

27 November 2023

Equip Super Actuarial Valuation as at 30 June 2023

We have undertaken an actuarial valuation of defined benefit Employer Benefit Accounts (EBAs) of Equip Super (the Fund) as at 30 June 2023 where we are the responsible actuary, referred to as “relevant EBAs” throughout this report, for the purposes of:

- Determining the financial position of relevant EBAs as at 30 June 2023;
- Calculating required employer contribution rates; and
- Compliance with Australian Prudential Regulation Authority (APRA) Prudential Standard SPS 160 – Defined Benefit Matters which requires an annual actuarial investigation where a fund has pensions in the course of payment, unless otherwise approved by APRA.

This actuarial valuation generally ignores the Accumulation and Account Based Pension Divisions as the accrued liabilities in respect of these Divisions are the sum of members’ account balances and covers only relevant EBAs, ignoring EBAs where we are not the responsible actuary, i.e. City of Perth, Toshiba Australia, Canon Medical Systems, IBM, Toyota and BOC.

The Trustee has established a Contribution and Funding Policy (CFP) governing the funding and administration of, and employers’ obligations in relation to, the defined benefit plans within the Fund for the purposes of the Fund Rules and to ensure compliance with SPS 160. The CFP provides that each EBA within the Fund is to be treated as a separate sub-fund for the purposes of SPS 160.

The latest triennial actuarial investigation of the Fund covering relevant EBAs was undertaken as at 30 June 2022 by me and the results are detailed in the report of 20 December 2022.

We have not undertaken a detailed analysis of experience as part of this valuation, which will take place as part of the usual three-yearly actuarial investigation. Similarly, other aspects that were covered in the three-yearly actuarial investigation at 30 June 2022 have not been repeated as part of this valuation.

Note that, in accordance with the Trustee’s CFP, the financial position of each EBA will be estimated as at 31 December 2023, in February 2024, and the required rate of employer contributions determined, which will supersede the contribution rates calculated as at 30 June 2023 detailed in this report.

Financial Position as at 30 June 2023

The combined financial position of the relevant EBAs as at 30 June 2023 can be summarised as follows:

	\$'000	Asset Coverage
Assets	1,710,162	
Vested Benefits	1,419,139	120.5%
Actuarial Value of Accrued Benefits	1,442,919	118.5%
Retrenchment Benefits	1,455,800	117.5%
Minimum Requisite Benefits	1,095,480	156.1%

We have calculated a number of measures of accrued liabilities for the relevant EBAs. Each measure includes an allowance for the present value of pensions in payment and deferred benefits.

Vested Benefits – the lump sum benefits payable as of right if all members resigned or, if eligible, retired, at the review date.

Actuarial Value of Accrued Benefits – the actuarial value of all future expected benefit payments, attributable to membership to date, discounted to the review date. These benefits are calculated using the actuarial methods and assumptions described in this report.

Retrenchment Benefits – the lump sum benefits payable on retrenchment, assuming any discretion of the Employer is exercised in full.

Minimum Requisite Benefits (MRBs) – the lump sum minimum benefits required to be paid for the purpose of Superannuation Guarantee legislation if all members resigned at the review date.

Financial Position of Employer Benefit Accounts

The financial position of each relevant EBA has been determined based on the assets, membership data and Vested Benefits provided by the administrator in July 2023.

We have not reconciled the data provided by the administrator with the figures shown in the financial statements, given that the financial statements cover all defined benefit EBAs.

Details in respect of each relevant EBA are set out in Appendix 1, which shows the ratio of assets to Vested Benefits for relevant EBAs ranges from 88% to 573%. One EBA (out of 37) has a ratio of assets to Vested Benefits of less than 100% as at 30 June 2023 as follows:

EBA G9		
	(\$000)	Ratio
Assets	907	
Vested Benefits	1,025	88.5%
Actuarial Value of Accrued Benefits	1,025	88.5%
Minimum Requisite Benefits	1,025	88.5%
Shortfall Limit		100.0%

EBA G9 was in an “unsatisfactory financial position” as defined in the SIS legislation as at 30 June 2023. The “unsatisfactory financial position” of the EBA has been reported to the Trustee and APRA. EBA G9 already has a restoration plan in place as it was previously known to be in an “unsatisfactory financial position”.

In addition to the EBA highlighted above, EBAs G8 and O8 had a ratio of assets to the Actuarial Value of Accrued Benefits less than 100% at 30 June 2023. However, the assets for these EBAs were greater than the Vested Benefits.

Other than EBA G9, all the other EBAs were in a “satisfactory financial position” as at 30 June 2023.

EBA G9 is also “technically insolvent” as defined in the SIS Regulations. The “technical insolvency” of EBA G9 has also been reported to the Trustee and APRA as required by the SIS legislation and a Special Funding and Solvency Certificate provided to the Trustee.

Experience since the Actuarial Investigation as at 30 June 2022

For the year ended 30 June 2023 the investment return on the Defined Benefit investment option was 7.6%. The average rate of salary increases for the year ended 30 June 2023 for defined benefit members of the relevant EBAs who were in the Fund over the whole year was 4.9%.

In the 30 June 2022 actuarial investigation it was assumed that the Defined Benefit investment option, applying for EBAs with a standard long-term investment strategy, would earn a long-term rate of investment return of 4.0% pa (net of tax, investment expenses and standard administration costs) and salary increases were assumed to vary by EBA from 2.5% pa to 4.0% pa. The overall impact of the actual investment return and salary increase experience over the year compared to that assumed will be different for each EBA due to their individual circumstances and assumptions adopted.

The assumed future investment returns for the 30 June 2022 actuarial investigation were determined by Equip Super with input from JANA Investment Advisors to align with the basis used for review, construction and management of portfolios. The investment returns allowed for manager outperformance of benchmarks, investment tax, investment expenses and standard non-investment expenses of 0.3% of assets. A different assumed future investment return applied for EBAs with a non-standard long-term investment strategy and/or a proportion of assets held in cash greater than 10%.

