

Appendices 1 & 2 attached

Office of the Minister of Broadcasting
Office of the Minister of Finance
Office of the Minister of State Owned Enterprises
Office of the Minister of Māori Affairs
Office of the Minister of Communications

Chair
Cabinet Policy Committee

DIGITAL TELEVISION: PLATFORM AND SPECTRUM (Paper 2)

Purpose

1. This paper is the second in a set of three papers for consideration by the Cabinet Policy Committee. It seeks a set of first-tier decisions to support the establishment of free-to-air digital television using a combination of satellite and terrestrial transmission, in response to proposals submitted by free-to-air broadcasters for a FreeView digital television platform.

Executive Summary

2. As noted in paper 1, FreeView proposes to operate as an open-access, non-profit, shared platform for the broadcast of free-to-air television services via both satellite (DTH – direct-to-home), with comprehensive national coverage, and digital terrestrial transmission (DTT), providing 75 per cent coverage initially. FreeView has undertaken to invest in services on DTH independently, but has requested support from government to proceed with the DTT element of a hybrid system. A hybrid DTH/DTT transmission system appears the optimal choice for launching a free-to-air service, as it would support better viewer take-up, allowing an earlier analogue switch-off (ASO) date, resulting in cost reductions and the ultimate release of greater net national benefits. A commitment to the terrestrial component is unlikely to be secured without government support.

3. As prefigured in paper one, it is proposed that Cabinet agree in principle to a package enabling implementation of an open and transparent hybrid DTH/DTT platform, with the following components:

- Access to DTT spectrum without resource charges on the basis of a contract with licence-holders determining conditions of licence allocation; and
- Funding of up to \$5 million per annum for five years towards simulcast transmission (of existing channels in both analogue and digital, and platform costs).

An approach to spectrum allocation, and options for platform funding, are addressed in detail in this paper and recommendations are made.

4. A further phase of engagement with the broadcasters will need to follow the decisions sought in this paper. It is proposed that officials negotiate terms and conditions with FreeView and other relevant parties, within the parameters set out in this paper, and that the Minister of Broadcasting, upon satisfactory conclusion of negotiations, prepare an out-of-budget bid for an appropriation as required.

Background

5. As noted in paper 1, Cabinet took several preliminary decisions relating to platform and spectrum matters in 2003 (EDC Min (03) 19/4; 19/5; 19/6). Particular decisions are noted as relevant in this present paper. Cabinet agreed at that time that the development of digital television services ‘would be assisted by the establishment of a digital TV industry group’. It invited the Minister of Broadcasting and the Associate Minister of Communications to liaise with the broadcasting industry

regarding the development of such a group. Following initial discussions between the New Zealand Television Broadcasters Council and government on spectrum issues, the free-to-air broadcasters developed the proposal for a joint free-to-air platform (FreeView), the funding and spectrum requirements for which are the principal subject of this paper. The FreeView group of broadcasters then proceeded to engage with other parts of the industry, including Broadcast Communications Limited (BCL – the state-owned enterprise responsible for transmission), manufacturers, installers and retailers. The group remained in frequent contact with government officials during this process.

FreeView Platform Proposal

6. FreeView proposes to broadcast services via both DTH (offering near universal coverage), and DTT (providing 75 per cent coverage initially). FreeView favours a hybrid system because the benefits this is projected to provide (by the cost–benefit report summarised in paper 1 and FreeView’s own research), in terms of platform take-up, audience share, and the timing of ASO, are greater than would be provided by either DTT or DTH alone. The hybrid platform would offer common core programmes, but with potential diversity in new services between platforms.

7. The need to exercise the option to use capacity on the new OPTUS D1 satellite to be launched later in 2006 will result in the FreeView broadcasters beginning transmission via satellite. An agreement whereby BCL will lease satellite space to TVNZ, CanWest and other broadcasters was recently announced. FreeView proposes to launch FreeView services on DTH, possibly by the end of 2006, [Text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]

8. FreeView broadcasters consider that the extra costs of a hybrid system are such that the free-to-air broadcasters are unable to proceed with the DTT element without government assistance. (Exhibit 1 in Appendix 1 to this paper shows the total cost of the proposed hybrid transmission platform.) In the business case submitted to government, FreeView estimates that the total cost of the FreeView platform (including simulcast of existing analogue services), transmitting on DTH to the whole country and DTT to 75 per cent of the population, [text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]

The amount includes an estimated opportunity cost to FreeView broadcasters of [Text withheld OIA 9(2)(b)(ii) and 9(2)(ba)(i)] for on-air brand promotion.¹ Officials have examined FreeView’s business case, and are comfortable that the assumptions are broadly reasonable.

9. FreeView has requested the following contribution from government to enable it to proceed with the DTT element of a hybrid DTH/DTT platform operating on an open and not-for-profit basis:

- free spectrum sufficient for three ‘multiplexes’ (groupings of channels carried in a single transmission, exploiting the greater capacity of digital), comprising one set of licences each to TVNZ, CanWest, and BCL² – involving an opportunity cost to government of an estimated \$3–8 million;
- waivers for analogue spectrum licence fees and resource charges until analogue switch-off (ASO) – at \$1.35 million per annum; and
- platform funding for FreeView of \$4.7 million per year for five years, to cover the simulcast transmission and multiplexing costs equivalent to one DTT multiplex, plus all electronic programme guide (EPG) costs (for both satellite and terrestrial).

In summary, FreeView proposes to meet approximately [s9(2)(b)(ii)] per cent of the total costs of the platform, while requesting government support for the remaining approximately [s9(2)(b)(ii)] per cent, taken over a 5-year period (using un-discounted amounts). Exhibit 1 in Appendix 1 to this paper

¹ The cost–benefit report discounted this cost to \$12 million.

² For carriage of non-multiplex-holding free-to-air broadcasters, e.g. [text withheld under OIA section 9(2)(b)(ii)]

shows the total cost of the proposed hybrid transmission platform, and the support requested from government.

