text, the German text shall prevail.

² Subject to band designation.

³ Also referred to as 800 MHz frequencies in the following.

- The draft amendment has currently been submitted to the Bundesrat (Bundesrat - official document 204to09 as of 04 Mar 2009, loc. cit.). The federal government expects approval by the Bundesrat by May 2009.
- The currently scheduled award of 800 MHz frequencies by the federal government shall become an important element of its "supporting frequency policy" that represents one of four pillars of its broadband strategy (can be obtained on the Internet at <http://www.bmwi.de/Dateien/BBAtoPDF/breitbandstrategie-der-bundesregierung.pdf>, page 10).
- Against the backdrop of the line adopted by the Federal Network Agency to allocate frequencies in the bands 1.8 GHz to 2 GHz to 2.6 GHz for electronic communications services and flexibilize current GSM usage rights in the band 900 / 1,800 MHz for electronic communications services, the federal government sees a chance – subject to fast award - to adjust the regulatory measures in a way that applications can contribute in the short, medium and long run to nationwide provision of high-speed Internet access (see also the broadband strategy of the federal government, loc. cit., page 13).
 - According to this, the digital dividend allows "*fast and economic basic coverage of sparsely populated areas with broadband access and is the condition for establishing an efficient infrastructure in the long run*".
 - The federal government sees the scheduled flexibilization of 900 MHz frequencies for the electronic communications services that have so far been used for GSM networks as a contribution by the Federal Network Agency towards improving coverage of less densely populated area.
 - The federal government considers the upcoming frequency award in the bands 1.8 GHz/2 GHz/2.6 GHz for the electronic communications services a "*contribution to long-term coverage with high-speed Internet access*."
- In the well advanced preparations on frequency award in the band 1.8 GHz/2 GHz/2.6 GHz the federal government sees an opportunity for quickly awarding 800 MHz frequencies by integrating them into the current procedure (see also the broadband strategy of the federal government, loc. cit., page 15):

"If all parties involved act together resolutely, a combination of low and high frequency bands is even conceivable for the upcoming frequency award. This will increase the likelihood of resources with favourable propagation conditions from the digital dividend actually being used to close coverage gaps."

II. Ways of speeding up the procedure

The President's Chamber is aiming to fully exploit all means of speeding up and streamlining the procedure in preparing and implementing a procedure for awarding 800 MHz frequencies.

After the initial analysis of the required procedural steps at the three levels of

- the Ordinance concerning the Table of Frequency Awards,
- the Frequency Usage Plan and

- the award proceedings,

the Federal Network Agency can make use of the following possibilities to speed up and streamline the procedure:

1. The legal provision on the award of frequency band 790 MHz to 862 MHz for mobile services have currently been submitted to the Bundesrat for approval as a draft version of the second regulation on the amendment of the Ordinance concerning the Table of Frequency Awards (Bundesrat - official document 204to09 as of 04 Mar 2009, loc. cit.). If the draft amendment ordinance is approved by the Bundesrat before summer recess, the Federal Network Agency can prepare an appropriate Frequency Usage Subplan and develop an award procedure in 2009 (see also the federal government's broadband strategy, loc. cit., page 15). The federal government expects approval by May 2009.
2. The Federal Network Agency intends to give priority to the preparation of partial plan 226 in the Frequency Usage Plan instead of the scheduled update of the overall plan.
3. to speed up the procedure, the President's Chamber of the Federal Network Agency intends to put the **first key elements for future award** of frequencies in the band 790 MHz to 862 MHz (**see para. III below**) to discussion now. This proactive approach will ensure that the required procedural steps can be prepared by the President's Chamber in a way that frequencies in the band 790 MHz to 862 MHz can be awarded as fast as possible after the amended Ordinance concerning the Table of Frequency Awards has been issued.

The aspired award of frequencies in 2009 also requires as many activities as possible to be performed simultaneously and all parties involved to cooperate closely and rapidly, in particular the federal states. Speeding up the procedure is possible if all parties involved act in a target-oriented manner.

