



TELECOMMUNICATIONS  
REGULATORY AUTHORITY  
OF THE SLOVAK REPUBLIC

# Public Consultation

on the tendering procedure for  
spectrum licences from the  
800 MHz, 1800 MHz and 2600 MHz  
frequency bands by electronic auction

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non-binding translation

## 1 Introduction

The Telecommunications Regulatory Authority of the Slovak Republic (hereinafter referred to as the “Authority”) as the state administrative body and national regulator and pricing authority in the field of electronic communications under Section 6(3)(a) of Act no. 351/2011 Coll. on electronic communications, as amended (hereinafter referred to as the “Electronic Communications Act”) is preparing an invitation to tender for the issuance of individual licences for use (hereinafter referred to as an “allocation”) of frequencies from the frequency bands 790 – 862 MHz (hereinafter referred to as the “800 MHz frequency band”), 1710 – 1785 MHz / 1805 – 1880 MHz (hereinafter referred to as the “1800 MHz frequency band”) and 2500 – 2690 MHz (hereinafter referred to as the “2600 MHz frequency band”) for new-generation networks in an effort to raise the availability of broadband high-speed access services in accordance with Government Resolution no. 136/2011 – National Strategy for Broadband Access in the Slovak Republic and Government Resolution no. 360/2009 – National Policy for Electronic Communications for 2009 – 2013.

The Authority has held several public consultations in the past on the topic of the tendering procedure for allocating frequencies from the 800 MHz, 1800 MHz and 2600 MHz frequency bands. Public consultations were held in March 2009 on the future use of frequencies from the 800 MHz frequency band and subsequently a second-round was held in May 2011. In June 2011 the Authority invited participants from the May public consultation on the future use of the 800 MHz frequency band (the “Digital Dividend”) as well as the professional public to a professional seminar held at the Authority’s premises. The seminar presented results from the evaluation of both public consultations on the future use of frequencies from the 800 MHz frequency band.

The Authority held a public consultation on the future use of the 2500 – 2690 MHz frequency band in June 2009.

The result of these consultations was the adoption of the principle of the future utilisation of these bands on the basis of maintaining technological neutrality and service neutrality, with emphasis on Wireless Access Policy for Electronic Communications Systems, focusing on making broadband access services available for end users.

In November 2011 the Authority announced a public consultation on the preparation and implementation of a common tendering procedure for allocating frequencies from the 800 MHz, 1800 MHz and 2600 MHz frequency bands. In considering whether, in the case of allocating frequencies by means of electronic auction, the Authority should conduct this by means of a CCA auction (combinatorial clock auction), the Authority based its considerations on the then-current legal situation, which under the applicable wording of the Electronic Communications Act at the time of preparing this public consultation allowed frequencies to be allocated in a selection procedure only by way of a tendering procedure, even though in the process of preparing the draft new Electronic Communications Act, later designated Act no. 351/2011 Coll., the Authority had requested the inclusion of the possibility to allocate

frequencies by means of an electronic auction. The time horizon for when the Act might be passed was not known at that time, so the Authority focused on preparing a competitive tendering procedure for the allocation of frequencies in accordance with the then-applicable wording of the Electronic Communications Act.

In the public discussion the Authority was interested in the public's opinion on the proposed allocation of the central part of the frequency band of the Digital Dividend – the frequency section 821 – 831 MHz for PMSE applications and whether this allocation is sufficient. PMSE applications in the Slovak Republic on an NTFS basis are licensed on the basis of auxiliary services in multiple frequency bands, inter alia, in the 470 – 862 MHz frequency band. The results of the public consultation showed that there are no principal objections to this solution and that the 821 – 831 MHz frequency section may, in accordance with the CEPT – ECC/DEC/(09)03 Decision be allocated for PMSE.

In this public consultation the Authority was also interested in the public's opinion on the possibility of allocating individual frequency blocks from the 800 MHz frequency band and their width. The Authority was interested particularly in whether each block should be offered separately, or whether the professional public considered it necessary to limit the number of blocks allocated to one successful tenderer. In formulating its opinion the Authority was inspired, inter alia, by the conclusions of studies conducted abroad, for example the study "Technical analysis of the cost of extending an 800 MHz mobile broadband coverage obligation for the United Kingdom", performed by the company Real Wireless for the British regulator Ofcom. The Authority gave preference to allocating frequencies from the 800 MHz frequency band in complete blocks of 10 MHz duplex, since the study indicates that, compared to allocating frequencies in 5 MHz duplex units, coverage, and particularly transmission speed, increase significantly. The Authority also stated that the successful tenderer to which 2 x 10.0 MHz frequencies in the 800 MHz frequency band are allocated will be obliged to ensure 98% coverage of the population by the end of 2017.

As regards the allocation of frequencies in the 1800 MHz frequency band, the Authority was also interested in the public's opinion on the possibility of another mobile operator coming into the Slovak telecommunications market. The Authority took the view that the allocation of frequencies in the 1800 MHz frequency band and the current limit on the maximum number of frequencies at the level of 2 x 15.2 MHz creates the conditions for a balanced competitive environment for the 1800 MHz frequency band for all (including new) operators and concurrently allows for the possibility of the entry of another mobile operator to the Slovak electronic communications market. The Authority will set the terms of the tendering procedure so that none of the tenderers is unduly favoured in it.

For allocating frequencies in the 2600 MHz frequency band, the Authority received a comment to set aside in this frequency band a frequency section for retransmission services of unmodified TV programmes via MMDS systems. The Authority in its evaluation reached

the conclusion that other technologies, besides electronic communications services technologies compatible with Decision 2008/477/EC should not be permitted in the 2600 MHz frequency band. The Authority is bound to promote economic competition in the provision of electronic communications networks and services, to promote efficient investment in infrastructure and promote efficient use of the frequency spectrum. For this reason, the Authority does not plan in future to allocate any frequency section in the 2600 MHz band for the operation of MMDS systems.

As to the question of whether the Authority should set a maximum range of the frequency spectrum that could be allocated to one market subject, the professional public generally maintains the opinion that the Authority should not set a maximum range of the frequency spectrum that may be allocated to one market subject. The professional public, however, supports a possible setting of a maximum range of frequencies in each separate frequency band. The Authority, as the national regulator, overseeing equivalent, fair and non-discriminatory conditions for all subjects, is bound to prevent spectrum accumulation. Therefore, it has set a clear limitation on the range of frequencies that may be allocated to one operator, and this for frequencies in the 800 MHz frequency band, as well as in the 1800 MHz frequency band.

As to the question of whether it is appropriate that the number of operators with nationwide scope in the Slovak electronic communications market should remain unchanged, or whether their number should increase, the Authority stated that the number of operators will depend only on the results from the tendering procedure. Nonetheless, for reason of improving the competitive environment, the Authority supports the possibility of the entry of another nationwide or local operator to the Slovak electronic communications market.

As regards the issue of whether the Authority should, in allocating frequencies to a successful tenderer, set the conditions for the future procedure of networking, which should be based on prioritising networking in localities with no or low availability of broadband access networks, the Authority assessed the public consultation and reached the conclusion that improvement in broadband internet access will be supported by the building of infrastructure enabling the greater use of information technology in the Slovak Republic. This issue, however, must be addressed sensitively in order that insufficient or, conversely, overly strict regulation does not disrupt the development of fourth-generation networks in the Slovak Republic.

In the question of what should be the minimum percentage level of coverage of white spots in the Slovak Republic as the condition for the Authority to allow networking in regional towns and Bratislava, the Authority does not, in general, object to allowing the successful tenderer to network in localities with low broadband access network availability in parallel with networking in larger towns.

On 1.7.2012 the amendment to the Electronic Communications Act (no. 241/2012) entered into effect, which allows frequencies to be allocated by way of electronic auction. The use of an electronic auction should ensure a more transparent selection of an electronic communications services provider and thereby ensure a reduction in the degree of corruption. The Authority has thus decided to take this option in allocating frequencies.

## 2 Legal framework

### 2.1 European law

The European Commission on 6 May 2010 adopted Decision 2010/267/EU<sup>1</sup> on harmonised technical conditions of use in the 790 – 862 MHz frequency band for terrestrial systems capable of providing electronic communications services in the European Union (hereinafter referred to as the “800 MHz Decision”). The objective of this Decision is to harmonise the technical conditions for the availability and efficient use of this frequency spectrum.

Decision 2008/477/EC<sup>2</sup> on the harmonisation of the 2500 – 2690 MHz frequency band for terrestrial systems capable of providing electronic communications services in the Community was adopted by the European Commission on 13 June 2008 (hereinafter referred to as the “2600 MHz Decision”). This Decision is binding on all Member States and requires that the 2600 MHz band be designated within 6 months on a non-exclusive basis for terrestrial systems providing electronic communications systems.

Article 8 of Directive 2002/21/EC<sup>3</sup> (hereinafter referred to as the “Framework Directive”) sets out the objectives to be achieved by national regulatory authorities taking all reasonable steps. These include promoting competition in the provision of electronic communications networks and services, promoting efficient investment in infrastructure, promoting innovation, encouraging the efficient use of frequencies, contributing to the development of the internal market, removing barriers to the provision of electronic communications networks and services at the European level, promoting the interoperability of European-wide services and ensuring that in similar circumstances there is no discrimination in access to enterprises providing electronic communications networks and services.

Article 8 of the Framework Directive also places on Member States the duty to ensure that, in fulfilling their regulatory tasks, national regulatory authorities take the utmost account of the need to create technologically neutral regulations.

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<sup>1</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32010D0267:EN:HTML> 2010/267/EU – 800 MHz Decision

<sup>2</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:163:0037:0041:EN:PDF> – 2008/477/EC – 2600 MHz Decision

<sup>3</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:108:0033:0033:EN:PDF> Directive 2002/21/EC of 7 March 2002 – Framework Directive



Article 9 of the Framework Directive places on Member States the duty to ensure efficient administration of frequencies for electronic communications services in accordance with Article 8, as well as to ensure that the criteria for allocating these frequencies is objective, transparent, non-discriminatory and proportionate. Article 9 also places on Member States the duty to promote harmonisation of the use of radio frequencies across the Community in a manner consistent with the need to ensure their effective and efficient use.

Article 7 of Directive 2002/20/EC<sup>4</sup> (hereinafter referred to as the “Authorisation Directive”) provides that, where Member States decide to limit the number of allocated spectrum use rights, due account must be taken of the need to maximise benefits for users and to facilitate the development of competition.

Legal obligations placed on the Slovak Republic under the Authorisation Directive are transposed into Slovak law by the Electronic Communications Act.

## **2.2 Legal framework of the Slovak Republic**

Under Section 6(3)(e) of the Electronic Communications Act, the Authority discharges duties promoting efficient competition, efficient investment and innovation, the development of the single market of the European Union, the interests of all citizens of Member States in the Slovak Republic, appropriate access to networks and interoperability of services, and protecting freedom of choice of operator.

Under Section 11(1) of the Electronic Communications Act, the Authority is required to act and issue its decision in accordance with the principles of efficiency, objectivity, transparency, non-discrimination, proportionality and justification. All its decisions, generally binding legal regulations and information, which contribute to an open and functioning competitive market, is published on its website, both as provided for by the Act and in the Journal, and this data is continuously updated.

Under Section 11(3)(c) of the Electronic Communications Act, the Authority promotes the efficient use of the frequency spectrum and numbers and ensures their administration.

Under Section 30(1)(e) of the Electronic Communications Act, the Authority administers the frequency spectrum through the allocation of frequencies and setting of conditions under which the frequencies can be used.