TVNZ and BCL Business Cases

10. TVNZ’s business case sets out the rationale for digital television and the preferred hybrid option, [Text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i), 9(2)(g)(i) and 9(2)(f)(iv)] BCL’s

business case sets out sound principles for the operation of the DTT network,

[Text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i), 9(2)(g)(i) and 9(2)(f)(iv)]

(Appendix 2 to this paper contains commentary from CCMAU on the TVNZ and BCL business cases.)

Recommended Government Response

Transmission Platform Mix

11. As noted in more detail in paper 1, an independent cost–benefit report has found not only that there is a net economic benefit to New Zealand of achieving the transition to digital television, but that the ability of free-to-air television to retain a mass audience depends on it. Given that FreeView proposes to operate a platform using both satellite and terrestrial transmission, and seeks government support to enable it to proceed with the latter, the question arises as to the optimal transmission mix for a transition to free-to-air digital television, in order to maximise the net national benefit.

12. Broadcasters need to launch digital services with technology that is both currently available and likely to have a useful life as an affordable means of reaching a mass audience. Consultation undertaken with stakeholders during preparation of the cost–benefit report indicates that the establishment of FreeView is likely to be a factor encouraging the development of broadband infrastructure and internet protocol television (IPTV) services via telecommunications networks, because of the availability of new digital services and the possibility of integrated DTH/IPTV or DTT/IPTV set-top boxes (STBs). IPTV is likely to be launched in the near future, but is projected to attain only a 19 per cent penetration of households by 2025, and will involve ongoing subscription costs for consumers rather than a one-off cost for reception equipment. For these reasons, FreeView does not propose to provide IPTV services at launch but would expect services to be available via multiple distribution methods, including IPTV, in due course. TelstraClear cable TV services are available in Wellington and Christchurch, but are unlikely to be introduced in other centres. These also involve ongoing subscription costs for consumers.

13. The realistic options for free-to-air digital television therefore comprise DTH-only, DTT-only, and a hybrid of both DTH and DTT. The advantages and disadvantages of platform mix, from a government perspective, are summarised in the following table:

	ADVANTAGES	DISADVANTAGES
DTT only	<ul style="list-style-type: none"> • DTT estimated to be at least 25 per cent cheaper than DTH for households to convert • Opportunity to deliver local and regional TV services • Uses existing sites and infrastructure (maintaining opportunities for other applications such as mobile broadcasting) • Important for BCL’s long-term viability • Greater capacity than DTH (more room for 	<ul style="list-style-type: none"> • Prohibitively expensive to provide near-universal coverage • Difficult therefore to achieve ASO, as in the absence of DTT extension, a significant percentage of the population could access free-to-air services only through pay TV platforms

	growth in UHF spectrum than space available on satellite (especially if MPEG 4 technology allowing higher compression of data is used)	
DTH only	<ul style="list-style-type: none"> • Provides comprehensive national coverage • Does not require use of any UHF or VHF spectrum, which may be utilised for other services such as broadband • Will occur without government involvement • Potentially accessible by 40 per cent of households currently with SKY dish (but may need a FreeView STB purchase) • Redundant capacity could provide for regional (advertising) capacity 	<ul style="list-style-type: none"> • More expensive than DTT for households to convert • Extra capacity is necessary to provide regional breakouts, but not suited to local broadcasting • Slowest and lowest projected take-up, latest ASO, & lowest net national benefit • Reception quality susceptible to atmospheric interference (e.g. rain fade) • Risk of catastrophic failure – low, but significant impact • Requires redundant capacity as safeguard against risk of failure post-ASO • Satellite foreign owned and controlled, with pay TV provider SKY as cornerstone tenant³
DTT/DTH hybrid	<ul style="list-style-type: none"> • Digital option for all households, with choice available according to circumstances • Provides comprehensive national coverage • Opportunity to deliver local and regional TV services • Mitigates cons and risks of DTT-only and DTH-only • Fastest and greater projected take-up, earliest ASO, & greatest net public benefit • Important for BCL's long-term viability • Uses existing sites and infrastructure • Extremely low risk of total system failure 	<ul style="list-style-type: none"> • Uses more spectrum than DTH-only • Duplicates some transmission, multiplexing and other costs • Likely later launch of DTT element may complicate marketing

14. The cost–benefit report concludes that, as indicated in the above table, a hybrid DTH/DTT system is the optimal choice for launching free-to-air services. The determining factor in platform choice is the extent to which the platform mix allows an earlier analogue switch-off date, the resulting cost reductions and the release of associated benefits. While there is little difference between platforms in terms of the net benefits if ASO occurs in a given year (e.g. 2015), the likelihood that this can be achieved is not neutral with respect to platform mix. The market analysis contained in the cost–benefit report projects that a hybrid system will maximise the speed and extent of consumer take-up and enable ASO to occur earlier than in either DTH-only or DTT-only scenarios. While the report necessarily depends on market forecasting and assumptions, the sensitivity analysis suggests that an earlier ASO would have a significant impact on the net national benefit that could be achieved. (Exhibits 2, 3, and 4 in Appendix 1 to this paper show the projected impact of platform mix on take-up and national benefit, and the effect of varying the ASO date.) International experience confirms that two key factors drive viewer take-up of DTV. These are the cost of conversion equipment and the provision of a package of attractive content. (Exhibits 5 and 6 in Appendix 1 to this paper illustrate the former.) A platform allowing viewers to convert at low cost is a prerequisite for attracting them via the provision of new services.

15. Even with a hybrid platform, however, reliance on a single satellite for the 25 per cent of the population without DTT coverage, plus those who choose DTH over DTT, as ASO approaches would be unacceptable. Broadcasters should be encouraged to address the options for back-up arrangements (including full satellite redundancy) in advance of ASO.

³ The OPTUS satellites which provide SKY and TVNZ/MTS services are owned by the Singapore government through its Sing-Tel telecommunications company.

