Response to ICASA's Notice of intention to conduct an inquiry on the review of the Digital Migrations Regulations, 2012

Submitted on behalf of:

Cape Town TV

Soweto TV

1KZN-TV

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Preamble

Discussing Mux allocations feels like we are rearranging the deck chairs on the Titanic. We have therefore taken the liberty of including a preamble to address some of the bigger picture issues which threaten the future of free-to-air television and propose some solutions.

In so doing we also need to address the challenges that have arisen with the Broadcast Digital Migration (BDM) which now present an existential threat to the system as a whole.

In order to protect and preserve public interest, legacy broadcasters, we believe it is necessary to build a **sustainable, holistic ecosystem** including DTT, DTH and OTT. This ecosystem should, ideally, include all the FTA broadcasters that have hitherto benefited from access to the public airwaves, including all three tiers of television.

Affordability

Initially, DTT promised to reduce transmission costs for broadcasters but in fact it has raised these costs. As things currently stand the DTT network is unaffordable and FTA broadcasters are abandoning the network or are simply unable to pay. During dual illumination, Sentech is picking up these costs but after the Analogue Switch Off (ASO) the payment issue will become an acute challenge.

Of particular concern is the huge increase in transmission costs for community TV which is totally unsustainable. This is due to the fact that Mux 1 is a Single Frequency Network and we are therefore being told that we have to broadcast provincially, despite the fact that we are licensed to broadcast locally. For example, Cape Town TV costs are set to go up from R72 000 per month to R1 800 000 per month which is clearly unaffordable.

This brings into serious question the business case for DTT which Sentech itself is referring to as a “legacy technology”. We do not believe it is in the interests of public interest television for DTT to collapse. On the contrary we think it is possible to build a sustainable business case for DTT, providing there is the political will to do so.

As the state-owned common carrier Sentech is obliged to act in the public interest to provide universal service and access to free TV services and affordable signal distribution services for FTA operators.

Broadcast Digital Migration

Despite the enormous cost of DTT, there is no guarantee that DTT is capable of delivering an audience in any sizable numbers. This is due to the following factors:

a) There have been many challenges in the roll-out of DTT decoders to indigent households which have inhibited their uptake including the lack of coordination on the ground between the BDM awareness campaign, registrations and installations leading up to the phased switch-off.
b) The online registration system is still not operational and people don't know where to register for STBs due to post office closures.

c) An “Indigent household” is still defined as a combined household income of R3 500 whereas the current legal definition, according to StatsSA, is R6 500 household income.
d) The DTT decoders rolled out to indigent households do not give good reception because they battle with the bitrate of Sentech transmissions. There have been no software updates for these STBs, which were manufactured in 2015. There have also been concerning reports that a high percentage of the DTT decoders that have been installed are faulty.
e) In 2023 e-Media estimated that only 4% of total TV households in South Africa had DTT reception; even with government’s rollout of 1.5 million DTT STBs and 40 000 DTH STBs the DTT market is still too small to make it viable for broadcasters in terms of cost-per-viewer.

Due to the problems outlined above, Sentech is now installing DTH decoders in indigent households instead of DTT decoders. Satellite DTH is no longer the “gap-filler” it was intended to be but is now becoming the primary distribution platform for FTA TV.

FreeVision DTH is operating in an unregulated space where any channel can be accommodated based merely on a channel authorisation without proper regulatory oversight. This also means that licensed channels that must comply with regulations must compete with other channels that do not have any regulatory restrictions.

We believe that only licensed public interest broadcasters (public, private and community), or other channels enabled through policy and regulation, should be accommodated on FreeVision DTH which is an intrinsic part of the public broadcasting system.

The Missing Middle

There are currently no DTT STBs or FreeVision DTH decoders available to non-subsidized households in retail outlets or if there are, no-one knows about it. Sentech does not market FreeVision so there is very little public awareness about it. There is no way for consumers to purchase FreeVision decoders or SIM cards outside of very specialist electronics outlets.

Non-subsidized households are expected to receive FTA services via an IDTV set or “self migrate” (i.e. subscribe) to commercial platforms such as DStv and StarSat in order to receive their “free” TV services. This can be a financial barrier to uptake among low-income households that don’t qualify for free DTT STBs and it also denies them access to community television stations that are not carried on some of the commercial platforms.

IDTV sets are expensive and efforts at educating consumers on what makes of digital TVs are suitable have stalled since the government is no longer pushing its Go Digital branding on STBs and TV sets.

Regulation in the Public Interest

In order to ensure the protection and preservation of public interest, legacy broadcasters, we need to build an ecosystem that includes DTT, (3 muxes), DTH and OTT. All FTA legacy

broadcasters (and new entrants) should be required in terms of their licence conditions to be freely available to the public on all three of these public platforms.

Because DTH and OTT are both part of this ecosystem we believe that ICASA should retain regulatory oversight of all public interest channels in addition to it regulating DTT.

We urge ICASA to use this inquiry to probe the business case of DTT and find ways of subsidising the transmission costs of FTA TV services and put in place a tariff structure that is realistic and achievable for broadcasters, particularly those in the community sector.

At present all of the licensed community channels are carried on DStv. However this carriage is not guaranteed and continues at the sole discretion of MultiChoice. StarSat carries some community channels and OpenView does not carry any community channels at all. With the potential sale of DStv to Canal+ we are especially concerned about the security of our carriage on DStv, the dominant satellite provider.

The carriage of community TV channels on private, commercial DTH platforms is essential for all television viewers to be able to receive public benefit content, as well as for the survival of these channels. Consequently we believe that ‘must-carry, must pay’ regulations should be put in place to ensure full public access to community channels on commercial TV platforms.

What to do with DTT?

The DTT network is operated by Sentech, which is an SOE. The frequency spectrum belongs to the people of South Africa, i.e. it is a public resource. Consequently broadcast services in this space should be those that are licensed by ICASA in the public interest.

The current DTT landscape looks like this:

	Public	**Private**	**Community**
Local			Geographic community x 3 Community of interest x 2
Provincial			
National	SABC x 6 channels	eTV x 6 channels	

This matrix makes it clear that there are gaps in the broadcasting landscape that could be filled by new incumbents licensed by ICASA, particularly in the provincial space. We need to establish if it is in the public interest to establish any form of provincial broadcasting as well as the investment appetite for such services and their economic sustainability in terms of available ad spend. The infrastructure can then be designed in terms of the needs rather than the other way around.

The current reality is that none of the FTA broadcasters are happy with Sentech’s high broadcast tariffs and are prepared to pay these costs. Until such time as this issue of affordability of the DTT network can be resolved and a tariff structure put in place that all of the broadcasters are prepared to pay, all of this is moot.

Funding Model: How do we ensure universal access (for consumers) and affordability (for broadcasters).

In our answers to the questions below we are proposing a 3 Mux plan which would free up spectrum (from Mux 4 - 7) for use by the telecommunications sector . This would be based on the following conditions that are aimed at protecting the future of legacy broadcasters in the digital landscape:

- The cross-subsidization of the broadcasting costs of FTA channels on DTT and DTH via USAASA. This money would be taken out of the existing 1% levy paid by the telcos to USAASA which is *already* required by law to use its Universal Service and Access Fund (USAF) to assist in, amongst other things, “The establishment and operation of broadcasting services”. ICASA could develop a tariff model which includes free transmission costs for public and community and reduced rates for private FTA.
- FTA TV continues to broadcast on analogue below 694 Mhz (which is, in any case, *reserved for broadcasting services*) in the major urban centres until:
    - There is clarity on the deployment of any additional Muxes (transparency and accountability).
    - Conditions on the ground are met including the achievement of an agreed threshold in terms of STB roll-out to indigent households and the marketing and availability of DTH kits in the retail market. It is NOT unheard of to extend analogue transmission in the national interest. One has to look no further than our nearest neighbour, Namibia, where analogue transmission has been retained in the far north, rural area of the country for the same reasons - to protect citizens' right to access information and freedom of expression.
- The zero-rating of all FTA public interest channels on OTT.

