MONTENEGRO
AGENCY FOR ELECTRONIC COMMINICATIONS AND POSTAL SERVICES

No: 0504-____/_

PUBLIC BIDDING DOCUMENTS (draft)

FOR AWARDING THE APPROVALS FOR THE USE OF RADIO-FREQUENCIES IN THE BANDS 700 MHz, 3.6 GHz AND 26 GHz FOR THE IMPLEMENTATION OF PUBLIC MOBILE ELECTRONIC COMMUNICATIONS NETWORKS

non-binding translation

Podgorica, May 2022

CONTENT

MONTENEGRO
AGENCY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES

AGENCY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES (hereinafter: the Agency), based on Article 11 Item 10 and Article 106 Paragraphs 1, 2, 3 and 5 of the Law on Electronic Communications (Official Gazette of Montenegro, 40/13, 56/13, 2/17 and 49/19) in the session of the Council held on __ __, 2022, adopted the following

D E C I S I O N
on launching the public bidding procedure for awarding the approvals for the use of radio-frequencies in the 700 MHz, 3,6 GHz and 26 GHz bands for the implementation of public mobile electronic communications networks

1. A public bidding procedure for awarding the approvals for the use of radio-frequencies in the 694-790 MHz (band 700 MHz), 3400-3800 MHz (band 3,6 GHz) and 24,25-27,5 GHz (band 26 GHz) for the implementation of public mobile electronic communications networks (hereinafter: the public bidding) shall be launched.

2. Radio-frequencies subject to the public bidding shall be awarded for the use on an exclusive basis in the entire territory of Montenegro, in accordance with the conditions set out in the relevant radio-frequencies assignment plan.

3. The public bidding shall be conducted by means of spectrum auction. The auction process shall be conducted in two stages: the principal stage, in which it shall be determined how many frequency generic blocks of a certain category shall be awarded to each winner of the auction, and the assignment stage, in which it shall be determined which specific frequency blocks shall be awarded in each band to each winner of the auction. The principal stage of the auction shall be

4. Frequency blocks shall be the subject of the public bidding procedure in accordance with allotments presented in the corresponding radio-frequencies assignment plan as follows: 6 blocks of 2x5 MHz width in the paired part of 700 MHz band (blocks H1 and H6), 2 blocks of 2x5 MHz width in the unpaired part of 700 MHz band (blocks I2 and I3), 38 blocks of 10 MHz width in the 3.6 GHz band (blocks L5-L6 and L79-L80) and 5 blocks of 200 MHz width in the 26 GHz band (blocks M12 to M16), which are classified for the purpose of public bidding into 7 lot categories. The lot categories of frequency blocks per band, block width, the number of blocks for the awarding, the validity period of the approval for the use of radio-frequencies, a description of the block and the minimum amount of one-off fee for the awarding of approvals for the use of radio-frequencies (the reserve price) per block are given in the following Table.

Band	Lot cate-gory	Block width	Number of blocks for award	Period of approval validity	Description	Reserve price per block [EUR]
700 MHz	PA1	2x5 MHz	2	15 years as of the date of the approval issuance	Frequency generic blocks from the range H1 to H6 (reserved spectrum for the new entrants into the market, subject to the award in the pre-auction phase)	xxx,xx
	GA1	2x5 MHz	4 (5 or 6 if one or both of blocks in lot category PA1 are not awarded in the pre-auction phase)	15 years as of the date of the approval issuance	Frequency generic blocks from the range H1 to H6 (unreserved spectrum, subject to the award in the main auction phase)	xxx,xx
	GA2	5 MHz	2	15 years as of the date of the approval issuance	Frequency generic unpaired blocks from the range I2 to I3 (unreserved spectrum, subject to the award in the main auction phase)	xxx,xx
3,6 GHz	PA2	10 MHz	10	15 years as of the date of the approval issuance	Frequency generic unpaired blocks from the range L5-L6 to L79-L80 (reserved spectrum for the new entrants into the market, subject to the award in the pre-auction phase)	xxx,xx
	GA3	10 MHz	28 (29 to 38 if one or more blocks in lot category PA2 are not awarded in the pre-auction phase)	15 years as of the date of the approval issuance	Frequency generic unpaired blocks from the range L5-L6 to L79-L80 (unreserved spectrum, subject to the award in the main auction phase)	xxx,xx
26 GHz	PA3	200 MHz	1	15 years as of the date of the approval issuance	Frequency generic unpaired blocks from the range M12 to M16 (reserved spectrum for the new entrants into the market, subject to the award in the pre-auction phase)	xxx,xx
	GA4	200 MHz	4 (5 if a block in lot category PA3 is not awarded in the pre-auction phase)	15 years as of the date of the approval issuance	Frequency generic unpaired blocks from the range M12 to M16 (unreserved spectrum, subject to the award in the main auction phase)	xxx,xx

5. The offered price shall be the criteria for the selection of the most favorable bidders. The bids in the last primary round of the pre-auction phase, in the last primary round of the main auction phase, a combination of bids with the highest total offered bid value in the supplementary round of the main auction phase, as well as combinations of bids in the assignment stage with the highest total offered bid value in each of the bands, represent a winning bids. For awarding of frequency blocks included in his winning bids, the bidder shall pay one-off fee, which represents the sum of the amounts of all his winning bids.

6. Any interested party which has purchased the Public Bidding Documents with the minimum of ten years experience in the implementation of public electronic communications networks and the provision of public electronic communications services (qualification requirement) shall have the right to participate in the public bidding procedure.

   A group of bidders (consortium) shall also have the right to participate in the public bidding. Any legal entity, either before or after the purchase of the Public Bidding Documents, may form a consortium with another legal entity and such consortium may apply for participation in the spectrum auction.

   The consortium shall be considered to meet the qualification requirement if at least one of its members, who has undertaken the obligation to implement public mobile communications network and provide public mobile electronic communications services, shall have at least ten years of experience in the implementation of public electronic communications networks and the provision of public electronic communications services.

   The applicant for participation in the spectrum auction, regardless of whether it acts independently or as a member of the consortium, which on the day of the adoption of this Decision was not the holder of the approval for the use of radio-frequencies for implementation of public mobile electronic communications networks (new entrant into the market), must not be status or proprietary related to the existing holders of the approval for the use of radio-frequencies in these bands (the incumbent mobile operators: "Crnogorski Telekom" a.d. Podgorica, "One Crna Gora" Podgorica and "MTEL" d.o.o. Podgorica).

7. The qualified bidder shall submit a bid guarantee before the first primary round of pre-auction and before the first primary round of the main auction to the Agency in the amount covering at least XX% of the total amount of the bid submitted in that round. In the subsequent primary rounds of the pre-auction phase or the main auction phase, the amount of the submitted guarantee, must cover at least YY% of the total amount of bid submitted. In the Supplementary round of the main auction phase, the amount of the submitted guarantee, must cover at least YY% of the total amount of bid submitted, increased by the total amount of the bid submitted in the last primary round of the main auction phase.

   In case the submitted bid guarantee does not allow the submission of a higher bid in the next round (the guarantee does not cover YY% of the bid to be submitted), if the qualified bidder wants to submit a higher bid in the next round, the qualified bidder shall submit an additional bid guarantee to the Agency, which will allow the fulfilment of the above condition.

8. To purchase the Public Bidding Documents the amount of EUR 5,000.00 (five thousand Euros) shall be paid to the Agency's bank account number 510-2125-67 (specify: "Purchase the Public Bidding Documents 2022"). The fee paid for the purchase of the Public Bidding Documents is not refundable.

   The authorized representatives of interested parties may take the Public Bidding Documents in the premises of the Agency at the following address: Bulevar Džordža Vašingtona 56, 81000 Podgorica, Montenegro, every day from 9:00 untill 13:00h (CET), after establishing that the fee for the purchase of the Public Bidding Documents has been paid.

   The entities which have purchased the Public Bidding Documents may submit the request for clarification of the requirements of the Public Bidding Documents within 10 days before the expiration of the deadline for the submission of the Application for participation in the spectrum auction.

   Contact person for the purpose of obtaining information regarding the purchase and receival of the Public Bidding Documents is Boris Jevrić (boris.jevric@ekip.me).

9. The Application for participation in the public bidding procedure shall be submitted directly to the headquarters of the Agency, at address: Bvl. George Washington 56, 81000 Podgorica, Montenegro, every working day from 9:00 untill 13:00h (CET), at latest by __ __, 2022 (deadline for the submission of applications for participation in the spectrum auction).

10. The applicant for participation in the spectrum auction whose eligibility has been determined shall pay the fee for participation in the spectrum auction to the Agency in the amount of EUR 50,000.00 (thirty thousand Euros) within 3 days from the day of delivery of the Decision on eligibility of the applicant. The fee for participation in the spectrum auction will be reimbursed to the qualified bidders who are not excluded from the further public bidding procedure, within 45 days from the day of the Decision on the selection of bidders in the public bidding procedure.

11. The spectrum auction shall be conducted via the electronic auction system (EAS) provided by the Agency. Bids in all phases of the spectrum auction shall be submitted electronically, in a decentralized manner, through the bidding part of the EAS system.

12. Tentative dates for the start of the spectrum auction are as follows: ___ – ___, 2022. The qualified bidders shall be informed on the exact start date of the spectrum auction at least 14 days in advance.

13. The Decision on the selection of bidders in the public bidding procedure shall be issued within 30 days as of the completion of the spectrum auction.

14. This Decision shall come into force on the day of its adoption.

No: 0504-____/_
Podgorica, __ __, 2022

Agency for electronic communications and postal services

PRESIDENT OF THE COUNCIL

Branko Kovijanić

INTRODUCTION

The Agency for Electronic Communications and Postal Services (hereinafter: the Agency), in accordance with Article 106, Para. 2 of the Law on Electronic Communications (Official Gazette of Montenegro, 40/13, 56/13, 2/17 and 49/19) (hereinafter: LEC), based on the Decision No.0504-__/1 of __ __, 2022, initiated the public bidding procedure for awarding the approvals for the use of radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands for the implementation of public mobile electronic communications networks (public bidding).

Given that the relevant radio-frequencies assignment plans establish that radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands are awarded on an exclusive basis in the entire territory of Montenegro for the implementation of public mobile electronic communications network in accordance with Article 100 Para. 2 and Article 117 Para. 3 of the LEC, the approvals for the use of radio-frequencies are issued on the basis of the conducted public bidding procedure. The public bidding procedure is conducted based on the spectrum auction method. In order to prepare and implement the public bidding procedure in an objective, transparent, non-discriminatory and proportionate way, the Agency has organized three rounds of public consultations on the objectives and the strategy for the awarding of radio-frequencies, and the public bidding rules and procedures. The final views of the Agency on these issues are contained in the Decision on launching the public bidding procedure and the Public Bidding Documents.

In accordance with Article 108 of the LEC the Public Bidding Documents define in details and clarify the conditions, requirements and other elements of the Decision on launching the public bidding procedure, public bidding procedural requirements, format and rules of the auction, deadlines for the completion of individual phases of the procedure, as well as the criteria for the selection of bidders and the manner of their evaluation.

The Public Bidding Documents is structured as follows. Objectives and general considerations with regard to the procedure of awarding the respective radio-frequencies are presented in Chapter 1. Chapter 2 contains an overview of the level of technological development and availability of fixed and mobile broadband electronic communications networks in Montenegro as well as an overview of the current assignments in the 800 MHz, 900 MHz, 1800 MHz, 2 GHz and 2.6 GHz bands. The subject of the public bidding for awarding the approvals for the use of available radio-frequencies for the implementation of public mobile electronic communication networks, with the structure of frequency blocks in each of the bands is described in Chapter 3. Chapter 4 presents a legal framework for the implementation of the bidding procedure, an overview of the bidding, conditions related to eligibility for participation in public bidding, the procedure for the submission and consideration of bids, as well as general conditions which bidders must observe in the public bidding procedure. This Chapter also contains the information on terms and conditions relating to the bid guarantees, a minimum one-off fee for awarding the approvals for the use of radio-frequencies as well as a general description of the spectrum auction format and the course of the procedure. Special conditions and obligations related to the reserved spectrum, spectrum caps and spectrum floors, and special conditions and obligations related to the dynamics of coverage provision and network implementation are given in Chapter 5. The auction rules are presented in Chapter 6, while Chapter 7 presents general technical conditions for the use of radio-frequencies which are the subject of bidding procedure. Chapter 8 provides an overview of regulatory fees paid for the use of radio-frequencies and regulatory fees for the provision of public electronic communications services. At the end of the Public Bidding Documents, in annexes, corresponding forms and additional information relevant for the public bidding procedure are provided.

1. OBJECTIVES AND GENERAL PROVISIONS

According to the Radio-frequency Allocation Plan in Montenegro (hereinafter: the Allocation Plan), (Official Gazette of Montenegro, 89/20 and 104/20) the following radio-frequency bands are determined for the implementation of radio access part of the public mobile electronic communications networks:

- 694-790 MHz (the 700 MHz band), for MFCN systems;
- 790-862 MHz (the 800 MHz band), for MFCN (TRA-ECS) systems;
- 880-915/925-960 MHz (the 900 MHz band), for GSM and MFCN (TRA-ECS) systems;
- 1427-1518 MHz (the 1500 MHz band), for MFCN systems;
- 1710-1785/1805-1880 MHz (the 1800 MHz band), for GSM/DCS1800 and MFCN (TRA-ECS) systems;
- 1920-1980/2110-2170 MHz (the 2 GHz band), for MFCN (TRA-ECS) systems;
- 2300-2400 MHz (the 2.3 GHz band), for MFCN systems;
- 2500-2690 MHz (the 2.6 GHz band), for MFCN (TRA-ECS) systems;
- 3400-3800 MHz (the 3.6 GHz band), for MFCN systems;
- 24.25-27.5 MHz (the 26 GHz band) for MFCN systems.

The radio-frequencies in the 800 MHz, 900 MHz, 1800 MHz, 2 GHz and 2.6 GHz bands were awarded in the spectrum auctions in 2016 and 2021, with the approvals validty period until September 1, 2031. Total resources in the 700 MHz, 1500 MHz, 2.3 GHz and 3.6 GHz bands, as well as 20 MHz block in the unpaired 2.6 GHz band and the 1000 MHz block (potentially two more blocks of 600 MHz each) in the 26 GHz band are available for the award for MFCN systems.

As there is currently no interest from mobile operators in the allocation and use of radio-frequencies in the 1500 MHz and 2.3 GHz bands, the remaining radio-frequencies in the band 2.6 GHz have been allocated in the spectrum auction process, which have been concluded less than a year ago, the Agency has opted not to award these resources in this procedure. On the other hand, although there is currently no interest from mobile operators in the allocation and use of radio-frequencies in the 26 GHz band, the Agency has decided to allocate 1000 MHz of 26 GHz spectrum in this procedure, which together with the 700 MHz and 3.6 GHz bands, represents a suitable spectrum for the early implementation of 5G mobile communication networks in all scenarios of their implementation and use. This corresponds to the Agency's commitment to the Roadmap on introduction of 5G mobile communications networks, adopted by the Government of Montenegro in late 2021, which envisaged the allocation of radio-frequencies in the "pioneer 5G bands" (700 MHz, 3.6 GHz and 26 GHz) by the end of 2022.

Therefore, the subject of the upcoming public bidding for awarding the approvals for the use of radio-frequencies for the implementation of the public mobile electronic communications networks is a total of 1475 MHz of the spectrum in the 700 MHz, 3.6 GHz and 26 GHz bands, which is available for use from the date of approval issuance. All assignments are expected to be valid 15 years as of the date of the approval issuance.

The Agency intends to conduct the procedure of radio-frequency award in the bands the radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands as the second phase of the allocation of available radio-frequencies for mobile networks, respecting the principles of objectivity, transparency, non-discrimination and proportionality, taking into account the principles of rational use of the radio-frequency spectrum, and taking into account the need

to protect effective competition into the market of public mobile electronic communications services and increase availability and quality of services provided to customers.

The strategy of awarding the available radio-frequencies for mobile networks is designed in a way that enables the achievement of the following goals:

- preserving and encouraging the effective competition into the market of mobile electronic communication services;
- providing a stable business environment for mobile operators and other investors;
- creating conditions for further development of mobile electronic communications networks and services and enabling the implementation and development of advanced technologies (eg 5G NR) through the timely allocation of adequate frequency resources;
- enabling the availability of broadband data transmission services of appropriate quality over as much of the territory of Montenegro as possible;
- ensuring the development of electronic communications services and infrastructure to support the social and economic progress of Montenegro;
- generating the revenues for the budget of Montenegro from the award of radio-frequencies that reflect the market value of the spectrum.

The Agency has designed the spectrum allocation process in accordance with the objectives to be achieved and with full respect for the situation on the national market, in a transparent procedure based on best comparative practice. Taking into account the goals set, characteristics and situation in the electronic communications market in Montenegro, the Agency decided to conduct the procedure of radio-frequency award in the bands 700 MHz, 3.6 GHz and 26 GHz for mobile communications networks by method of multiband spectrum auction. The radio-frequency resources subject of the award will be available for the implementation of the MFCN systems with full application of the principle of technological neutrality, which we believe will lead to their maximum valorization.

In the present procedure of radio-frequency award, the Agency tried, as much as possible by carefully creating conditions, to satisfy the needs of mobile operators in the direction of further development of mobile electronic communications networks and services in Montenegro.

According to Article 100 of the LEC, the approvals for the use of radio-frequencies in these radio-frequency bands will be issued on the basis of public bidding, in the procedure prescribed in Art. 106-112 of the LEC.

The approved radio-frequencies will be used in accordance with the Allocation Plan and radio-frequency assignment plans for the 700 MHz, 3.6 GHz and 26 GHz bands for MFCN systems, and conditions for their use will be prescribed by respective approvals for the use of radio-frequencies issued in accordance with the LEC provisions, after the completion of the public bidding procedure.

2. DEGREE OF TECHNOLOGICAL DEVELOPMENT AND AVAILABILITY OF BROADBAND NETWORKS AND SERVICES IN MONTENEGRO

An implementation of modern ICT services that require high data rates is inconceivable without the development of broadband internet access and the construction of appropriate infrastructure. Development and construction of modern electronic communication networks, efficient use of radio frequency spectrum, geographical and economic availability of broadband access is a goal in the function of the development of digital Montenegro. The principle of technological neutrality and creating opportunities for the implementation of all current next generation access network (NGA) technologies is the direction in which fixed and mobile electronic communications networks in Montenegro should be developed.

According to Census of Population, Households and Dwellings in Montenegro 2011, there were 620,029 inhabitants and 192.242 householods. According to population characteristics, Montenegro is a predominantly rural country, with an average population density of 44.9 inhabitants per km2. It is territorially divided into 24 municipalities with 1,307 settlements, of which 58 are urban. Most of the population is concentrated in urban areas where 64% of the population lives.

2.1. Degree of technological development and availability of broadband electronic communications networks and services in Montenegro

The broadband data services at a fixed location are provided in Montenegro using several different technologies and a number of wired and wireless networks. When it comes to fixed networks, from the aspect of physical transmission medium, telecommunication cables with copper pairs, fiber optic cables and coaxial cables dominate, while fixed wireless access systems (WiMAX, RLAN) and satellite systems are slightly represented in the total number of active connections.

The fixed broadband connections based on copper pair telecommunication cables are available in all municipalities in Montenegro, in all urban, suburban and partially rural areas. The dominant technology used for broadband access via copper pair telecommunication cables is ADSL/VDSL. The availability of xDSL service for users who own a fixed telephone connection is 99.51%. ADSL packages for residential users with a maximum enabled bitrate of up to 10/1Mb/s (DL/UL) and VDSL packages with a maximum enabled bitrate of up to 40/5Mb/s (DL/UL) are offered.

A key feature of fixed broadband access services market in Montenegro in the last few years is the intensive development of access networks based on fiber optic cables (FTTH/B). At the end of 2021, fiber optic connections were available to end users in all municipalities, mainly in urban areas, with the network developing rapidly to an increasing number of suburban areas. The packages for residential users with a maximum enabled bitrate between 100/10Mb/s and 300/30Mb/s (DL/UL) are mostly offered.

The cable distribution systems (CDS), through the implementation of DOCSIS 3.0 standards, in addition to the distribution of audio-visual media (AVM) content enable the provision of voice telephony and Internet access. In the previous period, the migration of the classic CDS with coaxial cables to advanced systems, the so-called HFC networks, was completed by introducing fiber optic cables into the distribution part of the network. CDS and HFC-based connections are available in 20 municipalities. The packages with a maximum data rate of up to 140/6Mb/s (DL/UL) are offered.

The share of certain fixed broadband access technologies in Montenegro at the end of 2021 is shown in Figure 2.1. It may be noticed that over 98% of active ports are based on FTTx, xDSL and HFC/KDS fixed access technologies. The largest number of users, almost 43%, access to fiber optics based on FTTH or FTTB technology.

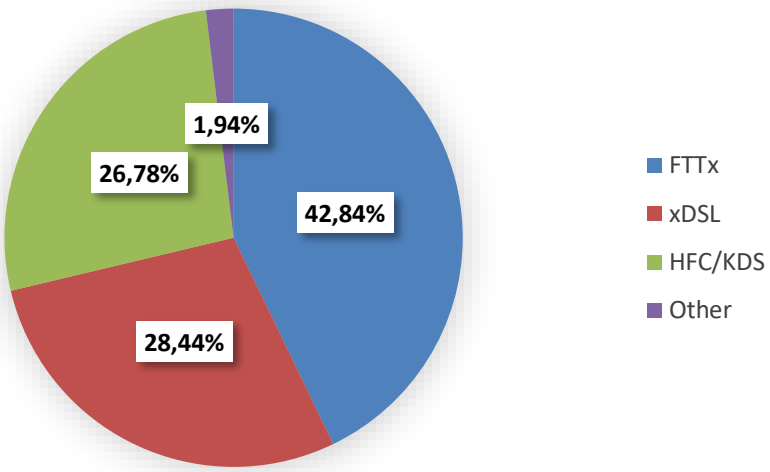

Figure 2.1 *Market share of certain fixed broadband access technologies in Montenegro*

Figure 2.2 illustrates the structure of fixed data service users in terms of access rate at the end 2021. The figure shows that as many as 99.4% of users of fixed data service gains access rate greater than 2 Mb/s, and almost 70% to rates greater than 30 Mb/s. Access rates greater than 100 Mb/s are used by more than 41% of the total number of fixed broadband active users.

According to data at the end of 2021, at least 14% of the total number of active fixed broadband connections is based on technologies that do not allow a bitrate of 30 Mb/s, and most of them probably do not have the possibility to switch to more advanced technology.

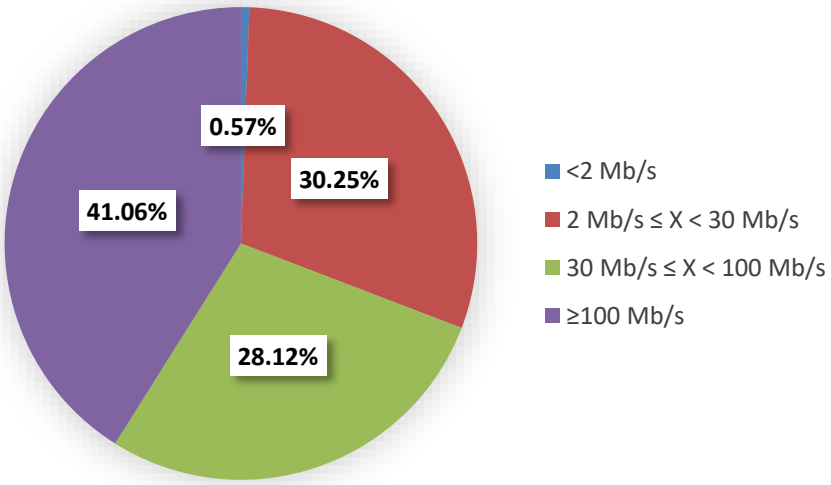

Figure 2.2 *Structure of fixed broadband access users in relation to access rate in Montenegro*

More information on situation on the market of public electronic communications services in Montenegro may be found on the Agency's website http://www.ekip.me.

2.2. Degree of technological development, availability and usage of mobile broadband electronic communications networks and services

According to the degree of technological development and availability of advanced services, as well as according to the degree of market competition, mobile communications represent a very important segment of the electronic communications market in Montenegro. The award of radio-frequencies in the 800 MHz, 900 MHz, 1800 MHz, 2 GHz and 2.6 GHz bands in the spectrum auction procedures for mobile networks, which were conducted in 2016 and 2021, enabled further accelerated development of mobile communication networks in Montenegro, primarily in direction of national broadband coverage.

A wide range of mobile communication services in Montenegro is provided through three terrestrial mobile communication networks, by three mobile operators: One Crna Gora (formerly Telenor), Crnogorski Telekom (T-Mobile) and MTEL. The networks of all three mobile operators are based on harmonized standards of the second generation - 2G (GSM/DCS1800, including the package segment - GPRS and EDGE), third generation - 3G (IMT-2000/UMTS, including HSPA + and DC-HSDPA) and fourth generation - 4G (LTE/LTE-Advanced). In March 2022, the mobile operator Crnogorski Telekom launched the 5G NR network in the capital Podgorica, using current frequency resources in the 2 GHz band with dynamic spectrum sharing (DSS) technique.

Radio access part of GSM/DCS1800 networks is realized in the bands 900 MHz and 1800 MHz, while the access part of UMTS networks is realized in the bands 2 GHz and 900 MHz. The bands 800MHz or 900MHz, 1800MHz and 2 GHz or 2.6 GHz are used for the implementation of the radio access segment of LTE networks. The bands 900 MHz, 1800 MHz and 2 GHz for UMTS, LTE and NR are used based on spectrum refarming.

The level of technological development of modern mobile communications networks is reflected in capabilities of network to support broadband data services in the first place. In this sense, LTE and NR technologies are relevant. LTE technology, implemented in the networks of mobile operators in Montenegro, allows maximum bitrates of 150 Mb/s in the downlink and 50-75 Mb/s in the uplink, in the 2x20 MHz channel bandwidth and using 64-QAM modulation and 2x2 MIMO (Multiple Input Multiple Output) techniques. By applying the technique of aggregation (CA - Carrier Aggregation) of LTE carriers from two, three and four bands, depending on the width of the engaged spectrum, the downlink achieves relatively higher rates (specifically, 225-300 Mb/s in the service area of base stations in which it is implemented 2CA technique, ie 300-375 Mb/s at locations where 3CA up to 500 Mb/s at locations where 4CA technique is implemented). It should be noted that these values represent the theoretical maximum capacity of the base station, which is rarely achieved in real conditions.

When it comes to the presence of radio interface technology in the access network for providing data transmission services, according to the results of measurements in 2019, LTE technology dominates with a share of over 99% of the total number of data transmission sessions in cities, and over 95% on roads in networks of two of the three operators. Remaining data traffic in these networks is realized through UMTS networks, while GSM technology is not significantly used for data transmission.

The voice service is provided in all three mobile networks via GSM/DCS1800 and UMTS networks, based on circuit switching. VoLTE (Voice over LTE) technology has not yet been implemented. According to the results of measuring the quality of service parameters in mobile networks conducted by the Agency at the end of 2018, about 95% of the total number

of voice calls in cities and about 75% of the total number of voice calls on roads were made in UMTS networks, and the rest in GSM/DCS1800 networks.

In terms of IoT/M2M technologies, only Crnogorski Telekom has implemented NB-IoT technology (specified in 3GPP Release 13) at several locations, mainly in order to respond to individual customer requests in a limited service area. The NB-IoT carrier is implemented in the guard band between adjacent LTE carriers in the 800 MHz band.

GSM/DCS1800, UMTS i LTE/LTE-*Advanced* networks operate integrally with all three operators, with integrated core and a shared transmission network. In the networks of all three mobile operators the so-called "vertical handover" is available i.e. the automatic connection switching from one technology to another, resulting in the achievement of maximum transmission performance and connection continuity.

The transmission part of the One Crna Gora and MTEL network both in the backbone and in the "last mile" section, is mostly based on the microwave radio relay links, for now with still less significant transmission by optical fibres, but which has been expanding in recent years. On the other hand, Crnogorski telekom uses fibre optic transmission capacities in its backbone, and in "last mile" section it also relies on microwave radio relay links. All three mobile operators have migrated to All IP transmission earlier.

Montenegro can be compared to the most developed countries in Europe in terms of coverage of the population by the mobile communications networks signal. Namely, according to the results of coverage prediction, at the end of 2021, the composite coverage of the population with the GSM signal was between 98% and 99%, while the composite coverage of the UMTS and LTE network signals was between 97% and 98%. The coverage of the territory by the signal of mobile networks includes almost all populated areas (all urban settlements, all suburban areas and most rural areas), main roads (including tunnels), tourist centers and for GSM amounts to about 84%, and for UMTS and LTE about 80% of the total territory of Montenegro. Composite signal coverage of LTE networks, in terms of availability of data transmission services with a minimum bitrate to the user of 10 Mb/s, based on user experience (10 Mb/s DL), was achieved for about 97.4% of the population.

Given the very demanding terrain configuration in Montenegro in terms of the mobile networks signal coverage, radio access part of networks of all three operators ware realized with a fairly large number of radio base stations. At the end of 2021, Crnogorski Telekom had active radio base stations for external and tunnel coverage at about 398 locations, Telenor at about 425, and MTEL at about 376 locations.

The degree of development of mobile communications networks and availability of mobile communications services in Montenegro at the end of QI 2022 is characterized by:

- GSM signal coverage of 98-99% of the population,
- UMTS and LTE signal coverage of 97-98% of the population of Montenegro,
- in the territory where about 97.4% of the population of Montenegro lives, a data transmission service with a functional bitrate of 10 Mb/s or more in the downlink is enabled,
- the average bitrate in the downlink in urban areas 15-20 Mb/s, and along main highways 10-18 Mb/s (according to the results of measurements at the end of 2019),
- two of the three mobile operators of the LTE/LTE-Advanced networks participate in the service of user data traffic with over 99% in urban areas, ie over 95% along the main highways, while the rest of the data traffic is realized through UMTS networks,

- UMTS networks participate in the service of voice traffic with a share of over 95% in urban areas, ie over 75% along the main highways, and the rest of the voice traffic is realized through GSM/DCS1800 networks,
- the degree of technological development of UMTS networks stopped at HSPA+ and DC-HSPA (3GPP Release 7 and 8) when it comes to downlink, and HSUPA (3GPP Release 6) when it comes to uplink,
- the degree of technological development of LTE networks at the level of LTE-Advanced (3GPP Release 10-12), e-Node B stations with up to four aggregated LTE carriers with a width of 10 MHz, 15 MHz or 20 MHz, 64-QAM modulation and 2x2 MIMO technique (for a number of locations with a large volume of traffic, two out of three operators implemented 4x4 MIMO technique);
- VoLTE technology is not implemented,
- NB-IoT technology (3GPP Release 13) is implemented in the network of one operator, for a small number of locations,
- jedan operator pustio u komercijalni rad 5G NR mrežu u opsegu 2 GHz na bazi DSS tehnike.
- one operator launched the 5G NR network in the 2 GHz band with DSS technique.

