



## **Notice of Interest**

# **High Demand Spectrum “HDS”**

Assessment of Demand for HDS Spectrum

Date: 20 May 2021

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## I INTRODUCTION AND BACKGROUND

1. The purpose of this notice is to assess demand for High Demand Spectrum from interested sectoral providers as required in the Regulatory Authority (Grant of Spectrum Licences Permits and Exempted Frequencies) General Determination 2020 which followed the “Grant of Spectrum Licences, Permits, and Exempted Frequencies - Final Report, Final Decision and Order dated 16 December 2020”.
2. The GD specifies that, upon receipt of a Qualified Application for HDS, the Regulatory Authority (“RA”) shall assess the availability of the requested HDS spectrum against overall demand by publishing a Notice of Interest “Notice” on its website and in the Official Gazette.

## II DEFINITIONS

1. In this Notice, unless the context otherwise requires—

“**ECA**” means the Electronic Communications Act 2011;

“**GD**” means the Regulatory Authority (Grant of Spectrum Licences Permits and Exempted Frequencies) General Determination 2020, which followed the Final Decision and Order - Grand of Spectrum Licences, Permits, and Exempted Frequencies issued by the RA on 16 December 2020;

“**HDS**” means high demand spectrum frequencies for Bermuda as detailed in Appendix A;

“**ICOL**” means an Integrated Communications Operating Licence granted pursuant to section 18 of the ECA;

“**NHDS**” means spectrum frequencies which are not in high demand;

“**Qualified Application**” means an application that the RA has determined meets: (1) the basic eligibility requirements (as set out in the GD); (2) the minimum necessary thresholds in relation to financial resources, technical experience, qualifications, business plan and financial plan;

“**RAA**” means the Regulatory Authority Act 2011.

“**RA**” means the Regulatory Authority of Bermuda;

“**Sectoral Provider**” in the context of HDS means the holder of an ICOL.

2. For purposes of interpreting this Notice —
  - (a) unless a term is defined in this Notice or the context otherwise requires, words or expressions shall have the meaning assigned to them by the RAA and the ECA;
  - (b) where there is any conflict between the provisions of this Notice and the ECA or RAA, the provisions of the ECA or RAA, as the case may be, shall prevail;
  - (c) terms defined herein and in the ECA and RAA have been capitalised;
  - (d) headings and titles used herein are for reference only and shall not affect the interpretation or construction of this Notice;
  - (e) references to any law or statutory instrument include any modification, re-enactment or legislative provisions substituted for the same;
  - (g) expressions cognate with those used herein shall be construed accordingly;
  - (h) use of the word "include" or "including" is to be construed as being without limitation; and
  - (i) words importing the singular shall include the plural and vice versa, and words importing the whole shall be treated as including a reference to any part unless explicitly limited.

### **III PURPOSE**

1. The purpose of this Notice as detailed in the GD is to assess demand for the requested spectrum by communicating that applicants have expressed interest in HDS spectrum to the general public.
2. This Notice outlines all relevant details and the way in which interested sectoral providers may formally submit written communication expressing their interest in the spectrum frequencies identified in this Notice (Appendix B).

### **IV PROCESS FOR EXPRESSING INTEREST IN HDS SPECTRUM FREQUENCIES**

1. The principal point of contact at the RA for Sectoral Providers to submit written communication expressing interest in the spectrum frequencies identified in this Notice is Craig Davis. He may be contacted by email, referencing "Interest in HDS Spectrum Frequencies – May 2021" at [cdavis@ra.bm](mailto:cdavis@ra.bm) or by mail at:

Craig Davis  
Senior Manager – Electronic Communications  
Regulatory Authority  
1st Floor, Craig Appin House  
8 Wesley Street  
Hamilton, Bermuda

2. If a Sectoral Provider wishes to make a formal application for HDS spectrum, attention is drawn to the processes detailed in the GD.

## **V PROCESS FOR ASSIGNMENT WHEN SUPPLY EXCEEDS DEMAND**

1. In circumstances where the RA fails to receive any additional Qualified Applications in response to the published Notice, the RA will confirm that supply for the requested spectrum exceeds demand.
2. Subsequently, the RA can assign the requested HDS spectrum on a FCFS basis and will evaluate the sole Qualified Application against the spectrum specific qualifying criteria outlined below in the General Assessment Criteria for HDS as detailed in the GD.