We believe this is a win-win solution for all stakeholders, including:

- The public, who will enjoy universal access to public interest channels on all devices without the threat of being cut off and forced to “self migrate” to commercial platforms to access free TV services.
- Sentech, whose DTT network faces imminent collapse due to its expense, the non-payment of transmission fees by broadcasters, and the absence of a business case for using it due to low penetration of DTT STBs and IDTVs, will have a steady income stream to invest in infrastructure.
- The FTA broadcasters will be able to grow and flourish in an enabling, converged digital environment and invest resources in content that builds the nation instead of pumping hundreds of million rands into transmission costs.
- ICASA which would maintain regulatory oversight over all FTA channels in a converged environment.
- The telecom operators who will benefit from any spectrum that may be freed up if no more muxes are implemented after Mux 3.

OTT

Further to the above we believe that the community broadcasters and the public broadcaster should all be on the same OTT platform, namely Freevisionplay.co.za, which is hosted by Sentech. If all FTA broadcasters drive our audiences to one platform we will have a much better chance of competing with private operators such as Netflix instead of fragmenting the market. Sentech could then focus on working behind-the-scenes to secure zero-rating for public benefit content and getting the FreeVision app on all makes of TV sets.

The relationship between Freevision and Freevision.play is confusing because while both of these platforms share a name, they carry different content. Freevision.play should be a mirror of Freevision DTH in terms of the public service content that it carries.

FTA television content distributed on OTT should be regulated by ICASA as this content is an ancillary or catch-up service which backs-up their on-air offerings.

Conclusion

The underlying problem is policy uncertainty due to lack of progress on the AAAVCS policy, inadequate, outdated DTT regulations and a general lack of transparency and accountability.

It behoves the DCDT to provide leadership to steer the sector out of this quagmire or risk the future of public interest broadcasting which is a constitutional right of all South Africans.

Question 1

In considering international practices such as the UK's competitive bidding for Multiplex allocation and Australia's mix of competitive allocation and licensing processes, what insights and recommendations do stakeholders offer for the assignment of Multiplexes in South Africa's DTT framework, aiming to ensure fairness, competition and sustainability within the three-tier system?

We support a mix of competitive allocation and licensing processes that are aligned with broadcasting policy and regulation with the following objectives in mind:

- Protecting the public interest
- Maintaining the three tiers of television, including public, private and community television, in particular.
- Licensing new television operators in the public interest.

Question 2

How do stakeholders perceive the current capacity allocations within the DTT Multiplexes, especially in Multiplex 1 where the SABC holds 85% and community broadcasting services have been allocated 15%?

South Africa's existing DTT multiplex allocations allow for 15% of bandwidth on Multiplex 1 to be reserved for community television services. This allows for up to three standard-definition (SD) community TV services per provincial single-frequency network at 2Mbps bandwidth speed.

However the television sector is progressing to ever-higher resolutions and high definition (HD) is now the defining standard for the video production sector. Ever-higher resolutions, from 4K and upwards, are constantly increasing the sector's ability to deliver finer resolution images to viewers through the mediums of internet and broadcasting. With SD becoming a legacy standard, planning for mux allocation must include the inception of HD channels.

We recommend that ICASA cater for licensing HD community channels, but that it licence no more than two community TV HD stations on Mux 1. This bandwidth could be increased to allow for datacasting as an additional revenue stream for community television. Consequently the limitation of community channels to 15% should be revised to accommodate this vision.

Question 2.1

Considering the ongoing licensing process for the remaining 15% in Multiplex 1, what recommendations or insights do stakeholders have regarding the equitable distribution of this capacity?

As above we have argued that this be increased to suit the needs of community TV as HD channels.

We rely on ICASA to licence community television stations according to the criteria laid out in the ECA and ICASA regulations. Provided that these conditions are fulfilled by licensees, it will be up to ICASA to determine allocations of the suitable capacity on Multiplex 1. However ICASA has noted the problems with licensing community channels as regional broadcasters along with the attendant rise in transmission costs which are unaffordable for non-profit community channels. This suggests that the accommodation of community channels on Mux 1 is not sustainable in the current policy environment where they receive no support for transmission costs. Geographic community channels limited to metropolitan areas could ultimately be accommodated on local multiplexes if or when initiated. Community of interest channels could remain on Mux 1 in order to reach regional audiences.

The accommodation of community channels on Mux 1 creates a double predicament for community channels. Hitherto community stations have been licensed as local television stations serving a municipal area, but in the digital environment the single frequency network architecture of the multiplexes, particularly Multiplex 1 on which the community stations are carried, necessitates that community TV stations become regional or provincial broadcasters. Consequently we have to hire many transmitters from Sentech, which pushes our transmission costs up to unaffordable levels.

We are concerned that our current licensing processes are taking place in an environment of policy uncertainty. The previous licensing regimen was developed for the analogue broadcasting environment and does not fit the digital environment. Since licensing is being

dealt with in the AAAVCS White Paper policy process it is vital that this process be concluded as soon as possible to provide regulatory certainty to the community television sector. It is important that this process allows for community channels at both the local, regional and possibly national levels. Equitable ways of creating sustainable community of interest and geographic community broadcasters must be found within this process and mux capacity allocated accordingly on the appropriate multiplexes.

Question 3

Similarly, in Multiplex 2, where e.tv initially had 50% and M-Net had 40%, with the remaining 10% used by temporary licence holders and later divided equally between e.tv and M-Net, are there suggestions for improving the allocation in Multiplex 2?

If we can resolve the issue of DTT transmission tariff affordability then Mux 2 could be opened up for new television operators. We believe that only broadcasters that are licensed and regulated by ICASA, in the public interest, should be accommodated on DTT which is a public resource.

Question 4

For Multiplex 3, where 55% is assigned to commercial free-to-air television broadcasting services and 45% to commercial subscription broadcasting services, and considering the specific licence awarded to Kwese Tv for 55% of MUX 3 capacity, what are stakeholders' perspectives on the balance between free-to-air and subscription services?

A third multiplex can be useful in terms of offering 5G broadcasting services for public service broadcasters.

Considering the number of commercial organisations applying for community licences, there seems to be an appetite for local or regional commercial licences. This should be enabled through proper licensing processes rather than the channel authorization process currently taking place on the Freevision DTH platform. Such services could be accommodated on Mux 2 or 3.

Question 4.1

Are there recommendations for ensuring diversity and competition within this multiplex?

Questions around diversity and competition should be applied to the DTH and OTT environments which are currently unregulated.

If the issue of affordability can be addressed and if the need and business case is established, we suggest that new entrants be licensed and accommodated in the public DTT, DTH and OTT ecosystem.

Question 5

Overall, what considerations and recommendations do stakeholders propose to enhance the effectiveness and fairness of the DTT Multiplex capacity allocations?

In this regard we are concerned about the provision of HD capacity for community channels on Multiplex 1. Such capacity must be allocated to the existing licensed community TV channels and to any newcomers, provided that ICASA issues broadcast licences according to the available bandwidth capacity.

Mechanisms will have to be put in place to subsidise community TV signal distribution costs either through cross-subsidisation from the commercial operators or through an USAASA subsidy.

Question 6

Stakeholders are requested to provide insights and recommendations on ensuring efficient spectrum use, including considerations for frequency reuse where appropriate.

We recommend that ICASA and Sentech look into the possibility of developing local multiplexes to accommodate community TV channels reaching metropolitan areas. This will help to overcome the challenges community broadcasters face with regard to transmission costs and regional vs. local reach, which we have outlined above.

