



Expiring spectrum licences (stage 4) – updated preliminary views on pricing

*Submission to the Australian Communications
and Media Authority*

27 February 2026

Recommendations

This submission recommends:

1. The Australian Government implement spectrum coverage obligations on Mobile Network Operators (**MNOs**) through amended carrier licence conditions, equivalent in value to the real discount received by MNOs through the Expiring Spectrum Licences (**ESL**) process.
 - a. Coverage obligations should be designed in consultation with state and local governments and communities impacted by poor mobile coverage.
 - b. To ensure compliance with the obligations, MNOs should be required to provide evidence to demonstrate their achievement of obligations at set dates through the duration of the licence.
 - c. ESL coverage obligations should also be informed by the findings of the National Audit of Mobile Coverage and other sources of information on coverage gaps.
2. The Australian Communications and Media Authority (**ACMA**) make public the advice by Plum Consulting, Frontier Economics, and Ian Martin Advisory (with Flat Rock Consulting) concerning the use of an appropriate Weighted Average Cost of Capital.
3. The ACMA make public the real value of the ESLs as previously acquired through various auctions, renewals and apparatus licence conversions prior to the next stage of the ESL process.
4. The ACMA maintain the use of upfront spectrum payments in the ESL process.

About this submission

The Australian Communications Consumer Action Network (**ACCAN**) is pleased to provide this submission to the Australian Communications and Media Authority (**ACMA**) on the Expiring spectrum licences (stage 4) – updated preliminary views on pricing consultation paper. Our submission is accompanied by an expert note from UNSW Business School Professor Richard Holden which has been commissioned by ACCAN.

Contents

About this submission.....	2
Recommendations	2
Contents	3
1. Introduction	4
2. Background.....	5
3. Contradictory claims about investment risk poor outcomes	6
4. Mobile infrastructure investment in RRR areas	9
5. Key Issues.....	11
5.1. Transparency on the Weighted Average Cost of Capital	11
5.2. Instalment arrangements should not be pursued	12
5.3. Transparency on the real and nominal prices of ESLs.....	13
6. Coverage Obligations will support ongoing investment	14
6.1. Coverage Obligations are a unique opportunity to improve connectivity	16
7. Conclusion	18



ACCAN is the peak national consumer organisation advocating for trusted, accessible, inclusive, affordable and available communications and digital services.

1. Introduction

In the Australian Communications and Media Authority's (**ACMA**) Expiring spectrum licences (stage 4) – updated preliminary views on pricing consultation paper, the ACMA maintained its view that Expiring Spectrum Licences (**ESLs**) should be renewed rather than auctioned.

Spectrum is a finite public resource which underpins access to mobile connectivity across Australia. The framework for planning and allocating spectrum underpins the efficient delivery of communications services in the interests of taxpayers, small businesses, and consumers as end users of spectrum. The allocation of spectrum should properly reflect its economic value and promote competition in the development of new wireless technologies and services. As spectrum is valuable and finite, market participants have commercial interests in justifying their need for spectrum. It is crucial that spectrum allocation frameworks consider future demand and critically evaluate how best to advance the long-term public interest over time.

Australian Communications Consumer Action Network (**ACCAN**) notes that the ACMA has revised its estimate of the market value of ESLs after its engagement with DotEcon to \$7.3 billion.¹ This valuation is lower than the nominal \$8.2 billion paid when these licences were previously acquired through various auctions, renewals and apparatus licence conversions.² Accurately valuing spectrum is critical to facilitate its efficient allocation. While ACCAN's preferred approach to valuing ESLs is to undertake a competitive auction process, which would reveal the true market value of ESLs, we support refinements to the ACMA's methodology that facilitate a more accurate valuation of spectrum assets.

Mobile Network Operators (**MNOs**) provided with discounted access to a finite public asset which enables them to operate profitable businesses should be subject to obligations which hold them accountable to the consumers that use their services, especially in regional, rural and remote (**RRR**) areas. However, MNOs have not made any commitments to translate the discount received through the ESL process to benefit consumers through either additional infrastructure investments or a reduction in retail prices.

Conversely, MNOs have materially reduced their investment in terrestrial mobile infrastructure over the past decade³ and ACCAN does not consider that MNOs would invest significant amounts in terrestrial mobile infrastructure if their costs were reduced, through lower spectrum costs or otherwise. MNOs are therefore unlikely to translate ESL discounts into meaningful network investments in RRR areas to the benefit of consumers.

¹ Australian Communications and Media Authority, *Expiring Spectrum Licences (Stage 4) - Updated Preliminary Views on Pricing* (17 December 2025) 2 <https://www.acma.gov.au/sites/default/files/2025-12/esl_stage_4_-_updated_preliminary_views_on_pricing.pdf>.

² Australian Communications and Media Authority, 'Expiring Spectrum Licences (Stage 3) – Preliminary Views' (Consultation Paper, April 2025) 3 <<https://www.acma.gov.au/consultations/2025-04/expiring-spectrum-licences-stage-3-preliminary-views>>.

³ Australian Competition and Consumer Commission, *Mobile Infrastructure Report 2025* (Report, November 2025) Table 3.1.

Barring such commitments, the only conclusion that can be reached is that the intention of industry stakeholders is to retain any windfall gains from reduced spectrum pricing in the form of increased profits, at the expense of communications consumers. ACCAN considers that the Australian Government should implement coverage obligations on MNOs through amended carrier licence conditions to drive further private investment in RRR terrestrial mobile infrastructure. Coverage obligations should be equivalent in value to the real discount received by MNOs through the renewal of ESLs.⁴

Further, ACCAN is concerned that key elements of the ACMA's evidence base have not been published through the ESL process which is usual process for other regulators. For example, the Weighted Average Cost of Capital (**WACC**) is an important input in determining a fair price for ESLs. However, the ACMA has not made public advice concerning the determination of an appropriate WACC for ESLs. This is deeply concerning to ACCAN and unnecessarily restricts stakeholders' ability to engage with the ESL process.

2. Background

Since the ACMA proposed to renew ESLs, ACCAN has released two policy positions on the allocation of spectrum resources. ACCAN's 'Allocating spectrum in the consumer interest' policy position advocated that MNOs should provide legally binding commitments to meaningful investments in their respective mobile networks or retail price reductions equivalent to the discount they may receive from renewed ESLs.⁵ ACCAN's 'Spectrum Coverage Obligations' policy position recommends that the Australian Government should implement coverage obligations on MNOs through amended carrier licence conditions equivalent in value to the real discount received by MNOs through ESL renewal.⁶

The New South Wales (**NSW**) Telco Authority has supported enforceable licence conditions for 'roaming for emergency services across all networks, priority and pre-emption during emergencies, and resilience standards' in the absence of the reservation of ESLs for emergency use.⁷ In February 2026, a representative from the NSW Telco Authority noted that 'if pricing pressure is eased for carriers, it should be balanced by guaranteed and measurable delivery of public safety and coverage outcomes'.⁸ We support the reservation of ESLs for public safety and the NSW Telco Authority's call for enforceable licence conditions.

⁴ ACCAN, 'Spectrum Coverage Obligations' (Policy Position, 2026) <<https://www.accan.org.au/accan-s-position-papers/spectrum-coverage-obligations>>.

⁵ ACCAN, 'Allocating Spectrum in the Consumer Interest' (Policy Position, 2025) <<https://www.accan.org.au/accan-s-position-papers/allocating-spectrum-in-the-consumer-interest>>.

⁶ ACCAN, 'Spectrum Coverage Obligations' (Policy Position, 2026) <<https://www.accan.org.au/accan-s-position-papers/spectrum-coverage-obligations>>.

⁷ NSW Telco Authority, 'Australia Is Running out of Time to Secure Spectrum for Public Safety | NSW Government' <<https://www.nsw.gov.au/news/australia-running-out-of-time-to-secure-spectrum-for-public-safety>>.

