

General Administrative Order

Ruling by the President's Chamber of the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway on the order for 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; Ruling issued under section 55(9), section 61 subsections (1),(2),(4) and (5), section 132 subsections (1) and (3) of the TKG

BK1-05/008

The Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway (the Agency) hereby issues the following decisions through the President's Chamber under section 55(9), section 61 subsections (1),(2),(4) and (5), section 132 subsections (1) and (3) of the Telecommunications Act (TKG) of 22 June 2004 (Federal Law Gazette I page 1190) on the award of frequency assignments for Broadband Wireless Access (BWA):

I. Order for and choice of award proceedings

1. The Agency orders under section 55(9) of the TKG that the assignment of frequencies for BWA in the 3.5 GHz band be preceded by award proceedings as per section 61 of the TKG.
2. The proceedings as per section 61(1) of the TKG will be conducted as an auction in accordance with section 61 subsections (4) and (5) of the TKG.

II. Determinations and rules for conduct of the auction in accordance with section 61 subsections (4) and (5) of the TKG

1. Qualification requirements (section 61(4) sentence 2 para 1 of the TKG)

- 1.1 Entitlement to take part in the auction, given the minimum specialist and other requirements referred to in section 61(4) sentence 2 para 1 of the TKG, is not restricted.
- 1.2 Each undertaking may qualify in a particular region once only. This also applies in respect of consortia, for instance. Undertakings that have merged under section 37 of the German Competition Act (GWB) are deemed to be one undertaking. Any undertakings merging for application purposes must demonstrate by certification from the German Federal Cartel Office that there are no objections to this form of organisation under the GWB.
- 1.3 Applications to qualify for the auction should be submitted in writing, in German, in one original and 6 copies, and electronically (Word or pdf file) to the Agency; postal address: *Bundesnetzagentur, Referat 226, Fehrbelliner Platz 3, 10707 Berlin*, e-mail: 226.BWA@bnetza.de. Applicants are requested in particular to designate the region(s) in which they intend to exercise bidding rights. In their application, applicants must set out how the requirements for admission to the auction as referred to in section 61(4) sentence 2 para 1 of the TKG are met (cf Annex 1 for details of the requirements).
- 1.4 Qualification is now launched with publication of this ruling in the Agency's Official Gazette; the closing date for applications is 8 November 2006.

2. Determining the relevant product and geographic market for which the spectrum may be used (section 61(4) para 2 of the TKG)

- 2.1 The relevant product market for which the spectrum to be awarded may be used in observance of the Frequency Usage Plan is the market for Broadband Wireless Access (BWA).
- 2.2 The relevant geographic market for BWA for which the spectrum may be used in observance of the Frequency Usage Plan extends from localities to regional areas right up

to the territory of the Federal Republic of Germany. Thus 28 regions have been created covering all the national territory of the Federal Republic. Applications for more than one region, right up to nationwide coverage, are possible.

- 2.3 Excluding applicants from participating in the auction as set out in section 61(3) of the TKG in order to secure fair competition in the relevant product and geographic market is not appropriate.

3. Basic spectrum package (section 61(4) sentence 2 para 3 of the TKG)

A maximum of 2 x 84 MHz can be used from the band 3400 to 3600 MHz for reasons of compatibility with adjacent usages. Specifically, these are the bands 3410 to 3494 MHz (lower band) and 3510 to 3594 MHz (upper band).

The following packages will be auctioned in the 28 regions:

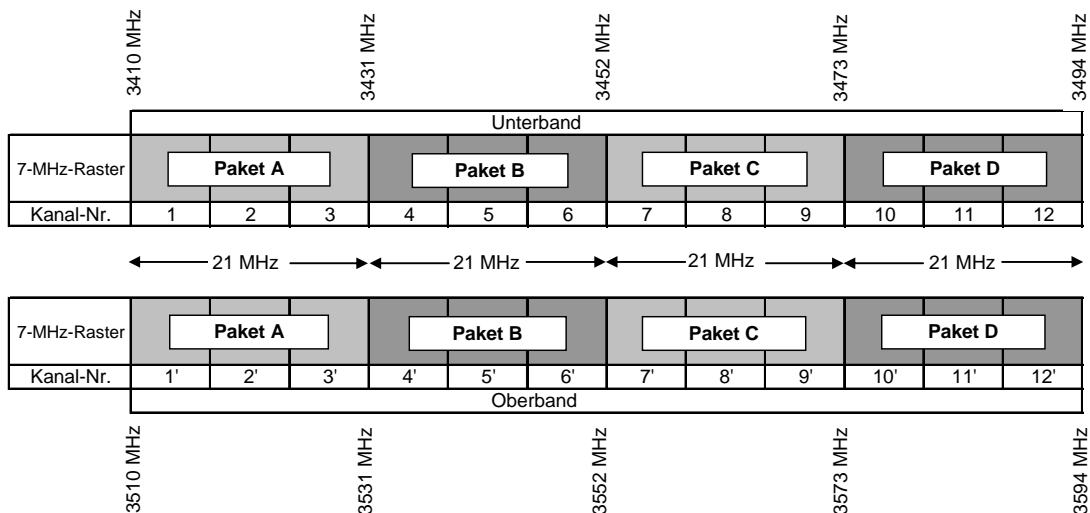
Package A: 21 MHz paired,

Package B: 21 MHz paired,

Package C: up to 21 MHz paired,

Package D: up to 21 MHz paired.

On account of existing frequency usage rights, packages C and D are not available in the whole of every region, or not to the full extent (for details see Annexes 3 to 30).



Kanalangaben nach CEPT/ECC Rec. 14-03, 7-MHz-Raster

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

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 4.2).

4. Frequency usage conditions, including the degree of coverage with the frequency usage and the time required to achieve such degree (section 61(4) sentence 2 para 4 of the TKG)

- 4.1 The spectrum for award in the 3.5 GHz band is intended for Broadband Wireless Access (BWA).

Use will not be restricted to particular technologies. Subject to the conditions of use, all the available technologies can be deployed.

4.2 The frequency assignments are subject to the following conditions of use:

	Parameters	Remarks
Duplex mode, duplex spacing	FDD, 100 MHz or TDD	
Channel spacing	Multiples of 0.25 MHz	as per CEPT/ECC Rec 14-03
Block edge mask	as per CEPT/ECC Rec (04)05 – 2006	¹⁾
Frequency tolerance	± 20 ppm	
Max permissible spurious emission	ZST: -50 dBm TST: -40 dBm	at the antenna port
Position for FDD operation	Transmitting frequencies: ZST: upper band TST: lower band	ZST – central station TST – subscriber station

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.

4.3 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 Annexes 3 – 18).

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.

4.4 The frequency assignments are valid until 31 December 2021.

4.5 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 overleaf (15% by 31 December 2009 and 25% by 31 December 2011):

BWA regions		Total no of municipalities*	No of municipalities to be served with spectrum packages A/B		No of municipalities to be served with spectrum package C		No of municipalities to be served with spectrum package D	
			by 31.12.2009 at the latest (± 15%)	by 31.12.2011 at the latest (± 25%)	by 31.12.2009 at the latest (± 15%)	by 31.12.2011 at the latest (± 25%)	by 31.12.2009 at the latest (± 15%)	by 31.12.2011 at the latest (± 25%)
01	Schleswig	680	102	170	102	170	81	135
02	Hamburg	528	79	132	79	132	29	49
03	Weser-Ems	248	37	62	37	62	29	49
04	Bremen / Lüneburg	371	55	92	55	92	55	92
05	Hannover / Braunschweig	326	48	81	48	81	45	76
06	Mecklenburg	420	63	105	62	104	62	104
07	Vorpommern	457	68	114	44	74	44	74
08	Köln / Düsseldorf	165	24	41	24	41	20	34
09	Detmold / Arnsberg	129	19	32	19	32	13	23
10	Münster	102	15	25	15	25	15	25
11	Sachsen-Anhalt	719	107	179	107	179	107	179
12	Berlin / Brandenburg	306	45	76	45	76	41	69
13	Trier / Koblenz	1454	218	363	218	363	218	363
14	Saarland / Pfalz	778	116	194	107	179	113	189
15	Rhein / Main	319	47	79	47	79	47	79
16	Kassel / Gießen	239	35	59	35	59	35	59
17	Thüringen	886	132	221	132	221	132	221
18	Halle / Leipzig	425	63	106	63	106	60	100
19	Dresden / Lausitz	299	44	74	44	74	44	74
20	Chemnitz	311	46	77	46	77	43	73
21	Stuttgart / Karlsruhe	596	89	149	81	135	63	105
22	Freiburg	319	47	79	47	79	40	67
23	Tübingen	274	41	68	41	68	37	62

BWA regions		Total no of municipalities*	No of municipalities to be served with spectrum packages A/B		No of municipalities to be served with spectrum package C		No of municipalities to be served with spectrum package D	
			by 31.12.2009 at the latest (± 15%)	by 31.12.2011 at the latest (± 25%)	by 31.12.2009 at the latest (± 15%)	by 31.12.2011 at the latest (± 25%)	by 31.12.2009 at the latest (± 15%)	by 31.12.2011 at the latest (± 25%)
24	Franken	667	100	166	100	166	77	129
25	Oberpfalz	226	33	56	33	56	33	56
26	Schwaben	408	61	102	61	102	61	102
27	Oberbayern	437	65	109	62	104	51	86
28	Niederbayern	234	35	58	35	58	24	41

*Source: Federal Statistical Office; List of municipalities GV2000 (extract) – Quarterly edition to 31.03.2006

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 enough 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 with 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 each year.