Under Section 32(7) of the Electronic Communications Act, the Authority may limit the number of rights to use frequencies listed in the frequency spectrum use plan or extend (renew) the duration of existing rights other than as was specified in the original individual licences, taking into account the need to maximise benefits for users and the need to facilitate the development of competition. The Authority is consulting on a proposal to limit

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<sup>4</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2002:108:0021:0021:EN:PDF> – Directive 2002/20/EC of 7 March 2002 – Authorisation Directive

the number of rights under Section 10. After determining the procedure, it shall invite applications for the issuance or renewal of an individual permit.

### **3 Objectives of the tendering procedure**

The objective of the tendering procedure is to enable the integrated use of frequencies reserved for ensuring electronic communications services in accordance with the efficient fulfilment of the following objectives:

- promoting technological innovation and the development of new services,
- promoting competition,
- making efficient use of the spectrum.

#### **3.1 Promoting technological innovation and the development of new services**

In accordance with the medium-term and long-term objectives of the National Strategy for Broadband Access in the Slovak Republic, an objective of the tendering procedure is to increase the availability of broadband.

The offer of frequencies from the 800 MHz, 1800 MHz and 2600 MHz frequency bands that is the subject of the tendering procedure is appropriate for achieving this objective and the use of the offered frequencies for the construction of high-speed networks is a prerequisite for the tendering procedure, in accordance with Decision no. 243/2012/EU – the Radio Spectrum Policy Programme<sup>5</sup>.

To ensure that the objective of broadband availability for all residents is met, it is required that, in the framework of the offered frequency bands, the 800 MHz frequency band with the most favourable promotional characteristics be used for this objective. In the case of the 1800 MHz and 2600 MHz frequency bands a condition is their use mainly for ensuring sufficient transmission capacity.

#### **3.2 Promoting competition**

In accordance with Article 8 of Directive 2002/21/EC the primary tasks of a regulator include promoting the interests of citizens in the provision of electronic communications services and promoting competition. Improvement in competition in the electronic communications services market for end-users is reflected through a combination of competitive prices, quality of broadband services and sufficient coverage.

Given the existing state of competition in the internal market for electronic communications services the Authority in specifying the terms of this tendering procedure has proceeded so as to ensure that the terms of the tendering procedure lead to promoting competition in line with Commission Decision 243/2012/EU.

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<sup>5</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2012:081:0007:0017:EN:PDF> – 243/2012/EU – Decision on the radio spectrum policy programme

In the framework of promoting competition, it is necessary to ensure equal, fair and non-discriminatory conditions for all market players. In this regard the Authority is obliged to prevent also spectrum hoarding as could lead to market distortions with negative implications for competition and consumer interests in terms of choice, price and service quality.

### **3.3 Making efficient use of the spectrum**

One of the primary roles of the regulator is efficient administration of the frequency spectrum. Access to the frequency spectrum is a key input to the provision of electronic communications services. The spectrum is a scarce resource and its efficient use is a prerequisite for ensuring social utility from electronic communications services.

For ensuring efficient use of the spectrum it is necessary to respect the principles of technological neutrality and service neutrality. These principles guarantee that the spectrum will be used by technology and services that best maximise customer utility. At the same time they ensure independence of conditions of spectrum use vis-a-vis possible future changes in customer requirements or technological possibilities in providing services.

### **4 Subject of the tendering procedure**

The following frequencies from the 800 MHz, 1800 MHz and 2600 MHz frequency bands are the subject of the tendering procedure:

#### **800 MHz frequency band:**

- 6 blocks of 2 x 5.0 MHz in category A1

#### **1800 MHz frequency band:**

- 1 block 2 x 5.0 MHz in Category B1
- 1 block 2 x 1.2 MHz in Category B2
- 1 block 2 x 1.0 MHz in Category B3
- 1 block 2 x 2.2 MHz in Category B4
- 1 block 2 x 0.4 MHz in Category B5
- 1 block 2 x 0.6 MHz in Category B6
- 2 blocks 2 x 5.0 MHz in Category B7

#### **2600 MHz frequency band:**

- 14 blocks of 2 x 5.0 MHz unpaired part of the spectrum in Category C1
- 10 blocks of 5.0 MHz unpaired part of the spectrum in Category C2

#### 4.1 800 MHz frequency band

The 800 MHz frequency band is defined for the frequency sections 791 – 821 MHz paired with 832 – 862 MHz by Decision ECC/DEC/(09)03<sup>6</sup> and Decision 2010/267/EU. On the basis of these decisions the Slovak Republic undertook the process of releasing the 790 – 862 MHz frequency spectrum, which was defined as the Digital Dividend, for broadband networks for the provision of electronic communications services and made preparations for their allocation in accordance with those decisions.

The range of frequencies allocated to one enterprise is currently, according to the annex to the FP/MS – 12 Frequency Use Plan, at maximum 2 x 10.0 MHz. Together it is possible in this frequency band to allocate 2 x 30.0 MHz, which is the subject of the tendering procedure.

**Figure 1: 800 MHz frequency band**

790 – 791	791 – 796	796 – 801	801 – 806	806 – 811	811 – 816	816 – 821	821 – 832	832 – 837	837 – 842	842 – 847	847 – 852	852 – 857	857 – 862
Protection band	Downlink						Divider section	Uplink					
1 MHz	30 MHz (6 blocks of 5 MHz width)						11 MHz	30 MHz (6 blocks of 5 MHz width)					

**Table 1: Auction blocks in the 800 MHz frequency band**

Auction blocks category	Auction block designation	Frequency range – uplink (MHz)	Frequency range – downlink (MHz)	Quantity of spectrum (MHz)
A1	A1.1	832 – 837	791 – 796	2 x 5.0
	A1.2	837 – 842	796 – 801	2 x 5.0
	A1.3	842 – 847	801 – 806	2 x 5.0
	A1.4	847 – 852	806 – 811	2 x 5.0
	A1.5	852 – 857	811 – 816	2 x 5.0
	A1.6	857 – 862	816 – 821	2 x 5.0

<sup>6</sup> ECC/DEC/(09)03 (ECC Decision of 30 October 2009 on harmonised conditions for mobile/fixed communications networks (MFCN) operating in the band 790 - 862 MHz) <http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCDEC0903.PDF>

## 4.2 1800 MHz frequency band

The 1800 MHz frequency band is defined for the frequency sections 1710 – 1785 MHz paired with 1805 – 1880 MHz by Decision ECC/DEC/(06)13<sup>7</sup> and Decision 2009/766/EC<sup>8</sup>, which was amended by Decision 2011/251/EU<sup>9</sup>. Frequencies from this frequency band are used for the provision of public electronic communications services and, in the Slovak Republic, are allocated to 3 mobile operators: Orange Slovensko, a.s., Slovak Telekom, a.s. and Telefónica Slovakia, s.r.o. Each of the mobile operators has available the same allocation of frequency band, with a width of 30.4 MHz.

Frequencies from the 1800 MHz frequency band are currently not fully used. Those channels still available are listed in Table 2, representing in total a frequency band allocation of 40.8 MHz width, and which is the subject of the tendering procedure.

The range of frequencies allocated to one enterprise is currently, according to the annex to the FP/MS – 02 rev. 3 Frequency Use Plan, at maximum 2 x 15.2 MHz.

**Table 2: Available channels in the 1800 MHz frequency band**

Channel no.	Frequency section	Quantity of spectrum (MHz)
512 – 542/	1710.1 – 1716.3 MHz/ 1805.1 – 1811.3 MHz	2 x 6.2 MHz
582 – 586/	1724.1 – 1725.1 MHz/ 1819.1 – 1820.1 MHz	2 x 1.0 MHz
681 – 691/	1743.9 – 1746.1 MHz/ 1838.9 – 1841.1 MHz	2 x 2.2 MHz
711 – 712/	1749.9 – 1750.3 MHz/ 1844.9 – 1845.3 MHz	2 x 0.4 MHz
789 – 841/	1765.5 – 1776.1 MHz/ 1860.5 – 1871.1 MHz	2 x 10.6 MHz

<sup>7</sup> ECC/DEC/(06)13 (ECC Decision of 1 December 2006 on the designation of the bands 880-915 MHz, 925-960 MHz, 1710-1785 MHz and 1805-1880 MHz for terrestrial IMT-2000/UMTS systems)

[www.erodocdb.dk/docs/doc98/official/pdf/ECCDec0613.pdf](http://www.erodocdb.dk/docs/doc98/official/pdf/ECCDec0613.pdf)

<sup>8</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2009:274:0032:0035:EN:PDF> – 2009/766/EC – Decision on the harmonisation of the 900 MHz and 1 800 MHz frequency bands

<sup>9</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2011:106:0009:0010:EN:PDF> – 2011/251/EU – Decision amending Decision 2009/766/EC

**Table 3: Auction blocks in the 1800 MHz frequency band**

Auction blocks category	Auction block designation	Frequency range – uplink (MHz)	Frequency range – downlink (MHz)	Quantity of spectrum (MHz)
B1	B1.1	1710.1 – 1715.1	1805.1 – 1810.1	2 x 5.0
B2	B2.1	1715.1 – 1716.3	1810.1 – 1811.3	2 x 1.2
B3	B3.1	1724.1 – 1725.1	1819.1 – 1820.1	2 x 1.0
B4	B4.1	1743.9 – 1746.1	1838.9 – 1841.1	2 x 2.2
B5	B5.1	1749.9 – 1750.3	1844.9 – 1845.3	2 x 0.4
B6	B6.1	1765.5 – 1766.1	1860.5 – 1861.1	2 x 0.6
B7	B7.1	1766.1 – 1771.1	1861.1 – 1866.1	2 x 5.0
	B7.2	1771.1 – 1776.1	1866.1 – 1871.1	2 x 5.0

### 4.3 2600 MHz frequency band

The 2600 MHz frequency band is defined for the frequency sections 2500 – 2570 MHz / 2620 – 2690 MHz (paired part of the spectrum – FDD system) and the 2570 – 2620 MHz frequency sections (unpaired part of the spectrum – TDD system) by Decision ECC/DEC/(05)05<sup>10</sup> and Decision 2008/477/EC<sup>11</sup>.

Frequencies from this frequency band are currently used for the purposes of retransmission of unmodified TV programmes by means of MMDS systems (networks for local use). Since frequencies from this frequency band were not used in the past, the Authority in the past issued an individual licence for the use of frequencies with a limited duration, i.e. until they are allocated in accordance with their intended purpose. According to the National Table of the Frequency Spectrum of the SR (hereinafter referred to as the “NTFS”), the Frequent Spectrum Use Plan, as well as according to the statement in the decisions themselves – the individual frequency-use licences, the licence validity ends on 31.12.2013. After this date this frequency band will be available for broadband access networks for providing electronic communications services according to the principles of technological neutrality.

Figure 2 shows the channel distribution within this frequency band in accordance with Decision ECC/DEC/(05)05, which determines the frequency sections 2500 – 2570 MHz paired with the frequency section 2620 – 2690 MHz for FDD (frequency division duplex) and frequency section 2570 – 2620 MHz for TDD (time division duplex), which is the subject of the tendering procedure.

