

RSM's review of submissions

[Introduction](#)

2. [Submissions](#)
3. [Options](#)
4. [Issues](#)
5. [Cost allocation model](#)
6. [Memorandum account](#)
7. [Cross-subsidies](#)
8. [Amateur fees](#)
9. [General user licences](#)
10. [Crown management rights](#)
11. [Radio frequency interference](#)
12. [Engineering certification fees](#)
13. [Radio Spectrum Management costs](#)
14. [Radio spectrum planning costs](#)
15. [Key conclusions](#)

1. Introduction

The Radio Spectrum Management Group (RSM) within the Ministry of Economic Development (MED) contributes to the telecommunications infrastructure of New Zealand by ensuring that it operates within the regulatory framework in a responsive, flexible, equitable, and cost efficient manner.

The costs of services, including the Spectrum Planning activities within the Radio Spectrum Policy and Planning (RSPP) group, are met through fees paid by licence holders. Recovery of these costs is based on the following objectives:

- Improve efficiency in the administration of the Radiocommunications Act 1989 (the Act);
- Fully recover the costs associated with the MED administering the Act;
- Fairly allocate the costs in relation to work undertaken; and
- Minimise cross-subsidies within and between licence categories.

Since 2002, RSM has undertaken bi-annual cost allocation studies. Revised fees were introduced in 2003 and 2005 reflecting the above objectives. Over this period RSM's costs have reduced by 23% - an overall reduction from an average of \$315 per licence in 2002, to an average of \$242 per licence in 2006.

This period also saw significantly improved turnaround times for service delivery, in part made possible by a range of new services including:

- An online licensing and case management system (SMART);
- Customer choice in engineering certification; and
- Fee discounts for online payment.

The introduction of SMART, in particular, has enabled better tracking of activities and costs. As a consequence each cost allocation study represents continued improvement and accuracy in the data presented.

[Top](#)

2004 Cost allocation study

The 2004 cost allocation study led to:

- Revised licence fees, introduced in 2005;
- A reduction in the number of fee categories, from 76 to 46;
- A reduction in cross-subsidisation across all categories; and

- A continuation of the policy reducing the surplus in the Memorandum account.

2006 - 2007 Cost allocation study

The consultation document was released on 2 February 2007 through Business Updates to over 9,000 RSM customers. Submissions closed on 9 March 2007.

The study proposed:

- A continuation of the reduction in the Memorandum Account surplus;
- A continuation of provision of a rebate for online fee payment;
- A continuation of the process of eliminating cross-subsidies between fee categories;
- The introduction of customer choice in radio interference investigation;
- The identification of costs associated with General User Licence (GUL) management;and
- The maintenance of annual fees revenue at a level less than a cost providing the services, so as to continue the depletion of the Memorandum Account.

[Top](#)

2. Submissions

A total of 19 submissions were received from individuals and organisations:

Mike McAlevey
Mike Burch
Tony Brown
Keith Dix
Fred Johnson
Steve Main
Iain Morrison
Geoff Cole

Airways New Zealand
New Zealand Association of Radio Transmitters Incorporated (NZART)
NZ Police
Radio Broadcasters Association (RBA)
Radio Frequency Users Association of New Zealand Inc
Ski FM
Teamtalk
Telecom
Television New Zealand (TVNZ)
TelstraClear
Vodafone

Some submissions contained general comment on issues of an operational or policy nature that are not related to the cost allocation study. These have been omitted from this paper.

Informal comment has also been made in the context of other business discussions. Where practical and applicable these comments have been taken into account in this analysis.

[Top](#)

3. Options

The cost allocation paper presented three possible approaches to revised annual administration fees in 2007. These were:

Option A:

Direct adjustment of fees to unit costs (pure cost recovery).
9 respondents preferred this option.

Option B:

A reduced, but variable, adjustment of cross-subsidies across fee categories.
5 respondents preferred this option.