The number of users of mobile electronic communications services, at the end of 2021, in Montenegro amounted to 1,120,074, which corresponds to a penetration of 180.65%. Of the total number, there were 59% postpaid users (660,999), while there were 41% (459,075) prepaid users.

The mobile telephony penetration trend on an annual level for the period 2010-2021 is provided in Figure 2.3.

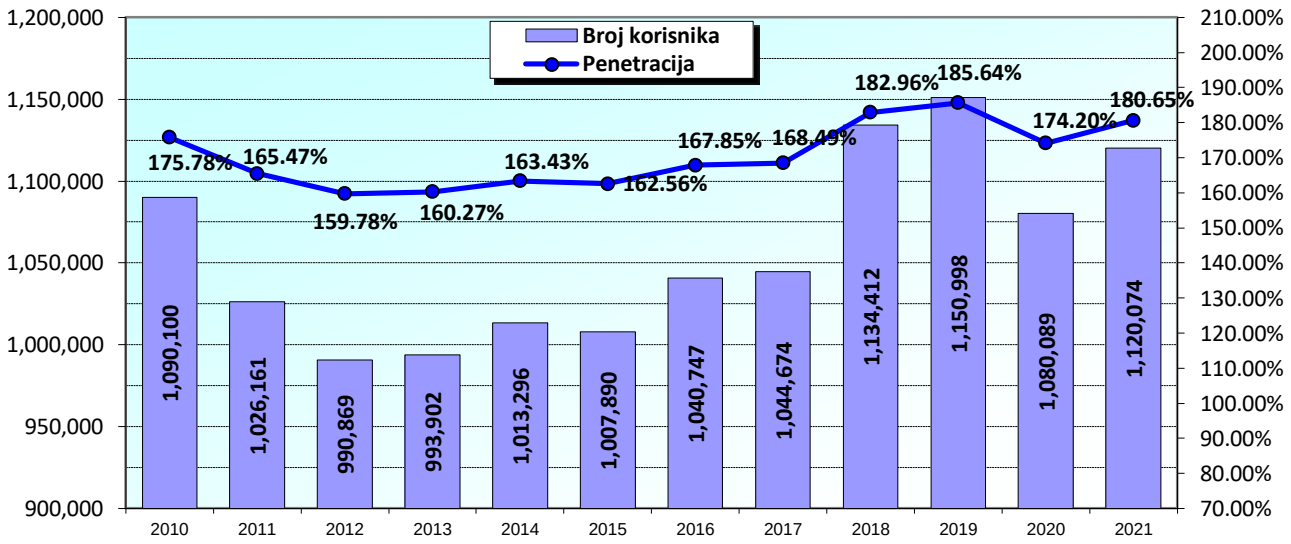

Figure 2.3 *The mobile telephony penetration trend on an annual level for the period 2010 - 2021*

The total number of mobile service users who accessed the Internet (via mobile phones and modems) during 2021 was 561,944, with 450,506 using LTE access technology. The number of Crnogorski Telekom users who accessed the Internet via mobile networks is 202,577 (39.25%), One Crna Gora (formerly Telenor) 183,025 (32.57%) and the number of MTEL users 158,342 (28.18%). The number of users who accessed the Internet via mobile networks during December 2021 was higher by 4.15% compared to December 2020.

The number of users who accessed the Internet by operators and the total is shown in the Figure 2.4.

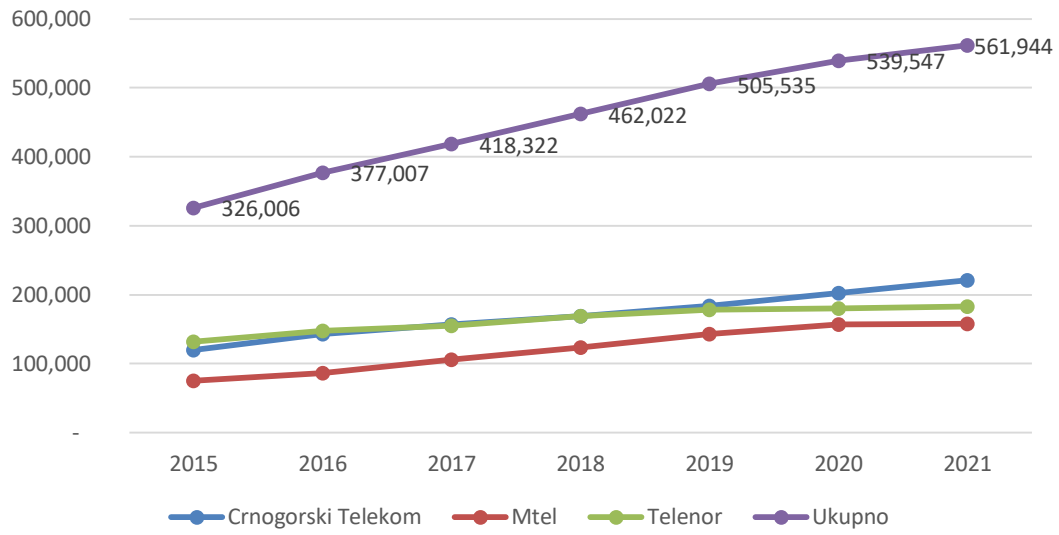

Figure 2.4 *The number of users who accessed the Internet via mobile networks*

More information on the situation on the market of public electronic communications services in Montenegro may be found on the Agency's website http://www.ekip.me.

2.3. An overview of the current radio-frequency awards to mobile operators

The radio-frequency awards for public mobile electronic communication networks in the 800 MHz, 900 MHz, 1800 MHz, 2 GHz and 2.6 GHz bands are currently in force. The radio-frequencies in these bands were awared in spectrum auction procedures in 2016 and 2021. All currently valid allocations in the specified bands are valid until September 1, 2031.

Plans of radio-frequency awards in the 800 MHz, 900 MHz, 1800 MHz, 2 GHz and 2.6 GHz bands are given in Tables 2.1 to 2.5 respectively.

Table 2.1 *The plan of radio-frequency awards in the 800 MHz band*

Block name	Block bandwidth	Frequency range [MHz]	Holder of the approval	Technology in use
A1, A2	2x10 MHz	791-801 / 832-842	MTEL	LTE
A3 - A6	2x20 MHz	801-821 / 842-862	Crnogorski Telekom	LTE

Table 2.2 *The plan of radio-frequency awards in the 900 MHz band*

Block name	Block bandwidth	Frequency range [MHz]	Holder of the approval	Technology in use
B1, B2	2x10 MHz	880-890 / 925-935	MTEL	GSM, UMTS
B3 - B5	2x15 MHz	890-905 / 935-950	One Crna Gora	GSM, UMTS, LTE
B6, B7	2x10 MHz	905-915 / 950-960	Crnogorski Telekom	GSM, UMTS

Table 2.3 *The plan of radio-frequency awards in the 1800 MHz band*

Block name	Block bandwidth	Frequency range [MHz]	Holder of the approval	Technology in use
C1 - C5	2x25 MHz	1710-1735 / 1805-1830	One Crna Gora	DCS1800, LTE
C6 - C10	2x25 MHz	1735-1760 / 1830-1855	Crnogorski Telekom	DCS1800, LTE
C11 - C15	2x25 MHz	1760-1785 / 1855-1880	MTEL	DCS1800, LTE

Table 2.4 *The plan of radio-frequency awards in the 2 GHz band*

Block name	Block bandwidth	Frequency range [MHz]	Holder of the approval	Technology in use
D1 - D4	2x20 MHz	1920-1940 / 2110-2130	MTEL	UMTS
D5 - D8	2x20 MHz	1940-1960 / 2130-2150	Crnogorski Telekom	UMTS, LTE, NR
D9 - D12	2x20 MHz	1960-1980 / 2150-2170	One Crna Gora	UMTS, LTE

Table 2.5 *The plan of radio-frequency awards in the 2.6 GHz band*

In the period from 1 September 2016 to 1 September 2031				
Block name	**Block bandwidth**	**Frequency range [MHz]**	**Holder of the approval**	**Technology in use**
F1, F4	2x20 MHz	2500-2520 / 2620-2640	Crnogorski Telekom	LTE
F5 - F11	2x35 MHz	2520-2555 / 2640-2675	MTEL	LTE
F12 - F14	2x15 MHz	2555-2570 / 2675-2690	One Crna Gora	Not in use
G1 - G4	20 MHz	2570-2590	One Crna Gora	Not in use
G5 - G8	20 MHz	2590-2610	unawarded	
G9	5 MHz	2610-2615	Crnogorski Telekom	Not in use
G10	5 MHz	2615-2620	unawarded	

3. THE SUBJECT OF PUBLIC BIDDING

The subject of public bidding is the award of approvals for the exclusive use of available radio-frequencies in the 694-790 MHz (band 700 MHz), 3400-3800 MHz (band 3.6 GHz) and 26.5-27.5 GHz (band 26 GHz) bands for the implementation of the public mobile electronic communications networks.

The subject of the award is a total of 1475 MHz of radio-frequency spectrum (2x30 MHz of paired and 1415 MHz of unpaired) in the above mentioned three bands, namely:

- 6 blocks of 2x5 MHz bandwidth in the paired part of 700 MHz band;
- 3 blocks of 5 MHz bandwidth in unpaired 700 MHz band;
- 40 blocks a širine 10 MHz bandwidth in the 3.6 GHz band;
- 5 blocks of 200 MHz bandwidth in the 26 GHz band.

An overview of radio-frequency resources, which are the subject of the award, is given in Table 3.1.

Table 3.1 *The overview of radio-frequency resources subject of the award*

Band	**Available resources**	**Block name**	**Frequency range [MHz]**	**Available from**	**Applicati-on**
700 MHz (paired)	2x30 MHz (6 blocks of 2x5 MHz bandwidth)	H1	703-708 / 758-763 MHz	from date of the approval issuance	MFCN FDD
		H2	708-713 / 763-768 MHz		
		H3	713-718 / 768-773 MHz		
		H4	718-723 / 773-778 MHz		
		H5	723-728 / 778-783 MHz		
		H6	733-738 / 783-788 MHz		
700 MHz (unpaired)	15 MHz (3 blocks of 5 MHz bandwidth)	I1	738-743 MHz	from date of the approval issuance	MFCN SDL
		I2	743-748 MHz		
		I3	748-753 MHz		
3.6 GHz	400 MHz (40 blocks of 10 MHz bandwidth)	L1-L2	3400-3410 MHz	from date of the approval issuance	MFCN TDD
		L3-L4	3410-3420 MHz		
		L5-L6	3420-3430 MHz		
		L7-L8	3430-3440 MHz		
		L9-L10	3440-3450 MHz		
		L11-L12	3450-3460 MHz		
		L13-L14	3460-3470 MHz		
		L15-L16	3470-3480 MHz		
		L17-L18	3480-3490 MHz		
		L19-L20	3490-3500 MHz		
		L21-L22	3500-3510 MHz		
		L23-L24	3510-3520 MHz		
		L25-L26	3520-3530 MHz		
		L27-L28	3530-3540 MHz		
		L29-L30	3540-3550 MHz		
		L31-L32	3550-3560 MHz		
		L33-L34	3560-3570 MHz		
		L35-L36	3570-3580 MHz		
		L37-L38	3580-3590 MHz		
		L39-L40	3590-3600 MHz		

3.6 GHz	400 MHz (40 blocks of 10 MHz bandwidth)	L41-L42	3600-3610 MHz	from date of the approval issuance	MFCN TDD
		L43-L44	3610-3620 MHz		
		L45-L46	3620-3630 MHz		
		L47-L48	3630-3640 MHz		
		L49-L50	3640-3650 MHz		
		L51-L52	3650-3660 MHz		
		L53-L54	3660-3670 MHz		
		L55-L56	3670-3680 MHz		
		L57-L58	3680-3690 MHz		
		L59-L60	3690-3700 MHz		
		L61-L62	3700-3710 MHz		
		L63-L64	3710-3720 MHz		
		L65-L66	3720-3730 MHz		
		L67-L68	3730-3740 MHz		
		L69-L70	3740-3750 MHz		
		L71-L72	3750-3760 MHz		
		L73-L74	3760-3770 MHz		
		L75-L76	3770-3780 MHz		
		L77-L78	3780-3990 MHz		
		L79-L80	3790-3800 MHz		
26 GHz	1000 MHz (5 blocks of 200 MHz bandwidth)	M12	26500-26700 MHz	from date of the approval issuance	MFCN TDD
		M13	26700-26900 MHz		
		M14	26900-27100 MHz		
		M15	27100-27300 MHz		
		M16	27300-27500 MHz		

Frequency blocks of 5 MHz bandwidth in the unpaired 700 MHz band named I1 and 2 blocks of 10 MHz bandwidth in the band 3.6 GHz named L1-L2 and L3-L4 will be subject to the award, however not subject of public bidding, but may be granted on request to the holder of an approval for the use of adjacent blocks.

3.1. The structure of frequency blocks in the 700 MHz band

The subject of the award in the 700 MHz band is a total of 2x30 MHz paired radio-frequency spectrum divided into 6 frequency blocks of 2x5 MHz bandwidth (blocks H1 to H6) and a total of 15 MHz unpaired radio-frequency spectrum divided into 3 frequency blocks of 5 MHz bandwidth (blocks I1 to I3).

Validity period of the approvals for the use of radio-frequencies in the 700 MHz band is 15 years as of the date of the approval issuance. Frequency blocks are available from date of approval issuance.

For the purpose of public bidding, frequency blocks in the 700 MHz band are grouped into 3 lot categories. The lot categories of frequency blocks in the 700 MHz band, subject to the award, are given in Table 3.2.

Table 3.2 *The lot categories of frequency blocks in the 700 MHz band*

Lot category	Block width	Number of blocks for award	Period of approval validity	Description
PA1	2x5 MHz	2	15 years as of the date of the approval issuance	Frequency generic blocks from the range H1 to H6 (reserved spectrum for the new entrants into the market, subject to the award in the pre-auction phase)
GA1	2x5 MHz	4 (5 or 6 if one or both of blocks in lot category PA1 are not awarded in the pre-auction phase)	15 years as of the date of the approval issuance	Frequency generic blocks from the range H1 to H6 (unreserved spectrum, subject to the award in the main auction phase)
GA2	5 MHz	2	15 years as of the date of the approval issuance	Frequency generic blocks from the range I2 to I3 (unreserved spectrum, subject to the award in the main auction phase)

Frequency blocks of 2x5 MHz bandwidth in lot category PA1 (reserved spectrum for the new entrants into the market) will be subject to the award in the pre-auction phase. If in the pre-auction phase one or both of blocks in lot category PA1 are not awarded for any reason,in the main auction phase the number of blocks in lot category GA1 will be increased by respectively.

Frequency block of 5 MHz bandwidth in unapired part of the band 700 MHz named I1 (738-743 MHz) is not the subject of a public bidding. The use of this supplementary downlink (SDL) block of the MFCN system implies limiting out-of block emissions in accordance with the Radio Frequency Assignment Plan in the 694-790 MHz band for MFCN systems, which may require the development of additional filtering capabilities and/or limitation of maximum radiated power within block and the application of other techniques to reduce harmful interference, in order to protect the uplink PPDR or M2M system in the band 733-736 MHz. This block can be awarded to the holder of the approval for the use of frequency block I2 at his request, without the obligation to pay a one-time fee for its allocation.

General technical conditions for the use of radio-frequencies in the 694-790 MHz band for MFCN systems are given in Section 8.1.

3.2. The structure of frequency blocks in the 3.6 GHz band

The subject of the award in the 3.6 GHz band is a total of 400 MHz unpaired radio-frequency spectrum divided into 40 frequency blocks of 10 MHz bandwidth (blocks L1-L2 to L79-L80).

Validity period of the approvals for the use of radio-frequencies in the 3.6 GHz band is 15 years as of the date of the approval issuance. Frequency blocks are available from date of approval issuance.

For the purpose of public bidding, frequency blocks in the 3.6 GHz band are grouped into 2 lot categories. The lot categories of frequency blocks in the 3.6 GHz band, subject to the award, are given in Table 3.3.

Table 3.3 *The lot categories of frequency blocks in the 3.6 GHz band*

Lot category	Block width	Number of blocks for award	Period of approval validity	Description
PA2	10 MHz	10	15 years as of the date of the approval issuance	Frequency generic blocks from the range L5-L6 to L79-L80 (reserved spectrum for the new entrants into the market, subject to the award in the pre-auction phase)
GA3	10 MHz	28 (29 to 38 if one or more blocks in lot category PA2 are not awarded in the pre-auction phase)	15 years as of the date of the approval issuance	Frequency generic blocks from the range L5-L6 to L79-L80 (unreserved spectrum, subject to the award in the main auction phase)

Frequency blocks of 10 MHz bandwidth in lot category PA2 (reserved spectrum for the new entrants into the market) will be subject to the award in the pre-auction phase. If in the pre-auction phase one or both of blocks in lot category PA2 are not awarded for any reason, in the main auction phase the number of blocks in lot category GA3 will be increased by respectively.

Frequency block of 10 MHz bandwidth in band 3.6 GHz named L1-L2 i L3-L4 (3400-3420 MHz) are not the subject of a public bidding. The use of this supplementary downlink (SDL) block of the MFCN system implies limiting out-of block emissions in accordance with the Radio Frequency Assignment Plan in the 3400-3800 MHz band for MFCN systems, which may require the development of additional filtering capabilities and/or limitation of maximum radiated power within block and the application of other techniques to reduce harmful interference, in order to protect the systems in radiolocation service in the band below 3400 MHz. This block can be awarded to the holder of the approval for the use of frequency block L5-L6 at his request, without the obligation to pay a one-time fee for its allocation.

General technical conditions for the use of radio-frequencies in the 3.6 GHz band for MFCN systems are given in Section 8.2.

3.3. The structure of frequency blocks in the 26 GHz band

The subject of the award in the 26 GHz band is a total of 1000 MHz unpaired radio-frequency spectrum divided into 5 frequency blocks of 200 MHz bandwidth (blocks M12 to M16).

Validity period of the approvals for the use of radio-frequencies in the 3.6 GHz band is 15 years as of the date of the approval issuance. Frequency blocks are available from date of approval issuance.

For the purpose of public bidding, frequency blocks in the 26 GHz band are grouped into 2 lot categories. The lot categories of frequency blocks in the 26 GHz band, subject to the award, are given in Table 3.4.

Table 3.4 *The lot categories of frequency blocks in the 26 GHz band*

Lot category	**Block width**	**Number of blocks for award**	**Period of approval validity**	**Description**
PA3	200 MHz	1	15 years as of the date of the approval issuance	Frequency generic blocks from the range M12 to M16 (reserved spectrum for the new entrants into the market, subject to the award in the pre-auction phase)
GA4	200 MHz	4 (5 if a block in lot category PA3 is not awarded in the pre-auction phase)	15 years as of the date of the approval issuance	Frequency generic blocks from the range M12 to M16 (unreserved spectrum, subject to the award in the pre-auction phase)

Frequency block of 200 MHz bandwidth in lot category PA3 (reserved spectrum for the new entrants into the market) will be subject to the award in the pre-auction phase. If in the pre-auction phase a block in lot category PA3 is not awarded for any reason, in the main auction phase the number of blocks in lot category GA4 will be increased by one.

General technical conditions for the use of radio-frequencies in the 26 GHz band for MFCN systems are given in Section 8.3.

4. OVERVIEW OF THE PUBLIC BIDDING PROCEDURE AND LEGAL OBLIGATIONS

4.1. Legal basis of the radio-frequency spectrum management

The legal basis of the radio-frequency spectrum management in Montenegro is represented by the Law on Electronic Communications from 2013 (LEC) and a set of by-laws issued under the LEC, out of which for this public bidding procedure are important:

- The Radio-Frequency Spectrum Allocation Plan (Official Gazette of Montenegro, 89/20 and 104/20);
- The Radio-Frequency Assignment Plan in the 694-790 MHz band for MFCN (TRA-ECS) systems (Official Gazette of Montenegro, 22/21);
- The Radio-Frequency Assignment Plan in the 3400-3800 MHz band for MFCN (TRA-ECS) systems (Official Gazette of Montenegro, 22/21);
- The Radio-Frequency Assignment Plan in the 24,25-27,5 GHz MHz band for MFCN (TRA-ECS) systems (Official Gazette of Montenegro, 22/21);
- The Rulebook on form of technical reqirements for the use of radio-frequencies (Official Gazette of Montenegro, 5/21);
- The Rulebook on the methodology and method for the calculation of annual fees for the use of radio-frequencies (Official Gazette of Montenegro, 16/14, 81/18 and 6/19);
- The Decision of the Government of Montenegro on pricing fees for administration of radio-frequency spectrum (Official Gazette of Montenegro, 16/14);
- The Rulebook on the width of the protection zone and type of radio corridors where the planning and construction of other facilities is not allowed (Official Gazette of Montenegro, 33/14);
- The Rulebook on radio equipment (Official Gazette of Montenegro, 45/17);
- The Rulebook on establishing a list of standards in the field of radio equipment and telecommunication terminal equipment (Official Gazette of Montenegro, 46/14);
- The Rulebook on limits of exposure to electromagnetic fields (Official Gazette of Montenegro, 6/15).

The LEC prescribes responsibilities of the Government, the Ministry responsible for telecommunications (the Ministry for Economic Development) and the Agency for Electronic Communications and Postal Services, as the national regulatory authority in the field of radio-frequency spectrum management.

The activity in the field of electronic communications and management and the use of limited resources, inter alia, are based on the following principles (Article 3 of the LEC):

- objectivity, transparency, non-discrimination and proportionality;
- providing conditions for even development of electronic communications market in the territory of Montenegro;
- ensuring predictability of business environment and equal conditions for business operations of operators;
- harmonizing electronic communications activities with the Montenegrin and international standards;
- protecting and promoting competitiveness in the electronic communications market for the purpose of ensuring benefits for the users;
- promoting efficient management and the use of limited resources;
- encouraging investments and innovations and development of a new and improved infrastructure; and
- improving service quality in the area of electronic communications on continuous basis.

The radio-frequency spectrum management, as a limited natural resource, includes planning, assignment, coordination, control and monitoring of the radio-frequency spectrum. The Agency manages radio-frequency spectrum in accordance with international agreements (the Convention and Radio Regulations of the International Telecommunications Union - ITU) and LEC (Article 96 of the LEC).

The Radio-Frequency Spectrum Allocation Plan specifies the allocation of radio frequency bands for individual radio communications services in accordance with Radio Regulations of the International Telecommunications Union. The Radio-Frequency Spectrum Allocation Plan is adopted by the Government (Article 97 of the LEC).

The radio-frequency assignment plan in a particular band defines the radio-frequency channels arranged in the band, more detailed terms and the manner of usage and the method for the assignment of radio-frequencies to one or more specific radio-communications services, in accordance with the Radio-Frequency Spectrum Allocation Plan. The Radio-Frequency Assignment Plans are adopted by the Agency while taking into account the needs and demands of users, upon the conducted procedure of public consultations (Article 98 of the LEC).

Certain radio-frequency assignment plans in the 700 MHz, 3.6 GHz and 26 GHz bands in accordance with provisions of the LEC prescribe that radio-frequencies in these bands are assigned on an exclusive basis in the entire territory of Montenegro, for the implementation of public mobile electronic communications networks.

In addition to the LEC, The Radio-Frequency Spectrum Allocation Plan, specific radio-frequency assignment plans and other regulatory acts in the field of management and usage of radio-frequency spectrum, regulatory and technical framework for the implementation of the public mobile electronic communications networks in the 700 MHz, 3.6 GHz and 26 GHz bands in Montenegro are also represented by relevant technical agreements on coordination of radio-frequencies with administrations of neighbouring countries.

Natural and legal persons may use radio-frequencies based on the approval for the use of radio-frequencies issued by the Agency. Radio-frequencies which may be used without the approval and terms and conditions of their use are defined in a relevant secondary legislation document (Article 99 of the LEC).

The approval for the use of radio-frequencies is issued by the Agency based on the application for the approval of the use thereof. The approval for the use of radio-frequencies in the bands which have been determined to be assigned on an exclusive basis in the territory of Montenegro for the purpose of implementation of the public electronic communications network, that is when, in accordance with Article 105 of the LEC, it is determined that the expressed interest is greater than availability of radio-frequency resources, the approval is issued based on the conducted public bidding procedure (Article 100 of the LEC).

The approval for the use of radio-frequencies are issued by the Agency for a period of up to five years, and for the exclusive use of radio-frequencies in the territory of Montenegro, for no more than 15 years (Article 115 of the LEC).

Validity period for the use of radio-frequencies may be extended upon the application of the holder of the approval if the requirements for the use of radio-frequencies defined in the approval have been met. In the event of the use of public electronic communications networks in the territory of Montenegro on an exclusive basis, validity of the approval for the use of the public electronic communications network is extended based on the conducted procedure of public bidding. The Agency initiates, ex officio or at the request of the radio-frequency users, a public

bidding procedure not later than six months prior to the expiry of the approval validity period (Article 117 of the LEC).

The right to use radio-frequencies may be transferred or assigned to another legal person, with the approval of the Agency. When deciding on giving approval to transfer or assign the rights of the use of radio-frequencies which are used for the implementation of public electronic communications networks, the Agency particularly appreciates the application of the principle of efficiency of the radio-frequency spectrum management, or the application of other principles as prescribed in Article 3 of the LEC (Article 118 of the LEC).

The Agency may amend the approval for use of radio-frequencies if:
- the amendment occurs in the Radio-Frequency Spectrum Allocation Plan, Assignment Plan or regulations defining the conditions for the use of radio-frequencies;
- established public interest cannot be met in any other way;
- the amendment is necessary for the purpose of effective use of radio-frequency spectrum;
- harmful interference or excessive emission cannot be eliminated in any other way;
- the amendment is necessary for the purpose of compliance with international agreements and other regulations.

Upon the consultations conducted with the holder of the approval for the use of radio-frequencies, the Agency issues an amended approval with an appropriate deadline within which the holder of the approval is obliged to align the use of radio-frequencies with new conditions (Article 119 of the LEC).

The Agency revokes the approval for use of radio-frequencies if it establishes that:
- incorrect data were specified in the application for approval;
- the holder of the approval does not comply with conditions prescribed in this Law or in the approval;
- deficiencies were not eliminated within the prescribed time limit and upon the request of the Agency;
- in the event of prohibition to carry on business activity in accordance with the Law;
- fees for the use of radio-frequencies have not been paid even after the warning of the Agency;
- harmful interference cannot be avoided in any other way (Article 120 of the LEC).

The Agency revokes the approval for the use of radio-frequencies if it establishes that the holder of the approval has violated some of the rules of the procedure laid down in the public bidding documents.

The approval for the use of radio-frequencies expires:
- upon the expiry of the period for which the approval has been issued;
- upon the request of the holder of the approval;
- by transfer of the right to use radio-frequencies onto another person;
- if the holder of the approval ceases to exist;
- if the approval holder has not started to use radio-frequencies within the period defined in the approval, not later than within one year from the date of the approval issuance (Article 121 of the LEC).

The Law on Electronic Communications and a set of secondary legislation documents passed under the Law thereof make the regulatory framework for building and use of electronic communications infrastructure and associated facilities, conducting activities of the public electronic communications, protecting competition in the area of electronic communications, universal service, management and the use of numeration and addresses, the right and protection of interests of users of the public electronic communications services, protection of electronic communications, and supervision in the area of electronic communications. All relevant documents are available on the website of the Agency (www.ekip.me).

4.2. An overview of the public bidding procedure

Bearing in mind the fact that some radio-frequency assignment plans establish that radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands are assigned on an exclusive basis in the entire territory of Montenegro for the implementation of the public mobile electronic communications network, in accordance with Article 100 Paragraph 2 and Article 117 Paragraph 3 of the LEC the approvals for the use of radio-frequencies are awarded, i.e. extended on the basis of the public bidding procedure.

The public bidding procedure of awarding the approvals for the use of radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands for the implementation of public mobile electronic communication networks is conducted by means of the spectrum auction.

4.2.1. Initiation of the public bidding procedure

According to the Article 106 of the LEC, by Decision no. 0504-6194/1 and Decision no. 0504-____/_ from __. __. 2022, the Agency is initiated public bidding procedure for awarding of the approvals for the use of radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands for the implementation of public mobile electronic communications networks. Text of the Decision on the initiation of the public bidding procedure is given at the beginning of the Public Bidding Documents and is considered as its integral part.

4.2.2. Submission of application for participation in the spectrum auction

The application for participation in the spectrum auction will be submitted directly to the archive of the Agency, every working day from 9:00 to 13:00 (CET), until __. __, 2022 (the deadline for the submission of applications for participation in the spectrum auction). Address and contact details of the Agency are given in Annex 1. The Agency will issue a confirmation on receiving the application for participation in the spectrum auction stating the name of the applicant, date and time of the reception of the application, and the list of documents submitted with the application.

The application for participation in the spectrum auction is submitted in the form given in Annex 2.

The Agency will keep confidential the list of applicants for participation in the spectrum auction until the expiry date of the deadline for the submission of applications for participation in the spectrum auction.

The application for participation in the spectrum auction and all documents relating to the participation in the spectrum auction will be submitted in the Montenegrin language. The documents originally drafted in a foreign language will be submitted in the language in which they are originally made and translated to the Montenegrin language by an authorized court interpreter.

The application for participation in the spectrum auction, together with other documents will be submitted in an non-transparent envelope addressed as follows: "Application for participation in the spectrum auction 2022".

The application for participation in the spectrum auction received by the Agency after the deadline for the submission of applications for participation in the spectrum auction will not be treated further in the process of public bidding.

The Agency has the right to extend the deadline for the submission of applications for participation in the spectrum auction, in which case all interested parties will be informed about the new deadline via the Agency's website www.ekip.me.

An applicant for participation in the spectrum auction has the right to modify, supplement, replace or withdraw its application before the deadline for the submission of applications for participation in the spectrum auction, by sending a written notice to the Agency.

4.2.3. Consideration of applications for participation in spectrum auction

In the procedure of consideration of the timely submitted applications for participation in the spectrum auction, the Agency will check whether the application for participation in the spectrum auction was submitted in accordance with the Public Bidding Documents and whether the applicant meets all the requirements prescribed in Section 4.4.