III. Key elements about options and procedural issues

1. **Frequencies in the band 790 MHz to 862 MHz shall be designated in the Frequency Usage Plan (partial plan 226) for use for the “electronic communications services (ECS) services”.**

Considerations:

- The Federal Network Agency prepares the Frequency Usage Plan based upon the applicable Frequency Band Award Plan allowing for regulatory aims, European harmonization, technical developments and interference-free use of frequencies (section 53 (1) TKG).
- Taking into account the so-called WAPECS concept (Wireless Access Policy for Electronic Communications Services), the RSPG (see also Spectrum Policy Group Opinion on Wireless Access Policy for Electronic Communications Services; RSPG 05-102) and for promoting technical developments, the Federal Network Agency provides as flexible frequency bands as possible in the Frequency Usage Plan for the „electronic communications services for offering telecommunication services“.
- The frequency bands 900 MHz, 1.8 GHz, 2 GHz and 2.6 GHz have already been provided flexibly at Frequency Usage Plan level. Therefore, flexible dedication of the frequency band 790 MHz to 862 MHz is particular in line with award above 880 MHz for wireless access (see partial Frequency Usage Plans 227 and 228).

- For the former dedications in the partial Frequency Usage Plan 226 for military applications and television broadcasting, the plan is to stipulate that these frequency usages will be terminated (see also usage regulation 22 of the Ordinance concerning the Table of Frequency Awards (FreqBZPV-E) as well as in justification under B.).
- In accordance with the Ordinance concerning the Procedure for Drawing up the Frequency Usage Plan, the Federal Network Agency seeks agreement with the concerned state and federal state authorities so that the consultation requirement demanded in the Frequency Band Award Plan in usage regulation 36 is also given due consideration in a first step. The Frequency Usage Plan is also prepared with the involvement of the public.
- to speed up the procedure, the Federal Network Agency plans to give priority - if possible - to the preparation of Frequency Usage Subplans affected by the "digital dividend" instead of the scheduled update of the overall plan, so that frequencies can be dedicated in the Frequency Usage Plan to "electronic communications services (ECS) services" in good time before they are allocated.

2. Framework conditions are currently prepared by the Federal Network Agency to ensure efficient and interference-free use of frequencies.

Considerations:

- Frequencies are only allocated if efficient and interference-free frequency usage is guaranteed (see also section 55 (5) sentence 1, para. 3 and 4 TKG).
- The draft of the amendment ordinance in usage regulation 36 provides as follows:

"The mobile service in the frequency band 790 to 862 MHz is not allowed to cause interference for the broadcasting service."
- to ensure largely interference-free frequency usage, frequency usage parameters are currently being prepared within the responsible international bodies with the close involvement of the Federal Network Agency. As part of the so-called second mandate of the European Commission on the digital dividend, surveys are currently being performed on the general conditions on ensuring as interference-free as possible applications of electronic communications services and broadcasting within several workgroups of CEPTtoECC (European Conference of Postal and Telecommunications Administrations to Electronic Communications Committee) Results are already being seen for summer 2009.
- The surveys concern the sub-division of the band into frequency sections for the uplink (mobile station transmitter) and downlink band (base station transmitter) and their central gap including usage options, the definition of maximum permitted spectral extension based upon a so-called block edge mask (BEM) as well as additional technical protective parameters and regulatory measures.
- Another part of the survey concerns additional measures that also contribute to reducing the potential interference between adjacent mobile and broadcasting applications. Interference may occur under certain conditions with DVB-T receivers that are currently on the market. Great efforts are currently being made to find solutions to avoid such interference.
- In the field of wireless microphones, the Federal Network Agency has been doing its best for some time on an international level for alternative usage possibilities to be

provided allowing for a wireless transition. In particular, alternative frequency bands for the use of wireless microphones shall be available in good time. Solutions to this are already evolving.

- 3. Where frequencies are not available for award in sufficient numbers in the band 790 MHz to 862 MHz, the President's Chamber can order frequency award to be preceded by award proceedings. According to section 61 (2) TKG an auction shall be performed as a standard proceeding.**

Considerations:

- According to section 55 (9) sentence 1 TKG, the President's Chamber may order award to be preceded by award proceedings. Award proceedings may be ordered where frequencies are not available for award in sufficient numbers or where more than one application has been made for particular frequencies.
- The determination of scarcity of frequencies may also be based upon a forecast decision by the President's Chamber (see section 55 (9) sentence 1, 1st alt. TKG). As stated in the preamble, this is possible if the President's Chamber comes to the conclusion that frequencies are not available for award in sufficient numbers (see official justification with reference to section 53 (9) of the government draft, Bundesrat - official document 755to03, page 109). The President's Chamber has substantial scope for judgment when determining the shortage as defined in section 55 (9) sentence 1, 1st alt. TKG, since assessments and weightings have to be made in planning and implementing decisions on frequency award to partly compensate opposed interests on the one hand and to balance regulatory aims on the other. The President's Chamber has to start with assumptions that are based on the current state of knowledge and experience, are reproducible and take into account the aims of regulation.
- When determining scarcity of frequencies, the current report on the investigation of the digital dividend by Arne Börnsen Consulting shall be taken into consideration. According to this report, some reasons seem to justify the assumption that the demand for 800 MHz frequencies will exceed the available scope of presumably 2 x 30 MHz (paired). One reason for a possible scarcity of frequencies may be the planned block bandwidths of up to 2 x 20 MHz (paired) that are intended to be used for innovative systems such as LTE (Long Term Evolution) in a mobile network.

