Report to the Trustee on the Actuarial investigation of the Pool B Subdivision of the Defined Benefits Section of Cbus as at 30 June 2023

12 DECEMBER 2023

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Contents

Key Results and Recommendations

On 12 May 2023, all Pool B assets and liabilities of the Energy Industries Superannuation Scheme (the “Former EISS”) were transferred to Cbus under a Successor Fund Transfer (“SFT”) agreement, following which the Pool B Subdivision of the Defined Benefits Section of Cbus (the “Fund”) commenced as Cbus’s first defined benefit superannuation arrangement.

The Fund comprises three Divisions, i.e., Divisions B, C and D (please refer to Appendix B: Fund Design for detailed information of the benefits covered under the three Divisions).

This report on the actuarial investigation of the Pool B Subdivision of the Defined Benefits Section of Cbus (the “Fund”) as at 30 June 2023 is therefore the first actuarial investigation of the Fund carried out under Cbus and has been prepared to meet the requirements of the Fund’s governing rules and the Superannuation Industry Supervision (“SIS”) legislation.

Under the Former EISS, the most recent actuarial investigation before the SFT was carried out as at 30 June 2021. Typically in the case of an SFT involving a defined benefit fund, the first actuarial investigation is required to be conducted with an effective date of the SFT date, i.e. in this case the first investigation under Cbus would have been conducted as at 12 May 2023. However, Cbus applied to APRA for approval to conduct the first investigation as at 30 June 2023 instead. This approval was granted by APRA. At the same time APRA notified Cbus that annual actuarial investigations would be required after the first investigation, which is a change from the three-yearly cycle which applied under the Former EISS.

This investigation therefore covers the two-year period 30 June 2021 to 30 June 2023 and the next investigation will be conducted as at 30 June 2024.

This report should not be relied upon for any other purpose or by any party other than the Trustee. Mercer is not responsible for the consequences of any other use. This report should be considered in its entirety and not distributed in parts.

1.1. Change in Financial Position

Total Defined Benefits ($M)[1]	Position as at 30 June 2023		Position from Former EISS 30 June 2021 Report	
Total Defined Benefit Assets[2]	1,388.5		1,586.0	
Total Actuarial Value of Accrued Benefits	1,379.9	100.6%	1,433.9	110.6%
Total Vested Benefits[3]	1,387.1	100.1%	1,443.2	109.9%

[1] Total Defined Benefits includes both Employer and member-financed defined benefit liabilities, however, exclude accumulation style benefits such as deferred member benefit liabilities in Divisions B and C, and members' Other Accounts (representing a total of $395.8m at 30 June 2023).

[2] Total Defined Benefit Assets refer to Fund assets available to support the defined benefit liabilities. These include both Employer and member-financed defined benefit assets, however, exclude assets supporting the accumulation style benefits. Further information on the defined benefit assets is provided in Section 8.

[3] No allowance is included for administration expenses for the purposes of calculating Vested Benefits.

Please refer to Section 2 'Liability Measures as at 30 June 2023' for detailed descriptions of the various liability measures referred to in this report, e.g. Actuarial Value of Accrued Benefits, Vested Benefits, Cash Resignation Benefits, Deferred Benefits and SG Minimum Benefits.

The above table shows the change in the Fund's funding position as it relates to Total Defined Benefits, i.e. including Employer-financed and member-financed defined benefits. The table below, however, shows the funding position in terms of Employer-financed defined benefits only:

Employer-Financed Benefits ($M)[1]	Position as at 30 June 2023		Position from Former EISS 30 June 2021 Report	
Employer Defined Benefit Assets[2]	1,151.7		1,298.1	
Employer-financed Actuarial Value of Accrued Benefits	1,143.1	100.8%	1,146.0	113.3%
Employer-Financed Vested Benefits[3]	1,150.3	100.1%	1,155.3	112.4%

[1] Employer-Financed Benefits refers to Employer-financed defined benefit liabilities only.

[2] Employer Defined Benefit Assets refers to Fund assets available to support the Employer-financed defined benefit liabilities.

[3] No allowance is included for administration expenses for the purposes of calculating Vested Benefits.

The asset coverage of the above benefit measures has reduced predominantly due to a combination of financial factors experienced by the Former EISS and the Fund over the two years 30 June 2021 to 30 June 2023, specifically negative investment returns, higher than expected salary increases and higher than expected pension increases (which are based on Sydney CPI published rates). Please refer to Section 3 'Key Actuarial Assumptions and Fund Experience' for more information.

A detailed analysis of the movement in the Fund's financial position is included in Section 3.5.

1.2. Employer-Financed Actuarial Value of Accrued Benefits

The Employer-financed Actuarial Value of Accrued Benefits ("Accrued Benefits") at 30 June 2023 is calculated as follows:

Liability for Actuarial Value of Accrued Benefits[1] as at 30 June 2023 ($M)				
Division	**Member Type**	**Total Defined Benefits (DB) (1)**	**Member Contribution Reserves (2)**	**Employer-Financed Accrued Benefits = (1) – (2)**
B	Contributors	555.6	231.0	324.6
	Pensioners	222.4	0.0	222.4
C	Contributors	73.1	0.0	73.1
D	Contributors	19.5	5.8	13.8
	Deferred	6.2	0.0	6.2
	Pensioners	503.0	0.0	503.0
Total		**1,379.9**	**236.8**	**1,143.1**

[1] Excludes accumulation style benefits such as deferred member benefit liabilities in Divisions B and C, and members' Other Accounts.

1.3. Financial Experience Since 30 June 2023 and Unsatisfactory Financial Position at 30 November 2023

I have estimated that the Fund's investment return over the five months to 30 November 2023 was 0.6%. This return is not unexpected, given moderate overall market performance since 1 July 2023. When assessing this return against the Fund's expected return over the same period, of 2.3%, this has had a negative effect on the Fund's financial position since 30 June 2023.

Accordingly, whilst the Fund was in a 'satisfactory financial position' as at 30 June 2023 (i.e. a Vested Benefits Index ("VBI") of 100.1%, measured in terms of Employer-financed defined benefit liabilities), I consider that the Fund is to be treated as being in an 'unsatisfactory financial position' as at 30 November 2023. An 'unsatisfactory financial position' is defined by the Superannuation Industry Supervision ("SIS") Regulations as being in a position where assets are not sufficient to cover the Vested Benefit liabilities of a fund.

Specifically, I estimate that the Fund's Vested Benefit Index has reduced from 100.1% at 30 June 2023 to 98.4% at 30 November 2023 (measured in terms of Employer-financed defined benefit liabilities). The likelihood of this unsatisfactory financial position had been raised earlier whilst assisting the Trustee in completing its September 2023 quarterly APRA reporting, and I had previously advised this to the Trustee in an email dated 27 October 2023, and to APRA in a letter dated 27 October 2023.

Superannuation Prudential Standard 160 ("SPS 160"), paragraph 31, states that I am required, in this situation, to advise the Trustee of the recommended actions to be taken to address the financial position, and to recommend a contribution program (referred to as a "Restoration Plan" in SPS 160) that will, on reasonable expectations, restore the Fund to a satisfactory financial position within a time-period which must not exceed three years (unless APRA permits a longer period to be applied based on specific circumstances of the fund) from the investigation date.

Section 4 'Contribution Requirements' below sets out (amongst other things) the Fund's financing objective, funding target ratio range and the financing methods I have adopted to develop the contribution program which will form the basis of the Trustee's Restoration Plan.

I am also required to provide a statement to the Trustee that the financial position of the Fund is to be treated as unsatisfactory. I confirm though, that the Fund's Shortfall Limit has not been breached (please refer to Section 9.1 for more information on the Shortfall Limit).

Accordingly, please accept the contents of this section, including the relevant references in this report regarding the actions to be taken to address the Fund's financial position and my contribution recommendations, as my formal notice (statement) to the Trustee of my finding that the Fund is to be treated as being in an unsatisfactory financial position.

Please also refer to Section 3.3.2 'Financial Experience since 30 June 2023' for more details regarding the Trustee's specific obligations in relation to advising APRA, including specific timing requirements, and the contents of the Restoration Plan.

1.4. Financing Objective and Recommended Employer Contributions

The Fund's Defined Benefit Policy (dated April 2023) sets out the Fund's current financing objective (i.e. the Fund's funding target ratio range) of between 100% and 110% of Vested Benefit liabilities. The financing objective adopted for my contribution recommendations is therefore to:

- Develop a contribution program which is expected to restore the Fund[1] to a satisfactory financial position by no later than 30 June 2026; and
- On attaining the required VBI of 100%, maintain, and strengthen the VBI over future years within the range between 100% and 110%.

[1] Whilst the key objective is to target a satisfactory financial position for the Fund as a whole by no later than 30 June 2026, a secondary objective is to individually target a satisfactory financial position for each of the impacted Employers separately. This means that, because the other Employers are currently in surplus, the Fund as a whole is expected to reach the satisfactory financial position requirement earlier than 30 June 2026, while the impacted Employers are still moving towards the 100% VBI position over the Restoration period. See also commentary below.

The contribution program is also specifically tailored, as required, to each of the Employers' specific circumstances. With this in mind, it should be noted that, whilst the Fund's overall VBI has dropped below 100%, the funding levels in respect of each of the Employers are also tracked separately (see comment below regarding notional Employer asset accounts).

Given how close to 100% the Fund is overall, some of the Employers' notional accounts remain in surplus whilst others are in deficit. Consequently, only the Employers estimated to currently be in deficit will be required to pay 'top up' contributions in addition to their standard contributions (as referred to in Section 3.6 above "Recommended Employer Contributions in Previous Investigation").

Accumulation style benefits (including deferred member benefit liabilities in Divisions B and C, and members' Other Accounts) are matched by specific assets and therefore do not require any additional margins.

There are no Employer 'sub-funds' in the Fund; however, the Fund's administrator maintains a notional defined benefit asset account in respect of each Employer, which facilitates tracking of each Employer's funding status and contribution requirements.

I have therefore recommended top-up contributions in respect of certain Employers in addition to the current standard Employer contributions (which must be paid by all Employers).

These recommendations are detailed in Appendix D. I have recommended that no top-up contributions are required to be paid during the 2023/24 financial year. Rather, my contribution program has recommended that the impacted Employers' deficits be funded over the two financial years 2024/25 and 2025/26, having regard to the Employers' budgeting cycles.

It should be noted, however, that the contribution program will be formally reviewed again as part of the 30 June 2024 actuarial investigation.

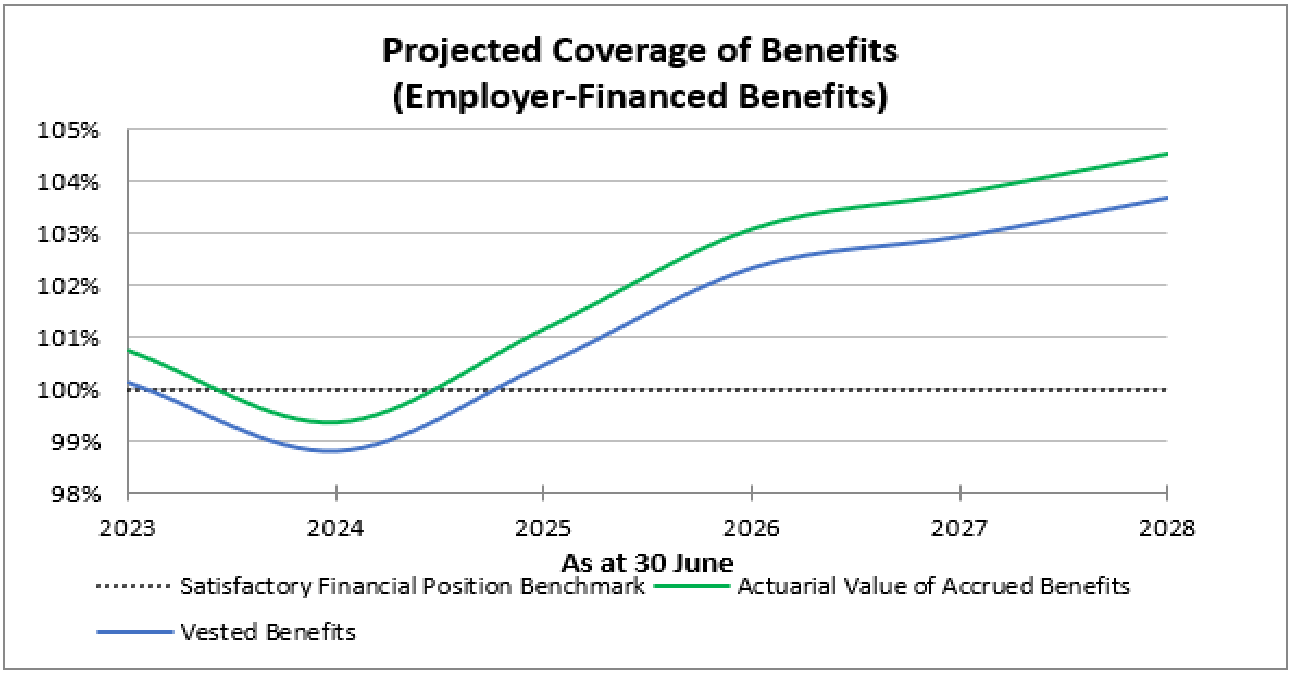
Further, given current market uncertainties, I will continue to monitor the Fund's investment experience as it emerges over the period to the next investigation to ensure the Fund remains broadly on track with expectations.

The contribution program may be modified as an outcome of the results of the next actuarial investigation, or if the monitoring of the funding position suggests a material change in the meantime.

1.5. Projections

I have prepared the following projection of the Employer-financed defined benefit assets and liabilities, on the following basis:

- Using the actuarial assumptions adopted for this investigation, including allowance for the 0.6% investment return over the five-month period to 30 November 2023; and
- Assuming that the Employers contribute on the basis as recommended in Appendix D, including allowance for the recommended Employer top-up contributions payable from 1 July 2024.



The projection shows that the funding position is expected to fall over the 2023/24 year (as noted in Section 3.3.2 'Financial Experience since 30 June 2023' above), however, with the commencement of the top-up contributions from 1 July 2024, the position is expected to improve over the five-year period illustrated in this projection, specifically the VBI is expected to exceed the 100% level by 30 June 2025 and then exceed 103% by 30 June 2028.

Please also refer to the footnote included in Section 4 'Contribution Requirements" regarding the secondary objective of individually targeting a VBI of 100% for each of the impacted Employers separately. Because the other Employers are currently in surplus, the projection shows that the VBI is expected to reach a VBI of 100% by 30 June 2025, while the impacted Employers are still moving towards the 100% VBI position over the Restoration period.

The Trustee should note, however, that this projection is based on the assumptions adopted, which represents a single scenario from a range of possibilities. The future is uncertain, and the Fund's actual experience will differ from the adopted assumptions - these differences may be minor in their overall effect, or they may be significant and/or material.

In addition, different sets of assumptions or scenarios may also be within a reasonable range and therefore results based on those alternative assumptions would be different.

1.6. Other Findings and Recommendations for the Trustee

- I have reviewed the Trustee's investment policy for the Employer DB Reserve, taking into account the Fund's financial position and the nature and term of the defined benefit liabilities and consider the current investment policy to be suitable.
- The Fund uses daily crediting rates to credit net investment earnings for each investment option (including the Employer DB Reserve). I consider the crediting rate policy is generally suitable, however, a review of the Fund's crediting rate policy is outside the scope of this investigation
- I recommend that the current Shortfall Limit remains unchanged at 96%.
- I recommend further that the Shortfall Limit should be reviewed following any Trustee decision to change the defined benefit assets' Strategic Asset Allocation.

1.7. Action Required

The Trustee should:

- Consider this report and confirm its agreement (or otherwise) to the contribution and other recommendations.
- Continue to monitor the contribution requirements under the Fund's Funding and Solvency Certificate and request contributions from the Employers as appropriate.
- Provide a copy of my statement (i.e. this report) to APRA as soon as possible, but no later than 15 business days after receipt of this report (i.e. no later than 15 business days after 12 December 2023, being 5 January 2024).

- Due to the existence of an unsatisfactory funding position, ensure all the actions in Section 3.3.2 of this report are carried out.

Liability Measures as at 30 June 2023

2.1. Actuarial Value of Accrued Benefits

The Actuarial Value of Accrued Benefits ("Accrued Benefits") is the expected value (as at the investigation date) of all future expected benefit payments, based on membership to date, discounted to the investigation date, taking into account the probability and timing of payments.

This value is calculated using actuarial methods and assumptions. In determining the value, we have not applied a minimum of Vested Benefits. The detailed actuarial assumptions used are as set out in Appendix C.