Recommended Employer Contributions

The Trustee's CFP is used to determine contribution rates for each employer based on the financial position of the employer's EBA. We believe that the current CFP remains appropriate, given the nature of the defined benefit liabilities. We recommend that each employer contribute to the Fund in accordance with the CFP adopted by the Trustee.

We have determined the contribution rates required in accordance with the CFP, being the greater of the contribution rate required for the EBA to reach a position where:

- Assets are equal to Accrued Liabilities over a period of three years; and
- Assets are equal to Accrued Liabilities times the Target Funding Ratio over five years.

Accrued Liabilities is the greater of Vested Benefits and the Actuarial Value of Accrued Benefits calculated separately for each EBA.

Appendix 2 shows the recommended **minimum** level of employer contributions for each relevant EBA.

Our calculations are based on the financial position as at 30 June 2023. Changes in the employer contribution rates should be introduced as soon as practical and we understand changes in the contribution rates were communicated to employers in September 2023.

The contribution rates calculated as at 30 June 2023 will be superseded by contribution rates determined as part of the review of the financial position of each EBA as at 31 December 2023.

Probability of Payment of Pensions

SPS 160 requires the actuary to include in the actuarial investigation a statement of the actuary's opinion as to whether, at the investigation date, there is a high degree of probability that the fund will be able to pay the defined benefit pensions as required under the fund's governing rules.

As at 30 June 2023, we have found there is a high degree of probability that certain, but not all, relevant EBAs will be able to pay the pensions as required under the Fund's governing rules, based on the existing assets of those EBAs, without allowing for future employer contributions as required in the Actuaries Institute Guidance Note 465.

In practice, it is anticipated that all relevant EBAs will provide adequate funding to enable pensions to be paid in full.

Projection of Financial Position

For the purposes of this valuation we have not undertaken a projection of the financial position of each of the 37 relevant EBAs. However, we are satisfied that the review of the financial position of each relevant EBA every six months in accordance with the Trustee's CFP and the recommended contribution rates will, based on the assumptions adopted for this valuation, result in each relevant EBA (except EBA G9, where a Restoration Plan is in place) continuing to be in a "satisfactory financial position" with assets in excess of Vested Benefits through to 30 June 2026.

Key Risks

There are a number of risks relating to the operation of the Fund. The more significant financial risks relating to the defined benefits are:

- *Investment risk* – borne by the employers. The risk is that investment returns will be lower than assumed and the employers will need to increase contributions to offset this shortfall.
- *Salary growth risk* – borne by the employers. The risk is that wages or salaries (on which future benefit amounts will be based) will rise more rapidly than assumed, increasing benefit amounts and thereby requiring additional employer contributions.
- *Small EBA risk* – borne by the employers. This risk relates to supporting an EBA where there are few remaining members meaning the law of averages may no longer apply and the time horizon of the EBA may have become short.
- *Pension option risk* – borne by the employers. Members in some categories are eligible to take all or part of their benefit in the form of a lifetime pension on guaranteed terms. The risk is that more members choose to take up this option than assumed and the employer will be required to increase contributions.
- *Longevity risk* – borne by the employers. Lifetime pensions are payable until the death of the pensioner, or the death of the pensioner's spouse where a spouse reversion applies. If the lifetime pensioners or their spouses live longer than assumed, increased employer contributions may be required.
- *Price inflation risk* – borne by the employers. Lifetime pensions are generally indexed in line with changes in the Consumer Price Index. If price inflation is greater than assumed, increased employer contributions may be required.
- *Operational risk* – borne by the Fund. The risk of any process or system failures or increased costs. The Trustee has established a reserve to assist with the management of such risks.
- *Legislative risk* – borne by the employers. The risk is that legislative changes could be made which increase the cost of providing the defined benefits - for example an increase in the rate of tax on superannuation funds.

The Trustee should continue to educate employers on the risks associated with the provision of defined benefits and ensure its risk management framework identifies the full range of risks faced by the Trustee.

Members Entitled to Pension Benefits

Certain members of the Fund are currently eligible to receive a lifetime pension on ceasing employment. The liability for financing current and future lifetime pensions, including the impact of the death of pensioners and commencement of spouse reversionary pensions, where applicable, rests with the former employer of the original pensioner. Current pension liabilities are taken into account in determining the required employer contribution rates in accordance with the Trustee's CFP.

For the purpose of calculating Vested Benefits of active defined benefit members we have assumed members elect to receive their benefits in lump sum form as occurs in the vast majority of cases. For the purpose of calculating the Actuarial Value of Accrued Benefits, we have assumed that 80% of Division B members and 50% of eligible Division CA members elect to take a lifetime pension on retirement.

We have undertaken further calculations to determine the impact on affected relevant EBAs if all Division B and all eligible Division CA members took 100% of their benefits in the form of a lifetime pension at 30 June 2023. As agreed, we have allowed for this impact for EBAs where there are fewer than 10 members or the current lifetime pension members account for more than 15% of the EBA membership. The EBAs impacted are E23, G7 and G8.

In addition, it is assumed that 25% of Water Division members eligible to take a pension would do so and the active members of EBAs O5 and O16 take their benefits as a lump sum.

Note that, for the purposes of assessing the impact of members taking lifetime pensions we have valued the pensions using the assumptions detailed in the Appendices to this report. If the pensions were to be financed by annuities purchased from a life insurance company, the impact of members electing to take a pension may be more favourable due to current competitive annuity pricing.

Investment Policy

The Fund's Strategic Asset Allocation for assets supporting defined benefit liabilities (including lifetime pensioner liabilities) is a 54% exposure to "growth" assets such as shares and property, and a 46% exposure to "defensive" assets such as cash and bonds.

"Growth" assets are expected to earn higher returns over the long-term compared with "defensive" assets, but at the same time to exhibit more variation in returns from year to year.

The expected weighted average term of the Fund's defined benefit liabilities as at 30 June 2022 was about seven years, based on the assumptions adopted for the actuarial investigation at that date, which is generally considered a long enough period for the Fund to be expected to benefit from the higher returns expected from "growth" assets over the long-term.