Nature of Support Proposed

16. While providing for optimal take-up and national benefit, a hybrid platform duplicates some transmission and multiplexing costs. Further, the cost–benefit report confirms that free-to-air broadcasters are likely to incur a net cost for five to ten years following the launch of a digital platform. (Exhibits 7 and 8 in appendix 1 to this paper shows the projected impact on free-to-air broadcasters.) The broadcasters are nevertheless committing themselves to meeting most of the costs of a free-to-air television platform. The broadcaster investment in DTH means that government support is likely to be required to secure an industry commitment to a hybrid DTH/DTT platform with terrestrial coverage, operating on an open and transparent basis. The cooperation of the broadcasters and BCL, and their readiness to proceed now, presents a window of opportunity for government to achieve its goals by working in partnership with industry.

17. It is therefore proposed that any support provided should be targeted to the provision of a hybrid DTH/DTT platform, with simulcast of existing analogue free-to-air services and capacity for new services. This raises the question of what level and type of support would best promote the digital television objectives proposed in paper 1 (analogue switch-off, competition, open access, commitment by broadcasters, simulcast of existing services). A comparison of the likely impact of options within a range of support measures is set out in the table below.

	Option	Cost	Likely Outcome
A	No support now (or delay decision)	\$0m	No hybrid platform – DTH only FreeView less likely to operate on a not-for-profit and open basis Creation of FreeView EPG at risk (DTH)
B	Free spectrum (for up to 4 multiplexes, without resource charge)	\$3–10m (opportunity cost)	Hybrid platform with DTT very unlikely FreeView less likely to operate on a not-for-profit and open basis Creation of FreeView EPG at risk (DTH or DTT)
C	Free spectrum + Content funding from existing NZ On Air and Te Māngai Pāho baselines, instead of platform funding	\$3–10m (opportunity cost) + Amount unknown (reprioritisation subject to the agencies' agreement, and depending on launch of appropriate additional services)	Hybrid platform with DTT unlikely Greater likelihood of new digital-only services on DTH (and DTT, if rolled out to minimal coverage) FreeView less likely to operate on a not-for-profit and open basis Creation of FreeView EPG at risk (DTH or DTT)
D	Free spectrum + Platform funding + Content funding from existing NZ On Air and Te Māngai Pāho baselines.	\$3–10m (opportunity cost) + \$5m p.a. (new funding) + Amount unknown (reprioritisation, subject to the agencies' agreement, and depending on launch of appropriate additional services)	Hybrid platform very likely, with DTT roll-out to 10 centres (75% coverage) in phase one (more in a possible phase two) Greater likelihood of new digital-only services on hybrid platform FreeView operates on a not-for-profit and open basis (subject to funding options outlined in table below) FreeView EPG created (DTH and DTT)
E	Satellite redundancy	\$6.2m p.a. for one transponder (20 channels)	No hybrid platform – DTH only, but with risk of catastrophic failure reduced Ongoing funding required until business model viable

18. The likelihood of an optimal hybrid platform does not follow a linear progression between the above options. BCL and the broadcasters advise, for example, that a roll-out to less than 75 per cent coverage would make supplying DTT set-top boxes uneconomic and the promotion of DTV options difficult. An additional consideration is that a low level of terrestrial coverage would raise questions of fairness and equity if citizens in only a few urban centres were able to exercise a DTV choice most suited to their circumstances. A decision not to proceed with DTT is thus more likely than a minimal roll-out under options B and C above.

19. Providing support for a hybrid platform, operating on an open and transparent basis, will enable government to influence the pace and direction of the digital transition to ensure that progress

towards ASO is efficient and effective, involves the minimum disruption for consumers, and derives the greatest national benefit. The above table suggests that option (D) is likely to secure the successful launch of a hybrid free-to-air digital platform. As prefigured in paper 1, it is therefore recommended that Cabinet agree, in principle, a package with the following components to support the proposed free-to-air platform:

- Access to DTT spectrum without resource charge on the basis of a contract with licence-holders determining conditions of licence allocation; and
- Funding of up to \$5 million per annum for five years to facilitate a hybrid DTH/DTT free-to-air digital platform operating on an open and transparent basis (options for allocation are detailed below).

In addition, paper 3 includes a proposal that the Minister of Broadcasting and the Minister of Māori Affairs invite NZ On Air and Te Māngai Pāho respectively to consider how they might best support a transition to free-to-air digital television, consistent with their legislative role, functions and policies. This is preferable to more complicated arrangements, such as the analogue licence fee and resource charge waivers requested by the broadcasters, but is unlikely to be an effective *alternative* to the funding proposed above.

20. This represents a modest contribution to the development of DTV by international standards, but is consistent with the kinds of measures adopted by comparable countries. It is also modest in comparison to support this government has provided for the digital transition in other areas, such as broadband and the National Digital Strategy, and to that provided for other broadcasting initiatives.⁴

Spectrum Allocation

21. In 2003 Cabinet agreed (EDC Min (03) 19/5) that holders of spectrum licences be permitted to convert existing analogue licences to digital licences subject to existing valuation policies and technical compatibility; and in principle to reserve two nationwide sets of UHF spectrum licences and (subject to confirmation of the preferred allocation option and of policies for utilisation of reserved spectrum, and only following sufficient demand being demonstrated), competitive allocation by auction of four nationwide sets of interleaved UHF digital spectrum licences and of two 8 MHz management rights in respect of spectrum between 502 and 518 MHz. The 2003 decisions left open the question of the exact utilisation of the reserved spectrum licences, as well as the charges, if any, for use to simulcast existing services or provide new digital services.

22. Further spectrum planning work undertaken by the Ministry of Economic Development, in consultation with the New Zealand Television Broadcasters Council, BCL and independent consultants, has determined that there is sufficient scope within the UHF band to accommodate the coverage sought by FreeView, provided TVNZ (Row 6 licences), SKY, NZRB, Radio Rhema and BCL relinquish several unused analogue licences, and if minor alterations to the use of a small number of licences elsewhere can be negotiated.⁵ (The majority of these affected licences are unlikely to be renewed in 2009 and responses from parties to date, including SKY, indicate that there is likely to be cooperation, although formal confirmation has not been sought.)