⁸ Communications Day, 'COMMSDAY FORUM DAY 1 WRAP: What Minister Wells, Telstra, Vocus, TPG, BAI, Bevan Slattery, Pivotel + more said' (Newsletter, February 2026) 10.

We consider that spectrum reservations should be pursued to maximise community benefit, through the public safety reservation proposed by the NSW Telco Authority and supported by the First Nations Digital Inclusion Advisory Group (**FNDIAG**). FNDIAG's First Nations Digital Inclusion Roadmap recommended:

- The Australian Government engages with the ACMA on options for improving the availability of spectrum for First Nations communities as part of the ESL process.
- The Australian Government engages with the ACMA on how spectrum allocation can be reprioritised to ensure allocation to First Nations services in large population centres where there is currently no First Nations radio presence. This could include re-prioritisation of spectrum.
- The Australian Government engages with the ACMA on how to make spectrum available for Digital Terrestrial Television.
- The ACMA ensure First Nations representation in their forums to ensure ongoing input from First Nations perspectives, including reviews and processes related to spectrum allocation and use.
- The ACMA agree to ongoing First Nations representation at the executive decision-making level.⁹

ACCAN supports these recommendations of the FNDIAG and encourages the ACMA to examine options for reserving spectrum in order to improve the availability of spectrum for First Nations communities as part of the ESL process.

3. Contradictory claims about investment risk poor outcomes

In submissions to the ESL Stage 3 – Preliminary views consultation paper, MNOs proposed pricing ESLs conservatively and claimed that high prices for the renewal of ESLs will adversely affect the ability of MNOs to invest back into the network. MNOs and industry representatives also repeatedly expressed a lack of support for competitively auctioning ESLs to efficiently allocate spectrum resources to their best and highest use.

Every dollar we spend on spectrum renewal competes directly with network buildout and other capital investments.¹⁰ – Telstra

If set too high [ESL prices], it risks market consolidation, reduced investment, and delayed infrastructure deployment – particularly in regional areas.¹¹ – Optus

⁹ First Nations Digital Inclusion Advisory Group, 'First Nations Digital Inclusion Roadmap 2026 and beyond' (Report, 2024) 27 <<https://www.digitalinclusion.gov.au/roadmap>>.

¹⁰ Telstra, 'Expiring Spectrum Licences: Stage 3 submission' (Submission, June 2025) 2.

¹¹ Optus, 'Submission in response to ACMA Consultation Paper Expiring Spectrum Licences – Stage 3' (Submission, June 2025) 3.

Every dollar MNOs save on spectrum payments would ultimately be spent on network infrastructure and improving end-user experiences.¹² – TPG Telecom

MNOs' claims that paying more for spectrum will divert funds away from mobile network investments are directly contradicted by recent comments from Luke Coleman, the CEO of the Australian Telecommunications Alliance.

Mr Coleman stated:

We have reached the geographic and economic edge of where telcos are willing to invest in terrestrial mobile infrastructure.¹³

Mr Coleman further noted that:

Each subsequent round of that program [the Mobile Black Spot Program (**MBSP**)], the amount of investment that industry is willing to contribute has tapered off to effectively zero.¹⁴

ACCAN notes that no commitments have been made by MNOs to pass on savings from discounted ESL renewal through to consumers. Accordingly, reducing spectrum license fees in a bid to increase network investment is likely to result in minimal public benefit through additional infrastructure investment, with MNOs paying progressively less - not more - in fees.¹⁵

For example, when subject to questioning by the Australian Financial Review, Telstra CEO and Managing Director, Vicki Brady noted that:

Telstra was not providing any guarantees on exactly how it would spend any money saved on spectrum costs.¹⁶

ACCAN considers that these statements, and statements made by industry and industry representatives since, indicate that without the imposition of coverage obligations, the prospect of further material investments in RRR terrestrial network infrastructure is limited, notwithstanding significant public subsidies being on offer through government co-funding schemes.¹⁷

Recent industry commentary since the release of the ACMA's preliminary views has not indicated any intention to pass on the real or nominal discount in the form of increased investment in mobile infrastructure, or the reduction of retail prices.

¹² TPG Telecom, 'Expiring Spectrum Licences Stage 3 TPG Telecom Submission to ACMA' (Submission, June 2025) 8.

¹³ Australian Telecommunications Alliance, SIAA Policy and Strategy Forum Panel (Media Release, July 2025) <<https://www.austelco.org.au/siaa-policy-and-strategy-forum-panel/>>.

¹⁴ Ibid.

¹⁵ ACCAN, 'Allocating Spectrum in the Consumer Interest' (Policy Position, 2025) <<https://www.accan.org.au/accan-s-position-papers/allocating-spectrum-in-the-consumer-interest>>.

¹⁶ Higher Transmission Costs Will Push up Prices: Telstra', Australian Financial Review (10 September 2025) <<https://www.afr.com/companies/telecommunications/higher-transmission-costs-will-push-up-prices-telstra-20250908-p5mtc9>>.

¹⁷ ACCAN, 'Allocating Spectrum in the Consumer Interest' (Policy Position, 2025) <<https://www.accan.org.au/accan-s-position-papers/allocating-spectrum-in-the-consumer-interest>>.

Conversely, industry representatives have indicated that MNOs' ability to invest in mobile network infrastructure, especially in RRR areas, will be negatively impacted by the ACMA's spectrum valuation, despite receiving a significant nominal and real discount on previously paid spectrum costs.

In Communications Day on 25 February 2026, CEO of the Australian Mobile Telecommunications Association, Louise Hyland noted:

spectrum licensing was the number one issue affecting mobile network investment "or the lack of it, especially in our regional areas".¹⁸

In Communications Day on 6 February 2026, Luke Coleman noted that:

...every dollar spent on spectrum is a dollar that can't be spent on network infrastructure.¹⁹

In Communications Day on 9 February 2026, a Telstra spokesperson noted that

Telstra intends to continue to invest – but high spectrum prices will force tough trade-offs between managing our costs and investing in the future," the spokesperson said.²⁰

In Communications Day on 31 October 2025, CEO of the Australian Mobile Telecommunications Association, Louise Hyland noted:

Every dollar directed toward excessive spectrum costs is a dollar diverted from network upgrades, coverage expansion, and innovation.²¹

In Communications Day on 31 October 2025, Luke Coleman noted that

Higher priced spectrum ultimately puts at risk our capability to continue investing in network upgrades and the regional infrastructure and services Australians deserve and expect.²²

The above comments are in direct contrast to the demonstrated reality of mobile infrastructure investment in RRR areas in recent years. MNOs have invested sparingly in terrestrial mobile infrastructure in RRR areas since 2021 and current terrestrial mobile infrastructure investment in outer regional, remote and very remote areas is largely underpinned by government co-funding. Further, ACCAN notes potentially decreasing industry willingness to participate in these programs.

¹⁸ Communications Day, 'COMMSDAY FORUM DAY 1 WRAP: What Minister Wells, Telstra, Vocus, TPG, BAI, Bevan Slattery, Pivotal + more said' (Newsletter, February 2026) 10.

¹⁹ Communications Day, 'Telecom sector strikes back on consumer group's spectrum lobbying' (Newsletter, February 2026) 1.

²⁰ Communications Day, 'MNOs hit back on ACCAN campaign for spectrum renewal obligations' (Newsletter, February 2026) 2.

²¹ Communications Day, 'Optus dominates Opensignal's latest report with most wins for mobile experience' (Newsletter, October 2025) 5.

²² Ibid 6.

Noting the material role of government funding in underpinning investment, and the absence of a substantive commitment from industry participants to invest any reduction in ESL fees, the valuation of spectrum licenses should seek to reflect their efficient price.