The Agency will reject the application for participation in the spectrum auction which has not been submitted on time or the application which has not been submitted in accordance with the Public Bidding Documents, as well as the application of the applicant who does not meet the requirements prescribed in Section 4.4.

In the event that it deems necessary, the Agency will request from the applicant for participation in the spectrum auction, further information, documentation or explanation that the applicant is obliged to submit within 3 days.

The Agency will issue the Decision on eligibility of the applicant interested in participation in the auction within 7 days from the expiry date of the deadline for the submission of applications for participation in the spectrum auction, and inform the applicant about it within 3 days from the day of the issuance of the abovementioned Decision.

An applicant for participation in the spectrum auction whose eligibility has been determined is obliged within 3 days from the date of submission of the Decision on eligibility of the applicant, to pay the fee for participation in the spectrum auction in the amount of EUR 50,000.00 (fifty thousand Euros) to one of the Agency’s bank accounts given in Annex 1 (noting the following: "Fee for participation in the spectrum auction 2022"). The fee for participation in the spectrum auction will be reimbursed to the qualified bidders who are not excluded from the further public bidding procedure, within 45 days from the day of the Decision on the selection of bidders in the public bidding procedure.

An applicant for participation in the spectrum auction whose eligibility has been determined who failed to pay the fee for participation in the spectrum auction within the prescribed period of time will be excluded from the further procedure of public bidding.

An applicant for participation in the auction whose eligibility has been determined and who has paid the fee for participation in the spectrum auction within the prescribed deadline will acquire the status of a qualified bidder in the auction in the further procedure of public bidding.

The fee paid for the purchase of the Public Bidding Documents will not be returned to the applicant for participation in the spectrum auction if its application is not timely submitted or the applicant failed to meet the conditions laid down in Section 4.4 and to applicant for participation in the auction whose eligibility has been determined who failed to pay the fee for participation in the spectrum auction within the prescribed deadline.

After concluding the list of qualified bidders the Agency will inform all qualified bidders about the total number of qualified bidders and their identity.

4.2.4. Training of bidders for the use of EAS systems and trial (MOCK) auction

For each of the qualified bidders at the spectrum auction, the Agency will organize a separate training for the use of bidding interface of the electronic spectrum auction (EAS) system. The qualified bidders will be notified at least 7 days in advance about the date of the training.

For qualified bidders at the spectrum auction, the Agency will organize a trial (MOCK) auction, during which the auction process will be simulated according to a pre-prepared scenario, in order to test the defined procedures for the implementation of all phases of the auction process. The qualified bidders will be notified at least 7 days in advance about the date and scenario of the MOCK auction.

4.2.5. Spectrum auction

The Agency will notify qualified bidders of the start date of the spectrum auction at least 14 days in advance. For the approximate start date of the spectrum auction, see Section 4.2.8.

The spectrum auction shall be conducted via the electronic auction system (EAS) provided by the Agency. The qualified bidders will access EAS through a web interface, from a remote location.

The electronic spectrum auction will be conducted in the Montenegrin language. The EAS bidders' interface will be presented in the Montenegrin language and the entire communication between the Agency, as the auctioneer, and the bidders in the spectrum auction procedure will be conducted in the Montenegrin language. It is not envisaged that any stage of the proceedings will be conducted in any language other than Montenegrin and the Agency will not provide any translation from Montenegrin into any other language.

The spectrum auction format is described in Section 4.6.

The spectrum auction rules are given in Chapter 6.

4.2.6. Adoption of Decision on the selection of bidders

After the completion of the spectrum auction procedure, a ranking list of the auction participants will be made, based on which the Agency will issue the Decision on the selection of bidders in the public bidding procedure (by which action winners will be identified).

The Decision on the selection of bidders in the public bidding procedure will be issued within 30 days from the end date of the auction.

4.2.7. Issuance of approvals for the use of radio-frequencies

Based on the Decision on the selection of bidders in the public bidding procedure, the selected bidder (auction winner) submits an application for the issuance of the approval for the use of radio-frequencies in accordance with Article 101 Paragraph 2 Items 1, 2 and 3 and Paragraph 4 of the LEC. The Agency will issue the approval for the use of radio-frequencies upon a duly submitted application and evidence of the payment of the fee for the issuance of the approval for the use of radio-frequencies.

Draft approvals for the use of radio-frequencies by bands are provided in Annexes 1 to 3.

The amount of the one-off fee generated in the public bidding procedure will be paid to the budget of Montenegro within 15 days from the date of the issuance of the Decision on the

selection of bidders in the public bidding procedure. If the selected bidder fails to pay one-off fee for awarding the approval for the use of radio-frequencies in the prescribed period of time, the Agency will activate the submitted banking guarantee.

4.2.8. Provisional schedule of certain phases of the spectrum auction procedure

The provisional schedule of certain phases of the spectrum auction procedure is given in Table 4.1.

Table 4.1 *Provisional schedule of certain phases of the spectrum auction*

	Phase description	**Provisional date**
1.	Issuance of the Decision on the initiation of the public bidding procedure	September __, 2022
2.	Deadline for the submission of applications for participation in the spectrum auction	October __, 2022
3.	Issuance of the Decision on eligibility of the applicant	until __. __. 2022
4.	Training of bidders for the use EAS	in the period from __to __2022
5.	Trial (MOCK) auction	in the period from __to __2022
6.	Start of the spectrum auction	in the period from __to __2022
7.	Issuance of the Decision on the selection of bidders	30 days after the auction completion
8.	Issuance of the approvals for the use of radio-frequencies	45 days from the date of the issuance of the Decision on the selection of bidders

4.3. General provisions related to the implementation of public bidding procedure

4.3.1. Confidentiality

The information and data relating to the implementation of the public bidding procedure which the Agency established to be confidential, either by the Public Bidding Documents or in any other manner must not be disclosed to third parties nor publicly released.

All data related to the applicants for participation in the spectrum auction will be considered confidential for the purpose of effective implementation of the auction in accordance with the auction rules.
The applicants for participation in the auction are obliged to treat the information received by the Agency during the spectrum auction as confidential.

The Agency will treat the information received by a qualified bidder in the auction procedure as confidential.

The information about the bids submitted during any phase of the spectrum auction process, will be considered confidential.

The Decision on eligibility of the applicant for participation in the auction, as well as any other decision that has been made in connection with the exclusion of the applicant for participation in the auction or a qualified bidder from the further bidding procedure is forbidden to disclose to third parties, except in cases prescribed by law.

Upon the completion of the electronic spectrum auction, the Agency will allow access to qualified bidders to information about the progress of the electronic spectrum auction in the

form of log files, created by the system for the implementation of the electronic spectrum auction (EAS). The information about the course of the electronic spectrum auction is considered confidential.

The obligation to maintain confidentiality of data and information received by the Agency remain in force until the issuance of the approvals for the use of radio-frequencies to the bidders who have gained that right in the auction procedure.

4.3.2. Prohibition of collusive behaviour

Upon the issuance of the Decision on the initiation of the public bidding procedure, the applicants for participation in the auction and qualified bidders in the auction are prohibited to enter into secret conspiracy and collusion in any form that could compromise integrity of the bidding procedure.

As of the date of the issuance of the Decision on the initiation of the public bidding procedure all parties interested in participation in the procedure are forbidden to establish contacts and/or exchange information with other interested parties directly or indirectly with the aim to influence the outcome of the bidding procedure.

In particular, the following activities will be considered secret conspiracy or collusion:

- any cooperation with bidders and/or potential bidders, particularly with the intention of influencing the course or the result of the bidding procedure,
- disclosure of any information concerning participation in the bidding procedure,
- disclosure of bid amounts or bidding strategies, specific bids or other statements likely to influence the participation or bidding behaviour of third parties in the public bidding procedure,
- making any statements and/or announcements that might provide an indication of the intended behaviour throughout the bidding procedure,
- coordinating bidding in the auction.

The applicants for participation in the auction, or qualified bidders in the auction for whom there is an evidence that they have taken some of the aforementioned activities will be excluded from the further bidding procedure, without the right of reimbursement of fee paid for the participation in the spectrum auction, and the Agency will activate the bid guarantee if the guarantee has been submitted. In that case, the entire auction process will be cancelled and conducted from the beginning.

Should a secret conspiracy or collusive behaviour become known after the completion of the bidding procedure or after issuing the approvals for the use of radio-frequencies, the Agency will revoke the approvals for the use of radio-frequencies issued based on the public bidding procedure thereof to the bidders who has conducted aforementioned activities, without the right of reimbursement of the fee paid for the participation in the spectrum auction, the one-off fee for the awarding of approvals for the use of radio-frequencies and annual regulatory fees.

4.3.3. Correctness and completeness of information

A qualified bidder in the auction, for which is determined that its application for participation in the spectrum auction and other acts submitted with the application contain incorrect or incomplete information will be excluded from the further public bidding procedure, without the right of reimbursement of the fee paid for the participation in the spectrum auction and

the Agency will activate the bid guarantee if the guarantee has been submitted. In that case, the entire auction process will be cancelled and conducted from the beginning.

Should it be determined that, at any point in time after the completion of the public bidding procedure or after the issuance of the approval for the use of radio-frequencies, the qualified bidder has submitted the application for participation in the spectrum auction, or any other document that accompanies the application, with incorrect or incomplete information, the Agency will revoke the approval for the use of radio-frequencies issued to that bidder based on the public bidding procedure thereof, without the right of reimbursement of the fee paid for the participation in the spectrum auction, the one-off fee for the awarding of approvals for the use of radio-frequencies and annual regulatory fees.

4.3.4. Documents submitted with the application for participation in the spectrum auction

The applicant will submit the following documents along with the application for participation in the auction:

- Registration certificate issued by the competent authority;
- Evidence of the existence of at least ten years of experience in the implementation of public electronic communications networks and in the provision of public electronic communications services (only for new entrants into the market);
- Evidence that the applicant is not status or proprietary related to the incumbent mobile operators in Montenegro ("One Crna Gora" d.o.o. Podgorica, "Crnogorski Telekom" a.d. Podgorica and "MTEL" d.o.o. Podgorica) (to be submitted only by new entrants into the market);
- A declaration confirming that the applicant is familiar with the content of the Public Bidding Documents and that it accepts the terms and conditions set out in the Documents (form of declaration is given in Annex 3);
- A declaration of correctness and completeness of submitted information and that the applicant is aware of the consequences which submission of incorrect and incomplete information brings (form of declaration is given in Annex 4);
- A declaration that the applicant did not undertake the activities of secret conspiracy or collusion in a way that would compromise an integrity of the public bidding procedure and that the applicant is aware of the consequences which taking of these activities brings (form of declaration is given in Annex 5);
- A declaration that the applicant is solvent and that it is not associated with any bankruptcy procedure, the procedure of enforced collection or forced liquidation, which could have an impact on its participation in the spectrum auction procedure, and that in relation to the current business operations there are no reasons for initiating the aforementioned actions or potential judicial and other procedures that the applicant may be related to which could have an impact on its participation in the spectrum auction procedure (form of declaration is given in Annex 6).

In case the applicant is a group of bidders (consortium), the aforementioned documents shall be delivered to each member of the consortium, except for the proof from indent 2 which shall be submitted only to the consortium member who has undertaken the obligation to implement public mobile electronic communication network and the provision of public mobile electronic communications services.

4.3.5. Requests for clarification

Interested parties who have purchased the Public Bidding Documents may submit to the Agency a request for clarification of the Public Bidding Documents not later than 10 days before the expiration of the deadline for the submission of applications for participation in the spectrum auction.

The request for clarification of the Public Bidding Documents will be submitted in electronic form to the following e-mail address: aukcija2022@ekip.me with indication "Clarifications in regard to the public bidding procedure 2022".

The request for clarification of the Public Bidding Documents will be submitted in the Montenegrin language.

The Agency will not respond to the requests for clarifications received after the expiry of the deadline.

The Agency will publish the requests for clarification and answers in anonymous form on its website www.ekip.me within eight days from the date of their receipt.

4.3.6. Modifications and/or amendments to the Public Bidding Documents

The Agency may modify and/or amend the Public Bidding Documents at any time after the adoption of the Decision on launching the public bidding procedure until the expiration of the deadline for the submission of applications for participation in the spectrum auction.

The Agency will inform the entities which have purchased the Public Bidding Documents about the contents of modifications and/or amendments to the Public Bidding Documents within 3 days.

4.3.7. Bid guarantee

The qualified bidder is required to submit to the Agency, in order to secure its bid submitted at any phase of the public bidding procedure, a bid guarantee in a form of an unconditional bank guarantee in favour of the Agency, payable at first call, issued by a bank registered in Montenegro or a foreign bank awarded a credit rating by a reputable credit rating agency corresponding to the credit quality level 3 (investment grade) or higher. A reputable rating agency is the agency that is on the list of registered and certified rating agencies published by the European Securities and Markets Authorities - ESMA.

The bank guarantee shall be made in accordance with the form given in Annex 7.

The bank guarantee shall be submitted in Montenegrin or in a foreign language translated into Montenegrin certified by a certified court translator.

The bank guarantee shall be submitted in the original in a non-transparent sealed envelope marked as "Bank Guarantee", containing the name of the bidder. The bank guarantee must be delivered by a direct delivery to the authorized member of the Commission for the implementation of the public bidding procedure to the premises of the Agency. The Agency shall issue a confirmation of the receipt of the bank guarantee containing the name of the bidder and date and time of the receipt.

The qualified bidder shall submit a bid guarantee before the First Primary Round of the pre-auction phase and before the First Primary Round of the main auction phase to the Agency in the amount covering at least XX% of the total amount of the bid submitted in that round. In the subsequent primary rounds of the pre-auction phase or the main auction phase, the amount of the submitted guarantee, must cover at least YY% of the total amount of bid submitted. In the Supplementary round of the main auction phase, the amount of the submitted guarantee, must cover at least YY% of the total amount of bid submitted, increased by the total amount of the bid submitted in the last primary round of the main auction phase.

In case the submitted bid guarantee does not allow the submission of a higher bid in the next round (the guarantee does not cover YY% of the bid to be submitted), if the qualified bidder wants to submit a higher bid in the next round, the qualified bidder shall submit an additional bid guarantee to the Agency, which will allow the fulfilment of the above condition. After determining that the additional bid guarantee is valid, the Agency will increase the maximum allowed bid amount for the appropriate bidder in the next round of the bidding.

The qualified bidder which fails to submit a valid bid guarantee before the beginning of the spectrum auction will be excluded from the further public bidding procedure, without the right to reimburse the fee paid for the participation in the spectrum auction.

The qualified bidder which submits invalid additional bid guarantee will not be able to submit in the coming rounds a bid whose amount exceeds the maximum allowed bid amount, determined by the previously submitted correct bid guarantees.

4.3.8. Annulment and suspension of the public bidding procedure

The Agency may take a decision on the annulment of the public bidding procedure at any stage of the bidding procedure, prior to an issuance of the Decision on the selection of bidders in the public bidding procedure.

The Agency will take a decision on the annulment of the public bidding procedure in cases where a further extension of bidding procedure may violate the principles in the area of electronic communications determined by Article 3 of the LEC.

The Agency will take a decision on the suspension of the public bidding procedure in case that no application for participation in the spectrum auction is submitted or in case that no applicant for participation in the spectrum auction gets the status of a qualified bidder in the auction.

A decision on the annulment or suspension of the public bidding procedure will be released in the same way as the Decision on the initiation of public bidding procedure.

In the event of annulment or suspension of the public bidding procedure, the fee paid for the participation in the spectrum auction will be reimbursed to qualified bidders, except for bidders who are excluded from further public bidding, within 15 days from the day of the Decision on annulment or suspension of the public bidding procedure.

4.3.9. Non-participation in the spectrum auction

A qualified bidder who before start of the spectrum auction retreats from participation in the spectrum auction or for any reason does not participate in the spectrum auction, i.e. does not submit a "non-zero bid" (request for more than 0 blocks in at least one category) in the Zero Primary Round or the First Primary Round will not be entitled to reimbursement of the fee paid for the participation in the spectrum auction.

4.3.10. Legal remedy

Pursuant to Article 32, Paragraph 5 of the LEC, an administrative dispute may be initiated before the Administrative Court of Montenegro against the decisions issued by the Agency during the public bidding procedure, within 20 days from the day of decision receipt.

4.4. Eligibility of applicants to participate in the public bidding procedure

Any interested legal entity who purchases the Public Bidding Documents, with at least ten years of experience in the implementation of the public electronic communications networks and the provision of the public electronic communications services (qualification requirement) is entitled for participation in the public bidding procedure.

A group of bidders (consortium) is entitled for participation in the public bidding procedure. Any legal entity, either before or after the purchase of the Public Bidding Documents, may form a consortium with another legal entity and such consortium may apply for participation in the spectrum auction.

The consortium will be considered to meet the qualification requirement if at least one of its members, which has undertaken the obligation to implement the public mobile electronic communications network and provision of public mobile electronic communications services, has at least ten years of experience in the implementation of the public electronic communications networks and the provision of the public electronic communications services.

An applicant for participation in the spectrum auction, whether it acts independently, or as a member of the consortium, who on day of the issuance of the Decision on the initiation of public bidding procedure is not the holder of the approval for the use of radio-frequencies for implementation of public mobile electronic communications networks (new entrant into the market), must not be status or proprietary related to the incumbent mobile operators in Montenegro ("One Crna Gora " d.o.o. Podgorica, "Crnogorski Telekom" a.d. Podgorica and "MTEL" d.o.o. Podgorica).

4.5. The reserve price

The minimum amount of the one-off fee for the awarding of approvals for the use of radio-frequencies (reserve price) is the price offered for a frequency block in lot categories PA1 to PA3 in the first primary round of the pre-auction phase, or for a frequency block in lot categories GA1 to GA4 in the first primary round of the main auction phase. The price reached in the spectrum auction for frequency blocks of any category may not be lower than the reserve price.

The minimum amount of the one-off fee for the awarding of approvals for the use of radio-frequencies (reserve price) in each category of frequency blocks subject to the auction is given in Table 4.2.

Table 4.2 *The reserve prices for individual lot categories of frequency blocks*

Band	Lot category	Block width	Number of blocks for award	Period of approval validity	Description	Početna cijena po bloku [Eura]
700 MHz	PA1	2x5 MHz	2	15 years as of the date of the approval issuance	Frequency generic blocks from the range H1 to H6 (reserved spectrum for the new entrants into the market, subject to the award in the pre-auction phase)	xxxxx,xx
	GA1	2x5 MHz	4 (5 or 6 if one or both of blocks in lot category PA1 are not awarded in the pre-auction phase)	15 years as of the date of the approval issuance	Frequency generic blocks from the range H1 to H6 (unreserved spectrum, subject to the award in the main auction phase)	xxxxx,xx
	GA2	5 MHz	2	15 years as of the date of the approval issuance	Frequency generic blocks from the range I2 to I3 (unreserved spectrum, subject to the award in the main auction phase)	xxxxx,xx
3.6 GHz	PA2	10 MHz	10	15 years as of the date of the approval issuance	Frequency generic blocks from the range L5-L6 to L79-L80 (reserved spectrum for the new entrants into the market, subject to the award in the pre-auction phase)	xxxxx,xx
	GA3	10 MHz	28 (29 to 38 if one or more blocks in lot category PA2 are not awarded in the pre-auction phase)	15 years as of the date of the approval issuance	Frequency generic blocks from the range L5-L6 to L79-L80 (unreserved spectrum, subject to the award in the main auction phase)	xxxxx,xx
26 GHz	PA3	200 MHz	1	15 years as of the date of the approval issuance	Frekvencijski generički blokovi iz opsega M12 do M16 (rezervisani spektar za nove učesnike na tržištu, predmet dodjele u fazi pre-aukcije)	xxxxx,xx
	GA4	200 MHz	4 (5 if a block in lot category PA3 is not awarded in the pre-auction phase)	15 years as of the date of the approval issuance	Frequency generic blocks from the range M12 to M16 (unreserved spectrum, subject to the award in the main auction phase)	xxxxx,xx

4.6. Format of the spectrum auction

The public bidding procedure for awarding the approvals for the use of radio-frequencies in the 700 MHz, 3,6 GHz and 26 GHz band for the implementation of public mobile electronic communications networks shall be conducted by means of spectrum auction. The auction process shall be conducted in two stages:

- **the principal stage**, in which it shall be determined how many frequency generic (abstract) blocks of a certain lot category shall be awarded to each winner of the auction, and
- **the assignment stage**, in which it shall be determined which specific frequency blocks (with physical boundaries) shall be awarded in each band to each winner of the auction, according to the number of the awarded abstract blocks in the principal stage.

The principal stage of the auction shall be conducted into two phases:

- **the pre-auction phase** (bidding for the reserved spectrum), in which the frequency blocks in lot categories PA1 to PA3 (reserved spectrum for the new entrants into the market) are subject to the award, for which the bids may be submitted only by qualified bidders who on day of the issuance of the Decision on the initiation of public bidding procedure were not the holders of the approvals for the use of radio-frequencies for the implementation of public mobile electronic communications networks (new entrants into the market);
- **the main auction phase** (bidding for the unreserved spectrum), in which the frequency blocks in lot categories GA1 to GA4 are subject to the award, for which all qualified bidders may equally compete.

The pre-auction phase is conducted in the form of a simple *"clock"* bidding (*Simple Clock Auction*) consisting of one or more primary bidding rounds. The primary rounds of the pre-auction phase follow the clock bidding format. In the First Primary Round, the qualified bidders (new entrants into the market) submit initial bids (requests) for the frequency blocks of lot categories PA1 to PA3 at the reserve price. In the event of no excess demand in any lot category of blocks in the First Primary Round (a total number of blocks required is equal to or less than the number of blocks that are subject of award), the pre-auction ends. In event of excess demand any lot category of blocks in the First Primary Round (a total number of blocks required is greater than the number of blocks that are subject of award), the bidding continues with the Second Primary Round in which bidders submit bids (requests) for blocks at an increased (clock) price in the lot categories in which excess demand is recorded. In the event that in the Second Primary Round there is no excess demand in any lot category of blocks, the pre-auction ends. In the event that there is an excess demand in any lot category of blocks in the Second Primary Round, the bidding continues with the subsequent primary round and so on.

The winners of the pre-auction phase are the bidders who submitted the correct bid in the last primary round (winning bid in the last primary round of the pre-auction phase). Each winner of the pre-auction phase is awarded the number of blocks of each lot category as stated in its winning bid in the pre-auction phase, for the amount of fee corresponding to the total bid amount. The amount of fee to be paid by the winners of the pre-auction phase for the award of the blocks included by their winning bid in the pre-auction phase is equal to the total amount of that bid.

Frequency blocks that for any reason remain unawarded in the pre-auction phase shall become the subject of award in the main auction phase. In the event that none of the eligible bidders is a new entrant into the market, the pre-auction phase is omitted and all frequency blocks of the reserved spectrum shall become the subject of award in the main auction phase.

Based on the outcome of the pre-auction phase, the number of blocks of lot categories GA1, GA3 and GA4 is determined, which, together with all blocks of lot category GA2, are subject of bidding in the main auction phase, taking into account Rule AR20.

The main auction phase is conducted in the combined format of a simple "clock" bidding (Simple Clock Auction) and bidding through sealed bids (sealed-bid auction), consisting of one or more primary rounds and one supplementary bidding round, which is conducted only if not all frequency blocks have been awarded in the last primary round. The primary rounds of the main auction phase follow the clock bidding format. In the First Primary Round, the qualified bidders submit initial bids (requests) for the frequency blocks of lot categories GA1 to GA4 at the reserve price. In the event of no excess demand in any lot category of blocks in the First Primary Round (a total number of blocks required is equal to or less than the number of blocks that are subject of award), the main auction ends. In event of excess demand in any lot category of blocks (a total number of blocks required is greater than the number of blocks that are subject of award), the bidding continues with the Second Primary Round in which bidders submit bids (requests) for blocks at an increased (clock) price in the lot categories in which excess demand is recorded. In the event that in the Second Primary Round there is no excess demand in any lot category of blocks and that all blocks in each lot category are awarded (that the number of required blocks in each lot category is equal to the number of blocks subject to the award), the main auction ends. In the event that in the Second Primary Round there is no excess demand in any lot category of blocks and that there are unawared blocks, the bidding continues with the Supplementary Round. In the event that there is an excess demand in any lot category of blocks in the Second Primary Round, the bidding continues with the subsequent primary round and so on.

The Supplementary Round of the main auction phase follows the sealed-bid auction format. In the Supplementary Round, bidders submit one or more supplementary bids (the number of blocks and the total bid amount) for sets of blocks of different lot categories that remained unawarded in the last primary round of the main auction phase, where the total bid amount cannot be lower than the sum of amount of fees per block ("*clock*" price) for the lot categories of blocks included that were applied in the last primary round in which there was an excess demand, ie the amount of initial fees per block (reserve price) for the lot categories of blocks included for which there was no excess demand in each primary round of the main auction phase. The principal auction stage ends with the Supplementary Round.

The winners of the main auction phase are the bidders who submitted the correct bid in the last primary round (winning bid in the last primary round of the main auction phase) and, if the Supplementary Round of bidding is conducted, the bidders whose bids in the Supplementary Round are part of the bid combination with the the highest sum of the offered total bid amounts (winning bid in the Supplementary Round of the main auction phase). The same bidder may be the winner in both the last primary round and the Supplementary Round of the main auction phase. Each winner of the main auction phase is awarded the number of blocks of each category as stated in its winning bid in the last primary round of the main auction phase and the Supplementary Round of the main auction phase, for the amount of the fee corresponding to the sum of the amounts of these bids.

The assignment stage consists of one round of bidding for each band in which there is more than one winner in the principal stage (paired and unpaired part of the 700 MHz band is considered separate bands in this sense). The assignment rounds follow the sealed-bid auction format. In the assignment round, the winners of the pricipal auction stage submit bids for the offered assignment options (positions of the won abstract frequency blocks on the frequency axis). Assignment rounds are conducted successively in the following order: first the paired part of the 700 MHz band, then the unpaired part of the 700 MHz band, then the 3.6 GHz band, and finally the 26 GHz band.

The bid of the bidder in the assignment round for the relevant frequency band that is part of the combination of bids (includes exactly one bid of each bidder) with the highest sum of the bid amounts is considered the winning bid (winning bid in the assignment round). Each bidder will be awarded, in each band, To each winner will be awarded specific frequency blocks according to assignment option to which is associated winning bid, for the amount of the fee corresponding to the amount of the winning bid.

Bids in all principal stage stage rounds and assignment stage rounds shall be submitted electronically, in a decentralized manner, through the bidding part of the EAS system. Only in exceptional cases (e.g. problems of a technical nature) will be allowed to submit bids by phone.

A diagram of the spectrum auction procedure is presented in Figure 4.1.

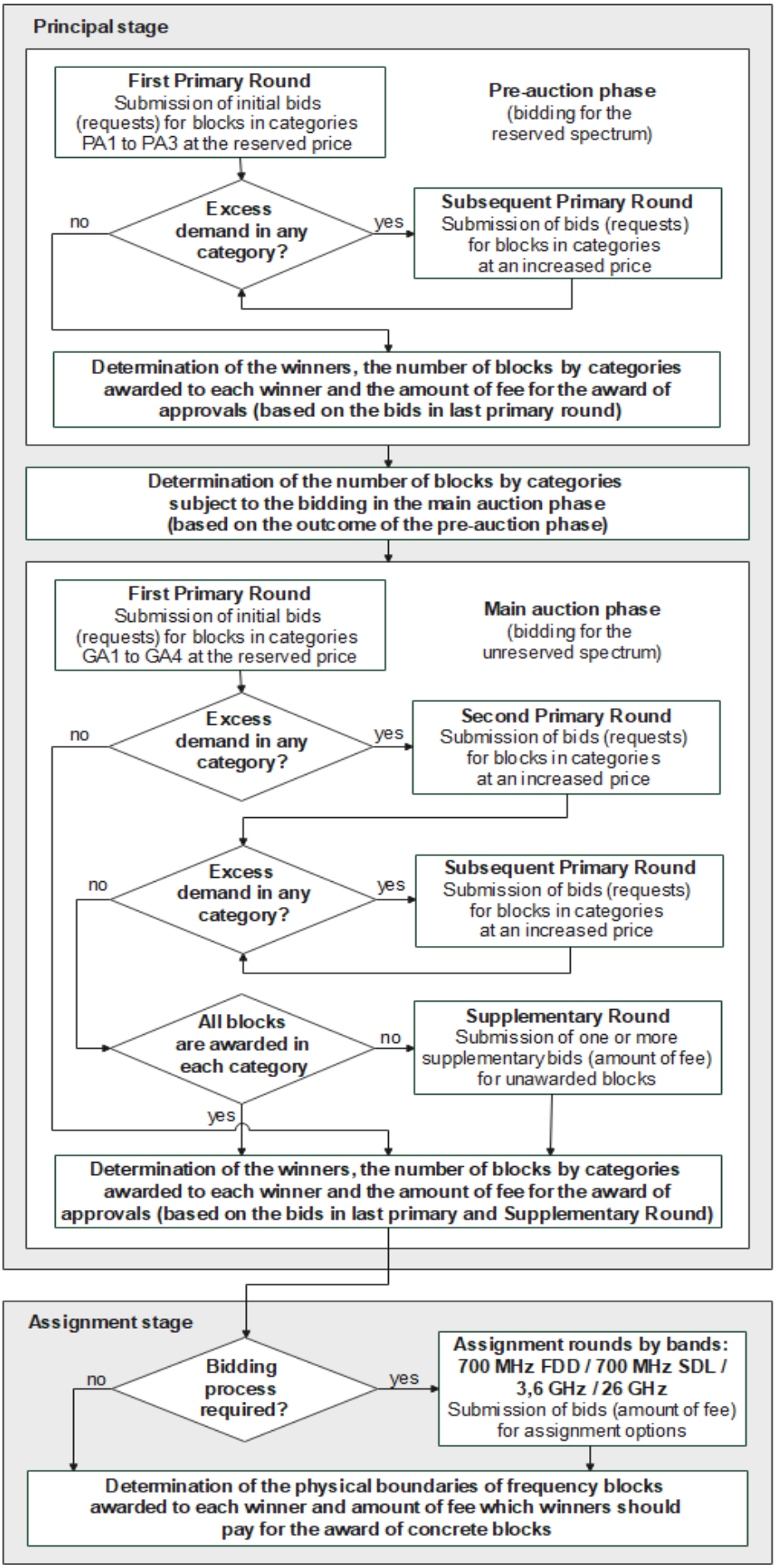

Figure 4.1 *Diagram of the spectrum auction procedure*

4.7. One-off fee for awarding the approvals for the use of radio-frequencies

The total amount of one-off fee for awarding the approvals for the use of radio-frequencies in the public bidding procedure (the total one-off fee), that upon completion of the spectrum auction each winner needs to pay, is the sum of the following:

- the amount of its winning bid in the pre-auction phase (winning bid in the last primary round);
- the amount of its winning bid in the main auction phase (winning bid in the last primary round and winning bid in the Supplementary Round);
- the amount of all of its winning bid in the Supplementary Round of the main auction phase.