<sup>10</sup> ECC/DEC/(05)05 (ECC Decision of 18 March 2005 on harmonised utilisation of spectrum for IMT-2000/UMTS systems operating within the band 2500 – 2690 MHz)

<http://www.erodocdb.dk/Docs/doc98/official/pdf/ECCDEC0505.PDF>

<sup>11</sup> <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:163:0037:0041:EN:PDF> – 2008/477/EC – Decision 2.6 GHz

**Figure 2: Channel distribution in the 2600 MHz frequency band**

Paired spectrum: 70 MHz with technical parameters for FDD uplink								Unpaired spectrum: 50 MHz with technical parameters for TDD					Paired spectrum: 70 MHz with technical parameters for FDD downlink							
2500	2510	2520	2530	2540	2550	2560	2570	2580	2590	2600	2610	2620	2630	2640	2650	2660	2670	2680	2690	

**Table 4: Auction blocks in the FDD part of the 2600 MHz frequency band**

Auction blocks category	Auction block designation	Frequency range – uplink (MHz)	Frequency range – downlink (MHz)	Quantity of spectrum (MHz)
C1	C1.1	2500 – 2505	2620 – 2625	2 x 5.0
	C1.2	2505 – 2510	2625 – 2630	2 x 5.0
	C1.3	2510 – 2515	2630 – 2635	2 x 5.0
	C1.4	2515 – 2520	2635 – 2640	2 x 5.0
	C1.5	2520 – 2525	2640 – 2645	2 x 5.0
	C1.6	2525 – 2530	2645 – 2650	2 x 5.0
	C1.7	2530 – 2535	2650 – 2655	2 x 5.0
	C1.8	2535 – 2540	2655 – 2660	2 x 5.0
	C1.9	2540 – 2545	2660 – 2665	2 x 5.0
	C1.10	2545 – 2550	2665 – 2670	2 x 5.0
	C1.11	2550 – 2555	2670 – 2675	2 x 5.0
	C1.12	2555 – 2560	2675 – 2680	2 x 5.0
	C1.13	2560 – 2565	2680 – 2685	2 x 5.0
	C1.14	2565 – 2570	2685 – 2690	2 x 5.0

**Table 5: Auction blocks in the TDD part of the 2600 MHz frequency band**

Auction blocks category	Auction block designation	Frequency range – uplink (MHz)	Quantity of spectrum (MHz)
C1	C2.1	2570 – 2575	1 x 5.0
	C2.2	2575 – 2580	1 x 5.0
	C2.3	2580 – 2585	1 x 5.0
	C2.4	2585 – 2590	1 x 5.0
	C2.5	2590 – 2595	1 x 5.0
	C2.6	2595 – 2600	1 x 5.0
	C2.7	2600 – 2605	1 x 5.0
	C2.8	2605 – 2610	1 x 5.0
	C2.9	2610 – 2615	1 x 5.0
	C2.10	2615 – 2620	1 x 5.0

#### 4.4 Amount of one-off payment for frequency allocation

On the basis of Section 33(2)(g) of the Electronic Communications Act the Authority in the invitation to tender sets a lowest bid for the offered auction blocks in all categories. The lowest bid is the starting price. Starting prices are set on the basis of a benchmark analysis of prices in European auctions of the relevant frequency bands.

**Table 6: Starting prices and eligibility scores for auction block categories**

Auction block category	Starting price (€)	Eligibility points
A1	19 000 000	12
B1	2 200 000	2
B2	500 000	1
B3	400 000	1
B4	1 000 000	1
B5	200 000	1
B6	300 000	1
B7	2 200 000	2
C1	1 100 000	2
C2	400 000	1

The amount of the one-off payment for the frequency allocation will equal the sum of the base price of the winning bid from the main stage of the auction and relevant assignment prices in all relevant auction block categories.

Eligibility points are assigned in respect of the offered auction blocks.

A tenderer's eligibility is determined by the maximum possible number of auction blocks for which the tenderer may submit a combined bid in the primary rounds of the main stage of



the auction. In each primary round of the main stage a tenderer may submit only a bid for a combination of blocks to which pertains a number of eligibility points that is less than or equal to that tenderer's eligibility for the given round. A tenderer's eligibility for a given round is determined by the number of the tenderer's eligibility points for that round.

The number of a tenderer's eligibility points for the first primary round of the main stage of the auction must be secured by a bank guarantee (see chapter 6.6) in the period following the expiry of the deadline for submission of tenders. The maximum number of eligibility points per tenderer is limited in accordance with the maximum frequency range in the individual frequency bands that may be allocated to one enterprise pursuant to Chapter 5.1.1 and 5.1.2.

## **5 Conditions and obligations connected with the issuance of individual spectrum licences**

The conditions connected with the granting of spectrum use rights, including conditions for the efficient use of frequencies and obligations assumed by a tenderer during the course of the tendering procedure shall be set in the Authority's decision on the allocation of frequencies, issued on the basis of results from the tendering procedure in accordance with conditions herein under, or in other documents issued on the basis of Section 22 and Section 23 of the Electronic Communications Act.

### **5.1 Basic conditions of use for allocated frequencies**

The right to use frequencies offered in the tendering procedure is nationwide throughout the Slovak Republic.

#### **5.1.1 Conditions of use for frequencies from the 800 MHz frequency band**

Conditions of use for frequencies from the 800 MHz frequency band are listed in the annex to the FP/MS-12 Frequency Spectrum Use Plan and will be reflected in individual spectrum licences, or in other documents issued on the basis of the Electronic Communications Act.

A public electronic communications network operated in the 800 MHz frequency band must meet the technical conditions set out in European Commission Decision no. 2010/267/EU, Recommendation ECC/REC/(11)04<sup>12</sup> and in the framework of the standard selected by the tenderer, also the conditions set out in ETSI norms, or in other related documents of the European Commission, CEPT or ITU.

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<sup>12</sup> ECC/REC/(11)04 (Frequency planning and frequency coordination for terrestrial systems for mobile/fixed communication networks (MFCN) capable of providing electronic communications services in the frequency band 790-862 MHz)  
<http://www.erodocdb.dk/docs/doc98/official/pdf/Rec1104.pdf>

Frequency section:

832 – 862 MHz – frequency section for terminal stations

791 – 821 MHz – frequency section for base stations

821 – 832 MHz – divider section

790 – 791 MHz – protection band

Bandwidth: 5.0 MHz

Duplex spacing: 41.0 MHz

Harmonised ETSI standard: EN 302 326-2; EN 302 326-3

Related documents: 2010/267/EC; ECC/DEC/(09)03; ECC/REC/(11)04

Range of frequencies allocated: at present for one enterprise at maximum 2 x 10.0 MHz.

European Commission Decision 2010/267/EU specifies the basic technical conditions for the use of the 800 MHz frequency band, using the concept of Block Edge Masks (BM). With the mandate of the European Commission, the technical conditions for the 800 MHz frequency band were created in the framework of the European Conference of Postal and Telecommunications Administrations (CEPT). Based on this mandate, the CEPT adopted four reports (CEPT reports 29, 30, 31 and 32).

The intensity levels of electromagnetic fields of the frequencies used in border areas are set out in various international agreements.

In Warsaw on 22 August 2011, the Authority concluded an International Agreement on Frequency Planning and Frequency Use of the 800 MHz Band in Border Areas for Terrestrial Systems Enabling the Provision of Electronic Communications Services with the administration of Poland.

In Vienna on 12 October 2011 the Authority concluded an International Agreement on Frequency Planning and Frequency Use of the 800 MHz Band in Border Areas for Terrestrial Systems Enabling the Provision of Electronic Communications Services between the administrations of Austria, Croatia, Hungary, Slovakia and Slovenia.

In Bratislava on 30 October 2011 the Authority agreed the principles of the procedure concerning the use of the 790 – 862 MHz frequency band for terrestrial systems in border areas of the Slovak Republic and Ukraine.

In Tallinn on 30 May 2011 the Authority concluded an International Agreement on Frequency Planning and Frequency Use of the 791 – 821 MHz Frequency Band and the 832 – 862 Mhz Band in Border Areas for Terrestrial Systems Enabling the Provision of Electronic Communications Services between the administrations of the Slovak Republic and Czech Republic.

The Authority will provide the full text of the international agreements between administrations upon request and in their original wording.

CEPT report no. 30<sup>13</sup> determines the least restrictive technical conditions through the concept of Block Edge Masks (BEM), which are regulatory requirements aimed at reducing the risk of harmful interference between neighbouring networks, with particular regard to the protection of digital terrestrial television services provided in the frequency band below 790 MHz.

CEPT report no. 31<sup>14</sup> concludes that the preferred frequency arrangement for the 800 MHz band should be based on the duplex mode with frequency division – FDD (not Time Division Duplex – TDD) for reason of international coordination of radio services.

CEPT report no. 32<sup>15</sup> respects the interest in continuing operation of PMSE applications (Programme-Making and Special Events). The conditions for use of the 800 MHz frequency band in the Slovak Republic are coordinated in accordance with European Commission Decision 2010/267/EU and with these reports, on the basis of which mainly the following conditions of use are defined:

- Base station BEM in-block EIRP limits over frequencies below 790 MHz are set at a case level of the case and given in Table 7 of European Commission Decision 2010/267/EU:

**Table 7: Base station BEM in-block EIRP limits over frequencies below 790 MHz**

Power (P) of in-block EIRP for base stations [dBm/10 MHz]	Maximum mean in-block EIRP
$P \geq 59$	0 dBm/(8 MHz)
$36 \leq P < 59$	$(P - 59)$ dBm/(8 MHz)
$P < 36$	- 23 dBm/(8 MHz)

- The terminal station BEM in-block emission limit over frequencies of FDD uplink is equal to +23 dBm. This power limit is specified as the EIRP for terminal stations designed to be fixed or installed and as the TRP (total radiated power) for terminal stations designed to be mobile or nomadic. The EIRP and TRP are equivalent for isotropic antennas. It is recognised that this value is subject to a tolerance of up to +2 dB, to take account of operation under extreme environmental conditions and production spread.

<sup>13</sup> CEPT Report 30 (The identification of common and minimal (least restrictive) technical conditions for 790 - 862 MHz for the digital dividend in the European Union)

<http://www.erodocdb.dk/Docs/doc98/official/pdf/CEPTREP030.PDF>

<sup>14</sup> CEPT Report 31 (Frequency (channelling) arrangements for the 790-862 MHz band)

<http://www.erodocdb.dk/Docs/doc98/official/pdf/CEPTREP031.PDF>

<sup>15</sup> CEPT Report 32 (Recommendation on the best approach to ensure the continuation of existing Program Making and Special Events (PMSE) services operating in the UHF (470-862 MHz), including the assessment of the advantage of an EU-level approach)

<http://www.erodocdb.dk/Docs/doc98/official/pdf/CEPTREP032.PDF>

All the above technical conditions based on the European Commission Decision will be included as specific technical requirements in granting licences for frequency use for operating an electronic communications radio network in the 800 MHz frequency band and in the framework of an individual spectrum licence in the 800 MHz frequency band.

The 800 MHz frequency band has, since 29.7.2011, been released and is available for allocation to new licence holders.

### **5.1.2 Conditions of use for frequencies from the 1800 MHz frequency band**

Conditions of use for frequencies from the 1800 MHz frequency band are listed in the Annex to the FP/MS-02 rev.3 Frequency Spectrum Use Plan and will be reflected in individual spectrum licences, or in other documents issued on the basis of the Electronic Communications Act.

A public electronic communications network operated in the 1800 MHz frequency band must meet the technical conditions set out in European Commission Decision no. 2011/251/EU, Recommendation ECC/REC/(08)02<sup>16</sup> and in the framework of the standard selected by the tenderer, also the conditions set out in ETSI norms, or in other related documents of the European Commission, CEPT or ITU. Stations in the 1805 – 1880 megahertz / 1710 – 1785 MHz frequency band are operated in a 95 MHz duplex spacing mode. Base stations broadcast at the higher frequency of the frequency pair.

Frequencies from the above frequency band are used for providing electronic communications services, and are allocated in the Slovak Republic to 3 mobile operators: Orange Slovensko, a.s., Slovak Telekom, a.s. and Telefónica Slovakia, s.r.o. Each of the mobile operators has available the same allocation of frequency band, with a bandwidth of 30.4 MHz.