5. Stipulating a minimum bid (section 61(5) sentence 2 of the TKG)

A minimum bid will be stipulated for each spectrum package in a region. This minimum bid will be oriented by the assignment fees and will reflect population density. For details of the separate minimum bids see section III, 2.1.

6. Launch of proceedings

The qualification stage is now open, following publication of the decisions under section 55(9) section 61 subsections (1),(4) and (5), section 132 subsections (1) and (3) of the TKG. Applications to qualify must be submitted not later than 8 November 2006 (cf 1.4).

III. Determinations on the rules for the conduct of an auction for the award of spectrum in the 3.5 GHz band for Broadband Wireless Access (BWA) under section 55(9), section 61 subsections (1),(2),(4) and (5), section 132 subsections (1) and (3) of the TKG; (Auction Rules)

1. General provisions

- 1.1 Eligible to participate in the auction is any undertaking that has submitted an application to qualify (cf section II, 1.3) and whom the Agency has notified that it meets the qualification criteria.

- 1.2 Undertakings that have qualified to take part in the award proceedings in the 3.5 GHz band must, no later than 14 days before the auction, pay a deposit into an account to be specified by the Agency. The amount of deposit for each region is shown in the table below. The amount corresponds to the minimum bid stipulated in the different regions for spectrum package A (21 MHz (paired)). The total amount of deposit to be paid depends on the regions in which an undertaking intends to exercise bidding rights.

Instead of a cash deposit, undertakings can also submit, for the same amount as the deposit, an unconditional, continuing, irrevocable, absolute bank guarantee issued in German by a domestic financial institution or a financial institution authorised as a customs and tax guarantor.

Specifically, the deposits for the different regions are as follows:

	€
Region 01 – Schleswig	287,000
Region 02 – Hamburg	660,000
Region 03 – Weser-Ems	468,000
Region 04 – Bremen / Lüneburg	430,000
Region 05 – Hannover / Braunschweig	660,000
Region 06 – Mecklenburg	192,000
Region 07 – Vorpommern	151,000
Region 08 – Köln / Düsseldorf	1,819,000
Region 09 – Detmold / Arnsberg	672,000
Region 10 – Münster	934,000
Region 11 – Sachsen-Anhalt	277,000
Region 12 – Berlin / Brandenburg	1,016,000
Region 13 – Trier / Koblenz	340,000
Region 14 – Saarland / Pfalz	455,000
Region 15 – Rhein / Main	859,000
Region 16 – Kassel / Gießen	440,000
Region 17 – Thüringen	383,000
Region 18 – Halle / Leipzig	399,000
Region 19 – Dresden / Lausitz	411,000
Region 20 – Chemnitz	357,000
Region 21 – Stuttgart / Karlsruhe	1,353,000
Region 22 – Freiburg	437,000
Region 23 – Tübingen	356,000
Region 24 – Franken	717,000
Region 25 – Oberpfalz	207,000
Region 26 – Schwaben	386,000
Region 27 – Oberbayern	757,000
Region 28 – Niederbayern	205,000

- 1.3 Undertakings that have qualified to take part in the auction in the 3.5 GHz band must, by the auction tutorial date, have authorised four persons to participate in the tutorial and bid at the auction on their behalf. During the auction at least two authorised and tutored persons must always be present in situ. Proof of authorisation in the form of a power of attorney is to be furnished to Section 215 of the Agency.

- 1.4 Each qualified bidder, represented by his authorised agents, must have participated in a tutorial before the auction for instruction in the practical conduct of the auction.

Each participant in the auction will be informed of the date of the tutorial, to be given at the Agency's office in Mainz, in good time before the tutorial is held. The tutorial date will be close to the auction date.

At the end of the tutorial, the authorised agents must make a written declaration to Section 215 of the Agency that they have understood the auction rules and the electronic bidding procedure, and must commit to complying with these rules.

Preconditions for participation in the auction are participation in the tutorial and the declaration of having understood the auction rules and the electronic bidding procedure and the intention to comply with these.

Any bidder disturbing proceedings by his behaviour can be excluded by the auctioneer from further participation. In this case the bidder is obliged to honour his bids, as far as he was the highest bidder at the time of exclusion and no higher bid for the spectrum package in question is made by another bidder in the further course of the auction.