The amount of the one-off fee generated in the public bidding procedure will be paid to the budget of Montenegro within 15 days from the date of the issuance of the Decision on the selection of bidders in the public bidding procedure.

5. SPECIAL CONDITIONS AND OBLIGATIONS

5.1. Reserved radio-frequency spectrum

Reserved radio-frequency spectrum for the incumbent mobile operators consists of the following:

- 2 frequency blocks of 2x5 MHz bandwidth in category PA1 in the 700 MHz band;
- 10 frequency blocks of 10 MHz bandwidth in category PA2 in the 3.6 GHz band;
- 1 frequency block of 200 MHz bandwidth in category PA3 in the 26 GHz band.

Reserved spectrum will be the subject of the award in the pre-auction phase.

Only qualified bidders who were not the holders of the approvals for the use of radio-frequencies for implementation of public mobile electronic communications networks on day of the issuance of the Decision on the initiation of the public bidding procedure may apply in the pre-auction phase for the award of spectrum reserved for the new entrants into the market (frequency blocks in lot categories PA1 and PA3).

If one or few blocks in lot categories PA1 to PA3 are not awarded in the pre-auction phase for any reason, a number of blocks in lot categories GA1, GA3 and GA4 in the main auction phase will increase respectively.

For the award of any frequency block in lot categories GA1 to GA4 all qualified bidders may equally bid in the main auction phase.

5.2. Spectrum caps

The holder of the approval for the use of radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands for the implementation of the public mobile electronic communications networks at any time may dispose of the following amount of spectrum (general spectrum caps) to a maximum:

- 2x20 MHz in the 700 MHz band;
- 160 MHz in the 3.6 GHz band;
- 400 MHz in the 26 GHz band.

A qualified bidder, who was the holder of the approvals for the use of radio-frequencies in the 800 MHz and/or 900 MHz bands on day of the issuance of the Decision on the initiation of the public bidding procedure (incumbent mobile operator), may submit a bid for a maximum number of frequency blocks in paired 700 MHz band, whose total bandwidth, gathered with the total bandwidth of the previously awarded frequency blocks in the 800 MHz and 900 MHz bands, at any time does not exceed 2x40 MHz (spectrum cap in the bands below 1 GHz).

5.3. Coverage requriements and 5G network deployment obligations

In order to achieve the prescribed level of coverage of the population of Montenegro by the network signal which allows the provision of services with the defined quality, any technology may be used as well as any band available to the operator (including previously assigned radio frequencies), in line with the corresponding radio-frequencies assignment plan.

The operator which disposes of the spectrum in several bands for which different coverage requirements have been defined is obliged to fulfil a more demanding criterion, but it is not required to develop the network in each band in parallel.

The development of 5G network implies the implementation of a mobile network according to 3GPP Release 15 or later specification (code NR is used for the access part of 5G network). Radio-frequencies from any band at the operator's disposal (including previously assigned radio frequencies) may be used to meet the requirements for 5G network development, but it is not required to develop the network in each band in parallel.

The holder of the approval for the use of radio-frequencies is obliged to fully meet all coverage requriements and 5G network deployment obligations. The holder of the approval is obliged to take all necessary activities in a timely manner in order to meet the requirements (initiation of procedures to obtain access to sites for construction of electronic communications infrastructure and/or installation of electronic communications equipment, initiation of procedures for approval of construction of electronic communications infrastructure and/or installation of electronic communications equipment, procurement of elements of electronic communication infrastructure and electronic communication equipment, etc.). At the beginning of each year of approval validity period, the holder of the approval the use of radio frequencies is obliged to submit to the Agency an action plan in order to meet the requirements for the next year and at the end of each year of the approval validity period, a report on the implemented activities and possible difficulties in the realization thereof.

In the event that the Agency in the process of verifying the fulfillment of the requirements determines that all the requirements have not been fully met, the Agency shall approve an additional period of not more than one year to the holder of the approval for the use of radio-frequencies to eliminate the identified deficiencies. If the deficiencies are not remedied by deadline envisaged and the holder of the approval does not provide evidence that all available activities have been taken, i.e. that non-compliance is due to objective circumstances beyond the control of the holder of the approval, the Agency shall revoke the approval for the use of radio-frequencies by which unfulfilled requirements were determined.

In the event that the holder of the approval for the use of radio-frequencies faces administrative difficulties in obtaining access to locations for construction of electronic communication infrastructure and/or installation of electronic communication equipment, approval of construction of electronic communication infrastructure at new locations and/or installation of electronic communication equipment at existing and/or new locations, at the request of the holder of the approval the Agency may extend the deadline for meeting the relevant requirement by more than one year, if the holder of the approval provides clear evidence that all available activities have been taken, i.e. that non-compliance is due to objective circumstances beyond the control of the holder of the approval.

5.3.1. Coverage requirements in the 700 MHz band

The incumbent mobile operator in Montenegro who was awarded radio-frequencies in the 700 MHz band based on the public bidding procedure is obliged:

- by the end of 2024 to provide the coverage of at least 97% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience;
- by the end of 2026 to provide, and to maintain afterwards, the coverage of at least 98% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience.

A new entrant into the market who was awarded radio-frequencies in the 700 MHz band based on the public bidding procedure is obliged:

- by the end of 2024 to provide the coverage of at least 75% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience;
- by the end of 2026 to provide the coverage of at least 85% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience;
- by the end of 2030 to provide, and to maintain afterwards, the coverage of at least 98% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience.

The network coverage, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience, means the ability to provide data throughput with a minimum bitrate towards the user (downlink) of 10 Mb/s and a minimum bitrate from the user (downlink) of 3 Mb/s, in case of outdoor mobile reception.

The requirement for the minimum bitrate towards the user (downlink) of 10 Mb/s and from the user (uplink) of 3 Mb/s will be considered fulfilled if in at least 90% of data transmission sessions during one day (00-24h) a bitrate to the user of 10 Mb/s or more, and a bitrate from the user of 3 Mb/s or more are met (or there are conditions to be met), with level of successfully initiated and finished data transmission sessions of 95%, excluding the sessions made during a pick 2 hours of the maximum network load (a single exemption interval is taken for all mobile networks). Due to the increased volume of traffic during July and August as a consequence of the large number of tourists staying in Montenegro, it will be considered that this requirement is met in these months if effective data throughputs are at least 50% of the defined values.

Coverage of the uncovered rural areas

The holder of the approval for the use of radio-frequencies in the 700 MHz band, whether it is the incumbent operator of mobile electronic communications services or a new entrant into the market, is obliged:

- by the end of 2026 to provide the coverage of at least 5 uncovered rural areas with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience.

The coverage of rural areas (construction of new electronic communication infrastructure, use of existing electronic communication infrastructure, use of other existing infrastructure) is determined by the operator, provided that the network signal covers at least 75% of the population in the requested area.

Uncovered rural area means one or more neighbouring rural settlements in which the place of residence have at least 50 inhabitants in total and whose territory collectively does not exceed 10 km in diameter, whereas a broadband data transmission services of defined quality are available for less than 75% of the population (mobile network signal is not available).

The list of rural areas meeting the above criteria on the day of the Decision on initiating the public bidding procedure, with the endpoints of the respective polygons, is given in Annex 4.

Bidders that have been awarded the frequency blocks in the 700 MHz band in spectrum auction will alternately select one area from the list, until each selects a total of five areas. Preference is given to the bidder who is assigned a lower frequency block.

Coverage of roads and railways

The incumbent mobile operator in Montenegro who was awarded radio-frequencies in the 700 MHz band based on the public bidding procedure is obliged:

- by the end of 2026, to provide a continuous network signal coverage of all highways and all magistral roads in Montenegro;
- by the end of 2026, to provide a continuous network signal coverage of at least 50% of the route of all regional roads in Montenegro;
- by the end of 2026, to provide a continuous network signal coverage of at least 50% of the route of all railways where passenger traffic takes place in Montenegro;
- by the end of 2030, to provide, and to maintain afterwards, a continuous network signal coverage of all highways, all magistral roads and all regional roads in Montenegro;
- by the end of 2030, to provide, and to maintain afterwards, a continuous network signal coverage of all railways where passenger traffic takes place in Montenegro.

A new entrant into the market who was awarded radio-frequencies in the 700 MHz band based on the public bidding procedure is obliged:

- by the end of 2026 to provide the continuous network signal coverage of all highways and at least 75% of the route of all magistral roads in Montenegro;
- by the end of 2030, to provide, and to maintain afterwards, the continuous network signal coverage of all highways, all magistral roads and all regional roads in Montenegro;
- by the end of 2030, to provide, and to maintain afterwards, the continuous network signal coverage of all railways where passenger traffic takes place in Montenegro.

The continuous network signal coverage of the road or track means the availability of 4G (LTE) or 5G (NR) signals of the appropriate level (RSRP ≥ -110 dBm) along 100% of the highway route, at least 95% of the magistral road route, at least 90% of the regional road route, or at least 80% of the railway route, whereby the part of the route of the magistral and regional road, i.e. the railway with a signal level lower than the stated shall not be longer than 3 km in continuity.

The list of roads and railways to which this requirement applies is given in Annex 5.

The holder of the approval for the use of radio-frequencies subject to the award, whether it is the incumbent operator of mobile electronic communications services or a new entrant into the market, is obliged to provide the continuous coverage of the newly built highways within one year from the day of their releasing into regular traffic, newly built/re-categorized magistral roads within two years of their release into regular traffic/re-categorization, and newly built/re-categorized regional roads and railways within three years from the day of their release into regular traffic/re-categorization.

Coverage of specific areas and territorial waters

The holder of the approval for the use of radio-frequencies in the 700 MHz band, whether it is the incumbent operator of mobile electronic communications services or a new entrant into the market, is obliged:

- by the end of 2026 to provide, and to maintain afterwards, the network signal coverage of the waters of Skadar Lake located in Montenegro, the waters of the Bokakotorska Bay and part of the territorial waters of Montenegro up to 1 nm from the coast;
- by the end of 2030 to provide, and to maintain afterwards, the network signal coverage of national parks in Montenegro the tourist infrastructure is located.

The network signal coverage means the availability of 4G (LTE) or 5G (NR) signals of the appropriate level (RSRP ≥ -110 dBm).

Development of 5G network

A new entrant into the market who was awarded radio-frequencies in the 700 MHz band based on the public bidding procedure is obliged:

- by the end of 2030 to provide, and to maintain afterwards, the 5G network signal coverage of all populated areas in Montenegro;
- by the end of 2030 to provide, and to maintain afterwards, the continuous 5G network signal coverage of all highways and all magistral roads in Montenegro.

The 5G network signal coverage of populated areas means the availability of 5G (NR) signals of the appropriate level (RSRP ≥ -110 dBm) for 100% of the population in each urban settlement and at least 75% of the population in each rural settlement in Montenegro.

The continuous 5G network signal coverage of populated areas means the availability of 5G (NR) signals of the appropriate level (RSRP ≥ -110 dBm) along 100% of the highway route, at least 95% of the magistral road route, whereby the part of the route of the magistral road with a signal level lower than the stated shall not be longer than 3 km in continuity.

The list of roads to which this requirement applies is given in in Annex 5.

5.3.2. Coverage requirements in the 3.6 GHz band

Population coverage

The incumbent mobile operator in Montenegro who was awarded radio-frequencies in the 3.6 GHz band based on the public bidding procedure is obliged:

- by the end of 2026 to provide the network signal coverage of at least 75% of the population in each municipality of Montenegro, in terms of availability of data transmission service according to the required quality criterion of 30/10 Mb/s based on user experience;
- by the end of 2030 to provide, and to maintain afterwards, the network signal coverage of at least 75% of the population in each municipality of Montenegro, in terms of availability of data transmission service according to the required quality criterion of 100/30 Mb/s based on user experience.

A new entrant into the market who was awarded radio-frequencies in the 3.6 GHz band based on the public bidding procedure is obliged:

- by the end of 2026 to provide the network signal coverage of at least 75% of the population in each municipality of Montenegro, in terms of availability of data transmission service according to the required quality criterion of 30/10 Mb/s based on user experience;
- by the end of 2030 to provide, and to maintain afterwards, the network signal coverage of at least 75% of the population in each municipality of Montenegro, in terms of availability of data transmission service according to the required quality criterion of 100/30 Mb/s based on user experience.

The network signal coverage, in terms of availability of data transmission service according to the required quality criterion of 30/10 Mb/s based on user experience, means the ability to provide data throughput with a minimum bitrate towards the user (downlink) of 30 Mb/s and a minimum bitrate from the user (downlink) of 10 Mb/s, in case of outdoor mobile reception.

The requirement for the minimum bitrate towards the user (downlink) of 30 Mb/s and from the user (uplink) of 10 Mb/s will be considered fulfilled if in at least 90% of data transmission sessions during one day (00-24h) a bitrate to the user of 30 Mb/s or more, and a bitrate from the user of 10 Mb/s or more are met (or there are conditions to be met), with level of successfully initiated and finished data transmission sessions of 95%, excluding the sessions made during a pick 2 hours of the maximum network load (a single exemption interval is taken for all mobile networks). Due to the increased volume of traffic during July and August as a consequence of the large number of tourists staying in Montenegro, it will be considered that this requirement is met in these months if effective data throughputs are at least 50% of the defined values.

The network signal coverage, in terms of availability of data transmission service according to the required quality criterion of 100/30 Mb/s based on user experience, means the ability to provide data throughput with a minimum bitrate towards the user (downlink) of 100 Mb/s and a minimum bitrate from the user (downlink) of 30 Mb/s, in case of outdoor mobile reception, with a maximum delay of 10 ms.

The requirement for the minimum bitrate towards the user (downlink) of 100 Mb/s and from the user (uplink) of 30 Mb/s will be considered fulfilled if in at least 90% of data transmission sessions during one day (00-24h) a bitrate to the user of 100 Mb/s or more, and a bitrate from the user of 30 Mb/s or more are met (or there are conditions to be met), with level of successfully initiated and finished data transmission sessions of 95%, excluding the

sessions made during a pick 2 hours of the maximum network load (a single exemption interval is taken for all mobile networks). Due to the increased volume of traffic during July and August as a consequence of the large number of tourists staying in Montenegro, it will be considered that this requirement is met in these months if effective data throughputs are at least 50% of the defined values.

The requirement of 10 ms maximum delay will be considered to be met if at least 90% of the data transmission sessions during one day (00-24h) Round Trip Time (RTT) delay is less than or equal to 10 ms.

Development of 5G network

The holder of the approval for the use of radio-frequencies in the 3.6 GHz band, whether it is the incumbent operator of mobile electronic communications services or a new entrant into the market, is obliged to:

- by the end of 2024, in order to provide public mobile electronic communications services, to install and to put into operation at least five 5G (NR) radio base stations (gNodeB) in Podgorica, at least three 5G (NR) radio base stations in Niksic, at least two 5G (NR) radio base stations in Bar and Bijelo Polje and at least one 5G (NR) radio base station in each of the other municipalities in Montenegro.

Radio-frequencies from any band at the operator's disposal (including previously awarded radio-frequencies) may be used to meet this requirement.

The holder of the approval for the use of radio-frequencies in the 3.6 GHz band, whether it is the incumbent operator of mobile electronic communications services or a new entrant into the market, is obliged, at the request of the interested entity, within one year from the date of the request submission, to enable the provision of 5G service with specific requirements in terms of data transfer rate, delay, reliability and/or number of connections in the required (local) service area. The holder of the approval is obliged to provide the subject service under objective, transparent and non-discriminatory conditions including resonable and justified prices. The Agency shall release the holder of the approval from the obligation to provide the subject service at his request, if the required quality parameters are determined to be technologically unattainable for the operator, or their provision requires unreasonably high costs.

5.3.3. Coverage requirements in the 26 GHz band

Development of 5G network

The holder of the approval for the use of radio-frequencies in the 26 GHz band, whether it is the incumbent operator of mobile electronic communications services or a new entrant into the market, is obliged, at the request of the interested entity, within one year from the date of the request submission, to enable the provision of 5G service with specific requirements in terms of data transfer rate, delay, reliability and/or number of connections in the required (local) service area. The holder of the approval is obliged to provide the subject service under objective, transparent and non-discriminatory conditions including resonable and justified prices. The Agency shall release the holder of the approval from the obligation to provide the subject service at his request, if the required quality parameters are determined to be technologically unattainable for the operator, or their provision requires unreasonably high costs.

5.3.4. Methods for the assessment of compliance with coverage requirements

In order to verify the fulfilment of the coverage requirements, including the requirements related to service quality, the methodology based on relevant international instruments (ITU-R, CEPT, ETSI and others) and best comparative practice will be used.

The operators will be acquainted with the methodology of verification of the fulfilment of the coverage requirements at least three months before the expiration of the deadline for meeting a specific requirement.

The fulfilment of coverage requriements and network deployment obligations, including requirements with regard to the service quality will be assessed by:

- the estimation of network signal coverage degree based on software prediction of the receiving field strength;
- the measurements of availability and quality of service using specialized measuring equipment, including measurements in move;
- the measurements of quality of service at the location of end user using specialized equipment and/or authorized software application (e.g. EKIP NetTest) installed on a standard mobile terminal;
- the analysis of relevant data taken from the network of holders of authorizations for the use of radio frequencies.

5.4. Obligations regarding the start of use of approved radio-frequencies

The holder of the approval for the use of radio-frequencies subject to the award, whether it is the incumbent operator of mobile electronic communications services or a new entrant into the market, is obliged to start using the approved radio-frequencies within one year from the date of entry into force of the approval for the use of radio-frequencies.

The start of the use of approved radio-frequencies in the relevant band means the installation and putting into operation of at least one radio base station in the subject band in order to provide public mobile electronic communications services.

A new entrant into the market, who was assigned radio-frequencies based on the public bidding procedure, is obliged to start providing public mobile electronic communication services to end users within one year from the date of entry into force of the approval for the use of radio-frequencies.

5.5. Transfer of rights to use radio-frequencies

The right to use radio-frequency assigned on the basis of the public bidding procedure can be transferred or assigned to another legal entity with the approval of the Agency, under conditions prescribed by Article 118 of the LEC.

The right to use radio-frequencies assigned to the new entrant into the market based on the public bidding procedure cannot be transferred to another legal entity before the expiry of the period of five years from the date of the issuance of the approval for the use of radio-frequencies.

5.6. National roaming

The incumbent operator of mobile electronic communications services in Montenegro who was assigned radio-frequencies based on the public bidding procedure, is obliged to provide to the new entrant into the market who was awarded radio-frequencies for the implementation of the public mobile electronic communications network based on the public bidding procedure at its request the national roaming service under objective, transparent and non-discriminatory conditions and at cost-oriented prices, for a period of five years from the issuance date of the approval for the use of radio-frequencies.

The right to national roaming includes any public mobile electronic communications service which the incumbent operator provides by using any technology in any frequency band. All services must be available to users of the new entrant into the market with the same quality and level of coverage as the services provided to their own users.

5.7. Synchronization of TDD networks in the 3.6 GHz and 26 GHz bands

In order to achieve maximum utilization of assigned radio-frequencies in the abscence of harmful interference, holders of approvals for the use of adjacent frequency blocks in the band 3.6 GHz or 26 GHz are obliged to synchronize the operation of their TDD networks.

Synchronization conditions in the 3.6 GHz band

The general conditions of TDD networks synchronization in the 3.6 GHz band imply the application of the type A frame structure according to CEPT/ECC Recommendation ECC/REC/(20)03 (Frame A: DDDSU DDDSU DDDSU DDDSU) with a frame duration of 10 ms, as well as the use of common reference phase clock based on the GNSS satellite network.

In the event of deviation from the specified synchronization conditions, the holder shall apply the base station radiated power limit outside the allocated block for non-synchronized networks prescribed by the Radio-frequency Assignment Plan in the 3400-3800 MHz band for MFCN systems (this may require application of guard band within the assigned block and/or reducing the radiated power of base station within the assigned block).

The holders of the approvals for the use of radio-frequencies in the 3.6 GHz band may mutually agree on the application of different synchronization conditions than specified, of which they are obliged to inform the Agency before the beginning of their application. Depending on the situation in the border areas with neighboring countries in terms of degree of network implementation, the Agency may change the conditions of TDD networks synchronization, in order to ensure the rational use of RF spectrum.

Synchronization conditions in the 26 GHz band

The general conditions of TDD networks synchronization in the 26 GHz band imply the application of the type A frame structure according to CEPT/ECC Recommendation ECC/REC/(20)03 (Frame A: DDDSU DDDSU DDDSU DDDSU) with a frame duration of 10 ms, as well as the use of common reference phase clock based on the GNSS satellite network, where synchronization is not required for internal coverage, except in the case of internal coverage of public facilities (stadiums, sports halls, concert halls, shopping malls, etc.).

In the event of deviation from the specified synchronization conditions, the holder shall apply protection measures against harmful interference given in the CEPT/ECC Report 307 (this may require application of guard band within the assigned block and/or reducing the radiated power of base station within the assigned block).

The holders of the approvals for the use of radio-frequencies in the 26 GHz band may mutually agree on the application of different synchronization conditions than specified, of which they are obliged to inform the Agency before the beginning of their application.

6. SPECTRUM AUCTION RULES

6.1. General rules

6.1.1. Rules on the subject of the spectrum auction

AR1. A total of 51 frequency blocks in the 700 MHz, 3.6 GHz and 26 GHz bands, grouped into 7 categories, are available for the award in the spectrum auction process. Table 6.1 provides an overview of the blocks that are subject to auction by category with the lowest amount of one-time fee for the award of approval for the use of radio-frequencies (reserve price) and eligibility points for bidding. For more information on the subject of the public bidding and lot categories of frequency blocks per bands see Chapter 3. For more information on the reserve price see Section 4.5.

Table 6.1 *Frequency blocks subject to the spectrum auction*

Band	Lot category	Block bandwidth	Number of blocks for award	Reserve price per block [EUR]	Eligibility points per block
700 MHz	PA1	2x5 MHz	2	xxxx,xx	3
	GA1	2x5 MHz	4 (5 or 6 if one or both of blocks in lot category PA1 are not awarded in the pre-auction phase)	xxxx,xx	3
	GA2	5 MHz	2	xxxx,xx	0
3.6 GHz	PA2	10 MHz	10	xxxx,xx	1
	GA3	10 MHz	28 (29 or 30 if one or both of blocks in lot category PA2 are not awarded in the pre-auction phase)	xxxx,xx	1
26 GHz	PA3	200 MHz	1	xxxx,xx	0
	GA4	200 MHz	4 (5 if a blocks in lot category PA3 is not awarded in the pre-auction phase)	xxxx,xx	0

AR2. For the frequency blocks of all lot categories at any round of bidding a bid is submitted at the frequency generic basis, that is for the abstract blocks with which none of the specific (physical) frequency range is associated. The assignment of specific frequency blocks (with physical boundaries) is carried out separately, in the assignment stage, in order to ensure that all awards to each winner within the same band are continuous (in a form of a series of successive physical blocks). For more information on the principal stage and the assignment stage see Section 4.6 and Section 6.3.

AR3. Frequency blocks of lot categories PA1 to PA3 represent the reserved spectrum for the new entrants into the market and are subject to award in the pre-auction phase. The frequency blocks of lot categories GA1 to GA4 represent the unreserved spectrum and are subject to award in the main auction phase.

6.1.2. Rules on the spectrum auction format

AR4. **The spectrum auction** is conducted in two stages:

- **the principal stage**, in which it shall be determined how many frequency generic (abstract) blocks of a certain lot category shall be awarded to each winner of the auction, and
- **the assignment stage**, in which it shall be determined which specific frequency blocks (with physical boundaries) shall be awarded in each band to each winner of the auction, according to the number of the awarded abstract blocks in the principal stage.

For more information on the auction format see Section 4.6.

AR5. **The principal stage** shall be conducted into two phases:

- **the pre-auction phase** (bidding for the reserved spectrum), in which the frequency blocks in lot categories PA1 to PA3 (reserved spectrum for the new entrants into the market) are subject to the award, for which the bids may be submitted only by qualified bidders who on day of the issuance of the Decision on the initiation of public bidding procedure were not the holders of the approvals for the use of radio-frequencies for the implementation of public mobile electronic communications networks (new entrants into the market)
- **the main auction phase** (bidding for the unreserved spectrum), in which the frequency blocks in lot categories GA1 to GA4 are subject to the award, for which all qualified bidders may equally compete.

For more information on the auction format see Section 4.6.

AR6. Frequency blocks that for any reason remain unawarded in the pre-auction phase shall become the subject of award in the main auction phase. In the event that none of the eligible bidders is a new entrant into the market, the pre-auction phase is omitted and all frequency blocks of the reserved spectrum shall become the subject of award in the main auction phase.

AR7. **The pre-auction phase** is conducted in the form of a simple *"clock"* bidding (*Simple Clock Auction*) consisting of one or more primary bidding rounds.

AR8. **The primary rounds of the pre-auction phase** follow the clock bidding format. In the First Primary Round, the qualified bidders (new entrants into the market) submit initial bids (requests) for the frequency blocks of lot categories PA1 to PA3 at the reserve price. In the event of no excess demand in any lot category of blocks in the First Primary Round (a total number of blocks required is equal to or less than the number of blocks that are subject of award), the pre-auction ends. In event of excess demand any lot category of blocks in the First Primary Round (a total number of blocks required is greater than the number of blocks that are subject of award), the bidding continues with the Second Primary Round in which bidders submit bids (requests) for blocks at an increased (clock) price in the lot categories in which excess demand is recorded. In the event that in the Second Primary Round there is no excess demand in any lot category of blocks, the pre-auction ends. In the event that there is an excess demand in any lot category of blocks in the Second Primary Round, the bidding continues with the subsequent primary round and so on.

AR9. **The winners of the pre-auction phase** are the bidders who submitted the correct bid in the last primary round (winning bid in the last primary round of the pre-auction phase). Each winner of the pre-auction phase is awarded the number of blocks of each lot category as stated in its winning bid in the pre-auction phase, for the amount of fee corresponding to the total bid amount. The amount of fee to be paid by the winners of the pre-auction phase for the award of the blocks included by their winning bid in the pre-auction phase is equal to the total amount of that bid.

AR10. Frequency blocks that for any reason remain unawarded in the pre-auction phase shall become the subject of award in the main auction phase. In the event that none of the eligible bidders is a new entrant into the market, the pre-auction phase is omitted and all frequency blocks of the reserved spectrum shall become the subject of award in the main auction phase.

AR11. Based on the outcome of the pre-auction phase, the number of blocks of lot categories GA1, GA3 and GA4 is determined, which, together with all blocks of lot category GA2, are subject of bidding in the main auction phase, taking into account Rule AR20.

AR12. **The main auction phase** is conducted in the combined format of a simple "clock" bidding (Simple Clock Auction) and bidding through sealed bids (sealed-bid auction), consisting of one or more primary rounds and one supplementary bidding round, which is conducted only if not all frequency blocks have been awarded in the last primary round.

AR13. **The primary rounds of the main auction phase** follow the clock bidding format. In the First Primary Round, the qualified bidders submit initial bids (requests) for the frequency blocks of lot categories GA1 to GA4 at the reserve price. In the event of no excess demand in any lot category of blocks in the First Primary Round (a total number of blocks required is equal to or less than the number of blocks that are subject of award), the main auction ends. In event of excess demand in any lot category of blocks (a total number of blocks required is greater than the number of blocks that are subject of award), the bidding continues with the Second Primary Round in which bidders submit bids (requests) for blocks at an increased (clock) price in the lot categories in which excess demand is recorded. In the event that in the Second Primary Round there is no excess demand in any lot category of blocks and that all blocks in each lot category are awarded (that the number of required blocks in each lot category is equal to the number of blocks subject to the award), the main auction ends. In the event that in the Second Primary Round there is no excess demand in any lot category of blocks and that there are unawared blocks, the bidding continues with the Supplementary Round. In the event that there is an excess demand in any lot category of blocks in the Second Primary Round, the bidding continues with the subsequent primary round and so on.

AR14. **The Supplementary Round of the main auction phase** follows the sealed-bid auction format. In the Supplementary Round, bidders submit one or more supplementary bids (the number of blocks and the total bid amount) for sets of blocks of different lot categories that remained unawarded in the last primary round of the main auction phase, where the total bid amount cannot be lower than the sum of amount of fees per block ("*clock*" price) for the lot categories of blocks included that were applied in the last primary round in which there was an excess demand, ie the amount of initial fees per block (reserve price) for the lot categories of blocks included for which there was no excess demand in each primary round of the main auction phase. The principal auction stage ends with the Supplementary Round.

AR15. **The winners of the main auction phase** are the bidders who submitted the correct bid in the last primary round (winning bid in the last primary round of the main auction phase) and, if the Supplementary Round of bidding is conducted, the bidders whose bids in the Supplementary Round are part of the bid combination with the the highest sum of the offered total bid amounts (winning bid in the Supplementary Round of the main auction phase). The same bidder may be the winner in both the last primary round and the Supplementary Round of the main auction phase. Each winner of the main auction phase is awarded the number of blocks of each category as stated in its winning bid in the last primary round of the main auction phase and the Supplementary Round of the main auction phase. The amount of fee that winners have to pay for the award of the blocks included by their winning bid in the last primary round of the main auction phase and the Supplementary Round of the main auction phase is equal to the sum of the total amounts of these bids.

AR16. **The assignment stage** consists of one round of bidding for each band in which there is more than one winner in the principal stage (paired and unpaired part of the 700 MHz band is considered separate bands in this sense).

AR17. **The assignment rounds** follow the sealed-bid auction format. In the assignment round, the winners of the pricipal auction stage submit bids for the offered assignment options (positions of the won abstract frequency blocks on the frequency axis). Assignment rounds are conducted successively in the following order: first the paired part of the 700 MHz band, then the unpaired part of the 700 MHz band, then the 3.6 GHz band, and finally the 26 GHz band.

AR18. The bid of the bidder in the assignment round for the relevant frequency band that is part of the combination of bids (includes exactly one bid of each bidder) with the highest sum of the bid amounts is considered the **winning bid** (winning bid in the assignment round). Each bidder will be awarded, in each band, To each winner will be awarded specific frequency blocks according to assignment option to which is associated winning bid. The amount that winner have to pay for the award of specific frequency blocks is equal to the sum of his winning bids in all assiginment rounds.