Frequencies from the 1800 MHz frequency band are not currently fully used. Those channels which are still available are listed in Table 2, representing in total a frequency band allocation of 40.8 MHz bandwidth.

#### Frequency section:

Tx 1805 – 1880 MHz

Rx 1710 – 1785 MHz

Bandwidth: 200 kHz; 1.25 MHz; 5.0 MHz

Duplex spacing: 95.0 MHz harmonised ETSI standard: EN 301 502 V8.1.2; EN 300 609-4 V8.0.2; TS 101 087 V8.11.0

Related documents: ECC/DEC/(06)07; ECC/REC/(05)08; ECC/DEC/(06)13; ERC/DEC/(98)21; ECC/DEC/(08)08; ERC/DEC/(95)03; 2011/251/EU; 2011/114/EC; 2010/166/EU; 2009/766/EC; 2009/114/EC; 2008/294/EC

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<sup>16</sup> ECC/REC/(08)02 (Frequency planning and frequency coordination for GSM / UMTS / LTE / WiMAX Land Mobile systems operating within the 900 and 1800 MHz bands)  
<http://www.erodocdb.dk/Docs/doc98/official/pdf/REC0802.PDF>

Range of frequencies allocated: at present for one enterprise at maximum 2 x 15.2 MHz

The above documents address the question of the coexistence of GSM systems and systems from the group of IMT standards, primarily IMT-2000/UMTS and LTE. Coexistence of these systems in the 1800 MHz frequency band is possible provided the following technical parameters are observed (unless operators of neighbouring networks agree otherwise):

**Table 8: Technical parameters for the coexistence of systems in the 1800 MHz frequency band**

Systems	Technical parameters
UMTS in accordance with UMTS standards issued by the ETSI, primarily the standards EN 301908-1, EN 301908-2, EN 301908-3 and EN 301908-11	<ol style="list-style-type: none"> <li>1. At least 5 MHz spacing of carrier frequencies between two neighbouring UMTS networks.</li> <li>2. At least 2.8 MHz spacing of carrier frequencies between a UMTS network and a neighbouring GSM network.</li> </ol>
LTE in accordance with LTE standards issued by the ETSI, primarily the standards EN 301908-1, EN 301908-13, EN 301908-14 and EN 301908-11	<ol style="list-style-type: none"> <li>1. At least 200 kHz spacing between the LTE channel edge and the GSM carrier frequency channel edge between neighbouring LTE and GSM networks.</li> <li>2. No frequency spacing is required between and LTE channel edge and UMTS carrier frequency channel edge between neighbouring LTE and UMTS networks.</li> <li>3. No frequency spacing is required between the LTE channel edges of two neighbouring LTE networks.</li> </ol>
WiMAX in accordance with WiMAX standards issued by the ETSI, primarily the standards EN 301908-1, EN 301908-21 and EN 301908-22	<ol style="list-style-type: none"> <li>1. At least 200 kHz spacing between a WiMAX channel edge and a GSM carrier frequency channel edge between neighbouring WiMAX and GSM networks.</li> <li>2. No frequency spacing is required between a WiMAX channel edge and a UMTS carrier frequency channel edge between neighbouring WiMAX and UMTS networks.</li> <li>3. No frequency spacing is required between the WiMAX channel edges of two neighbouring WiMAX networks.</li> </ol>

In the case of interference between different technologies used in this frequency band, the GSM system always takes priority, meaning the mitigation measure to reduce interference is made by the operator of the non-GSM network.

**Review of restrictions on the range of allocated frequencies in the 1800 MHz frequency band:**

In determining the frequency spectrum blocks the Authority will proceed pursuant to the efficient use of the 1800 MHz band spectrum, and enterprise in the annex to the frequency spectrum use plan to the value of 2 x 20.0 MHz.

### 5.1.3 Conditions of use for frequencies from the 2600 MHz frequency band

Conditions of use for frequencies from the 2600 MHz frequency band are listed in the Annex to the FP/MS-11 rev.3 Frequency Spectrum Use Plan and will be reflected in individual spectrum licences, or in other documents issued on the basis of the Electronic Communications Act.

A public electronic communications network operated in the 2600 MHz frequency band must meet the technical conditions set out in European Commission Decision no. 2008/477/EC, Recommendation ERC/REC/(11)05<sup>17</sup> and in the framework of the standard selected by the tenderer, also the conditions set out in ETSI norms, or in other related documents of the European Commission, CEPT or ITU.

Frequency section:

2500 – 2570 MHz – frequency section for terminal stations (FDD uplink)

2620 – 2690 MHz – frequency section for base stations (FDD downlink)

2570 – 2620 MHz – frequency section for TDD

Bandwidth: 5.0 MHz

Duplex spacing: 120.0 MHz (for FDD)

Harmonised ETSI standard: EN 302 326-2, EN 302 326-3

Related documents: 2008/477/EC, ERC/REC/(01)01, ERC/REC/(11)05

The channel distribution within this frequency band is in accordance with Decision ECC/DEC/(05)05, which determines the frequency sections 2500 – 2570 MHz paired with the frequency section 2620 – 2690 MHz for FDD (frequency division duplex) and frequency section 2570 – 2620 MHz for TDD (time division duplex). The conditions for use of the 2600 MHz frequency band in the Slovak Republic are coordinated in accordance with the above documents, on the basis of which the following conditions of use are defined:

- stations in the 2620 – 2690 MHz / 2500 – 2570 MHz frequency band work in duplex mode with duplex spacing of 120 MHz. Base stations broadcast at the higher frequency of the frequency pair. Stations in the 2570 – 2620 MHz band work in simplex mode;
- Base station in-block emission EIRP limits = +61 dBm/(5 MHz)

The intensity levels of electromagnetic fields in border areas are set out in various international agreements.

In Warsaw on 22 August 2011, the Authority concluded an International Agreement on Frequency Planning and Frequency Use of the 2600 MHz Band in Border Areas for Terrestrial Systems Enabling the Provision of Electronic Communications Services with the administration of Poland.

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<sup>17</sup> ERC/REC/(11)05 (Frequency planning and frequency coordination for terrestrial systems for mobile/fixed communication networks (mfcn) capable of providing electronic communications services in the frequency band 2500-2690 MHz) <http://www.erodocdb.dk/docs/doc98/official/pdf/Rec1105.pdf>

In Vienna on 12 October 2011 the Authority concluded an International Agreement on Frequency Planning and Frequency Use of the 2600 MHz Band in Border Areas for Terrestrial Systems Enabling the Provision of Electronic Communications Services between the administrations of Austria, Croatia, Hungary, Slovakia and Slovenia.

In Bratislava on 18 May 2012 the Authority agreed the principles of the procedure concerning the use of the 2600 MHz frequency band for terrestrial systems in border areas of the Slovak Republic and Ukraine.

In Tallinn on 30 May 2011 the Authority concluded an International Agreement on Frequency Planning and Frequency Use of the 2600 MHz Frequency Band in Border Areas for Terrestrial Systems Enabling the Provision of Electronic Communications Services between the administrations of the Slovak Republic and Czech Republic.

#### **5.1.4 List of operated radio equipment**

Before beginning use of allocated frequencies the successful tenderer is required to request the Authority to issue a decision determining the conditions under which the frequencies may be used.

For using the frequencies that are the subject of the tendering procedure at the licence holder's various base stations, including technical parameters, the successful tenderer shall be obliged to submit to the Authority quarterly (always as at 15.1., 15.4., 15.7. and 15.10. of the calendar year) in electronic form a database giving an overview of the number and locations of base stations of the nationwide radio network in operation or cancelled in the preceding period, according to Annex no. VK-1.

The list of all operated base stations shall include:

1. serial number;
2. designation of base stations (each sector in a separate row);
3. base station location address;
4. LOM coordinates (WGS 84 system; degree, minute, second);
5. LAT coordinates (WGS 84 system; degree, minute, second);
6. base station height above sea level (m);
7. antenna type – horizontal diagram;
8. antenna type – vertical diagram;
9. mean height of antenna above ground (m);
10. sector azimuth (°);
11. elevation angle (°);
12. maximum radiated power for sector (W/dBW);
13. date of commissioning the base station into operation;
14. scrambling code groups of base station transmitter.

A specimen database in electronic form will be available on the Authority's website and forms Annex no. VK-1 to this document. Technical information on stations shall be provided in electronic form in the format required by the Authority.

The influencing of neighbouring bands shall be verified through the operation of the base station for 3 months. The licence holder shall inform the Authority on the course of individual base stations' operation in the way that within 15 days following the end of its verification period the Authority will present the results from operation, including information on all instances of incompatibility or interference with other spectrum users. Based on knowledge gained through this operation, the Authority reserves the right to change the conditions for frequency use of particular base stations.

## **5.2 Technology and services for which frequency use rights will be allocated**

The Authority, in accordance with the principle of technological neutrality, sets no conditions or restrictions in relation to the technologies that the tenderer plans in using the allocated frequencies for the provision of publicly available electronic communications services.

All equipment operated on the frequencies forming the subject of this tendering procedure must comply with applicable technical standards and other generally binding legal regulations. The Authority reserves the right to modify at any time requirements on technical equipment connected with the use of these frequencies.

## **5.3 Conditions for efficient use of frequencies**

For the purposes of using frequencies that are the subject of this tendering procedure, there are specified criteria which are binding on the licence holder in terms of fulfilling the conditions for efficient use of frequencies obtained in this tendering procedure. The successful tenderer is, under Section 34(3)(a) of the Electronic Communications Act, obliged to begin using frequencies allocated to it in the tendering procedure within six months from the effective date of the spectrum licence for electronic communications networks; else this licence of the licence holder shall be revoked.

An individual spectrum licence may, in the case of not meeting the development criteria specified in this chapter, be revoked under Section 34(3)(c) of the Electronic Communications Act without claim to refund of the one-off payment for the frequency use right, or aliquot part thereof.

### **5.3.1 Development criteria for the 800 MHz frequency band**

A successful tenderer who has been issued an individual spectrum licence in the 800 MHz frequency band is required to cover 50% of the population of the Slovak Republic with mobile communications services by means of its own network using a frequency from the 800 MHz frequency band allocated in this tendering procedure no later than 31 December 2018.



### **5.3.2 Development criteria for the 1800 MHz frequency band**

A successful tenderer who has been issued an individual spectrum licence in the 1800 MHz frequency band corresponding to auction blocks in categories B1 or B7 is required to cover 25% of the population of the Slovak Republic with mobile communications services by means of its own network using a frequency from the 1800 MHz frequency band allocated in this tendering procedure by 31 December 2020.

### **5.3.3 Development criteria for the 2600 MHz frequency band**

A successful tenderer who has been issued an individual spectrum licence in the 2600 MHz frequency band is required to cover 25% of the population of the Slovak Republic with mobile communications services by means of its own network using a frequency from the 2600 MHz frequency band allocated in this tendering procedure no later than 31 December 2018.

### **5.3.4 Guaranteed minimum transmission rate**

The guaranteed minimum required transmission rate for end-user services (without aggregation) binding for meeting the development criteria specified in chapters 5.3.1, 5.3.2 and 5.3.3 is, for outdoor reception, the transmission rate:

- In the 800 MHz frequency band: 1 Mbit/s for downlink and 256 Kbit/s for uplink;
- In the 1800 MHz frequency band:
  - 12.2 Kbit/s in the case of GSM technology;
  - 1 Mbit/s for downlink and 256 Kbit/s for uplink in the case of other technologies;
- In the 2600 MHz frequency band: 1 Mbit/s for downlink and 256 Kbit/s for uplink.