However, this will mean that the Fund's investment returns may be subject to a degree of volatility from year to year, which may impact the financial positions of the EBAs and the required level of employer contributions.

More importantly, the nature of the liabilities of each EBA is different and the expected weighted average term of the defined benefit liabilities varies between relevant EBAs, from one year to fifteen years.

The Fund is able to accommodate different investment strategies to the Defined Benefit investment option for each EBA's DB assets based on the investment options made available for investment choice accounts. At the request of the sponsoring employer there are 19 EBAs utilising this facility as at 30 June 2023 for part or all of the assets of the EBA.

The Trustee should continue to educate and engage participating employers on the interaction of the potential volatility in investment returns, volatility in employer contributions via the CFP and the investment policy for the Defined Benefit investment option. Where the employer has not requested an

alternative investment strategy for all or part of the assets of their EBA, the Trustee should ultimately seek confirmation from the employer that they remain comfortable with the current investment policy, bearing in mind the potential volatility in investment returns and the ageing of the defined benefit membership.

The investments are expected to provide a high level of liquidity in normal circumstances, sufficient to finance lump sum and pension payments.

The asset allocation of the Defined Benefit investment option as at 30 June 2023 was as follows:

Asset Class	Assets	Strategic Asset Allocation
Australian shares	16.0%	17.0%
Overseas shares	20.8%	21.0%
Property	6.4%	7.0%
Infrastructure	7.2%	7.0%
Alternatives	12.5%	10.0%
Alternative fixed interest	13.9%	15.0%
Traditional fixed interest	15.9%	15.0%
Cash	7.3%	8.0%
Growth / Defensive	55% / 45%	54% / 46%

Unit Pricing and Crediting Rate Policies

Members' investment choice accounts are administered based on daily unit prices with monthly crediting rates used for the allocation of investment earnings to non-investment choice accounts. The crediting rates used for non-investment choice accounts are generally based on an investment return calculated from the change in unit price of the assets supporting defined benefit liabilities.

A detailed review of the unit pricing and crediting rate policy and related procedures is outside the scope of this actuarial valuation.

Based on a review of the main features, we consider that the unit pricing and crediting rate policy is generally suitable taking into consideration the principles of equity between different generations of members and any material risks which may have a significant impact on the Fund (i.e. a market shock or sudden downturn in investment markets).

Self-Insurance

The death and disablement benefits of defined benefit members in the Electricity and Gas Divisions were historically self-insured. From 1 October 2003, the Trustee effected an external insurance policy to cover these benefits. Insurance policies also cover death and disablement benefits of members of other Divisions. Thus, to the extent possible, all death and disablement benefits of the Fund (other than EBAs O21 and O22, see below) are externally insured. The insurance arrangements are underwritten by MetLife.

The purpose of the insurance policies is to protect the Fund against unexpectedly large payouts on the death or disablement of members. We confirm that the current insurance arrangements remain appropriate and provide adequate protection for the Fund.

There are still a number of situations where the Fund self-insures a death or disability risk. Self-insurance reserves have been put in place to cover potential benefits in respect of some of the self-insured risks.

Separate advice (including our report dated 25 May 2023 and subsequent correspondence) has been provided in relation to the adequacy of the self-insurance reserves and the procedures for management of the residual self-insurance exposures. Information provided to date suggests that the self-insurance reserves are more than adequate to cover the potential liabilities.

Self-Insurance for Defined Benefit Members of EBAs O21 and O22

The unfunded part of death, Total and Permanent Disablement (TPD) and ill-health benefits, referred to in this section as “risk amounts”, of defined benefit members of EBAs O21 and O22 are self-insured, as applied for these members under their previous fund. That is, no part of these benefits is externally insured with an insurance company and when a benefit becomes payable the full amount is financed from the EBA.

The employer contribution rates in respect of defined benefit members include an allowance for the expected impact of members leaving due to death, TPD or ill-health.

EBAs O21 and O22 also remain liable for self-insured claims in respect of accumulation members where the event leading to a claim occurred in the previous fund prior to 1 July 2016.

Given the financial position of the EBAs it is not necessary to set aside a reserve for these potential self-insurance claims at this point, although the position should be kept under review as more experience in relation to such self-insured claims arises.

The key features of a fund for self-insurance of death and disablement benefits to be appropriate are:

- The number of members is sufficiently large so that the potential variability between the actual and expected number of claims from one year to the next is expected to have only a small financial impact; and/or
- The employers understand and accept the risks related to self-insurance, particularly the risk of a catastrophic event leading to a significant number of claims due to any one event; and/or
- The employers are committed, and able, to finance the risks associated with self-insurance.

Whilst the number of members of EBAs O21 and O22 in isolation is not sufficient to justify self-insurance from a theoretical viewpoint, I understand that the employers understand, accept and are able to finance the risks associated with self-insurance.

Accordingly, in our view self-insurance remains appropriate for EBAs O21 and O22. However, the Trustee should ensure that the employers remain committed to the continuation of self-insurance and understand the risks.

Subsequent Events Since the Investigation Date

Since 30 June 2023 investment returns on the Defined Benefit investment option have been lower than expected (-0.2% versus 1.0% for the three months to 30 September 2023), which will have had a negative impact on the financial position of most of the relevant EBAs where the majority of the assets are invested in the Defined Benefit investment option. The impact of investment returns after 30 June 2023 will be taken into account as part of the determination of the financial position of EBAs as at 31 December 2023.

We are not aware of any significant events that have occurred since 30 June 2023, which have not already been taken into account, which would have a material impact on the recommendations in this report.

Shortfall Limit

Under APRA Prudential Standard SPS160, the Trustee is required to determine a “Shortfall Limit” for each 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 the fund assets, the fund can be restored to a “satisfactory financial position” within a year. An “unsatisfactory financial position” applies where assets are less than Vested Benefits.

The Shortfall Limit is expressed as a percentage coverage level of defined benefit Vested Benefits by defined benefit assets.