Valuing ESLs to reflect their efficient price will promote the efficient allocation and use of spectrum assets in keeping with the objectives of the *Radiocommunications Act 1992* (Cth). The objectives of the *Radiocommunications Act 1992* (Cth) Act are to promote the long-term public interest derived from the use of the spectrum by providing for the management of the spectrum in a manner that:

- (a) facilitates the efficient planning, allocation and use of the spectrum; and*
- (b) facilitates the use of the spectrum for:*
 - (i) commercial purposes; and*
 - (ii) defence purposes, national security purposes and other non-commercial purposes (including public safety and community purposes); and*
- (c) supports the communications policy objectives of the Commonwealth Government.*²³

If the claim by MNOs that high spectrum prices will put network investment at risk and add pressure to retail prices is being made in good faith, then MNOs should be prepared to back up this contention by formal commitments to the Australian Government of sustained and measurable retail price reductions or additional network investment.

4. Mobile infrastructure investment in RRR areas

ACCAN considers that far from a situation in which MNOs would invest significant amounts in terrestrial mobile infrastructure if their costs were reduced, through lower spectrum costs or otherwise, that in fact MNOs have materially reduced their investment in terrestrial mobile infrastructure over the past decade.²⁴

ACCAN observes a clear and growing dependence on public investment to support the growth of mobile infrastructure for outer regional, remote and very remote areas of Australia. For example, ACCAN has calculated that the percentage of new co-funded sites relative to total sites in outer regional areas has risen from 50.5% to 58.9% between 2021 and 2025, and 30.6% to 59.6% in very remote areas.²⁵ Further, neither TPG and Optus invested in new sites in very remote areas in 2025, and their investment activity in remote and outer regional areas remains limited.²⁶

²³ *Radiocommunications Act 1992* (Cth) s.3.

²⁴ Australian Competition and Consumer Commission, *Mobile Infrastructure Report 2025* (Report, November 2025) Table 3.1.

²⁵ Australian Competition and Consumer Commission, 'Mobile Infrastructure Report 2025 - Output Tables' (Report, 2025) Tables 34 and 38.

²⁶ *Ibid.*

Mobile infrastructure has significant up-front costs; however, cost-per-unit declines steeply as more services are provided to users.²⁷ This creates an incentive for MNOs to only invest in areas with high user density, as only a critical mass of consumers would justify the increasing expense of investing in mobile infrastructure. In practice, this means that investment remains heavily concentrated in metropolitan areas. For example, in remote and very remote areas since 2021, MNOs have added a net 197 mobile sites compared to the 1,329 mobile sites added in major cities during this period.²⁸ Further, technological upgrades are also skewed towards urban areas with 70% of Optus' and 82% of TPG's new 5G sites since 2024 occurring in major cities.²⁹

ACCAN notes that recent rounds of the MBSP have seen a significant decrease in the number of solutions delivered from earlier rounds while the proportionate cost of providing each solution have increased. For example, despite committing \$80 million in funding to Round 5, the Australian Government was only able to award \$36.8 million for the delivery of 182 solutions.³⁰ In Round 7 of the MBSP, \$55 million (GST inclusive) was awarded to deliver 62 new mobile solutions.³¹ Further, An independent evaluation of the MBSP noted that 'after Round 5, carriers' interest in submitting applications for the program appears to have waned, as evidenced by the decline in the number of proposed solutions'.³²

As demonstrated above, co-funding programs such as the MBSP have underpinned recent mobile investment in outer regional, remote and very remote areas. Declining solution delivery from the MBSP undermines industry claims that ESL discounts will be translated into investment in RRR terrestrial mobile infrastructure.

Decreasing rates of private mobile infrastructure investment in RRR areas and decreasing MNO contributions to government co-funding programs risks ongoing poor mobile coverage outcomes for RRR consumers, at least until direct-to-device technology has significantly matured. This presents an ongoing risk to consumers as it is unclear when direct-to-device technology will sufficiently mature to address the current gaps in mobile connectivity present in RRR areas.

²⁷ The ACCC has estimated that mobile tower costs can vary from roughly \$500,000 - \$1.2 million per tower, with greater costs usually for remote areas as opposed to urban areas. Australian Competition and Consumer Commission, *Regional Mobile Infrastructure Inquiry: Final Report* (Report, Australian Competition and Consumer Commission, July 2023) 18.

²⁸ Australian Competition and Consumer Commission, *Mobile Infrastructure Report 2025* (Report, November 2025) Table 3.1.

²⁹ Ibid 8.

³⁰ Department of Infrastructure, Transport, Regional Development, Communications and the Arts, *Mobile Black Spot Program Round 5a Discussion Paper* (Discussion Paper, 21 April 2020) 4.

³¹ Department of Infrastructure, Transport, Regional Development, Communications and the Arts, 'Mobile Black Spot Program' (6 February 2026) <<https://www.infrastructure.gov.au/media-communications/phone/mobile-services-and-coverage/mobile-black-spot-program>>.

³² Department of Infrastructure, Transport, Regional Development, Communications and the Arts, 'Mobile Black Spot Program Evaluation' (18 September 2025) 48 <<https://www.infrastructure.gov.au/departments/media/publications/mobile-black-spot-program-evaluation>>.

5. Key Issues

5.1. Transparency on the Weighted Average Cost of Capital

It is deeply concerning that key economic inputs to the valuation methodology – including the discount rate and parameters for estimating the WACC – have not been detailed in the ACMA’s consultation or released publicly.

The ACMA was provided advice by Plum Consulting, Frontier Economics, and Ian Martin Advisory (with Flat Rock Consulting) concerning the use of an appropriate WACC for its ESL Stage 3 – preliminary views consultation. This advice has, to date, not been made available for consideration through the consultation process or released publicly at all.³³

Noting that calculations associated with the WACC are likely to form only a part of ESL expenditure, ACCAN nonetheless considers it critical to transparency, and to enable meaningful contributions to the lengthy consultation processes, that the ACMA should make public the advice provided by the above consultancies. It is deeply concerning that those key expert reports that have not been released or consulted on, in keeping with standard practice undertaken by other regulators.

The publication of such advice and reports on these matters is common practice by regulators undertaking public consultations on key matters of economic and social policy, including the ACCC. For example, the ACCC completed a consultation on the methodology for estimating the WACC for telecommunications companies as recently as December 2025, with the ACCC publishing relevant expert reports to facilitate an open and transparent determination of key economic inputs.³⁴

ACCAN is aware that DotEcon does not ‘see any obvious issues with the ACMA’s choice of WACC value’.³⁵ However we maintain our concerns with the absence of transparency related to the determination of an appropriate WACC for the ESL process, noting its importance to the determination of the value of spectrum assets. We hold concerns the methodology that the ACMA appears to have adopted for determining WACC estimates departs from methodology adopted by the ACCC.

³³ Responding to Senate Estimates questions on 20 October 2025, the ACMA noted that it ‘has spent a total of \$370,225.50 (GST inclusive) on advice to inform its ESL pricing model’. Parliament of Australia, Senate, Environment and Communications Committee, 20 October 2025, Question Number 225, Asked by Senator Sarah Hanson-Young of the Australian Communications and Media Authority. Portfolio Question Number SQ25-002402.

³⁴ Cambridge Economic Policy Associates, *WACC Methodology* (Final Report, 28 November 2025) <https://www.accc.gov.au/system/files/cepa-final-report-wacc-methodology_0.pdf?ref=0&download=y>.

³⁵ Dot Econ, ‘Review of the ACMA expiring spectrum licence pricing’ (Report, September 2025) 11 <https://www.acma.gov.au/sites/default/files/202512/dotecon_review_of_acma_expiring_spectrum_licence_pricing.pdf>.

While there may be legitimate grounds for an alternative approach for determining the relevant economic inputs, without the methodology being made available to participants in this process, or the public, stakeholders are unable to assess its appropriateness within the ESL context.

ACCAN has commissioned Professor Richard Holden from the UNSW Business School to provide expert advice on the ACMA's Weighted Average Cost of Capital and Revenue Projections.