The guaranteed minimum required transmission rate of a service is defined as the net transmission rate – excluding the licence holder's operating data. The net transmission rate will be measured using an uncompressible test file, whose transmission at the minimum required transmission rate takes three minutes. If the test file is transmitted in the given time or faster, the guaranteed transmission rate requirement shall be deemed fulfilled on the basis of the measurement.

### **5.3.5 Verifying conditions of the efficient use of frequencies**

The level of coverage is defined as the share of the population with coverage by the given network in the total population of the Slovak Republic.

For the purposes of verifying the level of coverage and its compliance with the required development criteria specified in chapters 5.3.1, 5.3.2 and 5.3.3, the licence holder must submit to the Authority results of simulation calculations performed by means of standard simulation tools. The basis for these calculations shall be the list of base stations operated as at the given date, as well as their technical parameters. The input parameters for the

simulation calculations shall be the levels of capacity utilisation and quality parameters, which shall be realistic and obtained on the basis of data from actual measurements.

The resulting theoretical level of coverage must be determined on the basis of the submitted simulation calculations. Population units, i.e. the smallest areas deemed covered or not covered, shall consist of 100m x 100m tiles on a map of Slovakia with a 100m x 100m grid. A given population unit shall be deemed covered if the geometric centre of its pertaining 100m x 100m tile is covered. If public access to the point corresponding to the geometric centre of the given tile is not possible, and for this reason it is not possible to verify coverage of this point, the closest point with possibility of public access shall be used for the purpose of verifying coverage of the given population unit.

The number of residents covered by the given network is calculated as the sum of the number of residents pertaining to the covered population units. The resultant level of coverage will be given by the proportion of the number of residents with coverage by the given network relative to the total population of the Slovak Republic.

For the purposes of verifying the level of coverage and its compliance with the required development criteria specified in chapters 5.3.1, 5.3.2 and 5.3.3 licence holders must, within four weeks of the expiry date relevant for meeting the development criterion, submit to the Authority in electronic form the following data:

- a list of the locations of all base stations, together with relevant geocoded data (GIS format, vector graphic) and information on the frequency blocks used in each tile;
- data on the level of operation and capacity utilisation in the tiles;
- other input parameters necessary for performing simulation calculations;
- a map of Slovakia with the location of base stations and identified covered population units (GIS format, vector graphics);
- a list of covered population units and resultant level of coverage calculated on the basis of this list.

For the purposes of verifying the level of coverage, the Authority may at any time perform verification measurements.

In these verification measurements the guaranteed minimum required transmission rate of the service binding for fulfilling the development criteria specified in chapter 5.3.4 must be met.

### **5.3.6 Penalties for non-compliance with conditions of the efficient use of frequencies**

In the case of non-compliance with conditions of the efficient use of frequencies, as specified in chapters 5.3.1, 5.3.2 and 5.3.3, the Authority shall proceed according to Section 34(3)(c) of the Electronic Communications Act.

#### **5.4. Duration of an individual spectrum licence**

The frequency allocations forming the subject of the tendering procedure shall be granted with effect to 30 June 2028.

#### **5.5 Conditions of coordination agreements**

##### **5.5.1 800 MHz frequency band**

The conditions of coordination agreements in border areas with neighbouring states shall be governed by the respective bilateral and multilateral agreements.

##### **5.5.2 1800 MHz frequency band**

The conditions of use for frequencies in the 1800 MHz frequency band for LTE or WiMAX systems do not form a part of bilateral agreements. The basis used in coordinating frequencies in the 1800 MHz frequency band consists of the basic parameters set out in Recommendation ECC/REC/(08)02 for UMTS systems. These values are at the noise level and do not enable coverage right up to the state border.

- The intensity of the electromagnetic field at a height of 3m above ground level at the 5 MHz reference block may not exceed at the state border the value of 41 dBµV/m;
- Calculations are to use the HCM agreement methodology;
- Calculations are to use diffusion curves with a probability of 10% of the time;
- GSM systems may continue to operate under concluded bilateral agreements and Recommendation ECC/REC/(05)08<sup>18</sup>.

The Authority is currently negotiating on extending an agreement on coordination conditions the border areas of neighbouring states with the Hungarian, Austrian and Ukrainian regulators, also for the 900 MHz and 1800 MHz frequency bands. It is planned that this agreement will be signed during the course of 2013.

##### **5.5.3 2600 MHz frequency band**

The conditions of coordination agreements in border areas with neighbouring states shall be governed by the respective bilateral and multilateral agreements.

#### **5.6 Obligations that the tenderer assumes during the course of the tendering procedure.**

For ensuring efficient use of the spectrum, the development of competition in the market for services provided on the frequencies forming the subject of this tendering procedure and for achieving the objectives of the tendering procedure, the tenderers during the course of the tendering procedure assume obligations to provide national roaming and wholesale services, and this under the conditions set out in this chapter.

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<sup>18</sup> ECC/REC/(05)08 (Frequency planning and frequency coordination for the GSM 900, GSM 1800, E-GSM and GSM-R land mobile systems) <http://www.erodocdb.dk/docs/doc98/official/pdf/Rec0508.pdf>

### 5.6.1 National roaming

Tenderers, in tendering, assume the obligation of national roaming for the case that they obtain in the tendering procedure an allocation of radio frequencies where their total allocation in the 800 MHz and 900 MHz frequency bands exceeds at least 2 x 15.0 MHz.

Eligible candidates for national roaming, according to the national roaming obligation, are tenderers who, following the announcement of this tendering procedure, obtain:

- an allocation of frequencies in the 1800 MHz frequency band of at least 2 x 15.0 MHz and concurrently do not obtain an allocation of frequencies in the 800 MHz frequency band; and/or
- an allocation of frequencies in a paired part of the spectrum in the 2600 MHz frequency band of at least 2 x 20.0 MHz and concurrently do not obtain an allocation of frequencies in the 800 MHz frequency band; and/or
- an allocation of frequencies in the unpaired part of the spectrum in the 2600 MHz frequency band of 50 MHz and concurrently do not obtain an allocation of frequencies in the 800 MHz frequency band; and/or
- an allocation of frequencies in the 800 MHz frequency band and are not licence holders of frequencies in the 900 MHz frequency band.

Through the national roaming obligation tenderers assume the following separate obligations:

- To provide national roaming eligible candidates for a period of 10 years from the effective date of the frequency use decision based on this tendering procedure national roaming on a network using frequencies in the 900 MHz and 1800 MHz frequency bands;
- To provide national roaming eligible candidates throughout the duration of the frequency allocation based on this tendering procedure national roaming on a 4G network.

Unless the parties agree otherwise, the tenderer undertakes to begin providing network access services based on its national roaming obligation for every national roaming eligible candidate, and this no later than as at the date when the following conditions are satisfied:

- The period of time during which the tenderer undertook, in relation to the networks concerned, to publish a reference offer for fulfilling the national roaming obligation under chapter 5.6.3. (60 days); and concurrently
- The national roaming eligible candidate, by means of a public communications network operated by it, by means of any technology whatsoever and by means of its own frequency allocations obtained following the date of announcing this tendering procedure in the 800 MHz, 1800 MHz and/or 2600 MHz band covers at least 20% of the population of the Slovak Republic. Fulfilment of the condition for covering

national roaming eligible candidates in the case of a dispute shall be confirmed by the Authority according to the procedure set out in chapter 5.3.5.

Tenderers assume the obligation to conduct negotiations toward concluding a contract on access (in the form of national roaming) with each national roaming eligible candidate, regardless of whether the eligible candidate has yet satisfied the condition of covering at least 20% of the population of the Slovak Republic. A condition of covering at least 20% of the population of the Slovak Republic may be agreed as a reason for deferring the effect of an agreed contract on access (in the form of national roaming).

The national roaming obligation for 4G networks does not apply to areas that the eligible national roaming user declares as covered for the purposes of satisfying the requirement of covering at least 20% of the population of the Slovak Republic and for the purposes of satisfying the development criteria. The national roaming obligation for networks using frequencies in the 900 MHz and 1800 MHz frequency bands is not geographically limited.

For the purpose of satisfying the national roaming obligation, tenderers undertake upon request of an national roaming eligible candidate to negotiate with each eligible candidate on concluding an agreement or agreements enabling national roaming on a network using frequencies in the 900 MHz and 1800 MHz frequency bands and/or national roaming for 4G networks that will enable, with regard to the technical possibilities of the host network and the business objectives of the national roaming eligible candidate, the provision of independent and nationwide electronic communications services from the side of the national roaming eligible candidate. To this must correspond primarily the price for enabling this network access (in the form of national roaming), where this price must be appropriate to the scope and nature of services that are to be, by means of access (in the form of national roaming), provided and to the costs that the national roaming provider necessarily incurs for providing this. The level of the price for providing access (in the form of national roaming) on the basis of the national roaming obligation may not, with regard to the previous sentence, present a barrier to the development of competition in any relevant market or markets and must allow an equally efficient operator to pursue the profitable business of the eligible candidate in the relevant market or markets.

Tenderers in the framework of the national roaming obligation undertake to not limit in any way the purpose, scope, quality and composition of services provided to national roaming eligible candidates. In the case that for objective, provable reasons of capacity it is not possible to fulfil the national roaming obligation in the whole geographical territory of the host network, the tenderer undertakes to fulfil this national roaming obligation in a predefined contractually defined geographical scope in which the fulfilment of the national roaming obligation is not prevented by objective capacity limitations.

Unless the parties agree otherwise, a contract concluded on the basis of the national roaming obligation must satisfy at least the following conditions:

- It must enable customers of the national roaming eligible candidate access to services provided on any technology whatsoever operated in the communications network to which access is provided so that the national roaming eligible candidate can provide data, voice, fax and SMS services, including call forwarding, call blocking and caller identification in the same scope as provided by the tenderer, and must enable the national roaming eligible candidate to provide its own added-value services based on access to the necessary transmission capacity;
- It must enable customers of the national roaming eligible candidate access to the transmission capacity provided on any technology whatsoever operated on the communications network to which access is provided so that the national roaming eligible candidate can provide access to transmission capacity, including added-value services in the same scope in which they are provided by the tenderer;
- Pricing conditions must be clearly set, on the basis of a unit fee determined according to the nature of the service (call minute, unit of data volume, SMS, etc.);
- It must allow the gradual limitation of national roaming initiated by a national roaming eligible candidate depending on how the national roaming eligible candidate is to proceed with the construction of its own network.

A tenderer assumes the obligation to conclude a contract or contracts based on the national roaming obligation for an effective period of at least 2 years, unless the national roaming eligible candidate requests a shorter period. If this minimum two-year duration of the contract exceeds the duration of the tenderer's obligation, the tenderer shall undertake to conclude a contract with an effective duration up to the end of the effective duration of its obligation, unless the parties agree on a longer effective duration.

### **5.6.2 Wholesale offers**

By submitting a tender within the scope of the tendering procedure, the tenderer assumes a wholesale must-offer obligation.

For the purpose of satisfying the wholesale must-offer obligation as defined in this chapter, the tenderer undertakes for a period of 12 years from the effective date of the decision on frequency allocation to conduct negotiations on request with each candidate interested in a wholesale offer on the conclusion of an agreement on access to a public communication network using the frequencies that are allocated to the tenderer on the basis of this tendering procedure. Access will be granted with respect to the technical capacity of the network and will enable the eligible candidate to provide its own broadband electronic communication services. The price for access to the tenderer's own network must correspond to the range and nature of services that will be provided through the host network, as well as to the expenses incurred by the wholesale offer provider in connection with the granting of access and the subsequent operation of the network. The price for the wholesale offer must create conditions for profitable business for both sides, i.e. the operator of the network and the candidate accepting the wholesale offer.