6.1.3. Rules on bidding restrictions

6.1.3.1. Rules on reserved spectrum

AR19. Two frequency blocks of 2x5 MHz bandwidth in the 700 MHz band in lot category PA1, 10 frequency blocks of 10 MHz bandwidth in the 3.6 GHz band in lot category PA2 and 1 frequency block of 200 MHz bandwidth in the 26 GHz band in lot category PA3 represent reserved spectrum for the new entrants into the market. Only qualified bidders may apply for the award of these blocks in the pre-auction phase who were not the holders of the approvals for the use of radio-frequencies for implementation of public mobile electronic communications networks on day of the issuance of the Decision on the initiation of the public bidding procedure (new entrants into the market). For more information on the reserved spectrum see Section 5.1.

AR20. If one or few blocks in lot categories PA1 to PA3 are not awarded in the pre-auction phase for any reason, the number of blocks in lot categories GA1, GA3 and GA4 in the main auction phase will increase respectively.

6.1.3.2. Rules on spectrum caps

AR21. A qualified bidder in the main auction phase may submit a bid for the maximum number of frequency blocks in a specific band, whose total bandwidth gathered with the total bandwidth of the awarded frequency blocks in the pre-auction phase, does not exceed the following spectrum caps:

- 2x20 MHz in the 700 MHz band;
- 160 MHz in the 3.6 GHz band;
- 400 MHz in the 26 GHz band.

For more information on spectrum caps see Section 5.2.

AR22. Irrespective of Rule AR21, a qualified bidder, who was the holder of the approvals for the use of radio-frequencies in the 800 MHz and/or 900 MHz bands for implementation of public mobile electronic communications networks (incumbent mobile operator), on day of the issuance of the Decision on the initiation of the public bidding procedure, in the main auction phase may submit a bid for the maximum number of frequency blocks from the paired part of the 700 MHz band, whose total bandwidth, gathered with the total width of previously awarded paired frequency blocks in the 800 MHz and 900 MHz bands, does not exceed 2x40 MHz (spectrum cap in bands below 1 GHz). For more information on spectrum caps see Section 5.2.

6.1.3.3. Rules on the bid guarantee

AR23. The qualified bidder shall, before the beginning of the First Primary Round of the pre-auction phase, ie before the beginning of the First Primary Round of the main auction phase, submit a bid guarantee to the Agency for the amount covering at least XX% of the total amount of the bid submitted in that round. In the subsequent rounds of the pre-auction phase, ie the main auction phase, the amount of the submitted guarantee, must cover at least YY% of the total bid amount submitted. In the Supplementary Round, the amount of the submitted guarantee, must cover at least YY% of the total bid amount submitted increased by the total amount of the bid submitted in the last primary round of the main auction phase.

AR24. If a submitted bank guarantee does not allow the submission of a higher bid in the next round of the auction (a guarantee does not cover YY% of the bid to be submitted), a qualified bidder who intends to submit a higher bid in the next auction round, is obliged to submit to the Agency an additional bid guarantee, which will allow the fulfilment of the above condition. After determining that the additional bid guarantee is valid, the Agency will increase the maximum allowed bid amount for the appropriate bidder in the next auction round.

AR25. The qualified bidder which fails to submit a valid bid guarantee before the beginning of the spectrum auction will be excluded from the further public bidding procedure, without the right to reimburse the fee paid for the participation in the spectrum auction.

AR26. The bid of a qualified bidder who does not submit or submits an incorrect additional bid guarantee, of which the total amount exceeds the maximum allowed amount determined by the previously submitted correct bid guarantees, shall be considered incorrect.

AR27. Bidders are responsible for the correctness and timeliness of the submitted additional bid guarantees. In the event of any doubt in the correctness of the submitted

additional bid guarantee, the Agency does not guarantee to perform its verification in a certain period of time.

6.1.4. Rules on the prohibition of collusive behaviour

AR28. After the issuance of the Decision on the initiation of the public bidding procedure, the applicants for participation in the spectrum auction and qualified bidders at the spectrum auction are prohibited to enter into secret conspiracy and collusion in any form which could result with compromised integrity of the bidding procedure. For more information on the prohibition of collusive behaviour see Section 4.3.2.

6.1.5. Breach of the auction rules

AR29. A qualified bidder who breaches the auction rules will be excluded from the further bidding procedure, without the right to reimbursement of the fee paid for the participation in the spectrum auction, and the Agency will activate a bid guarantee, if it has been submitted. In that case, the entire auction process will be cancelled and conducted from the beginning.

6.1.6. Time, place and language of the auction

AR30. The spectrum auction will be conducted over several business days. The Agency will inform the qualified bidders at least 14 days in advance about the start date of the spectrum auction. For the approximate date of the spectrum auction, see Section 4.2.8.

AR31. The spectrum auction shall be conducted electronically via the electronic auction system (EAS) provided by the Agency. Qualified bidders access the EAS system via a web interface, from a remote location. The presence of representatives of qualified bidders at the Agency's premises at any stage of the spectrum auction procedure is not envisaged.

AR32. The spectrum auction will be conducted in the Montenegrin language. The EAS bidders' interface will be presented in the Montenegrin language and the entire communication between the Agency, as the auctioneer, and the bidders in the spectrum auction procedure will be conducted in the Montenegrin language. It is not envisaged that any stage of the proceedings will be conducted in any language other than Montenegrin and the Agency will not provide any translation from Montenegrin into any other language.

6.1.7. Rules on communication between the Agency and qualified bidders

AR33. The Electronic Auction System (EAS) provides a two-way messaging system, which will be used as the primary method for the Agency to send messages to qualified bidders during the auction procedure.

AR34. In the event of problems in the operation of the EAS system, as an alternative method of communication between the Agency, as an auctioneer, and qualified bidders at the spectrum auction, communication via e-mail or telephone will be used. The procedure for communication between the Agency and eligible bidders at the spectrum auction by e-mail and telephone is described in detail in a separate document, which will be delivered to qualified bidders at least 14 days before the start of the spectrum auction.

6.1.8. Exceptional circumstances

AR35. In the case of exceptional circumstances during any phase of the auction, the Agency may at its own discretion perform the following:

- postpone the release of results of a round;
- change the schedule of further rounds;
- interrupt the round that is either underway or for which round results have not been released yet and conduct the same round again;
- void all bids submitted in the auction procedure and start the auction again.

AR36. The Agency determines whether a situation of exceptional circumstances has arisen. The exceptional circumstances may include, for example, failure of communication links between the Agency and the bidder at the spectrum auction for a long period of time caused by a technical malfunction or breakdown beyond the Agency's control and the bidder, suspicion of possible secret association between the bidders or other unforeseen situation that may jeopardize or may have the effect of compromising the integrity of public bidding.

6.2. Rules in the pricipal stage of the auction

AR37. The purpose of the principal stage in the auction is to determine the number of abstract frequency blocks in each of the categories that will be awarded to bidders. The principal auction stage begins with the pre-auction followed by the main auction.

AR38. At least one whole day break will be made between the end of the pre-auction phase and the start of the main auction phase.

AR39. In the event that none of the eligible bidders is a new entrant into the market, the pre-auction phase is omitted and the action begins directly with the main auction phase.

6.2.1. Bidding in the pre-auction phase

AR40. The bidding in the pre-auction phase is conducted in the form of a simple *"clock"* bidding (*Simple Clock Auction*) consisting of one primary bidding rounds.

AR41. Qualified bidders who on day of the issuance of the Decision on the initiation of public bidding procedure were not the holders of the approvals for the use of radio-frequencies for the implementation of public mobile electronic communications networks (new entrants into the market) are eligible to submit bids in the primary rounds of the pre-auction phase.

AR42. The bidding in the pre-auction phase begins with the First Primary Round, in which the qualified bidders submit initial bids (requests) for the frequency blocks of lot categories PA1 to PA3 at the reserve price. Based on the outcome of the First Primary Round of the pre-auction phase, the bidding is continued in accordance with Rule AR8.

AR43. The bidding in the pre-auction phase ends with a primary round in which tere is no excess demand in any lot category of blocks (the last primary round of the pre-auction phase). Upon the completion of the last primary round of the pre-auction phase, the bidding continues with the main auction phase.

AR44. The winners of the pre-auction phase are the bidders who submitted the correct bid in the last primary round of the pre-auction phase (winning bid in the pre-auction phase).

AR45. Each winner of the pre-auction phase is awarded the number of blocks of each lot category as stated in its winning bid in the pre-auction phase. The amount of fee to be paid by the winners of the pre-auction phase for the award of the blocks included by their winning bid in the pre-auction phase is equal to the total amount of that bid.

AR46. Upon the completion of the bidding in the pre-auction phase, prior to the beginning of the primary round each bidder will receive the following information through EAS interface:

- total number of awarded frequency blocks by lot categories in the pre-auction phase (total number of blocks included in all winning bids in the pre-auction phase);
- number of unawarded frequency blocks by lot categories in the pre-auction phase;
- overview of winning bids in the pre-auction phase (identity of the winner, number of blocks by lot categories and the amount of fee the winners shall pay).

6.2.2. Bidding in the pre-auction phase

AR47. The bidding in the main auction phase is conducted in the combined format of a simple "clock" bidding (Simple Clock Auction) and bidding through sealed bids (sealed-bid auction), consisting of one or more primary rounds and possibly an supplementary bidding round.

AR48. All qualified bidders are eligible to submit bids in the primary rounds of the main auction phase, regardless of whether they participated in the bidding in the pre-auction phase, in accordance with auction rules.

AR49. The bidding in the main auction phase begins with the First Primary Round, in which the qualified bidders submit initial bids (requests) for the frequency blocks of lot categories GA1 to PA4 at the reserve price. Based on the outcome of the First Primary Round of the main auction phase, the bidding is continued in accordance with Rule AR13.

AR50. The bidding in the main auction phase ends with a primary round in which tere is no excess demand in any lot category of blocks (the last primary round of the main auction phase). Upon the completion of the last primary round of the main auction phase, the bidding continues with the Supplementary Round, ie assignment stage.

AR51. The winners of the primary rounds in the main auction phase are the bidders who submitted the correct bid in the last primary round of the main auction phase (winning bid in the last primary round of the main auction phase).

AR52. Each winner of the primary rounds in the main auction phase is awarded the number of blocks of each lot category as stated in its winning bid in primary rounds of the main auction phase. The amount of fee to be paid by each winner of the main auction phase for the award of the blocks included in his winning bid is equal to the total amount of that bid.

AR53. Upon the completion of the bidding in the main auction phase, each eligible bidder will receive through EAS interface the following information on the results of the bidding in the primary rounds of the main auction phase:

- total number of awarded frequency blocks by lot categories in the primary rounds of the main auction phase (total number of blocks included in all winning bids in the main auction phase);
- number of unawarded frequency blocks by lot categories in the primary rounds of the main auction phase;
- overview of winning bids in the primary rounds of the main auction phase (identity of the winner, number of blocks by lot categories and the amount of fee the winners shall pay).

AR54. The Agency may announce the earlier completion of the bidding in the primary rounds of the main auction phase (while the demand is still above the supply of available blocks in one or more lot categories). In that event, the winning bids in the last primary round will not be determined, the main auction phase continues directly with the Supplementary Round, and further primary rounds will no longer be conducted.

AR55. The Agency shall announce the earlier termination of the bidding in the primary rounds of the main auction phase only if considers that the continuation of the main auction phase directly by the Supplementary Round is in the general interest of conducting an efficient spectrum award procedure at that time.

6.2.3. Primary rounds

AR56. The primary rounds in the pre-auction phase and the main auction phase are conducted in an identical format.

AR57. The primary rounds follow the clock auction format. The bidding proceeds is conducted in discrete rounds, where all bidders are invited to submit bids within the fixed time window, subject to the provisions for the round extensions, in accordance with the rules given in Section 6.2.2.7.

AR58. Each bid refers to the packet of frequency blocks in different lot categories specified by the bidder, where the bid is considered in its entirety and will not be subdivided.

6.2.3.1. Scheduling of primary rounds

AR59. Several primary rounds are conducted during an auction day. The schedule and duration of primary rounds are determined by the Agency. Primary rounds will not last less than 60 or more than 90 minutes. The interval between the end of one and the announcement of the beginning of the next primary round will not last less than 15 minutes.

AR60. The Agency will announce the planned organization schedule of the bidding rounds for each auction day, by sending an appropriate message to the qualified bidders through the EAS system. The schedule of primary rounds thus published is considered provisional and serves for informational purposes only. The Agency is not bound by the provisional schedule of rounds announced in advance for the following day and the Agency reserves the discretion to determine the schedule of the organization of primary rounds, in accordance with Rule AR59.

AR61. All primary rounds of bidding will be scheduled on working days (Monday to Friday) between 08:00 and 16:00 (CET).

AR62. The number of primary rounds organized during the day is not limited, but more than four primary rounds are not expected to be conducted during the day.

AR63. Each bidder will receive the following information prior to the beginning of the primary round through the EAS interface:

- the start time of the next round;
- the duration of the next round;
- the clock prices per block for each of lot categories of the frequency blocks in the next round;
- the current bidder's eligibility to bid;
- the bidder's remaining number of extension rights.

6.2.3.2. Bids submission in primary rounds

AR64. In each primary round, the bidder may submit a maximum of one bid for a set of frequency blocks per lot category (package bid). In the the primary round bid (primary bid) the bidder specifies the number of blocks in each lot category he intends to gain for the amount of fee per block ("clock" price) applied in that round, and the bid amount is determined automatically as the sum of fees per block, for all blocks included in the bid. The package bid in the primary round may include any combination of blocks, which meets the requirements of Rule AR86.

AR65. The EAS interface will provide a bid form with relevant details for each lot category of frequency blocks which allows the bidders to specify the package of blocks they intend to gain.

AR66. The primary bids submissions are made in the following way:

- First, a bidder must specify the number of frequency blocks in each lot category they intend to bid at the current clock price. If the package bid is not specified in the right way, the bidder will not be able to submit the bid to the auction server;
- Second, if the package bid is specified in the appropriate way, the bidder will be able to submit the bid to the auction server. The auction server then checks the submitted bid for validity with regard to the auction rules;
- Third, if the submitted package bid is correct, the bidder will get a confirmation screen showing a summary statement of the bid and will be allowed to confirm the bid. If not, the bidder will be returned to the bid entry form to revise the bid;
- Fourth, the bidder needs to confirm this bid summary in order to complete the bid submission. Only confirmed bids will be registered by the EAS and further considered to be the submitted bids in the primary rounds.

AR67. Once the bidder has confirmed a bid in the primary round, the bidder will not be able to change or withdraw this bid, or submit any other bid in the round.

AR68. A bidder will be deemed not to have submitted a bid until receiving the confirmation that the EAS has received a correct bid. The confirmation that the correct bid has been received is communicated to bidders through the EAS. It is the responsibility of the bidder to check the receipt of this confirmation and to alert the Agency if it suspects that problems have arisen which prevents a successful confirmation of the bid.

AR69. If a bidder fails to submit the bid by the end of the round or by the end of the period of the round extension granted to that bidder the EAS will automatically enter a zero bid (request for zero blocks in each lot category) on behalf of the bidder.

6.2.3.3. Amount of fee per block in the primary rounds

AR70. For each primary round of the main auction phase, the Agency will specify the amount of the fee per block ("clock" price), which applies to the frequency blocks of each category in that round.

AR71. In the First Primary Round, the amount of the fee per block is equal to the amount of the reserve price for the blocks of the corresponding lot category. For more information on the reserve price see Section 4.5.

AR72. In the next primary rounds (after the First Primary Round), the amount of fee per block for a frequency block of a certain lot category will increase if there is an excess demand for blocks of that category in the previous round.

AR73. There is an excess demand for frequency blocks of a certain lot category when the total number of required blocks of that lot category in all correct bids is greater than the number of available blocks of that lot category.

AR74. For the lot category of frequency blocks for which there is no excess demand in a round, the amount of fee per block in the next round remains unchanged.

AR75. Reducing the amount of fee per block for blocks of any lot category is not possible during the primary rounds.

AR76. In the event of excess demand, the amount of fee per block for frequency blocks of a certain lot category is increased in the subsequent round by 5% of the initial price for blocks of that lot category (increment of "clock" price).

AR77. The amount of the fee per block is an integer value expressed in EUR.

6.2.3.4. Activity rules in the primary rounds

AR78. Each frequency block subject to the spectrum auction in the primary rounds of the pre-auction phase is assigned a number of eligibility points, as set out in Table 6.1.

AR79. A bidder starts each primary round with a specific number of eligibility points, which represents the bidder’s eligibility for that round.

AR80. A bidder's activity in a primary round represents the sum of eligibility points associated with all blocks included in the package submitted by the bidder in the same round.

AR81. In each primary round, a bidder may only submit a bid associated with an activity level that does not exceed the bidder’s current eligibility to bid.

AR82. The eligibility of a bidder for bidding in the First Primary Round (the bidder’s initial eligibility) is equal to the sum of eligibility points associated with all blocks that are subject to award in the main auction phase. For each subsequent primary round, a bidder’s eligibility

to bid is equal to their level of activity in the previous primary round. This means that the bidder's eligibility can stay the same or reduce over successive primary rounds, but can never increase.

AR83. In the course of primary rounds, a bidder may switch eligibility between lot categories PA1 and PA2 in the pre-auction phase, and between lot categories GA1 and GA3 in the main auction phase. It is possible that a bidder's activity in one or more lot categories may increase provided that the bidder's activity in other categories is reduced by the same amount.

AR84. The number of required blocks in lot category PA3, which are subject to bidding in the pre-auction phase, and in categories GA2 and GA4, which are subject to bidding in the main auction phase, cannot be increased in the next primary round.

AR85. In the event the bidder submits a "zero bid" (request for zero blocks in each lot category) or when in accordance with Rule AR69 and Rule AR96 a zero bid will be entered automatically on his behalf by EAS, the bidder's eligibility for the subsequent primary round of the main auction is set to zero, and the bidder will no longer be able to submit bids in the primary rounds of the main auction phase.

6.2.3.5. Validity of bids in the primary round

AR86. A correct bid in the primary rounds must satisfy the following:

- the required number of frequency blocks by lot categories does not exceed the number of blocks subject to the award in the pre-auction phase, ie in the main auction phase;
- the required number of frequency blocks by lot categories satisflies the rules on spectrum caps (only for bids in the primary rounds of the main auction phase) (Rule AR20 and Rule AR21);
- the total activity associated with the bid does not exceed the bidder's eligibility to bid in that round (Rule AR81);
- the required number of frequency blocks in lot categories PA3, ie GA2 and GA4 does not exceed the number of blocks requested in the previous round (does not apply to bids in the First Primary Round) (Rule AR84);
- the total amount of the bid satisfies the rule on bid guarantee (Rule AR23).

AR87. The EAS is designed to block the submission of incorrect primary bids.

AR88. Each bid submitted is considered to be a valid bid. A valid bid represents a binding commitment of the bidder to buy a specified package of frequency blocks at the price of the specified bid amount.

AR89. The submitted primary bid shall remain valid until it is replaced in the next primary round by another bid by the same bidder, or until it is eventually canceled by the Agency in accordance with Rule AR35.

6.2.3.6. Information available during the primary rounds

AR90. At the end of each primary round, through the EAS each bidder will be informed about:

- the overview of the bid submitted in the subject round (number of required frequency blocks by categories and bid amount);
- the activity of the bidder in the subject round (total number of eligibility points associated with all blocks contained in the bid submitted);
- the aggregate demand by lot categories of frequency bocks (expressed in total number of blocks requested in all valid bids together);
- does excess demand exist by lot categories of frequency blocks;
- the number of its remaining extension rights.

AR91. No information will be released about the bids submitted by other bidders during the primary rounds.

AR92. The EAS includes the functionality to view and download information on clock prices, the bidder's own bid and aggregate demand by lot categories of frequency bocks in all previous primary rounds.

6.2.3.7. Extension right in the primary round

AR93. The extension right allows a bidder additional time to submit a bid during the primary round. In the event that a bidder with non-zero eligibility and one or more extension rights fails to submit a bid during the primary round, the round will automatically be extended for that bidder, and one of its remaining extension rights will be deducted. The EAS will automatically extend the time within which that bidder can submit a bid by 30 minutes in relation to the scheduled end of the round.

AR94. The extension period ends 60 minutes after the scheduled end of the round, or once all bidders who are using extensions have successfully submitted their bids, if that is earlier.

AR95. Bidders who have already submitted bids during the round cannot take any further activities during the extension period. Such bidders will be informed that the round has been extended and should wait for the announcement that the extension period has ended.

AR96. Bidder who has not submitted a bid during the primary round and have no remaining extension rights will not be able to submit bids during the extension period, and a zero bid will be entered automatically on his behalf (request for zero blocks in each lot category).

AR97. Each bidder starts the primary rounds of the pre-auction phase, that is, the main auction phase with two extension rights for the primary round.

AR98. A bidder may notify the Agency on his intention to exercise the right to extend the round. Such notification is not mandatory but contributes to an easier administration of the process.

6.2.4. Supplementary round of the main auction phase

AR99. The Supplementary Round of the main auction phase consists of one round of bidding in which eligible bidders may submit one or more supplementary bids for sets of blocks by lot categories that remain unawarded in the last primary round of the main auction phase.

AR100. Only qualified bidders who have submitted a "non-zero bid" (request for more than zero blocks in at least one lot category) in the First Primary Round of the main auction phase are eligible to submit bids in the Supplementary Round of the main auction phase.

AR101. The Supplementary Round follows the sealed-bid auction format. With each supplementary bid, the bidder specifies a set of frequency blocks of different lot categories that intends to be awarded and the amount of the total bid for the award of specified blocks, where the bid may contain only blocks in lot categories in which the bidder submitted a request for more than zero blocks in the First Primary Round of the main auction phase.

AR102. Each bid submitted in the Supplementary Round refers to the packet of frequency blocks in different lot categories (package bid) specified by the bidder, where the bid is considered in its entirety and will not be subdivided.

6.2.4.1. Schedule of the Supplementary Round

AR103. The start time and duration of the Supplementary Round will be announced by the Agency through the EAS after the completion of bidding in primary rounds of the main auction phase.

AR104. Between end of the final primary round and start of the Supplementary Round of the main auction phase a break of at least one whole working day will be made.

AR105. The Agency determines the start time and duration of the Supplementary Round. The Supplementary Round will be scheduled in the will take minimum 90 minutes and maximum 180 minutes.

AR106. There is no extension right in the Supplementary Round.

AR107. Each bidder will receive the following information prior to the beginning of the Supplementary Round via the EAS interface:

- the start time of the Supplementary Round;
- the end time of the Supplementary Round;
- the minimum amount of the fee per block for each lot category of frequency blocks that are subject to award in the Supplementary Round.

6.2.4.2. Bids submission in the Supplementary Round

AR108. In the Supplementary Round of the main auction phase eligible bidders may submit one or several supplementary bids for different packages of frequency blocks by lot categories (package bid). Each individual supplementary bid specifies a package of frequency blocks (the number of blocks in each category that a bidder intends to gain) and a bid amount for the award of specified blocks. The package bid in the Supplementary Round may contain any combination of frequency blocks, which is consistent with the Rule AR117.

AR109. The EAS interface provides a bid form for the entry of supplementary bids with relevant data for each lot category of frequency blocks which allows the bidder to specify set of blocks by lot categories that they intend to gain and the bid amount for specified set.

AR110. A number of supplementary bids that a bidder may submit is not limited.

AR111. The supplementary bids submission is conducted in the following way:

- First, the bidder must generate (either manually or by uploading) the list of supplementary bids they wish to submit by using the form for the entry of supplementary bids provided by the EAS. The package bids submitted by the bidder in the primary rounds can be automatically added to the list.
- Second, if all the bids (all combinations of blocks) contained in the list are specified in the appropriate way, the bidder will be enabled to submit the list of bids to the auction server. Then, the auction server checks for validity of the submitted bids and their compliance with the auction rules.
- Third, if all supplementary bids are correct, the bidder will get a confirmation screen showing a summary statement of all bids and will be allowed to confirm the list of bids. Alternatively, the bidder will be returned to the supplementary bids entry form to revise incorrect bids.
- Fourth, in order to complete the procedure of the submission of supplementary bids, the bidder must confirm the summary of all bids. Only confirmed bids will be registered by the EAS and considered further as submitted bids.

AR112. A bidder may submit only one list of bids in the Supplementary Round. Once the bidder has confirmed its list of supplementary bids, the bidder will not be able to revise or withdraw the list, or submit further bids in the Supplementary Round.

AR113. A bidder is deemed to have submitted bids in the Supplementary Round only when it receives a confirmation that the EAS has received a list of valid bids. The receipt of such confirmation will be communicated to the bidder through the EAS. It is the responsibility of the bidder to check the receipt of this confirmation and to alert the Agency if it suspects that the problem which prevents a successful confirmation of bids in the Supplementary Round has arisen.

AR114. If the bidder does not submit a list of valid bids by the deadline for submitting bids in the Supplementary Round, the EAS system will automatically enter a "zero bid" on behalf of the bidder (zero block request in each category with zero bid amount).

6.2.4.3. Minimum bid amount in the Supplementary Round u Dodatnoj rundi

AR115. The amount of the bid in the Supplementary Round of the main auction phase is determined at the discretion of the bidder, with the requirement that the total amount of the bid shall be an integer value expressed in EUR.

AR116. The bid amount in the Supplementary Round of the main auction phase shall not be lower than the sum of the amount of fees per block ("clock" price) for the lot categories of included blocks that are applied in the last primary round of the main auction phase were an excess demand is recorded, ie the amount of reserve price for lot categories of included blocks for which there was no excess demand in each primary round of the main auction phase is not recorded (minimum fee per block).

6.2.4.4. Validity of bids in the Supplementary Round

AR117. Each correct bid in the Supplementary Round must satisfy the following conditions:

- the required number of frequency blocks by lot categories does not exceed the number of blocks that are subject to award in the Supplementary Round;
- contain only frequency blocks in lot categories in which the bidder submitted a request for more than zero blocks in the First Primary Round of the main auction phase (Rule AR101);
- the required number of frequency blocks by lot category satisfies the rules on spectrum caps (Rule AR21 and Rule AR22);
- the bid amount is an integer value expressed in EUR (Rule AR115) that satisfies the rule regarding the minimum bid amount (Rule AR116);
- the total amount of the bid satisfies the rule regarding the submitted bid guarantee (Rule AR17).

AR118. The EAS is designed to block the submission of incorrect bids.

AR119. Each bid submitted as part of a correct bid list is considered a valid bid. The valid bid represents a binding bidder's commitment to buy the specified package of frequency blocks by lot categories at the price of the specified bid amount.

AR120. A submitted supplementary bid remains valid unless it is voided by the Agency pursuant to Rule AR35.

6.2.4.5. Determination of winning bids in the Supplementary Round

AR121. Upon completion of the Supplementary Round of the main auction phase, the Agency will proceed to determine the combination of winning bids. The bid that is part of the winning combination of bids represents the winning bid of the bidder in the Supplementary Round.

AR122. In the process of determining the winning bids, in addition to the valid supplementary bids submitted by bidders, individual bids for each frequency block that is the subject of the Supplementary Round will be included in an amount equal to the amount of the minimum fee per block (reserved bids). Reserved bids will be treated in the same way as bids submitted by bidders in the Supplementary Round.

AR123. A combination of winning bids in the Supplementary Round of the main auction phase is the combination of valid bids submitted by bidders, including the reserve bids, that, taken together, have the highest total amount of bids, subject to the conditions that:

- a maximum of one supplementary bid per bidder may be a winning bid;
- the total number of frequency blocks of one category contained in all winning bids cannot exceed the number of blocks available in that category which are subject of the Supplementary Round;
- the total amount, defined as the sum of the amount of winning bids and the amount of minimum bids for each unawarded frequency blocks, cannot be lower than the total amount of any alternative combination of bids that meets the two aforementioned conditions.

AR124. The combination of winning bids that meet the requirements of Rule AR123 will be determined algorithmically by the EAS. A description of the algorithm for determining the winning bids is given in Annex 8.

AR125. If there is only one combination of supplementary bids that meets the conditions defined under Rule AR123, that combination will be considered the winning combination of bids.

AR126. If multiple combination of supplementary bids meet the conditions defined under Rule AR123, then the combination of supplementary bids that is associated with the largest number of bidders will be considered the winning combination of bids.

AR127. If multiple combinations of supplementary bids meet the conditions defined under Rule AR123 and are associated with the same (largest) number of bidders, the combination of supplementary bids that includes the largest number of blocks by priority lot category will be considered the winning combination of bids. For the purposes of this rule, the frequency block by lot categories are prioritized in the following order: GA1-GA3-GA2-GA4.

AR128. If multiple combinations of supplementary bids meet the conditions defined under Rule AR123 and are assigned the same (largest) number of bidders and include the same (largest) number of blocks by priority lot category, the winning combination of bids will be determined by EAS in process of random selection.

AR129. The winning bidders in the Supplementary Round will be those bidders whose bids are part of the winning combination of package bids (winning bids in the Supplementary Round of the main auction phase).

AR130. Each winner is awarded the number of blocks of each category as stated in its winning bid in the Supplementary Round of the main auction phase. The amount of the fee to be paied by each winner for the award of the blocks included in his winning bid in the Supplementary Round of the main auction phase is equal to the total amount of that bid.

AR131. Upon completion of the Supplementary Round of the main auction phase, each eligible bidder will receive through the EAS inteface a notification of the outcome of the bidding in the Supplementary Round of the main auction phase with the following information:

- the total number of awared frequency blocks by lot categories in the Supplementary Round of the main auction phase (number of blocks included in all winning bids together);
- the number of unawared frequency blocks by lot category in the Supplementary Round of the main auction phase;
- the overview of winning bids in the Supplementary Round of the main auction phase (winner's identity, number of blocks by lot categories and the amount of fee to be paid by the winners).

6.2.4.6. End of the principal stage

AR132. The completion of the Supplementary Round completes the principal stage of the spectrum auction. Upon completion of the principal stage of the spectrum auction, each eligible bidder will receive through the EAS inteface a notification of the outcome of the bidding in the Supplementary Round of the main auction phase with the following information:

- the total number of awared frequency blocks by lot categories in the principal stage of the spectrum auction (number of blocks included in all winning bids together in the pricipal stage);
- the number of unawared frequency blocks by lot category in the principal stage of the auction;
- the outcome of the bidding in the principal stage of the auction for each qualified bidder (winner's identity, number of blocks by lot categories to be awarded and the amount of fee to be paid by the winners).