The calculation of the Accrued Benefits has been carried out using a method of apportionment of benefits between past and future membership that satisfies the requirements of Professional Standard No. 402 of the Actuaries Institute and is acceptable for Australian Accounting Standard AASB 1056 purposes. More details on the method can be found in Appendix F.

The following table shows the Fund's funding position as it relates to Accrued Benefits, in terms of Total defined benefits and Employer-financed defined benefits (refer to Section 1.1 'Change in Financial Position' for more information on the derivation of Total and Employer-financed defined benefits):

As at 30 June 2023	Total Defined Benefits		Employer-Financed Benefits	
	$M	Coverage	$M	Coverage
Defined Benefit Assets	1,388.5		1,151.7	
Actuarial Value of Accrued Benefits	1,379.9	100.6%	1,143.1	100.8%
Surplus over Accrued Benefits	8.6		8.6	

2.2. Vested Benefits, Cash Resignation Benefits and Deferred Benefits

Vested Benefits are the amounts payable as of right, should all active members voluntarily resign or, if eligible, retire at the investigation date.

For contributor members over the early retirement age, Vested Benefits are the same as their retirement benefits (including allowance for taking up a pension if eligible).

For contributor members under the early retirement age, they can choose Deferred Benefits that are retained in the Fund or receive Cash Resignation Benefits transferred out of the Fund. For the calculation of Vested Benefits, we have assumed 70% of benefits are deferred on resignation and 30% are taken as Cash Resignation Benefits.

The value of Vested Benefits for pensioners and deferred Division D members is assumed to be the actuarial value of future pension payments.

The following table shows the funding position as it relates to Vested Benefits, Cash Resignation Benefits and Deferred Benefits in terms of Total defined benefits and Employer-financed defined benefits (refer to Section 1.1 ‘Change in Financial Position’ for more information on the derivation of Total and Employer-financed defined benefits):

As at 30 June 2023	Total Defined Benefits		Employer-Financed Benefits	
	$M	Coverage	$M	Coverage
Defined Benefit Assets	1,388.5		1,151.7	
Vested Benefits	1,387.1	100.1%	1,150.3	100.1%
Surplus over Vested Benefits	1.4		1.4	
Cash Resignation Benefits	1,296.2	107.1%	1,059.4	108.7%
Surplus over Cash Resignation Benefits	92.3		92.3	
Deferred Benefits	1,391.0	99.8%	1,154.2	99.8%
Surplus over Deferred Benefits	-2.5		-2.5	

2.3. SG Minimum Benefits

Superannuation Guarantee (SG) Minimum Benefits are the minimum benefits required under SG legislation, as defined in the Fund’s Benefit Certificate (also referred to as Minimum Requisite Benefits or MRBs).

Fund assets as at 30 June 2023 were greater than SG Minimum Benefits and hence the Fund was considered to be “solvent” under SIS legislation.

The following table shows the funding position as it relates to SG Minimum Benefits, in terms of Total defined benefits and Employer-financed defined benefits (refer to Section 1.1 ‘Change in Financial Position’ for more information on the derivation of Total and Employer-financed defined benefits):

As at 30 June 2023	Total Defined Benefits		Employer-Financed Benefits	
	$M	Coverage	$M	Coverage
Defined Benefit Assets	1,388.5		1,151.7	
SG Minimum Benefits	1,144.0	121.4%	907.2	127.0%
Surplus over SG Minimum Benefits	244.5		244.5	

Key Actuarial Assumptions and Fund Experience

3.1. Actuarial Assumptions

The ultimate cost to the Employers of providing Fund benefits is:

- The amount of benefits paid out; plus
- The expenses of running the Fund, including tax; less
- Members' contributions; and
- The return on Fund investments.

The ultimate cost to the Employers will not depend on the actuarial assumptions or methods used to determine the recommended Employer contribution rate(s), but rather on the actual experience of the Fund. The financing method and actuarial assumptions adopted will, however, affect the timing of the Employer contribution requirements.

The actuarial process includes projections of possible future Fund assets and benefit liabilities on the basis of actuarial assumptions about future experience.

These assumptions include investment returns, salary increases, rates at which members cease service for different reasons, and various other factors affecting the financial position of the Fund.

It is not expected that these assumptions will be precisely borne out in practice, but rather that, in combination, they will produce a model of possible future experience that is considered a suitable basis for setting contribution rates.

Please refer to Appendix C for a detailed description of all the actuarial assumptions used for this investigation. The following sections provide a summary of the key assumptions used and the financial experience of the Fund since the 30 June 2021 investigation performed under Former EISS.

3.2. Key Assumptions for 2023 and 2021 Investigations

The following table sets out the key assumptions for the 2023 investigation compared to those used in the Former EISS 2021 investigation, and reasons for the changes:

Assumption	30 June 2023 Investigation	30 June 2021 Investigation	Reason for change
Investment return/Discount rate (after tax and investment fees)	5.9% pa	5.3% pa	Increased to reflect Cbus's current SAA and current market conditions (based on Mercer's Capital Market Assumptions (CMA) modelling as at 30 June 2023)
Salary increases (no additional allowance for promotional increases)	3.1% for 2023/24, 3.3% for 2024/25, 3.4% for 2025/26 then 3.5% pa	2.2% for 2021/22, 2.3% for 2022/23, 2.4% for 2023/24 then 3.2% pa	Based on large Employers' short-term expectations, reverting to long-term CPI + 1.0% pa expectation (refer also to pension/CPI increases below)
Pension/CPI increases	6.6% for 2023/24 then 2.5% pa	4.1% for 2021/22 then 2.2% pa	Reflects CPI outcome for year ended 30 June 2023, reverting to 2.5% pa long-term assumption (equivalent to average of 2.9% pa over the next 10-year period)
Asset-based administration and Trustee expenses	0.28% pa	0.30% pa	Reflects lower Cbus fee structure
Division B contributors: resignation (% electing deferred benefit / cash)	70% deferred / 30% cash	70% deferred / 30% cash	No change
Division B contributors: pension take-up on retirement, death, or disability	60%	50%	Reflects an increasing trend which has been observed in the data over recent years
Division D contributors: resignation	0%	0%	No change
Division D contributors: retirement	100% retired by age 60	100% retired by age 60	No change
Pensioner mortality	Based on Mercer standard pensioner mortality tables, including improvement rates based on Australian Life Tables 2015-17	Based on Mercer standard pensioner mortality tables, including improvement rates based on Australian Life Tables 2015-17	No change
Retrenchment rates	Nil advised by the large Employers	Rates as advised by the large Employers	Based on information provided by the large Employers

3.3. Financial Assumptions

The most significant assumption made in estimating the cost of defined benefits is the difference between:

- The investment return/discount rate assumption; and

- The rates of salary and/or pension increases used in the projection of future benefit payments.

This difference is commonly referred to as the 'gap'.

The key financial assumptions adopted for this investigation are:

Assumption	Rates
Investment return/Discount rate (after tax and investment fees)	5.9% pa
Salary increases (no additional allowance for promotional increases)	3.1% for 2023/24, 3.3% for 2024/25, 3.4% for 2025/26 then 3.5% pa
Pension/CPI increases	6.6% for 2023/24 then 2.5% pa
Asset-based administration and Trustee expenses	0.28% pa

This means that the key long-term gap assumption (i.e. ignoring the short-term assumptions for this purpose) used for this investigation has increased as compared to the gap assumption used in the Former EISS 2021 investigation, specifically:

- The long-term gap between the investment return/discount rate and the pension/CPI increase assumption has increased by 0.3% pa (from 3.1% pa to 3.4% pa); and
- The long-term gap between the investment return/discount rate and the salary increase assumption has also increased by 0.3% pa (from 2.1% pa to 2.4% pa).

The investment return/discount rate assumption is based on the expected long-term investment return for the Fund's current Strategic Asset Allocation (SAA). The assumption is calculated with reference to Mercer Investment Consulting's assumptions of the means and standard deviations of returns from the various underlying asset classes and the correlations of returns between those asset classes.

Consistent with our practice under the Former EISS, no explicit allowance has been made for the potential tax credits that can be obtained in relation to the tax exemption for investment earnings on assets backing the current pension liabilities. However, I have made a general allowance for this when setting the overall investment return/discount rate assumption.

The value of tax credits will increase over time as the Fund matures; however, in line with its current de-risking investment strategy, the Trustee is committed to reducing the Fund's investment risk over time by moving towards an increasingly more conservative Strategic Asset Allocation (SAA), (e.g. the Trustee's de-risking objectives includes a targeted end-state portfolio of 35% to growth-type assets). The tax credit approach will therefore continue to be kept under review as part of the de-risking strategy.

The salary increase assumption is based essentially on long-term economic forecasts, having regard to consistency with the expected investment return/discount rate assumption. However, past experience and expectations for shorter-term salary increases are also taken into account in setting the salary assumptions, based on input from the larger Employers.

I have not made any additional allowance for promotional salary increases, as, based on the current age/membership profile, this assumption has largely become redundant.

The long-term pension/CPI increase assumption is similarly based on long-term economic forecasts and market data, whilst the 6.6% assumption for 2023/24 reflects the CPI outcome for the year ended 30 June 2023. Overall, our CPI assumptions are equivalent to an average of 2.9% pa over the next 10-year period).

3.3.1. Financial Experience since Previous Investigation

Year to 30 June	2022	2023	2-year average (% pa)	Assumed at 2021 Investigation (% pa)
Investment returns	-6.5%	6.4%	-0.1%	5.0%[1]
Salary increases (Fund average)[2]	2.5%	4.4%	3.4%	2.2%
Pension increases	5.3%	6.6%	5.9%	3.1%

[1] June 2021 investigation assumed an investment return of 5.3% pa net of taxes and investment management fees, but before administration and Trustee expenses (estimated to be around 0.3% pa under Former EISS). Therefore 5.0% is shown above for comparative purposes, to be consistent with the net investment returns shown above.

[2] Fund average (actual averages may differ between Employers)

3.3.2. Financial Experience since 30 June 2023

I have estimated that the Fund's investment return over the five months to 30 November 2023 was 0.6%. This return is not unexpected, given moderate overall market performance since 1 July 2023. When assessing this return against the Fund's expected return over the same period, of 2.3%, this has had a negative effect on the Fund's financial position since 30 June 2023.

Accordingly, whilst the Fund was in a 'satisfactory financial position' as at 30 June 2023 (i.e. a Vested Benefits Index ("VBI") of 100.1%, measured in terms of Employer-financed defined benefit liabilities), I consider that the Fund is to be treated as being in an 'unsatisfactory financial position' as at 30 November 2023. An 'unsatisfactory financial position' is defined by the Superannuation Industry Supervision ("SIS") Regulations as being in a position where assets are not sufficient to cover the Vested Benefit liabilities of a fund.

Specifically, I estimate that the Fund's Vested Benefit Index has reduced from 100.1% at 30 June 2023 to 98.4% at 30 November 2023 (measured in terms of Employer-financed defined benefit liabilities). The likelihood of this unsatisfactory financial position had been raised earlier whilst assisting the Trustee in completing its September 2023 quarterly APRA reporting, and I had previously advised this to the Trustee in an email dated 27 October 2023, and to APRA in a letter dated 27 October 2023.

Superannuation Prudential Standard 160 ("SPS 160"), paragraph 31, states that I am required, in this situation, to advise the Trustee of the recommended actions to be taken to address the financial position, and to recommend a contribution program (referred to as a "Restoration Plan" in SPS 160) that will, on reasonable expectations, restore the Fund to a satisfactory financial position within a time-period which must not exceed three years from the investigation date.

Section 4 ‘Contribution Requirements’ below sets out (amongst other things) the Fund’s financing objective, funding target ratio range and the financing methods I have adopted to develop the contribution program which will form the basis of the Trustee’s Restoration Plan.

I am also required to provide a statement to the Trustee that the financial position of the Fund is to be treated as unsatisfactory. I confirm though, that the Fund’s Shortfall Limit has not been breached (please refer to Section 9.1 for more information on the Shortfall Limit).

Accordingly, please accept the contents of this section, including the relevant references in this report regarding the actions to be taken to address the Fund’s financial position and my contribution recommendations, as my formal notice (statement) to the Trustee of my finding that the Fund is to be treated as being in an unsatisfactory financial position.

Paragraph 32 of SPS 160 requires that, on receipt of this statement, the Trustee must:

- Provide a copy of my statement (i.e. this report) to APRA as soon as possible, but no later than 15 business days after receipt of this report (i.e. no later than 15 business days after 12 December 2023, being 5 January 2024);
- Consult with each Employer about the implementation of the contribution recommendations;
- Appoint an RSE actuary to be responsible for providing advice and actuarial management during the period in which the Fund is in an unsatisfactory financial position;
- Set out a Restoration Plan to return the Fund to a satisfactory financial position by 30 June 2026;
- Provide a copy of the Restoration Plan to APRA and the actuary, as soon as practicable, but no later than 15 business days after the Board has approved the Restoration Plan; and
- Implement the Restoration Plan.

Further, paragraph 33 states that the Restoration Plan must outline:

- The Trustee’s view of the likelihood that the contributions will be made as recommended, taking account of the obligations of each Employer under the Trust Deed, and the outcome of the consultations with each Employer;
- Any changes to the Fund’s investment strategy that the Trustee may deem necessary
- The likely impact on benefit payments (if any); and
- The process by which the actuary and the Board will monitor and review progress towards restoration of the Fund to a satisfactory financial position.

Finally I note also that the Fund’s Defined Benefits Policy sets out certain actions which the Trustee should consider where the Fund is considered to be in an unsatisfactory financial position.

3.4. Demographic Assumptions and Experience

3.4.1. Division B contributors: Resignation options and pension take-up rates (on retirement, death, or disability)

On resignation, 70% of Division B contributors are assumed to elect the deferred benefit instead of the cash benefit.

Former Local Government Pension Fund, NSW Retirement Fund and Government Railways Superannuation Scheme (RSA) Division B contributors may elect to receive pension benefits instead of a lump sum on retirement, disability, or death. These members account for approximately 27% of all current Division B contributors.

It is assumed that 60% of these members will elect pensions, with the remainder choosing a lump sum. This assumption has been increased from 50% with effect from this investigation, as our latest analysis of the data has shown an increasing trend in the take-up rate, which has been consistently higher since the 2018 investigation.

3.4.2. Division D contributors: Retirement and resignation assumptions

Given the small number of contributors in Division D, statistically significant results on their actual experience are not available. However, based on the experience of the limited number of Division D contributors, we do not believe we have sufficient evidence to change our assumption that all Division D contributors will have retired by age 60.

Therefore Division D contributor retirement rates have been retained from the 2021 investigation.

A nil resignation rate is assumed for Division D contributors.

3.4.3. Division B and D contributors: Retrenchment assumptions

Retrenchment rates are typically based on information provided by the large Employers. For this investigation, these Employers all advised no expectations of upcoming retrenchments.

3.4.4. Pensioner mortality assumptions

Mercer standard pensioner mortality tables have been used for this investigation. These rates are based on the mortality experience of Australian Public Sector pensioners over the years 2012 to 2017, including improvement rates based on Australian Life Tables 2015-17 and are the same as those used in the 2021 investigation.

The mortality rates are consistent with the experience of Former EISS/Cbus pensioners, in respect of whom actual deaths over the period 2021 to 2023 were close to expected under the 2021 assumptions. This was despite a significant increase in deaths most likely due to COVID-19 over this period.

There appears to be no reason at this stage to assume higher mortality rates in the future, and no evidence as yet within the general population that higher mortality will continue. This assumption will be reviewed regularly as part of future annual actuarial investigations .

A detailed description of all the actuarial assumptions is included in Appendix C to this report.

The overall impact of the changes in assumptions was to reduce the Actuarial Value of Accrued Benefits as at 30 June 2023 by $29.4 million. Further details are provided in Section 3.5 below.

3.5. Analysis of Movement in Funding Position since 30 June 2021

Item	$M	Comment
Accrued Benefits surplus at 30 June 2021	**152.1**	**Opening surplus value**
Interest on opening surplus	15.6	Expected earnings on opening surplus
Investment return	-137.9	Investment returns lower than expected
Salary increases	-12.4	Salary increases higher than expected
Pension/CPI increases	-49.2	Pension/CPI increases higher than expected
Membership	5.6	Exit experience different to that expected in the demographic assumptions
Changes to assumptions[1]	29.4	Combination of changes in both demographic and financial assumptions
Other items	5.4	Overall effect of timing and expenses
Accrued Benefits surplus at 30 June 2023	**8.6**	**Closing surplus value**

[1] Total gain comprises broadly $64m (gain) due to an increase in the investment return/discount rate assumption, $9m (loss) due to an overall increase in the salary assumptions, $24m (loss) due to an increase in the pension/CPI increase assumption and $2m (loss) due to other items.