Option C:

A reduced even ('straight line') adjustment of cross-subsidies across fee categories (mid-point between the current fee and unit cost).
1 respondent preferred this option.

[Top](#)

4. Issues

The main issues raised in the submissions have been grouped as follows:

- The cost allocation model
- The Memorandum Account
- Cross-subsidies
- Amateur Fees
- General User Licences (GUL)
- Crown Management Rights (CMR)
- Radio frequency interference (RFI)
- Engineering certification (ENGCERT) fees
- Radio Spectrum Management (RSM) costs
- Radio Spectrum Planning (RSP) costs

5. Cost allocation model

Comment made in submissions

- The introduction of digital services requires a new approach to cost allocation in future.
- To provide a picture of true costs it would have been better to present the options showing the fee levels before the Memorandum Account "subsidy" was applied.

Response

Given the impact of new technologies (especially digital), online licensing, customer choice in engineering certification, and the approaching depletion of the Memorandum Account, RSM will conduct a business evaluation in 2008, and this will be taken into account and a further review of licence fees in 2009. The business review will likely include comparison with the fees levied by other administrations¹.

The cost allocation model could have indicated unit costs before applying the subsidy, although the net effect in terms of proposed amounts payable would be the same.

[Top](#)

Comment in submissions

- The cost per licence is the same for clients with one channel as it is for clients with three thousand channels. No discount for quantity has been provided.
- There is no recognition of the significant costs saved by RSM through having customers with large numbers of licences largely manage their own engineering and licence applications by the use of private sector Approved Engineers.
- There are some anomalies in the costing model. It is difficult to reconcile how a low power landmobile repeater operating at less than 5 Watts (LR3) costs about \$100 more to licence than a repeater operating at more than 5 Watts (LR4), or how paging transmitters operating between 5

and 25 Watts (LP3) are more than double the cost of transmitters operating over 25 watts (LP4).

Response

The number of licences held by one person or organisation does not, in itself, generate significant cost savings for RSM, even in regard to invoicing and renewals. However, where significant efficiencies can be found within specific activities or functions that decrease costs, these are passed on. For example, on top of the net decrease in RSM costs of 23% over recent years, licensees who opt to engineer their own licences achieve additional savings by not paying RSM for engineering work. Online fee payment also attracts a 10% discount, which reflects reduced RSM costs for this mode of payment. A further saving in fees is proposed for those licensees who opt to undertake their own interference investigation.

In regard to perceived anomalies in the cost allocation model, licence class LR3 has accrued higher costs per licence in relation to radio interference investigation than class LR4. This has flowed through to the unit cost differential between the two categories. The cost differential is not necessarily related to power. The same is true of the difference between LP3 and LP4 licence categories.

[Top](#)

6. Memorandum account

Comment made in submissions

- Option A will result in the slowest reduction in the balance of the memorandum account.
- RSM should provide regular statements on the balance of the memorandum account.
- The surplus should be returned to licensees in proportion to each licensee's contribution, not simply pro-rata across all licensees.

Response

It is expected that Option A would provide a smoother transition to full-cost recovery on the depletion of the Memorandum Account. Further, Option A would deal with cross-subsidies within licence classes now, rather than leaving the issue outstanding. It would also result in more certainty for licensees because fees will directly align with the unit cost of providing those services.

The Memorandum Account status is included in the MED annual report, however RSM will investigate the possibility of quarterly reporting through Business Updates.

The surplus on the Memorandum Account has been reduced from \$11.62 million at 30 June 2004 to \$5.23 million at 30 June 2007.

The issue of returning the Memorandum Account surplus to licensees in proportion to each licensee's contribution over a period of time was also considered by the Ministry in the 2003 fees review. On balance the administrative complexity along with the considerable conjecture as to what individual licensee's contributions might have been over an extended period, was judged to be too impractical and costly to implement.

