



Zelna Jansen

Committee Secretary
Portfolio committee on Science and technology
3rd Floor, 90 Plein Street
Cape Town

Per fax: (021) 403 3669

Email: zjansen@parliament.gov.za

Dear Madam

Re: Vodacom (Pty) Ltd ("Vodacom") comments on the Draft Astronomy Bill [B17-2007]

The Chairperson of Portfolio Committee on Science and Technology published the Astronomy Geography Advantage Bill B17-2007, for public comment on 29 May 2007.

Please find herewith Vodacom's submission on the provisions of the Bill.

Yours Faithfully

Pakamile Pongwana

Managing Executive: Government Relations and Regulatory Affairs
Vodacom (Pty) Ltd
Tel: (011) 848 8006
Fax: (011) 653 7522

Introduction

Vodacom (Pty) Ltd ("Vodacom") Wishes to thank the Portfolio Committee on Science and technology for the opportunity to comment on the Astronomy Geographic Advantage Bill [B17-2007] ("the Bill"). Vodacom welcomes and supports the noble objectives of the Bill, especially in respect of the establishment of measures to advance astronomy and related scientific endeavours in South Africa, and the development of skills, capabilities and expertise of those engaged in Astronomy and related scientific endeavours in Southern Africa.

Vodacom's written comments are structured as follows:

- A. General Comments
- B. Specific comments on the Bill
- C. Conclusion

A. GENERAL COMMENTS

1. Consultation with all affected stakeholders

The "*Memorandum on the Objects of the Astronomy Geographic Advantage Bill, 2007*" provides a list of parties who have been consulted previously. Among others, the operators *Second national Operator* (Neotel), *Sentech*, *Telkom* and *Transtel* were mentioned. None of the Mobile Operators ("MOs") were mentioned. It would appear that the level of consultation with the MOs was not the same as with the listed parties. A Square Kilometer Array ("SKA") team has held discussions with the MOs insofar as technical issues regarding the protection of the core/central advantage areas are concerned and research in this regard is being undertaken.

No prior consultations regarding the drafting of the Bill have taken place with the MOs in respect of the impact on affected parties in general (such as communities, industry, farming, disadvantaged persons, etc). The MOs have Universal Service and Community Service Obligations, aside from spectrum related interest, on a national scale. It is recommended that the Minister investigate the impact of sacrifices that the public, in particular the various communities resident in the advantaged areas, will have to make should the mobile cellular services be affected by implicated restrictions of whatever kind. This will have to be addressed well before the Bill comes into operation and measures impacting on the current mobile cellular services take effect.

2. Compensation for financial loss

Vodacom has invested a lot of money in rolling out the telecommunications infrastructure in the country, to bring telecommunication services to the people and to bridge the digital divide among other things. In cases where the infrastructure is within the astronomy advantage areas or the network causes radio frequency interference to the radio astronomy activities in the area, the infrastructure will have to be dismantled. This will cause a big financial loss to Vodacom. Vodacom therefore recommends that the Bill should make provisions to reimburse operators of the investments they have made in rolling out the infrastructure should it need to be dismantled.

B. SPECIFIC COMMENTS ON THE BILL.

Chapter 1: Definitions

3. Definition of Radio Frequency Spectrum

The Bill defines radio frequency spectrum as the "the electromagnetic frequency spectrum from 1 kiloHertz to 1 terraHertz".

Article 1 of the ITU Radio Regulations defines radio waves or hertzian waves as the electromagnetic frequencies of arbitrarily lower than 3000 GHz; propagated in space without artificial guidance.

Recommendation

Vodacom recommends that the definition of radio frequency spectrum in the Bill should be in line with that of the ITU Radio Regulations.

4. Definition of core; central and coordinated astronomy advantage area

The definitions for a core astronomy advantage area, a central advantage area and a coordinated advantage area, refer to sections 7(1), 9(1), and 11(1) respectively of the Bill. However it is not clear as to how these areas differ from each other in terms of their uses.

Recommendation

Vodacom recommends that these areas should be clearly defined in the Bill.

Chapter 2: Declaration Of Astronomy Advantage Areas

5. Ad page 56 - Section 5: Areas which may be declared astronomy advantage areas

Section 5(1)(a) provides that The Minister may declare any area or part of an area of the Province of the Northern Cape as an *astronomy advantage area*, Provided no such declaration is made ...(on)... any area demarcated in terms of the Municipal Demarcation Act as falling within the boundaries of the Municipality, Sol Plaatje;

Comment:

With regard to declaring an area in the Province of Northern Cape as an advantage area (excluding the Sol Plaatje municipality), Vodacom submit that it is in discussions with the SKA project team on mitigation techniques to limit interference to the core/central site. However, at remote sites outside this area, current proposed threshold levels will be impractical to attain, especially in respect of the SKA remote stations.

6. Ad page 57 – Section 7: Declaration of core astronomy advantage area

Section 7(3)(a) provides that in addition to subsection (2), a declaration under subsection (1)(a) may only be issued if the Minister has, prior to the declaration conducted a public participation process in terms of section 42 and in conducting this process the Minister has compiled a permanent register of interested and affected parties for the core astronomy advantage area;

Comment:

Vodacom submits that in view of providing mobile cellular communications on a national basis, it is an interested and affected party and should therefore be registered on the Minister's permanent register of interested and affected parties for the core astronomy advantage area. **This comment also apply to the provisions of section 9(3)(a).**

Furthermore Section 7 makes provision for the Minister to withdraw the declaration or exclude any part of an area as a core or central or and coordinated astronomy advantage area of an existing astronomy area from the area; however it does not indicate the conditions under which the withdrawal of the declaration could happen. **This comment also applies to section 9 and 11.**

7. Ad Page 62 – Section 20: Restrictions within core and central astronomy advantage areas Restrictions in core astronomy advantage areas

Section 20(1)(c) provides that no person may, without the written permission of the management authority have in their possession, within a core astronomy advantage area any interference source, mobile radio frequency interference source or short range device, unless the source or device has been turned off and, when in that state, is incapable of causing any form of radio frequency interference;

Comment:

These provisions imply restrictions to general access to the core/central areas. Vodacom submits that its personnel might need access to these areas where co-ordination areas have been agreed between parties.