3.6. Recommended Employer Contributions in Previous Investigation

The recommended standard Employer contribution rates in respect of active members, were as follows:

Division	Standard Employer Contribution
B	1.9 times member contributions
C	2.5% of salary
D	1.64 times member contributions

The Employers all contributed in line with these recommended contributions.

Contribution Requirements

4.1. Financing Objective

The Fund's Defined Benefit Policy (dated April 2023) sets out the Fund's current financing objective (i.e. the Fund's funding target ratio range) of between 100% and 110% of Vested Benefit liabilities. The financing objective adopted for my contribution recommendations is therefore to:

- Develop a contribution program which is expected to restore the Fund[1] to a satisfactory financial position by no later than 30 June 2026; and
- On attaining the required VBI of 100%, maintain, and strengthen the VBI over future years within the range between 100% and 110%.

[1] Whilst the key objective is to target a satisfactory financial position for the Fund as a whole by no later than 30 June 2026, a secondary objective is to individually target a satisfactory financial position for each of the impacted Employers separately. This means that, because the other Employers are currently in surplus, the Fund as a whole is expected to reach the satisfactory financial position requirement earlier than 30 June 2026, while the impacted Employers are still moving towards the 100% VBI position over the Restoration period. See also commentary below.

The contribution program is also specifically tailored, as required, to each of the Employers' specific circumstances. With this in mind, it should be noted that, whilst the Fund's overall VBI has dropped below 100%, the funding levels in respect of each of the Employers are also tracked separately (see comment below regarding notional Employer asset accounts).

Given how close to 100% the Fund is overall, some of the Employers' notional accounts remain in surplus whilst others are in deficit. Consequently, only the Employers estimated to currently be in deficit will be required to pay 'top up' contributions in addition to their standard contributions (as referred to in Section 3.6 above "Recommended Employer Contributions in Previous Investigation").

Accumulation style benefits (including deferred member benefit liabilities in Divisions B and C, and members' Other Accounts) are matched by specific assets and therefore do not require any additional margins.

There are no Employer 'sub-funds' in the Fund; however, the Fund's administrator maintains a notional defined benefit asset account in respect of each Employer, which facilitates tracking of each Employer's funding status and contribution requirements.

4.2. Professional Requirements

Under Professional Standard 400 (PS400) issued by the Actuaries Institute (Paragraph 5.5.4), the funding method selected by the actuary *"must aim to provide that:*

(a) members' benefit entitlements (including any pension increases provided by the Trust Deed or in accordance with either precedent or the intentions of the Trustee and/or Fund Sponsor) are fully funded before the members retire; and

(b) *the assets of the Fund from time to time, after making full provision for the entitlements of any beneficiaries or members who have ceased to be employed, exceed the aggregate of benefits which employed members would reasonably expect to be payable to them on termination of membership, including the expenses of paying those benefits, and having regard to the provisions of the Trust Deed and the likely exercise of any Options or Discretions."*

Accordingly, the actuary needs to be satisfied that any funding program is expected to provide a level of assets which meets or exceeds immediate benefit entitlements based on members' reasonable expectations. Should assets fall below that level, the funding program needs to aim to lift assets to at least the required level over a reasonable period of time, and to maintain assets at or above the required level thereafter.

Given the Fund's estimated current Unsatisfactory Financial Position (as referred to in Section 3.3.2 'Financial Experience since 30 June 2023'), I have recommended a specific funding program in this report, which is expected, based on the assumptions adopted for this investigation, to restore the Fund to a Satisfactory Financial Position by 30 June 2026 (see also Section 4.7 'Recommended Employer Contributions' below and Appendix D)

4.3. Provisions of the Trust Deed

The Fund's Trust Deed includes general provisions on Employer contribution requirements.

The Annexures to the Trust Deed include the following specific provisions on Employer contributions:

Annexure 1: Division B members

4.1(a) If a Contributor is employed by an Employer, the Employer must pay under this Annexure Contributions at a rate determined by the Trustee on the advice of an actuary, at such times as the Trustee may require.

4.1(b) In determining the Contributions payable by an Employer, the Trustee is to have regard to the amount required to meet the full costs of the liabilities under this Annexure of all Employers.

4.1(c) The Trustee may require any such Employer to pay under this Annexure additional Contributions for a specified period if it appears to the Trustee that there is insufficient money in the reserve for Employers to meet the Employers' liabilities under this Annexure.

Annexure 2: Division C members

3.1(a) If an Employee is employed by an Employer, the Employer must pay at such times as the Trustee may require, Contributions at a rate determined by the Trustee.

3.1(b) The rate is to be determined by the Trustee after obtaining actuarial advice.

3.1(c) In determining the contributions payable by an Employer, the Trustee is to have regard to the amount required to meet the full costs of the liabilities under this Annexure of all Employers.

3.1(d) The Trustee may require any such Employer to pay into the fund additional Contributions for a specified period if it appears to the Trustee that there is insufficient money in the reserve for Employers to meet the Employers' liabilities under this Annexure.

Annexure 3: Division D members

10.1(a) An Employer must pay under this Annexure in respect of each Contributor that the Employer employs an amount equal to a specified multiple or percentage of the contributions payable under this Annexure by that Contributor.

10.1(b) The specified multiple or percentage referred to in sub-clause 10.1.(a) is a multiple or percentage that the Trustee periodically fixes in respect of the Employer concerned.

10.1(c) In determining the contributions payable by an Employer, the Trustee is to have regard to the amount required to meet the full costs of the liabilities under this Annexure.

10.1(d) The Trustee may require an Employer to pay under this Annexure additional contributions for a specified period if it appears to the Trustee that there is insufficient money in the relevant Employers' reserves for Employers to meet the Employers' liabilities under this Annexure.

4.4. Financing Method

There are various financing methods that could be used to set the Employer contributions.

For this purpose, I have, in the first instance, retained the current standard Employer contribution rates (see ‘Employer Standard Contributions’ table in Appendix D), supplemented by a “Target” funding methodology, which is used to assess whether any additional Employer contributions may be required to meet the Fund’s financing objective as outlined in section 4.1 above.

The value of any additional Employer contributions required may vary from time to time to ensure that the Fund remains on course with its financing objective. This funding approach has been used consistently over many years in Former EISS’s triennial investigations.

4.5. Employer Funding Cost of Future Service Benefits

We have calculated the ‘theoretical’ Employer cost of funding future service benefits on the actuarial assumptions, to assist in the understanding of the estimated cost of future benefit accruals to the Employers, the impact of assumption changes and to comply with actuarial professional standards.

These Employer future service costs are not, however, used in setting the standard Employer contribution rates, which have been kept consistent with previous investigations.

The Employer future service costs have been calculated as the Employer contribution rates required to fund future service benefit accruals over the future working life of the remaining contributors in the Fund, expressed as a percentage of contributors’ salaries. Any surplus or deficit in relation to past service liabilities is ignored in calculating these theoretical future service contribution rates.

The Employer future service costs (inclusive of contributions tax allowance) calculated for each Division as at 30 June 2023 (and 30 June 2021 for comparative purposes) are shown in the following table:

Employer Funding Cost of Future Service Benefits	Division B (% of salaries)	Division C (% of salaries)	Division D (% of salaries)
30 June 2023	1.5%	3.1%	14.7%
30 June 2021	2.0%	2.7%	15.6%

Division B's service cost has reduced since the previous investigation due to a combination of the higher gap assumption (see Section 3.3 'Financial Assumptions') and the fact that increasingly more members are closer to reaching their maximum benefit accrual.

Division C's future service cost is generally expected to increase over time, given it is a closed and ageing cohort with a reducing average period to retirement. This feature is further exacerbated as the superannuation guarantee rate increases and more Division C benefits become subject to the minimum benefit under-pin.

Division D's future service cost has reduced due to a combination of the higher gap assumption and the assumption that all Division D contributors retire by age 60 (see Section 3.2 'Key assumptions for 2023 and 2021 Investigations').

4.6. Investigation Balance Sheet

The following table shows the Fund's 'Balance Sheet', which treats Total defined benefit assets and the present value of future contributions as an asset and the present value of Total future defined benefits (based on both past and future service) as a liability.

Item	Actuarial Value ($M)
Present value of future benefit payments in respect of accrued membership	1,379.9
Add: Present value of future benefit payments in respect of prospective membership	52.0
Total present value of future benefit payments	**1,431.9**
Value of Total defined benefit assets as at 30 June 2023	1,388.5
Add: Present value of future standard Employer contributions[1] (net of tax)	57.5
Add: Present value of future member contributions	29.1
Total available defined benefit assets	**1,475.1**
Excess of Total defined benefit assets to Total value of defined benefits	**43.2**

[1] Based on the present value of standard Employer contributions only, i.e. the present value of the recommended Employer top-up contributions (as shown in Appendix D) is excluded for the purposes of this analysis

The above 'Balance Sheet' indicates that, when considered in the context of a long-term, continuing Fund, the present value of current standard Employer contributions is expected to be more than sufficient to fund future benefit payments, assuming that future experience matches the assumptions used in this investigation (in particular that Fund investments will achieve an average return of 5.9% pa over the long term).

However, given moderate market conditions since 30 June 2023 (as noted earlier in Section 3.3.2 ‘Financial experience since 30 June 2023’), I am obliged to recommend short-term top-up contributions for certain Employers in order to restore the Fund as a whole to a satisfactory financial position by no later than 30 June 2026.

4.7. Recommended Employer Contributions

As noted above, due to the unsatisfactory financial position of the Fund as a whole, I have recommended top-up contributions in respect of certain Employers in addition to the current standard Employer contributions (which must be paid by all Employers). Please also refer to the footnote included in Section 4.1 ‘Financing Objective’.

These recommendations are detailed in Appendix D to this report, noting that SPS 160 requires that the Fund be restored to a satisfactory financial position within a reasonable period of time that must not exceed three years (unless APRA permits a longer period to be applied based on specific circumstances of the fund). I have recommended that no top-up contributions are required to be paid during the 2023/24 financial year. Rather, my contribution program has recommended that the impacted Employers’ deficits be funded over the two financial years 2024/25 and 2025/26, having regard to the Employers’ budgeting cycles.

It should be noted, however, that the contribution program will be formally reviewed again as part of the 30 June 2024 actuarial investigation.

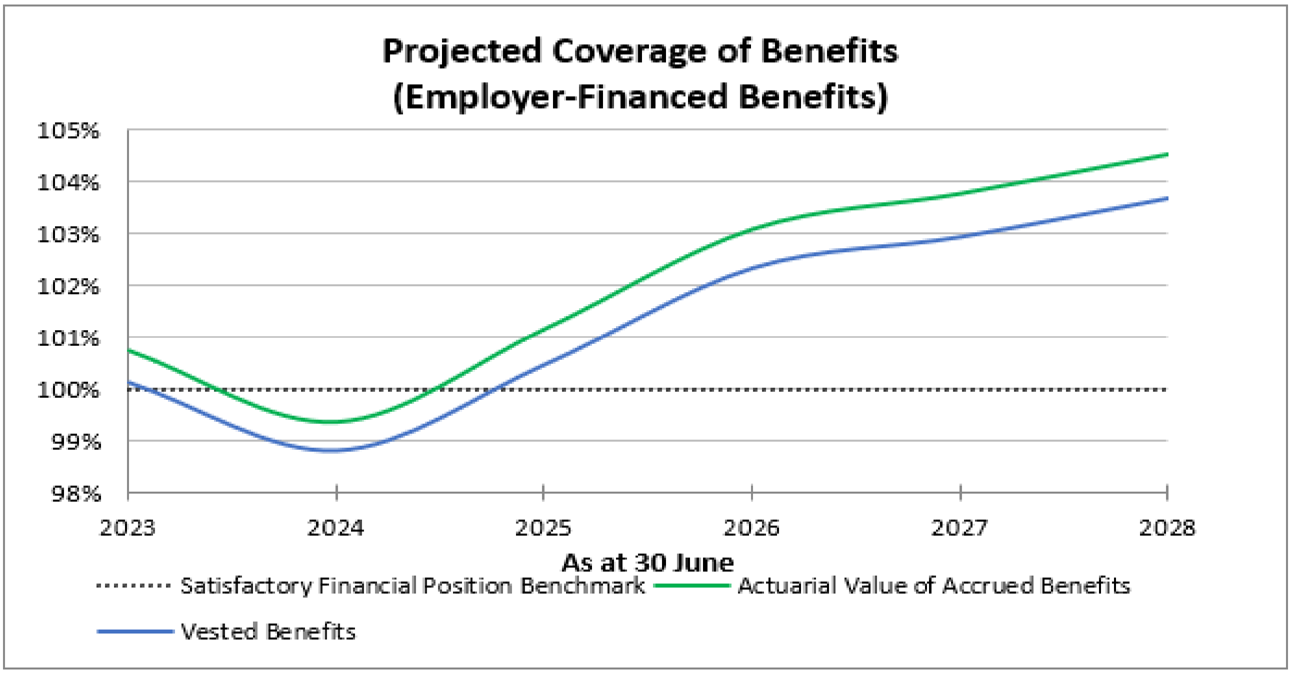
Further, given current market uncertainties, I will continue to monitor the Fund’s investment experience as it emerges over the period to the next investigation to ensure the Fund remains broadly on track with expectations.

The contribution program may be modified as an outcome of the results of the next actuarial investigation, or if the monitoring of the funding position suggests a material change in the meantime.

Projections

I have prepared the following projection of the Employer-financed defined benefit assets and liabilities, on the following basis:

- Using the actuarial assumptions adopted for this investigation, including allowance for the 0.6% investment return over the five-month period to 30 November 2023; and
- Assuming that the Employers contribute on the basis as recommended in Appendix D, including allowance for the recommended Employer top-up contributions payable from 1 July 2024.



The projection shows that the funding position is expected to fall over the 2023/24 year (as noted in Section 3.3.2 'Financial Experience since 30 June 2023' above), however, with the commencement of the top-up contributions from 1 July 2024, the position is expected to improve over the five-year period illustrated in this projection, specifically the VBI is expected to exceed the 100% level by 30 June 2025 and then exceed 103% by 30 June 2028.

Please also refer to the footnote included in Section 4 'Contribution Requirements" regarding the secondary objective of individually targeting a VBI of 100% for each of the impacted Employers separately. Because the other Employers are currently in surplus, the projection shows that the VBI is expected to reach a VBI of 100% by 30 June 2025, while the impacted Employers are still moving towards the 100% VBI position over the Restoration period.

The Trustee should note, however, that this projection is based on the assumptions adopted, which represents a single scenario from a range of possibilities. The future is uncertain, and the Fund's actual experience will differ from the adopted assumptions - these differences may be minor in their overall effect, or they may be significant and/or material.

In addition, different sets of assumptions or scenarios may also be within a reasonable range and therefore results based on those alternative assumptions would be different.

Key Risks and Sensitivity Results

6.1. Key Risks

6.1.1. Investment

Investment risk is the risk that investment returns will be lower than assumed. Adverse investment performance will result in lower assets to support the defined benefit liabilities, requiring the Employers to increase contributions to offset any shortfall. The Employers bear this investment risk.

6.1.2. Salary

The risk is that salaries (on which future benefit amounts will be based) will increase more rapidly than assumed, increasing benefit amounts, and therefore requiring additional Employer contributions. The Employers also bear this risk.

6.1.3. Legislative risk

This risk is that the Commonwealth Government could make legislative changes that increase the cost of providing the defined benefits – for example, an increase in the rate of tax on superannuation funds. The Employers also bear this risk, which may be considered a real risk at this time, given the current level of government debt and rising interest rates.

6.1.4. Division B pension take-up

The risk is that for Division B contributors who are eligible for pensions, a higher proportion will choose to take up the pension than assumed. As the pension is generally more valuable (in liability terms) than the lump sum benefit, a higher pension take-up rate will increase Fund liabilities and therefore may require additional Employer contributions. The Employers also bear this risk.

6.1.5. Pension/CPI increases

The risk is that pensions (both current and future) may increase more rapidly than assumed, therefore increasing the cost of providing pensions and requiring additional Employer contributions. The Employers also bear this risk.

6.1.6. Pensioner longevity

This risk is that pensioners live longer than assumed, therefore increasing the cost of providing pensions and requiring additional Employer contributions. The Employers also bear this risk.

6.2. Sensitivity Results

The sensitivity scenarios below illustrate the financial impact of the key risks discussed above (i.e. in terms of changes to Employer-financed past service liabilities).