SPS 160 also requires the Trustee to determine and implement a process for monitoring the Fund’s defined benefit Vested Benefits coverage against the Shortfall Limit. If this monitoring process indicates that defined benefit 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 to a satisfactory financial position, so that the Vested Benefits are fully covered, within a reasonable period that must not exceed three years and this must be submitted to APRA.

The Trustee’s CFP documents the approach to determine the Shortfall Limit for each EBA as follows:

Shortfall Limit = $100\% - 4.6\% \times \text{GAA} \times \text{PSPR}$, rounded to the lower whole number.

Where:

PSPR = proportion of salary and pension related benefits

GAA = allocation to “growth” assets

The formula produces a Shortfall Limit of 97.0% where the GAA is 54% and the PSPR is 100%.

However, a Shortfall Limit of 100% will be adopted where:

- The ratio of Vested Benefits to MRB is less than 103%;
- The EBA has fewer than 10 members, including active, deferred and pensioner members.

We are satisfied that this approach to determine the Shortfall Limit for each EBA remains appropriate.

Statements Required by SPS 160

This section provides statements required to be made under APRA Prudential Standard SPS 160. Values cited relate to the defined benefit members of the relevant EBAs and exclude accounts for accumulation members, account based pensions and additional accounts for defined benefit members, reserves and assets attributable to EBAs not covered by this report.

- (i) As at 30 June 2023, the net realisable value of the assets of the Fund attributable to the relevant EBAs, based on unaudited information provided by the Trustee, amounted to \$1,710,162,000. This is also the value of assets used in determining the recommended contribution rates.
- (ii) In my opinion, the value of the liabilities of the relevant EBAs in respect of accrued benefits at 30 June 2023 was \$1,442,919,000. Hence I consider that the value of the assets at 30 June 2023 is adequate to meet the value of the accrued benefit liabilities of the relevant EBAs as at 30 June 2023 in total and each EBA individually, except for EBAs G8, G9 and O8.

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 valuation 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 valuation methodology are set out in this report.

Assuming that the employers contribute in accordance with my recommendations, then, based on the assumptions made for this actuarial valuation which I consider to be reasonable expectations for the relevant EBAs, I expect that assets will remain sufficient to cover the value of accrued benefit liabilities over the period to 30 June 2026, except for EBAs G8, G9 and O8, and will become sufficient to cover the value of accrued benefit liabilities as at 30 June 2026 for EBAs G8, G9 and O8.

- (iii) In my opinion, the value of the liabilities of the relevant EBAs in respect of vested benefits as at 30 June 2023 was \$1,419,139,000. Hence I consider that the value of the assets at 30 June 2023 is adequate to meet the value of the vested benefit liabilities of the relevant EBAs as at 30 June 2023 in total and each EBA individually, except for EBA G9. EBA G9 is in an “unsatisfactory financial position” as defined in the SIS Regulations.

Assuming that the employers contribute in accordance with my recommendations, then, based on the assumptions made for this actuarial valuation, I expect that assets will remain sufficient to cover the value of vested benefit liabilities over the period to 30 June 2026, except for EBA G9, and will become sufficient to cover the value of vested benefit liabilities as at 30 June 2026 for EBA G9.

- (iv) In my opinion, the value of the liabilities in respect of the minimum benefits of the members of the relevant EBAs as at 30 June 2023 was \$1,095,480,000. None of the relevant EBAs were technically insolvent at 30 June 2023, except for EBA G9.
- (v) The legislative requirements in relation to the “unsatisfactory financial position” and “technical insolvency” of EBA G9 have been addressed, including reporting to APRA and the Trustee by way of a letter dated 31 August 2023.
- (vi) The ratios of the assets to the Actuarial Value of Accrued Benefits, Vested Benefits and the Minimum Requisite Benefits are:

	\$'000	Asset Coverage
Assets	1,710,162	
Vested Benefits	1,419,139	120.5%
Actuarial Value of Accrued Benefits	1,442,919	118.5%
Minimum Requisite Benefits	1,095,480	156.1%

- (vii) The actuarial valuation was carried out using the “target” funding method. Under this method, contributions are set with the aim of providing assets which result in the coverage of specified accrued benefit liabilities at a minimum “target” level. The target level adopted is that assets available to support the defined benefits equal the target funding ratio multiplied by the Accrued Liabilities (being the greater of the Actuarial Value of Accrued Benefits and Vested Benefits) within a period of five years and 100% of Accrued Liabilities within a period of three years, whichever produces the higher rate of contributions.

The target funding ratios for relevant EBAs range from 100% to 106%, depending upon the investment strategy applying to the EBA and the proportion of the Accrued Liabilities of the EBA that are salary or pension related.

The Actuary recommended that each employer contribute to the relevant EBA in accordance with the Contribution and Funding Policy adopted by the Trustee.

Briefly summarised, this policy provides for the ratio of assets to Accrued Liabilities in respect of each EBA to be measured on a six monthly basis.

If the ratio of assets to Accrued Liabilities (funding ratio) lies in the range of the target funding ratio to target funding ratio plus five percentage points, the employer is to contribute at the “long-term contribution rate” as calculated for that employer in the most recent triennial actuarial investigation of the Fund. The employer is also required to make an additional contribution of the excess of any uninsured benefit paid over the member’s Vested Benefit, “grossed-up” for contributions tax.

If the funding ratio is less than 100%, the employer is required to contribute at a rate equal to that required to achieve the target funding ratio within a period of five years and 100% of Accrued Liabilities within a period of three years, whichever produces the higher rate of contributions. The

employer is also required to make an additional contribution of the excess of any uninsured benefit paid over the member's Vested Benefit, "grossed-up" for contributions tax.

In addition, where the ratio of assets to vested benefits is below 100%, the employer contribution rate is subject to the minimum of the previously calculated employer contribution rate.

The recommended contribution rates calculated in this valuation range from nil to 68.4% of salaries.

If the funding ratio exceeds the target funding ratio plus five percentage points, employer contributions are reduced in accordance with a formula. If the funding ratio falls below its target funding ratio but remains above 100%, employer contributions are increased in accordance with a formula and the employer is also required to make an additional contribution of the excess of any uninsured benefit paid over the member's Vested Benefit, "grossed-up" for contributions tax.