In Communications Day on 19 February 2026, Deputy ACMA Chair, Adam Suckling noted

Representatives of the mobile operators have access to the assumptions in our methodology and know the drivers of spectrum valuation of the model.³⁶

ACCAN would welcome clarification from the ACMA on the information mobile operators may have access to relevant to the ACMA's methodology in determining an efficient spectrum price and whether this information exceeds that already made public by the ACMA. In the latter case, industry may have an unfair advantage in its contribution to the consultation process.

5.2. Instalment arrangements should not be pursued

ACCAN supports the ACMA's proposal that upfront payment is the most appropriate payment approach. In Professor Richard Holden's submission to the ACMA's Stage 3 Consultation Paper, Professor Holden noted that the financial commitment of upfront payment also creates incentives to deploy networks quickly.³⁷ ACCAN supports the ACMA's proposal that upfront payments are the most appropriate payment approach concerning the ESL process.

Further, the financial commitment of upfront payments provides incentives for the efficient reallocation of spectrum by licensees, where greater value can be derived through sale. These incentives are likely to be muted through instalment arrangements and discourage the efficient reallocation of finite spectrum assets over the duration of the license period. In keeping with the objectives of the *Radiocommunications Act 1992* (Cth), upfront payment of ESLs will facilitate the efficient planning, allocation and use of the spectrum.³⁸

³⁶ Communications Day, 'EXCLUSIVE: NBN Co consults on proposed Sky Muster, Amazon Leo transition | ACMA rejects ACCAN, OECD spectrum prescriptions' (Newsletter, February 2026) 14.

³⁷ 'Spectrum Licence Renewals in Australia - Professor Richard Holden', ACCAN <<https://www.accan.org.au/accan-submission/spectrum-licence-renewals-professor-richard-holden>>.

³⁸ *Radiocommunications Act 1992* (Cth) s.3.

5.3. Transparency on the real and nominal prices of ESLs

In the ACMA's ESL Stage 3 Consultation Paper, the ACMA has noted that the price originally paid when these licences were acquired through various auctions, renewals and apparatus licence conversions was \$8.2 billion in nominal terms. This was confirmed by representatives from the ACMA responding to questions in Senate Estimates on 10 February 2026.³⁹

To date, the ACMA has not made public the price of the ESLs as originally acquired in real terms. ACCAN considers that in responding to submissions from the ESL process, the ACMA should make public the real value of the ESLs as previously acquired through various auctions, renewals and apparatus licence conversions. Relevant ESLs (acquired at auction or otherwise) can have a maximum duration of 15 years. The significant duration of these licences means that the value of ESLs in real terms should be made public to support stakeholders' engagement with the ESL process.

The ESL Stage 4 Consultation Paper notes that in response to feedback from DotEcon, the ACMA restricted the data to 2018 onwards for the following bands.

- For sub-1 GHz bands 'as earlier awards were materially higher than recent outcomes and would otherwise overstate current market values'.⁴⁰
- For bands between lower 1-3 GHz 'as earlier awards were materially higher than recent outcomes and would otherwise overstate current market values'.⁴¹

ACCAN considers that these statements and DotEcon's filtering of benchmark data to only look at recent (2018 onwards)⁴² awards may indicate that the real price of previously acquired licences may significantly exceed the nominal price noted by the ACMA.

We would query the restriction of data to 2018 onwards to determine an appropriate value for ESLs. Restriction of data from 2018 onwards may distort the ACMA's valuation of ESLs through excluding relevant spectrum assets which have different physical characteristics and therefore have fundamentally different values. In ACCAN's view, in valuing spectrum assets the ACMA should use values over a time period that is consistent with the duration and term of the relevant assets in question in order to ensure that the valuation is robust.

³⁹ 'ParlInfo - Environment and Communications Legislation Committee : 10/02/2026 : Estimates' 59 <<https://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22committees%2Festimate%2F29365%2F0000%22>>.

⁴⁰ Australian Communications and Media Authority, 'Expiring Spectrum Licences (Stage 4) - Updated Preliminary Views on Pricing' (17 December 2025) 29 <https://www.acma.gov.au/sites/default/files/2025-12/esl_stage_4_-_updated_preliminary_views_on_pricing.pdf>.

⁴¹ Ibid.

⁴² DotEcon, 'Review of the ACMA Expiring Spectrum Licence Pricing' (Report, September 2025) 22 <https://www.acma.gov.au/sites/default/files/2025-12/dotecon_review_of_acma_expiring_spectrum_licence_pricing.pdf>.

This would mean the inclusion of the historical valuations for all licenses that are subject to renewal and contemporary auctions from comparator nations. Any departure from this approach should be justified and subjected to clear and transparent sensitivity testing to avoid the inaccurate estimation of the efficient price of these assets.

ACCAN acknowledges the ACMA's attempts to determine a market rate for spectrum through its ESL process and maintains that MNOs should pay an efficient price for spectrum that reflects its true market value. Accordingly, we do not believe that making public the real price of ESLs as previously acquired would disrupt the ACMA's undertaking of the ESL process provided the ACMA's methodology is accurate and supported by extensive benchmarking data.

ACCAN considers that this information should be made public prior to the next stage of the ESL process or consultation on the merits of a secondary licensing framework. Making this information public through the ACMA's 'response to submissions' will provide further clarity to stakeholders contributing to the ESL process, communications consumers and decision-makers.

6. Coverage Obligations will support ongoing investment

Coverage obligations are often implemented alongside spectrum auctions in other jurisdictions to support mobile coverage outcomes and in some cases, MNOs can take on coverage obligations reducing the price of spectrum acquired at auction.⁴³ By providing a discount to MNOs, the ESL process bypasses the commonplace imposition of coverage obligations in exchange for a discount on spectrum fees determined at auction.

ACCAN considers that the ACMA's preliminary position to renew ESLs at discount, and the benefit of commercial certainty extended to MNOs by renewal provides a greater justification for the implementation of coverage obligations on MNOs by the Australian Government.

In its 2025 report on alternative licencing conditions, the ACMA noted that:

If rollout obligations were to be implemented, incumbent licensees expect that prices for spectrum associated with renewed or newly acquired licences should be discounted to acknowledge the investment requirement.⁴⁴

⁴³ For example, successful bidders of the ascending auction had the possibility to earn a price discount on the spectrum fee by accepting coverage obligations. OECD, *Developments in Spectrum Management for Communication Services* (Organisation for Economic Co-Operation and Development (OECD), 20 October 2022) 29 <https://www.oecd-ilibrary.org/science-and-technology/developments-in-spectrum-management-for-communication-services_175e7ce5-en>.

⁴⁴ Australian Communications and Media Authority, 'Expiring Spectrum Licences: ACMA Report on Alternative Licensing Conditions' (March 2025) 23 <<https://www.acma.gov.au/publications/2024-12/report/expiring-spectrum-licences-acma-report-alternative-licensing-conditions>>.

The current proposal from ACMA to renew ESLs at a nominal and real discount (\$7.3 billion compared to a previous nominal \$8.2 billion) **without placing obligations on MNOs to meet coverage obligations** provides an advantage to incumbents without providing assurances of beneficial terrestrial infrastructure investment to those who underwrite this decision – Australian consumers.

Following the ACMA's logic, incumbents should take on obligations as they already are receiving a discount on spectrum fees through the ESL process without providing any assurances of investment. Accordingly, coverage obligations implemented by the Australian Government should be **equivalent in value to the real discount** received through the ESL process.

We are concerned that renewing ESLs without any assurances of infrastructure investment risks underinvestment in mobile infrastructure and poor consumer outcomes.⁴⁵ Coverage obligations requiring terrestrial infrastructure investment will support ongoing, responsive and tailored connectivity outcomes in RRR Australia while direct-to-device satellite capabilities mature and support critical redundancy capacity once these capabilities achieve widespread adoption.⁴⁶

Responding to comments from Telstra on ESL valuations, Royal Melbourne Institute of Technology Associate Professor Mark Gregory was critical of the premise of MNOs re-investing the discounts they receive through the ESL process. Associate Professor Mark Gregory remarked that:

I think any reduction in the cost would be a win for the telcos at the expense of consumers.