Please note however, that actual experience in relation to each risk may vary (positively or negatively) from the assumptions by significantly more than the sensitivities illustrated below.

Employer-Financed Accrued Liabilities as at 30 June 2023 ($M)						
Basis	**Division B Contributors**	**Division C Contributors**	**Division D Contributors**	**Pensioners and Division D Deferred Members**	**Total Accrued Liabilities**	**Change in Total Accrued Liabilities**
Best estimate	325	73	14	732	1,143	
Sensitivity to investment return/discount rate						
Investment return +1% pa	298	69	11	665	1,044	-99
% change	-8%	-6%	-17%	-9%	-9%	
Investment return -1%	355	78	17	810	1,260	117
% change	9%	7%	21%	11%	10%	
Sensitivity to pension/CPI rate						
CPI increase +1%	333	73	16	801	1,223	80
% change	3%	0%	19%	9%	7%	
CPI increase -1%	317	73	12	672	1,074	-69
% change	-2%	0%	-16%	-8%	-6%	
Sensitivity to salary increase rate						
Salary increase +1%	347	78	14	732	1,171	28
% change	7%	7%	0%	0%	2%	
Salary increase -1%	304	68	14	732	1,118	-25
% change	-6%	-6%	0%	0%	-2%	
Sensitivity to pensioner mortality rates						
Lower mortality[1]	328	73	15	804	1,216	73
% change	1%	0%	7%	10%	6%	
Higher mortality[2]	322	73	13	658	1,069	-74
% change	-1%	0%	-8%	-10%	-7%	
Sensitivity to Division B pensioner take-up rate						
100% take-up rate	340	73	14	732	1,158	15
% change	5%	0%	0%	0%	1%	

[1] Assumes mortality rates, including future improvements, as if the pensioner were 3 years younger than actual

[2] Assumes mortality rates, including future improvements, as if the pensioner were 3 years older than actual

6.3. Pension Liabilities on Market Value Basis

The basis used to value defined benefit pension entitlements for the purposes of this investigation is considered suitable taking into account the Fund's current circumstances, including the Trustee's investment policy and assuming the ongoing support of the Employers.

Of course, conditions may change in the future, and it is important to understand some of the implications should the Employers/Trustee consider a wind up of the Fund in the future.

If instead, the pension liabilities were to be valued on a "market value" basis – that is, the amount which would be required to be paid to a third party (for example, a life insurer) to take on the liability – a higher pension liability value would be calculated. It is, however, not possible to be precise about what the "market value" of the pension liabilities would be, as the market in Australia is currently very shallow at best.

However, it is likely that a third party would base its pricing on a discount rate around the level of long-term Government bond rates plus 0.5% pa (based on information available from market data, acknowledging this is very limited so could vary materially). Therefore, to provide an illustration of the order of magnitude of the potential liability impact, we have calculated an alternative current pensioner liability value using a discount rate of 4.5% pa (based on the 30 June 2023 10-year Commonwealth Government bond rate plus 0.5% pa), whilst keeping all our other assumptions unchanged. The impact on the pensioner liability is shown in the following table:

	Pensioner Liabilities as at 30 June 2023 ($M)
Best estimate - discount rate at 5.9% pa	725
Discount rate at 4.5% pa	840
% change from best estimate	116%
Dollar increase from best estimate	115

The table shows that by valuing current pensioner liabilities using a Government bond rate basis, the pensioner liability value would increase by $115 million.

Note also that Division D contributors and some Division B contributors are eligible for a lifetime pension in the future when they retire. If these members' future pension liabilities were also to be valued on the Government bond rate basis, the Fund's liabilities would increase even further.

Therefore a wind-up of the Fund would likely require substantial additional funding to enable suitable provision to be made for continuation of the pension entitlements and in turn for non-pensioner benefits.

I do not suggest that a wind up is likely to occur, given the information available to me. Rather, comment on this situation in the interests of the Trustee and the Employers having information on the potential impact in this scenario.

With the strong financial backing available to the Fund due to the nature of the Employer sponsors including the NSW State Government, this scenario is less likely than for general private sector arrangements. However, in the event of a wind up without additional financial support from the Employers then, based on the information shown above, there would be insufficient funds available to meet all benefit payments to all members.

The priority order of assets as set out in the Trust Deed and its interaction with prevailing Superannuation legislation would then become important. This priority order would determine the allocation of the assets available to secure the benefits of the members of the Fund, i.e. which members would have the highest priority and be expected to receive their benefits in full and which would rank lower and potentially expect to receive only a portion of the benefits.

Due to the strength of the Employers supporting the Fund, I have not evaluated the impact of a wind up without financial support other than to illustrate the expected shortfall at this time. This situation is not unusual and is typically expected for any fund paying pension benefits to members.

I would recommend the Trustee obtains legal advice on the priority order of the assets under this scenario if they are interested in understanding the position in greater detail. Further calculations can then be carried out to illustrate the current impact on each group of members once the priority order is confirmed.

Trustee Policies and Self-Insurance

7.1. Investment

The Fund’s assets are invested in four Reserves, specifically:

- An Employer Reserve (representing the assets supporting Employer-funded defined benefits in the Fund);
- A Contributor Reserve (representing the accumulation of Division B members’ defined benefit contributions with earnings);
- A Deferred Reserve (representing deferred members’ accumulated account balances); and
- An Other Reserve (representing members’ additional accumulation contributions with earnings).

These arrangements are summarised in the following table:

Division	Contributor Reserve	Deferred Reserve	Other Reserve	Employers’ Defined Benefit Assets
Division B (including associated Division C benefits)	Invested according to members’ selected investment options			Invested in the Employer Reserve
Division D (including associated Division C benefits)	Invested in the Employer Reserve			

The Trustee decides on the investment strategy for the Employer Reserve (i.e. by formulating a Strategic Asset Allocation (SAA) for these assets. The SAA is essentially a long-term ‘benchmark” allocation, however which also allows for minor short-term deviations from the benchmark.

The SAA is also kept under regular review and may be changed by the Trustee, based on the Fund’s funding position from-time-to-time, and having regard to developing trends or changes in broad financial market considerations. A further key consideration for the Trustee in future years, will be the maturity of the Fund, specifically in terms of the changing membership profile between active and pensioner member numbers.

The current SAA reflects a benchmark exposure of 55% to growth-type[1] assets and 45% to defensive-type assets[2] (see Asset class table below for SAA components).

[1] The growth-type component is calculated as 100% of (Australian and Global equities) plus 50% of (Property, Infrastructure Global Credit)

[2] The defensive-type component is calculated as 100% of (Australian and Global fixed Interest plus Cash) plus 50% of (Property, Infrastructure Global Credit).

The Strategic Asset Allocation as at 30 June 2023 is summarised in the table below:

Asset Class	Employer Reserve SAA
Australian Equities	16.5%
Global Equities	22.0%
Property	12.0%
Infrastructure	13.0%
Australian Fixed Interest	11.0%
Global Fixed Interest	11.0%
Global Credit	8.0%
Cash	6.5%
Total	**100.0%**

Cbus also holds four other distinct reserves, which are held in separate asset portfolios to the four Fund Reserves mentioned above. As at 30 June 2023, these other reserves were

- A General Reserve;
- An Administration Reserve;
- An Insurance Reserve (which includes a self-insurance reserve held in respect of certain defined benefit members who have ‘additional’ death and total disablement benefits in the Fund (the “Additional Benefit Reserve”); and
- An Operational Risk Reserve (i.e. the Fund’s Operational Risk Financial Requirement Reserve).

The Fund’s investments are expected to provide a high level of liquidity in normal circumstances.

I have reviewed the Trustee’s investment policy for the Employer DB Reserve, taking into account the Fund’s financial position and the nature and term of the defined benefit liabilities and confirm that I consider the current investment policy to be suitable.

7.2. Crediting Rates

The Fund uses daily crediting rates to credit net investment earnings for each investment option (including the Employer DB Reserve). I consider the crediting rate policy is generally suitable.

A review of the Fund’s crediting rate policy is outside the scope of this investigation.

7.3. Self-Insurance

The Fund self-insures death and disability benefits. The table below sets out details of the Fund's self-insurance arrangements and the relevant actuarial monitoring processes.

Reserve type	Description	Most recent actuarial investigation	Next actuarial investigation	Trigger for an interim review
Division B Additional Benefit Reserve	A separate Reserve is held to meet Additional Benefit payments to Division B members	30 June 2020 (under Former EISS)	30 June 2023 (under Cbus)	Payments in excess of 50% of start of year reserve assets in any one year
Employer DB Reserve	The Reserve meets the cost of standard death and disability benefits for Divisions B, C and D members	30 June 2023 (This investigation)	30 June 2024	Not applicable, as the Reserve is subject to annual review as part of annual actuarial investigations

The most recent actuarial investigation of the Division B Additional Benefit Reserve (ABR) was conducted as at 30 June 2020, under Former EISS. The first ABR actuarial investigation under Cbus is scheduled to be conducted shortly with an effective date of 30 June 2023. The results of the investigation are expected to be available in the first quarter of 2024.

The results of the Former EISS 30 June 2020 ABR investigation showed that actual claims continued to be below expected claims (there were no ABR claims paid over the period 1 July 2017 to 30 June 2020). Further, I understand that no ABR claims have been paid over the period 1 July 2020 to 30 June 2023.

The 2020 ABR report noted that the ABR continued to have a high level of surplus (when compared to past claim experience). It was (and still is), however, considered to be prudent to continue maintain a reasonable buffer against the possibility of future claims volatility, particularly when membership continues to decline, as has been evident over the past few years.

The then-current ABR value of $2.2 million (representing around 7 times expected claims over the previous three years) was considered to represent a comfortable buffer. The report recommended therefore that the then-current value of ABR surplus be retained.

The report further recommended that the member and employer levies continue to be paid at the then-current levy rates.

The value of the ABR at 30 June 2023 was marginally higher at $2.5 million.

The Fund's self-insurance arrangements are also monitored annually for the Trustee to satisfy requirements under APRA Prudential Standard SPS 160.

I therefore consider that the Fund's current self-insurance arrangements and the Trustee's actuarial monitoring processes are suitable.

Assets

8.1. Assets

The values of Employer defined benefit (DB) assets and Total DB assets at 30 June 2023 are summarised in the following table:

	$M
Employer Reserve	1,157.5
Less: Division D member DB contribution accounts (included in the Employer Reserve)	5.8
Employer DB assets	**1,151.7**
Add: Division B Contributor Reserve	231.0
Add: Division D member DB contribution accounts	5.8
Total DB assets	**1,388.5**

The above values were provided by the Trustee for the purposes of this investigation. I have reviewed the values for overall consistency and reasonableness and confirm their suitability for use in this investigation.

8.2. Other Reserves

As noted earlier in Section 7.1 ‘Investment’, the Fund holds four reserves as part of its investments, whilst Cbus holds another four separate and distinct reserves.

A review of the adequacy of these reserves (with the exception of the Additional Benefit Reserve – which is referred to in Section 7.3 ‘Self-Insurance’) is outside the scope of this investigation.

The Regulator and Prudential Standards

The Australian Prudential Regulation Authority (APRA) has issued a number of Prudential Standards for the superannuation industry, including Prudential Standard 160 ("SPS 160") relating to the financial management and funding of defined benefit funds. We comment below on several of the key requirements arising from SPS 160.

9.1. Shortfall Limit

The Trustee must determine a "Shortfall Limit" for the Fund, being the extent to which the Fund can be in an unsatisfactory financial position with the Trustee still being able to reasonably expect that, because of corrections to temporary negative market fluctuations in the value of Fund assets, the Fund can be restored to a satisfactory financial position within a year.

The Fund's Shortfall Limit, which is currently 96% (as applied under the Former EISS), is expressed as a percentage coverage level of Vested Benefits by assets, and it is appropriate to consider the following when determining if the Shortfall Limit remains appropriate:

- The guidance provided in the Actuaries Institute Information Note: Shortfall Limit in Prudential Standard 160, dated June 2013;
- The investment strategy for the Fund's defined benefit assets, particularly the current SAA exposure of 55% to growth-type assets;
- The results of this investigation, regarding the extent to which the current and projected Vested Benefits are linked to salary-based benefits and defined benefit pensions, and the current and projected relativity between Vested Benefits and Superannuation Guarantee Minimum Requisite Benefits.

Based on the above, I recommend that the current Shortfall Limit remains unchanged at 96%.

I recommend further that the Shortfall Limit should be reviewed following any Trustee decision to change the defined benefit assets' Strategic Asset Allocation.

The level of Superannuation Guarantee Minimum Requisite Benefits is not expected to be a constraint in determining the Shortfall Limit. I will review the Shortfall Limit as part of next year's actuarial investigation. However, the Shortfall Limit should be reviewed earlier if there is a change to the SAA (as referred to above), or if the Trustee otherwise considers it appropriate to do so.

9.2. Monitoring Process

SPS 160 also requires a fund's trustee to determine and implement a process for monitoring the vested benefits coverage against its Shortfall Limit. If this monitoring process indicates that the vested benefits coverage has (or may have) fallen below the Shortfall Limit, then under SPS 160:

- An “Interim Actuarial Investigation” may be required (depending on the timing of the next regular actuarial investigation).
- A Restoration Plan is required to be put in place if an Interim Actuarial Investigation finds the fund has breached its Shortfall Limit. The Restoration Plan must be designed to return the fund und to a “satisfactory financial position”, so that vested benefits are fully covered, within a reasonable period of time that must not exceed three years (unless APRA permits a longer period to be applied based on specific circumstances of the fund) and this must be submitted to APRA.

The Trustee is currently required by APRA to conduct annual actuarial investigations. One of the key purposes of the annual investigations is to assess the Fund’s financial position and the need for any changes to the funding program due to emerging experience.

The Trustee should also continue to monitor the “Notifiable Events” specified in the Fund’s Funding and Solvency Certificate and advise the Fund Actuary should any actual or potential Notifiable Event(s) occur.

9.3. Requirements due to Unsatisfactory Financial Position

9.3.1. Restoration Plan

Under SPS 160, a Restoration Plan is also required to be put in place if an actuary finds in a regular actuarial investigation that the fund:

- Is in an unsatisfactory financial position (whether or not the Shortfall Limit has been breached); or
- Is likely to fall into an unsatisfactory financial position.

The Restoration Plan must be designed to return the fund to a “satisfactory financial position”, so that vested benefits are fully covered, within a reasonable period of time that must not exceed three years (unless APRA permits a longer period to be applied based on specific circumstances of the fund) from the investigation date. Please refer to Section 3.3.2 ‘Financial Experience since 30 June 2023’ for more details regarding the Trustee’s specific obligations in relation to advising APRA, including specific timing requirements, and the contents of the Restoration Plan.

An SPS 160 Restoration Plan would not be required if the fund is “technically insolvent” (in which case the insolvency rules must be followed). If an SPS 160 Restoration Plan is already in place, then any changes to the Restoration Plan should be agreed with APRA.

As indicated by my estimate of the Fund’s current financial position (refer to Section 3.3.2 ‘Financial Experience since 30 June 2023’) I consider that the Fund is to be treated as being in an ‘unsatisfactory financial position’ as at 30 November 2023. Accordingly, the above requirements apply at this investigation.

9.3.2. Actuary’s reporting requirements

Section 130 of the SIS Act requires that if the actuary forms the opinion that a fund’s financial position may be unsatisfactory, or may be about to become unsatisfactory, and that opinion was formed in performing an actuarial function, the actuary must advise both the fund’s trustee and APRA in writing immediately.

As referred to in Section 3.3.2, I had previously formed such an opinion earlier in October whilst assisting the Trustee in completing its September 2023 quarterly APRA reporting. I noted also that I had advised this to the Trustee in an email dated 27 October 2023, and to APRA in a letter dated 27 October 2023.

The Fund's assets are currently sufficient to fully cover the Superannuation Guarantee Minimum Benefits. Therefore the Fund is not considered to be technically insolvent.

9.4. Statements Required by SPS 160

The attached Appendix E provides statements required to be made under SPS 160.

Actuarial Certification

10.1. Purpose

I have prepared this report exclusively for the Fund's Trustee for the following purposes:

- To present the results of the first actuarial investigation of the Fund conducted under Cbus as at 30 June 2023;
- To review Fund experience over the period since the previous actuarial investigation as at 30 June 2021, which was conducted on behalf of the Energy Industries Superannuation Scheme's ("Former EISS") trustee;
- To recommend contributions to be made by the Employers, intended to allow the Fund to meet its benefit obligations in an orderly manner, and to maintain an appropriate level of security for members' accrued benefit entitlements;
- To satisfy the requirements of the Fund's Trust Deed for actuarial investigations of the Fund's financial position; and
- To meet legislative requirements under relevant Commonwealth superannuation legislation.