- (viii) A projection of the likely future financial position has not been undertaken as part of this valuation for all relevant EBAs. However, I am satisfied that the review of the financial position of each relevant EBA every six months in accordance with the Trustee's CFP and the recommended contribution rates will, based on the assumptions adopted for this valuation, result in each relevant EBA, except for EBA G9, continuing to be in a "satisfactory financial position" with assets in excess of Vested Benefits through to 30 June 2026, and, result in EBA G9 being in a "satisfactory financial position" by 30 June 2026.
- (ix) The date of the next triennial actuarial investigation should be no later than 30 June 2025. At that time, the level of employer contributions will be reviewed. The progress of the coverage of Accrued Liabilities for each EBA should be reviewed every six months in accordance with the Trustee's Contribution and Funding Policy to ascertain if an adjustment to the employer contribution levels is required prior to the next actuarial investigation.
- (x) The Fund is used for Superannuation Guarantee purposes.
 - a. all Funding and Solvency Certificates required under Division 9.3 of the SIS Regulations for the relevant EBAs have been issued for the period from the date of the last investigation to 30 June 2023;
 - b. I expect to be able to certify the solvency of the relevant EBAs in any Funding and Solvency Certificates that may be required in the three year period from 30 June 2023, except for EBA G9. A Special Funding and Solvency Certificate has been issued for EBA G9 due to it being "technically insolvent".
- (xi) In my opinion, there is a high degree of probability that certain, but not all, relevant EBAs will be able to pay the pensions as required under the Fund's governing rules. This is because not all relevant EBAs currently hold sufficient reserves to meet the "high degree of probability" test and the Actuaries Institute's Guidance Note 465 does not allow future employer contributions to be taken into account in the assessment for the "high degree of probability" statement. In practice, it is anticipated that the relevant employer would provide adequate funding to enable pensions to be paid in full.

Actuary's Certifications

Professional standards and scope

This report has been prepared in accordance with generally accepted actuarial principles, Mercer internal standards, and the relevant Professional Standards of the Actuaries Institute, in particular PS400 which applies to "...actuarial investigations of the financial condition of wholly or partially funded 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 Trustee of the Fund and the employers who contribute to the Fund. Mercer is not responsible for the consequences of any other use. This report should be considered in its entirety and not distributed in parts. The Trustee should share this report with the employers who contribute to the Fund. The employers may consider obtaining separate actuarial advice on the recommendations contained in the report.

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

Actuarial Uncertainty and Assumptions

An actuarial valuation report contains a snapshot of a Fund's financial position at a particular point in time. It does not provide certainty in relation to a Fund's future financial position or its ability to pay benefits in the future.

Future funding and **actual** costs relating to the Fund are primarily driven by the Fund's benefit design, the **actual** investment returns, the **actual** rate of salary inflation and any discretions exercised by the Trustee or the employers. The Fund's actuary does not directly control or influence any of these factors in the context of an actuarial valuation.

The Fund's future financial position and the recommended employer contributions depend on a number of factors, including the amount of benefits the Fund pays, the cause and timing of member withdrawals, Fund expenses, the level of taxation and the amount earned on any assets invested to pay the benefits. These amounts and others are uncertain and unknowable at the valuation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, assumptions, as described in Appendix 6, are used to select a single scenario from the range of possibilities. The results of that 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 or material. In addition, different assumptions or scenarios may also be within the reasonable range and results based on those assumptions would be different.

Actuarial assumptions may also be changed from one valuation to the next because of mandated requirements, Fund experience, changes in expectations about the future and other factors. We did not perform, 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 on the basis of a set of valuation results.

The assumptions adopted for this actuarial valuation are the same as those adopted for the actuarial investigation as at 30 June 2022 (with the exception of the investment return assumption for EBA G7 following a significant investment strategy change) and we consider they remain suitable.

Data and Fund Provisions

To prepare this report, we have relied on financial and participant data provided by the Fund's administrator. The data used is summarised in this report. We have reviewed the financial and participant data for internal consistency and general reasonableness and believe it is suitable for the purpose of this report. We have not verified or audited any of the data or information provided. We have also relied upon the documents, including amendments, governing the Fund as provided by the Trustee. The Trustee is ultimately responsible for the validity, accuracy and comprehensiveness of this information.

If the data or Fund provisions are not accurate and complete, the valuation results may differ significantly from the results that would be obtained with accurate and complete information; this may require a revision of this report.

Further Information

If requested, the actuary is available to provide any supplementary information and explanation about the actuarial valuation.

Please contact me if you wish to discuss the matters raised in this report.



Mark Samuels

Fellow of the Institute of Actuaries of Australia

APPENDIX 1

FINANCIAL POSITION OF EMPLOYER BENEFIT ACCOUNTS

EBA	Minimum Requisite Benefits \$'000's	Vested Benefits \$'000's	Actuarial Value of Accrued Benefits \$'000's	Retrenchment Benefits \$'000's	Assets \$'000's	Ratio of Assets to Actuarial Value of Accrued Benefits	Ratio of Assets to Vested Benefit
Electricity Industry							
E5	193,029	246,687	251,918	267,830	275,193	109%	112%
E16	20,485	25,398	25,420	25,498	25,716	101%	101%
E17	45,710	61,863	63,511	62,459	89,229	140%	144%
E19	11,201	14,499	14,499	14,501	16,231	112%	112%
E20	187,643	241,943	241,943	244,736	270,932	112%	112%
E21	86,888	102,684	103,595	103,650	159,173	154%	155%
E23	3,371	4,598	5,458	4,630	7,306	134%	159%
E24	77,998	100,457	100,457	101,956	120,479	120%	120%
Sub-total*	626,325	798,127	806,800	825,259	964,260	120%	121%
Gas Industry							
G2	928	928	928	928	5,317	573%	573%
G3	12,509	13,304	13,309	13,304	19,022	143%	143%
G6	14,166	15,444	15,444	15,444	16,561	107%	107%
G7	^	^	^	^	^	130%	271%
G8	18,685	20,299	23,992	20,314	22,902	95%	113%
G9	^	^	^	^	^	88%	88%
Sub-total*	47,728	51,617	55,979	51,632	66,380	119%	129%
Water Industry							
W1	39,958	50,393	50,787	50,393	71,267	140%	141%
W2	12,930	18,354	18,354	18,420	24,828	135%	135%
W3	13,330	18,612	18,612	18,612	29,453	158%	158%
W4	46,167	60,780	60,780	61,836	60,982	100%	100%
W5	38,525	51,304	53,671	52,165	58,697	109%	114%
Sub-total*	150,910	199,442	202,204	201,426	245,227	121%	123%
Other Employers							
O1	804	804	804	804	4,015	499%	499%
O2	8,924	9,622	10,130	9,623	10,199	101%	106%