[Top](#) 7. Cross-subsidies

Comment made in submissions

- It is not appropriate that some fee payers cross-subsidize other fee payers as there is no policy or statutory basis for such.
- The Government should fund the cost of the transition for adversely affected fee payers itself rather than imposing this cost on other fee payers.

Response

The principle underpinning the 2004 and 2006 cost allocation studies were to fairly allocate costs and eliminate cross-subsidies.

The Government directly purchases policy advice from RSPP, and funds the creation and disposal of spectrum rights (spectrum auctions and renewals). The remaining costs are properly a charge on licensees. While recent fee adjustments have been designed to soften the impact of the removal of cross-subsidies, the costs are nevertheless properly borne by the users of the radio spectrum rather than the Crown.

There is also an issue of cross-subsidies in regard to General User Licence (GUL) costs. The matter of GUL funding is separately dealt with in this paper.

[Top](#)

8. Amateur fees

Comment made in submissions

- Fees for amateur licences should be paid by central government because of the GUL requirement for amateur stations to be prepared for use in disaster relief.
- Scrap the fees on repeaters, which are likely to bankrupt some of the clubs that own them.
- Operators who are not members of the local clubs, and non-members of NZART, “free-loaders”, can enjoy [resources provided by local enthusiasts who pay the \$50 annual licence fee].
- The present licence fee should be reduced to \$20 while a General User Radio Licence for amateur repeaters in the 2m and 70cm bands is introduced.
- Return to the arrangement where amateur operators paid an annual fee that included an additional component to cover the costs of repeaters and beacons.
- Charging licensees of amateur repeaters is unfair when there is no practical means for the licensee to recover a share of these costs from the users of repeaters.
- Cross-subsidy was seen as being undesirable when amateur licence fees were supporting free repeaters, but the current situation provides for repeater licence fees to cross subsidise individual amateur licences.
- The amateur GUL should be extended to include amateur repeaters, beacons and fixed links.
- The share of costs attributable to amateur radio repeaters and beacons should be the subject of Government funding as a ‘public good’ (as is the case in Canada or the UK).

[Top](#)

Response

MED is of the view that while preparation for disaster relief can be considered a public good activity, radio amateurs are primarily engaged in a recreational activity that benefits private individuals.

The pre-2005 arrangements where amateur operators’ fees included a component to cover the costs of repeaters and beacons represented a cross-subsidy.

Other repeater services, such as those provided for maritime radio associations, benefit both members and non-members alike. The regulations make no special provisions with regard to how licensees fund their annual fee payment obligations.

Costs associated with the licensing of beacons, repeaters and fixed-links accrue regardless of amateur operator fees. All repeater (including amateur repeaters) licence costs have been separately identified in the cost allocation study. Likewise, the residual costs associated with GULs (including amateur operators) have been separately identified. Aside from the general issue of GUL costs there is no cross-subsidy between amateur beacons, repeaters and fixed-links and amateur operators.

The issue of funding ‘public good’ licensing costs will be raised in the recommendations to Government. In the meantime MED has developed a proposal to extend the Amateur Operator GUL to cover amateur beacons, repeaters and fixed-links. This would offer radio amateurs the choice of operating these services under a GUL, for which no fee is currently charged, or to continue to have them licensed under the existing arrangements for a fee.

As the proposal involves changes to the NZART website, it has first been referred for consideration by NZART. Notwithstanding a GUL provision for repeaters and beacons, current licensees would have the option of continuing with their licences or opting for the coverage afforded under the GUL.

MED has been in consultation with NZART regarding an extension of the GUL to cover amateur beacons, repeaters and fixed-links. This would offer radio amateurs the choice of operating amateur beacons, repeaters and fixed-links under a GUL for which no fee is currently charged, or to continue to have them licensed under the existing arrangements for a fee.