## **VI PROCESS FOR ASSIGNMENT WHEN DEMAND EXCEEDS SUPPLY**

1. If more than one sectoral provider communicates an interest in the spectrum specified in the Notice, through the submission of a Qualified Application, the Spectrum Policy requires the RA to conduct a Comparative Selection Process, where the RA will evaluate all Qualified Applications against specified eligibility criteria.
2. The Technical Criteria for a HDS Comparative Selection Process is detailed in the GD.
3. The comparative selection process enables the RA to assign spectrum to existing and/or prospective Sectoral Providers that can demonstrate a genuine need for additional spectrum and in a manner that allows the RA to promote further competition and technical advancement and efficiency in the electronic communications sector. Ultimately, an effective and efficient comparative selection process allows the RA to assign spectrum in a manner that is consistent with the purposes of section 37 of the ECA and the RA's general functions outlined under section 12 of the RAA.
4. The costs associated with any comparative selection process are expected to be recovered from a refundable fee submitted with a Qualified Application in response to the published Notice.

## **VII NEXT STEPS**

1. Sectoral Providers will have 14 days to respond to this Notice once the Notice has been published in the Official Gazette ("Notice Period"). The Notice will also be posted on the RA website.
2. At the conclusion of the Notice Period, the RA will commence the process of evaluating the applications under Section V or Section VI as stated in this Notice.
  - a. With respect to Section V where there are no Qualified Applications received in the Notice Period and no overlaps with existing Qualified Applications, the RA intends to assign new HDS Spectrum Licences within 10 days of the end of the Notice Period.
  - b. With respect to Section VI where there are Qualified Applications for the same HDS spectrum, the RA intends to commence the Comparative Selection Process within 5 days of the end of the Notice Period. The duration of the Comparative Selection Process may vary based on the level of contention for the requested HDS Spectrum.

## APPENDIX A: CURRENT HIGH DEMAND SPECTRUM TABLE

### **Bermuda High Demand Spectrum Bands – May 2021**

HDS Band Name	Frequency Range (MHz)		HDS Band Size (MHz)
	Lower End of range	Upper end of range	
700 MHz Band	698	806	108
850 MHz Band	824 869	849 894	50
1900 MHz Band	1850 1930	1910 1990	120
2100 MHz Band (AWS-1)	1710 2110	1755 2155	90
2100 MHz Band (AWS-3)	1690 1700 2155 1755	1700 1710 2180 1780	70
2500 MHz Band	2496	2690	194
3500 MHz Band	3300	3700	400