EBA	Minimum Requisite Benefits \$'000's	Vested Benefits \$'000's	Actuarial Value of Accrued Benefits \$'000's	Retrenchment Benefits \$'000's	Assets \$'000's	Ratio of Assets to Actuarial Value of Accrued Benefits	Ratio of Assets to Vested Benefit
O3	8,562	9,191	9,257	9,191	12,255	132%	133%
O4	-	-	-	-	-	-	-
O5	15,590	17,006	17,323	17,006	23,067	133%	136%
O8	44,660	90,969	97,055	95,533	94,076	97%	103%
O9	5,901	8,330	8,934	8,849	9,879	111%	119%
O11	6,879	8,979	9,023	8,979	10,507	116%	117%
O12	-	-	-	-	60	-	-
O13	^	^	^	^	^	105%	105%
O15	^	^	^	^	^	109%	109%
O16	3,761	4,473	4,517	4,473	5,068	112%	113%
O18	24,685	37,266	37,266	37,725	41,628	112%	112%
O19	9,608	21,363	21,363	21,375	22,822	107%	107%
O20	31,829	34,066	34,354	34,319	37,907	110%	111%
O21	86,170	104,083	104,083	105,804	127,214	122%	122%
O22	15,794	16,323	16,350	16,323	23,859	146%	146%
Sub-total*	265,106	364,541	372,524	372,071	424,759	114%	117%
Pensions backed by annuities	1,651	1,651	1,651	1,651	1,651	100%	100%
Disablement pensions	3,761	3,761	3,761	3,761	7,886	210%	210%
Total*	1,095,480	1,419,139	1,442,919	1,455,800	1,710,162	119%	121%

* Totals may not add up due to rounding

^ Redacted for privacy reasons

RECOMMENDED EMPLOYER CONTRIBUTION RATES

EBA	Recommended Minimum Employer Contribution Rate (% of superannuation salary)
E5	13.3%
E16	16.0%
E17	0.0%
E19	0.0%
E20	0.0%
E21	0.0%
E23	0.0%
E24	0.0%
G3	0.0%
G6	11.0%
G7	0.0%
G8	68.4%
G9	5.8k monthly Lump Sum
W1	0.0%
W2	0.0%
W3	0.0%
W4	17.4%
W5	11.0%
O1	0.0%
O2	13.8%
O3	0.0%
O4	0.0%
O5	0.0%
O8	21.8%
O9	0.0%
O11	0.0%
O12	0.0%
O13	0.0%
O15	11.0%
O16	0.0%
O18	0.0%
O19	8.0%
O20	0.0%
O21	0.0%
O22	0.0%

DESCRIPTION OF LEGAL REQUIREMENTS AND REQUIREMENTS OF THE FUND'S RULES

Requirements of the Fund's Rules

The actuarial valuation as at 30 June 2023 has been carried out at the request of the Trustee in accordance with Rule A6.1 of the Fund's Rules, which reads as follows:

“At such times as may be determined from time to time by the Trustee, but in any event at intervals not exceeding three years, the Trustee shall cause the Actuary to make an actuarial investigation of the Fund and to report in writing to the Trustee on the results of such investigation and on the state and sufficiency of the Fund, having regard to the present and future liabilities thereof, and to make any recommendations the Actuary may see fit in regard to the Fund.”

Rule AA4 reads as follows:

“AA4.1 Subject to Rule AA4.3, the Trustee, through the Trustee’s application of the Contribution and Funding Policy or otherwise on the advice of the Actuary, shall determine the Contributions payable by each Employer as from -

- (a) the date of each actuarial investigation;*
- (b) each date on which any amendment is made to the Rules, which has a significant effect on Benefits or Contributions or rates of Contributions payable by Members; and*
- (c) such other dates as may be determined from time to time by the Trustee,*

PROVIDED THAT the Contributions payable by an Employer shall not be increased under this Rule AA4.1 without the consent of that Employer.

AA4.2 Where the advice of the Actuary discloses that the Fund, or any relevant part of the Fund established by the Trustee under the Rules, is more than sufficient to provide the Benefits, the Employers’ Contributions shall be reduced in priority to any reduction in Members’ Contributions or increase in Benefits.

AA4.3 Subject to Rule AA4.2 and Rule AA4.4, where the report by the Actuary in accordance with Rule A6.1 discloses a surplus or deficit in the Fund or any relevant part of the Fund established by the Trustee under the Rules, the Trustee, after obtaining the advice of the Actuary, may change any or all of -

- (a) the Contributions payable by an Employer,*
- (b) the Contributions payable by Members or by any section or class of Members; and*

- (c) *the amount of Benefits or any section or class of Benefits (including accrued Benefits, Benefits in the course of payment, and any other entitlements (accrued or not) which, but for this Rule, any Member or Beneficiary would otherwise have had), either to Members or Beneficiaries generally or to any section or class of Members or Beneficiaries,*

and any changes as aforesaid shall take effect forthwith and shall be binding thereafter upon all persons affected thereby PROVIDED THAT the Contributions payable by an Employer shall not be increased under this Rule AA4.3 without the consent of that Employer. The Rules shall thereupon be deemed to be amended accordingly. The foregoing provisions shall have effect notwithstanding the provisions of Rule A12.2.