For the purpose of satisfying the wholesale must-offer obligation as defined in this chapter, the tenderer undertakes to conduct negotiations with candidates interested in gaining access (by accepting a wholesale offer) to a public communication network using the frequencies that are allocated to the tenderer on the basis of this tendering procedure irrespective of the purpose and range of the planned services and intended use of the public communication network, for providing its own 4G services, i.e. the tenderer is mainly obliged to negotiate with the potential mobile virtual network operators (MVNOs), such as MVNEs, Full MVNOs, or MVNOs with a smaller share of own infrastructure and operated systems.

For the purpose of satisfying the wholesale must-offer obligation as defined in this chapter, the successful tenderer undertakes to offer each eligible candidate upon request access to its public communication networks using the frequencies allocated on the basis of this tendering procedure, which will enable the eligible candidate to provide services through this network, at least in the same range and quality as such services are provided by the successful tenderer to its end-customers, unless the eligible candidate asks permission from the tenderer for a smaller range or quality of services on the basis of the wholesale offer. If the range of services provided by a successful tenderer to its customers using the frequencies allocated in this tendering procedure expands or changes otherwise during the life of the relevant wholesale bid agreement, the successful tenderer undertakes upon request of the eligible candidate to expand or change in a corresponding manner the range of the wholesale offer or the contract signed on the basis of this offer in order to enable the eligible candidate to provide services in at least the same range as the tenderer, i.e. the provider of the wholesale offer, at any time during the wholesale offer or the contract signed on the basis of this offer. If the wholesale offer is extended, the successful tenderer may request, if justified, a corresponding change in the price charged for the wholesale offer.

The successful tenderer undertakes to conclude a contract on the basis of the wholesale must-offer obligation for a period of at least two years, unless the candidate requests a shorter period. If this minimum two-year contract exceeds the duration of the successful tenderer's commitment, the successful tenderer undertakes to conclude a contract for a period lasting at least until the end of the tenderer's commitment, unless the parties agree on a longer period.

### **5.6.3 Common provisions concerning the national roaming and wholesale must-offer obligations**

For the purpose of satisfying the national roaming and wholesale must-offer obligations as defined in chapters 5.6.1 and 5.6.2, the successful tenderer undertakes to prepare and duly publish a binding reference offer for access to the network in the form and range specified for reference offers in Section 19(2) of the Electronic Communications Act. A reference offer must satisfy the conditions and requirements of the assumed obligations set out in chapters 5.6.1 and 5.6.2. A reference offer for meeting the national roaming and wholesale must-offer obligations must be prepared and published within the following time limits:

– A reference offer for national roaming for networks using frequencies from the 900 MHz and 1800 MHz frequency bands – no later than 60 days of the date when the decision to allocate frequencies on the basis of this tendering procedure becomes effective;

– A reference offer for national roaming to 4G networks and a reference wholesale offer – no later than 60 days of the date when the tenderer starts to provide commercial services through the communication networks to which access is granted under the wholesale must-offer obligation.

If a successful tenderer obtains more frequency use licences, all time limits shall be calculated as from the effective date of the first decision to grant a frequency use licence to the successful tenderer on the basis of this tendering procedure.

If some of the technical parameters needed for a reference offer remain unknown to the successful tenderer until the dates specified above, the successful tenderer undertakes to publish a reference offer on the basis of reasonable assumptions. The reference offer shall be submitted to the Authority minimum 30 days before publication. In the successful tenderer has no reasonable assumptions for certain data, the successful tenderer undertakes in its reference offer to publish the full list of data that are to be delivered by the candidate, along with an application for the conclusion of a contract on the basis of the reference offer, in order that a draft contract respecting the parameters given by the candidate can be prepared. The successful tenderer undertakes to deliver such a draft contract containing all the data requested in the reference offer to each candidate, no later than 3 months of the receipt of an application from the candidate. If the application of an eligible candidate for national roaming or a wholesale offer does not contain all the data required in the reference offer, the successful tenderer with a national roaming or wholesale must-offer obligation shall appeal to the candidate to correct the applications. In this case, the three-month time limit will be suspended when the appeal to the eligible candidate is delivered, and will continue when the corrected application is returned by the candidate.

A successful tenderer who assumes the national roaming or wholesale must-offer obligation shall be obliged to observe the conditions agreed in contracts signed on the basis of the national roaming or wholesale must-offer obligation (mainly the prices agreed) during the entire life of the contractual relationship in accordance with the conditions of the assumed obligation.

Successful tenderers who will be requested to provide national roaming or wholesale services (as defined in chapter 5.6) undertake to inform the Authority in writing of each application for national roaming or a wholesale offer received from an eligible candidate for national roaming or access granted on a the basis of a wholesale offer, as well as of the basic parameters of each application, within 15 working days of the receipt of an application. Subsequently, the successful tenderers undertake to inform the Authority in writing, at least once a month, of the course of ongoing national roaming or wholesale offer negotiations. The other reporting obligations of these entities in relation to the Authority shall not be affected by this obligation.



Information supplied to the Authority according to the previous paragraph cannot be withheld on account of confidentiality.

Each successful tenderer undertakes unconditionally to put no administrative, legal, or other obstacles in the way of the eligible candidates for a wholesale offer during negotiations on the possibility of entering into a contract on the basis of the wholesale must-offer obligation, nor conditions that are not necessary for such a contract.

According to the Authority, contracts based on the national roaming or wholesale must-offer obligations should be concluded on the basis of business negotiations.

A breach of the national roaming or wholesale must-offer obligation shall be regarded as non-fulfilment of the obligations imposed by frequency use decisions under Section 34(3)(c) of the Electronic Communications Act. After identifying a case of non-fulfilment of the national roaming or wholesale must-offer obligation, the Authority shall appeal to the successful tenderer concerned to remedy the situation pursuant to Section 34(3)(c) of the Electronic Communications Act.

If a successful tenderer fails to remedy the breach of the national roaming or wholesale must-offer obligation within the time limit specified under Section 38(7)(c) of the Electronic Communications Act, the Authority shall proceed according to Section 34(3)(c) of the Electronic Communications Act.

The right of the Authority to use other legal instruments shall not be affected by the provisions mentioned in chapter 5.6.3.

## **5.7 Change and expiration of a frequency use decision**

The change and expiration of a decision to issue a frequency use licence are regulated by the provisions of Section 34(2) and (3) of the Electronic Communications Act. The Authority stipulates no further conditions in relation to these questions.

## **6 Tendering procedure**

### **6.1 Basic principles of the tendering procedure**

Under Section 11(1) of the Electronic Communications Act, the Authority is obliged to proceed and make decisions in accordance with the principles of efficiency, objectivity, transparency, non-discrimination, proportionality, and substantiation.

### **6.2 Diagram of the tendering procedure**

#### **Chart 3: Diagram of the tendering procedure**

	Qualification stage	Acceptance of applications and their evaluation	Bank guarantee – before the time limit for applications expires
		Verification of compliance with the conditions of participation	Decision to exclude an applicant from the tendering procedure
Auction	Main phase	Primary rounds	
		Supplementary round	
		Identification of the winners	
	Allocation stage	Allocation round	
		Individual decisions	

### 6.3 Tendering procedure by way of electronic auction

According to the tendering procedures used in EU and non-EU countries, the allocation of frequencies by way of electronic auction is considered to be the most transparent form of frequency allocation. This opinion is also shared by the Authority. For that reason, the Authority decided to allocate frequencies from the 800 MHz, 1800 MHz, and 2600 MHz frequency bands by way of electronic auction. According to the results of monitoring across Europe, the most frequently used electronic auction formats are CCA (Combinatorial Clock Auction) and SMRA (Simultaneous Multi-Round Ascending). Both formats are widespread and each of them has its specific features. They are used mostly in EU countries.

After thoroughly weighing the pros and cons of the two formats, the Authority decided that the CCA auction format will be the most appropriate for frequency allocation. The Authority also took into account the experience of the Czech regulatory authority with the SMRA auction format. The auction held in the Czech Republic on 8 March 2013 had to be cancelled by the regulatory authority, because of high price bids received during the auction. According to the Czech regulatory authority, one of the reasons was the SMRA auction format, which enabled the tenderers to withdraw their winning bids during the auction. In order to eliminate the occurrence of similar problems during the planned tendering procedure, the Authority decided for the CCA format, which is a well-tried and tested alternative to SMRA.

#### 6.3.1 Auction format

The electronic auctions will be conducted in CCA format.

This auction format enables the tenderers to submit tenders for spectrum block combinations in a single process, which allows them to flexibly apply for various combinations of frequency blocks from different parts of the frequency spectrum.

### **6.3.2 Stages of the tendering procedure**

The tendering procedure will consist of three stages:

- **Qualification stage**, in which the tenderers shall submit their tenders, including the required number of eligibility points. The amount for which a bank guarantee is required shall be derived from the number of eligibility points. Tenderers who meet the conditions for participation in the tendering procedure laid down in the Electronic Communications Act, as well as in the invitation to tender, will proceed to the auction stage.
- **Main stage of the auction**, in which the number of general auction blocks that will be assigned to each successful tenderer shall be determined. The main stage of the auction will comprise one or more primary rounds, plus one supplementary round.
- **Allocation stage**, in which the specific frequency blocks shall be allocated to the successful tenderers from the main stage of the auction according to their winning tenders from the main stage.

### **6.3.3 General principles and rules of auction**

#### **Qualification stage**

The tenders submitted shall be evaluated in the qualification stage. The conditions for participation in the tendering procedure are set out in Chapter 6.4.

#### **Main stage of the auction**

In the main stage of the auction, bids may be placed by all tenderers meeting the conditions for participation in the auction (see Chapter 6.4). In the primary rounds, the tenderers are allowed to bid for combinations of blocks, by specifying the amount of auction blocks in each category in which they are interested in, at the prices set for the given primary round.

Prices shall be set for each primary round in compliance with the auction rules. Each tenderer shall be allowed to make only one bid in each primary round.

The number of blocks for which a tenderer may submit a bid in a primary round is limited by the tenderer's eligibility for the given round. The tenderer's eligibility is given by the number of eligibility points that are at the tenderer's disposal for the given round. The tenderer's eligibility in primary rounds (except the first primary round) is given by the level of activity, which corresponds to the number of eligibility points given for the bid from the previous primary round. The tenderer's eligibility in the first round of the main stage corresponds to

the number of required eligibility points given in the tender submitted within the scope of the tendering procedure.

The primary rounds of the main stage will be followed by a supplementary round in which the tenderers may make supplementary bids for combinations of blocks, including combinations for which they made no bid in the primary rounds. Bids made in the supplementary round must comply with the restrictions that will be specified in the auction rules.

From the set of all valid bids made in the primary rounds or in the supplementary round of the main stage of the auction, the Authority shall select the winning bids in a combination that maximises the yields earned in this stage of the auction and complies with the limitations specified in the auction rules. Within this combination of winning bids, each tenderer may have only one of its bids submitted in a primary round or in the supplementary round of the main stage. The tenderers whose bids are included in the combination of winning bids shall be declared 'successful bidders' in the main stage of the auction.

Each successful bidder shall be assigned a certain number of general auction blocks from the individual categories according to its winning bid, at the basic price. The method used for setting the basic price will be specified in the auction rules.

The basic price for a winning bid must not be higher than the offered price corresponding to the winning bid. At the same time, the basic price for a winning bid must not be lower than the sum of call prices for all auction blocks covered by the winning bid.

### **Allocation stage**

The allocation stage will consist of a single round, in which the successful bidders from the main stage of the auction may submit (allocation) bids for the possible combinations of specific frequency blocks, which correspond to the volume of auction blocks of all categories covered by the winning bids from the main stage. For the valid combinations of specific frequency blocks that correspond to the successful bidder's winning bid and for which the successful bidder has made no allocation bid, zero allocation bids will be generated automatically for the tenderer concerned.