## APPENDIX B: SUMMARY OF CURRENT HDS APPLICATIONS – 20 MAY 2021

Application Reference #	Bermuda HDS Band	Proposed Service Grouping	Lowest allocation of range (MHz)	Upper allocation of range (MHz)	Block Size (MHz)	Band information (where applicable)	Current Spectrum Availability as on 20 <sup>th</sup> May 2021
1	HDS - 700 MHz Band	CMR	698	703	6	700 MHz FDD Band - A Block Lower	Not currently in use or assigned
2	HDS - 700 MHz Band	CMR	728	733	6	700 MHz FDD Band - A Block Upper	Not currently in use or assigned
3	HDS - 700 MHz Band	CMR	758	768	10	LTE FDD Band 14 - Upper SMH - D Block Downlink	Not currently in use or assigned
4	HDS - 700 MHz Band	CMR	788	798	10	LTE FDD Band 14 - Upper SMH - D Block Uplink	Not currently in use or assigned
5	HDS - 2100 MHz Band (AWS-1)	CMR	1710	1719	10	LTE FDD Band 66 - AWS-1 - A Block Uplink	Not currently in use or assigned
6	HDS - 2100 MHz Band (AWS-1)	CMR	1720	1729	10	LTE FDD Band 66 - AWS-1 - B Block Uplink	Not currently in use or assigned
7	HDS - 2100 MHz Band (AWS-1)	CMR	1730	1734	5	LTE FDD Band 66 - AWS-1 - C Block Uplink	Not currently in use or assigned
8	HDS - 2100 MHz Band (AWS-1)	CMR	1735	1739	5	LTE FDD Band 66 - AWS-1 - D Block Uplink	Not currently in use or assigned
9	HDS - 2100 MHz Band (AWS-1)	CMR	1740	1744	5	LTE FDD Band 66 - AWS-1 - E Block Uplink	Not currently in use or assigned
10	HDS - 2100 MHz Band (AWS-1)	CMR	1745	1754	10	LTE FDD Band 66 - AWS-1 - F Block Uplink	Not currently in use or assigned
11	HDS - 2100 MHz Band (AWS-3)	CMR	1755	1759	5	LTE FDD Band 66 - AWS-3 - G Block Uplink	Not currently in use or assigned
12	HDS - 2100 MHz Band (AWS-3)	CMR	1760	1764	5	LTE FDD Band 66 - AWS-3 - H Block Uplink	Not currently in use or assigned
13	HDS - 2100 MHz Band (AWS-3)	CMR	1765	1769	5	LTE FDD Band 66 - AWS-3 - I Block Uplink	Not currently in use or assigned
14	HDS - 2100 MHz Band (AWS-3)	CMR	1770	1779	10	LTE FDD Band 66 - AWS-3 - J Block Uplink	Not currently in use or assigned
15	HDS - 2100 MHz Band (AWS-1)	CMR	2110	2119	10	LTE FDD Band 66 - AWS-1 - A Block Downlink	Not currently in use or assigned
16	HDS - 2100 MHz Band (AWS-1)	CMR	2120	2129	10	LTE FDD Band 66 - AWS-1 - B Block Downlink	Not currently in use or assigned
17	HDS - 2100 MHz Band (AWS-1)	CMR	2130	2134	5	LTE FDD Band 66 - AWS-1 - C Block Downlink	Not currently in use or assigned
18	HDS - 2100 MHz Band (AWS-1)	CMR	2135	2139	5	LTE FDD Band 66 - AWS-1 - D Block Downlink	Not currently in use or assigned
19	HDS - 2100 MHz Band (AWS-1)	CMR	2140	2144	5	LTE FDD Band 66 - AWS-1 - E Block Downlink	Not currently in use or assigned
20	HDS - 2100 MHz Band (AWS-1)	CMR	2145	2154	10	LTE FDD Band 66 - AWS-1 - F Block Downlink	Not currently in use or assigned
21	HDS - 2100 MHz Band (AWS-3)	CMR	2155	2159	5	LTE FDD Band 66 - AWS-3 - G Block Downlink	Not currently in use or assigned
22	HDS - 2100 MHz Band (AWS-3)	CMR	2160	2164	5	LTE FDD Band 66 - AWS-3 - H Block Downlink	Not currently in use or assigned
23	HDS - 2100 MHz Band (AWS-3)	CMR	2165	2169	5	LTE FDD Band 66 - AWS-3 - I Block Downlink	Not currently in use or assigned
24	HDS - 2100 MHz Band (AWS-3)	CMR	2170	2179	10	LTE FDD Band 66 - AWS-3 - J Block Downlink	Not currently in use or assigned
25	HDS - 2500 MHz Band	CMR	2506	2526	20	LTE TDD Band 41 (2496 - 2690 MHz)	Not currently in use or assigned
26	HDS - 2500 MHz Band	CMR & FWA	2590	2690	100	LTE TDD Band 41 (2496 - 2690 MHz)	Not currently in use or assigned
27	HDS - 3500 MHz Band	CMR & FWA	3300	3400	100	C Band / 5G FR1 TDD Band n77/n78	Not currently in use or assigned
28	HDS - 3500 MHz Band	CMR	3600	3700	100	LTE TDD Band 43 (3600 - 3800 MHz)	Overlaps with another request
29	HDS - 3500 MHz Band	FWA	3600	3620	20	LTE TDD Band 43 (3600 - 3800 MHz)	Overlaps with another request
30	HDS - 3500 MHz Band	FWA	3620	3640	20	LTE TDD Band 43 (3600 - 3800 MHz)	Overlaps with another request
31	HDS - 3500 MHz Band	FWA	3640	3660	20	LTE TDD Band 43 (3600 - 3800 MHz)	Overlaps with another request