In order to address issues around affordability we are proposing a 3 Mux plan which would free up spectrum (from Mux 4 - 7) for use by the telecommunications sector. Since this spectrum is reserved for broadcasting, this reallocation should be based on the *following conditions* that are aimed at protecting the future of legacy broadcasters in the digital landscape:

- The cross-subsidization of the broadcasting costs of FTA channels on DTT and DTH via USAASA. This money would be taken out of the existing 1% levy paid by the telcos to USAASA which is *already* required by law to use its Universal Service and Access Fund (USAF) to assist in, amongst other things, “The establishment and operation of broadcasting services”. ICASA could develop a tariff model which includes free transmission costs for public and community and reduced rates for private FTA.
- FTA TV continues to broadcast on analogue, below 694 Mhz (which is, in any case, *reserved for broadcasting services*) in the major urban centres until:
    - There is clarity on the deployment of any additional Muxes (transparency and accountability).
    - Conditions on the ground are met including the achievement of an agreed threshold in terms of STB roll-out to indigent households and the marketing and availability of DTH kits in the retail market. It is NOT unheard of to extend analogue transmission in the national interest. One has to look no further than our nearest neighbour, Namibia, where analogue transmission has been retained in the far north, rural area of the country for the same reasons - to protect citizens' right to access information and freedom of expression.

- The zero-rating of all FTA public interest channels on OTT.

We believe this is a win-win solution for all stakeholders, including:

- The public, who will enjoy universal access to public interest channels on all devices without the threat of being cut off and forced to “self migrate” to commercial platforms to access free TV services.
- Sentech, whose DTT network faces imminent collapse due to its expense, the non-payment of transmission fees by broadcasters, and the absence of a business case for using it due to low penetration of DTT STBs and IDTVs, will have a steady income stream to invest in infrastructure.
- The FTA broadcasters will be able to grow and flourish in an enabling, converged digital environment and invest resources in content that builds the nation instead of pumping hundreds of million rands into transmission costs.
- ICASA which would maintain regulatory oversight over all FTA channels in a converged environment.
- The telecom operators who will benefit from any spectrum that may be freed up if no more muxes are implemented after Mux 3.

Question 7

How should the Authority allocate the remaining MUXes?

In previous years the Authority has undertaken research and inquiries to inform its views on the sustainability of television broadcasters in the South African media context. We suggest that further such research take place in order to inform the Authority’s decision-making on this issue because it will not be useful for the Authority to make such allocations or to licence new television services which will not be sustainable in the context of South Africa’s economic and media circumstances.

We have argued above for the inception of local multiplexes in the major cities to accommodate local community TV broadcasters.

We propose a 3 Mux Plan to accommodate public interest broadcasters only. Commercial operators can operate in the DTH and OTT space.

Question 8

How can the lessons learnt from Multiplex sharing during the transition from analogue to digital be applied in the future?

Multiplex sharing has resulted in both challenges and opportunities for community broadcasters. In section 5.3.15 in the review document, the Authority notes the problem of community TV broadcasters being forced to become regional broadcasters because of the architecture of the SFN. It proposes that “the Draft White Paper proposes that community broadcasters should maintain their accessibility at the local level exclusively. Looking forward, the DTT licensing framework post-ASO, the recommendation is to explore the

possibility of introducing provincial/regional public, commercial, or non-profit free-to-air audiovisual content services".

While community broadcasters have in the past called for just such a scenario, there are certain realities which this proposal ignores. Firstly the fact is that satellite-based transmission (direct-to-home or DTH) reaches the whole of South Africa and beyond. All DTT channels are carried on Sentech's DTH service, FreeVision, which provides a "gap-filler" service in the DTT environment for reaching areas that are not covered by terrestrial transmission. There is no technical mechanism for restricting this geographic coverage other than to install a geo-location mechanism in digital decoders (set-top boxes) which receive the satellite signal. This is not a feasible scenario since these decoders can be sourced internationally so the market is not restricted to a particular type or make; and they would have to have a GPS installed as well so that the box "knows" where it is located in the case of it being moved from one region to another.

Consequently all of South Africa's community channels are available everywhere in the country despite their being geographically restricted on DTT. It is notable that Sentech and the DCDT are now rolling out government-supplied DTH kits (decoder and satellite dish) to qualifying indigent households instead of DTT decoders with UHF aerials. This suggests that the future of broadcasting in South Africa could well shift to satellite instead of terrestrial transmission. This national footprint for community TV stations is an advantage for them in attracting audiences nationally. National reach on DStv has proved to be vital for the sustainability of community TV stations, whose local audiences alone would not be enough to sustain the channels economically.

Consequently when it comes to the question of multiplex sharing, accommodating community channels means including them at both national and local levels. It is also significant that community channels are being carried online on Sentech's FreeVisionPlay, which gives them national and even international reach.

Community broadcasters have suggested that community channels be accommodated on a Mux which has been allocated to serving local areas. Until this level of infrastructure is achieved we recommend that the community channels continue broadcasting on Mux 1, but that no carriage fees be charged by Sentech until such time as a) the community channels are migrated to local muxes and b) an effective fiscal mechanism is instituted to support the transmission costs of community TV broadcasters in the digital environment.

We further suggest that existing or future community-of-interest TV channels that wish to apply for regional licences be allowed to do so. Regional community channels should not have restrictions on advertising revenue to support their operations because without this income they are unlikely to be economically sustainable.

Question 9

From a broadcaster's perspective, how does the length of the licence renewal period influence long-term investment decisions in infrastructure and content production?

The duration of community TV broadcast licences increased significantly from the early days of temporary event licences to first one-year and then seven-year periods. This extension has enabled the community stations to attract funding from multiple stakeholders including government, the MDDA, MultiChoice, social investment funds, advertisers and communities. While the countries' existing community TV stations have achieved a level of relative stability over the past 15 years of their existence, the digital environment offers particular challenges to their sustainability and these issues must be addressed through consultation and policy processes as soon as possible.

The seven-year licence period offers an adequate operational period to inspire confidence in funders and an efficient reporting period.

Question 10

What are stakeholders' perspectives on the consequences of assigning digital incentive channels to broadcasters?

The DTT regulations prohibit community TV channels from introducing incentive channels. This could be addressed in new DTT regulations as some community TV operators have the capacity to and interest in developing incentive channels. In order to allow this community TV would need a bigger allocation of spectrum of Mux 1. This is, once again, dependent on the issue of affordability.

Do stakeholders believe this allocation is essential in the Digital Terrestrial Television (DTT) environment?

We believe that broadcasters execute channels according to business principles, where they are able to attract a sufficient audience size in key markets to sustain advertiser and funder interest in channel investment. This motivation is different to the one specified in the regulations for incentive channels, that being "as an incentive for digital migration" – in other words the motivation of a broadcaster to create a new channel is a business decision rather than simply a means of promoting digital migration.

However it must be borne in mind that in the context of digital broadcasting, there are already a multiplicity of channels available both on the airwaves and online. Free-to-air satellite transmission brings a huge array of broadcast TV channels to audiences across the African continent, including South Africa. On Sentech's FreeVision DTH service there are more than 30 TV channels as well as radio channels. A DTT multiplex can accommodate up to 15 SD channels and on Multiplex 1 there are currently six SABC channels, the Parliamentary channel and up to two community channels per region. Consequently it may require the introduction of more muxes to accommodate incentive channels, particularly if the existing channels on Mux 1 become HD channels instead of SD ones.

Public/free TV on DTT/DTH/OTT needs to be able to compete on an equal footing with the commercial operators. The content offering has to be appealing for audiences. In order to do this we may need to licence additional channels with market appeal. Call them "incentive channels" if you like. These could either be sub-licensed by existing incumbents or licensed separately via ICASA.