23. Broadly consistent with the 2003 decisions, which envisaged the reservation and allocation of spectrum and allowed for the conversion of analogue licences to digital, it is proposed to make sufficient spectrum suitable for DTT transmission available to free-to-air broadcasters on the basis of contracts determining conditions of licence allocation (set out in paragraph 28 below), in order to support simulcast and encourage the launch of additional services.

⁴ There is precedent in New Zealand for providing free licences, and capital and operational funding, to both public and privately owned broadcasters pursuant to government policy objectives – for example, NiuFM and Iwi radio stations have been granted licences without charge and without restrictions on commercial activity.

⁵ This work confirms that up to four sets of licences can be provided, each with a coverage of approximately 87 per cent of the population, plus scope for two 8 MHz management rights in respect of spectrum between 502–518 MHz, and a number of individual licences interleaved through the UHF band.

24. Accordingly, it is proposed that Cabinet agree to:
- reserve and offer up to one set of digital licences each, without resource charge until ASO, to TVNZ and CanWest;
 - reserve and offer to BCL up to one set of digital licences, without resource charge until ASO and to the extent that these are used for free-to-air digital simulcast of existing nationwide free-to-air services at cost (rather than on a commercial basis);

25. Prior to its acquisition by SKY, Prime was a member of FreeView and a party to discussions on the group's aspirations for the allocation of digital spectrum. With the nature of SKY/Prime's participation in FreeView currently unclear, it is proposed to reserve and offer SKY up to one set of digital licences without resource charge until ASO, in order to support simulcast of the existing Prime service and to allow capacity for additional free-to-air digital services. This offer would be conditional upon SKY agreeing not to renew comparable existing UHF licences in 2010 and to transfer such licences to the Crown at an earlier date should SKY cease any of its existing analogue UHF services (consistent with the requirement for TVNZ to relinquish licences in Row 6), and upon SKY agreeing to cancel protection licences in the management right owned by MTS by 2010. The offer would not be made if SKY decided to enter into carriage contracts (on the same basis as NZRB and MTS) for simulcast of Prime at cost on the set of licences proposed for BCL.

26. The provision of free spectrum would represent an opportunity cost to government. Given current renewal prices, this is estimated at \$3–8 million (depending on the length of time before ASO, and the DTT coverage level), increasing to \$4–10 million if SKY were to be granted a new set of digital licences from currently unused spectrum.

27. It should be noted that a legislative provision entitles MTS to a management right over one block of UHF spectrum, expiring in 2013.

[Text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i) and 9(2)(f)(iv)]

A review of the operation and effectiveness of the Māori Television Act is scheduled to commence in 2008.

28. The licences to be offered would be capable of providing service from ten main sites, plus some infill stations, to give coverage of up to 75 per cent of the population. They would be subject to either licence conditions or separate contracts (which may be terminated on non-compliance) consistent with the following broad outcomes:

Free-to-air: licences are used for the digital transmission of free-to-air services;

Open-access: services are made available for inclusion in a jointly operated, open free-to-air electronic programme guide (EPG) accessible through set-top-boxes;

Capacity Utilisation: licences are used first to simulcast existing analogue free-to-air services, and second to broadcast new digital services; if unused capacity remains, carriage on the licence may be made available to other free-to-air broadcasters at cost;

Implementation: licences are issued as required to implement an agreed phase one roll-out plan to achieve 75 per cent coverage, and incorporating a timetable for the commencement of transmission of simulcast and new digital services (a minimum of four channel equivalents for each set of licences within two years from launch);

Standards: operation according to agreed industry standards (including platform, transmission and receiver standards);

ASO: adjustment of frequencies and other technical parameters at ASO to allow re-planning of the UHF-TV band for future service, and existing renewal policies to apply post-ASO.

29. An implication of this allocation approach is that the quantity of unused spectrum in the UHF band remaining for allocation is somewhat less than was envisaged by Cabinet’s in-principle decisions of 2003. In addition, the proposed allocation of spectrum would supersede and require changes to some existing agreements in relation to renewal of rights at expiry (2010) where cancellation, conversion or exchange of existing analogue UHF licences is involved. Given that the licence terms proposed in paragraph 28 are designed to allow reasonable conditions for new entrants, this is not expected to be problematic. A small amount of suitable spectrum, not presently within the broadcasting management rights framework, would remain. While it is not proposed to allocate further digital licences at this stage, other than as may be required to extend the coverage provided by the licence sets recommended in paragraphs 24 and 25, remaining spectrum could be allocated competitively at a future date, subject to the normal procedure of consultation and Cabinet approval. This approach preserves flexibility in potential future use of this spectrum.

30. FreeView has requested a waiver of both analogue and digital fees for the transition period. It is proposed that the digital licences granted would not incur any resource charges, but that annual licence fees and processing charges (levied under regulation to meet costs incurred) would apply. The waiver sought by FreeView would require new fee waiver powers to be created, and the costs not recovered would need to be recouped by additional charges on other fee payers, or by means of an appropriation, to ensure the Ministry of Economic Development did not operate a third-party funded service at a continuing revenue deficit. The package of support (D) recommended in this paper does not include fees waivers, but is likely to be sufficient to secure commitment to a hybrid platform.

Platform Funding

31. There are two principal options⁶ for providing the platform funding proposed in paragraph 19, above. The following table sets out the advantages, disadvantages and risks of these options, from a government perspective.

Option	Advantages	Disadvantages	Risks
1. direct fund FreeView up to \$5m p.a. for 5 years toward operational costs of hybrid DTT/DTH;	<ul style="list-style-type: none"> • Direct means to secure open & transparent FreeView • Government not involved in commercial relationship between FreeView and BCL 	<ul style="list-style-type: none"> • Public funding goes to a privately owned entity (although there is precedent for this) 	<ul style="list-style-type: none"> • Government more closely associated with FreeView
[text withheld under OIA section 9(2)(f)(iv) and 9(2)(g)(i)]	[text withheld under OIA section 9(2)(f)(iv) and 9(2)(g)(i)]	[text withheld under OIA section 9(2)(f)(iv) and 9(2)(g)(i)]	[text withheld under OIA section 9(2)(f)(iv) and 9(2)(g)(i)] [Footnote also withheld in accordance with the same sections of OIA.]