8. Ad Page 63 – Section 22: Protection of astronomy observations in radio frequency spectrum in core and central astronomy advantage areas

Section 22 provides that (1) notwithstanding any other legislation or any rights that a person may have been granted in terms of other legislation, the Minister has the sole authority within a core or central astronomy advantage area to protect the use of the radio frequency spectrum for astronomy observations.

(2)(a) Pursuant to authority granted in subsection (1) and, after consultation with ICASA and the minister responsible for communications, the Minister may, by notice in the Gazette prohibit completely or restrict in any way the use of specific frequencies within the radio frequency spectrum or the radio frequency spectrum in general within a core or central astronomy advantage area"

Comment:

Vodacom supports consultation as a rule between the Minister, ICASA and the minister of communications as ICASA and the minister of communications are knowledgeable about Vodacom frequencies and should be consulted on all aspects where Vodacom's license rights are at stake.

This provision grants the minister authority to completely prohibit or to restrict specific frequencies, or the radio spectrum in general. There seems to be still no consensus on the actual threshold levels to adhere to in the non-radio astronomy (RA) bands. This implies that there may be unrealistic expectations for threshold levels in the shared/non-RA bands. Thus far Vodacom used an interpolated threshold value from the ITU-R RA 760-2 recommendations for co-ordination at the core site.

Section 22(2)(d) provides that pursuant to authority granted in subsection (1) and, after consultation with ICASA and the minister responsible for communications, the Minister may, by notice in the Gazette exempt from the provisions of such notice any person or organ of state who has entered into an agreement with the management authority of the core or central astronomy advantage area to mitigate their impact on the radio frequency spectrum within the relevant astronomy advantage area.

Comment:

Vodacom submits that it will cooperate with the management authority and enter into appropriate agreements to mitigate the impact of Vodacom's use of the radio frequency spectrum on the relevant astronomy area.

9. Ad Page 64 – Section 23: Declared activities in core or central astronomy advantage area

Section 23(3) provides that (a) the Minister may, in relation to the activities contemplated in subsections (1) and (2) require that any activity cease, subject to the payment of compensation, if required by section 25 of the Constitution; or

(b) prescribe conditions under which any activity may continue in order to reduce or eliminate the impact of the activity on astronomy and related scientific endeavors, or astronomy advantage in the relevant area.

Comment:

Vodacom submits that this provision may be used to request compensation from government in the case where current Vodacom base stations are prohibited to operate. Furthermore, customers in these areas (business, farming, communities etc) may require dedicated low power highly directional point to point links or fixed line operations to continue services.

10. Ad Page 65 – Section 25: Authorization to undertake identified activities

Section 25(6)(a)(ii) provides that the competent authority must specify the information to be provided in a report required in terms of subsection (4)(a), provided that any such report must include the proposed alternatives to the identified activity if it is likely to cause radio frequency interference in any core astronomy advantage area designated for radio astronomy;

Comment:

Vodacom submits that this provision mentions proposed alternatives to identified activities. Vodacom emphasizes that if Vodacom needs to adhere to RA threshold levels in spectrum band allocated to communication services, the impact on customers in the core/central zones will be major. It is critical that the alternatives to the identified activities should take into consideration the service, quality, coverage, costs, financial and social implications on the affected parties.

CHAPTER 4: GENERAL MEASURES TO PROMOTE ASTRONOMY

11. Ad Page 69 and 70 – Section 37: National Standards for control of activities which may be detrimental to astronomy

Section 37(1)(b) provides that the Minister may, in relation to actions which may detrimentally impact on astronomy and related scientific endeavours, prescribe national standards or measures for the control or minimization of radio frequency interference; and

Section (2) provides that the Minister may by notice in the Gazette incorporate into law any standard set by the South African Bureau of Standards dealing with any matter related to the elimination, prevention or mitigation of radio frequency interference without stating the text thereof, by mere reference to the number, title and year of issue of that standard

Comment:

Vodacom submits that section 22 of the Bill provides for consultation between the Minister and the minister responsible for communications, however, in this provision - section 37(1) - it seems inappropriate for the Minister to prescribe regulations impacting on users of communications spectrum, which is the domain of ICASA and the "minister responsible for communications", without consulting the said "minister responsible for communications". The mechanism of handling the spectrum resource should be entirely coordinated, which currently exists with the Minister of Communications having oversight over ICASA, being in charge of the spectrum plan and who can be directed by the Minister of Communications to take the necessary steps. Such mechanism together with consultation between the Minister and the "minister responsible for communications" will ensure that there will be no unintentional un-coordinated interventions impacting on the radio frequency spectrum and its users.

Recommendation:

Vodacom recommends that the "minister responsible for communications" (Minister of Communications) retain total control over the radio frequency spectrum within his/her jurisdiction and that protection for astronomy advantage be facilitated by consultation between the Minister and the Minister of Communications

C. CONCLUSION

Vodacom again wishes to thank the committee for the opportunity to provide comments on the Bill and will welcome an opportunity to make oral presentations on the Bill, if necessary.