Higher block bandwidths are required due to the increased demand for data services and higher bandwidths by the customers themselves. Some mobile network operators have already brought forward a current frequency demand for 800 MHz frequencies in the hearing on the flexibilization of frequency usage rights in the band 900 MHz and 1,800 MHz.

- At any rate, a scarcity of frequencies cannot be ruled out at present.
- According to section 61 (2) sentence 1 TKG, an auction proceeding shall generally be performed according to section 61 (5) TKG provided that this proceeding is appropriate to ensure the aims of regulation according to section 2 (2) TKG. At present, there are no reasons to believe that the auction proceeding is not suitable for ensuring the aims of regulation according to section 2 (2) TKG:
 - The President's Chamber has already ordered auction proceedings for frequencies from the frequency bands 1.8 GHz, 2 GHz and 2.6 GHz that are also intended for electronic communications services (see also the decision of the President's Chamber of 7 Apr 2008, published in the Official Gazette No. 7to2008

dated 23 Apr 2008, ordinance 34to2008). Auction proceedings for 800 MHz frequencies that are scheduled to be used for the electronic communications services therefore seems necessary to meet the consistency obligation according to section 132 (4) TKG.

- The objective of the amendment ordinance (consultation requirement 22 of the Ordinance concerning the Table of Frequency Awards (FreqBZPV-E), annex part B), according to which the frequency band primarily serves to close rural broadband gaps, does not automatically result in a public tender. Since the legislator determines the auction as the standard proceeding, it must be checked primarily whether the above objective can be achieved with corresponding award conditions. The type of coverage requirement can be taken into consideration, for example.
- In addition, auctions are ideally suited to achieve the legal goal of each award proceeding, i.e. to select the competitors best suited to efficiently using the frequencies. The official justification of section 61 (5) TKG (section 59 (5) of the government draft, Bundesrat - official document 755to03, page 109), states as follows in this regard:

"The successful bid typically shows its readiness and capability to optimally use the awarded frequency in the economic competition of service bids and to make all efforts to use the frequency economically."

- to enable a variety of undertakings to participate in the auction, a starting bid may be determined that is oriented at the lower end of the legal charges for the scheduled award proceeding in the band 1.8 GHz to 2 GHz to 2.6 GHz (see also the decision of the President's Chamber of 7 Apr 2008, published in the Official Gazette No. 7to2008 dated 23 Apr 2008, ordinance. 34to2008, justification to item 5).
- Such a minimum bid for the award of 800 MHz frequencies gives maximum leeway for aligning the economic value of the frequencies with a coverage requirement if it is primarily intended to close coverage gaps in rural areas (see consultation requirement 22 of the Ordinance concerning the Table of Frequency Awards (FreqBZPV-E), annex part B, loc. cit.).
- Determining a minimum bid can generally serve as a means of speeding up the proceedings. It could be ensured by setting a start bid that the number of individual bidding rounds is reduced and thus the auction accelerated.
- Auction proceedings have proved to be rapid procedures in practical administration experience.

4. Speeding up the proceedings can be achieved by the President's Chamber particularly by integrating the frequencies in the band 790 MHz to 862 MHz into the current preparation of the award proceeding for frequency bands 1.8 GHz, 2 GHz and 2.6 GHz.

Considerations:

- 800 MHz frequencies shall be allocated according to the "supporting frequency policy" of the federal government: *"If approval is granted by the Bundesrat before summer recess, a frequency usage plan can be prepared by the Federal Network Agency in 2009 and award proceedings can be started. Thus, the digital dividend could be used*

at least in individual areas starting in 2010 to secure efficient broadband coverage“ (see also the broadband strategy of the federal government, loc. cit., page 15).