Question 11

What factors should be considered to maintain a diverse and competitive broadcasting landscape in the post-ASO period in relation to channel authorisation?

From the point-of-view of community broadcasters, channel authorization must be managed in such a way as to protect the interests of this non-profit sector. Competition from commercial operators should be avoided at the local level unless some form of cross-subsidization can be introduced, whereby the commercial operator subsidises the transmission costs of the community operator. This model has been tried in Britain on local muxes.

FreeVision DTH is an unregulated space where any channel can be accommodated based merely on a channel authorisation. This means that licensed channels that must comply with regulations must compete with other channels that do not have any regulatory restriction. Licensed FTA TV channels must be prioritised and a level playing field must be established where all broadcast channels are regulated by the Authority in the public interest.

Question 12

Do stakeholders believe there is a need for specific coverage targets in the DTT landscape post-ASO? (Yes/No)

Yes, some community TV stations are licensed according to their geographic broadcast footprint, such as Cape Town TV, while others are serving communities of interest, such as 1KZN TV.

What considerations or criteria do stakeholders propose for establishing and evaluating these coverage targets to ensure an effective and inclusive DTT environment?

Terrestrial coverage targets must be evaluated in terms of the business case for broadcasters to hire a transmitter in any particular area. We note that eTV has switched off transmitters in certain areas where the company believes there is not sufficient of an audience to justify the cost of hiring the transmitter, and the SABC has followed suit in switching off its transmitters on these same masts. There should be some kind of formula available to calculate the return on investment for broadcasters in reaching any particular geographic area which can be easily applied by broadcasters, Sentech and ICASA.

Sentech’s FreeVision has been commissioned to be the ‘gap filler’ to provide TV signals to those areas not reached by terrestrial transmission and this negates the need for universal terrestrial coverage.

It is a mistake to think that people within the terrestrial coverage area will not opt for DTH reception, so the idea of a ‘gap-filler’ is not an adequate conception of this service. This is emphasised by the rollout of DTH kits to indigent households. Since there are more channels available on DTH than there are on DTT it makes sense that people will opt for satellite options if they are available, regardless of the area that they live in.

While the purchase of new digital TV sets will provide an upgrade path for those who can afford them, there is likely to be a high prevalence of Android boxes in the market and these together with smart TV sets are connecting viewers to the internet, which increases their sources of content and so adds to the competition faced by broadcasters.

The increased accessibility of multiple content channels in the digital environment decreases the need for universal terrestrial broadcast coverage, which should be confined to those areas where it is economically feasible to run digital transmission sites due to population density.

Question 13

Are there any foreseeable issues or concerns that should be considered regarding the appointment of a signal distributor to provide signals within a multiplex post-ASO?

Sentech is the only signal transmission provider currently operating multiplexes in South Africa. The lack of a competitor gives the SOE a monopoly over broadcast transmission services. This may contribute to transmission costs being higher than necessary. As the state-owned common carrier Sentech has an obligation to provide cost-effective transmission services for all three tiers of broadcasting in South Africa; however it has a particular obligation to support public interest content providers by including the SABC and the community channels.

Sentech must provide a reasonable and affordable cost structure for the carriage of community channels on its DTT and DTH networks. Moreover it is incumbent on the government and ICASA to devise a solution to the problem of funding transmission costs for public and community broadcasters in the digital environment because the nature of this environment causes significant cost increases in this area. Failure to address this problem will significantly undermine democracy in South Africa if community access to the airwaves is cut off by the demise of community TV broadcasting.

Another issue pertains to the ‘findability’ of community channels on Sentech’s DTH platform. This platform carries many channels and the community channels are way down in the listing. All public service channels should be grouped together at the top of the listing so that they are easily accessible to the public.

Question 14

How can "data services" be defined to mitigate regulatory uncertainty?

In the digital environment, all information is data so it is difficult to differentiate between different data sets. There are particular types of data that are typically associated with television services. These include the electronic programme guide (EPG), and teletext applications such as weather information that is delivered on a text basis. There is also the engineering channel which is used for updating set-top box software and the technology of datacasting, which embeds information in the audio-visual stream to deliver multimedia

content to end users. The latter technology is used principally for distance education purposes in countries such as the USA.

In any event, any service over and above the AV stream of television broadcasting would involve the storage of the data to be delivered to end users and so it should be possible to measure the amount of stored data and so calculate the bandwidth required for its delivery. Data services can be defined as any digital information conveyed over and above the AV stream of a television broadcast. While a cap of 15% available for community broadcasters on Mux 1 may be sufficient for current purposes, this allocation should be open to review and if it is found that in future broadcasters require more bandwidth for this purpose, for example through the provision of enhanced television services, then the situation should be open to review.

Question 15

What specific services should be considered as "data services" within the context of the DTT?

- EPG
- Weather and other information services, e.g. emergency notices
- Datacasting
- Government information delivery services
- Engineering channel

Question 16

Should the Authority continue to put a cap on data services? If not, what practical measurement will be deemed adequate by stakeholders?

The Authority should continue to put a cap on data services in the interests of maintaining the integrity of television transmission in the digital environment; however it should make allowance for broadcasters to apply for a higher level of data delivery if they can show significant public benefit to the data services they plan to provide. The data cap must allow for the expansion of current services so it should be set at a level which does not inhibit broadcasters from offering new services such as enhanced television.

Question 17

How can the Regulations adapt to or leverage emerging technologies that may impact the provision and measurement of data services on DTT Multiplex?

The Regulations should set rules based on currently existing technologies being used in South Africa today, but allow space for future developments to occur by granting broadcasters the right to apply for extended data services. The measurement criteria would then include the degree of public benefit to be provided by such extended data service provision.

While datacasting is an established rather than an emerging technology, it has not found widespread use in South Africa outside of the Mindset Network having used it for distance education support. Nevertheless it holds the promise of delivering multimedia information to areas that are under-serviced by internet connectivity to support education and emergency services.

Question 18

What specific challenges have stakeholders encountered in the current implementation of the regulation regarding the engineering service channel?

Community broadcasters have not made use of the engineering service channel. We expect this to be principally the responsibility of Sentech in terms of its support for the STBs that it is rolling out to indigent households as well as the STBs which receive its FreeVision DTH service.

As far as we are aware there have been no software updates to the STBs distributed by Sentech in terms of the BDM. Reports are that many of these devices are faulty and the technology is outdated.

Question 19

How can the definition and scope of "engineering service" be clarified within the regulatory framework to alleviate uncertainties?

Engineering service is the provision of software updates to STBs.This has to be the responsibility of Sentech as the platform provider and not that of the broadcasters which use its services.

In the era of digital broadcasting where consumers choose television services based on the reception devices that they purchase, Sentech can no longer be a business-to-business operation that simply provides transmission services for broadcasters. Instead Sentech is a platform operator which operates three different platforms, these being the DTT multiplexes, the FreeVision DTH service and the Freevisionplay OTT service. Sentech has become a consumer-facing platform operator which must accept responsibility for the provision of DTT STBs, support services for these devices and the marketing of its platforms. Consequently it is Sentech’s responsibility to utilise the engineering channel for updating and improving the STBs that it distributes.

Question 20

Should the engineering service channel be excluded from the calculation of allocated capacity for broadcasting service licensees on DTT Multiplexes? Please provide reasons for your proposal.

Yes, the engineering service should be excluded from the calculation of allocated capacity for broadcasting service licensees on DTT Multiplexes. This is because software updating of

STBs is the responsibility of Sentech and not of the broadcasters. Should broadcasters have any particular requirements vis-à-vis software updating then they can liaise with Sentech to provide such services and afford them on a reasonable cost basis.