32. Option 1 is likely to provide the most direct and effective mechanism for supporting the successful establishment and launch of a hybrid DTH/DTT free-to-air digital television platform operating on an open, equitable and transparent basis. These characteristics are essential, given that the EPG is potentially a powerful means of controlling competitive relationships, market access and consumer benefit. Funding should therefore be conditional upon the establishment of FreeView with a constitution, governance arrangements and operational protocols that appropriately reflect government’s and the public’s wider interests in free-to-air digital television. They should incorporate, for example, a commitment to:

⁶ It is not likely to be feasible to provide this funding via NZ On Air, [Text withheld under OIA section 9(2)(h)].

- operate in a fully open and transparent manner (including dispute resolution procedures);
- provide access to other free-to-air services on neutral, fair and equitable terms;
- operate a hybrid platform with an agreed phase one roll-out plan and launch date for simulcast and new digital services, and with agreed performance targets for platform take-up by viewers;
- undertake targeted market research (such as consumer willingness to pay); and
- implement agreed technical and equipment standards (e.g. data compression standards).

Cabinet's agreement is sought to pursue this as a preferred approach to further engagement with the industry. [Text withheld under OIA sections 9(2)(f)(iv) and 9(2)(j)]

Funding for the maintenance of analogue transmission to remote areas

33. In 2003, Cabinet agreed that in the absence of an overall plan for digital television, analogue terrestrial transmission of TVNZ channels to remote areas should continue to be funded and maintained pending detailed consideration of future options, and \$1.35 million per annum was reallocated from NZ On Air to TVNZ for this purpose. It is recommended that this funding be reviewed by the Minister of Broadcasting within five years from the launch of digital free-to-air services, in the light of the progress of the roll-out currently proposed by broadcasters and BCL

[Text withheld under OIA sections 9(2)(g)(i) and 9(2)(f)(iv)]

Next Steps

34. The precise details of the proposed package require to be worked through with FreeView, broadcasters and BCL before appropriate funding and licensing arrangements can be finalised. It is proposed that Cabinet direct officials from the Ministry for Culture and Heritage and the Ministry of Economic Development to negotiate terms and conditions with FreeView and other relevant parties, within the parameters set out in paragraphs 19 to 33 above. It is also recommended that Cabinet invite the Minister of Broadcasting to report back to Cabinet, upon satisfactory conclusion of these negotiations, in relation to appropriations and other arrangements to give effect to the above decisions.

Treasury Comment

35. Treasury recommends that Ministers support Option C (refer to the table at paragraph 17, above) on the basis that it would provide better value for money:

- Option C would largely meet the Government's objectives at lower cost to government (\$25 million less over five years). DTH will go ahead regardless of government support, ensuring universal access to free-to-air digital TV. An initial DTT roll-out to the three main centres may also occur under Option C. Without DTT, however, BCL's viability would not be at risk, and in any case, we consider that content is likely to be a stronger driver for take-up than platform choice.
- Should take-up prove insufficient, government has the option to consider direct funding support, or alternative incentives for take-up, at a later stage.

Ministry of Economic Development Comment

36. The Ministry considers that the optimal platform choice is likely to be a minor driver of viewer take-up, as new and desired programming (including high-definition television) is likely to be a far greater factor. This view is based on observed overseas experience.

Consultation

36. This paper has been prepared by the Ministry for Culture and Heritage, in consultation with the Ministry of Economic Development, the Treasury, Te Puni Kōkiri, the Crown Company Monitoring Advisory Unit, and the Department of the Prime Minister and Cabinet.

Fiscal Implications

37. This paper recommends a package of support for digital TV that is comprised of:

- an opportunity cost to government in the order of \$3-10 million in respect of granting free spectrum;
- funding to support FreeView of up to \$5 million per annum for five years, with an appropriation being sought by the Minister of Broadcasting only after the conclusion of a suitable funding agreement;

38.

[Text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i), 9(2)(f)(iv) and 9(2)(g)(i)]

Human Rights and Legislative Implications

39. None.

Treaty of Waitangi Implications

40. The establishment of a free-to-air digital television platform, which the recommendations in this paper support, would provide for the promotion and protection of Māori language and culture through the participation of Māori Television, TVNZ and Radio New Zealand, and by the inclusion of programming funded by Te Māngai Pāho and NZ On Air.

Regulatory Impact and Compliance Cost Statement

41. Not required.

Publicity

42. Paper 1 recommends an approach to publicity matters arising from the recommendations in this paper.

Recommendations

43. It is recommended that the Committee:

1. **note** that the FreeView broadcasters propose to proceed with satellite (DTH) transmission, but have requested support from government, primarily in respect of a roll-out to 75 per cent population coverage of the terrestrial (DTT) component of a hybrid DTH/DTT transmission system;

2. **note** that a hybrid DTH/DTT transmission system appears optimal for launching a free-to-air digital television as it would support better viewer take-up and allow an earlier analogue switch-off (ASO) date, resulting in cost reductions and the ultimate release of greater net national benefits;
3. **note** that TVNZ's business case for participating in the FreeView platform
[text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i) and 9(2)(f)(iv)]
4. **note** there is _____ to BCL

[text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i), 9(2)(g)(iv) and 9(2)(f)(iv)]

Proposed Support

5. **note** that without any support from government, a roll-out of the DTT element of the proposed hybrid free-to-air platform will not proceed; that without platform funding DTT is not likely to be rolled out beyond a minimum number of centres, if at all; and that FreeView would be less likely to operate on a not-for-profit, open, transparent, and equitable basis;
6. **agree** to support the proposed FreeView digital television platform by providing access to DTT spectrum without charge, on the basis of a contract with licence-holders determining conditions of licence allocation, to enable implementation of a hybrid DTH/DTT system;
7. *EITHER [supported by the Ministry for Culture and Heritage, the Ministry for Economic Development, Te Puni Kōkiri, and CCMAU]*
 - 7.1 **agree in principle** to facilitate a hybrid DTH/DTT FreeView digital platform operating on an open and transparent basis by providing funding of up to \$5 million per annum for five years, to be met from the Budget 2006 general contingency, subject to Cabinet confirmation following the report back proposed in recommendation 19;
- OR [supported by Treasury]*
 - 7.2 **agree** not to provide platform funding at this stage, as the Government's objectives can largely be achieved without this additional support;
8. **note** that in paper 3 it is recommended that the Minister of Broadcasting and the Minister of Māori Affairs invite NZ On Air and Te Māngai Pāho respectively to consider how they might best support a transition to free-to-air digital television, consistent with their legislative role, functions and policies;