- A rapid award of 800 MHz frequencies can be achieved by integrating them into the current preparation for the award procedure in the band 1.8 GHz, 2 GHz and 2.6 GHz. Integrating 800 MHz frequencies in this way can ensure that frequencies are awarded to bidders in a proceeding that serves both for general and capacity coverage. The preparation for the award proceeding in the band 1.8 GHz, 2 GHz and 2.6 GHz frequencies has already advanced to the extent that only the auction regulations have to be prepared. The award proceeding is to start in 2009:
 - Such a procedure offers planning security for competitors that also require complementary spectrums with 1.8 GHz to 2.6 GHz for their networks. Competitors can acquire an optimum frequency spectrum for infrastructure expansion for both general and capacity coverage.
 - By jointly awarding 800 MHz frequencies, artificial frequency shortages in particular can be avoided, which might arise in the case of isolated award of the spectrum.
 - In addition, a combined award of the entire spectrum including 800 MHz frequencies is in compliance with the current award practice of the President's Chamber to award all available frequencies in one procedure (consistency requirements).
 - Jointly auctioning 800 MHz frequencies may ease the competition among bidders and facilitate access to the frequency spectrum because bidders can switch to other (cheaper) frequencies in the procedure.
 - Some mobile network operators have already submitted requests for frequencies in the band 1.8 GHz to 2.6 GHz for 2009 to 2010 to introduce LTE (interconnected spectrum up to 2 x 20 MHz, paired).
 - This generally means that the award proceeding that has been developed so far could be applied (three partial decisions by the President's Chamber on ordering and selecting the award proceeding and the award conditions have already been taken; only the auction regulations are still pending; see also the decision of the President's Chamber of 7 Apr 2008, published in the Official Gazette No. 7 to 2008 as of 23 Apr 2008, ordinance 34 to 2008).
 - Integration of 800 MHz frequencies could be modeled on the general rules and determinations of President's Chamber decisions I to III that have been adopted so far if they apply equally to all frequency ranges of electronic communications services. If specific determinations for 800 MHz frequencies are required for objective reasons, the **former partial decisions of the President's Chamber of 07.04.2008 would have to be amended or adjusted** (for example for coverage requirements, usage requirements etc.).
5. **The relevant product market for which the frequencies to be awarded are allowed to be used based on the Frequency Usage Plan can be determined as the market for the “electronic communications services (ECS) services“ subject to any pending amendments of the Frequency Band Award Plan and the Frequency Usage Plan.**

Considerations:

- With decision III on the award of frequencies in the band 1.8 GHz, 2 GHz and 2.6 GHz (see also decision of the President's Chamber of 7 Apr 2008, published in the Official Gazette No. 7to2008 dated 23 Apr 2008, ordinance 34to2008 under para. III.2.2), the President's Chamber determined the relevant product market according to section 61 (2) no. 2 TKG for which the frequencies are allowed to be used according to the Frequency Usage Plan as follows:

„The relevant product market for which the frequencies to be awarded are allowed to be used according to the Frequency Usage Plan is the market for the electronic communications services (ECS) services.“

- At present, there are no reasons requiring deviation from the regulation of the relevant product market as electronic communications services for 800 MHz frequencies.

6. The relevant geographic market for which the frequencies to be awarded are allowed to be used allowing for the Frequency Usage Plan can be determined as the nationwide market subject to any pending amendments of the Frequency Band Award Plan and the Frequency Usage Plan.

Considerations:

- **With decision III** on the award of frequencies in the band 1.8 GHz, 2 GHz and 2.6 GHz (see also decision of the President's Chamber of 7 Apr 2008, published in the Official Gazette No. 7to2008 dated 23 Apr 2008, ordinance 34to2008 under para. III.2.2), the President's Chamber determined the relevant geographic market according to section 61 (2) no. 2 TKG for which the frequencies are allowed to be used according to the Frequency Usage Plan as follows:

„The relevant geographic market for which the frequencies to be awarded are allowed to be used according to the Frequency Usage Plan is the Federal Republic of Germany.“

- At present, there are no reasons requiring deviation from the regulation of the relevant geographic market as a nationwide market for 800 MHz frequencies.
- Frequencies from the digital dividend shall be available for electronic communications services on a nationwide basis in the future and thus able to be awarded throughout the country as the frequencies in the bands 1.8 GHz, 2 GHz and 2.6 GHz.
- A nationwide award of these frequencies for electronic communications services enables nationwide establishment of networks for mobile broadband services.
- For physical reasons, 800 MHz frequencies are suitable for full-area coverage and for supplying conurbation areas. Due to these propagation characteristics, which are particularly favourable for mobile applications, the frequencies are ideally suited to nationwide usage.
- In addition, the regulatory aim of efficient and interference-free frequency usage as defined by section 2 (A 2) no. 7 TKG can be optimally taken into account with nationwide award of 800 MHz frequencies since a nationwide award of frequencies

requires less coordination effort than regional or local award of frequencies. In addition, nationwide award of frequencies does not require any protection ratios. This particularly applies in view of the extensive effective ranges of these frequencies, since correspondingly extensive interference ranges also have to be taken into account. Thus, substantially more efficient use can be made of the frequency spectrum in the band 790 MHz to 862 MHz than would be the case with regional or local frequency award.