This report has been prepared in accordance with the requirements of the Trust Deed, the Superannuation Industry (Supervision) Act 1993 and associated regulations (SIS legislation), SPS 160 issued by APRA and Professional Standard 400 issued by the Actuaries Institute (which sets out requirements for actuarial investigations of defined benefit superannuation funds under SIS legislation).

The Former EISS investigation referred to above was conducted by myself, Richard Boyfield, on behalf of Mercer, and the results were set out in my report dated 9 November 2021.

10.2. Background information of the Fund

On 12 May 2023, all Pool B assets and liabilities of the Former Energy Industries Superannuation Scheme (EISS) were transferred to Cbus under a Successor Fund Transfer ("SFT") agreement, following which the Pool B Subdivision of the Defined Benefits Section of Cbus (the "Fund") commenced as Cbus's first defined benefit superannuation arrangement.

The Fund's Trustee (United Super Pty Ltd) holds a Registrable Superannuation Entity License under SIS legislation and operates the Fund as required under the Trust Deed.

The Fund is a resident regulated fund and a complying superannuation fund for the purposes of the SIS legislation. The Fund is taxed as a complying superannuation fund.

10.3. Governing Documents

The Fund's Trust Deed (a consolidated version, including Amending Deeds up to and including Amending Deed number 33 dated 11 May 2023) has been relied upon in the preparation of this report.

10.4. Additional information

Significant events since the investigation date – The Fund's investment return over the period 30 June 2023 to 30 November 2023 was estimated to be 0.6%. As noted earlier in Section 3.3.2 'Financial Experience since 30 June 2023'), this has had a significant impact on the Fund's financial position to the extent that the Fund is, at the current time, to be treated as being in an unsatisfactory financial position. Please refer to Section 3.3.2 for more information.

I am not aware of any other significant event(s) that may have occurred since the investigation date that could affect the recommendations made in this report.

Next actuarial investigation – The next investigation will be conducted as at 30 June 2024.

Funding and Solvency Certificate (FSC) – A new Funding and Solvency Certificate will be issued following this report.

Next Benefit Certificate – This Certificate is required primarily by the Employers to demonstrate compliance with their Superannuation Guarantee obligations to employees who are members of the Fund. However the Trustee is required to ensure that benefits paid from the Fund are not lower than the minimum benefits specified in the Benefit Certificate.

The Former EISS's Benefit Certificate (which has an expiry date of 30 June 2025) has been carried over to the Fund following the SFT. However, an updated Certificate will be prepared shortly to reflect the Fund's new terminology under Cbus, noting importantly that the Former EISS minimum benefit calculations will remain unaltered as part of this update.

10.5. Actuary's certifications

Professional standards and scope

This report has been prepared in accordance with generally accepted actuarial principles, Mercer internal standards, and relevant Professional Standards of the Actuaries Institute, in particular Professional Standard 400 "Investigations of the Financial Condition of Defined Benefit Superannuation Funds".

Use of report

This report should not be relied upon for any other purpose or by any party other than the Fund's Trustee. Mercer is not responsible for the consequences of any other use. The report should be considered in its entirety and not distributed in parts.

The advice contained in this report is given in the context of Australian law and practice. No allowance has been made for taxation, accounting, or other requirements in any other country.

Actuarial uncertainty and assumptions

An actuarial investigation contains a snapshot of a fund's financial condition at a particular point in time and includes projections of the fund's estimated future financial position based on certain assumptions. It does not provide certainty in relation to a fund's future financial condition nor its ability to pay benefits in the future.

Future funding and actual costs relating to a fund are primarily driven by the fund's benefit design, investment returns, salary increases, pension increases, and any discretions that may be exercised by the trustee or the fund's employer sponsor. The fund's actuary does not directly control or influence any of these factors in the context of an actuarial investigation.

A fund's future financial position and the actuary's contribution recommendations depend on several factors, including the amount of benefits paid, the cause and timing of member withdrawals, fund expenses, tax, and investment earnings. These amounts and others are uncertain and unknowable at an investigation date, however, are predicted to fall within a reasonable range of possibilities.

To prepare this report, assumptions are therefore used to select a single scenario from a range of possibilities. The results of this single scenario are included in this report.

However, the future is uncertain, and the Fund's actual experience will differ from those assumptions; these differences may be significant and/or material. In addition, different assumptions or scenarios may also be within a reasonable range and results based on those assumptions would be different.

Actuarial assumptions may also be changed from one investigation to the next because of mandated requirements, Fund experience, changes in expectations about the future and other factors. I have not performed, and thus do not present, an analysis of the potential range of future possibilities and scenarios.

Because actual Fund experience will differ from the assumptions, decisions about benefit changes, investment policy, funding amounts, benefit security and/or benefit related issues should be made only after careful consideration of alternative future financial conditions and scenarios, and not solely based on one set of investigation results.

Data and Fund provisions

To prepare this report, I have relied upon financial and membership data provided by the Trustee.

The data used is summarised in this report. I have reviewed the financial and membership data for internal consistency and general reasonableness, and believe the data is suitable for the purposes of this investigation. I have not, however, verified or audited any of the data or information provided.

I have also relied upon the Fund's Trust Deed. The Trustee is ultimately responsible for the validity, accuracy, and comprehensiveness of this information. If the data or Fund provisions are not accurate and/or complete, the results presented in this report may differ materially from the results that would be obtained with accurate and complete information; this may therefore require a revision of my report.

Further information

If requested, I am available to provide any supplementary information and/or further explanation about the actuarial investigation.

Prepared by:

R S Boyfield

Richard Boyfield
Fellow of the Institute of Actuaries of Australia

Peer reviewed by:

Julian Hotz
Fellow of the Institute of Actuaries of Australia

12 December 2023

Membership Information

The membership of the defined benefit section has changed since 30 June 2021 as follows:

	Division B		Division D		
	Contributors	Pensioners	Contributors	Deferred	Pensioners
Active members at 30 June 2021	855	372	30	31	474
Exits	-150	-12	-17	-10	-10
New pensioners	0	32	0	2	27
Active members at 30 June 2023	705	392	13	23	491

Salary and pension data at 30 June 2023 is summarised below:

Total salaries ($000)	93,449	N/A	1,940	N/A	N/A
Average salaries ($000)	133	N/A	149	N/A	N/A
Total annual pension ($000)	N/A	13,964	N/A	N/A	34,771
Average annual pension ($000)	N/A	36	N/A	N/A	71

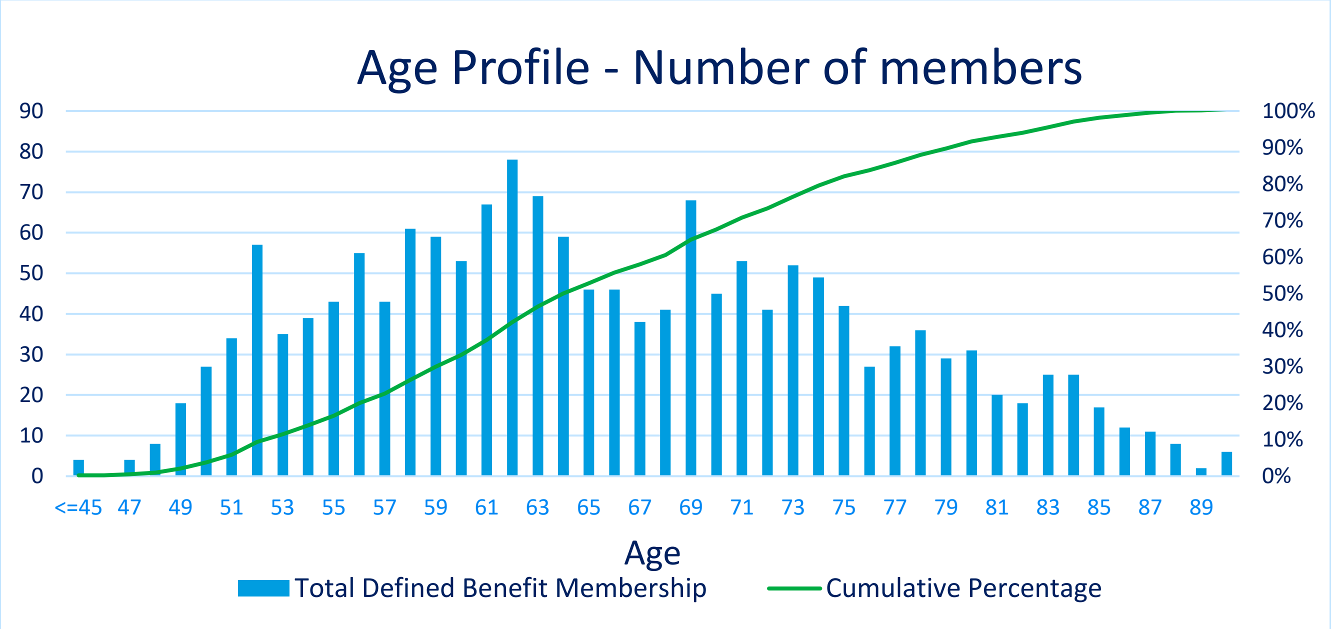
Average ages of contributors, deferred members and pensioners at 30 June 2023 are shown below:

Average age	57	71	59	64	73

The Fund has been closed to new members for many years, with the exception of members of certain ‘eligible schemes’ who can transfer their entitlements into the Fund.

A.1. Membership age profile

The 30 June 2023 defined benefit membership, split by age is shown in the following graph:



Fund Design

B.1. Division B

B.1.1. Definitions

"Accrued benefit points" at a contributor's exit date means the number of benefit points contributed to that date, or the contributor's maximum benefit points at that date if less.

"Accumulation of contributions" means, in respect of a contributor, the amount of contributions made to the Fund by that contributor plus interest less death and disability charges (if covered for additional benefits) less administration costs.

"Additional benefit" means the additional amount of 4% times final salary (or final average salary if higher) times prospective benefit points. The additional benefit is payable on death or total and permanent disability for those contributors who are covered. Contributors who are covered pay a levy (deducted from their accumulation of contributions) for one quarter of these additional benefits.

"Benefit points" - a contributor accrues 1/12th of a benefit point for each one per cent of salary contributed for a whole month. The maximum number of benefit points a contributor may accrue is the lesser of 180 or half the number of months the contributor is (or is deemed to be) a contributor to the Fund.

"Continuous contributory service", in relation to a contributor, means the period beginning with the contributor's entry date and ending with the contributor's exit date.

"Early retirement age" means the age of 58 years or, if some lower age (but not lower than the age of 55) is prescribed, that lower age.

"Final average salary" in respect of a contributor means the average of full-time salaries on the contributor's exit date and on 31 December in each of the 2 years immediately preceding that in which he ceased to be an employee.

"Final salary" means the annual rate of full-time salary payable to a contributor immediately before exit.

"Prospective benefit points" means the future benefit points accruing to a contributor if he were to continue to contribute until early retirement age 58 (or earlier prescribed age) at the average rate at which he has contributed since becoming a contributor to a points-based scheme, limited to the points required to reach the contributor's maximum benefit points at early retirement age.

"Salary" means for contributions payable in a superannuation year commencing on 1 April the annual rate of salary paid to a contributor at the previous 31 December (or entry if later).

"Taxable date" means 1 July 1988.

B.1.2. Contributions by Contributors

- Contributors may elect to contribute at 1, 2, 3, 4, 5, 6, 7, 8 or 9 per cent of salary;
- The Trustee may approve a contribution rate of 0% in some circumstances, eg financial hardship.
- The elected rate of contribution may be altered each superannuation year (commencing 1 April).
- Contributions are payable until the end of the month prior to exit or until age 70.

B.1.3. Benefits

B.1.3.1. Retirement on or after early retirement age

The benefit payable to a contributor on exit on or after early retirement age is:

- A lump sum equal to the accumulation of the former contributor's contributions; plus
- A lump sum equal to F x A x 0.025 x (1 - 0.15 x B/C);

Where	F	is the contributor's final average salary;
	A	is the contributor's accrued benefit points;
	B	represents the period in days of continuous contributory service that began on the taxable date;
	C	represents the period in days of continuous contributory service for the contributor;
	0.15	represents the tax rate of the Fund on employers' contributions.

B.1.3.2. Death

The benefit payable on death of the contributor after early retirement age is the benefit which would have become payable had he or she retired on the date of his death, but is not subject to reduction for tax, ie the factor B/C is zero.

The benefit payable on death of the contributor before attaining early retirement age is:

- A lump sum equal to the accumulation of the former contributor's contributions; plus
- A lump sum equal to S x A x 0.025;

Where	S	is the former contributor's final salary, or final average salary if this is higher;
	A	is the former contributor's accrued benefit points;

plus

- Where the contributor was covered for additional benefits, the amount of the additional benefit (ie 4% times S times prospective benefit points).

B.1.3.3. **Total and permanent invalidity before early retirement age**

The benefit payable to a former contributor who retires before attaining early retirement age due to total and permanent invalidity is:

- A lump sum equal to the accumulation of the contributor's contributions; plus
- A lump sum equal to S x A x 0.025 x (1 - 0.15 x B/C);

Where	S	is the contributor's final salary or final average salary if this is higher;
	A	is the contributor's accrued benefit points;
	B	represents the period in days of continuous contributory service that began on the taxable date;
	C	represents the period in days of continuous contributory service for the contributor;

plus

- Where a contributor is covered for additional benefits, the amount of the additional benefit (ie 4% times S times prospective benefit points).

B.1.3.4. **Partial and permanent invalidity**

The benefit payable to a contributor who retires before attaining the early retirement age due to partial and permanent invalidity is:

- A lump sum equal to the accumulation of the contributor's contributions; plus
- A lump sum equal to S x A x 0.025 x (1 - 0.15 x B/C);

Where	S	is the contributor's final salary or final average salary if this is higher;
	A	is the contributor's accrued benefit points;
	B	represents the period in days of continuous contributory service that began on the taxable date;
	C	represents the period in days of continuous contributory service for the contributor.

B.1.3.5. **Retrenchment**

The benefit payable to a contributor who is retrenched before attaining the early retirement age is the same as for partial and permanent invalidity.

B.1.3.6. **Resignation, dismissal or discharge after 10 years' membership**

The benefit payable to a contributor who resigns or is dismissed or discharged before attaining the early retirement age and who has been a member for 10 years or more is:

- A lump sum equal to the accumulation of the contributor's contributions; plus
- A lump sum equal to (V - 0.15 x T) x R x A/Y x 0.025;

Where	V	is the number of years of continuous contributory service (including fractional parts of a year);
	T	is the number of years of continuous contributory service that commenced on the taxable date or entry date (whichever occurred later) including fractional parts of a year;
	R	is the contributor's accumulated contributions;
	A	is the contributor's accrued benefit points;
	Y	is the total benefit points the member would have accrued at exit had no maximum applied.

That part of the benefit accrued since 30 June 1999 must be taken in preserved form.

B.1.3.7. **After attainment of age 65**

After attainment of age 65, and on the Trustee being satisfied that the member has retired from the workforce the contributor must be paid the retirement benefit, but may elect to defer the benefit. After attainment of age 70 no further benefits may accrue and no further contributions are payable.

B.1.3.8. **Deferred benefits**

A contributor who becomes entitled to a benefit on retrenchment, resignation, dismissal or discharge, on early retirement or after attainment of age 65 may elect instead a deferred benefit unless the benefit is less than $200 or the contributor elects to take a cash benefit. A member may elect to receive part of the benefit as cash and defer the remainder.

The deferred benefit is payable on:

- Application on attainment of early retirement age;
- Death;

- Total and permanent invalidity before early retirement age;
- Retirement from the workforce (or effective retirement after 65 or 75 defined as working less than 10 or 30 hours a week respectively);
- On application if the benefit was deferred after early retirement age.

The deferred benefit is:

- A lump sum equal to the accumulated contributor's contributions, plus interest from the date of exit to the date of payment; plus
- A lump sum equal to F x A x 0.025 x D x (1 - 0.15 x B/C) plus interest from the date of exit to the date of payment.

Where	F	is the contributor's final average salary;
	A	is the contributor's accrued benefit points;
	D	equals an actuarial discount factor (currently 0.99 for ages at exit under early retirement age, otherwise 1.0) raised to the power of (early retirement age less age at exit including fractions of a year);
	B	represents the period in days of continuous contributory service that began on the taxable date;
	C	represents the period in days of continuous contributory service for the contributor.

