

## DIGITAL TELEVISION: ANALOGUE SWITCH-OFF PROCESS PROPOSED APPROACH

---

### **Background: What is Analogue Switch-off?**

1. Analogue switch-off (ASO) refers to the termination of analogue television transmissions, usually following a period of simultaneous broadcasting in both analogue and digital formats. The transition is required in order to allow time for households to either convert their analogue sets with a set-top box (STB) or replace their television set with an integrated digital receiver.
  2. At ASO, the radio spectrum being used to broadcast analogue signals is freed up, and becomes available for other uses. In New Zealand, free-to-air broadcasting by TVNZ and CanWest primarily uses the VHF band. Digital terrestrial television will be provided within the UHF band, which is currently also used for some free-to-air television services (such as Māori Television, Prime and local stations) and for SKY's UHF analogue service.
  3. A 2006 cost-benefit study by Spectrum Strategy Consultants of the launch and transition to free-to-air digital television in New Zealand estimated there would be a net benefit of approximately \$230 million in making such a transition, provided ASO occurs by 2015.
  4. The government has therefore determined that the achievement of ASO is in the national interest, and is an objective for the launch of and transition to free-to-air digital television.
  5. In December 2006, a discussion paper on ASO issues was published and a consultation process with industry stakeholders was undertaken. The aim was to identify options for the approach New Zealand might adopt to manage the transition to free-to-air digital television, and the eventual switch-off of analogue transmission.
  6. The discussion paper was posted on the Ministry for Culture and Heritage's website, and mailed to a range of industry stakeholders (broadcasters, transmission companies, industry bodies, funding agencies, telecommunications companies, importers, retailers, installers and representatives of consumer interests). The deadline for submissions was 16 February, and meetings with key stakeholders were held both before and after that date. In total, 17 submissions were received. These included ten broadcasters (TVNZ, CanWest, Māori Television and Radio New Zealand, which were all associated with the Freeview submission, along with SKY, Triangle Television, Family Television Waikato, Family Television Warkworth, and Taranaki Television), Kordia, Telecom, SPADA, the Screen Council, the Radio Broadcasters' Association, NZ On Air, Ministry of Consumer Affairs, Hook Technologies, ASoft and Orcon. The submissions have been posted on the Ministry for Culture and Heritage's website, along with a document summarising the responses to each question in the discussion paper.
  7. On the basis of the responses received, the Ministers of Broadcasting and Communications have approved in-principle the approach set out in this paper. Wherever possible, this reflects the majority view of submitters.
-

## **Proposed Approach**

### ***(a) Coordinating ASO***

8. In common with some other countries adopting a consensus approach to ASO, it is proposed that an industry/government body will be established in mid-2008 (six months following the terrestrial platform (DTT) launch) to coordinate ASO. The role of the group would be to:

- seek consensus agreement on proposed ASO dates;
- develop a detailed process to be followed to achieve ASO (e.g. a trial switch-off in one region, developing a plan for a progressive switch-off);
- monitor take-up of digital television;
- technical coordination;
- consult and liaise with key stakeholders, including the supply chain, to ensure all are well prepared (e.g. for an increase in demand for conversion equipment and installation);
- develop and manage a public information campaign;
- provide targeted information and advice to special interest groups such as public institutions in the health, education, justice and related sectors, the elderly and disabled, and advising government in the event that development of a social equity policy is judged necessary;
- deal with ASO-related issues such as liaison with local government, and monitoring/making submissions on regulation or legislation with implications for digital conversion such as building codes and rules for multiple dwelling units.

9. The proposed body would be an interface between the government, industry stakeholders and the public. Representatives on the group could include government, broadcasters, infrastructure providers, consumer interests, importers, installers and retailers. If some of these groups were not directly represented on the steering group, it would be required to set up appropriate and functional consultation mechanisms to ensure their interests were taken into account. Further consultation will take place on the structure, accountability and funding arrangements for the proposed steering group.

### ***(b) Setting a Switch-off Date***

10. Free-to-air digital television (DTV) needs to establish itself, and time is needed to assess take-up rates and the public response to DTV. An initial target date (or range) for ASO will therefore only be announced once total DTV penetration reaches around 60%. Following this, a firm date will be set once penetration reaches around 75%, or in 2012 – whichever is first. These threshold levels will be confirmed by the proposed steering group.