MED proposes to undertake a review in 2008 of amateur licensing, including consideration of the introduction of a GUL for amateur beacons, repeaters and fixed-links, prior the next revision of fees in 2009. Pending the outcome of this review it is proposed that there be no change to the current fee for amateur beacons, repeaters and fixed-links.

[Top](#)

9. General user licences (GULs)

Comment made in submissions

- The GUL regime is deemed to be for the public good, but it seems unfair that the fee paying customers alone should bear the costs. It is suggested that these costs should either be met by central government, or as a levy on type approval or product audit for products operating within the GUL regime
- We applaud the Cost Allocation Study for separately identifying the GUL costs, however licences granted by the Government for the use and benefit of all New Zealanders should be paid for by all New Zealanders.
- GULs, especially in the context of broadcasting, undermine commercial broadcasting and the value of frequencies under the spectrum rights regime.
- It would appear the costs to cover ARX activities is a tax on all other radio licence holders due to the ARX role being significantly related to GUL licence activity.

Response

GULs are in the nature of a public good that all New Zealand citizens benefit from, either directly or indirectly. The case for the wider taxpayer base, rather than annual fee payers, to meet such costs, will be subject to further consideration.

It may be possible to levy retailers of radio products that operate under GULs, there would be associated administrative costs with managing sales returns and auditing. This approach would require cost/benefit analysis.

Many administrations provide for very low power broadcasting, however, because of the coverage restrictions and lack of interference protection under GULs, the viability of commercial broadcasting is not seriously challenged.

While certificates and call sign allocation under GULs has been externalised to approved radio examiners (ARXs), RSM still has a role and setting rules and auditing ARXs and will therefore continue to incur some costs in this regard.

[Top](#)

10. Crown management rights (CMR)

Comment made in submissions

- Costs associated with the administration of CMR should be recovered either from auction revenue, or from a levy imposed on those licensees who benefit from this regime.
- CMR licence administration costs could be expected to be evenly attributed across the band, not proportioned differently across the power levels.

Response

The ongoing costs associated with administering Crown Management Rights are recovered from the spectrum licence fees revenue associated with those rights. The costs of initial sales are recovered from the proceeds of the sales through the Crown funded spectrum sales appropriation.

[Top](#)

11. Radio frequency interference (RFI)

Comment made in submissions

- It seems that the interference investigation costs are associated with the service lodging the complaint, rather than the service causing the interference
- We have a very high level of satisfaction with RSM services in this area and, at present, see no incentive to explore provision of external services.
- We view RSM as possessing experienced and skilled staff together with assets such as vehicles and suitable measuring equipment. We support the retention of the interference investigation activity within RSM and questions whether any outside option would lead to lower overall costs to licence holders and doubts that service levels would be maintained.
- We support and would appreciate the opportunity for a 10% discount for undertaking our own interference investigation.
- RSM has powers of enforcement that licensees do not.

Response

It is now standard RSM practice that where interference is found to be caused by a non-compliant electrical product or radio transmitter, the interference case is closed and a compliance case is opened. This approach should result in more equitable distribution of the costs relating to interference and compliance.

With regard to the proposed new RFI option, which is similar to the arrangements implemented in 2005 for licence engineering, RSM would continue to provide RFI investigation services. Equally, licensees may choose an external service provider if they so wish. Any licence or product non-compliance issues arising from such investigations will continue to be dealt with by RSM.

[Top](#)

12. Engineering certification fees

Comment made in submissions

- We have relied almost exclusively on RSM to provide engineering services and state for the record that there is a high level of satisfaction with that service. Notwithstanding, we support the initiative to provide clients with a choice.
- Most fees appear reasonable except for broadcasting – particularly AM. The fees are too low to encourage private sector engineers to compete. RSM fees should be around \$1500 - \$2000.
- The fees for Land Mobile Simplex and Fixed Services should be standardised at \$600, the same as Repeaters and Paging Services.
- There is no evidence of the engineering fees that RSM collects being subtracted from the total costs.