Question 21

What do you propose as a fair and transparent method for allocating the required Mb/s for the engineering service within the broadcast transmission?

Sentech should make a recommendation on this based on its assessment of the technical requirements to provide such a service.

Question 22

What are stakeholders' opinions on licensing the engineering service capacity to a common carrier on the Multiplex, designated by the Authority, to ensure transparency and non-discrimination?

This makes sense. If Sentech is responsible for distributing and supporting STBs then it should also be responsible for their upkeep.If broadcasters require particular software updates then Sentech should provide this service at a reasonable cost and take the public interest into account in determining an appropriate price for the service.

We assume that the computing capacity of STBs and TV sets will increase over time as these devices are increasingly integrated into the digital communications environment. This increased capacity will lead to further demand for over-the-air software updates.

Question 23

How can such a licensing approach be structured to accommodate the interests of various stakeholders, including the common carrier and other potential service providers?

Sentech has already been given responsibility for establishing and maintaining South Africa’s DTT infrastructure. It is incumbent on this SOE to provide affordable signal distribution services for South Africa’s public service and free-to-air broadcasters. The provision of an engineering channel to support STBs must form part of this service.

Provision should be made for broadcasters to appeal to a higher authority, i.e. ICASA or the Minister of Communications, should they believe that the Sentech rates are too high or unfair.

If a broadcast service or other service provider wishes to provide a particular service on DTT then Sentech should be able to provide such services on the engineering channel as part of its remit in terms of its commercial agreements with such entities.

Question 24

What factors should be considered when determining the optimal capacity for the engineering service in the evolving landscape of digital broadcasting?

An assessment must be made of the amount of data required for STB software upgrades and the capacity of the engineering service must be defined accordingly. Sentech should be responsible for this. The engineering service must be differentiated from the data services offered by broadcasters. Where broadcasters offer data services, these services must be calculated as a percentage of bandwidth they are due in terms of mux bandwidth allocations. If broadcasters require software updates on STBs to accommodate their data services then they should be able to negotiate such transactions with Sentech, with the latter being obliged to provide them with service in this regard at a reasonable cost.

Question 25

How effectively has JSAG facilitated the coordination of frequency spectrum usage and management of interference during the Digital Migration Performance Period as outlined in Regulation 13?

It has been very successful in this role.

Question 26

Are there specific challenges or successes experienced in spectrum coordination that stakeholders would like to highlight?

No.

Question 27

Is there a role that the JSAG should continue to play in the post-ASO era to ensure ongoing effective coordination of frequency spectrum usage for DTT?

Yes, the structure should be retained, and include community broadcasters.

Question 28

How can JSAG evolve to address emerging challenges or opportunities in spectrum management beyond the ASO phase?

There needs to be a forum where broadcasters can interact with government, ICASA and Sentech to address emerging opportunities or challenges. This doesn't have to be JSAG as such, but a body which looks at all the issues facing broadcasters in the digital environment.

JSAG and DCTAG were too narrowly focused to deal with all of the issues facing broadcasters in the BDM so there should be one body to oversee or coordinate the interests of the three parties mentioned above. In the BDM process this task was given to the Ministerial task group, which was extremely opaque and secretive in its operations, top-down and non-consultative in management style, confrontational and authoritarian in its interactions with broadcasters and thoroughly inefficient in its operation. This form of management of the broadcast sector has proven to be disastrous for the BDM and should never again be enabled. Instead a democratic and consultative approach should be used to unite broadcasters, especially the FTA sector, to advance their interests and the interests of the public with regards to the reception of digital broadcast content services.

Question 29

To what extent has the DTCAG influenced the supply of digital television content as per its advisory role outlined in the 2012 Regulations?

DTCAG has not influenced the supply of digital television content at all. It did however stimulate discussions among broadcasters about the nature of digital television broadcasting and the various concerns that broadcasters have vis-à-vis this new era in broadcasting. It highlighted that the provision of digital content was dependent on a business case for the inception of new digital channels. There is no shortage of digital content since all television content today is digital, but the business case for putting this content on air depends on the availability of an audience, which in turn depends on the accessibility and uptake of digital reception devices. And it raised a proposal for funding public service digital content which must be considered and implemented to stimulate the provision of South African TV content..

The weakness of DTCAG was that it was too narrowly focused on content and could not address factors in the broader environment of the BDM that affect the business case for introducing new channels. The main challenge here is the absence of DTT STBs in the retail market along with significant problems in the roll-out of government-supplied STBs which have inhibited uptake among low-income households.There are a limited number of IDTVs in TV households and the only other mechanisms for digital migration are the commercial DTH platforms, all of which are affordability barriers for the low-to-middle income sectors which form the majority of South Africa’s population.The analogue switch-off in provinces such as the Free State resulted in audience loss of around 40% for the SABC and the community channels fear a similar fate should the ASO go ahead without the successful migration of the FTA viewership.

These factors combine with the strong push from the government to migrate television viewers to any available digital platform including the commercial platforms of DStv, OpenView and StarSat. It is significant that community TV broadcasters are not accommodated at all on OpenView, and only two are present on StarSat. While DStv currently carries all of the geographic community channels, a fact which is vital to their survival in being able to reach a national audience, there is no compulsion on DStv to do so. Should the company decide not to carry any community channel it will be disastrous for that channel because it will lose a large proportion of its audience as well as the annual carriage

fee that DStv pays to these channels. MultiChoice has also provided CSI support for the community channels, a fact which has been vital for their sustainability.

We believe that there is a role for a structure such as DTCAG which could be combined with JSAG to monitor progress on digital broadcasting, coordinate the efforts of free-to-air broadcasters to survive in the digital environment and coordinate interactions between government in the form of the DCDT, Sentech and television broadcasters.

Alternatively, this role could be moved to the Steering Committee that was established by the DCTC to discuss strategic issues with regards to the BDM process which has not met in a long time.

Either way we need a structure that facilitates “bigger picture thinking” (as opposed to the a current piecemeal approach) that includes the following stakeholders:

- DCTC
- Sentech
- ICASA
- Community television
- The public broadcaster
- Private operators that are licensed in the public interest (currently eTV)

This should exclude any commercial operators that have little or no public service obligations and have hitherto exerted disproportionate influence over the interests of public interest TV.

Question 30

Are there notable successes or challenges in encouraging end-users to acquire set-top boxes and initiating digital television service consumption?

There have been significant challenges in enabling viewers to get STBs.

For indigent households that qualify for free STBs:

- The rollout of government-supplied STBs has been slow and uneven.
- Many of these STBs have proven to be faulty.
- Registration for the free STBs is inhibited by the closure of post offices in many areas, particularly rural areas.
- Transmitters are being switched off in areas where registration campaigns have not happened.
- The only way for television viewers to retain free-to-air viewing is to purchase an integrated digital TV set, which may be unaffordable for low-income households which don’t qualify for the subsidised STBs.
- The economic threshold specified for indigent households to qualify is R3,500 per month, but the legal definition of indigent households is R6,000 per month.

For those TV households that do not qualify for free STBs:

- There is a lack of STBs in the retail market – they are not available at all in major retailers and only some specialist electronics shops carry them.
- Many TV households are moving over to the commercial TV platforms of DStv, OpenView and StarSat. The costs of commercial platforms can be a financial barrier to uptake among low-income households that don't qualify for free DTT STBs and it also denies them access to community television stations that are not carried on some of the commercial platforms.
- Sentech does not market FreeVision DTH so there is very little public awareness about it. There is no way for consumers to purchase FreeVision decoders or SIM cards outside of very specialist electronics outlets.

Question 31

Do stakeholders perceive a continuing need for advisory groups like JSAG and DTCAG in the post-ASO landscape? Why or why not?