- 1.5 The auction will take place at the Agency's office, Canisiusstrasse 21, in Mainz in the presence of the qualified bidders, each bidder being represented by the authorised and tutored persons they have named. The auction will be held from Monday to Friday. It will begin at 08:00 hours. The final round in the day will begin at 17:00 hours at the latest.

Any suspension of the auction will be announced by the auctioneer, who will also inform the bidders of the time at which the auction will be continued after the suspension.

Each bidder will be provided with a separate room within the auction building. This room is equipped with a computer for making bids, a telephone permitting connections solely to the auctioneer, another telephone and a fax permitting connections solely to the decision-makers in the undertaking that has qualified as a bidder.

The auction results will be publicly announced.

- 1.6 The auction will take the form of an open ascending simultaneous multiple round auction. In each round, bidders – subject to entitlement – may make bids simultaneously, independently of one another and in secret, each bidder – again subject to entitlement – being free to decide for which blocks to bid.

Bids are submitted electronically by means of special auction software.

- 1.7 At the end of each round, the highest bid for each spectrum package is established by evaluating the round. The highest bid is the highest active bid for a particular package at the end of the round. The highest bid for a particular spectrum package is the highest valid bid for this spectrum package at the beginning of the next round of the auction.

If identical highest bids have been submitted for a frequency block, the bidder submitting his bid first is deemed to hold the highest bid.

Bidders holding the highest bid at the end of a round are obliged to pay the amount of their bid. This obligation lapses as soon as a new highest bid has been designated in a following round.

- 1.8 After a round has been completed the auctioneer, using the special auction software, informs each bidder of the highest valid bid for each spectrum package and the identity of the bidder, and the active bids of all the bidders.

At the start of a new round the auctioneer also gives each bidder the following information:

- the current round of the auction,
- the current activity stage,
- the duration of the round,
- the highest bid and the highest bidder for each spectrum package,
- the minimum bid and the amount of the absolute minimum increment for each spectrum package,
- a list of valid bids from which the bidder can select the amount to bid (click-box),
- the bidders that have stopped or been excluded,
- the number of waivers he has not yet used
- the extent of his current entitlement to bid and his minimum activity in the previous round.

Participants are notified on each occasion of the reason for and the duration of any suspension in the auction.

2. Proceedings

2.1 Four spectrum packages are available for auction in each of 28 regions. Specifically, these are:

- spectrum packages A and B, both providing 21 MHz (paired) and available without restriction in every region, and
- spectrum packages C and D, both providing up to 21 MHz (paired). Not all the spectrum is available in these regions in all the districts, on account of WLL assignments.

For each spectrum package in each region a "lot rating" has been set for determination of the bidding rights and minimum bids.

Specifically, the following minimum bids and lot ratings have been set:

Regions	Spectrum package	Designation	Spectrum package (amount)	Lot rating	Minimum bid in euros
Region 01 Schleswig	A	01 A	21 MHz (paired)	190	287,000
	B	01 B	21 MHz (paired)		287,000
	C	01 C	21 MHz (paired)		287,000
	D	01 D	21 MHz (paired)		223,000
Region 02 Hamburg	A	02 A	21 MHz (paired)	437	660,000
	B	02 B	21 MHz (paired)		660,000
	C	02 C	21 MHz (paired)		660,000
	D	02 D	21 MHz (paired)		333,000
Region 03 Weser-Ems	A	03 A	21 MHz (paired)	310	468,000
	B	03 B	21 MHz (paired)		468,000
	C	03 C	21 MHz (paired)		468,000
	D	03 D	21 MHz (paired)		360,000
Region 04 Bremen / Lüneburg	A	04 A	21 MHz (paired)	285	430,000
	B	04 B	21 MHz (paired)		430,000
	C	04 C	21 MHz (paired)		430,000
	D	04 D	21 MHz (paired)		420,000
Region 05 Hannover / Braunschweig	A	05 A	21 MHz (paired)	437	660,000
	B	05 B	21 MHz (paired)		660,000
	C	05 C	21 MHz (paired)		660,000
	D	05 D	21 MHz (paired)		550,000