Response

With engineering certification now being a contestable service², RSM engineering fees should be somewhere near the median of market rates – neither overpriced nor unreasonably undercutting private sector engineers. This, of course, is different where there is no contestability and cost-recovery is the objective.

In the case of broadcasting engineering, expertise in AM radio engineering is limited. While keen to see private sector engineers take a greater share of the work, RSM does not want to overprice its own services. There is a fine balance between providing a specialised service on one hand, and encouraging private sector on the other. RSM believes the proposed broadcasting engineering fees to be appropriate.

In regard to the mobile and fixed services, the differential is based on the engineering effort required to achieve the appropriate level of protection that the nature of the service demands. Land mobile simplex is a shared service and requires less engineering effort. This is reflected in the current and proposed charge of \$400. Repeaters and wide area paging services both have expectations of very low levels of co-channel interference. It therefore takes longer to complete all of the required engineering checks so a higher fee of \$600 is considered appropriate. In regard to fixed services it must be remembered that these are usually bi-directional links which means that total engineering costs are usually \$1,000 per link, as a licence for each transmitter is issued.

RSM engineering costs account for \$475,000 of the total costs of \$9.5 million. The engineering fee revenue has been taken into account when estimating the impact on the surplus balance of the Memorandum Account for each of the three options.

[Top](#)

13. Radio Spectrum Management (RSM) costs

Comment made in submissions

- Almost all of SMART costs are related to infrastructure. SMART accounts for 27% of direct costs. This implies that about one quarter of the management time is spent on managing SMART.
- There was an expectation that the various significant changes that have taken place would result in increased efficiency and lower costs.
- The adjusted central costs are \$58,000 per staff member. There is no transparency showing how these overheads are shared with other activities of the MED.
- Accommodation of the southern group appears to be \$66,518 for four people spread over two offices. This is equivalent to an annual rental each of \$16,629 per person.
- Although there has been an ongoing reduction of RSM services, MED corporate charges seem to remain the same year on year, are excessive, and unaccounted for in terms of the value of delivered services to the RSM group.
- The registry services charge of \$3,542,126 seems excessive and there is no deep analysis of this cost.

Response

While SMART accounts for 27% of direct costs, 27% of management time is not spent managing SMART. Group Manager and MED support costs are allocated to each activity, such as SMART, in proportion to the level of direct costs associated with that activity, not on the amount of time that each activity takes to manage. The Group Manager costs also cover Business Services Branch (BSB) central services such as legal services, the contact centre, the processing centre, e-business, and the enforcement unit.

As stated in the introduction, lower costs have been achieved by RSM with an overall reduction of 23% over the last five years. This has been achieved, in part, because of the increased use of central services, and more efficient practices and systems, including SMART for online licensing and case management.

With regard to the Southern Business Centre costs are \$42,000 per annum. Of this, \$24,000 relates to office rental, while the remainder relates to other costs associated with the centre e.g. power, cleaning, office support staff, office supplies etc.

In terms of non-IT MED central costs, RSM's share has declined from 9.9% in 2002/03, to 5.7% budgeted for 2007/08.

Registry services are in effect the total costs of SMART. This includes the group support and MED support costs. A breakdown of these costs is shown in the 'direct costs' tab of the costing model.

[Top](#)

14. Radio spectrum planning (RSP) costs

Comment made in submissions

- While RSP costs are allocated according to licence volumes, there is little evidence of planning work associated with existing landmobile and fixed services. Most work seems to be associated with future new services – particularly broadband services and broadcasting. These costs should not be borne by landmobile and fixed services.
- 83% of spectrum licences are cellular licences, thus 33% (39.1% X 83) of RSP costs are paid by cellular operators.
- It seems that any work that cannot be allocated to radio licence planning or CMR planning is allocated to spectrum licence planning. Thus, cellular operators are paying for most of the planning and policy issues that fall outside radio licences and CMR bands.
- Most RSP work seems to relate to the implementation of Government policies and has little relevance to current licences. It should be funded directly by Government.
- RSP work relating to CMR should be centrally funded.
- Total costs and method of allocating these costs should be open and transparent. In the spectrum planning team functional area, the costs associated with CMR spectrum planning are allocated based on spectrum licence volumes. The volumes of these licences are not given.