We believe that there is a role for such structures. We suggest that a single oversight body representing all FTA broadcasters be created. This body should be concerned with protecting FTA TV services in the digital era along the lines of a similar structure created in Australia for this purpose.The could include the functions of JSAG although we may need a separate structure like JSAG to discuss more detailed technical issues such as interference, which could reports to the oversight body.

Question 32

What specific functions or roles should such advisory groups undertake to support the evolving needs of DTT stakeholders?

Answer 32

A digital broadcasting oversight group would perform the following functions:

- Oversee or consult on the allocation of frequencies for digital transmission.
- Oversee or consult on the rollout of future digital multiplexes and bandwidth allocation.
- Ensure the implementation of a funding model for public interest content as proposed in the DTCAG Report.
- Explore a funding model for subsidised transmission costs of public benefit channels via USAASA.
- Coordinate the efforts of free-to-air broadcasters and particularly public benefit broadcasters to be sustainable in the digital environment.

Question 33

Are there identified gaps or challenges in the current regulatory framework that may necessitate the establishment of new advisory or coordination bodies post-ASO?

Yes. The feasibility of rolling out new multiplexes must be examined and any such efforts coordinated in terms of frequency assignments. The position of community broadcasters must be accounted for in the allocation of bandwidth on future multiplexes, along with the coverage areas they will serve and the business case for instituting such infrastructure.

It is also important to have a forum where broadcasters can come together with the Authority and the DCDT to discuss issues affecting the sector, particularly in the case of free-to-air broadcasters with regard to issues such as findability and any other issues which may affect the sustainability of the FTA sector in the digital broadcasting environment.

Question 34

What functions or responsibilities could these potential new bodies fulfil to enhance the efficiency of DTT operations?

- Ensure transparency and accountability
- Ensure implementation of policy and regulation
- Ensure that the recommendations set out in the DTCAG report are implemented
- Track progress of new technology and how these can be regulated in the public interest.

Question 35

How has the implementation of this DVBT-2 contributed to enhancing capacity, ruggedness and flexibility?

DVBT-2 is a fit-for-purpose technology, however it is surpassed by new broadcast technologies such as the ATSC 3.0 broadcast standard used in the USA. This standard is based on Internet Protocol (IP) and so promises to expand the potential for broadcast spectrum capacity to support new services beyond traditional over-the-air video in ways that will complement 5G networks.

These new offerings can be referred to collectively as “Broadcast Internet” services. Broadcasters will not only be better able to serve the information and entertainment needs of their communities but may also have the opportunity to help address the digital divide and support the proliferation of new, IP-based consumer applications.

Question 36

How are broadcasters and broadcast signal distributors taking advantage of Internet Protocol connectivity and wireless networks?

Broadcasters are mostly taking advantage of IP connectivity through the following mechanisms:

- Marketing and communications efforts such as websites and chat groups.
- OpenView is supplying an internet dongle to provide internet access to consumers.

- All channels are providing their content services via online streaming and VoD platforms.
- A significant weakness of the current broadcast technology is that it does not allow for IP-based communications and return-path connectivity between STBs or digital TVs and the broadcast headend. This means that a) broadcasters cannot get accurate statistics from viewers as to which channels and programmes they are watching and b) interactive services are not available.

Question 37

How does the introduction of DTT complement or differentiate itself in comparison to alternative delivery methods and what advantages does it offer?

Compared to analogue transmission, DTT offers viewers a better experience in terms of picture quality and channel variety. While it may offer some advantages over alternative digital delivery methods, it is not the most advanced broadcast standard as we explain under Answer 38 below.

In considering DTT as a method of AV distribution it is important to factor in the mechanism of DTH transmission. The latter is used to feed the terrestrial transmitter network and so it is essential to their operation in the various multiplexes. DTH transmission is very cost-effective compared to terrestrial transmission because it involves the hire of transponder capacity on a satellite instead of the hire of multiple terrestrial transmitters with variable power outputs and attendant costs.

Sentech's carriage of all of South Africa's FTA channels on DTT and its reach into areas of the country not covered by terrestrial masts is effected through its 'gap-filler' FreeVision DTH service. This platform currently carries all of the channels available on the DTT network because it is the feeder for this network. Consequently viewers with a DTH FreeVision reception can watch all of the FTA TV channels along with many private, religious channels and the SABC radio stations. This content offering is superior to that afforded by DTT which potentially makes it a preferred option to DTT.

Whether or not FreeVision can compete effectively with the other DTH platforms remains to be seen as Sentech makes no effort to market it, leaving it up to broadcasters to market only themselves on the platform. Nevertheless, the carriage of the public service channels including the SABC and the licensed community channels must be guaranteed on FreeVision. Furthermore these channels must be easily findable and so must be grouped together at the head of the channel list so that they are readily accessible to the public.

Question 38

In the context of next-generation DTTB systems, what are the anticipated enhancements in application-oriented technologies?

How can these advancements contribute to delivering superior services while addressing the challenge of information expansion through the convergence of the Internet and broadcasting?

We anticipate technological enhancements pertaining to improved broadcast standards beyond DVB-T2. New standards such as ATSC 3.0 incorporate Internet Protocol (IP) coding, and can bring about improvements such as allowing the use of progressive scan images, higher frequency frame rate, high-dynamic-range (HDR) colour, datacasting, mobile television and 4K UHD transmission. In addition it enables:

- The same UHF aerial can receive more channels with better quality.
- Portable devices such as mobile phones, tablets, and car infotainment systems can receive TV signals.
- Enhanced emergency alerts. Emergency signals can be geographically oriented and inform only the specific areas where they are required.
- Audience measurement. Telecommunication companies can easily take audience data gatherings.
- Targeted advertising with the assistance of local network Wi-Fi.
- Content variety and diversification.

The introduction of IP-based transmission services can include or encourage return-path capabilities in set-top boxes and internet-connected smart TV sets. The above information is not to suggest that South Africa migrate to ATSC 3.0, but to indicate how transmission standards are evolving and what advantages might be gained by investing in new standards in the future.

Another technology that can aid social and economic development in South Africa is datacasting, where multimedia information is embedded in the MPEG AV stream. Datacasting is used in countries such as the USA and Mexico for distance education. It relies on the technology being installed at the transmission head-end as well as reception equipment in the form of a set-top box installed at the viewer's premises. The technology can be used for delivering e-government and enhanced television services.

Question 39

What advantages do 5G technologies offer in terms of reducing barriers for live broadcasts and how can these technologies benefit remote production by traditional television broadcasters, potentially creating additional revenue streams?

We do not expect 5G technology to have any significant impact on community broadcasters in the short term, however this is something that can be explored in the future. While internet delivery of IP streams is already in use to deliver live feeds from remote sites to community TV stations, these are usually based on the availability of high-bandwidth fibre connections at the remote sites or multiplexing cellular services to provide wireless bandwidth. 5G may have a role to play in delivering IP streams from remote sites which are not connected with optic fibre cables, for instance sports matches, but 5G coverage is at present very limited geographically and only serves localised areas in the big cities.

It will take considerable infrastructure development to broaden the reach of 5G services within metropolitan areas and the application of this technology in rural areas will take many years to become a reality because of the infrastructure costs involved relative to population density.

At present 4G technology on cellphones can be used for small-scale remote contributions to community TV channels, for instance reporters in the field can report live from remote locations using a cellphone, or deliver short-form content to the station for editing or inclusion in pre-recorded programmes.

Since channel bonding (combining different cellular networks in a router) is an effective way of overcoming bandwidth limitations or network congestion, this technology is more likely to be of use to community channels for remote contributions than 5G in the near to medium term.

Question 40

Considering the active progress in implementing 5G networks by network providers, how might the introduction of the fifth generation of wireless networks reshape the landscape of content consumption, particularly beyond the scope of DVBT-2?