The possible combinations of specific frequency blocks corresponding to the volume of auction blocks in the winning bids shall be reported to the tenderers prior to the allocation stage. A combination of winning (valid) allocation bids with the highest value among all the possible combinations of valid allocation bids in the given category of auction blocks shall be determined for each category of blocks. In the combination of winning allocation bids assigned to the given category of auction blocks, each tenderer in the allocation round may have only one winning allocation bid. In each category of auction blocks, specific frequencies shall be allocated to each successful bidder, according to its winning allocation bid made for the given category, at the allocation price. The method used for setting the allocation prices will be specified in the auction rules. The allocation price for the winning

allocation bid in a given category of auction blocks must not be higher than the price offered in this allocation bid. At the same time, the allocation price for any winning allocation bid must not be lower than zero.

The final price, i.e. lump-sum payment for a frequency use licence, will be equal to the sum of the basic price given in a winning bid from the main stage of the auction and the allocation prices in the relevant categories of auction blocks.

## **6.4 Conditions for participation in the tendering procedure (qualification stage)**

### **6.4.1 Qualificational conditions**

Under the provisions of Section 33(2)(f) of the Electronic Communications Act, the Authority imposes requirements in relation to the form and contents of the documents that are to be submitted by potential tenderers.

All the requirements set out in the invitation to tender must be met by the expiration of the time limit set for the submission of tenders. If a tenderer's qualification changes during the tendering procedure to an extent that may lead to its disqualification for failure to meet the qualificational conditions set out in this chapter, the tenderer shall be obliged to notify the Authority of this fact within seven days at the latest.

### **6.4.2 Basic conditions for participation in the tendering procedure**

The basic conditions for participation in the tendering procedure are satisfied by tenderers against whom no bankruptcy proceedings have been initiated in the last three years, no bankruptcy proceedings have been suspended or cancelled for the lack of property, and who are not under liquidation. To prove this, the tenderer must present a statement from the relevant court, no older than three months.

### **6.4.3 Multiple participation in the tendering procedure**

Tenderers may only be entities that are not classified as controlling or controlled entities under Section 66(a) of the Commercial Code, nor are classified under Section 66(b) of the Commercial Code as entities acting in concert with other parties against another tenderer or against a company holding a licence to use frequencies in the 900 MHz, 1800 MHz or 2100 MHz frequency bands as at the date of invitation to tender (hereinafter referred to as 'existing operator').

### **6.4.4 Professional and technical conditions for participation in the tendering procedure**

The professional and technical conditions for participation in the tendering procedure are satisfied by entities that are authorised, when submitting a tender, to operate electronic communication networks or to provide electronic communication services in the territory of Slovakia on the basis of a general licence (no. 1/2011).

#### **6.4.5 Economic and financial conditions for participation in the tendering procedure**

To fulfil the economic and financial conditions for participation in the tendering procedure, the tenderer must present a letter of bank guarantee issued under Section 313 of the Commercial Code, no later than on the last day for the submission of tenders. A letter of guarantee is to be presented in the original, for an amount specified in Chapter 6.6.1 and for the time period given in Chapter 6.6.2. If a letter of guarantee is written in a foreign language, an official Slovak translation must be attached.

#### **6.5 Submission of tenders**

##### **6.5.1 Form and contents of tenders**

A tender submitted by a tenderer (hereinafter referred to as 'tender') also represents an application for an individual frequency use licence.

Such tenders must have the form and contents that are specified in the invitation to tender.

Tenders are to be submitted in a written form in two identical copies, one of which is the original, the other is a copy. Responsibility for authenticity shall be borne by the tenderer. The original documents or their verified copies are to be attached to the original tender. Unverified copies of documents may be attached to the copy of the tender. The original tenders must be secured so that no page can be removed and no additional page can be added. Along with the printed documents, the tenderer shall also deliver the full electronic version of the documentation in PDF format stored in a physical medium secured against rewriting (e.g. CD-R, DVD-R).

If a tender contains information that is subject to confidentiality (bank secrets, tax secrets, or business secrets) or information the disclosure of which would breach a confidentiality requirement imposed by law or a recognised duty of secrecy, the tenderer shall attach another version of the tender documentation which will contain no confidential information and thus may be used by the Authority in accordance with Section 23 of Act No. 71/1967 Zb. on administrative proceedings, as amended. Under Section 9(2) of the Electronic Communications Act, the tenderer shall attach to the tender a written substantiation for marking the information as a subject of business confidentiality and shall rephrase the information so that it contains no business secrets.

Tenders are to be submitted in the official language (Slovak). The documents attached to a tender may be in a language other than the official language, but an official translation is to be attached. In the case of documents written in Czech, no official translation is required. The tenders are to be delivered to the Authority's address, before the expiration of the time limit given in Chapter 6.7. The tender documentation, i.e. original, copies, plus the electronic media, is to be delivered in a sealed and secured envelope, marked with the words 'DO NOT OPEN – TENDERING PROCEDURE 800, 1800, 2600 MHz'.

##### **6.5.2 Obligatory annexes to tenders**

A tender submitted by a tenderer must contain all the documents that are required for compliance with the conditions of participation that are set out in Chapter 6.4, plus the following:

a) an original or verified copy of an excerpt from the Companies Register or the Trade Register or other similar register, or other document certifying that the applicant is duly registered by a state authority, no older than three months;

b) in the case of legal entities whose tender is not signed by a person or persons authorised to act on behalf of the entity in accordance with its record in the companies register or other similar register, full authorisation is to be attached for the natural persons who have signed the tender;

c) a bona fide statement in which the tenderer's representative declares that the tenderer is not a controlling or controlled entity under Section 66(a) of the Commercial Code, nor is an entity acting in concert with other parties against another tenderer or against a company holding a licence, as at the date of invitation to tender, to use frequencies in the 900 MHz, 1800 MHz or 2100 MHz frequency bands pursuant to Section 66(b) of the Commercial Code (see Chapter 6.4.3);

d) a statement confirming that the tenderer has assumed the obligations set out in Chapter 5.6 in the form of an annex to the tender duly signed by a person or persons who are authorised to act for and on behalf of the tenderer.

### **6.5.3 Change or withdrawal of tenders**

Tenderers are entitled to change or withdraw their tenders at any time before the time limit for the submission of tenders expires. A change in a tender or its withdrawal must be signed by a person or persons authorised to act for and on behalf of the tenderer.

## **6.6 Bank guarantee**

A condition for participation in the tendering procedure is the presentation of a letter of bank guarantee in original copy (hereinafter referred to as 'letter of guarantee') under Section 313 and the following sections of the Commercial Code, attached to the tender documentation. It must be clearly stated in the letter of guarantee that the bank will satisfy the creditor (the Authority) on behalf of the debtor (tenderer) if a situation as described in Chapter 6.6.3 occurs, at the first written request of the creditor (Authority). The bank guarantee must be irrevocable. The letter of guarantee must not contain any objections by the debtor against the creditor, nor objections by the creditor against the debtor.

A specimen letter of bank guarantee is available in Annex VK-2.

### **6.6.1 Guaranteed amount**

The minimum amount to be guaranteed is calculated as 500,000 euros multiplied by the required number of tenderer eligibility points. If the guaranteed amount is not large enough to cover the required number of eligibility points, this number will be reduced to a level that is covered by the bank guarantee.

From the guaranteed amount, restrictions are derived in relation to the maximum level of price offers in the primary or supplementary rounds of the main stage of the auction, as the following table indicates:

**Table 9: Guaranteed amount in relation to the maximum price offered**

<b>Guaranteed amount</b>	<b>The highest price offered in the main stage of the auction</b>
< 10 million euros	20 million euros
≥ 10 million and < 20 million euros	40 million euros
≥ 20 million and < 40 million euros	80 million euros
≥ 40 million and < 80 million euros	160 million euros
≥ 80 million and < 120 million euros	240 million euros
≥ 120 million euros	unlimited amount

In view of the purpose of a bank guarantee as defined in Chapter 6.6.3, the minimum guaranteed amount is set at 5 million euros, which corresponds to 10 eligibility points.

In the course of an electronic auction, it is also possible to present an additional bank guarantee. An additional bank guarantee can be arranged only once, for a minimum amount of 10 million euros. The number of the tenderer's eligibility points will not be changed on the basis of an additional bank guarantee. Thus, an additional bank guarantee will only affect the limitations imposed on the level of price offers in the main stage of the auction (see Table 9).

In the course of an auction, an additional bank guarantee is to be submitted no later than 9:00 on the working day preceding the auction date, when the limits on the highest price offer will be revised for the relevant auction rounds on the basis of the additional bank guarantee. An additional bank guarantee must be provided by the same bank that issued the original bank guarantee, the letter of which is attached to the tender documentation.

### **6.6.2 Validity of a bank guarantee**

A bank guarantee becomes effective on the day when the letter of guarantee is delivered, along with the tender, and expires on day DD.MM.RRRR<sup>19</sup> provided it is not returned, nor is retained by the Authority according to Chapter 6.6.3 during the period of validity.

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<sup>19</sup> The period of validity of a bank guarantee provided will be specified in the invitation to tender and will not exceed 24 months of the date of invitation to tender.



### **6.6.3 Purpose of a bank guarantee**

The purpose of a bank guarantee is to give protection to the Authority where the tenderers behave inappropriately during the tendering procedure and, in particular, to ensure the following:

- a) lump-sum payments for individual frequency use licences granted to a successful tenderers for all frequency blocks. A bank guarantee arranged by a tenderer will be included in the price charged to the successful tenderer for the allocated frequencies, which is payable in a lump-sum payment;
- b) compliance with the rules governing the participation of tenderers in the tendering procedure.

A bank guarantee arranged by a tenderer shall be retained by the state in the following cases:

- a) if a successful tenderer fails to pay the price in a lump-sum payment for a frequency use licence within the prescribed time limit;
- b) if a successful tenderer withdraws its application before a decision to allocate frequencies is issued;
- c) if a tenderer hampers the completion of an auction or its purpose with its actions.

The letter of guarantee received from an unsuccessful tenderer shall be returned to the tenderer after the procedure ends, without undue delay. The original letter of guarantee shall be returned, too.

### **6.7 Time limit for the submission of tenders**

Tenders are to be delivered to the Authority in person or by mail no later than DD.MM.RRRR, until 13:30 to the address: Telekomunikačný úrad Slovenskej republiky, Továrnská 7, P. O. Box 40, 828 55 Bratislava 24.

If a tender is delivered by mail, the decisive date will be the date of delivery to the Authority.

The mail sorting office is open on working days, i.e. from Monday to Thursday, from 08:00 to 11:30 and from 12:15 to 15:00, and on Fridays from 08:00 to 11:30 and from 12:15 to 13:30. Expenses incurred in connection with the preparation of a tender and participation in the tendering procedure shall be fully borne by the tenderer.

Envelopes delivered after the deadline shall be returned to the sender unopened.

## **6.8 Opening of envelopes containing tenders**

To ensure the evaluation of tenders, the Authority has set up a tendering commission under Section 33(5) of the Electronic Communications Act.

All the envelopes delivered within the prescribed time limit shall be opened on the working day following the last day for the submission of tenders (see Chapter 6.7).

The envelopes shall be opened in the presence of members of the tendering commission. The opening of envelopes shall be recorded by the tendering commission.

The tendering commission shall exclude, from the tendering procedure, any tenderer whose tender does not satisfy the requirements set out in the invitation to tender, or whose individual licence has been cancelled by the Authority in the last three years under Section 34(3) of the Electronic Communications Act.

## **6.9 Evaluation of the conditions for participation**

The tendering commission shall assess whether or not the tenders submitted satisfy the conditions for participation (see Chapter 6.4).