Spectrum Allocation

9. **note** that the Ministry of Economic Development has planned for four sets of digital licences to provide coverage to 87 per cent of the population, but that existing licensees will need to agree to the cancellation of some unused licences and other modest changes to achieve this level of coverage or any additional coverage;
10. **agree** to:

- 10.1 reserve and offer to TVNZ and to CanWest up to one new nationwide set of digital licences each, without resource charge until ASO; and
 - 10.2 reserve and offer to BCL up to one set of digital licences, without resource charge until ASO and to the extent that these are used for free-to-air digital simulcast of existing nationwide free-to-air services at cost (rather than on a commercial basis);
11. **agree**, subject to recommendations 10.1 and 10.2, and, should SKY not enter into carriage contracts (on the same basis as NZRB and MTS) for simulcast carriage of Prime on the set of licences proposed in recommendation 10.2 for BCL, to reserve and offer SKY up to one set of digital licences without resource charge until ASO conditional upon SKY agreeing:
- 11.1 not to renew comparable existing UHF licences in 2010 and to transfer such licences to the Crown at an earlier date should SKY cease any of its existing analogue UHF services (consistent with the requirement for TVNZ to relinquish licences in Row 6); and
 - 11.2 to cancel protection licences in the management right owned by MTS by 2010;
12. **agree** that the offers of spectrum rights suitable for simulcast and new services proposed in recommendations 10 and 11 be subject to either licence conditions or separate contracts (which may be terminated on non-compliance) consistent with broad terms and conditions:
- 12.1 **Free-to-air**: licences are used for the digital transmission of free-to-air services;
 - 12.2 **Open-access**: services are made available for inclusion in a jointly operated, open free-to-air electronic programme guide (EPG) accessible through set-top boxes;
 - 12.3 **Capacity Utilisation**: licences are used first to simulcast existing analogue free-to-air services, and second to broadcast new digital services; if unused capacity remains, carriage on the licence may be made available to other free-to-air broadcasters at cost;
 - 12.4 **Implementation**: licences are issued as required to implement an agreed phase one roll-out plan to achieve 75 per cent coverage, and incorporating a timetable for the commencement of transmission of simulcast and new digital services (a minimum of four channel equivalents for each set of licences within two years from launch);
 - 12.5 **Standards**: operation according to agreed industry standards (including platform, transmission and receiver standards);
 - 12.6 **ASO**: adjustment of frequencies and other technical parameters at ASO to allow re-planning of the UHF-TV band for future service, and existing renewal policies to apply post-ASO;
13. **agree** that no further digital licences be allocated in the UHF-TV band, other than to extend the coverage provided by the licence sets proposed in recommendations 10 and 11, without further Cabinet consideration of allocation options;
14. **agree** that the Ministry of Economic Development be authorised to negotiate changes to existing licence renewal contracts where required to facilitate the allocation of spectrum proposed in recommendations 10 to 12;

Platform Funding

15. **note** that there are two principal options for providing the funding proposed in recommendation 7.1, above:
- 15.1 Option 1: directly fund FreeView up to \$5 million per annum for five years in respect of the operational costs of a hybrid platform; and
 - 15.2 Option 2: [text withheld under OIA sections 9(2)(f)(iv) and 9(2)(j)]

16. **agree** that:
 - 16.1 Option 1 be adopted as the preferred approach to further engagement with the industry; and
 - 16.2 [*text withheld under OIA sections 9(2)(f)(iv) and 9(2)(j)*]

17. **agree** any funding provided directly to FreeView will be conditional on a structural form which ensures that FreeView will:
 - 17.1 operate in a fully open and transparent manner (including dispute resolution procedures);
 - 17.2 provide access to other free-to-air services on fair and equitable terms;
 - 17.3 operate a hybrid platform with an agreed roll-out plan and launch date for simulcast and new digital services, and agreed performance targets for platform take-up by viewers;
 - 17.4 undertake targeted market research (such as consumer willingness to pay); and
 - 17.5 implement agreed technical and equipment standards;

18. **direct** officials from the Ministry for Culture and Heritage and the Ministry of Economic Development to negotiate with FreeView and other relevant parties within the parameters set out in recommendations 6, 7.1, 10 to 12, and 15 to 17;

19. **invite** the Minister of Broadcasting to report back to Cabinet, upon satisfactory conclusion of the negotiations proposed in recommendation 18 in relation to platform funding, with any necessary changes to appropriations to give effect to the above decisions;

20. **note** that broadcasters will be encouraged to address the options for back-up arrangements (including full satellite redundancy) in advance of ASO; and

21. **invite** the Minister of Broadcasting to report back to Cabinet within five years from the launch of digital free-to-air services with a review of the \$1.35 million per annum currently provided to TVNZ to fund analogue terrestrial transmission to remote areas.