A retrenched member may elect to defer, instead of the above, the amount of the immediate retrenchment benefit.

A member may elect instead to receive part of benefit in cash up to the cash amount to which he would have been entitled at exit plus interest to the date of payment at an earlier date than the deferred benefit.

B.1.3.9. **Provisions for part-time contributors**

(i) Benefits are calculated on the equivalent full-time salary.

(ii) Accrued benefit points for each month are reduced by salary ratio (actual salary divided by salary if full-time).

(iii) The maximum number of points attainable is scaled down by salary ratio for each month.

(iv) Prospective benefit points are scaled down by salary ratio at commencement of month in which exit occurs.

(v) Contributions are reduced by applying the salary ratio.

B.1.3.10. **Superannuation Guarantee**

The Employer-financed benefit on exit for any reason, together with the Employer-financed benefit payable under Division C is subject to the minimum benefit as specified in the current Benefit Certificate so that benefits paid can be used to meet employers' obligations under the Superannuation Guarantee (Administration) Act. The minimum benefit is specified under the Division C summary of benefits below.

B.1.3.11. **Special provisions for certain members**

Transferred PASS Contributors (Public Authorities Superannuation Scheme)

(i) The additional benefit and associated levy will automatically apply to a contributor who was qualified for the additional benefit under the PASS;

(ii) Initial accrued benefit points will be the number of accrued benefit points under PASS as at 31 March 1988 multiplied by 0.72;

(iii) The contributor's entry date will be deemed to be the date service commenced or was deemed to have commenced under PASS;

(iv) Prospective benefit points will be subject to a minimum of 0.7 times the number of prospective benefit points that would have been calculated if early retirement age were 60;

(v) Benefits are reduced where broken service has been recognised in the case of a contributor who had employment involuntarily terminated under Clause 5 of the New South Wales Retirement Benefits Regulation 1983;

Transferred LGPF Contributors (Local Government Pension Fund)

(i) Transitional arrangements for ex-LGPF members are as for transferred PASS members with some additional special provisions.

(ii) An additional lump sum is payable to qualified contributors on death or total and permanent disablement before age 60 equal to

$$\frac{S}{100} \times (P-R)$$

Where S is final salary;

P is prospective benefit points to age 65;

R is prospective benefit points under SASS.

(iii) Minimum lump sum benefits on death or total and permanent disablement apply to certain contributors.

(iv) Employer-financed benefits on retirement after age 60 may be taken completely or in part pension form as for LGPF except that benefit points provide 0.2223% pension, discounted for retirement before age 65 (special additional pension points are provided to ensure pensions always exceed LGPF pensions).

ie Pension = S x C x 0.002223 x (1 - .025T)

Where S is final average salary;

C is the number of benefit points converted to pension;

T is the number of whole years that the member's exit date precedes his 65th birthday.

These benefits are subject to a reduction to account for contribution tax liability to the Fund as follows:

Reduction = A x B/C x Q x 0.15 x Pension Benefit

Where A represents the contributor's accrued benefit points;

B represents the period in days of continuous contributory service that began on the taxable date;

C represents the period in days of continuous contributory service for the contributor;

Q represents the proportion of accrued benefit points to be converted to a pension.

There are also pension options on death and disability.

(v) Pensions in respect of children are payable as for LGPF. The rate as at 30 June 2021 was $131.80 per fortnight where a parent survives or $313.10 per fortnight where no parent survives. The total pension to dependants is not to exceed that which would have been payable on total and permanent disablement.

NSW Retirement Fund (NRF)

(i) Transitional arrangements for ex-NRF members are as for ex-PASS members with some additional special provisions.

(ii) Contributions may be made at rates specified by regulation such that a certain benefit point accrual is attained (except that contributions shall not exceed 9% of salary).

(iii) Points accrual for each 1% of salary contributed after 1 April 1988 and before attainment of age 59 11/12 by contributors born in May 1926 or later may be obtained from Schedule 2 to the Regulation "State Authorities Superannuation (Transitional Provisions) Regulation 1988" (subject to a maximum annual accrual of 9 points), or is calculated as (L x 1.8 + 0.7)/2.5 if greater

Where L is 1/9 of the maximum points the contributor could have acquired in the year commencing 1 April 1987

To accrue each benefit point the percentage of salary to be contributed by contributors born in April 1926 or earlier is the smaller of (percentage contribution rate at 31 March 1988)/(adjusted points limit), subject to a maximum annual accrual of 9 points or the adjusted points limit if greater, and 1%. The adjusted points limit is

$$\frac{(N \times 1.8 + 0.7)}{2.5}$$

Where N is the number of points accrued in the year commencing 1 April 1987.

(If a contributor is contributing 0% on 31 March 1988 they shall be deemed to be contributing 1%).

(iv) Employer-financed benefits and additional benefits may be taken in pension form as for NRF. (ie as for LGPF with additional option to take non-reversionary pension of higher value)

(v) Minimum benefits are provided on death or invalidity before early retirement age.

State Public Service Superannuation Scheme (SPSSS) (transferred at 1 April 1989)

(i) The additional benefit and associated levy will automatically apply to a contributor who was qualified for the supplementary benefit under the SPSSS.

(ii) The contributor's account will be credited at 1 April 1989 with the corresponding account balance under the SPSSS as at 31 March 1989.

(iii) Initial accrued benefit points will be the number of accrued benefit points under SPSSS as at 31 March 1989.

(iv) The contributor's entry date will be deemed to be the date service commenced or was deemed to have commenced under SPSSS.

The initial contributed points figure will be the corresponding figure under SPSSS.

The contributor's early retirement age is prescribed as age 55.

(vii) The maximum benefit points applying to a transferred contributor are:

age 55 or less: 162

age 55 to 58: 162 plus 6 per year after age 55

age 58 or more: 180

(viii) The employer financed benefits are to be calculated using a multiple of 0.03 except for benefits on resignation, dismissal or discharge before early retirement where a multiple of 0.025 is used.

Closed Local Government Schemes

Local Government Provident Fund and Superannuation Benefits Funds and Local Government Superannuation Board insurance policyholders (effective 1 May 1990).

(i) The additional benefit and associated levy will automatically apply to a contributor who was qualified for the additional benefit in the Benefits Fund or was an insurance policyholder.

(ii) Accumulated credits and the proceeds on cancellation or surrender of insurance policies for each transferred contributor are allocated in certain ratios between contributor account and employer reserve.

(iii) A "notional accumulation" is developed from the amount allocated to the employer reserve plus estimated notional future employer contributions plus interest.

(iv) Initial accrued benefit points are calculated based on various formulae as stated in the "State Authorities Superannuation (Closed Local Government Schemes Transfer) Regulation 1990":

Insurance policyholders and fixed rate Provident Fund contributors	-	points calculated according to Schedule 1 to the Regulation, based on sum assured and date of contribution/premium payment
Variable rate Provident Fund contributors	-	0.02 points per 1% of salary contributed per month to 30 June 1985 and 0.03 points per 1% per month from 1 July 1985 to 30 April 1990
Benefits Fund	-	0.21 points per month of contributory membership

(v) Minimum employer financed benefits of the "notional accumulation" are provided.

(vi) A minimum death and invalidity benefit based on a multiple of salary plus the notional accumulation applies to former Benefits Fund members covered for additional benefits.

(vii) Early retirement age is 55 for ex Sydney County Council employees with twenty or more years of service and for ex-Benefits Fund females.

(viii) Transferred contributors may elect to contribute at normal Division B rates.

Transferred contributors who do not make an election are deemed to have elected the following:

Benefits Fund and variable rate Provident Fund contributors	-	3.5%
Insurance policyholders and fixed rate Provident Fund contributors	-	1%

B.2. Division C

B.2.1. Definitions

"Eligible service" in respect of a member means service with an Employer. The eligible service accrued in respect of any day is a proportion of one day equal to the salary ratio of the member on that day.

"Final average salary", "Final salary", "Salary ratio" and "Taxable date" have the same meanings as under Division B.

B.3. Benefits

B.3.1. Death

The benefit payable on death of a member is calculated as a lump sum equal to 0.03 x F x Y

Where	F	is in the case of a member who is aged 55 or over the member's final average salary; or in any other case the member's final salary;
	Y	is the years of eligible service commencing on 1 April 1988 or entry date (whichever is the later) including fractional parts of a year on a daily basis

B.3.1.1. Retirement, Resignation, Retrenchment and Total and Permanent Invalidity

The benefit payable on the retirement, or attainment of 65 years (or an age between 65 and 70 as elected if aged 60 or more on 1 July 1990), resignation, retrenchment, total and permanent invalidity or any other prescribed circumstances is a lump sum equal to 0.03 x F x (Y - 0.15 x Z)

Where	F	is in the case of the retrenchment or retirement before age 55 due to physical or mental incapacity of a member, the member's final salary; or in any other case the member's final average salary;
	Y	is the years of eligible service commencing on 1 April 1988 or entry date (whichever is the later) including fractional parts of a year;
	Z	is the years of eligible service commencing on the taxable date or entry date (whichever is the later) including fractional parts of a year on a daily basis;
	0.15	represents the tax rate of the Fund for employer's contributions

.

B.3.1.2. Preservation of Benefits

All benefits are to be preserved until the person has attained age 55 and left the workforce or earlier death or total and permanent invalidity, unless circumstances exist where a SIS-regulated fund may pay an immediate benefit.

B.3.1.3. **Provisions for Part-Time Employees**

In the case of part-time employees the determination of eligible service accrued by the employee includes a reduction in proportion to the salary ratio.

B.3.1.4. **Superannuation Guarantee**

Members are entitled to minimum benefits assuming no Superannuation Guarantee shortfall under Divisions B and D. The difference between the unsupplemented total benefit and the minimum benefit is payable from the reserve under Division C.

The Minimum Requisite Benefit (MRB) specified in the current Benefit Certificate is described below. This is the minimum applying to the total benefits payable under Division C and either Division B or D in respect of an employee on exit.

MRB =
- The accumulation of the former contributor's contributions; plus
- a pre 1 July 1992 component; plus
- FASEX x 1.0524 x DF x SGLM1; plus
- FASOTE x 1.0824 x DF x SGLM2

Where FASEX is the contributor's final average salary at exit

FASOTE is the annual average of the Employee’s Ordinary Time Earnings as defined in sub-section 6(1) of the Superannuation Guarantee (Administration) Act 1992, earned over the 2 years ending on the 30 June prior to the date of determination.

DF is .7 when age at exit $\leq$ 45

1 - 0.015 x (65 - age at exit) when 45 < age at exit < 65

1 when age at exit $\geq$ 65

SSGLM1 is the accrued Superannuation Guarantee Levy multiple at 30 June 2008 where the multiple accrues as follows:

Multiple accruing per year of service	Period over which given multiple applies
0.0400	01/07/1992 to 31/12/1992
0.0500	01/01/1993 to 30/06/1995
0.0600	01/07/1995 to 30/06/1998
0.0700	01/07/1998 to 30/06/2000
0.0800	01/07/2000 to 30/06/2002
0.0900	01/07/2002 to 30/06/2013

0.0925	01/07/2013 to 30/06/2014
0.0950	01/07/2014 to 30/06/2021
0.1000	01/07/2021 to 30/06/2022
0.1050	01/07/2022 to 30/06/2023
0.1100	01/07/2023 to 30/06/2024
0.1150	01/07/2024 to 30/06/2025
0.1200	after 01/07/2025

SSGLM2 is the Superannuation Guarantee Levy multiple accrued post 1 July 2008 (as per the rates above). The pre 1 July 1992 component is the total of the employer-financed cash benefits (from Division C and either Division B or Division D) which would have been paid had the contributor resigned or retired on 1 July 1992 (except that for final average salary or final salary the amount used is the fund salary at 1 July 1992 for Division B members. For Division D members, salaries and commutation factors are as set out in the Benefit Certificate), updated to exit date by the ratio of FASEX for Division B members, final salary at exit for Division D members to fund salary at 1 July 1992.

In the case of Division D members, the minimum benefit as derived above is limited to an alternative MRB equal to the Division D benefit plus the Division C benefit plus a post 1 July 1992 amount calculated using Superannuation Guarantee Levy Multiples 3% lower than in the table above; with the further proviso that the minimum Division D benefit for purposes of the alternative MRB calculation is the member's accumulated contributions.

The MRB is reduced by the member's surcharge liability (if any), any adjustment for Family Law payments (if any), and adjusted for net MRB transfer payments (if any).

B.4. Division D

B.4.1. Definitions

"Annual adjustment date" means for contributors whose birthday falls in the first half of the calendar year, 28 July, for the rest 9 February.

"Annual review date" means for contributors whose birthday falls in the first half of the calendar year, 21 October, for the rest 5 May.

"Abandoned Units" are units for which no contribution is being made. The amount of these is the difference between Unit Entitlement and Contributory Units. They are also referred to as Reduced Value Units.

"Accumulation of contributions" means, in respect of a contributor, the amount of contributions made to the Fund by that contributor plus interest. Interest was at the rate of 3.5% pa until 30 June 1972, thereafter a rate determined by the Trustee based on the earnings of the Fund. This is called the "33B Accumulation" and is the amount maintained in respect of each contributor in the Contributors' Reserve.

"Contributory Units" are units for which the member is paying (or has paid) contributions.

"Retirement Age" is 60 years, except in the case of a woman who elects to contribute at rates to retire at age 55 (denoted R55 members), for whom it is 55 years.

"Unit Entitlement" - A member's unit entitlement is governed by the amount of salary notified as being received, in accordance with the following formula -

Salary / $260 + 9 x factor

where 'factor' is an allowance for the increase shown in the last published Consumer Price Index (All Groups) Sydney since 30 June 1982. The two components of the entitlement are separately calculated and their total rounded up to the next whole number.

"Salary" means the annual rate of salary paid to a contributor at the relevant date (exit, annual review date).

"Taxable date" means 1 July 1988.

B.4.2. Contributions by Contributors

- Employees pay a 4-weekly contribution towards each contributory unit. The total contribution payable over each year depends on the number of units held and the cost per unit, and is adjusted each annual review date with effect from the annual adjustment date.
- An employee must contribute for the full unit entitlement as at the annual review date unless the resulting contributions would exceed 6% of salary, when units may be 'abandoned'. Abandoned units confer a smaller benefit entitlement, but may be 'taken up' on exit or next annual review day.
- The contribution per unit depends on:
  - the employee's sex and age when contributions for the unit commence,
  - for a female, whether election has been made to contribute for retirement on full pension at age 55, and
  - the date of commencement of service.
- Contributions for units commenced before (Retirement Age - 5) cease at Retirement Age. Contributions for units taken up after attaining age 55 (or 50 for R55 females) are payable over five years in 65 instalments (with any instalments outstanding at retirement due then).
- Contributions cannot be accepted from a contributor over 70 years of age.

  During periods of leave without pay in excess of three months, a contributor has the option of accepting a permanent reduction in unit entitlement, otherwise the contributor may be required to pay the employer liability during the period of leave without pay.

B.4.3. Benefits

B.4.3.1. Retirement on or after attaining retirement age

Subject to completion of at least ten years of service, a fortnightly pension commencing at ($5.50 x CU + $3.30 x ABU) x (1 - 0.15 x B/C x ppn e'er)

where:

CU	= Contributory units
ABU	= Abandoned or reduced value units
0.15	= the tax rate of the Fund on the employers' contributions
B	= the period in days of contributory service that began on the taxable date
C	= the period in days of the contributory service for the contributor
ppn e'er	= the proportion of the benefit deemed to be employer-financed

calculated as:

$$\frac{\text{(Unreduced pension x capitalisation factor - 33B accumulation at exit)}}{\text{(Unreduced pension x capitalisation factor)}}$$

where the unreduced pension is ($5.50 x CU + $3.30 x ABU),

and the capitalisation factors are valuation factors for pensions at emergence depending on age

and sex supplied for this purpose from time to time

B.4.3.2. Early Retirement

Subject to continuous contribution to the Fund for at least ten years, a reduced pension is payable on retirement after having attained the age of 55 years if contributing at rates prescribed for retirement at age 60. The amount of the fortnightly pension at commencement is:

($2.20 x EPU x (1 - .07 x TM) + $3.30 x UE x S / (S + TM) x (1 - .04 x TM)) x

(1 - 0.15 x B/C x ppn e'er)

where:

EPU	= Contributory units adjusted to reflect non-payment of contribution due to early retirement
TM	= number of years (with fractions included on daily basis) from exit date to Retirement Age

UE = Unit Entitlement in respect of salary at exit

S = Number of years of contributory service (with fractions included on a daily basis)

0.15 = the tax rate of the Fund on the employers' contributions

B = the period in days of contributory service that began on the taxable date

C = the period in days of the contributory service for the contributor

ppn e'er = the proportion of the benefit deemed to be employer-financed calculated as:

$$\frac{\text{(Unreduced pension x capitalisation factor - 33B accumulation at exit)}}{\text{(Unreduced pension x capitalisation factor)}}$$

where the unreduced pension is ($2.20 x EPU x (1 - .07 x TM) + $3.30 x UE x S / (S + TM) x (1 - .04 x TM)), and the capitalisation factors are valuation factors for pensions at emergence depending on age and sex supplied for this purpose from time to time

B.4.3.3. Retirement owing to physical or mental incapacity

A proportion of the full retirement pension; the proportion being 80 per cent immediately on joining the Fund, increasing uniformly each year thereafter to reach 100 per cent either after ten years of contributory service, or at normal retirement age, whichever occurs first.