Region 06 Mecklenburg	A	06 A	21 MHz (paired)	127	192,000
	B	06 B	21 MHz (paired)		192,000
	C	06 C	21 MHz (paired)		189,000
	D	06 D	21 MHz (paired)		189,000
Region 07 Vorpommern	A	07 A	21 MHz (paired)	100	151,000
	B	07 B	21 MHz (paired)		151,000
	C	07 C	21 MHz (paired)		103,000
	D	07 D	21 MHz (paired)		103,000
Region 08 Köln / Düsseldorf	A	08 A	21 MHz (paired)	1,205	1,819,000
	B	08 B	21 MHz (paired)		1,819,000
	C	08 C	21 MHz (paired)		1,819,000
	D	08 D	21 MHz (paired)		1,520,000
Region 09 Detmold / Arnsberg	A	09 A	21 MHz (paired)	445	672,000
	B	09 B	21 MHz (paired)		672,000
	C	09 C	21 MHz (paired)		672,000
	D	09 D	21 MHz (paired)		507,000
Region 10 Münster	A	10 A	21 MHz (paired)	618	934,000
	B	10 B	21 MHz (paired)		934,000
	C	10 C	21 MHz (paired)		934,000
	D	10 D	21 MHz (paired)		901,000
Region 11 Sachsen-Anhalt	A	11 A	21 MHz (paired)	184	277,000
	B	11 B	21 MHz (paired)		277,000
	C	11 C	21 MHz (paired)		277,000
	D	11 D	21 MHz (paired)		274,000
Region 12 Berlin / Brandenburg	A	12 A	21 MHz (paired)	673	1,016,000
	B	12 B	21 MHz (paired)		1,016,000
	C	12 C	21 MHz (paired)		1,016,000
	D	12 D	21 MHz (paired)		902,000
Region 13 Trier / Koblenz	A	13 A	21 MHz (paired)	225	340,000
	B	13 B	21 MHz (paired)		340,000
	C	13 C	21 MHz (paired)		340,000
	D	13 D	21 MHz (paired)		340,000
Region 14 Saarland / Pfalz	A	14 A	21 MHz (paired)	301	455,000
	B	14 B	21 MHz (paired)		455,000
	C	14 C	21 MHz (paired)		398,000
	D	14 D	21 MHz (paired)		436,000
Region 15 Rhein / Main	A	15 A	21 MHz (paired)	569	859,000
	B	15 B	21 MHz (paired)		859,000
	C	15 C	21 MHz (paired)		859,000
	D	15 D	21 MHz (paired)		859,000
Region 16 Kassel / Gießen	A	16 A	21 MHz (paired)	291	440,000
	B	16 B	21 MHz (paired)		440,000
	C	16 C	21 MHz (paired)		440,000
	D	16 D	21 MHz (paired)		440,000
Region 17 Thüringen	A	17 A	21 MHz (paired)	254	383,000
	B	17 B	21 MHz (paired)		383,000
	C	17 C	21 MHz (paired)		383,000
	D	17 D	21 MHz (paired)		376,000
Region 18 Leipzig / Halle	A	18 A	21 MHz (paired)	264	399,000
	B	18 B	21 MHz (paired)		399,000
	C	18 C	21 MHz (paired)		399,000
	D	18 D	21 MHz (paired)		350,000
Region 19 Dresden / Lausitz	A	19 A	21 MHz (paired)	273	411,000
	B	19 B	21 MHz (paired)		411,000
	C	19 C	21 MHz (paired)		411,000
	D	19 D	21 MHz (paired)		401,000

Region 20 Chemnitz	A	20 A	21 MHz (paired)	236	357,000
	B	20 B	21 MHz (paired)		357,000
	C	20 C	21 MHz (paired)		357,000
	D	20 D	21 MHz (paired)		328,000
Region 21 Stuttgart / Karlsruhe	A	21 A	21 MHz (paired)	896	1,353,000
	B	21 B	21 MHz (paired)		1,353,000
	C	21 C	21 MHz (paired)		1,240,000
	D	21 D	21 MHz (paired)		869,000
Region 22 Freiburg	A	22 A	21 MHz (paired)	290	437,000
	B	22 B	21 MHz (paired)		437,000
	C	22 C	21 MHz (paired)		437,000
	D	22 D	21 MHz (paired)		372,000
Region 23 Tübingen	A	23 A	21 MHz (paired)	236	356,000
	B	23 B	21 MHz (paired)		356,000
	C	23 C	21 MHz (paired)		356,000
	D	23 D	21 MHz (paired)		321,000
Region 24 Franken	A	24 A	21 MHz (paired)	475	717,000
	B	24 B	21 MHz (paired)		717,000
	C	24 C	21 MHz (paired)		717,000
	D	24 D	21 MHz (paired)		580,000
Region 25 Oberpfalz	A	25 A	21 MHz (paired)	137	207,000
	B	25 B	21 MHz (paired)		207,000
	C	25 C	21 MHz (paired)		207,000
	D	25 D	21 MHz (paired)		207,000
Region 26 Schwaben	A	26 A	21 MHz (paired)	256	386,000
	B	26 B	21 MHz (paired)		386,000
	C	26 C	21 MHz (paired)		386,000
	D	26 D	21 MHz (paired)		386,000
Region 27 Oberbayern	A	27 A	21 MHz (paired)	501	757,000
	B	27 B	21 MHz (paired)		757,000
	C	27 C	21 MHz (paired)		726,000
	D	27 D	21 MHz (paired)		619,000
Region 28 Niederbayern	A	28 A	21 MHz (paired)	136	205,000
	B	28 B	21 MHz (paired)		205,000
	C	28 C	21 MHz (paired)		205,000
	D	28 D	21 MHz (paired)		141,000