The tenderers who are not excluded shall be invited by the Authority to auction.

The Authority shall exclude any tenderer who breaches the auction rules that are laid down in Section 33(2)(j) of the Electronic Communications Act. If only one tenderer is eligible to action, the Authority shall cancel the auction.

## **7 Miscellaneous**

### **7.1 Change or suspension of the tendering procedure**

In view of the conditions set out in the invitation to tender, the Authority may change or suspend the tendering procedure if extraordinary events occur (natural disasters, demonstrations, strikes, violent conflicts, technical problems or other extraordinary circumstances), which may affect the course of the auction.

### **7.2 Cancellation of the tendering procedure**

The tendering procedure may be cancelled by the Authority. A decision to cancel the tendering procedure, however, must be justified on objective grounds or it must be a consequence of certain conditions which were unknown when the tendering procedure started.

### **7.3 Definitions and abbreviations**

**4G** – fourth generation of wireless cellular (mobile) technology satisfying the IMT-Advanced criteria (International Mobile Telecommunications - Advanced) defined by the International Telecommunication Union (ITU). 4G services are designed to ensure a transmission speed of 1 Gbit/sec. The technologies designed to ensure compliance with the IMT-Advanced criteria include mainly LTE Advanced (from the 3GPP family) and WiMAX 2.0 (from the IEEE family). The direct predecessors of 4G technologies are the LTE and Mobile WiMAX (IEEE 802.16e) technologies, enabling the provision of wireless internet connection services (at a speed of 100 Mbit/sec) on a commercial basis. For the needs of this tendering procedure, mainly for the definition of 4G National Roaming, these standards are also included in the definition of 4G services.

**Activity** – the range of bids made by a tenderer in an auction in a primary or supplementary auction round, calculated as the sum of eligibility points for all auction blocks included in the bids made in the given round. The number of eligibility points is determined for each auction block according to the category to which the auction block belongs. The activity of a tenderer in an auction must not exceed its eligibility for the given round.

**Auction** – a method for assessing applications submitted for the allocation of frequencies. An auction is part of the tendering procedure for the issuance of licences for the use radio frequencies, which are the subject matter of this tendering procedure. The task of an auction is to set the price and to select the holders of licences for the individual auction blocks.

**Auction block** – radio spectrum block offered within the scope of an auction. The individual radio spectrum blocks are composed of frequency bands that are the subject matter of this tendering procedure. If an auction block is defined as a specific block, then a specific frequency band is assigned to this block. If an auction block is defined as an abstract block, then a specific radio frequency band is assigned later, on the basis of a frequency allocation procedure conducted in the allocation stage.

**Auction stage** – stage of an auction in which auction blocks are allocated or assigned by way of auction. The auction stage may be divided into several auction rounds.

**Bank guarantee** – financial guarantee issued by a banking institution and presented by the tenderer in the form of an original letter of guarantee. The presentation of a letter of guarantee is a condition for participation in the tendering procedure.

**BEM** – 'Block Edge Mask' – spectral mask for block edges.

**CCA** – 'Combinatorial Clock Auction' – auction format enabling the participants to make bids for block spectrum combinations in a single process, which gives them flexibility and an opportunity to apply for various combinations of frequency blocks from various parts of the frequency spectrum.

**CEPT** – Conference of European Postal and Telecommunications Administrations.

**Digital dividend** – part of the frequency spectrum released after transition from analogue to digital transmission in the 800 MHz frequency band.

**Licence holder** – a successful participant in an action who meets all conditions of participation in the tendering procedure and obtains a licence for the use of frequencies that are the subject matter of this tendering procedure.

**Eligibility** – a tenderer's eligibility for bidding in a given auction round. Eligibility is expressed as the maximum number of eligibility points that can be used to make bids in the given round.

**ETSI** – 'European Telecommunications Standards Institute'.

**EU** – European Union.

**Frequency cap** – limit on the maximum range of frequencies that may be allocated to a company from a certain frequency band.

**FDD** – 'Frequency Division Duplex' – type of duplex operation using divided frequencies.

**Full MVNO** – the term refers to a specific type of mobile virtual network operators, using their own infrastructure to provide services to customers, except for a radio access network, which is rented on the basis of a wholesale contract signed with the host operator. The remaining part of the infrastructure and operated systems, such as network infrastructure, including GMSC and HLR, service provisioning systems (SMSC, MMSC, GGSN, IN, etc.), and related processes (billing, customer care, marketing, sale) are ensured by a full MVNO using its own instruments outside the wholesale contract. Thus, a full MVNO has practically full control over the quality of its own services and issues SIM cards with its own mobile network code (MNC).

**ITU** – 'International Telecommunication Union'.

**Category** – see the category of auction blocks.

**Category of auction blocks** – a set of auction blocks of the same size and technological capacity from a single coherent part of the frequency band.

**Combination of winning bids** – combination of bids made in the primary rounds or in the supplementary round of an auction, maximising the yields in the given auction stage and satisfying the restrictions specified in the auction rules.

**Commission** – the European Commission, the executive body of the European Union, representing and advocating the interest of the Union as a whole. The Commission is responsible for proposing legislation, implementing the policies of the Union, and for utilising its financial resources.

**Qualification stage** – qualification stage of the tendering procedure, in which the Authority assesses whether the tenderers meet the qualificational requirements and conditions set out in Chapter 6.4.

**MVNE** – 'Mobile Virtual Network Enabler' – a company enabling the operation of mobile virtual networks by providing the following services: connection to a host operator's operating and commercial systems, administration, operation of and support for the necessary network elements and information systems (OSS / BSS), billing, etc.

**MVNO** – 'Mobile Virtual Network Operator' – a company providing mobile electronic communication services to end users, using the network of a host provider of public communication network services. The host provider provides public communication network services to MVNOs on the basis of a wholesale contract.

**National roaming for networks using frequencies in the 800 and 900 MHz frequency bands** – access to a public communication network or public communication networks operated by the successful tenderer, using frequencies in the 800 and 900 MHz frequency bands.

**National roaming for 4G networks** – access to a public communication network or public communication networks operated by the successful tenderer, using radio frequencies in the 800 MHz, 1800 MHz, and 2600 MHz frequency bands, through which the tenderer provides publicly available 4G services.

**NTFS** – National table of the frequency spectrum of the Slovak Republic.

**Commercial Code** – Act No. 513/1991 Zb., Commercial Code, as amended.

**Eligible national roaming candidate** – a candidate eligible for access to a network on the basis of the national roaming obligation, satisfying the conditions set out in Chapter 5.6.1.

**PMSE** – 'Program Making and Special Events' – devices used to support broadcasting, news gathering, and the organisation of large-scale social events.

**Tender** – a formal offer made by a tenderer under a tendering procedure. A tender submitted also represents an application for the issue of an individual frequency use licence.

**Allocation stage** – the stage of an auction in which specific frequencies are allocated to the successful bidders in a range that corresponds to the number and structure of the auction blocks obtained.

**RSC** – Radio Spectrum Committee (a body of the Commission).

**RSPG** – Radio Spectrum Policy Group (a body of the Commission).

**SMRA** – 'Simultaneous Multiple Round Auction' – an auction format based on simultaneous multiple round auctions.

**TDD** – 'Time Division Duplex' – a type of duplex operation with time division.

**UMTS** – 'Universal Mobile Telecommunication System' – a system using third-generation mobile cellular technologies (3G).

**Bidder** – a tenderer invited by the Authority to take part in an auction.

**Tenderer** – an entity submitting a tender under this tendering procedure.

**Authority** – Telecommunications Regulatory Authority of the Slovak Republic.

**Successful tenderer** – a tenderer to whom frequencies are allocated by the Authority on the basis of this tendering procedure.

**Winning bid** – a bid that is on the list of winning combinations of bids. The holder of a winning bid becomes a successful bidder for the auction blocks that are covered by the winning bid.

**Tendering commission** – a five-member advisory body set up by the chairman of the Telecommunications Regulatory Authority of the Slovak Republic for assessing tenders received from tenderers under this tendering procedure in accordance with Section 33(5) of the Electronic Communications Act. The commission shall be set up before the invitation to tender is issued.

**Invitation to tender** – the release of the document 'Invitation to tender for the issuance of licences for the use of radio frequencies for the operation of a public electronic communication network in the 800 MHz, 1800 MHz, and 2600 MHz frequency bands'.

**Electronic Communications Act** – Act No. 351/2011 Z.z. on electronic communications, as amended.

**National roaming obligation** – the obligation assumed by each tenderer to grant, under the conditions set out in Chapter 5.6, each eligible national roaming candidate access to the public communication network or public communication networks it operates using the radio frequencies obtained on the basis of this tendering procedure, along with the frequencies already held in the 900 MHz, 1800 MHz, and 2100 MHz frequency bands.

**Wholesale must-offer obligation** – the obligation assumed by each tenderer to offer, under the conditions set out in Chapter 5.6, access to the public communication network it operates using the radio frequencies obtained on the basis of this tendering procedure, to each eligible candidate requesting access to this network for the purpose of providing its own electronic communication services through the tenderer's network.

## 8 Annexes

### 8.1 Annex VK-1: List of operated base stations

Electronic database – required data Annex to Decision No. VK-1

1. Serial number	2. Designation of base stations (each sector in a separate row)	3. Base station location address	4. LON coordinates (WGS 84 system, degree, minute, second)	5. LAT coordinates (WGS 84 system, degree, minute, second)	6. Base station height above sea level (m)	7. Antenna type – horizontal diagram	8. Antenna type – vertical diagram	9. Mean height of antenna above ground (m)	10. Sector azimuth (°)	11. Elevation angle (°)	12. Maximum radiated power for sector (W/cbw)	13. Date of commissioning the base station into operation	14. Scrambling code groups of base station transmitter *

The completed electronic database is to be delivered to the following e-mail address: frequency@teleoff.gov.sk

\* The scrambling codes use are to be entered in full.

### 8.2 Annex VK-2: Specimen letter of bank guarantee

*[Identification of the issuer]*

#### Letter of bank guarantee

for a tender submitted under the tendering procedure announced for the issuance of licences for the use of frequencies in the 800 MHz, 1800 MHz, and 2600 MHz frequency bands.

for:

**Telecommunications Regulatory Authority of the Slovak Republic**  
**Telekomunikačný úrad Slovenskej republiky**

**Továrenská 7, P.O. Box 40, 828 55 BRATISLAVA 24**

concerning the tendering procedure for the issuance of licences for the use of frequencies from the 800 MHz, 1800 MHz, and 2600 MHz frequency bands, we [*the bank's name and head office*] hereby undertake unconditionally and irrevocably to pay the **Telecommunications Regulatory Authority of the Slovak Republic** (hereinafter referred to as 'Authority')

the following amount:

[*amount in numbers*] euros

on the first written appeal received from the Authority, which shall not be obliged to justify the said appeal provided that the appeal contains the due amount the payment of which is requested on account of one of the situations described below:

- (1) [*the tenderer's name*], the successful tenderer, failed to pay the final price for frequency allocation in a lump-sum payment within the prescribed time limit;
- (2) [*the tenderer's name*], the successful tenderer, withdrew its application before the decision to allocate frequencies was issued;
- (3) [*the tenderer's name*] broke the rules concerning participation in the tendering procedure as defined by the Authority, and thus made it impossible for the Authority to complete the auction.

This bank guarantee shall be valid until [*date / month / year*].

This letter of bank guarantee is issued under Slovak law.

Disputes emerging in connection with this letter of bank guarantee shall be settled by a competent court of the Slovak Republic.

Approved by the Issuer \_\_\_\_\_ [*day / month / year*].  
(authorised signature)