6.3. Rules in the assignment stage

AR133. The purpose of the assignment stage is to determine how the generic (abstract) frequency blocks will be assigned to the winners in the principal stage of the auction in each band, that is which specific frequency blocks (with physical boundaries) will be assigned to each winner in each band (paired and unpaired part of the 700 MHz band are considered separate bands in terms of principal stage rules).

AR134. All assignments in each band shall be continuous (frequency blocks assigned to the same winner are positioned one after another).

AR135. Unawarded frequency blocks in the same band are positioned one after another).

AR136. In the event that it is not necessary to conduct a bidding to determine the physical boundaries of the awarded blocks in a band, the winner will be assign a specific frequency blocks of his choice, provided that the unawarded blocks are positioned in accordance with Rule AR135.

6.3.1. The need for bidding in the assignment stage

AR137. If there is only one winning bidder for the frequency generic blocks in the same band after the principal stage of the auction, then in assignment stage no bidding process is required for that frequency band. In this case, the winner will be assigned specific blocks directly, taking into account rule AR136.

AR138. If after the principal stage of the auction there is more than one winner of frequency generic blocks in at least one of the bands that are the subject of the auction a bidding process will be organized in the assignment stage.

AR139. The bidding process in the assignment stage involves a single round of bidding (the assignment round) in which winners in the principal stage of the auction submit bids for the offered bidding options (series of successive frequency blocks with specific physical boundaries).

6.3.2. Schedule for the assignment round

AR140. Assignment rounds are conducted successively during one auction day in the following order: first the paired part of the 700 MHz band, then the unpaired part of the 700 MHz band, then the 3.6 GHz band, and finally the 26 GHz band.

AR141. The start time and duration of the assignment rounds will be announced by the Agency after the completion of the principal stage of the auction.

AR142. At least two whole day break will be made between the completion of the bidding in the principal stage and the beginning of the bidding in the assignment stage.

AR143. The start time and duration of the assignment rounds will be determined by the Agency. The assignment rounds will be scheduled between 08:00 and 16:00 hours (CET) on a single working day. The assignment round will last a minimum of 60 and a maximum of 90 minutes.

AR144. There is no extension right available in the assignment round.

6.3.3. Assignment options

AR145. In the assignment round bidders submit bids for presented assignment options (series of successive frequency blocks with specific physical boundaries), defined according to the number of generic (abstract) blocks from the subject band won by the bidder in the principal stage of the auction.

AR146. For each frequency band included in the bidding process of the assignment stage, the Agency will through the EAS system establish an exhaustive list of assignment options that splits the available radio-frequency spectrum into parts of contiguous physical blocks with specific physical boundaries meeting the following conditions:

- the number of blocks in each assignment option presented to a bidder equals the number of blocks that the bidder won in the principal stage of the auction;
- any option for assigning frequencies to a particular bidder is consistent with all other assignment options that refer to other bidders in the same band which include the assignment of parts of contiguous frequency blocks;
- several unawarded frequency blocks in the same band are allocated as a contiguous part.

6.3.4. Bids submission in the assignment round

AR147. The assignment rounds follow the sealed-bid auction format.

AR148. When the assignment round is in progress, the bidders submit assignment bids for each of the assignment options presented to them through the EAS system. The bids for all presented assignment options represent the list of bids of the respective bidder in the subject assignment round.

AR149. The interface of the EAS system will provide a bid form in the assignment round that presents all assignment options available to the bidder in each of the frequency bands for which a bidding process is required, and allows the bidder to specify a bid amount for each of the assignment options presented.

AR150. The amount of each bid in the assignment round is determined by the bidder at its own discretion. Assignment bids must be expressed in EUR and cannot be less than zero. There is no upper limit. If the bidder does not specify the amount of the bid for an assignment option, it will be considered that he has submitted a "zero bid" (bid in the amount of zero EUR) for that assignment option.

AR151. The assignment bid submission is made in the following way:

- First, the bidder must specify the bid amounts it wishes to submit for each of its assignment options in the input fields provided on the bid form presented by the EAS.
- Second, if bids for all presented assignment options are specified correctly, the bidder will be allowed to send the list of bids to the auction server. Then the auction server checks correctness of the submitted bids and their compliance with the auction rules;
- Third, if all the bids are correct, the bidder will be presented on the screen a form to confirm the list of bids with a summary presentation of all bids and the bidder will be allowed to confirm the list of bids. Otherwise, the bidder will be returned to the bid entry form to revise incorrect bids;
- Fourth, the bidder will need to confirm this summary of all bids in order to complete the procedure of submission of bids. Only confirmed bids will be registered by the EAS and considered submitted in the assignment round.

AR152. A bidder will be deemed not to have submitted the assignment bids until receiving the confirmation that the EAS system has received the valid bids. The confirmation that a valid bid has been received is communicated to the bidders through the EAS system. It is the responsibility of the bidder to check the receipt of this confirmation and to alert the Agency if it suspects that a problem which prevented a successful bid confirmation arose.

AR153. If the bidder fails to submit bids in the available time, it will be considered that the bidder has submitted a zero bid (bid in the amount of zero EUR) for every assignment option presented.

6.3.5. Validity of bids in the assignment round

AR154. Each correct bid in the assignment round must satisfy the following:

- the bid refers to the valid assignment option in accordance with conditions set out in Rule AR146;
- the bid amount equals minimum zero and is expressed in EUR.

AR155. The EAS system is designed to block submission of incorrect bids.

AR156. Each bid submitted as part of the correct list of bids will be considered valid. A valid bid constitutes a binding commitment of the bidder to receive an adequate assignment option while paying the amount of fee equal to the specified bid amount.

AR157. Each bid submitted in the assignment round will remain valid unless it is voided by the Agency pursuant to Rule AR35.

6.3.6. Winner determination in the assignment round

AR158. Following the completion of the assignment round, the Agency will proceed to determine the winning assignment bids. A bid that is part of a winning bid combination represents the winning bid of that bidder in the assignment round.

AR159. The combination of the winning bids in the assignment round is a combination of valid bids submitted by the bidders, which jointly give the highest total amount of bids and which meet the following conditions:

- exactly one bid of each bidder is the winning bid;
- each bidder is assigned as many frequency blocks in each band as they won in the principal stage of the auction;
- each bidder receives contiguous frequency blocks within the band;
- radio-frequency assignments contained in the winning bids do not overlap;
- several unawarded frequency blocks from the same band are placed in a contiguous line.

AR160. The combination of bids which meet the conditions under Rule AR159 will be determined algorithmically through the EAS system. Description of the algorithm for determination of the winning bids is given in Annex 8.

AR161. If one or multiple combinations of bids meet the conditions defined under Rule AR159 and provide the same (maximum) total bid amounts, the winning combination of bids will be determined by EAS system in process of random selection.

AR162. Each bidder will have a winning bid in each assignment stage. The winning bid in the assignment stage may also be an automatically generated zero bid for assignment options for which the bidder did not submit a bid in the assignment round.

AR163. Each bidder will be assigned the specific frequency blocks listed in its winning bid in the respective assignment round in each band for which the assignment round has been conducted.

AR164. For the award of specific frequency blocks in each band for which the assignment round has been conducted, each bidder is obliged to pay a fee in the amount corresponding to the amount of its winning bid in the respective assignment round.

AR165. For the award of specific frequency blocks in the bands for which the bidding has not been conducted in the assignment stage, the bidder has no obligation to pay a fee in terms of Rule AR164.

AR166. Upon completion of the each assignment round, each bidder in the pricipal stage, who won the blocks for which the respective round has been conducted, will receive via EAS inteface the following information:

- physical boundaries of frequency blocks/series of blocks assigned to each winner in the relevant band;
- amount of the fee to be paid by each winner for the award of specific blocks in the relevant band.

6.4. End of the auction

AR167. The auction will end with the completion of the assignment stage. Upon completion of the auction, through EAS system the following information will be released to all bidders:

- identity of the all auction winners;
- the number of frequency blocks by lot category awarded to each auction winner;
- physical boundaries of the frequency blocks/series of blocks assigned to each auction winner;
- the total amount of the one-off fee for the awarding of approvals for the use of radio-frequencies that each winner needs to pay.

7. ELECTRONIC AUCTION SYSTEM (EAS)

7.1. General information

The spectrum auction will be conducted electronically through electronic auction system (EAS), provided by the Agency.

Bids in all phases of spectrum auction will be submitted electronically in a decentralised manner by using EAS client part. The submission of bids over the telephone will only be permitted in exceptional cases only (e.g. technical difficulties).

Bidders access the EAS system through a web interface, from a remote location. Minimum system requirements for the use of the EAS client part are given in Annex 9.

7.2. The procedure for the implementation of the auction rounds

From the bidders' perspective, each round will be divided into the following phases:

- **Bid submission phase:** Bids can be submitted only during the bid submission phase. This phase begins when the Agency announces the start of a round and when the bidding window is displayed. The bidding window will remain available until either the time allotted for the round (including any extension) has passed or the bidder has sent the bid to the auction server;
- **Waiting for the round results:** The successful submission of bids will then be confirmed. The bidder must then wait until the Agency either closes or discontinues the round;
- **Display of round results:** If the Agency closes the round, the bids will then be evaluated and the information defined in the auction rules will be displayed to the bidders;
- **Discontinuation and repetition of a round:** If the Agency discontinues the round (i.e. does not close the round normally), the bids submitted will not be evaluated (i.e. the bids are discarded) and will remain unknown to all parties (except the Agency) after which the round will be repeated;
- **Waiting for the start of the next round:** Once the results of the round have been evaluated, the bidders must wait until the next round begins. As soon as the Agency sets the scheduled start time for the next round, the start time will be displayed to the bidders. The scheduled start time of the round start is the earliest time at which the Agency can open the next round. The actual start of the next round will be triggered manually by the Agency and thus be slightly later than the scheduled time.

7.3. Submission of bids

Bids are submitted in two steps:

- In the first step the bidder enters one or more bids in a separate form.
- In the second step the bids are transmitted to the auction server.

A specific form in which bids are entered depends on the current stage in the auction procedure.

In the primary round, the bidder submits one package bid by stating, in the appropriate fields in the form, the number of frequency blocks of each lot category he intends to gain for the amount of fee per block applied in the subject round. The amount of the bid, determined as the sum of the amount of fees per block for all blocks included by the bid, is entered automatically by the EAS system.

In the Supplementary Round of the main auction phase the bidder may submit several supplementary package bids by stating, in the appropriate fields in the form, the number of frequency blocks of each lot category he intends to gain and the amount of the bid (the amount of the fee he is willing to pay for the award of the specified). In the supplementary bid phase, bids can also be uploaded from the previously prepared file.

In the assignment stage, the bidder may submit bids for each presented assignment options by stating the amount of the bid in the appropriate field in the form (the amount of compensation he is willing to pay for the allotment option in question).

The EAS system will automatically enter the number zero (0) in all fields left blank by the bidder.

Once a bidder has entered the bid into the form, the EAS will require the bidder to confirm that bid. Once the bid has been confirmed by the bidder, it is automatically sent to the auction server and is considered binding. After that point, it will no longer be possible to modify, supplement or withdraw a bid.

7.4. Definitive time

The time of the auction server's clock (server time) will be considered definitive for the auction procedure. The auction server will be synchronised by using the Network Time Protocol (NTP).

The time information displayed in the bidding window will be synchronised with the time on the server clock at regular intervals. During the bid submission phase, the end time for the round (according to the server's clock) as well as the time remaining until the end of the round will be displayed on the bidding client station. For technical reasons (e.g. latency between the client and the server), this time may deviate slightly from the actual time remaining (according to the server's clock). For this reason, during the last minute of a given round the time remaining will be displayed only as "< 1 min".

Note: The system time usually displayed in the taskbar on the bidder's computer will not be synchronised and may therefore differ significantly from the server time.

7.5. Evaluation of bids and release of the results

Once the bid submission phase for a round ends, the Agency can trigger the evaluation of bids submitted in that round. Once the results of that evaluation are available, the information defined in the auction rules will be displayed to the bidders. Until they are evaluated, the bids remain unknown to the bidders (also to the Agency).

Usually, the results would be available in less than one minute, upon completition of the round.

7.6. Submission of bids without using the EAS

The submission of bids without using EAS will be permitted only in exceptional cases (e.g. technical difficulties). In such cases, the bidder must inform immediately the Agency about the newly arose situation over the telephone. The Agency will decide whether this exception is justified, that is, whether the bidder with difficulties will be allowed to submit the bid without using the EAS. Also, the Agency will decide whether the round that is in progress will be interrupted and repeated at a later point of time. The same time limits apply to the bids submitted with or without the use of the EAS. Details on the procedure of the submission of bids over the telephone will be provided to the bidders before the start of the auction procedure.

7.7. Messages to bidders

The Electronic Auction System (EAS) provides a two-way messaging system, which will be used as the primary method for the Agency to send messages to qualified bidders during the auction procedure.

The bidders will be alerted of unread messages by means of a symbol in the lower right hand corner of the bidding window.

8. GENERAL TECHNICAL CONDITIONS FOR THE USE OF RADIO-FREQUENCIES

General conditions for the use of radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands for the implementation of public mobile electronic communications networks are defined by relevant radio-frequency assignment plans, pursuant to the Radio-frequency Spectrum Allocation Plan and corresponding CEPT/ECC documents. Pursuant to Article 114, Paragraph 2 of the LEC, technical and operational conditions for the use of radio-frequencies in the relevant bands on individual sites or coverage areas will be determined by a special acts issued by the Agency, at the request of the holder of the approval.

8.1. General technical conditions for the use of radio-frequencies in the 700 MHz band for MFCN systems

The Radio-frequency Assignment Plan in the 694-790 MHz band for MFCN (TRA-ECS) systems determine the assignment of this band for mobile radio-communications service, radio-frequency channels arrangement in the band, more detailed terms and conditions of usage, as well as the method for assigning radio-frequencies for MFCN systems, in accordance with the Radio-Frequency Spectrum Allocation Plan. The use of 694-790 MHz band for MFCN system is based on Decision ECC/DEC/(15)01 and Recommendation ECC/REC/(15)01.

For MFCN systems in this band, a frequency separation between uplink and downlink has been envisaged in the frequency domain (FDD). The FDD downlink uses radio-frequencies in the 758-788 MHz band and uplink uses radio-frequencies in the 703-733 MHz band. The separation between the transmission and reception frequencies for the base and terminal station is 55 MHz. The band 738-758 MHz is used for the MFCN Supplemental DownLink (SDL).The 703-733/758-788 MHz band for MFCN system is divided into six paired radio-frequency blocks of 2x5 MHz bandwidth, while the 738-758 MHz band is divided into four unpaired radio-frequency blocks of 5 MHz bandwidth. One or few successive frequency blocks may be assigned to an entity.

A graphical presentation of frequency arrangement in the 694-790 MHz band for MFCN systems is given in Figure 8.1.

<table>
<tr><td rowspan="2">694-703 MHz</td><td>703-708</td><td>708-713</td><td>713-718</td><td>718-723</td><td>723-728</td><td>728-733</td><td rowspan="2">733-738 MHz</td><td>738-743</td><td>743-748</td><td>748-753</td><td>753-758</td><td>758-763</td><td>763-768</td><td>768-773</td><td>773-778</td><td>778-783</td><td>783-788</td><td rowspan="2">788-791 MHz</td></tr>
<tr><td>H1</td><td>H2</td><td>H3</td><td>H4</td><td>H5</td><td>H6</td><td>I1</td><td>I2</td><td>I3</td><td>I4</td><td>H1</td><td>H2</td><td>H3</td><td>H4</td><td>H5</td><td>H6</td></tr>
<tr><td>zaštitni opseg</td><td colspan="6">uzlazna veza (uplink)</td><td>rascjep</td><td colspan="4">SDL</td><td colspan="6">silazna veza (downlink)</td><td>zaštitni opseg</td></tr>
<tr><td>9 MHz</td><td colspan="6">30 MHz (6 blokova širine 5 MHz)</td><td>5 MHz</td><td colspan="4">20 MHz (0 do 4 bloka širine 5 MHz)</td><td colspan="6">30 MHz (6 blokova širine 5 MHz)</td><td>3 MHz</td></tr>
</table>

Figure 8.1 *Graphical presentation of frequency arrangement in the 694-790 MHz band for MFCN systems*

The Radio-frequency Assignment Plan determines the conditions that enable the operation of FDD (including SDL) systems without the occurrence of harmful interference to systems operating in adjacent parts of the band, or in adjacent bands. Technical requirements for MFCN base (non-AAS) and terminal stations are defined based on Block-Edge-Mask (BEM) for in-block emissions and out-of block emissions in terms of assigned blocks.

The Radio-frequency Assignment Plan in the 694-790 MHz band for MFCN (TRA-ECS) systems has been published in the Official Gazette of Montenegro, 16/18, and may be downloaded from the Agency's website http://www.ekip.me.

8.2. General technical conditions for the use of radio-frequencies in the 3.6 GHz band for MFCN systems

The Radio-frequency Assignment Plan in the 3400-3800 MHz band for MFCN systems determine the assignment of this band for mobile radio-communications service, radio-frequency channels arrangement in the band, more detailed terms and conditions of usage, as well as the method for assigning radio-frequencies for MFCN systems, in accordance with the Radio-Frequency Spectrum Allocation Plan. The use of 3400-3800 MHz band for MFCN system is based on Decision ECC/DEC/(11)06 and recommendations ECC/REC/(15)01 and ECC/REC/(20)03.

For MFCN systems in this band, a frequency separation between uplink and downlink has been envisaged in the time domain (TDD). The radio-frequencies from the entire 3400-3800 MHz band are used alternately for uplink and downlink.This band is divided into 80 unpaired radio-frequency blocks of 5 MHz bandwidth. One or few successive frequency blocks may be assigned to an entity.

A graphical presentation of frequency arrangement in the 3400-3800 MHz band for MFCN systems is given in Figure 8.2.

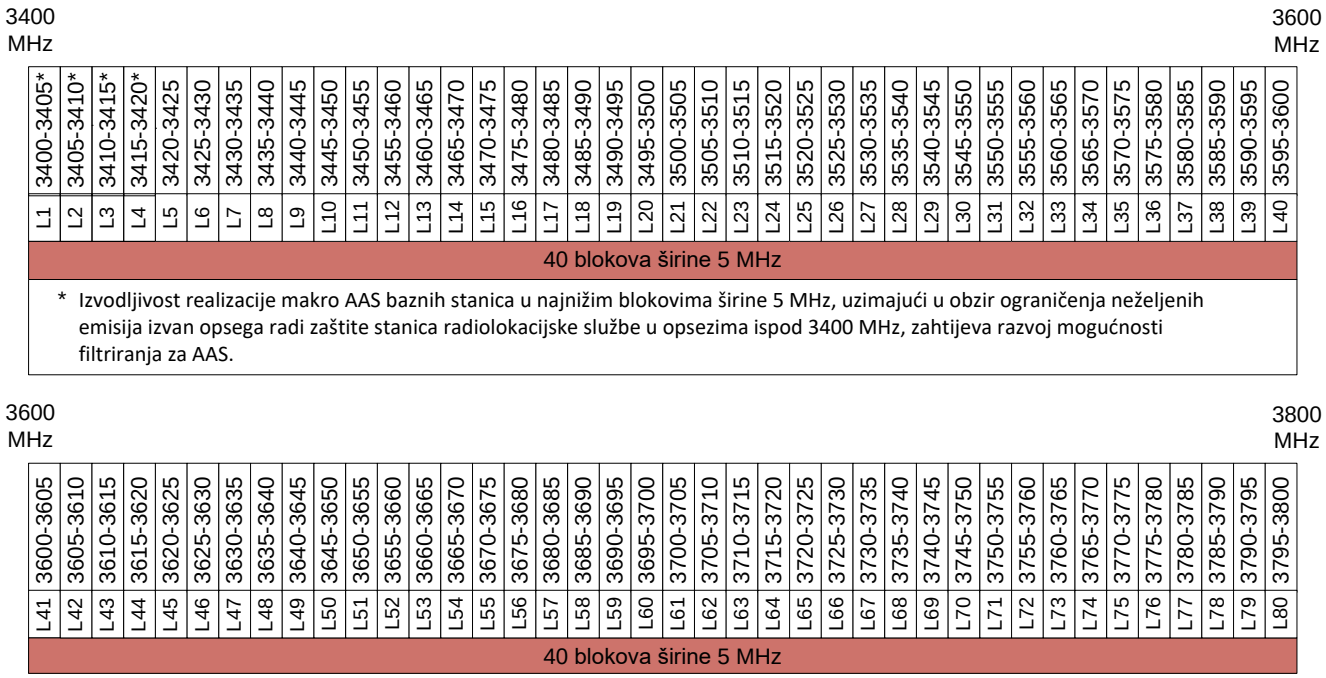

Figure 8.2 *Graphical presentation of frequency arrangement in the 3400-3800 MHz band for MFCN systems*

The Radio-frequency Assignment Plan determines the conditions that enable the operation of TDD systems without the occurrence of harmful interference to systems operating in adjacent bands. Technical requirements for MFCN base (non-AAS and AAS) and terminal stations are defined based on Block-Edge-Mask (BEM) for in-block emissions and out-of block emissions in terms of assigned blocks.

The Radio-frequency Assignment Plan in the 3400-3800 MHz band for MFCN systems has been published in the Official Gazette of Montenegro, 22/21, and may be downloaded from the Agency's website http://www.ekip.me.

8.3 General technical conditions for the use of radio-frequencies in the 26 GHz band for MFCN systems

The Radio-frequency Assignment Plan in the 24.25-27.5 GHz band for MFCN systems determine the assignment of this band for mobile radio-communications service, radio-frequency channels arrangement in the band, more detailed terms and conditions of usage, as well as the method for assigning radio-frequencies for MFCN systems, in accordance with the Radio-Frequency Spectrum Allocation Plan. The use of 24.25-27.5 GHz band for MFCN system is based on Decision ECC/DEC/(18)06 and Recommendation ECC/REC/(19)01.

For MFCN systems in this band, a frequency separation between uplink and downlink has been envisaged in the time domain (TDD). The radio-frequencies from the 24300-27500 MHz band are used alternately for uplink and downlink.The band 24300-27500 MHz for MFCN is divided into 16 unpaired radio-frequency blocks of 200 MHz bandwidth. One or few successive frequency blocks may be assigned to an entity.

A graphical presentation of frequency arrangement in the 24.25-27.5 GHz band for MFCN systems is given in Figure 8.3.

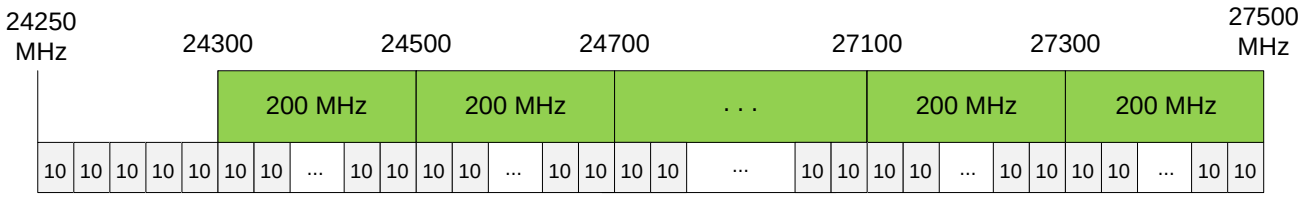

Figure 8.3 *Graphical presentation of frequency arrangement in the 24.25-27.5 GHz band for MFCN systems*

The Radio-frequency Assignment Plan determines the conditions that enable the operation of TDD systems without the occurrence of harmful interference to systems operating in adjacent bands. Technical requirements for MFCN base (AAS) and terminal stations are defined based on Block-Edge-Mask (BEM) for in-block emissions and out-of block emissions in terms of assigned blocks.

The Radio-frequency Assignment Plan in the 24.25-27.5 GHz band for MFCN systems has been published in the Official Gazette of Montenegro, 22/21, and may be downloaded from the Agency's website http://www.ekip.me.

8.4. The use of radio-frequencies in border areas towards neighbouring countries

Radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands for the implementation of public mobile electronic communications networks in the border areas between Montenegro and neighbouring countries are used in accordance with relevant agreements on coordination and relevant CEPT/ECC recommendations.

8.5. Limits of exposure to electromagnetic fields

Radio and Telecommunications Terminal Equipment (R&TTE) and elements of electronic communications networks may be used in a manner and under conditions that ensure that parameters of electromagnetic fields at a specific location must not exceed the limits prescribed by the Rulebook on the limits of exposure to electromagnetic fields (Official Gazette of Montenegro, 6/15).

The reference levels for general public exposure to electromagnetic fields of radio-frequencies between 100 kHz and 300 GHz are given in Table 8.1.

Table 8.1 *Reference levels for general public exposure*

Frequency band	Electric filed strength, E [V/m]	Magnetic field strength, H [A/m]	Magnetic flux density, B [μT]	Equivalent plain wave power density, S_{ekv} [W/m^2]
100-150 kHz	87	5	6.25	-
0.15 – 1 MHz	87	0.73/f	0.92/f	-
1 – 10 MHz	$87/\sqrt{f}$	0.73/f	0.92/f	-
10 – 400 MHz	28	0.073	0.092	2
400 – 2000 MHz	$1.375\times\sqrt{f}$	$3.7\times10^{-3}\times\sqrt{f}$	$4.6\times10^{-3}\times\sqrt{f}$	f/200
2 – 300 GHz	61	0.16	0.2	10
All limits are given as root mean square (RMS) value. *f* represents the frequency expressed in units referred to in the first column.				

The reference levels of exposure to electromagnetic fields of radio-frequencies between 100 kHz and 300 GHz in the areas of increased sensitivity (public, residential and commercial buildings intended for human habitation: schools, pre-schools, maternity wards, hospitals, tourist facilities and children's playgrounds) are given in Table 8.2.

Table 8.2 *Reference levels for the exposure in the area of increased sensitivity*

Frequency band	Electric filed strength, E [V/m]	Magnetic field strength, H [A/m]	Magnetic flux density, B [μT]	Equivalent plain wave power density, S_{ekv} [W/m^2]
100 – 150 kHz	43.5	2.5	3.125	-
0.15 – 1 MHz	43.5	0.37/f	0.46/f	-
1 – 10 MHz	$43.5/\sqrt{f}$	0.37/f	0.46/f	-
10 – 400 MHz	14	0.037	0.046	0.5
400 – 2000 MHz	$0.7\times\sqrt{f}$	$1.85\times10^{-3}\times\sqrt{f}$	$2.3\times10^{-3}\times\sqrt{f}$	$1.25\times10^{-3}\times f$
2 – 300 GHz	31	0.08	0.10	2.5
All limits are given as root mean square (RMS) value. *f* represents the frequency expressed in units referred to in the first column.				

9. REGULATORY FEES

9.1. Fees paid for the use of radio-frequencies

The holder of the approval for the use of radio-frequencies is obliged to pay:

- to the Agency the annual fee for the use of radio-frequencies;
- to the Budget of Montenegro the annual fee for the covering of the costs for the radio-frequency spectrum administration.

The annual fee for the use of radio-frequencies is used solely for covering the costs of radio-frequency spectrum management and supervision. The methodology and manner of the calculation of this fee, expressed in points, are prescribed by the Rulebook on the methodology and the method of the calculation of annual fees for the use of radio-frequencies (Official Gazette of Montenegro, 16/14, 81/18 and 6/19).

In accordance with Article 4 of above Rulebook, the amount of the annual fee for the use of radio-frequencies on an exclusive basis in the entire territory of Montenegro for the implementation of public mobile/fixed electronic communication networks is determined by the following formula:

$$N = B \times M,$$

where ***N*** is the amount of the annual fee expressed in points, ***B*** is the coefficient determined when the total width of the assigned radio-frequency resources expressed in MHz, is divided by 1 MHz, and ***M*** coefficient which depends on the frequency band whose values are (for the bands that are the subject of public bidding) are given in Table 9.1.

Table 9.1 *Values of the coefficient M for the bands which are the subject of public bidding*

Radio-frequency band	**Type of network/Technology**	***M***
700 MHz	MFCN	1.750
3,6 GHz	MFCN	150
26 GHz	MFCN	35

The annual fee for covering the cost for administration of radio-frequency spectrum in accordance with the Decision of the Government of Montenegro on the list of fees for covering the cost radio-frequency spectrum administration (Official Gazette of Montenegro, 16/14) for fixed and mobile communication services equals 10% of the annual fee for the use of radio-frequencies.

The amount of the annual fee for the use of radio-frequency and the annual fee for covering the costs for radio-frequency spectrum administration is established by a separate decision of the Agency issued for each calendar year, according to the monetary value of points, as determined by the financial plan of the Agency. The monetary value of points for the calculation of annual fee for the use of radio-frequencies for 2022 is EUR 2.05.

An overview of the amounts of annual fees for the use of radio-frequencies per unit block in the bands that are the subject of public bidding in 2022 is given in Table 9.2.

Table 9.2 An overview of the amounts of annual fees per unit block width in 2022

Radio-frequency band	Block width [MHz]	Fee for the use of [points]	Fee for the use of [EUR]	Fee for the administration of [EUR]	Total fee [EUR]
700 MHz	2x5	17,500	35,875.00	3,875.50	39,462.50
700 MHz	5	8,750	17,937.50	1,793.75	19,731.25
3.6 GHz	10	1,500	3,075.00	307.50	3,382.50
26 GHz	200	7,000	14,350.00	1,435.00	15,785.00

The method of calculation of annual fees for the use of radio-frequencies in other bands and other services (e.g. fixed "point-to-point" links) may be found in the Rulebook on the methodology and the method for the calculation of annual fees for the use of radio-frequencies.

In addition to the annual fees regarding the use of radio-frequencies, the holder of the approval is required, in order to define technical and operational conditions for the use of radio-frequencies at individual locations or areas of coverage, to provide the Agency with technical solution for the use of radio-frequencies for each location and pay a relevant fee for processing of the application. Pursuant to the Decision on determining the amount of the one-off fee for processing the applications for the approvals for the use of radio-frequencies No. 0505-4829/1 from 3 October 2013, the applicant is required to pay a one-off fee of EUR 50.00 for the base/repeater station in a cellular network, for the purpose of determination of technical conditions for the use of the approved radio-frequencies. The fee, in the same amount, is paid in the event of submission of the request for modification and/or amendment of the approval for the use of radio-frequencies.

9.2. Other regulatory fees

The holder of the approval entitled to provide a publicly available electronic communications service or make the public electronic communications network or the public electronic communications infrastructure and associated facilities available for use in line with the LEC, is considered an operator and must be registered in the Registry of Operators kept by the Agency. The operator is obliged to pay an annual fee to the Agency for the activities of market regulation and supervision in the area of electronic communications. The amount of this fee is up to 1.5 % of the total operator’s revenue generated in the previous year for the provision of publicly available electronic communications services and granting the electronic communications network, electronic communications infrastructure and associated facilities for use, up to the level which covers costs of market regulation and market supervision activities in the sector of electronic communications, determined in the Financial Plan of the Agency. The Agency will determine the amount of this fee by a decision issued for each calendar year.