We do not see 5G technology as being likely to have an appreciable impact on content consumption for low- and middle-income households. 5G is an expensive technology in terms of establishing transmission infrastructure due to the need for a greater number of transmission sites as well as requiring 5G-enabled reception devices, which are expensive relative to 4G-enabled devices. Furthermore the delivery of AV content over 5G networks will require high bandwidth usage which will be costly in terms of data prices, unless public benefit content is zero-rated over cellular networks.

Another factor to consider is the small screen size of mobile devices, which are not as convenient to view long-form content as the screens of television sets and this inhibits the widespread use of these devices for television viewing.

As mentioned above, the rollout of 5G transmission infrastructure will be focused on the major urban areas and is unlikely to be accessible for small town and rural audiences for some considerable time to come.

Consequently we expect 5G technology in the broadcast context to:

- Appeal to higher income groups;
- Attract relatively small audiences;
- Be used mainly to watch live events of immediate interest such as sporting events or newscasts.

Question 41

How do 4G and 5G technologies contribute to the broadcast, multicast, and unicast of UHD television and what transformations can be expected in the television industry with the evolution towards XR and AR applications?

5G technologies will be more fitted to the distribution of UHD transmissions than 4G because it provides faster speeds, higher bandwidth and lower latency between devices and servers. However all of the technologies mentioned above - UHD, XR and AR applications are all relatively expensive and will not find widespread use among low- to middle-income individuals or households. Consequently they will be of little to no use for community broadcasters.

Question 42

Are there individuals that may face challenges in adopting DTT and how can these challenges be addressed?

Yes there are challenges in adopting DTT. The main challenges lie in the economics of migrating to Sentech's DTT and DTH platforms. It is relatively easy for consumers to acquire commercial services such as DStv, OpenView and StarSat, but the cost of these platforms, together with the fact that some community channels are not carried on StarSat and none on OpenView, are inhibiting factors.

With regard to the Sentech platforms, it is very difficult for consumers to find DTT or DTH STBs in the retail market. Sentech does not market its FreeVision DTH service so it is relatively unknown by the public and even if people do know about it they will be unlikely to find a FreeVision decoder except through specialist retailers such as Space TV, located in the major cities. The same is true for DTT decoders, so the only practical means for people to get DTT services is by purchasing an IDTV set and these may be prohibitively expensive for low-income households which do not qualify for the government-supplied STBs.

As we have mentioned above, the rollout of government-supplied STBs has been beset by problems including lack of access to post-offices for registration purposes, inefficiencies in post-office registration, the absence of an online registration mechanism, poor quality and technical failure of installed STBs, very long delays between registration and delivery of government STBs, and lack of trust in DTT due to repeatedly postponed switch-off dates.

These challenges can be addressed through:

- Strong marketing campaigns to convince viewers that DTT should be their preferred choice of platform. However this will be inhibited by the fact that the coverage of multiplexes other than Mux 1 are more geographically limited, so those opting for DTT in areas not covered by Mux 2 and 3 will receive fewer content channels.
- The marketing campaigns should be driven by both free-to-air broadcasters and Sentech.
- The supply of robust DTT decoders in the retail market.

- A prohibition by the Department of Trade and Industry on the import of analogue television sets into South Africa.

We note that Sentech and the DCDT have switched to providing DTH kits instead of DTT decoders to the indigent households. This indicates that DTH is a more viable option for consumers than DTT because it provides more content channels.

The only practical path to growth in the market is for consumers to purchase IDTV sets; however many consumers are opting for internet-connected Android boxes and 'smart' TV sets which offer many more channels than DTT.

Question 43

How can DTT services be made more accessible and inclusive for diverse user groups, including those in rural areas or with limited technological access?

Given the numerous challenges with regards to the roll-out of STBs to indigent households we believe it is necessary to extend the dual illumination period and allow FTA TV to continue to broadcast on analogue below 694 Mhz (which is, in any case, *reserved for broadcasting services*) until:

- There is clarity on the deployment of any additional Muxes (transparency and accountability).
- Conditions on the ground are met including the achievement of an agreed threshold in terms of STB roll-out to indigent households and the marketing and availability of DTH kits in the retail market.

It is NOT unheard of to extend analogue transmission in the national interest. One has to look no further than our nearest neighbour, Namibia, where analogue transmission has been retained in the far north, rural area of the country for the same reasons - to protect citizens' right to access information and freedom of expression.

During this time we need to extend the Awareness Campaign currently being undertaken by community and public broadcasters including effective coordination "on the ground" between the awareness campaign, online registrations (which is still not enabled) and installations leading up to the switch-off - which is currently not happening.

In addition, Sentech should look into the possibility of DTT streams being injected into community wi-fi networks using a device such as a Raspberry Pi mini-computer with a TV Hat attachment for receiving the DTT signal. The stream can then be viewed on any connected device without using any internet connection. A similar strategy can be employed by institutions such as schools or hospitals. This is a low-cost, low-tech solution which can be easily instituted with minimal support from Sentech.

Question 44

In the context of digital broadcasting, what strategies can be employed to minimise delays in signal transmission, especially in rural areas, and ensure a seamless and uninterrupted viewing experience for the public?

We have no comment on this question.

Question 45

How can stakeholders collaborate to address challenges related to upgrading existing analogue transmission towers for digital signals and what measures can be taken to assist consumers in obtaining and installing new antennas for digital transmissions?

Regarding the upgrade of transmission towers, this is a specialist service which must be undertaken by Sentech.

Regarding measures to assist consumers, there may be shortages in the availability of UHF aerials as many electronics and TV suppliers do not stock them and only stock satellite dishes.

The availability of Sentech installers in all areas should be publicised so that people are aware of them and know how to contact them.

FreeVision-enabled STBs must be widely available in the retail market and Sentech must market the platform extensively to raise public awareness of it.

Question 46

What measures should be in place to ensure a smooth and efficient integration, especially when signals come from different broadcasters?

It is not clear what this point refers to.

Question 47

Stakeholders are requested to comment on the repurposing of a portion of the digital spectrum for alternative uses, including for mobile broadband services post-ASO.

We believe that any intervention that enhances internet connectivity for the population will help to enhance economic and social development. Since such an allocation is unlikely to interfere with television transmission services, we have no objection to it, provided that sufficient bandwidth is allocated strictly for the use of traditional, public interest FTA broadcasters.

Should spectrum that is currently reserved for broadcasting be released to the telcos, this should come with stringent conditions including the payment of a levy to USAASA which can

be used to subsidise the transmission costs of DTT and DTH for public interest television. This existing levy is currently set at 1 % but this may need to be increased. We propose that ICASA conduct an enquiry on signal distribution costs and that the findings of this Enquiry be used to determine the levy imposed on Telcos who benefit from the release of spectrum.

Question 48

How has the adoption of STBs facilitated the reception of DTT services on existing television sets, especially in terms of accessibility and affordability for consumers, particularly those in poor households?

The adoption of STBs is necessary particularly for low-income households which can't afford to purchase a new IDTV set or a commercial DTH service. We have alluded to problems with the roll-out of subsidised STBs in our answer to Question 30 above, which inhibit this uptake.

We note that STBs are not widely available in the retail market so the only practical means for most of South Africa's population will be to either purchase an IDTV set or to opt for one of the commercial DTH platforms. Both of these options present problems with regard to affordability and access to public benefit community channels.

Question 49

In understanding the costs of the transition to digital broadcasting and its implications for various stakeholders post-ASO, what key factors should the Authority consider when developing post-ASO regulations?