11. In the UK, a household penetration threshold of 95% was set with the intention that ASO would not occur before this target had been reached. The risk of this is that ASO becomes a “moving target”. Once DTV take-up reaches the 75% threshold, the information collated by the steering group on take-up rates will therefore be used to forecast when a minimum 90% take-up level is likely to be achieved. This calculation will be used to establish the firm date for ASO.

12. Digital TV take-up will be measured on the basis of television set-owning households having the capability to access a digital TV signal – i.e. at least one digital receiver or decoder box per household. The definition of a DTV signal will encompass free-to-air and conditional access (pay TV) digital platforms, and all transmission mechanisms on offer in New Zealand (satellite, terrestrial, cable, broadband). There is potential for the package of

services on different delivery mechanisms to vary, and viewers will need to take this into account before selecting their preference.

### ***(c) Consumer Interests***

13. Industry participants will be encouraged to ensure the options available to consumers fulfil the following objectives:

- Affordability: a range of conversion equipment is available, including at an affordable price for the majority of households, and pricing trends decrease, such that DTV take-up is encouraged rather than discouraged;
- Availability: the hybrid satellite (DTH) and DTT platform is rolled out, providing a DTV option for all New Zealanders; and
- Accessibility: there is accurate and clear information (e.g. on DTV compatibility) to guide consumer purchases, and installation can either be achieved by the consumer or is readily available.

14. Industry stakeholders will be encouraged to cooperate to ensure the highest achievable level of interoperability. In addition, the proposed steering group could explore the option of developing and coordinating a “digital tick” system, to ensure consumers could be confident of the compatibility and functionality of equipment offered for sale. The extent to which such a neutral and independent system might be justified over and above the certification procedure being managed by FreeView would need to be considered.

### ***(d) Monitoring Progress***

15. The proposed steering group should set up a system of information supply from pay TV broadcasters, retailers and installers to measure the number of households with access to DTV. The system should seek to obtain information from the consumer about whether a decoder or digital receiver purchase was for an initial conversion or for additional TV sets. The steering group would also need to establish relationships with emerging providers of DTV (e.g. via broadband) to the extent these were not captured, for monitoring purposes, by partnerships with traditional broadcasters involving the sale of hybrid decoders.

16. Independent and accurate verification of take-up rates could be achieved by the inclusion of a specific question in the 2011 Census. Results would be available in 2012, consistent with the intention to set a firm ASO date by that time, if not earlier.

### ***(e) Achieving ASO: Extent***

17. Consistent application of ASO is important to avoid consumer confusion, and to enable better band-planning to suit the digital environment. ASO will therefore apply to all providers of free-to-air analogue television services, regardless of whether these are currently transmitted within the VHF or UHF bands. This includes TVNZ, CanWest, Prime, Māori Television, local and regional broadcasters, and any potential new entrants to the market – whether or not their channels are being simulcast in digital format in advance of ASO.

18. The future of SKY’s analogue UHF service is considered by most respondents to be a commercial matter for resolution between the pay TV provider and Kordia.

### ***(f) Achieving ASO: Process***

19. ASO can be achieved either by means of a single date applying across the country, or by means of a staged roll-out. The key benefit of a single date is that viewer confusion is minimised. A progressive roll-out, however, allows those managing the process to learn from experience, and could make equipment supplies and installations easier to manage.

20. Unlike some other countries, such as the UK, New Zealand will not have to manage the process by switching off some analogue signals in order to extend the roll-out of DTT coverage. The commitment to a hybrid satellite/terrestrial platform ensures there will be a digital TV option for all New Zealanders. New Zealand is a small country in population terms, although its topography results in a high number of analogue transmission sites.

21. New Zealand will therefore adopt either a “big bang” ASO, with switch-off applying across the country on a single date, or a progressive roll-out by region over a relatively short timeframe (no more than one year). A trial ASO will be run in a small area to test out practicalities, the provision of consumer information, supply and other issues. The final decision on whether ASO should be achieved on a single date or progressively over a limited time period will be made by consensus, via the proposed steering group, with a recommendation to government. If a progressive ASO is chosen, the steering group will determine the regions and timetable to be followed, by consensus amongst key stakeholders. Some transmission sites might well be switched off by broadcasters in advance of ASO if their particular circumstances justify such action.

### ***(g) Spectrum Licensing Issues***

22. In order to plan for ASO, it is proposed that no new nation-wide sets of licences will be allocated for analogue television transmission from now onwards (this is consistent with Cabinet’s decision (POL Min (06) 8/7) not to issue any further *digital* licences for the time being, except for the extension of DTT roll-out for the current three multiplexes).