The operator may use the numbers and/or addresses from the Numbering Plan and Addressing Plan under the approval for the use of numbers and/or addresses issued by the Agency. The holder of the approval for the use of numbers and/or addresses is obliged to pay to the Agency an annual fee for the use of numbers and/or addresses, which may be used solely to cover the costs of supervision and management of numbers and/or addresses. The methodology and method of the calculation of this annual fee expressed in points is prescribed by the Rulebook on the methodology and the method of the calculation of annual fees for the use of numbers and/or addresses (Official Gazette of Montenegro, 13/14). The amount of annual fee for the use of numbers and/or addresses is determined

by a separate decision of the Agency for each calendar year, according to the monetary value of points, as determined by the financial plan of the Agency. The monetary value of points for the calculation of annual fee for the use of numbers and/or addresses for 2021 equals to EUR 0.6452. The approval for the use of numbers and/or addresses is issued based on the submitted application in accordance with the LEC, for which the applicant is obliged to pay a relevant fee to the Agency for processing the application whose amount, in accordance with the Decision on determining a one-off fee for processing the applications for the issuance of the approvals for the use of numbers and/or addresses No. 0403-4859/1 from 3 October 2013 is in the amount of EUR 50.00.

Operators whose share in the total annual revenue in the area of electronic communications exceeds 2%, in accordance with the LEC are required to contribute to the compensation of net costs of the Universal Service. The amount of contribution and method of payment for each operator is determined by the Agency in proportion to the share of their revenues generated from the provision of public electronic communications services, that is, granting the electronic communications network, electronic communications infrastructure and associated facilities for use in the total annual revenue generated in the electronic communications sector.

Annex 1: Address of the headquarter and contact details of the Agency

Postal address:

AGENCY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES
Bvl. Džordža Vašingtona No. 56
81000 Podgorica
Montenegro

Contact details:

Tel: +382 20 406 700
Fax: +382 20 406 702
E-mail: aukcija2022@ekip.me
Web: www.ekip.me

Other business details:

Tax identification number (PIB): 02326710

Bank account number:

510-2125-67 ("Crnogorska komercijalna banka" A.D. Podgorica)
535-5737-37 ("Prva banka Crne Gore" A.D. Podgorica)
540-10586-09 ("Erste banka" A.D. Podgorica
520-10969-51 ("Hipotekarna banka" A.D. Podgorica)
565-670-17 ("Lovćen banka" A.D. Podgorica)
530-6701-86 ("NLB banka" A.D. Podgorica)
560-667-57 ("Universal Capital Bank" A.D. Podgorica)
555-9003073178-32 ("Addiko Bank" A.D. Podgorica)

Annex 2: Form of application for participation in the spectrum auction

_____*(name of the applicant)*__

No: _____
Place and date: _____

APPLICATION
FOR PARTICIPATION IN THE SPECTRUM AUCTION

The Applicant is hereby expressing its decision to participate in the spectrum action conducted in accordance with the Decision of the Agency for Electronic Communications and Postal Services on launching the public bidding procedure for awarding the approval for the use of radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands for the implementation of public mobile electronic communications networks no. 0504-_/1 of ____ __, 2022.

Relevant information on the Applicant	
Name	
Address of the seat	
Registration No.	
Personal Identification No.	
Address for the official mail receipt	
Tel.	
Fax	
E-mail	
Bank account number	
Name of the bank	
International Bank Account Number (IBAN)	
Bank Identification Code (BIC)	

Authorized person on behalf of the Applicant:

_____

(*name, surname and position*)

_____

(*signature*)

M.P.

Annex 3: Form of declaration of the applicant for participation in the spectrum auction about being aware of the content of the Public Bidding Documents and fully accepting the terms and conditions relating to the public bidding

Form I.1

_____*(name of the applicant)*_____

No: _____
Place and date: _____

I, the undersigned, _____*(full name and surname)*_____

DECLARE

That _____*(name of the applicant)*_____, as the Applicant for participation in the spectrum auction _____*(Application No. and date)*, is aware with the content of the Public Bidding Documents for awarding the approvals for the use of radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands for the implementation of public mobile electronic communications networks no. 0504-___/_ of ____ __, 2022 and fully accepts the terms and conditions set out in the Documents thereof relating to the public bidding.

Authorized person on behalf of the Applicant:

_____

(*name, surname and position*)

_____

(*signature*)

M.P.

Annex 4: Form of declaration of the applicant for participation in the spectrum auction on correctness and completeness of the submitted information

Form I.2

(name of the applicant)

No: _____
Place and date: _____

I, the undersigned, *(full name and surname)*

DECLARE

That the information stated in Application for participation in the spectrum auction No. *(Application No. and date)* submitted by the Applicant *(name of the Applicant)* and other documents submitted together with the Application are correct and complete and that the Applicant is aware that should it be established that prior to the end of the public bidding procedure the submitted Application for participation in the spectrum auction and other documents submitted together with the Application contain incorrect or incomplete information, the Applicant will be excluded from the further public bidding procedure without the right to reimbursement of fees paid for the participation in the spectrum auction, and the Agency will activate the bid guarantee, if the guarantee thereof has been submitted, or should it be established that at any time after the end of the public bidding procedure or after the issuance of the approval for the use of radio-frequencies the submitted Application for participation in the spectrum auction and other documents submitted together with the Application thereof contain incorrect or incomplete information, the Agency will revoke the approval for the use of radio-frequencies awarded to the bidder on the basis of the public bidding procedure, without the right to reimburse the fee paid for the participation in the spectrum auction, one-off fee for awarding the approvals for the use of radio-frequencies and annual regulatory fees.

Authorized person on behalf of the Applicant:

_____

(*name, surname and position*)

_____

(*signature*)

M.P.

Annex 5: Form of declaration of the applicant for participation in the spectrum auction about not undertaking activities of secret conspiracy or collusion

Form I.3

_____*(name of the applicant)*_____

No: _____
Place and date: _____

I, the undersigned, _____*(full name and surname)*_____

DECLARE

That _____*(name of the Applicant)*___, as the Applicant for participation in the spectrum auction _____*(Application No. and date)*, did not undertake activities of secret conspiracy or collusion in any form that could result in compromising integrity of the public bidding procedure and that the Applicant is aware of the fact that should it be proved before the end of the public bidding procedure that, it had taken any of the aforementioned activities it will be excluded from the further public bidding procedure, without the right to reimburse the fee paid for the participation in the spectrum auction, and that the Agency will activate the bid guarantee, if it has been submitted, i.e. if the evidence of the secret conspiracy or collusion between the qualified bidders are provided after the end of the public bidding procedure or after awarding the approval for the use of radio-frequencies, the Agency will revoke the approvals for the use of radio-frequencies issued based on the public bidding procedure thereof to the bidders which have conducted the aforementioned activities, without the right to reimburse the fee paid for the participation in the spectrum auction, one-off fee for the awarding of approvals for the use of radio-frequencies and annual regulatory fees.

Authorized person on behalf of the Applicant:

_____

(*name, surname and position*)

_____

(*signature*)

M.P.

Annex 6: Form of declaration of the applicant for participation in the spectrum auction on its solvency

Form I.4

(name of the applicant)

No: _____
Place and date: _____

I, the undersigned, *(full name and surname)*

DECLARE

That *(name of the Applicant)*, *as* the Applicant for participation in the spectrum auction *(Application No. and date)* is solvent and not related to any bankruptcy proceedings, the process of forced liquidation or forced collection procedure, which could have an impact on its participation in the spectrum auction procedure, and that in relation to the current business operations there are no reasons for initiating the aforementioned actions or potential judicial and other procedures that the Applicant may be related to which could have an impact on its participation in the spectrum auction procedure.

Authorized person on behalf of the Applicant:

_____

(*name, surname and position*)

_____

(*signature*)

M.P.

Annex 7: Form of bank guarantee

(Commercial Bank Memorandum)

BID GUARANTEE

Type of guarantee: Bid Security Guarantee
Guarantee No: (*Guarantee Ref. No.*)
Guarantor: (*Name and address of the bank and the place of the guarantee issuance)*
Ordering Party: (*Name and address of the Ordering Party*)
Beneficiary: Agency for Electronic Communications and Postal Services,
Bvl. Džordža Vašingtona 56, 81000 Podgorica, Montenegro
Amount of guarantee: (*Amount of the guarantee in number and words*)
Manner of presentation: Paper-express mail or paper-direct delivery
Place of presentation: (*Address of the guarantor's branch office for the presentation receipt*)
Guarantee validity period: 120 days from the start of the spectrum auction, including the start date of the spectrum auction
Subject matter jurisdiction and territorial jurisdiction in case of dispute resolution: Commercial Court in Podgorica
Credit rating of the Guarantor: Credit quality level (investment grade) (*specify the level*), according to the rating agency (*specify the name of the rating agency*) (Note: This item is included in the guarantee only if the guarantor is a foreign bank)

We have been informed that (*specify the name and address of the Ordering Party*) (*the Ordering Party*) has gained the status of qualified bidder in the public bidding procedure for awarding the approvals for the use of radio-frequencies in the 700 MHz, 3.6 GHz and 26 GHz bands for the implementation of public mobile electronic communications networks launched by the Decision no. 0504-___/1 of ____ __, 2022.

In the capacity of Guarantor, we are hereby irrevocably and unconditionally confirming our commitment to pay any amount of the guarantee to the Beneficiary or the amounts lower than the amount of the guarantee (*specify the maximum payable amount and currency in which it is payable in number and words*), following the first presentation of the Beneficiary's one or more harmonized calls stating that:

- the Ordering Party, which submitted the winning bid in any phase of the public bidding procedure failed to pay one-off fee for the awarding of approvals for the use of radio-frequencies within the set deadline;
- the Ordering Party, as a qualified bidder in the auction, has submitted the Application for participation in the spectrum auction and other accompanying documents which contain incorrect or incomplete data;
- the Ordering Party, as a qualified bidder in the auction, has undertaken actions of collusion in order to compromise integrity of the public bidding procedure;
- the Ordering Party, as a qualified bidder in the auction, has violated the rules of the auction.

We shall receive every notification on the failure to conduct payments required by the guarantee on the expiry date or before the expiry date in the above-designated place for the presentation.

On behalf of the Guarantor:
.....
(stamp, position, signature)
.....
Place and issuance date

Annex 8: Description of the algorithm for determination the winning bids

The purpose of determination of the winning bids is to identify the bid combination that provides the highest total bid amount, which in the principle stage represents the sum of the winning bid amounts and the lowest bid amount for each unawarded frequency block, and in the assignment stage only the sum of winning bid amounts, provided that winning bids in the principal stage may include a maximum of one bid per bidder, and in the assignment stage exactly one bid per bidder and that the total number of awarded blocks may not exceed the total number of available frequency blocks of a particular lot category.

The approach applied is based on the insight that any optimal distribution of the available frequency blocks among the winning bidders must distribute subsets of frequency blocks optimally among subsets of winning bidders. This approach allows the procedure for determining winning bids to be divided into several problems that are solved sequentially. The appropriate procedure is carried out as follows:

- Identify the set T of all possible subsets of block combinations given the overall set of frequency blocks L;
- For each $t \in T$ calculate the minimum bid total for any frequency blocks included in this set, $V_0(t)$ (for the assignment stage, $V_0(t) = 0$);
- For all $n = 1, \dots, N$ bidders: for each $t \in T$, identify the highest total amount, $V_n(t)$, that can be achieved, if the corresponding block combination were made available to the initial bidders n. The maximum total amount results from the optimal decision of the nth bidder combined with the maximum value that can be achieved if the remaining frequency blocks $(t - b)$ are made available to the remaining $n - 1$ bidders, where b is the block combination in the best bid made by the nth bidder. Let mark this amount as $V_{n-1}(t - b)$. Here $V_0(t - b)$ is the total of minimum bids for the remaining frequency blocks $(t - b)$ (in the assignment stage, $V_0(t - b) = 0$);
- The maximum total amount is then equal to $V_N(L)$;
- Determine the optimal bid of the N-th bidder b_N^* contained in $V_N(L)$;
- For the remaining $n = N - 1, \dots, 1$ bidders: identify the optimal bid for bidder n using $V_n\left(L - \sum_{i=n+1}^{N} b_i^*\right)$.

Annex 9: Minimum system requirements for the use of the EAS client part

These are the minimum software and hardware system requirements for the bidder to use the client part of the EAS system as follows.

Software:

- Operating system: Windows 8 or Windows 10 or Windows 11 (with most current security patches);
- Web browser: Chrome ili Firefox ili Safari ili Edge (the newest current version);
- CSV file viewer (e.g. MS Excel).

Hardware:

- Processor configuration: 4 MB Cache, 2 Cores, 4 Threads, with a clock frequency of 2.2 GHz or more (e.g. Intel i3 or better class);
- RAM: At least 4 GB, recommended 8 GB;
- Display with a minimum resolution of 1920x1080 pixels;
- USB port: minimum one USB 2.0 or USB 3.x port.

Internet:

- Fixed internet connection (primary);
- Backup internet connection (recommended on the basis of mobile access);
- Min. data throughput of 1 Mb/s in both directions (*Download/Upload*);
- Latency <100ms;
- Fixed internet IPv4 address (the bidder is required to provide up to 10 fixed IPv4 addresses from which they will access to the EAS system during the electronic spectrum auction);
- Access to public internet over port 443 (https).

Optional and additional equipment:

- Installed printer for printing reports;
- Functional audio output for warning signals.

Enclosure 1: Draft approval for the use of radio-frequencies in the 700 MHz band

MONTENEGRO
AGENCY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES

No: ____-____/_
Podgorica, __ __ 2022

AGENCY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES (hereinafter: the Agency), based on Article 11 Item 11 and Art. 99-102, 112-115, 124 and 125 of the Law on Electronic Communications (Official Gazette of Montenegro, 40/13, 56/13, 56/13, 2/17 and 49/19), the Radio-Frequency Spectrum Allocation Plan (Official Gazette of Montenegro, 89/20 and 104/20), the Radio-Frequency Assignment Plan in the 694-790 MHz for MFCN (TRA-ECS) systems (Official Gazette of Montenegro, 16/18), the Rulebook on the methodology and method for the calculation of annual fees for the use of radio-frequencies (Official Gazette of Montenegro, 16/14, 81/18 and 6/19), the Decision of the Government of Montenegro on pricing fees for administration of radio-frequency spectrum (Official Gazette of Montenegro, 16/14); the Decision on the selection of bidders in the public bidding procedure No. ____-____/_ of __ __ 2022 and Art. 18 and 144 of the Law on Administrative Procedure ("Official Gazette of Montenegro", No. 56/14, 20/15, 40/16 and 37/17), acting upon the request of the company _____***(name)***_____, in the subject of issuing the approvals for the use of radio-frequencies in the band **694-790 MHz** for the implementation of **public mobile electronic communications network**, in the session of the Council held on _ _____ 2022 adopted the following

A P P R O V A L
for the use of radio-frequencies

1. It is approved to the company _____***(name)***_____ (hereinafter: the Holder of the approval for the use of radio frequencies), the use of radio-frequencies in the band **694-790 MHz** for the implementation of the **public mobile electronic communications network**.

2. This approval allocates __ paired radio-frequency blocks of 2x5 MHz bandwidth and ___ unpaired radio-frequency blocks of 5 MHz bandwidth, with the following boundaries (hereinafter: the Approved radio-frequencies):

   ___-___ / ___-___ MHz (blok H_);
   ___-___ / ___-___ MHz (blok H_);
   ...

   ___-___ MHz (blok I_)
   ...

3. The Approved radio-frequencies are allocated **for use on an exclusive basis in the entire territory of Montenegro**, for the implementation of a public mobile electronic communications network.

4. The Approval for the use of radio-frequencies is valid **15 years as of the date of the approval issuance.**

5. The Holder of the approval for the use of radio-frequencies is obliged to pay the Agency an annual fee for the use of radio-frequencies, which expressed in points amounts to ____ **points**.

   The Holder of the approval for use of radio-frequencies shall pay the annual fee for covering the costs for administration of radio-frequency spectrum in the amount of **10% of the annual fee for the use of radio-frequencies** referred to in previous paragraph.

   The monetary amount of fees from the previous paragraphs and the manner of their payment shall be determined by a special decision of the Agency for each calendar year.

6. The conditions for the use of the Approved radio-frequencies are given in the Annex, which is an integral part of this approval.

7. The procedure of extension of the Approval validity period for the use of radio-frequencies, transfer and/or assignment of the right to use the Approved radio-frequencies, amendment, revocation and expiration of validity period of the Approval for use of radio-frequencies shall be carried out in accordance with Art. 117-121 of the Law on Electronic Communications.

   The right to use the Approved radio-frequencies may not be transferred to another legal entity before the expiration of a period of five years from the date of issuance of the Approval for the use of radio-frequencies. (this provision applies only to the approval issued to the new entrant into the market)

   In addition to provisions prescribed by Article 120, paragraph 1 of the Law on Electronic Communications, the Agency shall revoke the Approval for the use of radio-frequencies in the event that at any time after the completion of the public bidding procedure on the basis of which the approval was issued, determines that the Holder of the approval for use of radio-frequencies, as a qualified bidder in the public bidding procedure:

   - submitted an application for participation in the spectrum auction or other act enclosed that contains incorrect or incomplete information;
   - in the course of the public bidding procedure, undertook activities of secret conspiracy and collusion in any form that could result in compromising the integrity of the public bidding procedure.

8. This approval shall enter into force on the day of its adoption.
9. This approval is enforceable in administrative proceedings.

Justification

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########

Legal remedy

No appeal is allowed against this approval, but an administrative dispute may be initiated with the Administrative Court of Montenegro within 20 days from the day of its receipt.

PRESIDENT OF THE COUNCIL
Branko Kovijanić

Annex: Conditions for the use of approved radio-frequencies

1. Purpose of the service, type of network or technology for which the right to use radio-frequencies is awarded

1.1. The Approved radio-frequencies are used for the implementation of MFCN systems, in accordance with the Radio-Frequency Assignment Plan in the 694-790 MHz band for MFCN (TRA-ECS) systems, in order to provide public mobile electronic communications services in the entire territory of Montenegro.

2. Measures to ensure efficient use of radio-frequencies, including requirements regarding coverage or signal strength

2.1. The holder of the approval for the use of radio-frequencies is obliged to start using the approved radio-frequencies within one year from the date of entry into force of the approval for the use of radio-frequencies.

The start of the use of approved radio-frequencies in the relevant band means the installation and putting into operation of at least one radio base station in the subject band in order to provide public mobile electronic communications services.

(only for the approval to be issued to the new entrant into the market)
The holder of the approval for the use of radio-frequencies is obliged to start providing public mobile electronic communication services to end users within one year from the date of entry into force of the approval for the use of radio-frequencies.

2.2. *(*for the approval to be issued to the incumbent mobile operator*)*
The holder of the approval for the use of radio-frequencies is obliged to:

- by the end of 2024 to provide the coverage of at least 97% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience;
- by the end of 2026 to provide, and to maintain afterwards, the coverage of at least 98% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience.

*(*for the approval to be issued to the new entrant into the market*)*
The holder of the approval for the use of radio-frequencies is obliged to:

- by the end of 2024 to provide the coverage of at least 75% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience;
- by the end of 2026 to provide the coverage of at least 85% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience;
- by the end of 2030 to provide, and to maintain afterwards, the coverage of at least 98% of the population of Montenegro with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience.

The network coverage, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience, means the ability to provide data throughput with a minimum bitrate towards the user (downlink) of 10 Mb/s and a minimum bitrate from the user (downlink) of 3 Mb/s, in case of outdoor mobile reception.

The requirement for the minimum bitrate towards the user (downlink) of 10 Mb/s and from the user (uplink) of 3 Mb/s will be considered fulfilled if in at least 90% of data transmission

sessions during one day (00-24h) a bitrate to the user of 10 Mb/s or more, and a bitrate from the user of 3 Mb/s or more are met (or there are conditions to be met), with level of successfully initiated and finished data transmission sessions of 95%, excluding the sessions made during a pick 2 hours of the maximum network load (a single exemption interval is taken for all mobile networks). Due to the increased volume of traffic during July and August as a consequence of the large number of tourists staying in Montenegro, it will be considered that this requirement is met in these months if effective data throughputs are at least 50% of the defined values.

2.3. The holder of the approval for the use of radio-frequencies is obliged by the end of 2026 to provide the coverage of at least 5 uncovered rural areas with the network signal, in terms of availability of data transmission service according to the required quality criterion of 10/3 Mb/s based on user experience.

The coverage of rural areas (construction of new electronic communication infrastructure, use of existing electronic communication infrastructure, use of other existing infrastructure) is determined by the operator, provided that the network signal covers at least 75% of the population in the requested area.

2.4. *(*for the approval to be issued to the incumbent mobile operator*)*
The holder of the approval for the use of radio-frequencies is obliged to:

- by the end of 2026, to provide a continuous network signal coverage of all highways and all magistral roads in Montenegro;
- by the end of 2026, to provide a continuous network signal coverage of at least 50% of the route of all regional roads in Montenegro;
- by the end of 2026, to provide a continuous network signal coverage of at least 50% of the route of all railways where passenger traffic takes place in Montenegro;
- by the end of 2030, to provide, and to maintain afterwards, a continuous network signal coverage of all highways, all magistral roads and all regional roads in Montenegro;
- by the end of 2030, to provide, and to maintain afterwards, a continuous network signal coverage of all railways where passenger traffic takes place in Montenegro.

*(*for the approval to be issued to the new entrant into the market*)*
The holder of the approval for the use of radio-frequencies is obliged to:

- by the end of 2026 to provide the continuous network signal coverage of all highways and at least 75% of the route of all magistral roads in Montenegro;
- by the end of 2030, to provide, and to maintain afterwards, the continuous network signal coverage of all highways, all magistral roads and all regional roads in Montenegro;
- by the end of 2030, to provide, and to maintain afterwards, the continuous network signal coverage of all railways where passenger traffic takes place in Montenegro.

The list of roads and railways to which this requirement applies is given in Enclosure 2, which is an integral part of the Annex.

The holder of the approval for the use of radio-frequencies subject to the award, whether it is the incumbent operator of mobile electronic communications services or a new entrant into the market, is obliged to provide the continuous coverage of the newly built highways within one year from the day of their releasing into regular traffic, newly built/re-categorized magistral roads within two years of their release into regular traffic/re-categorization, and newly built/re-categorized regional roads and railways within three years from the day of their release into regular traffic/re-categorization.

The continuous network signal coverage of the road or track means the availability of 4G (LTE) or 5G (NR) signals of the appropriate level (RSRP ≥ -110 dBm) along 100% of the highway route, at least 95% of the magistral road route, at least 90% of the regional road route, or at least 80% of the railway route, whereby the part of the route of the magistral and regional road, i.e. the railway with a signal level lower than the stated shall not be longer than 3 km in continuity.

2.5. The holder of the approval for the use of radio-frequencies is obliged to:

- by the end of 2026 to provide, and to maintain afterwards, the network signal coverage of the waters of Skadar Lake located in Montenegro, the waters of the Bokakotorska Bay and part of the territorial waters of Montenegro up to 1 nm from the coast;
- by the end of 2030 to provide, and to maintain afterwards, the network signal coverage of national parks in Montenegro the tourist infrastructure is located.

The network signal coverage means the availability of 4G (LTE) or 5G (NR) signals of the appropriate level (RSRP ≥ -110 dBm).

2.6. The holder of the approval for the use of radio-frequencies is obliged to:

- by the end of 2030 to provide, and to maintain afterwards, the 5G network signal coverage of all populated areas in Montenegro;
- by the end of 2030 to provide, and to maintain afterwards, the continuous 5G network signal coverage of all highways and all magistral roads in Montenegro.

The list of roads to which this requirement applies is given in Enclosure 2, which is an integral part of the Annex.

The 5G network signal coverage of populated areas means the availability of 5G (NR) signals of the appropriate level (RSRP ≥ -110 dBm) for 100% of the population in each urban settlement and at least 75% of the population in each rural settlement in Montenegro.

The continuous 5G network signal coverage of populated areas means the availability of 5G (NR) signals of the appropriate level (RSRP ≥ -110 dBm) along 100% of the highway route, at least 95% of the magistral road route, whereby the part of the route of the magistral road with a signal level lower than the stated shall not be longer than 3 km in continuity.

2.7. In order to achieve the prescribed level of coverage of the population of Montenegro by the network signal which allows the provision of services with the defined quality, any technology may be used as well as any band available to the operator (including previously assigned radio frequencies), in line with the corresponding radio-frequencies assignment plan.

Radio-frequencies from any band at the operator's disposal (including previously assigned radio frequencies) may be used to meet the requirements for 5G network development.

The operator which disposes of the spectrum in several bands for which different coverage requirements have been defined is obliged to fulfil a more demanding criterion, but it is not required to develop the network in each band in parallel.

The development of 5G network implies the implementation of a mobile network according to 3GPP Release 15 or later specification (code NR is used for the access part of 5G network). Radio-frequencies from any band at the operator's disposal (including previously assigned radio frequencies) may be used to meet the requirements for 5G network development, but it is not required to develop the network in each band in parallel.

The holder of the approval for the use of radio-frequencies is obliged to fully meet all coverage requriements and 5G network deployment obligations. The holder of the approval is obliged to take all necessary activities in a timely manner in order to meet the requirements (initiation of procedures to obtain access to sites for construction of electronic communications infrastructure and/or installation of electronic communications equipment, initiation of procedures for approval of construction of electronic communications infrastructure and/or installation of electronic communications equipment, procurement of elements of electronic communication infrastructure and electronic communication equipment, etc.). At the beginning of each year of approval validity period, the holder of the approval the use of radio frequencies is obliged to submit to the Agency an action plan in order to meet the requirements for the next year and at the end of each year of the approval validity period, a report on the implemented activities and possible difficulties in the realization thereof.

In the event that the Agency in the process of verifying the fulfillment of the requirements determines that all the requirements have not been fully met, the Agency shall approve an additional period of not more than one year to the holder of the approval for the use of radio-frequencies to eliminate the identified deficiencies. If the deficiencies are not remedied by

deadline envisaged and the holder of the approval does not provide evidence that all available activities have been taken, i.e. that non-compliance is due to objective circumstances beyond the control of the holder of the approval, the Agency shall revoke the approval for the use of radio-frequencies by which unfulfilled requirements were determined.

In the event that the holder of the approval for the use of radio-frequencies faces administrative difficulties in obtaining access to locations for construction of electronic communication infrastructure and/or installation of electronic communication equipment, approval of construction of electronic communication infrastructure at new locations and/or installation of electronic communication equipment at existing and/or new locations, at the request of the holder of the approval the Agency may extend the deadline for meeting the relevant requirement by more than one year, if the holder of the approval provides clear evidence that all available activities have been taken, i.e. that non-compliance is due to objective circumstances beyond the control of the holder of the approval.

2.8. The fulfilment of coverage requriements and network deployment obligations, including requirements with regard to the service quality will be assessed by:

- the estimation of network signal coverage degree based on software prediction of the receiving field strength;
- the measurements of availability and quality of service using specialized measuring equipment, including measurements in move;
- the measurements of quality of service at the location of end user using specialized equipment and/or authorized software application (e.g. EKIP NetTest) installed on a standard mobile terminal;
- the analysis of relevant data taken from the network of holders of authorizations for the use of radio frequencies.

In order to verify the fulfilment of the coverage requirements, including the requirements related to service quality, the methodology based on relevant international instruments (ITU-R, CEPT, ETSI and others) and best comparative practice will be used.

The operators will be acquainted with the methodology of verification of the fulfilment of the coverage requirements at least three months before the expiration of the deadline for meeting a specific requirement.

2.9. The Approved radio-frequencies may be used in a manner and under conditions that ensure that the parameters of electromagnetic fields at a particular location do not exceed the limits established by the law governing protection against non-ionizing radiation, as well as Montenegrin and international standards applicable in Montenegro.

3. Technical and operational conditions necessary to avoid harmful interference

3.1. Base and terminal stations of MFCN (TRA-ECS) systems shall meet the standards prescribed by the Radio-Frequency Assignment Plan in the 694-794 MHz band for MFCN (TRA-ECS) systems.

3.2. Technical and operational conditions for the use of Approved radio-frequencies at individual locations, i.e. coverage areas are determined by a special act of the Agency, at the request of the Holder of the approval for the use of radio-frequencies, with the validity period until the expiration of the Approval for the use of radio-frequencies.

4. Additional obligations assumed by the bidder in the public bidding procedure

4.1. The Holder of the approval for the use of radio-frequencies is obliged to provide to the new entrant in the market who was awarded radio-frequencies for the implementation of the public mobile electronic communications network based on the public bidding procedure at its request the national roaming service under reasonable (fair), economically justified and non-discriminatory conditions and at cost-oriented prices, for a period of five years from the

issuance date of the approval for the use of radio-frequencies. (only in the approval issued to the incumbent mobile operator in case the radio-frequencies in the public bidding procedure have been assigned also to a new entrant inthe market)

The right to national roaming includes any public mobile electronic communications service which the Holder of the approval for the use of radio-frequencies provides by using any technology in any frequency band. All services must be available to users of the new entrant in the market with the same quality and level of coverage as the services provided to their own users. *(only in the approval issued to the incumbent mobile operator in case the radio-frequencies in the public bidding procedure have been assigned also to a new entrant in the market)*

5. Obligations in accordance with international agreements and regulations in the field of radio-frequencies

5.1. The Holder of the approval for the use of radio-frequencies is obliged to observe the international agreements and other documents in the field of electronic communications to which Montenegro is a signatory.

Enclosure 2: Draft approval for the use of radio-frequencies in the 3.6 GHz band

MONTENEGRO
AGENCY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES

No: ____-____/_
Podgorica, __ __ 2022

AGENCY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES (hereinafter: the Agency), based on Article 11 Item 11 and Art. 99-102, 112-115, 124 and 125 of the Law on Electronic Communications (Official Gazette of Montenegro, 40/13, 56/13, 56/13, 2/17 and 49/19), the Radio-Frequency Spectrum Allocation Plan (Official Gazette of Montenegro, 89/20 and 104/20), the Radio-Frequency Assignment Plan in the 3400-3800 MHz for MFCN systems (Official Gazette of Montenegro, 22/21), the Rulebook on the methodology and method for the calculation of annual fees for the use of radio-frequencies (Official Gazette of Montenegro, 16/14, 81/18 and 6/19), the Decision of the Government of Montenegro on pricing fees for administration of radio-frequency spectrum (Official Gazette of Montenegro, 16/14); the Decision on the selection of bidders in the public bidding procedure No. ____-____/_ of __ __ 2021 and Art. 18 and 144 of the Law on Administrative Procedure ("Official Gazette of Montenegro", No. 56/14, 20/15, 40/16 and 37/17), acting upon the request of the company **_____*(name)*_____**, in the subject of issuing the approvals for the use of radio-frequencies in the band **3400-3800 MHz** for the implementation of **public mobile electronic communications network**, in the session of the Council held on _ _____ 2022 adopted the following

A P P R O V A L
for the use of radio-frequencies

1. It is approved to the company **_____*(name)*_____** (hereinafter: the Holder of the approval for the use of radio frequencies), the use of radio-frequencies in the band **3400-3800 MHz** for the implementation of the **public mobile electronic communications network**.