With the rise of low-earth-orbit services like Starlink and others expected to come online that can provide mobile coverage to remote areas via satellite, the telcos have become very cautious about expenditure to improve network performance.

If the telcos are going to get a \$1 billion discount, then they need to invest that saving into key services in particular areas. But of course, there's no guarantee the telcos will do anything other than what they're doing now.

The overall benefit to consumers is marginal or non-existent if the telcos are given a reduction in spectrum costs.⁴⁷

⁴⁵ ACCAN, 'Spectrum Coverage Obligations' (Policy Position, 2026) <<https://www.accan.org.au/accan-s-position-papers/spectrum-coverage-obligations>>.

⁴⁶ Ibid.

⁴⁷ Telstra Warns of Higher Bills for Millions after Woolworths Ends Cheap Deal, *Yahoo Finance* (12 February 2026) <<https://au.finance.yahoo.com/news/telstra-warns-of-higher-bills-for-millions-of-aussie-mobile-customers-in-spat-over-spectrum-fees-215622879.html>>.

6.1. Coverage Obligations are a unique opportunity to improve connectivity

ACCAN strongly calls for coverage obligations to be implemented on MNOs through amended carrier licence conditions, equivalent in value to the real discount received by MNOs through the ESL process.⁴⁸ Coverage obligations will promote the public interest by ensuring that private infrastructure investment occurs alongside the ACMA's discounted renewal of ESLs to benefit consumers in RRR areas and more equitably distribute the benefits of discounted ESL renewal.

ACCAN supports the Australian Government's National Audit of Mobile Coverage (**the National Audit**) as a positive measure to improve knowledge about mobile black spots across Australia.⁴⁹ The National Audit will measure coverage and performance across Optus, Telstra and TPG to help target future investment, and to provide an independent resource that better reflects on ground experiences of mobile coverage provided commercially by mobile providers.⁵⁰ ACCAN considers that the completion of the National Audit and its corresponding findings can provide for a sound evidence base to inform the development and implementation of ESL coverage obligations.

Findings from the National Audit can inform the location and number of base stations, buildout distribution and co-location capabilities required under ESL coverage obligations. This would ensure that targeted coverage solutions facilitated by ESL coverage obligations are delivered to underserved communities transparently and backed by independent evidence and supported by consultation with communities impacted by poor mobile coverage outcomes.

Coverage obligations should be designed in consultation with state and local governments and communities impacted by poor mobile coverage. To support compliance with obligations MNOs should be required to provide evidence of obligation completion at set dates. In setting ESL coverage obligations, the Australian Government should impose a single or series of dates by which the coverage obligations must be met, subject to public consultation.⁵¹ Further, the Australian Government should publicly report on progress taken towards the fulfilment of coverage obligations.

The implementation of coverage obligations is a unique opportunity to expand coverage to underserved areas in RRR areas prior to the full maturation of the UOMO and direct-to-device technology. Implementing coverage obligations can address coverage gaps prior to the maturation of direct-to-device technology and support redundancy once this technology has matured.

⁴⁸ ACCAN, 'Spectrum Coverage Obligations' (Policy Position, 2026) <<https://www.accan.org.au/accan-s-position-papers/spectrum-coverage-obligations>>.

⁴⁹ Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts, 'National Audit of Mobile Coverage' (10 November 2025) <<https://www.infrastructure.gov.au/media-communications/regional-communications-programs/better-connectivity-plan-regional-and-rural-australia/national-audit-mobile-coverage>>.

⁵⁰ Ibid.

⁵¹ ACCAN, 'Spectrum Coverage Obligations' (Policy Position, 2026) <<https://www.accan.org.au/accan-s-position-papers/spectrum-coverage-obligations>>.

Coverage Obligations are broad policy tools which could include, but are not limited to, the following requirements.

- A proportion of households, premises or geographic licence area to be covered.
- A minimum number of base stations to be deployed.
- A minimum number or set number of locations to be covered within a licence area.
- Requirements to address coverage gaps in underserved RRR areas and transport corridors.
- Requirements to ensure that network build out is well distributed.
- Requirements for base stations co-locate to support competition in retail markets.⁵²

Implementing coverage obligations through amended carrier licence conditions addresses the issues previously identified by the ACMA that its capacity to take enforcement action through spectrum licence conditions is 'potentially limited by the licensing framework and regulatory regime'.⁵³ The ACMA previously noted that with respect to the implementation of coverage obligations that it doubts 'the suitability of the current [spectrum licensing] legislative framework to effectively address non-compliance in a way that provides proportionate and meaningful outcomes'.⁵⁴

Under existing settings, the Minister may, by legislative instrument, vary the conditions of a carrier licence under Section 63 of the *Telecommunications Act 1997* (Cth). Prior to amending carrier licences, variation of licences or revocation of licences, the Minister must first:

- Provide the licence holder a written notice setting out a draft version of the instrument and inviting the holder to make submissions to the Minister on the draft; and
- Consider any submissions that were received within the time limit specified in the notice.⁵⁵

This established process should be used to provide for an appropriate enforcement pathway to ensure that MNOs comply with ESL coverage obligations. Additionally, and importantly, this pathway provides for the representatives of communities impacted by poor coverage outcomes - due to an absence of terrestrial mobile infrastructure - to make representations to government to guide the development and implementation of ESL coverage obligations.

ACCAN strongly calls on the Australian Government to implement ESL coverage obligations through amended carrier licence conditions, supported by findings from the National Audit and other sources of information on coverage gaps in RRR areas such as the Mapping the Digital Gap Project, Regional Telecommunications Review, Regional Tech Hub and Australian Digital Inclusion Index.

⁵² ACCAN, 'Spectrum Coverage Obligations' (Policy Position, 2026) <<https://www.accan.org.au/accan-s-position-papers/spectrum-coverage-obligations>>.

⁵³ Australian Communications and Media Authority, 'Expiring Spectrum Licences: ACMA Report on Alternative Licensing Conditions' (March 2025) 1 <<https://www.acma.gov.au/publications/2024-12/report/expiring-spectrum-licences-acma-report-alternative-licensing-conditions>>.

⁵⁴ Ibid.

⁵⁵ Telecommunications Act 1997 (Cth) s.63.

Further, we recommend that the ACMA, in cooperation with the Department of Infrastructure, Transport, Regional Development, Communications, Sport and the Arts undertake a gap analysis between the existing and desired state of terrestrial mobile investment in RRR areas to identify how ESL coverage obligations can be implemented.

7. Conclusion

Efficiently managed spectrum resources are critically important to the delivery of communications services and the consumer interest. ACCAN is unpersuaded on the basis of the evidence and commentary of industry stakeholders that MNOs would invest significant amounts in terrestrial mobile infrastructure if their spectrum costs were reduced. Accordingly, ACCAN considers the Australian Government should implement coverage obligations equivalent in value to the real discount received by MNOs through the renewal of ESLs.

This proposal would ensure that the ESL discounts provided to MNOs are meaningfully translated into further private investment in RRR mobile infrastructure and transparently provide benefit to the Australian public. Absent ESL coverage obligations, the only conclusion that can be reached is that the intention of industry stakeholders is to retain any windfall gains from reduced spectrum pricing in the form of increased profits, at the expense of communications consumers.



www.accan.org.au
info@accan.org.au



Spectrum License Renewals in Australia

Weighted Average Cost of Capital and Revenue Projections

Professor Richard Holden

February 2026

1. Key Points

- The Australian Communications and Media Authority's (ACMA's) revised valuation of spectrum presented in its latest paper 'Expiring spectrum licences, Stage 4: Updated preliminary views on pricing' presents a flawed methodology and outcome.
- It represents a methodology (post-tax Weighted Average Cost of Capital (WACC)) that will not deliver an accurate valuation of spectrum and may materially undervalue it. This would not be in the best interests of the Australian government or the public.
- The ACMA's proposal to use a post-tax nominal WACC of 8.49% is likely to undervalue the spectrum. I note that this is more than a full percentage point higher than the pre-tax nominal WACC of 7.34% that was accepted by the Australian Competition and Consumer Commission (ACCC) for the National Broadband Network Special Access Undertaking (NBN SAU).
- The ACMA should reconsider their approach and, similar to the ACCC in their valuation of NBN SAU, use a pre-tax WACC. This would ensure the efficient value of this critical public asset that will promote its best and highest use.
- The methodology and consultation undertaken by the ACMA to derive the WACC has not been transparent. Advice to the ACMA on key economic inputs has not been made publicly available, despite its role in informing the value of spectrum assets. This contrasts with the transparency of a recent ACCC process which derived WACC estimates for telecommunications services.