2.2 Eligible to take part are all the undertakings meeting the general qualification criteria set out in 1.1 – 1.4.

2.3 Proceedings

2.3.1 In each of 28 regions, four spectrum packages will be offered in a multiple round simultaneous auction. All the packages provide spectrum of 21 MHz (paired). As availability is not the same in every region, concrete packages are offered. In principle it is possible for a bidder to make bids during the auction for different packages within a region (for more details see 2.3.4).

Subject to entitlement, each bidder can acquire one spectrum package only per region.

2.3.2 In each round, subject to entitlement, bidders may simultaneously, independently and in secret bid for no more than one spectrum package per region, each bidder being free to decide for which package to bid.

2.3.3 The maximum number of exercisable bidding rights for each bidder depends on the application to qualify for the individual regions and the deposit or bank guarantee.

2.3.4 From the second round, bidders can also bid for different spectrum packages in the particular region than in the previous round. This does not apply if their bid was the highest for a spectrum package in the previous round.

2.3.5 Bidders are not free to choose the amount of the bid. Instead, a list of valid bids is specified for each spectrum package in each round, from which bidders can choose (click-box bidding).

2.4 Only valid bids will be evaluated.

In the first round, a valid bid is a bid no lower than the minimum bid.

In the subsequent rounds a valid bid is a bid that exceeds the current highest bid (at least) by the current minimum bid increment for the particular spectrum package. If no valid bid was made for a frequency block in the previous rounds, the minimum bid is considered a valid bid for the block. In this way, the minimum bid possible is determined. This is rounded down to a whole multiple of the minimum agreed bidding unit of €1,000.

Only such bids in a list as are specified as such by the software are valid (click-box bidding). This list covers the following bid amounts:

- the minimum bid valid,
- the minimum bid valid plus 1 bidding unit (€1,000),
- the minimum bid valid plus 5 bidding units (€5,000),
- the minimum bid valid plus 10 bidding units (€10,000),
- the minimum bid valid plus 20 bidding units (€20,000),
- the minimum bid valid plus 50 bidding units (€50,000),
- the minimum bid valid plus 100 bidding units (€100,000),
- the minimum bid valid plus 200 bidding units (€200,000),
- the minimum bid valid plus 500 bidding units (€500,000),
- the minimum bid valid plus 1,000 bidding units (€1,000,000).

A bid is valid only when it is made electronically within the allotted time (for details see 2.8).

2.5 The minimum increment is a certain (not negative) sum of money.

The minimum increment is set by the auctioneer at the start of the particular round for each spectrum package.

The auctioneer informs the bidders at the start of a round of the absolute value of the minimum increment, the amount being rounded down to the nearest €1,000.

2.6 A bidder's activity in a particular round is defined as the sum of the lot ratings of the spectrum packages for which he has made an active bid.

A bidder is deemed to have made an active bid for a spectrum package in a round if he holds the highest bid at the start of the round or if he makes a valid bid for the package in the current round.

The auction is divided into three successive activity stages. The auctioneer decides when the auction enters the next activity stage. In the three stages there are different minimum activity levels with reference to bidding entitlement at the start of a round.

- Stage 1 requires an activity level of 60% of bidding entitlement.
- Stage 2 requires an activity level of 80% of bidding entitlement.
- Stage 3 requires an activity level of 95% of bidding entitlement.

Minimum activity is shown as an absolute figure (in activity points) rounded up to the nearest whole number.

Bidders receive their full bidding entitlement when they have reached, or exceeded, the applicable minimum activity.

Bidders not reaching the applicable minimum activity and not making use of any waivers (see 2.7) will have their entitlement fixed anew for the next round as follows:

- Stage 1 by multiplying the activity (measured by the sum of the lot ratings of the spectrum packages for which an active bid has been made) by 100/60.
- Stage 2 by multiplying the activity (measured by the sum of the lot ratings of the spectrum packages for which an active bid has been made) by 100/80.
- Stage 3 by multiplying the activity (measured by the sum of the lot ratings of the spectrum packages for which an active bid has been made) by 100/95.

Bidders who have not made an active bid in a round for any spectrum package and who have no more waivers are eliminated and cannot make any more active bids in the further proceedings. Those still able to make active bids at the end of a round are called active.