[Top](#)

Response

RSP work is focused on the development and maintenance of the national and international technical frameworks within which radio spectrum is allocated and assigned to licensees. This applies to spectrum under Management Rights Regime (MRR) (both Crown and privately owned) as well as spectrum under the Radio Licensing Regime (RLR). RSP work is concerned with the protection and expansion of existing services as well as the provision of opportunities for future services, whether under the MRR or RLR. The benefits of this work accrue to all licence fee payers. Recent RSP work (in 2006/07) has included:

- A review of the 900 MHz band for fixed, mobile and other services;
- Planning for digital land mobile assignments in the 800 MHz band;
- Spectrum allocation consideration for new technologies such as ultrawideband devices;
- Spectrum allocations for fixed and mobile (including cellular) broadband wireless access (BWA) systems (including 2.3/2.5 GHz and new allocations in the 5.4 – 5.7 GHz and 57 – 64 MHz bands);
- Spectrum planning for AM/FM radio broadcasting;
- Spectrum planning for digital broadcasting (television and radio);
- Coordination of international satellite and HF services with New Zealand terrestrial and satellite services; and
- Preparation of the New Zealand position for the 2007 ITU World Radio Conference to protect existing services and provide allocation opportunities for new services in New Zealand.

The services and bands considered by RSP varies considerably from year to year and it is therefore inherently difficult to break down costs for

allocation to specific license holders. Over time the cost breakdown is expected to show greater correlation with the number of licences registered than with any other measure. Therefore the fairest measure for allocating planning costs is to use licence volumes and distribute these costs evenly across all licence holders.

Licence volumes were not separately shown as a table in the costing model, although they do appear in the engineering and licence unit cost tables. Appendix A provides a summary of information.

[Top](#)

15. Key conclusions

(a) There is a preference for the cost allocation model outlined as Option A in submissions received where a preference was indicated. Option A would:

- Eliminate most remaining licence fee cross-subsidisation;
- Provide for transparency in the allocation and recovery of costs incurred by the Crown because fees would correspond to the costs of providing services for each category of licensee;
- Provide some certainty for licensees with regard to future licence fee costs; and
- Whilst resulting in a reduction in the surplus balance, this option would provide for the smoothest transition to full cost-recovery on depletion of the Memorandum Account.

Option A would be recommended to the Government as the preferred licence fee cost allocation model for new fees to take effect from 1 February 2008 (Appendix B).

(b) The Ministry will prepare separate advice to Government on the funding of public park (GUL) spectrum costs.

(c) No change is proposed to the current fee of \$50 for the licensing of amateur beacons, repeaters and fixed-link installations, pending a further review in 2008 of amateur licensing arrangements prior to the next planned review of fees in 2009.

(d) A 10% fee discount to licensees opting to undertake their own radio frequency investigation would be proposed. However RSM will continue to deal with any identified non-compliance arising from such investigations.

(e) At the current rate of decline the surplus balance of the Memorandum Account is expected to be depleted around 2009. Option A will minimise any cost increase, at depletion of the Memorandum Account surplus, to meet the shortfall between expenditure and revenue.

Footnotes

¹ Comparisons can be complex. For example in Australia, radio licences are subject to resource taxes and location loadings which is not the case in New Zealand.

² RSM has initiated a series of seminars to assist ARE/C's to carry out their work, particularly in the use of SMART, and the licensing rules (PIB 38 and PIB 39).

[Appendix A](#)

Radio and spectrum licence volumes.

[Appendix B](#)

Proposed new fees.