Contents

1. Key Points	2
2. Executive Summary	4
3. Introduction	5
4. Cashflows, Benefit Streams and Inflation	7
5. Weighted Average Cost of Capital	8
5.1. Overview	8
5.2. The ACCC's recent WACC process	9
5.3. The ACMA's process to determine the WACC	11
5.4. The Correct Approach	12
6. Summary and Conclusion	13
7. About the Author	14

2. Executive Summary

- The ACMA released an update to their “pricing methodology” for Expiring Spectrum Licences (ESL) following their Stage 3 consultation and peer review. Their paper is titled “Expiring spectrum licences, stage 4: Updated preliminary views on pricing.”
- The background to the ACMA’s work on this issue is, as they note: “Between June 2028 and October 2032, the majority of in-force spectrum licences are due to expire. To facilitate the renewal process, the ACMA intends to publish a single \$/MHz/population price for licences in each frequency band that is included in this ESL process. These prices estimate the market-based prices payable by licensees as the spectrum access charge for renewing licences in each frequency band.”
- As the ACMA notes, these adjustments have led to an upward revision in the projected value of all ESLs from a range of \$5.0-\$6.2 billion to \$7.3 billion.
- This is important because accurate pricing is important in ensuring that spectrum assets are allocated to the efficient user of them.
- The focus of this note is on two issues: (i) the treatment of cashflows and inflation, and (ii) the appropriate choice of the WACC. Because licenses (and the associated benchmark data) have different lengths, it is necessary to standardised cashflows and hence prices. This necessarily involves making an assessment of the time profile of profitability benefits flowing from the licenses. The ACMA has proposed a so-called “flat annuity approach” and discounting cashflows by a post-tax nominal WACC of 8.49%.
- Use of a post-tax WACC is problematic if different market participants have potentially very different effective tax rates (e.g. due to the ability to transfer price and shift profits to another jurisdiction).
- This WACC appears to be high and potentially undervalues the spectrum. It would require a (potentially) very high asset beta to justify it.
- By contrast, the ACCC accepted a WACC methodology proposed by Cambridge Economic Policy Associates (CEPA) in valuing the NBN SAU using a nominal pre-tax WACC of 7.34%.
- The ACCC rejected the advice of Frontier Economics for NBN SAU, yet the ACMA relies on Frontier’s proposal for determining the WACC to value spectrum.
- Although asset betas may well differ for NBN SAU and spectrum, the nominal pre-tax approach of CEPA should be used in determining the appropriate WACC for valuing spectrum.
- Failing to do so may, potentially materially, undervalue the spectrum.
- I note that the Frontier Economics advice has not been made publicly available, despite its role in informing the value of spectrum assets. This contrasts with the transparency of the ACMA v ACCC process.

3. Introduction

In response to feedback on their stage 3 consultation the ACMA has refined their pricing approach for ESLs.

As I have emphasised in previous notes for the Australian Communications Consumer Action Network (ACCAN), spectrum pricing is important not only because of the value to taxpayers, but to ensure that over time spectrum assets are allocated to the most efficient user of them. This drives value for consumers by ensuring that spectrum assets are used efficiently.

A welcome and important change made by the ACMA is their acknowledgment that their extrapolation of time trends from historical data suffers from omitted variable bias and could lead to an underestimate of the value of the spectrum. As they put it:

*"The report from Professor Richard Holden, commissioned by ACCAN, strongly disagreed with the conclusion that spectrum prices have been trending downwards. The report cautioned against using ordinary least squares (OLS) regression to infer a time trend, noting that this method may introduce omitted variable bias and is not suited to establishing a causal relationship. For instance, the report noted drawing conclusions from awards during periods like the COVID-19 pandemic could be problematic. We agree there may be confounding variables influencing spectrum valuation trends...Our updated indexation methodology and approach to including time trends in the analysis, which include more robust methods for managing COVID-era benchmarks, are discussed further in the Proposed adjustments to pricing methodology chapter."*¹

The updated ESL valuation approach proposed by the ACMA is as follows.

Step 1: compile benchmark valuation data, including domestic and international market-based spectrum valuations in 'per MHz per pop' terms.

- *Update:* we will include selected additional spectrum awards, add annual licence fees where necessary and possible, and amend data inconsistencies or errors.

We then proceed to convert all benchmarks valuations to a consistent licence duration, currency and payment timing:

Step 2 (licence duration conversion): convert different licence durations to a single-year valuation using a flat annuity approach with an estimated weighted average cost of capital (WACC).

¹ Australian Communications and Media Authority, *Expiring Spectrum Licences (Stage 4) - Updated Preliminary Views on Pricing* (Report, 17 December 2025) <https://www.acma.gov.au/sites/default/files/2025-12/esl_stage_4_-_updated_preliminary_views_on_pricing.pdf>.

Step 3 (currency conversion): convert award prices to Australian dollars.

- *Update:* we will use PPP exchange rates to convert foreign currencies to Australian dollars.

Step 4: (timing conversion): convert auctions that occurred in different years to the same timing (current year).

- *Update:* inflation (Consumer Price Index (CPI)) will be applied to carry valuations forward to the present, rather than the MSR index.

We then determine if time trends are present within the sample of real prices, and if required, exclude older, less representative benchmarks to control for this effect.

Step 5: (controlling for time trends): conduct statistical testing to determine whether time trends in spectrum valuations exist for the band grouping and restrict the sample to a more recent subset of awards to control for this effect.

- *Update:* this step is entirely different to the former step 5, which involved compiling supplementary data and calculating weights, and is now consolidated into step 6.
- *Update:* where there is a significant trend in a band, we propose to limit the sample to awards from 2018 onwards. This is the median point of the sample and is aligned with the global commencement of awards for spectrum identified for 5G services.

Step 6: determine a single price point for each spectrum band grouping.

- *Update:* the former step 6 calculated a price range, while we are now looking to arrive at a single price point. We propose to use central estimates for the whole dataset as a starting point for each band group, while accounting for specific cohort data and any relevant policy considerations.

Finally, we convert the valuation for spectrum band groups for each individual ESL band, reflecting likely payment timing and licence duration:

Step 7: carry forward the band group's valuation to the relevant renewal date.

- *Update:* CPI forecasts will be applied to project prices to the renewed licence commencement date for each frequency band.

Step 8: convert the valuation from single-year valuations to our preferred option for licence duration for the applicable ESL band.

As the ACMA notes, these adjustments have led to an upward revision in the projected value of all ESLs:

"The refinements to our ESL pricing methodology led to the updated preliminary prices in Table 1, with blue-shaded prices being higher than our previous preliminary price ranges, and teal-shaded prices being within the preliminary price ranges. These single price points result in a projected total value of \$7.3 billion for all licences. This is higher than our preliminary price ranges, which had a projected total value of \$5.0–6.2 billion."

The focus of this note is on two issues: (i) the treatment of cashflows and inflation, and (ii) the appropriate choice of the WACC.

4. Cashflows, Benefit Streams and Inflation

Benchmark data consists of licences with different lengths. These need to be standardised in some way, which requires some assumptions about the time profile of profitability benefits from licences. The ACMA has adopted a flat annuity approach to assessing benefit streams/cashflows, and they use a post-tax nominal WACC of 8.49% as the discount rate to convert benchmark prices to a notional single-year valuation.