Hon Steve Maharey
Minister of Broadcasting

Hon Dr Michael Cullen
Minister of Finance

Hon Trevor Mallard
Minister of State Owned Enterprises

Hon Parekura Horomia
Minister of Māori Affairs

Hon David Cunliffe
Minister of Communications

APPENDIX 1 TO PAPER 2

EXHIBIT 1: SUMMARY OF FREEVIEW PROPOSAL

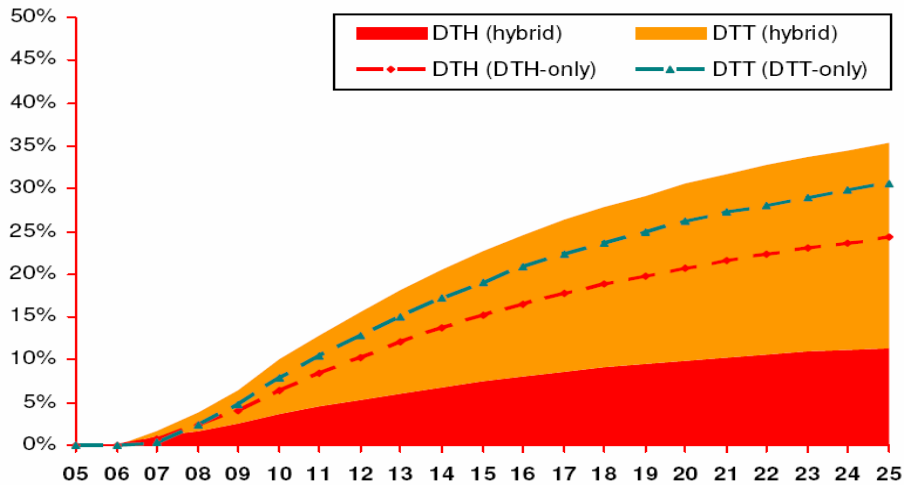
	TOTAL COST ⁷ \$000 (GST Exclusive)	REQUESTED GOVT SUPPORT \$000 (GST Exclusive)
ANNUAL OPERATING COSTS		
FreeView Operating Costs ⁸		
[text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)] [Footnote also withheld in accordance with same provisions of OIA]	[text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]	[text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]
[text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]	[text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]	[text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]
TOTAL FREEVIEW OPERATING COSTS	per annum	per annum over 5 years
ONE-OFF CAPITAL COSTS		
[text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]	[text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]	[text withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]
TOTAL FREEVIEW CAPITAL COSTS		
OPPORTUNITY COSTS		
Spectrum (sufficient for 3 multiplexes)	3,000,000	Free (opportunity cost)
Waiver of Analogue Licence Fees and Resource Charges	1,354,000 per annum until ASO	1,354,000 per annum until ASO

In summary, FreeView proposes to meet approximately [Withheld under OIA s 9(2)(b)(ii), and 9(2)(ba)(i)] per cent of the total costs (one-off and on-going) of the platform, while requesting government support for the remaining approximately [Text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i) and 9(2)(f)(iv)] .

⁷ Figures represent full-year costs (with inflation adjustment from 2008 as per FreeView Business Plan).

⁸ Includes on-air marketing [text withheld OIA section 9(2)(b)(ii) and 9(2)(ba)(i)] which will continue to be provided by the broadcasters, as required.

EXHIBIT 2: COMPARISON OF DTH-ONLY, DTT-ONLY AND HYBRID CASES WITHOUT ASO (% HOUSEHOLDS)



Take-up with a hybrid platform is forecast to be approximately 50 per cent higher than with DTH only.

EXHIBIT 3: IMPACT OF PLATFORM CHOICE ON COST-BENEFIT ASSUMING AS0 IN 2015 (2006 NZ\$M)

Benefits	Hybrid	DTH-only	DTT-only
WTP	695	525	614
Benefit to non-adopters	5	6	4
CPE and Installation margin	38	35	34
Analogue transmission savings	123	123	123
Transmitter replacement savings	12	12	12
Analogue spectrum savings	5	5	5
Value of released spectrum	131	147	131
Total benefits	1,009	854	923
Costs			
CPE	186	161	162
Electricity bills	36	30	33
Digital spectrum	16	0	16
Digital transmission	185	65	120
Programming	311	311	311
Marketing/Promotion	44	44	44
Total costs	779	612	687
Total CBA	230	242	236

Note that the estimates for a DTT-only service do not include the costs of rolling out beyond the initial 92 per cent coverage and may overstate the benefits. Spectrum does not have access to a definite figure for additional costs but are led to believe that they are significant enough to firstly reduce the net benefit below that of the hybrid, and secondly to make the roll-out, from a transmission point of view, very unlikely. Similarly, the DTH estimates do not include the additional costs of providing back-up on a second satellite and may overstate the benefits.

[Explanation: WTP = consumer willingness-to-pay; CPE = consumer premises equipment (STB, aerial or dish); Total CBA = net national cost – benefit.]

EXHIBIT 4: IMPACT ON NET BENEFITS OF PLATFORM MIX WITH VARYING ASO YEAR (2006 NZ\$M)

	Hybrid	DTH-only	DTT-only
2015	230	242	236
2016	199	207	207
2017	169	175	177

It is unlikely that ASO could be achieved by the dates reflected in the above table with either a DTT-only or a DTH-only platform. While the report necessarily depends on market forecasting and assumptions, the sensitivity analysis suggests that an earlier ASO would have a significant impact on the net national benefit that could be achieved. The market analysis contained in the cost-benefit report projects that a hybrid system will maximise consumer take-up and enable ASO to occur earlier than in either DTH-only or DTT-only scenarios.

EXHIBIT 5: FREEVIEW CPE COST ESTIMATES (FROM PRICING, EXCLUDING RETAIL DISCOUNTS)⁹

[Table withheld under OIA sections 9(2)(b)(ii) and 9(2)(ba)(i)]

⁹ Actual costs will also vary with individual installation requirements, for example if existing consumer equipment (such as UHF aerials) is used.