The pension at commencement is:

P(DIS) x ($5.50 x CU + $3.30 x ABU) x (1 - 0.15 x B/C x ppn e'er)

where:

P(DIS) = proportion between .8 and 1.0 depending upon years of service.

CU = Contributory units

ABU = Abandoned or reduced value units

0.15= the tax rate of the Fund on the employers' contributions

B = the period in days of contributory service that began on the taxable date

C = the period in days of the contributory service the contributor would have attained had he remained in service until his retirement age.

ppn e'er= the proportion of the benefit deemed to be employer-financed calculated as:

$$\frac{\text{(Unreduced pension x capitalisation factor - 33B accumulation at exit)}}{\text{(Unreduced pension x capitalisation factor)}}$$

where the unreduced pension is P(DIS) x ($5.50 x CU + $3.30 x ABU),and the capitalisation factors are valuation factors for invalidity pensions at emergence depending on age and sex supplied for this purpose from time to time

B.4.3.4. **Resignation, dismissal or discharge**

- A lump sum equal to the employee's accumulation of contributions, plus
- If contributory service exceeds ten years, an additional lump sum of
  - 0.025 x A x TS x (1 - 0.15 x B/C)

Where	A	= the employee's accumulation of contributions
	TS	= Number of complete years of contributory service
	0.15	= the tax rate of the Fund on the employers' contributions
	B	= the period in days of contributory service that began on the taxable date
	C	= the period in days of the contributory service for the contributor

Alternatively, at the option of the employee, a benefit may be deferred in the Fund until retirement or earlier death or disability.

The total lump sum resignation benefit is capped at the lump sum payable to a contributor on commutation of the retirement pension he/she would have been entitled to had they been age 55 (or current age if higher). The retirement pension for contributors under age 55 is the deferred pension adjusted for commencement at age 55.

B.4.3.5. **Death**

On the death of a married contributor a pension is payable to the spouse at two-thirds of the rate of the pension which would have been payable to the contributor had he or she retired on the grounds of ill-health (but with the tax reduction calculated using the capitalised value of the spouse pension to derive the proportion employer financed). In addition, a pension is paid for each eligible child. If the spouse then dies, the excess of contributions over spouse benefits already paid is refunded to the deceased contributor's personal representative, and any child's pension is increased.

On the death before retirement of an unmarried contributor, at the Trustee's discretion a cash withdrawal benefit but without reduction for contributions tax, is payable to the deceased personal representative, or an orphan's pension is payable to each eligible child.

On the death of a married pensioner, a pension is payable to the spouse (but only if married prior to the pensioner's retirement or married to an invalidity pensioner for the 3 years immediately prior to the retirement age), equal to two-thirds of the pension that the deceased pensioner would have been receiving if none of it had been commuted, and children's pensions as above.

B.4.3.6. **Retrenchment**

After three years contributory service, an immediate lump sum is payable equal to

$$(\$2.20 \times EPU \times (0.96^{M-A}) \times F + \$3.30 \times UE \times S / (S + TM) \times (0.98^{M-A}) \times F) \times (1 - 0.15 \times B/C \times \text{ppn e'er})$$

Where:

EPU = Contributory units adjusted to reflect non-payment of contributions due to shorter service.

M = Retirement Age
A = age in years (including fractional parts of a year) on the exit date

F = 285 if M = 60; 320 if M = 55

UE = Unit Entitlement in respect of salary at exit

S = Number of years of contributory service (with fractions included on a daily basis)

0.15 = the tax rate of the Fund on the employers' contributions

B = the period in days of contributory service that began on the taxable date

C = the period in days of the contributory service for the contributor

ppn e'er= the proportion of the benefit deemed to be employer-financed calculated as:

$$\frac{(\text{Unreduced benefit - 33B accumulation at exit})}{(\text{Unreduced benefit})}$$

where the unreduced benefit is

$$(\$2.20 \times EPU \times (1 - .07 \times TM) + \$3.30 \times UE \times S / (S + TM) \times (1 - .04 \times TM)),$$

Alternatively the benefit may be taken as an equivalent pension or a deferred pension.

B.4.3.7. **Pensions**

Pensions in payment are adjusted each October in line with the Consumer Price Index (All Groups) Sydney provided the change is at least 1%.

A pension other than a child’s pension, may be exchanged for a lump sum, at age 55 years or later emergence. Commutation factors per dollar of fortnightly pension are specified in the Act. On commutation by an ex-contributor of all or part of a pension, the reversionary pension to a spouse is unaffected.

B.4.3.8. **Deferred Benefits**

A contributor who becomes entitled to a benefit on retrenchment, resignation, dismissal or discharge, on early retirement or attainment of age 65 (or 65 to 75 if relevant) is provided with a deferred benefit. A member may elect to receive part of the benefit as cash and defer the remainder. The deferred benefit commences payment on:

- Application on attainment of early retirement age. The pension components are then reduced by the early retirement discount factors (P1 by 7%, P2 by 4%);
- Death;
- Total and permanent invalidity before early retirement age;
- Retirement from the workforce (or effective retirement after 65 or 70 defined as working less than 10 or 30 hours a week respectively). Early retirement discount factors apply if age is less than normal retirement age.
- On application if the benefit was preserved after early retirement age. Early retirement discount factors apply if age at commencement is less than normal retirement age.

The deferred benefit is a deferred pension calculated in two components. The amount of the fortnightly pension components at deferral date is set out below. Between deferral date and commencement the "employer-financed component" (P2) is indexed to CPI.

Total Pension = (P1 +P2U) x (1 - 0.15 x B/C x ppn e'er)

P2 = Total Pension - P1

where:

P1 = $2.20 x EPU

P2U = $3.30 x UE x S / (S + TM)

EPU = Contributory units adjusted to reflect non-payment of contributions due to early exit.

TM = number of years (with fractions included on daily basis) from exit date to Retirement Age

UE = Unit Entitlement in respect of salary at exit

S = Number of years of contributory service (with fractions included on a daily basis)

0.15 = the tax rate of the Fund on the employers' contributions

B = the period in days of contributory service that began on the taxable date

C = the period in days of the contributory service for the contributor ppn e'er= the proportion of the benefit deemed to be employer-financed calculated as:

$$\frac{\text{(Capitalised unreduced pension - 33B accumulation at exit)}}{\text{(Capitalised unreduced pension)}}$$

where the capitalised unreduced pension is

(P1 x employee component capitalisation factor + P2U x employer component capitalisation factor),

and the capitalisation factors are valuation factors for deferred pensions at preservation depending on age and sex supplied for this purpose from time to time.

B.4.3.9. **Provisions for part time contributors**

A contributor may move to permanent part time employment. Contributions paid prior to the change will purchase paid-up units, and a permanent reduction in unit entitlement is made, to reflect the service that will not be given. Appropriate provisions are made for subsequent changes in hours worked.

Detailed Actuarial Assumptions

Set out below are the assumptions used for this actuarial investigation.

C.1. Financial Assumptions

Assumption	Rate(s)
Investment return/Discount rate (net of tax and investment fees)	5.9% pa
Salary increases (no additional allowance for promotional increases)	3.1% for 2023/24, 3.3% for 2024/25, 3.4% for 2025/26 then 3.5% pa
Pension/CPI increases	6.6% for 2023/24 then 2.5% pa
Asset-based administration and Trustee expenses	0.28% pa

C.1.1. Tax

It is assumed that the current tax rate of 15% continues to apply to the Fund's assessable income, along with current tax credits and other concessions, unless otherwise stated.

No explicit allowance has been made for the potential tax credits that can be obtained in relation to the tax exemption for investment earnings on assets backing the current pension liabilities. However, I have made a general allowance for this when setting the overall investment return/discount rate assumption.

The value of tax credits will increase over time as the Fund matures; however, in line with its current de-risking investment strategy, the Trustee is committed to reducing the Fund's investment risk over time by moving towards an increasingly more conservative SAA (e.g. the Trustee's de-risking objectives includes a targeted end-state portfolio of 35% to growth-type assets). The tax credit approach will therefore continue to be kept under review as part of the de-risking strategy.

All future Employer contributions are assumed to be subject to 15% contribution tax, after deduction of any administration and management costs. All contribution recommendations quoted in this report are gross of contribution tax.

No allowance has been made for:

- Any surcharge liability as members' benefits will be reduced by a surcharge offset amount equal to the surcharge payments made. Note, however, that the surcharge was abolished with effect from 1 July 2005.

- Excess contributions tax, as this is payable by the member.
- Additional tax on contributions (including defined benefit notional contributions) for those with incomes above the threshold (currently $250,000), which is also payable by the member.

C.2. Demographic Assumptions: Division B Contributors

C.2.1. Member contribution rate

It is assumed that contributors maintain their current contribution rate through to retirement unless they reach maximum benefit points when 20% of members are assumed to reduce their contribution rate to the minimum contribution rate of 1% of salary and the remaining 80% are assumed to maintain their current contribution rate to retirement.

C.2.2. Retirement

For Division B contributors, no member is assumed to retire under age 58.

Division B Contributor Age Retirement (per 10,000 at age shown)		
Age Nearest Birthday	Male	Female
58	500	50
59	850	50
60	1,350	1,100
61	1,150	50
62	1,200	50
63	1,500	1,150
64	1,500	750
65	2,800	1,100
66	1,600	2,000
67	2,250	2,000
68	1,150	3,000
69	3,100	9,000
70	10,000	10,000

C.2.3. Resignation

Division B Contributor Resignation (per 10,000 at age shown)					
Age Nearest Birthday	Male	Female	Age Nearest Birthday	Male	Female
46	63	110	52	63	94
47	63	105	53	63	94
48	63	105	54	63	94
49	63	105	55	63	94
50	63	105	56	63	94
51	63	101	57	63	94

C.2.4. Retrenchment

Retrenchment rates are typically based on information provided by the large Employers. For this investigation, these Employers all advised no expectations of upcoming retrenchments.

C.2.5. Disability

Division B Contributor - Total and Permanent Disability (per 10,000 at age shown)					
Age Nearest Birthday	Male	Female	Age Nearest Birthday	Male	Female
46	3	17	56	20	66
47	4	19	57	20	72
48	5	22	58	10	0
49	5	26	59	10	0
50	8	30	60	10	0
51	10	36	61	10	0
52	12	42	62	10	0
53	14	48	63	10	0
54	18	54	64	10	0
55	20	60	65	0	0

Division B Contributor - Partial and Permanent Disability Male and Female	
Age Group	As a percentage of Total Permanent Disability Assumptions
46-50	50%
51-57	25%
58+	0%

C.2.6. Mortality

Division B Contributor Mortality (per 10,000 at age shown)		
Age Nearest Birthday	Male	Female
46	7	4
47	7	5
48	8	5
49	9	5
50	9	6
51	10	6
52	11	7
53	12	7
54	12	8
55	14	8
56	15	9
57	16	10
58	17	11
59	19	12
60	21	13
61	24	15
62	26	16
63	29	18
64	32	19

C.2.7. Preservation of benefits

On resignation, 70% of Division B contributors are assumed to elect the deferred benefit instead of the cash benefit.

C.2.8. Rate of pension take-up

Former Local Government Pension Fund, NSW Retirement Fund and Government Railways Superannuation Scheme (RSA) Division B contributors may elect to receive pension benefits instead of a lump sum on retirement, disability, or death. These members account for approximately 27% of all current Division B contributors.

It is assumed that 60% of these members will elect pensions, with the remainder choosing a lump sum. This assumption has been increased from 50% with effect from this investigation, as our latest analysis of the data has shown an increasing trend in the take-up rate, which has been consistently higher since the 2018 investigation.

C.3. Demographic Assumptions: Division D Contributors

C.3.1. Proportion of optional units take-up

All available optional units are assumed to be taken up immediately by Division D contributors.

C.3.2. Retirement

Division D Contributor Age Retirement (per 10,000 at age shown)		
Age Nearest Birthday	Male and Female 60	Female 55
55	500	10,000
56	500	10,000
57	500	10,000
58	500	10,000
59	500	10,000
60	10,000	10,000

C.3.3. Resignation

A nil resignation rate is assumed for Division D contributors.

C.3.4. Retrenchment

Retrenchment assumptions are the same as apply for Division B contributors (refer to C.2.4 above).

C.3.5. Disability and mortality

Disability and mortality assumptions for Division D contributors are the same as those for Division B contributors (refer to C.2.5 and C.2.6 above).

C.4. Demographic Assumptions: Pensioners

C.4.1. Division D commutation of pension benefits

Division D Commutation of Pension Benefits	
Retirement Pensioners	5%
Spouse Pensioners	40%

C.4.2. Child pensioners

Given the maturity of contributor membership, no allowance is made for new child pensioners.

C.4.3. Pensioner mortality

C.4.3.1. Retiree and spouse pensioners

Retiree and Spouse Pensioners Mortality Assumptions (per 10,000 at age shown)		
Age Nearest Birthday	Male	Female
50	11	10
51	16	8
52	16	8
53	17	9
54	17	10
55	18	11
56	18	12
57	19	13
58	19	14
59	20	14
60	21	15
61	22	16
62	24	17
63	25	18
64	28	21
65	33	24
66	39	28
67	45	32
68	52	36
69	58	41
70	65	47

Retiree and Spouse Pensioners Mortality Assumptions (per 10,000 at age shown)		
Age Nearest Birthday	Male	Female
71	74	54
72	84	62
73	96	72
74	110	82
75	127	91
76	147	104
77	171	120
78	201	141
79	238	167
80	282	198
81	339	238
82	398	284
83	467	338
84	543	388
85	632	444
86	730	522
87	838	617
88	968	732
89	1,109	891
90	1,282	1,024
91	1,468	1,170
92	1,680	1,289
93	1,901	1,426
94	2,108	1,600
95	2,315	1,766
96	2,485	1,937
97	2,692	2,133
98	2,911	2,324
99	3,163	2,545
100	3,438	2,772
101	3,737	3,005
102	3,982	3,207
103	4,226	3,406

Retiree and Spouse Pensioners Mortality Assumptions (per 10,000 at age shown)		
Age Nearest Birthday	Male	Female
104	4,465	3,600
105	4,698	3,789
106	4,932	3,979
107	5,166	4,168
108	5,399	4,357
109	5,633	4,547
110	10,000	10,000

The mortality rates above have a base date of 1 July 2021. Mortality rates from 1 July 2023 are reduced from the base date with two years of short-term improvements and for future years according to assumed rates of future improvement (see table C.4.3.3 'Improvement factors' below).

C.4.3.2. **Invalidity pensioners**

All Divisions – Invalidity Pensioner Mortality Assumptions (per 10,000 at age shown)					
Age Nearest Birthday	Male	Female	Age Nearest Birthday	Male	Female
50	20	19	81	526	497
51	20	20	82	606	580
52	21	22	83	695	664
53	22	22	84	781	755
54	23	22	85	873	850
55	25	24	86	957	910
56	26	25	87	1,050	965
57	28	28	88	1,153	1,011
58	31	30	89	1,376	1,057
59	35	32	90	1,617	1,161
60	40	34	91	1,814	1,304
61	42	37	92	2,003	1,499
62	47	42	93	2,200	1,706
63	51	49	94	2,439	1,894
64	57	55	95	2,760	2,086
65	64	61	96	3,060	2,288
66	73	68	97	3,400	2,517

All Divisions – Invalidity Pensioner Mortality Assumptions (per 10,000 at age shown)					
Age Nearest Birthday	Male	Female	Age Nearest Birthday	Male	Female
67	86	74	98	3,760	2,688
68	103	80	99	4,120	2,860
69	122	87	100	4,500	3,002
70	136	94	101	4,880	3,144
71	149	104	102	5,100	3,284
72	162	117	103	5,320	3,424
73	176	137	104	5,559	3,562
74	193	167	105	5,764	3,699
75	220	212	106	5,953	3,835
76	265	248	107	6,143	3,969
77	312	281	108	6,333	4,102
78	360	325	109	6,524	4,233
79	413	377	110	10000	10,000
80	470	425			

For invalidity pensioners, a select mortality rate is assumed for the first year of invalidity, a rate of 5% is assumed for ages up to 39 and 2.5% assumed for ages thereafter, for both male and female.