23. It is also proposed that any individual analogue licences issued subsequent to the changes necessitated by UHF DTT frequency planning (expected to be completed before mid-2007) will include a provision that the licence will be valid only until ASO, and will then be returned to the Crown without recompense.

24. Further work will now be done in consultation with right-holders to clarify the policies to apply to those analogue UHF licences, to be renewed from 2010 to 2020, which will be affected by ASO. This will take into account Cabinet’s 2006 decision (POL Min (06) 22/4) that “analogue licences used to simulcast free-to-air services being carried on the DTT licences [allocated to TVNZ, CanWest and Kordia] will be cancelled, without recompense, at ASO”, as well as the 2003 Cabinet decision that gives right-holders the option of converting analogue licences to digital.

### ***(h) Regional and Local Broadcasters***

25. Regional and local broadcasters are a mix of self-supporting commercial services and those with non-commercial licences. Their programme schedules vary, and a number have been allocated NZ On Air funding. The government has recognised that an implication of ASO applying to all free-to-air analogue services is that regional broadcasters will need to make the transition to digital by or at the ASO date. The Cabinet decisions of May 2006 reserved the right to apply a “must carry” provision to DTT multiplex-holders in respect of local and regional television services. Such a provision would not be activated, however, until further consultation with interested parties has been held to identify a cost-effective option for achieving the transition to DTV, and unless no viable alternatives to “must carry” can be found.

26. The costs associated with simulcasting in digital format are likely to be beyond the means of most, if not all, local broadcasters. No further government decisions have been taken to support regional and local broadcasters to make the transition to DTV, however. In undertaking further consultation with broadcasters and other interested parties, the following principles and approaches will be applied:

- The applicability to local and regional broadcasters of government's policy objectives in relation to DTV and public broadcasting will be assessed (with providers categorised in accordance with the stated objectives);
- Government assistance, if any, is most unlikely to be provided for a lengthy period of simulcast, as simulcast creates a significant financial burden. The timeframe for any simulcast period would need to balance total costs against benefits that might be derived from local broadcasters being simulcast (e.g. in terms of DTV take-up);
- The option of setting up a dedicated transmission service for local and regional broadcasters could be considered at the time a firm ASO date is announced (i.e. at around 75% DTV penetration, or 2012, whichever is earlier);
- Transmission and platform providers will be encouraged to participate in discussions on options for better localising services and reducing costs for regional broadcasters.
- The regional broadcasters have indicated they are exploring the possibility of a joint approach to a digital regional service.
- The development of Internet Protocol TV services will also be monitored since, depending on their regional coverage, these could be a cost-effective and locally-focused alternative to either DTT or DTH for regional broadcasters after ASO.

### ***(i) Public Information***

27. The provision of clear, accurate and independent public information is considered to be highly important to successful management of ASO. A public information campaign would underline the firm intention to transition to DTV, and would give consumers the confidence to proceed with the conversion of their reception equipment.

28. The experience in markets such as the UK and Australia has been that, even with broadcaster promotion, consumer awareness of the implications of ASO has remained low long after the launch of DTV. The proposed steering group would therefore fulfil a consumer advice role independent of broadcasters, and would be responsible for the development, management and implementation of a comprehensive and targeted public information campaign.

### **Conclusion and Next Steps**

29. On the basis of the stakeholder consultation on ASO concluded in March 2007, the Ministers of Broadcasting and Communications have agreed that the in-principle approach set out in this paper will guide New Zealand's transition to DTV and analogue switch-off.

30. Officials from the Ministry for Culture and Heritage and the Ministry of Economic Development will now consult further with industry and consumer stakeholders to refine options for the structure, composition, terms of reference, funding and timing for the proposed digital steering group. At the same time, policy analysis of the issues relating to spectrum licensing at ASO will be undertaken by officials. A report back to Cabinet with specific recommendations is then planned for the second half of 2007.

31. Finally, officials will begin a preliminary programme of discussions with the wider government sector and with local government to explain ASO and the implications for different sectors. They will also facilitate further discussions with interested parties to identify options for the eventual transition of regional broadcasters to DTV.

32. The emphasis in New Zealand will be on effective coordination, on-going public education, a strong and diverse content offering, accurate and "user-friendly" information, and the encouragement of a variety of strong "pull" factors to incentivise consumer take-up.