- Last but not least, it has to be taken into account that frequencies with similar propagation conditions in the band 900 MHz have been awarded on a nationwide basis in the past. Against this backdrop it is advisable to also award frequencies in the 800 MHz band on a nationwide basis to enable equal access to comparable frequencies for potential new market entrants.

7. So far, the President's Chamber has not determined a basic spectrum, where possible, but has left it to each undertaking to determine its individual frequency demand as part of an award proceeding.

Considerations:

- As part of its award practice, the Federal Network Agency advocates the approach of not determining a basic spectrum abstractly, if possible, but of leaving it to each undertaking to determine its individual frequency demand as part of an award proceeding.
- A required basic spectrum of frequencies "for mobile broadband Internet coverage" (see consultation requirement 36 of the Ordinance concerning the Table of Frequency Awards (FreqBZPV-E), annex part B, loc. cit.) and "for closing rural broadband gaps" generally cannot be determined abstractly and equally for all future awardees. For demand depends on whether an undertaking already has a frequency spectrum and is active on the market or if it is a so-called new entrant. The selected business model and the supply obligations associated with the award of frequency packages are also decisive for determining a minimum frequency spectrum. In this case, it is up to the undertakings to make use of common infrastructures as part of their business models or to enter into cooperation with other undertakings. As far as the possibility of combined usage of network infrastructures is concerned, the Federal Network Agency has already issued statements on the conditions under which infrastructure sharing can safely be applied (can be obtained on the Internet at http://totowww.bundesnetzagentur.detoenidto03c32a7feda672e8df9d6eefba500165,0t oUMTStoThesenpapier_deutsch_0cv.html). Particularly in view of the latest technical developments and the flexibilization of frequencies, the plan is to further develop these conditions.

8. The frequencies to be awarded in the frequency band 790 MHz to 862 MHz are to be used as electronic communications services for offering telecommunication services. There will be no restriction as far as the use of specific technologies is concerned. All available technologies can be used based upon the conditions of use.

Considerations:

- At present, there are no reasons requiring deviation from determinations on the intended use as a „electronic communications services (ECS) services“ stipulated in

partial decision III on the award of frequencies in the band 1.8 GHz, 2 GHz and 2.6 GHz (see also decision of the President's Chamber of 7 Apr 2008, published in the Official Gazette no. 7to2008 as of 23 Apr 2008, ordinance 34to2008 under para. III.4.1).

- As defined in section 1 TKG, the Federal Network Agency shall optimally promote technology-neutral regulation and thus technology-neutral use of frequencies.
- The frequency usage conditions are yet to be determined in particular based upon international recommendations and decisions.

9. The frequency usage conditions including the coverage rate during frequency usage and its timely implementation will be determined by the President's Chamber according to the legal regulations.

At present, usage regulation 36 in the draft of the second ordinance on the amendment of the Ordinance concerning the Table of Frequency Awards provides for a coverage rate in frequency usage that the frequency band 790 MHz to 862 MHz will be used in agreement with the federal states „primarily for closing the rural broadband gap“.

Considerations:

- The TKG does not include any concrete stipulations on how to determine the coverage rate. Moreover, the aims of regulation as defined in section 2 (2) TKG shall be taken into account and weighed up against each other.
- According to this, coverage requirements are to be designed so that they
 - safeguard both user and, most notably, consumer interests (section 2 (2) para. 1 TKG),
 - secure fair competition and sustainably promote telecommunications markets with competition in services and networks and in associated facilities and services, also in rural areas (section 2 (2) para. 2 TKG),
 - encourage efficient investment in infrastructure and promote innovation (section 2 (2) para. 3 TKG),
 - ensure efficient and interference-free use of frequencies (section 2 (2) para. 7 TKG).
- **Usage regulation 36** in the draft amendment (see usage regulation 36 of FreqBZPV-E, annex part B, cit. loc.) results in a deviation for 800 MHz frequencies from the stipulations concerning a coverage rate in partial decision III (see also the decision of the President's Chamber of 7 Apr 2008, published in Official Gazette no. 7to2008 as of 23 Apr 2008, ordinance 34to2008 under para. III.4.4) on the award of frequencies in the band 1.8 GHz, 2 GHz and 2.6 GHz (coverage rate of the population of at least 25 % from 01 Jan 2013 and at least 50 % from 01 Jan 2015).
- According to the planned Ordinance concerning the Table of Frequency Awards (see also usage regulation 36 of the FreqBZPV-E, annex part B, cit. loc.) it would have to be determined in agreement with the federal states that and to which extent a future awardee would have to close broadband gaps. This requires rapid specification of broadband gaps by the states. For reasons of legal and planning security, a precise cartographic presentation of broadband gaps must be submitted by the states that