The mortality rates above have a base date of 1 July 2021. Mortality rates from 1 July 2023 are reduced from the base date with two years of short-term improvements and for future years according to assumed rates of future improvement (see table C.4.3.3 ‘Improvement factors’ below).

C.4.3.3. Improvement factors

Pensioner Mortality Improvement rates				
Age	For years 2021-2027		For years post 2027	
	Male	Female	Male	Female
50	0.0148	0.0141	0.0151	0.0154
51	0.0161	0.0150	0.0149	0.0152
52	0.0173	0.0158	0.0147	0.0150
53	0.0184	0.0165	0.0144	0.0149
54	0.0195	0.0173	0.0142	0.0149
55	0.0205	0.0180	0.0140	0.0148
56	0.0215	0.0187	0.0139	0.0148
57	0.0225	0.0194	0.0138	0.0148

Pensioner Mortality Improvement rates				
Age	For years 2021-2027		For years post 2027	
	Male	Female	Male	Female
58	0.0235	0.0201	0.0137	0.0148
59	0.0245	0.0209	0.0137	0.0147
60	0.0255	0.0216	0.0136	0.0147
61	0.0265	0.0224	0.0135	0.0147
62	0.0275	0.0231	0.0135	0.0146
63	0.0284	0.0236	0.0134	0.0146
64	0.0291	0.0240	0.0135	0.0146
65	0.0297	0.0243	0.0135	0.0146
66	0.0301	0.0244	0.0135	0.0145
67	0.0302	0.0244	0.0135	0.0144
68	0.0303	0.0242	0.0134	0.0142
69	0.0301	0.0241	0.0132	0.0139
70	0.0299	0.0240	0.0129	0.0137
71	0.0295	0.0238	0.0127	0.0134
72	0.0291	0.0237	0.0124	0.0131
73	0.0287	0.0236	0.0121	0.0129
74	0.0282	0.0234	0.0119	0.0128
75	0.0277	0.0233	0.0116	0.0126
76	0.0271	0.0230	0.0113	0.0124
77	0.0264	0.0226	0.0109	0.0121
78	0.0256	0.0220	0.0105	0.0118
79	0.0246	0.0212	0.0100	0.0114
80	0.0235	0.0203	0.0095	0.0109
81	0.0222	0.0193	0.0090	0.0104
82	0.0208	0.0182	0.0084	0.0099
83	0.0193	0.0170	0.0079	0.0094
84	0.0177	0.0158	0.0074	0.0088
85	0.0161	0.0145	0.0068	0.0083
86	0.0144	0.0132	0.0063	0.0077
87	0.0128	0.0119	0.0058	0.0071
88	0.0114	0.0105	0.0054	0.0066
89	0.0100	0.0093	0.0049	0.0060
90	0.0089	0.0080	0.0045	0.0055

Pensioner Mortality Improvement rates				
Age	For years 2021-2027		For years post 2027	
	Male	Female	Male	Female
91	0.0079	0.0069	0.0042	0.0049
92	0.0072	0.0059	0.0039	0.0045
93	0.0065	0.0050	0.0036	0.0040
94	0.0058	0.0042	0.0033	0.0037
95	0.0052	0.0034	0.0031	0.0033
96	0.0045	0.0024	0.0028	0.0030
97	0.0037	0.0014	0.0025	0.0027
98	0.0028	0.0004	0.0023	0.0023
99	0.0018	-	0.0020	0.0020
100	0.0008	-	0.0017	0.0017
101	-	-	0.0015	0.0013
102	-	-	0.0012	0.0010
103	-	-	0.0010	0.0007
104	-	-	0.0007	0.0003
105	-	-	0.0004	-

C.5. Demographic Assumptions: All Members

C.5.1. Percentage with spouse at death

All Members – Percentage with Spouse at Death					
Age Nearest Birthday	Male	Female	Age Nearest Birthday	Male	Female
40	80%	55%	76	74%	35%
41	80%	55%	77	73%	33%
42	80%	55%	78	72%	31%
43	80%	55%	79	71%	28%
44	80%	55%	80	70%	26%
45	80%	55%	81	67%	24%
46	80%	55%	82	64%	22%
47	80%	55%	83	62%	20%
48	80%	55%	84	60%	18%
49	80%	55%	85	58%	16%
50	80%	55%	86	56%	14%
51	80%	55%	87	54%	12%

All Members – Percentage with Spouse at Death					
Age Nearest Birthday	Male	Female	Age Nearest Birthday	Male	Female
52	80%	55%	88	52%	10%
53	80%	55%	89	50%	9%
54	80%	55%	90	48%	8%
55	80%	55%	91	46%	7%
56	80%	55%	92	43%	6%
57	80%	55%	93	40%	5%
58	80%	55%	94	37%	4%
59	80%	55%	95	34%	3%
60	80%	55%	96	31%	2%
61	79%	55%	97	28%	1%
62	78%	55%	98	25%	-
63	77%	55%	99	22%	-
64	76%	55%	100	19%	-
65	75%	55%	101	16%	-
66	75%	55%	102	13%	-
67	75%	55%	103	10%	-
68	75%	55%	104	7%	-
69	75%	55%	105	4%	-
70	75%	55%	106	1%	-
71	75%	51%	-	-	-
72	75%	47%	-	-	-
73	75%	43%	-	-	-
74	75%	39%	-	-	-
75	75%	37%	-	-	-

C.6. Spouse Age Difference

When the spouse's date of birth is not provided in the data, the following assumptions are made:

All Members - Spouse Age Difference	
Male	4 years older than spouse
Female	2 years younger than spouse

Recommended Employer Contributions

The recommended Employer contributions are subject to change and will be reviewed annually.

Recommended Standard Employer Contributions

The current standard Employer contributions are recommended to continue for all Employers, in respect of active members only:

Employer Standard Contributions	
Division B	1.9 times member contributions
Division C	2.5% of salary
Division D	1.64 times member contributions

Recommended Employer Top-Up Contributions

The recommended Employer Top-up contributions are[1]:

Employer	Payable 1 July 2023 to 30 June 2024 ($)	Payable 1 July 2024 to 30 June 2025 ($)	Payable 1 July 2025 to 30 June 2026 ($)
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

[1] Whilst the key objective in this investigation to target a satisfactory financial position for the Fund as a whole by no later than 30 June 2026, a secondary objective is to individually target a satisfactory financial position for each of the impacted Employers separately. This means that, because the other Employers are currently in surplus, the Fund as a whole is expected to reach the satisfactory financial position requirement earlier than 30 June 2026, while the impacted Employers are still moving towards the 100% VBI position over the Restoration period. See also commentary below.

I recommend[1] that the top-up contributions be paid either by way of equal monthly contributions spread over the 12 months each year, or by lump sum payable by no later than 31 May each year, and that the preferred option be agreed in writing by each Employer.

[1] The Trustee may agree on an alternative payment cycle if requested by an Employer, provided this is agreed in writing

Guarantees

[redacted]

[redacted]

[redacted]

Statements Required by SPS 160

Statements Required by SPS 160

This section provides statements required to be made under APRA Prudential Standard SPS 160. The values shown below relate to the total defined benefit liabilities and assets of the Fund (i.e. inclusive of both Employer and member-financed defined benefit liabilities. Accumulation-style benefits are excluded from the values).

(i) As at 30 June 2023, the net assets available to pay defined benefits of the Fund amounted to $1,388,499,418. This value excludes assets held to meet Cbus's Operational Risk Financial Requirement and other reserves held by Cbus, namely the General Reserve, the Administration Reserve, and the Insurance Reserve. This is the value of assets used in determining the recommended contribution rates. Further information is set out in Section 8 of this report.

(ii) The Fund's liabilities include current defined benefit pension liabilities of $725,406,070.

(iii) In my opinion, the Actuarial Value of Accrued Benefits as at 30 June 2023 was $1,379,902,826. Hence, I consider that the value of the assets as at 30 June 2023 is adequate to meet the value of the accrued benefit liabilities of the Fund as at 30 June 2023. In determining this value, I have not applied a minimum of the Vested Benefits.

Taking into account the circumstances of the Fund, the details of the membership and the assets, the benefit structure of the Fund and the industry within which the Employers operate, I consider that the assumptions and investigation methodology used are appropriate in relation to the determination of the accrued benefit liabilities for the purposes of this report. Further comments on the assumptions and investigation methodology are set out in Sections 3 and 4 of this report.

Assuming that the Employers contribute in accordance with my recommendations, then, based on the assumptions made for this actuarial investigation, which I consider to be reasonable expectations for the Fund, I expect that assets will be sufficient to cover the value of accrued benefit liabilities by 30 June 2026.

(iv) In my opinion, the total as at 30 June 2023 of members' Vested Benefits amounted to $1,387,096,107. Hence, I consider that the value of the assets as at 30 June 2023 was adequate to meet the value of the Vested Benefit liabilities of the Fund as at 30 June 2023.

However, Section 3.3.2 'Financial Experience since 30 June 2023' of this report notes that the Fund is to be treated as being in an 'unsatisfactory financial position' as at 30 November 2023. Accordingly, I have recommended a contribution program ('Restoration Plan') as required by SPS 160 that is intended to restore the Fund to a satisfactory financial position by no later than 30 June 2026 (see also note (vii) below.)

Assuming that the Employers contribute in accordance with my recommendations, then, based on the assumptions made for this actuarial investigation, I expect that assets will not be sufficient to cover the value of Vested Benefit liabilities over the year to 30 June 2024, however it is expected that the assets will be sufficient to cover the Vested Benefit liabilities by 30 June 2025.

(v) In my opinion, the value of the liabilities of the Fund in respect of members' minimum benefits as at 30 June 2023 was $1,144,003,675. Hence the Fund was not technically insolvent as at 30 June 2023.

(vi) A projection of the likely future financial position of the Fund over the five-year period following 30 June 2023, based on what I consider to be reasonable expectations for the purposes of this investigation, is set out in Section 5 of this report.

(vii) In respect of the three-year period following 30 June 2023, I recommend that the Employers contribute to the Fund as follows:

Employer standard contributions (in respect of active members only)

Division B	Division C	Division D
1.9 times member contributions	2.5% of salary	1.64 times member contributions

Employer top-up contributions

No top-up contributions are recommended in respect of the 2023/24 year.

In respect of each of the two years 2024/25 and 2025/26, the following Employer top-up contributions are recommended:

[redacted]

[redacted]

[redacted]

[redacted]

(viii) I recommend that the current Shortfall Limit remains unchanged at 96% (see also Section 9.1 of this report).

(ix) The Fund is used for Superannuation Guarantee purposes. Therefore:

a. All Funding and Solvency Certificates required under Division 9.3 of the SIS Regulations have been issued for the period from the date of the previous Former EISS investigation to 30 June 2023; and

b. I expect to be able to certify the solvency of the Fund in any Funding and Solvency Certificate(s) that may be required in the three-year period from 30 June 2023.

(x) In my opinion, there is a “high degree of probability”, as at 30 June 2023 that the Fund will be able to meet the pension payments as required under the Fund’s Trust Deed.

Calculation of the Actuarial Value of Accrued Benefits

The calculation of the Actuarial Value of Accrued Benefits has been carried out using a method of apportionment of benefits between past and future membership that satisfies the requirements of Professional Standard No. 402 of the Actuaries Institute and is acceptable for Australian Accounting Standard AASB 1056 purposes.

Accumulation Benefits

The value of accumulation benefits has been taken as the sum of the balances held in accumulation accounts at the date of the investigation.

Defined Benefits

The past membership components of all defined benefits payable in the future in respect of the current active membership are projected forward, allowing for assumed future salary increases, CPI increases and the probability of each mode of exit and are then discounted back to the investigation date at the investment return/discount rate assumed for this investigation.

The method is the same as that used at the previous Former EISS investigation.

No adjustment has been made either on an individual level or Fund level where Vested Benefits exceed the unadjusted Actuarial Value of Accrued Benefits.

Division B

Where liabilities for expected future benefit payments under Division B in this investigation have been apportioned between past service liabilities (benefits in respect of membership prior to the investigation date) and future service liabilities (membership after the investigation date), the method of apportioning to past service is as set out below. Future service liabilities are the difference between the total liabilities and the past service liabilities.

For benefits payable at time t years after the investigation date:

- On retirement, partial disability, withdrawal with deferred benefit (before discount) and on total disability:

  $$\text{Past service component} = SAL_t \times ABP_0 \times 0.025 \times \left(1 - \frac{(TaxPS + t)}{PS + t} \times 0.15\right)$$

- On death:

  $$\text{Past service component} = SAL_t \times ABP_0 \times 0.025$$

- On resignation with 10 or more years of membership:

  $$\text{Past service component} = (PS + t) \times MCI_t \times \frac{ABP_0}{Y_t} \times 0.025 \times \left(1 - \frac{(TaxPS + t)}{PS + t} \times 0.15\right)$$

  Where:

ABP_0	=	Accrued benefit points at time 0 (i.e. at 30 June 2023), subject to maximum points limit.
Y_t	=	As for ABP_t, except not subject to maximum points limit.
PS	=	Membership period to 30 June 2023, including previous fund membership.
TaxPS	=	Membership period to 30 June 2023, excluding any period before 1 July 1988.
SAL_t	=	Salary at time t (Final Salary or Final Average Salary as appropriate to the particular benefit).
MCI_t	=	Member contributions plus interest at time t, less expenses and additional benefit levy where appropriate. Member is assumed to continue to contribute at his/her 30 June 2023 rate until achieving maximum points limit, then member contribution rate reduces as per investigation assumption.

Division C

Where liabilities for expected future benefit payments under Division C in this investigation have been apportioned between past service liabilities (benefits in respect of membership prior to the investigation date) and future service liabilities (membership after the investigation date), the method of apportioning to past service is as set out below. Future service liabilities are the difference between the total liabilities and the past service liabilities.

For benefits payable at time t years after the investigation date:

$$\text{Past service component} = \frac{PS}{PS + t} \times (\text{benefit payable in respect of Division C membership})$$
$$+ \frac{SGPS}{SGPS + t} \times (\text{SG top-up, if any})$$

Where:

PS = Membership period to 30 June 2023.

SGPS = Membership period to 30 June 2023, excluding any period before 30 June 1992.

Division D

Where liabilities for expected future employer-financed benefit payments under Division D in this investigation have been apportioned between past service liabilities (benefits in respect of membership prior to the investigation date) and future service liabilities (membership after the investigation date), the method of apportioning to past service is as set out below. Future service liabilities are the difference between the total liabilities and the past service liabilities.

This method is a 'non-standard' approach and has been adopted due to the specific Division D benefit design, where members are required to continue contributions for each contributory unit (where the contribution varies by age each unit commenced) until retirement age for full accrual. Accrual of the units-based benefit before normal retirement age depends partly on service and partly on how much contribution remains unpaid.

Our alternative approach has therefore been used in line with clause 6.5 of PS 402 because the Division D benefit is not strictly defined in terms of the 'standard' approaches in the relevant clauses in PS 402.

This approach was agreed over 25 years ago as the difference between this and a proportional method ignoring the non-standard accrual of the member-financed component was material at that time. Further, our approach has been used consistently over all this time in respect of all relevant valuation work for the former Energy Industries Superannuation Scheme prior to its Successor Fund Transfer to Cbus. We have also adopted this method for work carried out on other funds to which we regularly provide actuarial services having similar benefit features.

We note that the difference between the methods has become immaterial over time due to minimal future Division D benefit accruals as well as rapidly declining active membership in Division D. For consistency however, we have continued to use the historical approach.

For benefits payable at time t years after the investigation date:

- On retirement, withdrawal, and preservation:

  Past service component = $\frac{PS}{PS + t}$ x Value of Employer-financed benefit starting payment at time t

- On death or disability:

  Past service component = $\frac{PS}{TS}$ x Value of Employer-financed benefit starting payment at time t

Where:

PS = Membership period to 30 June 2023, or normal retirement age if earlier.

TS = Membership period to normal retirement age.

PS+t = Membership period to time t, or normal retirement age if earlier.

Value of Employer-financed benefit = Value of total benefit less amount of accumulated member contributions at time t.

This method is used due to the specific benefit design for Division D, where members are required to continue contributions for their units accrued until retirement age (otherwise benefits will be reduced).

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