Regarding the flat annuity approach, the DotEcon report argues:

"The flat annuity approach assumes that the licence holder receives a stream of benefits that is constant in nominal terms over the duration of the licence. The annuity value is that which, as an annual profit stream, yields a net present value equal to the licence price over its duration using the assumed discount rate. Assuming a constant nominal profit stream means that the real benefit of spectrum to the licensee (i.e. after stripping out inflation) is assumed to be falling over the duration of the licence. Typical long-run inflation expectations for Australia are currently around 2-3%, so this is the implied rate at which real benefits of the licence decline."

And they go on to say:

"Our view is that use of a flat annuity approach is reasonable, in the absences of any strong priors about the time distribution of value derived from licences (i.e. whether this increases or decreases over time). Whilst, in reality, the value to users will likely vary across the licence term, the pattern of variation is unknown, unobservable and will likely vary across licences. It could be argued that assuming constant real benefits might be more reasonable as a starting position in the absence of specific information to inform the annuity model, in which case a real discount rate (i.e. a lower real WACC around 5.5-6.5% per annum) might be more appropriate, which would lead to slightly larger adjustments when standardising for licence duration differences. However, this would not have a material effect on the end results."

This reasoning is not persuasive. Given that the asset is finite and that demand continues to grow, the value of the asset should increase throughout the length of the licence. It is unclear why DotEcon would argue in favour of a shrinking real benefit stream. Moreover, the ACMA rejected the case for nominal pricing in Stage 3, so it seems that prices would be reflective of demand.

The claim that this assumption "would not have a material effect on the end results" is puzzling at best. A simple exercise is to compare a 20-year cashflow stream of \$100 in each year to a 20-year cashflow stream which shrinks at 2.5 per cent per annum (where 2.5 per cent corresponds to the midpoint of the Reserve Bank of Australia's target band for inflation). The constant \$100 stream of cashflows, discounted at the 8.49% WACC proposed by the ACMA yields a net present value (NPV) of \$947.02. The 2.5% per annum decreasing cashflow stream which corresponds to constant nominal cashflows yields an NPV of \$802.44, or just 84.7% of the constant real cashflow stream. **A more than 15% reduction in NPV is, in my view, certainly material. Using a 3% per annum inflation rate this reduction would be nearly 18%.**

A more appropriate approach is to use a flat real income stream. This is commonly referred to as a “tilted annuity approach”. In Preliminary Views Paper 4, the ACMA states:

“We note that the flat annuity approach is a change from the tilted annuity approach we have historically used for licence duration adjustments (for example, for licence renewals of shortened 1800 MHz band licences in the previous ESL process), where nominal cashflows are assumed to grow at a constant rate for each period. We do not consider that there is compelling evidence for constant growth in nominal cashflows for spectrum licences over the long term, particularly in the ESL context.”

It is unclear why there should be a change from a flat to a tilted annuity approach. The life of the asset is finite, and consumer demand is expected to grow.

5. Weighted Average Cost of Capital

5.1. Overview

An important consideration in valuing a stream of cashflows is how to treat future cashflows relative to present cashflows. This involves a choice of discount rate. When those cashflows accrue to an entity, such as a firm, which is funded through a mixture of debt and equity, the appropriate discount rate is the Weighted Average Cost of Capital or “WACC”.

Although the cost of debt is often easy to observe, the cost of equity can be more complicated. But it is typically determined by way of the Capital Asset Pricing Model (CAPM). The CAPM is the standard way to determine the cost of equity when performing discounted cashflow valuations. It allows the cost of equity to be estimated from three parameters: the risk-free rate, the equity risk premium, and the beta (or the amount of systematic risk held). In any jurisdiction this is (slightly) complicated by corporate tax rates. In the Australian context this is further complicated by our dividend imputation scheme whereby domestic investors receive so-called “franking credits” for imputed company taxes paid. These can be used to offset personal income taxes, to avoid double taxation.

In practice, both complications are relatively easily handled.

It is also worth noting that Optus appears to pay little or no company tax in Australia, perhaps due to its ownership structure involving a Singaporean parent company.²

² Patrick Commins, ‘Optus among Companies Earning Billions in Australia but Paying No Income Tax’, *The Guardian* (online, 3 October 2025) <<https://www.theguardian.com/australia-news/2025/oct/03/optus-among-companies-earning-billions-in-australia-but-paying-no-income-tax>>.

5.2. The ACCC's recent WACC process

In November 2025 the ACCC clarified its position on how to assess the WACC and how it bears on various functions it is called on to perform. This was developed following a detailed consultation as part of the ACCC's Special Access Undertaking (SAU) process, regulating the price and non-price terms and conditions of access to the NBN.

In this process, NBN Co proposed a draft WACC, supported by a report prepared by Frontier Economics (Attachment 11.1 of its Regulatory Market Assessment documents). This formed part of NBN Co's documentation submitted as part of its proposed expenditure and work program for the Second Regulatory Cycle, marking the first regulatory reset of this kind in the communications sector.

Given that other declared communications markets also require regulatory assessment of a WACC, the ACCC undertook a broader consultation on the appropriate methodology for determining WACC across the sector. This process sought stakeholder feedback on the approach developed by CEPA and was conducted alongside consultation on the Voice Interconnection Services Access Inquiry, which addressed price and non-price terms of access for a range of voice services. The joint consultation attracted submissions from a wide range of stakeholders, including participants from outside the communications sector such as air and rail transportation sectors. The ACCC subsequently revised its WACC methodology to reflect this feedback, incorporating both supportive and critical views of the CEPA approach.

As the ACCC noted in their document: "the weighted average cost of capital (WACC) may be an input into the determinations, decisions or assessments that the ACCC makes under each of these frameworks. The ACCC to date has typically applied broadly similar methods for estimating the WACC to inform these decisions. However, the ACCC has not previously published any stand-alone guidance on the methods for estimating the WACC which it generally considers appropriate, when performing its economic regulatory functions."

The ACCC undertook a review of different approach to estimating the WACC for a regulated and published their conclusions "to provide greater transparency to regulated entities and interested parties about the WACC methods that the ACCC generally considers appropriate for use as a starting point, when we make determinations, decisions or assessments in performing our economic regulatory functions."

The ACCC position is summarised in the following table, reproduced from their document.

Table 1: ACCC's WACC methodology³

Parameter	Methodology
WACC formula	We will generally adopt a nominal vanilla WACC.
Return on equity	We will generally use the Capital Asset Pricing Model (CAPM) to estimate cost of equity.
Risk-free rate	In the CAPM, we will generally adopt a prevailing risk-free rate estimated based on 10-year Commonwealth Government Securities (CGS) yields.
Market risk premium	<p>The market risk premium (MRP) estimate will generally be based on average historical excess returns.</p> <p>We will generally use forward-looking estimates derived from methods such as Dividend Growth Models (DGMs) as a cross-check as appropriate, such as when market conditions are less stable or deviate from its long run trends.</p>
Gamma	Gamma estimate will generally be informed by estimates of distribution rates and utilisation rates.
Beta	<p>Our estimates of beta will be informed by consideration of a list of comparator firms that have similar systematic risks to those of the regulated firm.</p> <p>In determining the comparators to be used, we will seek to minimise the risk of sample bias having regard to the number and representativeness of chosen comparators.</p> <p>When estimating the beta, we will generally use the ordinary least squares method. We will consider estimates based on various time periods and frequencies.</p>
Benchmark gearing ratio	<p>In determining the benchmark gearing ratio, we will be informed by our comparators' gearing ratios (e.g., the mean or median of the gearing ratios of the sample and its range). We may also exercise regulatory / policy judgment having regard to other factors we consider relevant.</p> <p>When calculating gearing ratios, we will generally use the gross debt estimates based on book value of debt and market value of equity.</p>
Return on debt	<p>We will generally adopt the simple 10-year trailing average approach using the yields of corporate bonds commensurate with the benchmark credit rating determined for the regulated firm.</p> <p>We will consider use of an "on-the-day" approach where the legislative framework or the context of the decision would make that approach more appropriate.</p> <p>The benchmark credit rating will be informed by the credit ratings of the comparators, having regard to other factors we consider relevant.</p> <p>When calculating the cost of debt, we will factor in a debt issuance cost, which is determined by considering regulatory precedent.</p>

³ Australian Competition and Consumer Commission, *Review of weighted average cost of capital methodology: ACCC statement* (Web Page, 28 November 2025) <<https://www.accc.gov.au/by-industry/regulated-infrastructure/regulatory-projects/review-of-weighted-average-cost-of-capital-methodology/accc-statement>>.