EXHIBIT 6: CHEAPEST STB COST VS. DTT TAKE-UP, UK, 2001 TO 2004

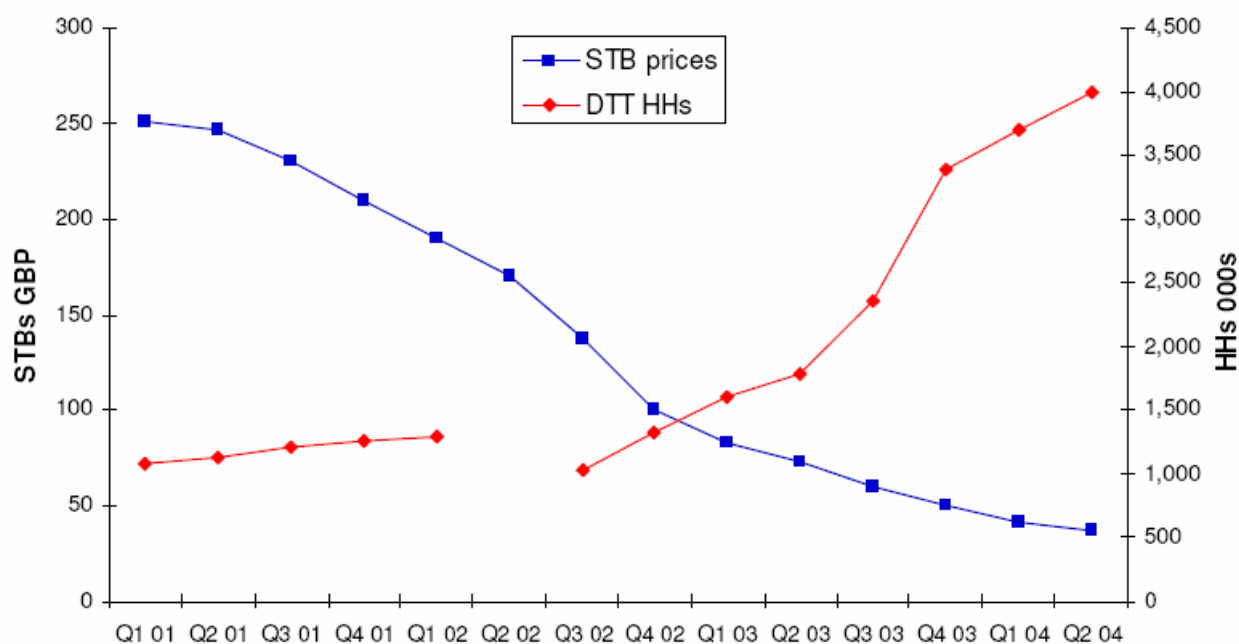


EXHIBIT 7: SUMMARY OF ANNUAL FINANCIAL IMPACT ON THE FTA BROADCASTERS WITHOUT ASO: BASE CASE (NZ\$M REAL)

FTA broadcasters	2010	2015	2020	2025
Revenue	15	42	80	126
Costs	(62)	(59)	(64)	(62)
Benefit	(46)	(17)	16	64

EXHIBIT 8: SUMMARY OF ANNUAL FINANCIAL IMPACT ON THE FTA BROADCASTERS WITH ASO: BASE CASE (NZ\$M REAL)

FTA broadcasters	2010	2015	2020	2025
Revenue	15	25	62	109
Costs	(62)	(76)	(31)	(29)
Benefit	(46)	(51)	32	80

APPENDIX 2 TO PAPER 2

CCMAU COMMENT ON TVNZ AND BCL BUSINESS CASES

TVNZ Business Case

TVNZ has provided a business case for the digital television proposal, part of which relies upon information and assumptions contained in the FreeView business case for the hybrid (DTH/DTT) option. The business case also includes an assessment of rejected options such as DTH-only, DTT-only and Deferral, where a platform launch is delayed until 2010. The business case:

- sets out the rationale for digital television and the preferred hybrid (DTH/DTT) option

[text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i), 9(2)(f)(iv) and 9(2)(g)(i)]

Since December 2005, there have been various iterations of both the FreeView business case and the TVNZ business case, on which officials have provided feedback on. TVNZ has also provided copies of the spreadsheet models it has used to calculate figures contained in both the FreeView business case and the TVNZ business case. Given the complexity of the spreadsheets, the changing versions, and the short amount of time there has been to review them, it has not been possible to perform anything other than a high-level review of their validity.

In doing so, CCMAU and MCH have provided feedback to TVNZ on aspects of the spreadsheets, which has in general been accepted and adopted by TVNZ. CCMAU and MCH have also been advised verbally by TVNZ that it has had an informal 'peer review' undertaken by Deloitte, the chartered accounting and consulting firm, which has not raised any significant issues. CCMAU takes some comfort from this and from the fact that the TVNZ Board supports this proposal.

CCMAU notes that TVNZ already has unencrypted satellite transmission in order to broadcast to SKY digital (satellite) customers. Extending digital television transmission to other consumers is a logical extension of this, and there is a minimal capital cost to TVNZ for its share of the hybrid (DTH/DTT) FreeView platform. *[text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i), 9(2)(f)(iv) and 9(2)(g)(i)]*

It is therefore arguably a decision for the TVNZ Board to make, notwithstanding that FreeView is seeking some 'seed funding' from the Crown.

[text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i), 9(2)(f)(iv) and 9(2)(g)(i)]

and the various benefits outlined elsewhere in this Cabinet Paper, CCMAU considers that TVNZ's proposal should be supported.

BCL Business Case

Transmission Holdings Ltd (THL), the parent company of BCL, has produced a business case for Digital Terrestrial Television, a draft of which has been provided to CCMAU and the Treasury.

While the New Zealand Television Broadcasters Council's underlying coverage requirements (and so the capital costs and charges to the broadcasters) have since changed, the draft business case:

- set out sound principles for the operation of the DTT network;

[text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i), 9(2)(f)(iv) and 9(2)(g)(i)]

While a revised business case will be submitted to shareholding Ministers once the coverage requirements and contracts with the broadcasters have been agreed upon, CCMAU and the Treasury were broadly supportive of the proposal that was delivered.

CCMAU is supportive of the proposed financial and spectrum contributions to FreeView, because by ensuring a commitment to DTT:

[text withheld under OIA sections 9(2)(b)(ii), 9(2)(ba)(i), 9(2)(f)(iv) and 9(2)(g)(i)]

In conclusion, taking into account the benefits accruing to both TVNZ and BCL and the findings of the CBA, CCMAU considers that the proposed hybrid (DTH/DTT) model should be supported and that the proposed Crown contribution is reasonable.