- 2.7 At the start of the auction each bidder is given three waivers for use in three different rounds. Only one waiver can be used per round. This, again, is possible only if the minimum activity level required would not otherwise be reached.

Bidders have two ways of using their waivers. Bidders can use a waiver proactively by activating a command to this effect in the software.

If a bid is not made in a round (ie a bidder lets the time elapse without sending a bid electronically), a waiver is automatically granted when the minimum activity required is not reached and the bidder still has a waiver.

Also, bidders can explicitly decide not to use a waiver. In this case they lose bidding rights, however.

- 2.8 Bids must be made within 120 minutes of a round starting. The auctioneer can, however, specify a different length of time before the start of a round, after due assessment of the circumstances.

An automatic reminder will be made ten minutes before expiry of this time.

A round closes when each bidder's bids have been received by the auctioneer and the round has been evaluated or when the round has been evaluated after the allotted time for making bids has elapsed.

- 2.9 A bid is deemed legitimate if it is a valid bid and has been submitted within the allotted time.

A bidder's obligation from his bid ceases as soon as a new valid bid is designated as a new highest bid.

Unauthorised bids are disregarded.

The auction software prevents more bids from being submitted than are allowed under the bidding rights.

- 2.10 Any bidders or authorised agents cooperating before or during the auction in order to influence its course or results (colluding) may be excluded from further proceedings. If a bidder holds a designated highest bid on exclusion, his bid remains valid. If the bidder's designated highest bid is not subsequently outbid, he remains bound by his bid to pay, but will not be awarded the spectrum package(s).

If collusion is not established until after the auction closes, award of the package / assignment of the frequencies may be revoked. A highest bidder remains bound by his bid to pay. There is no refund of the award price.

The auctioneer may take appropriate measures to prevent collusion.

- 2.11 The auction ends when no valid bid has been made for a spectrum package in a round in the final (third) activity stage and none of the bidders has used a proactive waiver.

If a valid bid has not been made in a round of the auction at an earlier activity stage and none of the bidders uses a proactive waiver, it is up to the auctioneer to decide whether to take proceedings forward to the next activity stage or to end them directly.

The auction may close through discontinuation. The auctioneer may discontinue the auction if there is a technical defect in the equipment necessary for auction conduct, if bidders cooperate collusively, or if other reasons jeopardise proper auction conduct. In this case, the Agency will set a date for restart of the auction.

The auction ends with announcement of the results (oral award) by the auctioneer.

2.12 Bids may not be withdrawn during proceedings or after announcement of the results (oral award).

2.13 Award of the particular spectrum package in the particular region is made to the bidder who has bid the highest for this spectrum package at the close of the auction. Award may be denied on grounds of collusion or exclusion from the auction. The award price is equal to the sum of the bidder's highest bid.

Frequency blocks for which there is no valid bid at the close of the auction or for which award has been denied will not be awarded at this auction.

Frequencies are assigned only when participants have met all their payment obligations.

If a frequency block has not been awarded at the close of the auction, the Agency will decide whether and when this will happen. This also applies when the award or frequency assignment is revoked after the auction has ended.

Award will be documented in writing after close of the auction.

3. Terms of payment

The sum payable for award of the relevant spectrum package(s) (award price) must be paid within ten business days of the request for payment, against confirmation of receipt. The time the money is credited to the account designated by the Agency determines the observance of deadlines. The request for payment is delivered along with the notice of award (see 2.13).

The deposit will be deducted from the award price. Any amount exceeding the award price will be refunded without undue delay after the close of the auction. The bank guarantee will be returned without undue delay after payment of the bid.

Annex 1

1. Application to qualify for the auction

Participation in the auction presupposes that eligibility has been determined by the Federal Network Agency in each individual case.

To meet the minimum specialist and other requirements to qualify for the award proceedings within the meaning of section 61(4) sentence 2 para 1 of the TKG, an applicant must state and provide evidence

- that he meets the legal assignment requirements within the meaning of section 55 subsections (4) and (5) of the TKG,
- that he has the financial means with which to acquire the spectrum,
- that he is a serious bidder, and
- of the investment and ownership structure of his undertaking.

2. Information required and structure of an application

An application to qualify must be submitted for each region/regions.

Applicants who have made an application for frequency assignment by registration must also apply to qualify as per section 61(4) para 1 of the TKG.

Applications must be structured along the following lines:

A. Information on the applicant

- a. Name and address of the undertaking
- b. Legal form of the undertaking
- c. Seat of the undertaking
- d. Applicant's financial interests
- e. Name of a contact person who is an authorised representative
- f. Name of a person authorised to take delivery

B. Ownership interests / Certification from the Federal Cartel Office

In their application, applicants must give details of the ownership structure – also indirect – of their undertaking. This also applies individually to all members when an application is made by a consortium. The stakes in the consortium must be given in addition.