The cost of digital broadcasting on DTT Multiplex 1 where space is allocated for community TV channels is impossible for these organisations to meet. In the analogue environment, community TV stations typically hire only one transmitter from Sentech, which is usually relatively low-power and fees are calculated accordingly. In the digital environment a multiplex consists of many transmitters and in the case of Multiplex 1, the transmitters are arranged in a single frequency network (SFN) which forces channels to be available on all of the transmitters in that network. This arrangement vastly increases the costs of transmission for community broadcasters, as we have outlined in our responses above.

Presently community TV channels do not pay Sentech anything for carriage on the DTT network. The channels have reached an agreement with Sentech whereby the latter defers payment for such carriage until such time as a solution to this problem has been arrived at, at a policy level.

Possible solutions for this impasse include:

- In order to protect public interest television in the digital landscape we are proposing that USAASA subsidise the transmission costs of public interest television services out of the funds it receives from a percentage of profits from the telcos. This is in line with USAASA's mandate to provide universal service and access to ICTs including broadcasting services that are licensed in the public interest.

- This would allow Sentech to permanently waive transmission costs for both the SABC and the community TV channels on Multiplex 1, or charge a nominal fee.
- A statutory mechanism to support the fees is established; for example if some sort of tax is incepted to support public service broadcasting by the SABC, that community TV channels be included in this as beneficiaries with the specific objective of covering transmission costs.
- In the seven-mux plan, a local mux is set up in metropolitan areas for use by community TV stations. In this scenario the factor of paying for multiple transmitters must still be addressed, which would probably necessitate some sort of subsidy.
- We are proposing a 3 mux plan which frees-up spectrum which can be sold to the telcos and in turn can pay for the transmission cost on DTT through a USAASA subsidy.

We propose that ICASA institute a review of the tariffs that Sentech is charging FTA broadcasters on DTT/DTH.

We further propose that the Authority review the National Frequency Plan and the single-frequency network architecture to see if there is an alternative architecture that will serve the interests of the community TV channels.

Question 50

What timeline would be appropriate for the imposition of new regulations governing DTT post-ASO and what factors should be considered in determining this timeline?

We believe that the date for the ASO should be pushed back until a threshold of 80 % of indigent households has been reached. This is due to delays in rolling out DTT STBs to indigent households and the lack of availability of DTT or DTH STBs in retail for non-subsidised households. Furthermore the current legal definition of indigent households according to StatsSA of R6 500 combined household income should be adhered to.

It is noteworthy that other countries such as Namibia have retained some analogue transmissions despite the country as a whole having moved to digital transmissions. The Namibian Broadcasting Corporation (NBC) has retained some analogue transmitters in the far north of the country to reach rural populations who have scant means to migrate to digital reception.

Since the ASO is set for the end of December 2024 it is vital that new regulations be promulgated as soon as possible in order to avoid broadcasters being forced to continue operating in the environment of regulatory uncertainty. It is notable that community broadcasters have been raising the issues which confront them in the digital environment for many years now, but these have not been addressed. The AAAVCS policy process is far from finalised and the current DTT regulations do not address these issues - consequently the current regulatory framework does not adequately cater for community TV broadcasting.

We believe that new DTT regulations should address the problems faced by community broadcasters and so should be promulgated before the end of 2024.

Question 51

What should be the overarching purpose of the revised regulations in the post-digital migration environment?

The overarching purpose of revised regulations should be to support the existence of three tiers of broadcasting in South Africa, namely public service, commercial and community.

Transparency about the roll-out of the seven-mux plan along with details of the muxes should be included in the regulations. Such details would include frequency allocation, the nature of RF licences to be issued to broadcasters, bandwidth allocations, bit rates, and the timing of the inception of each new multiplex.

The regulations must make adequate provision for the sustainability of public service broadcasting, which includes community broadcasting. They must ensure that the public has access to these services and that distribution costs are affordable to public service broadcasters.

Question 52

How can the new regulatory purpose best support the evolving needs and dynamics of the digital broadcasting landscape?

The regulations must set the conditions under which community television is conveyed to the South African public in a way which is both accessible to all (universal access) and affordable for broadcasters.

A Digital Broadcasting Steering Committee should be established to take over the roles previously fulfilled in the BDM by JSAG, DCTAG and the Ministerial steering committee. All free-to-air broadcasters should be represented on this committee, along with representatives from Sentech and the DCDT. This committee should meet on a regular basis, e.g. quarterly, to address ‘bigger picture’ strategic questions, to address any problems that may arise and make recommendations to the authorities based on the evolving needs and dynamics of the digital broadcasting landscape.

The needs of community TV can be summed up as follows:

1) As the country moves towards the analogue signal switch-off (ASO) on 31 December 2024, it has become increasingly evident that the community television stations licensed by ICASA are facing challenges in the transition to the digital environment. Despite the impending analogue switch-off, community TV channels have not been provided with a clear pathway or affordable infrastructure to continue their operations in the new digital environment.

2) We are concerned that our current licensing processes are taking place in an environment of policy uncertainty. The previous licensing regimen was developed for the analogue broadcasting environment and does not fit the digital environment. Previously community stations were licensed as local television stations serving a municipal area, but in the digital environment the single frequency network architecture of the multiplexes, particularly Multiplex 1 on which the community stations are carried, necessitates that community TV stations become regional or provincial broadcasters. Consequently we have to hire many transmitters from Sentech, which pushes our transmission costs up to unaffordable levels.

3) The carriage of community TV channels on private, commercial DTH platforms is essential for all television viewers to be able to receive public benefit content, as well as for the survival of these channels. At present these channels are carried on DStv. However this carriage is not guaranteed and continues at the sole discretion of MultiChoice. StarSat carries some community channels and OpenView does not carry any community channels at all. Consequently we believe that 'must-carry, must pay' regulations be put in place on all commercial DTH platforms to ensure full public access to community channels.

4) In the online environment, we wish to encourage ICASA to amend its regulations regarding the zero-rating of content on public benefit websites to specifically include online community television streaming and VoD platforms. The reason for this is that the current regulations[1] impose restrictions of bandwidth and picture quality that will exclude community TV video content streaming and VoD assets from zero-rating, and in so doing will make it inaccessible for low-income households that cannot afford the high data costs that are a hallmark of the South African online environment.

5) With the ASO scheduled for the end of December this year, the community broadcasters stand to lose a considerable portion of their audiences if they have not been able to migrate to digital TV platforms or if they opt for OpenView which doesn't carry community channels. Television audiences, particularly those from low-income households, must be able to access community TV content online at no cost.

6) Most of the community TV channels are available on Sentech's Freevisionplay OTT platform. We believe it is in the interests of all FTA broadcasters to be hosted on Freevisionplay on a non-exclusive basis. In addition to zero rating, we believe that driving our collective audiences to this platform will give us a competitive advantage over the big streamers and go a long way to ensuring our survival. This means that the SABC should be compelled to provide its content on the Freevisionplay platform and not to concentrate exclusively on its SABC+ platform.

7) Consequent to the above, we are requesting that ICASA look into the following matters:

[1] Notice outlining the process for submitting applications for the mobile content to be zero rated. Government Gazette no. 50612, 2 May 2024.

a) The commercialization of the Sentech Freevision DTH platform which should be regulated in the public interest.
b) Review the tariffs that Sentech is charging FTA broadcasters on DTT/DTH.
c) A review of the National Frequency Plan and the single-frequency network architecture.
d) Provide transparency around the rollout of the seven-multiplex plan.
e) The institution of ‘must-carry, must pay’ arrangements for all licensed community TV stations on commercial DTH platforms.
f) Zero-rating of the online content offerings of public interest, free-to-air TV stations by telcos and ISPs.
g) A cross-subsidization model to cover transmissions costs (universal service and access) from telecommunications operators who benefit from the reallocation of spectrum earmarked for broadcasting.