AA4.4 *With respect to Water Industry Employers and Former Water Fund Members, the variation in Benefits and Contributions set forth in Rule AA4.3(b) and Rule AA4.3(c) shall apply only in the event of a surplus.”*

Legislative requirements

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

The report has been prepared to satisfy the requirements of APRA Prudential Standard SPS 160.

Actuarial Professional Standards

The valuation has been carried out and the report prepared in accordance with Professional Standard No. 400 of the Actuaries Institute.

As a triennial actuarial investigation was undertaken as at 30 June 2022, covering the three years to that date, including an analysis of experience, for the purposes of this annual valuation items detailed in clause 5.1.2 of Professional Standard No. 400 have been ignored.

Report solely for use in Australia

The actuarial valuation has been prepared solely for compliance with the requirements of the Fund's Rules and Australian legislation. The results of the valuation should not be used for the purpose of any accounting standards or international legislation or any other purposes.

SUMMARY OF MAIN BENEFIT PROVISIONS

A summary of the main benefit provisions in respect of defined benefit members in Division C, CA and W is set out below. Given the number of different benefit categories in the Fund, the benefit provisions for Division B and F have not been summarised. Reference should be made to the formal governing documents for definitive statements on the benefit provisions for all Divisions.

Division C

Retirement age

Any time after age 55

Final Average Remuneration (or FAR)

Average remuneration received during last 2 years (1 year in the case of members of some employers) of membership.

Member contributions

0%, 3% or 6% at member's option (can be varied).

Accrued Retirement Benefit (or ARB)

A percentage of FAR, based on the member's contribution rate, determined from the following table:

Member Contribution Rate	Accrual Rate (% of FAR) in respect of each year of membership prior to 1 July 1993	Accrual Rate (% of FAR) in respect of each year of membership after 30 June 1993
0%	9%	7.75%
3%	15%	13.00%
6%	21%	18.50%

Different accrual rates apply in the case of members of some employers after specified dates.

Adjusted Total Contributions (or ATC)

The sum of:

- a multiple accruing at the member's contribution rate for each year of membership in Division C;
- a multiple using 6% accrual rate for membership in Division B; and
- a multiple using accrual rate of 3% for each year of former Employees Retirement Benefit Fund membership.

Retirement benefit between 55 and 65

Lump sum equal to ARB.

Death benefit

- (a) After age 60

Lump sum equal to ARB, but using the benefit accrual rates applying prior to 1 July 1993, in respect of the entire membership period.

- (b) Before age 60

Lump sum equal to ARB which would have applied at age 60 had the member continued contributing at the average contribution rate over previous 2 years (but based on FAR at death), and using the benefit accrual rates applying prior to 1 July 1993.

Permanent and Total Disablement benefit

- (a) After age 60

Lump sum equal to ARB.

- (b) Before age 60

Lump sum equal to ARB which would have applied at age 60 had member continued contributing at average contribution rate over previous 2 years (but based on FAR at disablement), and using the benefit accrual rates applying prior to 1 July 1993.

Temporary Total Disablement benefit

Annual income benefit equal to 1/12th of death benefit.

Ill health and Retrenchment benefit

Lump sum equal to ARB.

Resignation benefit

(a) Before age 50

Lump sum equal to -

(i) ARB 5 years before leaving (but based on FAR at leaving), plus

(ii) ATC over final 5 years.

(b) After age 50

Lump sum blending from resignation benefit at 50 to retirement benefit at 55.

Gratuity benefit (payable on all modes of exit except resignation)

Lump sum equal to 2% of FAR for each qualifying year of unsuperannuated wages service.

Division CA

Members in Division CA were formerly members of Classes D and F respectively of the former Gas and Fuel Superannuation Fund.

Retirement age

Any time after the anniversary of entry date after reaching age 55.

Final salary (FS)

Annual rate of salary at date of calculation.

Member's contributions

5% of salary.

Adjusted total contributions (ATC)

The total contributions which would have been made by the member if the member's salary had always been equal to the member's salary at the date of termination of service.

Accrued retirement benefit (ARB)

Lump sum equal to 22% of FS for each year of membership to 1 September 1987 plus 21% of FS for each year of membership between 1 September 1987 and 30 June 1993 and 18% of FS for each year of membership thereafter (subject to a maximum multiple roughly equivalent to 40 years' accrual).

Retirement benefit

A lump sum equal to the member's ARB at date of exit.

Death benefit

(a) With dependants

A lump sum equal to 22% of FS for each year of membership to 1 September 1987 plus 21% of FS multiplied by the total of the member's actual years of membership after 1 September 1987 and prospective years of membership to age 60, (or age at death if greater) with a maximum total benefit of 8.4 times FS.

(b) Without dependants

A reduced benefit is paid where there are no dependants.

Permanent disablement

A lump sum equal to 22% of FS for each year of membership prior to 1 September 1987, plus 21% of FS for membership between 1 September 1987 and 30 June 1993, plus 18% of FS for membership

between 30 June 1993 and the date of termination, plus 21% of FS for prospective years of membership to age 60 (if any).

Retrenchment benefit

A lump sum equal to the member's ARB at date of exit.

Resignation benefit

A lump sum calculated as follows:

(a) Before age 50

The sum of:

- (i) ARB at a date 5 years prior to resignation (based on current FS).
- (ii) ATC for 5 years prior to resignation.
- (iii) $3\% \times \text{FS} \times \text{period of membership since the date 5 years prior to resignation}$.

(b) After age 50

Lump sum blending from resignation benefit at 50 to retirement benefit at 55.

Division W

Members in Division W were formerly members of the Water Industry Superannuation Fund. The following is a brief summary of the contributions and benefits applicable to defined benefit members of the Water Division, other than for WD-LAS, WD-Rev and WD-New who were transferees from the Local Authorities Superannuation Scheme (LASS) and the State Superannuation Fund (SSF) (the transferees retain the contribution and benefit provisions applicable under LASS and SSF applying at the time of transfer).