If undertakings that were not previously merged either with the applicant or with one another within the meaning of section 37 of the German Competition Act (GWB) hold a stake in the applicant, the applicant must demonstrate by means of certification from the cartel authorities that there are no objections to this form of organisation under the GWB. Applicants not able to submit this certification from the cartel authorities at the time of making their application must furnish evidence of having applied to the cartel authorities for such certification. Qualification for the auction presupposes, however, at least a declaration from the cartel authorities that there are no objections to the merger. In this case the certification from the cartel authorities must be submitted subsequently without undue delay.

C. Information on reliability

Applicants must therefore state whether, in the past, frequencies assigned have been revoked, conditions have been imposed on account of failing to honour obligations from a licence or a frequency assignment, legal action has been taken against them on account of having breached telecommunications or data protection regulations, or proceedings in the above cases are pending.

D. Information on efficiency

Applicants must prove that they have the financial means to acquire the spectrum. Also, they must state and provide evidence that they have the financial means required for build and operation, and state and provide evidence of how funding is to be ensured. Records of this are required, eg written financial commitments from the parent company, from other affiliated undertakings or from credit institutions. Declarations of intent or pledges of endeavour are not considered sufficient. Financial commitments from parent companies or other affiliated undertakings must be submitted in the form of "hard parent guarantees" (cf specimen parent guarantee, appendix). Presentation of a balance sheet does not discharge the applicant from his duty to state the above.

Applicants must provide a conclusive, readily understandable account of their efficiency as related to their projected business (medium term business planning). Evidence of the funding needed for network build must be oriented by the planning and build costs based on the coverage obligation and its timescale, and by the cost of day to day operations.

In other respects, attention is drawn to the following:

Each applicant must, not later than 14 working days before the start of the auction, pay a deposit for his intended acquisition of frequency usage rights per region into an account to be designated by the Federal Network Agency. The deposit will be deducted from the successful bid, otherwise it will be refunded. Paying a deposit serves to document that an applicant is serious in his intention to participate in the auction.

E. Information on specialist knowledge

Applicants must demonstrate that the persons engaged in the build and operation of the BWA network have the necessary knowledge, experience and skills. They must provide a conclusive, readily understandable account of this specialist knowledge. They must state what knowledge, experience and skills in respect of building and operating their BWA network and marketing their services are advantageous / necessary to enable them to exercise the frequency usage rights. Consortia applying must give corresponding details of the members providing the relevant specialist knowledge. A statement is also required of how the specialist knowledge of the members will be provided to the applicant.

With regard to the planned technology, applicants must also provide an account of the knowledge, experience and skills they possess on wireless transmission paths.

F. Statement of spectrum requirements

As part of their application to qualify for the auction, applicants must set out that they do actually need the spectrum for implementation of their business model. This applies particularly when an applicant already has suitable spectrum. They must also show how they intend to meet the coverage requirements of the assignment.

G. Declaration of consent to publication

In their application applicants must also declare that they consent to public notice being given of their admission to the auction and to publication of award, if this is the case.

Note:

In their application to qualify for the auction applicants must set out, and also demonstrate, that these subjective requirements are met. This also applies when an applicant is already engaged in telecommunications activities and holds a licence within the meaning of section 8 of the TKG 1996. Even if an examination of the licence holder's specialist skills, efficiency and reliability has already been made in connection with licensing under the TKG 1996, a renewed account and examination of these criteria is required in connection with award of the frequency usage rights for BWA.

Appendix

Specimen Parent Guarantee

from (parent company)

in relation to (subsidiary)

for the Federal Network Agency for Electricity, Gas, Telecommunications, Post and Railway.

(Name of subsidiary) is a company in which we [*through our x% subsidiary*] hold a stake. It is applying for grant of a BWA assignment from the Federal Network Agency and is taking part in the auction for the award of BWA spectrum.

We (parent company) herewith assume in relation to (subsidiary), (proportionate to the stake we hold or will hold), the unconditional obligation to make sure that (subsidiary) is resourced in such a way that it has at its disposal

- all the financial means required to honour its bid for the acquisition of spectrum in the auction;
- at all times, all the financial means required for the investments in rollout and operation of the BWA network in the region(s) won at auction, as given in its application to qualify for the auction and as required to meet the minimum requirements under Section II.4.5 of the General Administrative Order of the President's Chamber, referenced BK1-05/008.

The decisions required from our executive bodies for the assumption of this obligation have been made (see enclosure).

This declaration is subject to German law. Place of jurisdiction is Bonn or the headquarters of the defendant, as the plaintiff chooses.

Place, date
Signature