5.3. The ACMA's process to determine the WACC

In their paper "Expiring spectrum licences, stage 3 Preliminary views paper 4: Pricing for ESLs", the ACMA describes their approach to determining the WACC as follows.

The most important parameter in this step is the value of the discount rate, for which we will use an estimate of the weighted average cost of capital (WACC). We received advice on an appropriate WACC from Ian Martin Advisory (with Flat Rock Consulting) and Frontier Economics. We have chosen to use the long-term, post-tax nominal WACC recommendation provided by Frontier Economics of 8.49%. The reasons for this are:

The use of a post-tax rather than pre-tax WACC is appropriate for international benchmarking as it controls for variable corporate tax rates in different countries, while a nominal rate has been used as we are considering nominal cashflows.

The long duration of spectrum licences means that investment expectations should not be heavily subject to short-term considerations. For example, a relatively low WACC in a COVID-affected market environment in 2021 is unlikely to be reflective of the WACC across a 20-year licence term that started in that year. As such, we consider it appropriate to use a consistent WACC that reflects long-term investment expectations and could be relevant for allocations that have occurred in a range of different years, rather than a WACC rate affected by special circumstances at a particular time.

The expert advice we procured in 2024 indicates that we would ideally have an appropriate WACC for the country and year of the allocation for each benchmark price, as that would reflect contextual investment expectations. However, various consultants noted that this would be heavily resource-intensive and is likely to be unachievable. A long-term WACC that can be used across a range of contexts is more appropriate for our purposes.

The WACC recommendations we concurrently received from Ian Martin Advisory included a nominal vanilla (post-tax) WACC for 2024 of between 8.1% and 8.8%, with the range depending on particular input assumptions. The long-term WACC recommended by Frontier Economics falls near the middle of this range, so there was a reasonable level of consistency in approach and recommendations across different consultants.

We note that the flat annuity approach is a change from the tilted annuity approach we have historically used for licence duration adjustments (for example, for licence renewals of shortened 1800 MHz band licences in the previous ESL process), where nominal cashflows are assumed to grow at a constant rate for each period. We do not consider that there is compelling evidence for constant growth in nominal cashflows for spectrum licences over the long term, particularly in the ESL context.

5.4. The Correct Approach

I agree with the approach taken by CEPA. It leads to a more robust and internally consistent means of arriving at the WACC. It is built bottom-up from fundamentals. Although certain parameters will differ for different assets (e.g. NBN SAU versus spectrum licenses), the CEPA approach should be used to arrive at a WACC for valuing spectrum licenses.

One fundamental issue is whether a pre-tax or post-tax WACC should be used. One important difference between what the ACMA is being advised and what should occur is that a pre-tax rather than a post-tax WACC should be used.

A Pre-Tax WACC should be used. There are several virtues of a pre-tax WACC. First, it is neutral across capital structures and thus can be applied consistently to all licensees and to time-varying capital structures within a licensee. Second, it makes the treatment of spectrum license tax more transparent.

The ACMA's position in using a post-tax WACC lacks clarity. It does not articulate from whence the tax rate comes. Is it some function of the Australian company tax rate, or is it the flat rate of spectrum license tax? If it is the former (the company tax rate), then it is hard to see how a single tax rate can be arrived upon. Different licensees are subject to different effective company tax rates. As I observed above, Optus appears to have an effective tax rate of around zero in Australia—although this could involve taxes on Australians being paid in another jurisdiction. In general, there are different tax rates for a number of different licensees including Telstra and NBN Co, in addition to Optus.

An illustration of the approach (as used by CEPA in valuing NBN SAU) is as follows:

- Set **gearing** (i.e. proportion of debt).
- Estimate the **risk-free rate** and **market risk premium (MRP)**.
- Select an **asset beta** and convert it to an **equity beta** using gearing.
- Calculate the **cost of equity** via the CAPM (risk-free + MRP × equity beta).
- Set the **credit rating, debt yield, and debt raising costs** to obtain the **cost of debt**.
- Apply the **tax rate** and **gamma** to convert post-tax to pre-tax equity return.
- Produce both **nominal vanilla WACC** and **nominal pre-tax WACC**.

A numerical illustration of this is as follows. Table 6.1 of CEPA's report shows (for NBN SAU and voice interconnection respectively):

- Risk-free rate **4.33%**, MRP **6.40%**;
- Asset beta **0.33** → equity beta **0.51**;
- Cost of equity (post-tax nominal) **7.58%**;
- Debt yield **4.70%** plus debt raising costs **0.11%** → cost of debt (pre-tax nominal) **4.81%**;
- Gamma **0.57**, tax rate **30%**;
- Nominal vanilla WACC of **6.61%** and nominal pre-tax WACC of **7.34%**.

Different assets will (potentially) have a different asset beta, but this is easily incorporated as can be seen from the above. It does, however, highlight the importance of knowing exactly what assumptions have been made in the advice given to the ACMA. These details are not publicly available at this time.

6. Summary and Conclusion

The ACMA's proposal to use a **post-tax nominal WACC of 8.49%** is likely to undervalue the spectrum. I note that this is more than a full percentage point higher than the **pre-tax nominal WACC of 7.34%** that was accepted by the ACCC for the NBN SAU.

There is no strong argument for using a post-tax WACC. Moreover, there is no strong argument for declining nominal cashflows.

I also note how quantitatively important these differences in WACC can be. For example, consider an asset with a 20-year life with hypothetical cashflows of \$100 per year. This allows us to isolate the "pure WACC effect". Assuming a 15% tax rate (either from a higher rate like the 30% Australian company rate combined with franking credits for some shareholders, or from being able to move profits to a 15% tax rate jurisdiction) then an 8.49% post-tax WACC is equivalent to a 9.99% pre-tax WACC.

Comparing the present value of that stream of cashflows under a 9.99% WACC versus a 7.34% WACC shows that the former leads to a present value of \$852 compared to \$1,034 under the latter. That is, a 17.4% lower present value.

As such, the ACMA's proposed WACC may undervalue the spectrum, potentially materially.

Funding acknowledgment

The operation of the Australian Communications Consumer Action Network is made possible by funding provided by the Commonwealth of Australia under section 593 of the Telecommunications Act 1997. This funding is recovered from charges on telecommunications carriers.

7. About the Author



Richard Holden is Scientia Professor of Economics at UNSW Business School, Director of the [Manos Institute for Cognitive Economics](#), and President Emeritus of the [Academy of the Social Sciences in Australia](#).

Prior to that he was on the faculty at the University of Chicago and the Massachusetts Institute of Technology. He received an AM and a PhD in economics from Harvard University.

Professor Holden has published in top general interest journals such as the Quarterly Journal of Economics, American Economic Review, Journal of Political Economy, Review of Economic Studies, and Nature. He is currently editor of the Journal of Law and Economics. His research has been featured in press articles in The New York Times, The Financial Times, The Economist, and The New Republic.

He is a Fellow of the [Econometric Society](#), a Fellow of the [Academy of the Social Sciences in Australia](#), a Fellow of the [Royal Society of NSW](#), a Distinguished Fellow of the [Luohan Academy](#), and a Senior Academic Fellow at the [e61 Institute](#).



www.accan.org.au
info@accan.org.au