can be subjected to a hearing of the parties concerned as part of the coverage requirement in the draft of the award decision.

In its reasoning, the draft of the Ordinance concerning the Table of Frequency Awards includes the following statement:

„Frequency band 790 to 862 MHz serves to improve broadband coverage in rural areas. This means that broadband gaps have to be closed in rural areas first and then in other regions and that no plans must be made for non-rural areas. The states shall be adequately involved in the award proceedings of the Federal Network Agency.“ (see also FreqBZPV-E, justification to no. 3, cit. loc.).

Several options are feasible here. The principle of appropriateness must be taken into account here.

- At present, options to secure coverage requirements are being considered in the discussions on the Ordinance concerning the Table of Frequency Awards that go beyond the legal option of revocation.
 - On the one hand, the option of contractual obligation by the future awardee. Based on individual obligations - and additionally penalties in the case of (partial) non-compliance with these obligations - an adequate full-area service and thus prioritized and reliable coverage could be achieved in areas without coverage to date. This, however, depends on the declarations of intent of future awardees.
 - On the other hand, the possibility is being considered of ensuring prioritized use of frequencies for covering areas that have not been supplied so far with coverage requirements in the sense of a gradual "release" of the spectrum.

10. Future awardees can make use of possibilities that promote rapid and efficient network setup also in rural areas. Economic cooperation with other network operators is possible as permitted by regulatory and competitive regulations. Network usage agreements for the operation of joint infrastructures or letting of frequencies can also be considered.

Considerations:

- As in former award proceedings, possibilities are available to the future awardees - within the limits of competition and telecommunications law - that may facilitate both access to frequencies and compliance with their coverage obligation for them:
 - Consortia may be permitted in the award proceeding if proof of competitive soundness according to the Competition Act is furnished by the responsible antitrust authority.
 - Awardees may use joint network infrastructures within the limits of their regulatory principles that were established by the Federal Network Agency on infrastructure sharing. As far as the possibility of combined usage of network infrastructures is concerned, the Federal Network Agency has already issued statements on the conditions under which infrastructure sharing can safely be applied (can be obtained on the Internet at http://totowww.bundesnetzagentur.detoenidto03c32a7feda672e8df9d6eefba500165.0toUMTStoThesenpapier_deutsch_0cv.html). Particularly in view of the latest technical developments and the flexibilization of frequencies, the intention is to further develop these conditions.
 - An awardee may also be in compliance with the coverage requirement if coverage is provided by other network operators to whom the frequencies are let. The

Federal Network Agency published a guideline on the issues of trading possibilities and trading proceedings, transferring and temporarily letting frequency awards according to the TKG (see also Official Gazette RegTP 12to2005 of 19 Jun 2005, Communication No. 152to2005).

11. to ensure non-discriminatory, reproducible and objective proceedings, final decisions about an award proceeding shall be made by the President's Chamber after completion of the legally required hearings of the parties concerned in cooperation with the federal states. In addition, the advisory board of the Federal Network Agency will be involved in such decisions.

Consideration:

- According to section 61 (1) sentence 1 TKG the Federal Network Agency makes a decision after hearing the parties concerned. In its reasoning, the draft amendment includes the following statements: "*The federal states shall participate in the award proceedings of the Federal Network Agency in a suitable manner*" (FreqBZPV-E, statement of grounds on no. 3, cit. loc.). Such participation, in particular to identify local coverage gaps, may take place during the intended hearings as part of the award proceeding. The hearing of the parties concerned according to section 55 (9) and (61) TKG also includes a hearing of the federal states.
- In addition, it is stipulated in section 132 (3) sentence 3 TKG, that the decisions in the cases of section 61 (4 no. 2 and 4 shall be taken in cooperation with the Advisory Council. This also ensures suitable participation by the federal states.

Bonn, 13 March 2009