2. This approval allocates __ unpaired radio-frequency blocks of 10 MHz bandwidth, with the following boundaries (hereinafter: the Approved radio-frequencies):
   ___-___ / ___-___ MHz (block L__-L__);
   ___-___ / ___-___ MHz (block L__-L__);
   ...

3. The Approved radio-frequencies are allocated **for use on an exclusive basis in the entire territory of Montenegro**, for the implementation of a public mobile electronic communications network.

4. The Approval for the use of radio-frequencies is valid **15 years as of the date of the approval issuance.**

5. The Holder of the approval for the use of radio-frequencies is obliged to pay the Agency an annual fee for the use of radio-frequencies, which expressed in points amounts to ____ **points**.

The Holder of the approval for use of radio-frequencies shall pay the annual fee for covering the costs for administration of radio-frequency spectrum in the amount of **10% of the annual fee for the use of radio-frequencies** referred to in previous paragraph.

The monetary amount of fees from the previous paragraphs and the manner of their payment shall be determined by a special decision of the Agency for each calendar year.

6. The conditions for the use of the Approved radio-frequencies are given in the Annex, which is an integral part of the this approval.

7. The procedure of extension of the Approval validity period for the use of radio-frequencies, transfer and/or assignment of the right to use the Approved radio-frequencies, amendment, revocation and expiration of validity period of the Approval for use of radio-frequencies shall be carried out in accordance with Art. 117-121 of the Law on Electronic Communications.

   The right to use the Approved radio-frequencies may not be transferred to another legal entity before the expiration of a period of five years from the date of issuance of the Approval for the use of radio-frequencies. (this provision applies only to the approval issued to the new entrant into the market)

   In addition to provisions prescribed by Article 120, paragraph 1 of the Law on Electronic Communications, the Agency shall revoke the Approval for the use of radio-frequencies in the event that at any time after the completion of the public bidding procedure on the basis of which the Approval was issued, determines that the Holder of the approval for use of radio-frequencies, as a qualified bidder in the public bidding procedure:

   - submitted an application for participation in the spectrum auction or other act enclosed that contains incorrect or incomplete information;
   - in the course of the public bidding procedure, undertook activities of secret conspiracy and collusion in any form that could result in compromising the integrity of the public bidding procedure.

8. This approval shall enter into force on the day of its adoption.

9. This approval is enforceable in administrative proceedings.

Justification

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Legal remedy

No appeal is allowed against this approval, but an administrative dispute may be initiated with the Administrative Court of Montenegro within 20 days from the day of its receipt.

PRESIDENT OF THE COUNCIL
Branko Kovijanić

Annex: Conditions for the use of approved radio-frequencies

1. Purpose of the service, type of network or technology for which the right to use radio-frequencies is awarded

1.1. The Approved radio-frequencies are used for the implementation of MFCN systems, in accordance with the Radio-Frequency Assignment Plan in the 3400-3800 MHz band for MFCN systems, in order to provide public mobile electronic communications services in the entire territory of Montenegro.

2. Measures to ensure efficient use of radio frequencies, including requirements regarding coverage or signal strength

2.1. The holder of the approval for the use of radio-frequencies is obliged to start using the approved radio-frequencies within one year from the date of entry into force of the approval for the use of radio-frequencies.

The start of the use of approved radio-frequencies in the relevant band means the installation and putting into operation of at least one radio base station in the subject band in order to provide public mobile electronic communications services.

(only for the approval to be issued to the new entrant into the market)
The holder of the approval for the use of radio-frequencies is obliged to start providing public mobile electronic communication services to end users within one year from the date of entry into force of the approval for the use of radio-frequencies.

2.2. *(*for the approval to be issued to the incumbent mobile operator*)*
The holder of the approval for the use of radio-frequencies is obliged to:

- by the end of 2026 to provide the network signal coverage of at least 75% of the population in each municipality of Montenegro, in terms of availability of data transmission service according to the required quality criterion of 30/10 Mb/s based on user experience;
- by the end of 2030 to provide, and to maintain afterwards, the network signal coverage of at least 75% of the population in each municipality of Montenegro, in terms of availability of data transmission service according to the required quality criterion of 100/30 Mb/s based on user experience.

*(*for the approval to be issued to the new entrant into the market*)*
The holder of the approval for the use of radio-frequencies is obliged to:

- by the end of 2026 to provide the network signal coverage of at least 75% of the population in each municipality of Montenegro, in terms of availability of data transmission service according to the required quality criterion of 30/10 Mb/s based on user experience;
- by the end of 2030 to provide, and to maintain afterwards, the network signal coverage of at least 75% of the population in each municipality of Montenegro, in terms of availability of data transmission service according to the required quality criterion of 100/30 Mb/s based on user experience.

The network signal coverage, in terms of availability of data transmission service according to the required quality criterion of 30/10 Mb/s based on user experience, means the ability to provide data throughput with a minimum bitrate towards the user (downlink) of 30 Mb/s and a minimum bitrate from the user (downlink) of 10 Mb/s, in case of outdoor mobile reception.

The requirement for the minimum bitrate towards the user (downlink) of 30 Mb/s and from the user (uplink) of 10 Mb/s will be considered fulfilled if in at least 90% of data transmission sessions during one day (00-24h) a bitrate to the user of 30 Mb/s or more, and a bitrate from the user of 10 Mb/s or more are met (or there are conditions to be met), with level of successfully initiated and finished data transmission sessions of 95%, excluding the sessions

made during a pick 2 hours of the maximum network load (a single exemption interval is taken for all mobile networks). Due to the increased volume of traffic during July and August as a consequence of the large number of tourists staying in Montenegro, it will be considered that this requirement is met in these months if effective data throughputs are at least 50% of the defined values.

The network signal coverage, in terms of availability of data transmission service according to the required quality criterion of 100/30 Mb/s based on user experience, means the ability to provide data throughput with a minimum bitrate towards the user (downlink) of 100 Mb/s and a minimum bitrate from the user (downlink) of 30 Mb/s, in case of outdoor mobile reception, with a maximum delay of 10 ms.

The requirement for the minimum bitrate towards the user (downlink) of 100 Mb/s and from the user (uplink) of 30 Mb/s will be considered fulfilled if in at least 90% of data transmission sessions during one day (00-24h) a bitrate to the user of 100 Mb/s or more, and a bitrate from the user of 30 Mb/s or more are met (or there are conditions to be met), with level of successfully initiated and finished data transmission sessions of 95%, excluding the sessions made during a pick 2 hours of the maximum network load (a single exemption interval is taken for all mobile networks). Due to the increased volume of traffic during July and August as a consequence of the large number of tourists staying in Montenegro, it will be considered that this requirement is met in these months if effective data throughputs are at least 50% of the defined values.

The requirement of 10 ms maximum delay will be considered to be met if at least 90% of the data transmission sessions during one day (00-24h) Round Trip Time (RTT) delay is less than or equal to 10 ms.

2.3. The holder of the approval for the use of radio-frequencies is obliged to by the end of 2024, in order to provide public mobile electronic communications services, to install and to put into operation at least five 5G (NR) radio base stations (gNodeB) in Podgorica, at least three 5G (NR) radio base stations in Niksic, at least two 5G (NR) radio base stations in Bar and Bijelo Polje and at least one 5G (NR) radio base station in each of the other municipalities in Montenegro.

2.4. In order to achieve the prescribed level of coverage of the population of Montenegro by the network signal which allows the provision of services with the defined quality, any technology may be used as well as any band available to the operator (including previously assigned radio frequencies), in line with the corresponding radio-frequencies assignment plan.

Radio-frequencies from any band at the operator's disposal (including previously assigned radio frequencies) may be used to meet the requirements for 5G network development.

The operator which disposes of the spectrum in several bands for which different coverage requirements have been defined is obliged to fulfil a more demanding criterion, but it is not required to develop the network in each band in parallel.

The development of 5G network implies the implementation of a mobile network according to 3GPP Release 15 or later specification (code NR is used for the access part of 5G network). Radio-frequencies from any band at the operator's disposal (including previously assigned radio frequencies) may be used to meet the requirements for 5G network development, but it is not required to develop the network in each band in parallel.

The holder of the approval for the use of radio-frequencies is obliged to fully meet all coverage requriements and 5G network deployment obligations. The holder of the approval is obliged to take all necessary activities in a timely manner in order to meet the requirements (initiation of procedures to obtain access to sites for construction of electronic communications infrastructure and/or installation of electronic communications equipment, initiation of procedures for approval of construction of electronic communications infrastructure and/or installation of electronic communications equipment, procurement of elements of electronic communication infrastructure and electronic communication equipment, etc.). At the beginning of each year of approval validity period, the holder of the approval the use of radio frequencies is obliged to submit to the Agency an action plan in order to meet the requirements for the next

year and at the end of each year of the approval validity period, a report on the implemented activities and possible difficulties in the realization thereof.

In the event that the Agency in the process of verifying the fulfillment of the requirements determines that all the requirements have not been fully met, the Agency shall approve an additional period of not more than one year to the holder of the approval for the use of radio-frequencies to eliminate the identified deficiencies. If the deficiencies are not remedied by deadline envisaged and the holder of the approval does not provide evidence that all available activities have been taken, i.e. that non-compliance is due to objective circumstances beyond the control of the holder of the approval, the Agency shall revoke the approval for the use of radio-frequencies by which unfulfilled requirements were determined.

In the event that the holder of the approval for the use of radio-frequencies faces administrative difficulties in obtaining access to locations for construction of electronic communication infrastructure and/or installation of electronic communication equipment, approval of construction of electronic communication infrastructure at new locations and/or installation of electronic communication equipment at existing and/or new locations, at the request of the holder of the approval the Agency may extend the deadline for meeting the relevant requirement by more than one year, if the holder of the approval provides clear evidence that all available activities have been taken, i.e. that non-compliance is due to objective circumstances beyond the control of the holder of the approval.

2.5. The fulfilment of coverage requriements and network deployment obligations, including requirements with regard to the service quality will be assessed by:

- the estimation of network signal coverage degree based on software prediction of the receiving field strength;
- the measurements of availability and quality of service using specialized measuring equipment, including measurements in move;
- the measurements of quality of service at the location of end user using specialized equipment and/or authorized software application (e.g. EKIP NetTest) installed on a standard mobile terminal;
- the analysis of relevant data taken from the network of holders of authorizations for the use of radio frequencies.

In order to verify the fulfilment of the coverage requirements, including the requirements related to service quality, the methodology based on relevant international instruments (ITU-R, CEPT, ETSI and others) and best comparative practice will be used.

The operators will be acquainted with the methodology of verification of the fulfilment of the coverage requirements at least three months before the expiration of the deadline for meeting a specific requirement.

2.6. The Approved radio-frequencies may be used in a manner and under conditions that ensure that the parameters of electromagnetic fields at a particular location do not exceed the limits established by the law governing protection against non-ionizing radiation, as well as Montenegrin and international standards applicable in Montenegro.

3. Technical and operational conditions necessary to avoid harmful interference

3.1. Base and terminal stations of MFCN systems shall meet the standards prescribed by the Radio-Frequency Assignment Plan in the 3400-3800 MHz band for MFCN systems.

3.2. Technical and operational conditions for the use of Approved radio-frequencies at individual locations, i.e. coverage areas are determined by a special act of the Agency, at the request of the Holder of the approval for the use of radio-frequencies, with the validity period until the expiration of the Approval for the use of radio-frequencies.

3.3. In order to achieve maximum utilization of assigned radio-frequencies in the abscence of harmful interference, holders of approvals for the use of adjacent frequency blocks in the band 3.6 GHz are obliged to synchronize the operation of their TDD networks.

The general conditions of TDD networks synchronization in the 3.6 GHz band imply the application of the type A frame structure according to CEPT/ECC Recommendation ECC/REC/(20)03 (Frame A: DDDSU DDDSU DDDSU DDDSU) with a frame duration of 10 ms, as well as the use of common reference phase clock based on the GNSS satellite network.

In the event of deviation from the specified synchronization conditions, the holder shall apply the base station radiated power limit outside the allocated block for non-synchronized networks prescribed by the Radio-frequency Assignment Plan in the 3400-3800 MHz band for MFCN systems (this may require application of guard band within the assigned block and/or reducing the radiated power of base station within the assigned block).

The holders of the approvals for the use of radio-frequencies in the 3.6 GHz band may mutually agree on the application of different synchronization conditions than specified, of which they are obliged to inform the Agency before the beginning of their application. Depending on the situation in the border areas with neighboring countries in terms of degree of network implementation, the Agency may change the conditions of TDD networks synchronization, in order to ensure the rational use of RF spectrum.

4. Additional obligations assumed by the bidder in the public bidding procedure

4.1. The holder of the approval for the use of radio-frequencies is obliged, at the request of the interested entity, within one year from the date of the request submission, to enable the provision of 5G service with specific requirements in terms of data transfer rate, delay, reliability and/or number of connections in the required (local) service area. The holder of the approval is obliged to provide the subject service under objective, transparent and non-discriminatory conditions including resonable and justified prices. The Agency shall release the holder of the approval from the obligation to provide the subject service at his request, if the required quality parameters are determined to be technologically unattainable for the operator, or their provision requires unreasonably high costs.

4.2. The Holder of the approval for the use of radio-frequencies is obliged to provide to the new entrant in the market who was awarded radio-frequencies for the implementation of the public mobile electronic communications network based on the public bidding procedure at its request the national roaming service under reasonable (fair), economically justified and non-discriminatory conditions and at cost-oriented prices, for a period of five years from the issuance date of the approval for the use of radio-frequencies. (only in the approval issued to the incumbent mobile operator in case the radio-frequencies in the public bidding procedure have been assigned also to a new entrant inthe market)

The right to national roaming includes any public mobile electronic communications service which the Holder of the approval for the use of radio-frequencies provides by using any technology in any frequency band. All services must be available to users of the new entrant in the market with the same quality and level of coverage as the services provided to their own users. *(only in the approval issued to the incumbent mobile operator in case the radio-frequencies in the public bidding procedure have been assigned also to a new entrant in the market)*

5. Obligations in accordance with international agreements and regulations in the field of radio-frequencies

5.1. The Holder of the approval for the use of radio-frequencies is obliged to observe the international agreements and other documents in the field of electronic communications to which Montenegro is a signatory.

Enclosure 3: Draft approval for the use of radio-frequencies in the 26 GHz band

MONTENEGRO
AGENCY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES

No: ____-____/_
Podgorica, __ __ 2022

AGENCY FOR ELECTRONIC COMMUNICATIONS AND POSTAL SERVICES (hereinafter: the Agency), based on Article 11 Item 11 and Art. 99-102, 112-115, 124 and 125 of the Law on Electronic Communications (Official Gazette of Montenegro, 40/13, 56/13, 56/13, 2/17 and 49/19), the Radio-Frequency Spectrum Allocation Plan (Official Gazette of Montenegro, 89/20 and 104/20), the Radio-Frequency Assignment Plan in the 24.25-27.5 GHz band for MFCN systems (Official Gazette of Montenegro, 22/21), the Rulebook on the methodology and method for the calculation of annual fees for the use of radio-frequencies (Official Gazette of Montenegro, 16/14, 81/18 and 6/19), the Decision of the Government of Montenegro on pricing fees for administration of radio-frequency spectrum (Official Gazette of Montenegro, 16/14); the Decision on the selection of bidders in the public bidding procedure No. ____-____/_ of __ __ 2021 and Art. 18 and 144 of the Law on Administrative Procedure ("Official Gazette of Montenegro", No. 56/14, 20/15, 40/16 and 37/17), acting upon the request of the company **_____*(name)*_____**, in the subject of issuing the approvals for the use of radio-frequencies in the band **24.25-27.5 GHz** for the implementation of **public mobile electronic communications network**, in the session of the Council held on _ _____ 2022 adopted the following

A P P R O V A L
for the use of radio-frequencies

1. It is approved to the company **_____*(name)*_____** (hereinafter: the Holder of the approval for the use of radio frequencies), the use of radio-frequencies in the band **24.25-27.5 GHz** for the implementation of the **public mobile electronic communications network**.

2. This approval allocates __ unpaired radio-frequency blocks of 200 MHz bandwidth, with the following boundaries (hereinafter: the Approved radio-frequencies):
   ___-___ MHz (block M_);
   ___-___ MHz (block M_);
   ...

3. The Approved radio-frequencies are allocated **for use on an exclusive basis in the entire territory of Montenegro**, for the implementation of a public mobile electronic communications network.

4. The Approval for the use of radio-frequencies is valid **15 years as of the date of the approval issuance.**

5. The Holder of the approval for the use of radio-frequencies is obliged to pay the Agency an annual fee for the use of radio-frequencies, which expressed in points amounts to ____ **points**.

The Holder of the approval for use of radio-frequencies shall pay the annual fee for covering the costs for administration of radio-frequency spectrum in the amount of **10% of the annual fee for the use of radio-frequencies** referred to in previous paragraph.

The monetary amount of fees from the previous paragraphs and the manner of their payment shall be determined by a special decision of the Agency for each calendar year.

6. The conditions for the use of the Approved radio-frequencies are given in the Annex, which is an integral part of the this approval.

7. The procedure of extension of the Approval validity period for the use of radio-frequencies, transfer and/or assignment of the right to use the Approved radio-frequencies, amendment, revocation and expiration of validity period of the Approval for use of radio-frequencies shall be carried out in accordance with Art. 117-121 of the Law on Electronic Communications.

   The right to use the Approved radio-frequencies may not be transferred to another legal entity before the expiration of a period of five years from the date of issuance of the Approval for the use of radio-frequencies. (this provision applies only to the approval issued to the new entrant into the market)

   In addition to provisions prescribed by Article 120, paragraph 1 of the Law on Electronic Communications, the Agency shall revoke the Approval for the use of radio-frequencies in the event that at any time after the completion of the public bidding procedure on the basis of which the Approval was issued, determines that the Holder of the approval for use of radio-frequencies, as a qualified bidder in the public bidding procedure:

   - submitted an application for participation in the spectrum auction or other act enclosed that contains incorrect or incomplete information;
   - in the course of the public bidding procedure, undertook activities of secret conspiracy and collusion in any form that could result in compromising the integrity of the public bidding procedure.

8. This approval shall enter into force on the day of its adoption.

9. This approval is enforceable in administrative proceedings.

Justification

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Legal remedy

No appeal is allowed against this approval, but an administrative dispute may be initiated with the Administrative Court of Montenegro within 20 days from the day of its receipt.

PRESIDENT OF THE COUNCIL
Branko Kovijanić

Annex: Conditions for the use of approved radio-frequencies

1. Purpose of the service, type of network or technology for which the right to use radio-frequencies is awarded

1.1. The Approved radio-frequencies are used for the implementation of MFCN systems, in accordance with the Radio-Frequency Assignment Plan in the 24.25-27.5 GHz band for MFCN systems, in order to provide public mobile electronic communications services in the entire territory of Montenegro.

2. Measures to ensure efficient use of radio frequencies, including requirements regarding coverage or signal strength

2.1. The holder of the approval for the use of radio-frequencies is obliged to start using the approved radio-frequencies within one year from the date of entry into force of the approval for the use of radio-frequencies.

The start of the use of approved radio-frequencies in the relevant band means the installation and putting into operation of at least one radio base station in the subject band in order to provide public mobile electronic communications services.

(only for the approval to be issued to the new entrant into the market)
The holder of the approval for the use of radio-frequencies is obliged to start providing public mobile electronic communication services to end users within one year from the date of entry into force of the approval for the use of radio-frequencies.

2.2. The Approved radio-frequencies may be used in a manner and under conditions that ensure that the parameters of electromagnetic fields at a particular location do not exceed the limits established by the law governing protection against non-ionizing radiation, as well as Montenegrin and international standards applicable in Montenegro.

3. Technical and operational conditions necessary to avoid harmful interference

3.1. Base and terminal stations of MFCN systems shall meet the standards prescribed by the Radio-Frequency Assignment Plan in the 24.25-27.5 GHz band for MFCN systems.

3.2. Technical and operational conditions for the use of Approved radio-frequencies at individual locations, i.e. coverage areas are determined by a special act of the Agency, at the request of the Holder of the approval for the use of radio-frequencies, with the validity period until the expiration of the Approval for the use of radio-frequencies.

3.3. In order to achieve maximum utilization of assigned radio-frequencies in the abscence of harmful interference, holders of approvals for the use of adjacent frequency blocks in the band 24.25-27.5 GHz are obliged to synchronize the operation of their TDD networks.

The general conditions of TDD networks synchronization in the 24.25-27.5 GHz band imply the application of the type A frame structure according to CEPT/ECC Recommendation ECC/REC/(20)03 (Frame A: DDDSU DDDSU DDDSU DDDSU) with a frame duration of 10 ms, as well as the use of common reference phase clock based on the GNSS satellite network, where synchronization is not required for internal coverage, except in the case of internal coverage of public facilities (stadiums, sports halls, concert halls, shopping malls, etc.).

In the event of deviation from the specified synchronization conditions, the holder shall apply protection measures against harmful interference given in the CEPT/ECC Report 307 (this may require application of guard band within the assigned block and/or reducing the radiated power of base station within the assigned block).

The holders of the approvals for the use of radio-frequencies in the 24.25-27.5 GHz band may mutually agree on the application of different synchronization conditions than specified, of which they are obliged to inform the Agency before the beginning of their application.

4. Additional obligations assumed by the bidder in the public bidding procedure

4.1. The holder of the approval for the use of radio-frequencies in the 24.25-27.5 GHz is obliged, at the request of the interested entity, within one year from the date of the request submission, to enable the provision of 5G service with specific requirements in terms of data transfer rate, delay, reliability and/or number of connections in the required (local) service area. The holder of the approval is obliged to provide the subject service under objective, transparent and non-discriminatory conditions including resonable and justified prices. The Agency shall release the holder of the approval from the obligation to provide the subject service at his request, if the required quality parameters are determined to be technologically unattainable for the operator, or their provision requires unreasonably high costs.

5. Obligations in accordance with international agreements and regulations in the field of radio-frequencies

5.1. The Holder of the approval for the use of radio-frequencies is obliged to observe the international agreements and other documents in the field of electronic communications to which Montenegro is a signatory.

Enclosure 4: List of uncovered rural areas

The list of uncovered rural areas (one or more neighbouring rural settlements in which the place of residence have at least 50 inhabitants in total and whose territory collectively does not exceed 10 km in diameter, whereas a broadband data transmission services of defined quality are available for less than 75% of the population), with the endpoints of the respective polygons, is given in the table below.

No.	Settlements which represents rural area	Number of inhabitants	Polygon endopints (WGS84)
1.			
2.			
3.			
4.			
5.			
…			

Enclosure 5: List of roads and railways

Highways:

1) Smokovac-Uvač-Mateševo.

Magistral roads[1]:

1) M-1 Debeli Brijeg (border with Croatia) - Meljine (intersection with M-12) - Lipci (intersection with M-8) - Kotor (intersection with R-1) - Krtolska intersection (intersection with M-11) - Budva (intersection with M-10) - Petrovac (intersection with M-2) - Sutomore (intersection with M-1.1) - Bar 1 (Biskupada, intersection R-28) - Bar 2 (Tunnel Ćafe, intersection with R-29) - Ulcinj (intersection with R-22) - Krute (intersection with R-29) - Vladimir (intersection R-15) - Sukobin (border with Albania);
2) M-1.1 Sutomore (intersection with M-1) - tunnel Sozina - Virpazar 1 (intersection with M-2);
3) M-2 Petrovac (intersection with M-1) - Sotonići - Virpazar 1 (intersection with M-1.1) - Virpazar 2 (intersection with R-15) - Golubovci (detour) Podgorica 1 (intersection with M-3) - Podgorica 2 (intersection with M - 4) - Podgorica 4 (intersection si R-27) - Bioče (intersection with R-13) - Mioska (intersection with R.21) - Kolašin (intersection with R-13) - Mojkovac (intersection with R-10) - Slijepač Most (intersection with R-11) - Ribarevina (intersection with M-5) - Bijelo Polje (detour) - Barski Most (border with Serbia);
4) M-3 Šćepan Polje (border with Bosnia and Herzegovina) - Plužine (intersection with R-16) - Jasenovo Polje (intersection with M-6) - Vir (intersection with R-7) - Nikšić (intersection with M-7) - Cerovo (intersection with R-23) - Danilovgrad (intersection with R-14) - Podgorica 3 (intersection with M-10) - Podgorica 1 (intersection with M-2);
5) M-4 Podgorica 2 (intersection with M-2) - Tuzi - Božaj (border with Albania); 6) M-5 Ribarevina (intersection with M-2) - Berane (intersection with R-2) - Budimlja (intersection with R-12) - Kalače (intersection with R12) - Rožaje (intersection with R-5) - Most Zeleni (intersection with R-6) - Dračenovac (border with Serbia);
7) M-6 Ranče (border with Serbia) - Trlica (intersection with R-11) - Pljevlja 1 (intersection with R-18) Đurđevića Tara (intersection with R-10) - Vrela (intersection with R-26) - Žabljak (detour) - Virak (intersection with R-20) - Pošćenski kraj (intersection with R-16) Tunnel Ivica - Šavnik (intersection with R-20) - Kruševice - Jasenovo Polje (intersection with M-3);
8) M-7 Nikšić (intersection with M-3) - Riđani (intersection with R- 17) - Vilusi 1 (intersection with M-8) - Vilusi 2 (intersection with M-9) - Ilino Brdo (border with Bosnia and Herzegovina);
9) M-8 Lipci (intersection with M-1) - Grahovo - Vilusi 1 (intersection with M-7);
10) M-9 Vilusi 2 (intersection with M-7) - Petrovići - Deleuša (border with Bosnia and Herzegovina);
11) M-10 Podgorica 3 (intersection with M-3) - Cetinje (intersection with R-1) - Budva (intersection with M-1);
12) M-11 Lepetani (Trajekt) - Tivat - Krtolska intersection (intersection with M-1);
13) M-12 Meljine (intersection with M-1) - Petijevići - Sitnica (border with Bosnia and Herzegovina).

Regional roads[1]:

1) R-1 Cetinje (intersection with M-10) - Čekanje (intersection with R-17) - Krstac (intersection with R-25) - Trojica - Kotor (intersection with M-1);

[1] Pursuant to the Decision of the Government of Montenegro on the categorization of state roads ("Official Gazette of Montenegro", No. 64/19).

2) R-2 Berane (intersection with M-5) - Buča (intersection with R-24) - Andrijevica (intersection with R-19) - Murino (intersection with R-9) - Plav - Gusinje - Grnčar (border with Albania);
3) R-3 Pljevlja 2 (intersection with R-18) - Dajevića Han (intersection with R-4) - Metaljka (border with Bosnia and Herzegovina);
4) R-4 Dajevića Han (intersection with R-3) - Čemerno (border with Serbia);
5) R-5 Rožaje (intersection with M-5) - Kula - Stubica (border with Kosovo);
6) R-6 Most Zeleni (intersection with M-5) - Vuča (border with Serbia);
7) R-7 Vir (intersection with M-3) - Krstac (border with Bosnia and Herzegovina);
8) R-8 Resna (Intersection with R-17) - Grahovo - Nudo (border with Bosnia and Herzegovina);
9) R-9 Murino (intersection with R-2) - Bjeluha (border with Kosovo);
10) R-10 Đurđevića Tara (intersection with M-6) - Mojkovac (intersection with M-2);
11) R-11 Slijepač Most (intersection with M-2) -Tomaševo - Pavino Polje - Trlica (intersection with M-6);
12) R-12 Budimlja (intersection with M-5) - Podvade (intersection with R12.1) - Kalače (intersection with M-5);
13) R-12.1 Podvade (intersection with R-12) - Petnjica;
14) R-13 Bioče (intersection with M-2) - Mateševo (intersection with R-19) - Kolašin (intersection with M-2);
15) R-14 Danilovgrad (intersection with M-3) - Čevo (intersection with R-17);
16) R-15 Vladimir (intersection with M-1) - Ostros - Virpazar 3 (intersection with R-28) - Virpazar 2 (intersection with M-2) - Rijeka Crnojevića - Donji Ulići (Intersection with M-10);
17) R-16 Plužine (intersection with M-3) - Trsa - Pošćenski kraj (intersection with M-6);
18) R-17 Čekanje (intersection with R-1) - Resna (intersection with R-8) - Čevo (intersection with R-14) - Riđani (intersection with M-7);
19) R-18 Pljevlja 1 (intersection with M-6) - Pljevlja 2 (intersection with R-3) - Gradac - Šula;
20) R-19 Mateševo (intersection with R-13) - Andrijevica (intersection with R-2);
21) R-20 Virak (intersection with M-6) - Tušina (intersection with R - 21) - Šavnik (intersection with M-6);
22) R-21 Mioska (intersection with M-2) - Semolj - Boan - Tušina (intersection with R-20);
23) R-22 Ulcinj (intersection with M-1) - Ada;
24) R-23 Cerovo (intersection with M-3) - Bogetići - Glava Zete - Danilovgrad - Spuž - Vranjske njive;
25) R-24 Buča (Intersection with R-2) - Lubnice;
26) R-25 Cetinje - Ivanova Korita - Međuvršje (intersection with R-25.1) - Krstac (intersection with R-1);
27) R-25.1 Međuvršje (intersection with R-25) - Lovćen;
28) R-26 Vrela (intersection with M-6) - Njegovuđa;
29) R-27 Cijevna Zatrijebačka (border with Albania) - Dinoša - Podgorica 4 (intersection with M-3);
30) R-28 Bar 1 (Biskupada, intersection with M-1) - Virpazar 3 (intersection with R-15);
31) R-29 Bar 2 (Tunnel Ćafe, intersection with M-1) - Kamenički most - Krute (intersection with M-1).

Railway:

1) ŽS Bar-Podgorica-Kolašin-Mojkovac-Dobrakovo (border with Serbia);
2) ŽS Podgorica-ŽS Nikšić.