Contributions	Members can elect to contribute nil, 2.5%, 5.0% or 7.5% of salary. The employers pay the balance of the cost of supporting the benefits.															
BENEFITS																
Retirement	<ul style="list-style-type: none"> a lump sum benefit available from age 55, equal to a percentage of salary, based on the member's contribution rate, determined from the following table: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: center;">Member Contribution Rate</th> <th style="text-align: center;">Percentage of Salary in respect of each year of membership prior to 1 July 1993</th> <th style="text-align: center;">Percentage of Salary in respect of each year of membership after 1 July 1993</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0.0%</td> <td style="text-align: center;">8%</td> <td style="text-align: center;">7.0%</td> </tr> <tr> <td style="text-align: center;">2.5%</td> <td style="text-align: center;">14%</td> <td style="text-align: center;">12.25%</td> </tr> <tr> <td style="text-align: center;">5.0%</td> <td style="text-align: center;">20%</td> <td style="text-align: center;">17.50%</td> </tr> <tr> <td style="text-align: center;">7.5%</td> <td style="text-align: center;">26%</td> <td style="text-align: center;">22.75%</td> </tr> </tbody> </table>	Member Contribution Rate	Percentage of Salary in respect of each year of membership prior to 1 July 1993	Percentage of Salary in respect of each year of membership after 1 July 1993	0.0%	8%	7.0%	2.5%	14%	12.25%	5.0%	20%	17.50%	7.5%	26%	22.75%
Member Contribution Rate	Percentage of Salary in respect of each year of membership prior to 1 July 1993	Percentage of Salary in respect of each year of membership after 1 July 1993														
0.0%	8%	7.0%														
2.5%	14%	12.25%														
5.0%	20%	17.50%														
7.5%	26%	22.75%														
Death	<ul style="list-style-type: none"> a lump sum benefit equal to the accrued retirement benefit, calculated using the benefit accrual percentage applying prior to 1 July 1993, plus if the member is less than age 60, 20% of salary (26% for 7.5% contributors) for each remaining year to age 60. 															
Total and Permanent Disablement	<ul style="list-style-type: none"> a lump sum benefit equal to the accrued retirement benefit, plus if the member is less than age 60, 20% of salary (26% for 7.5% contributors) for each remaining year to age 60. 															
Partial Disablement	<ul style="list-style-type: none"> a lump sum benefit equal to the accrued retirement benefit. 															
Temporary Disablement	<ul style="list-style-type: none"> if under age 60, a monthly income benefit equal to 1/12th of 70% of salary payable for a maximum of 2 years. 															
Resignation	<ul style="list-style-type: none"> if completed less than 5 years' membership a refund of the member's own contributions plus interest. if completed between 5 and 20 years' membership, the benefit is calculated as the accrued retirement benefit excluding the last 5 years, plus the sum of the rates of member contribution over the last 5 years times salary. 															

- if completed more than 20 years' membership, the benefit is phased in to the accrued retirement benefit so that after 25 years' membership the resignation benefit is equal to the accrued retirement benefit.
- if over age 50, the benefit is phased in to the accrued retirement benefit regardless of completed membership so that at age 55 the benefit is equal to the accrued retirement benefit.

Retrenchment

- a lump sum benefit equal to the accrued retirement benefit.
-

For a full description of all benefit provisions, refer to the Fund's governing documents.

The Superannuation Guarantee (Administration) Act 1992

This Act requires employers to provide minimum superannuation benefits that are fully vested in their employees within a complying superannuation fund.

All benefits are subject to a minimum of the Superannuation Guarantee benefit as described in the Fund's Benefit Certificate.

The SG rate is 11.0% pa from 1 July 2023 and will increase by 0.5% pa from 1 July 2024 until it reaches 12.0% pa from 1 July 2025. For the purpose of determining projected minimum benefits for defined benefit members, this valuation assumes that the legislated SG rate will apply in future years (i.e. increasing to 12.0% by 1 July 2025).

SUMMARY OF DATA

Membership by Relevant Employer Benefit Account (EBA)

EBA	Number of active members at 30 June		Salary roll at 30 June (\$'000's)	
	2022	2023	2022	2023
E5	324	292	64,017	59,851
E16	16	12	2,918	2,157
E17	44	43	8,156	8,173
E19	9	9	1,870	1,933
E20	280	246	39,800	36,470
E21	95	69	13,419	10,528
E23	5	4	754	614
E24	100	93	14,409	13,927
G3	5	2	924	583
G6	6	4	1,344	836
G7	^	^	^	^
G8	9	6	1,358	922
W1	59	54	7,434	6,827
W2	21	19	2,582	2,535
W3	23	20	3,098	2,885
W4	82	80	10,175	10,179
W5	51	45	5,864	5,306
O1	^	-	^	-
O2	15	14	1,933	1,940
O3	24	17	2,229	1,643
O4	5	-	306	-
O5	15	14	2,385	2,283
O8	153	158	32,981	36,553
O9	9	8	1,442	1,417
O11	49	41	5,173	4,575
O12	^	-	^	-
O13	^	^	^	^
O15	^	^	^	^
O16	4	4	757	768
O18	25	23	4,877	4,701
O19	60	52	8,014	7,341
O20	97	89	8,505	8,146

EBA	Number of active members at 30 June		Salary roll at 30 June (\$000's)	
O21	183	166	27,564	27,133
O22	28	22	3,592	2,707
Total	1,801	1,609	278,847	263,505

* Totals may not add up due to rounding

^ Redacted for privacy reasons

Lifetime Pensions

The number of lifetime pensioners and the amounts of their pensions as at 30 June 2023 were:

Type of Pensioner	Number	Pensions \$'000 pa
Age retirement	174	12,099
Disablement	7	307
Spouse	21	620
Total	202	13,027

Deferred Benefits

As at 30 June 2023, 23 former members were entitled to deferred benefits (payable after age 55 and indexed to CPI prior to that date).

Assets

The net market value of the Fund's assets as at 30 June 2023 shown in the audited financial statements was \$32,031,185,000. After exclusion of the assets attributable to the City of Perth, Toshiba Australia, Canon Medical Systems, IBM, Toyota and BOC EBAs, which are not covered by this actuarial investigation, reserves, benefits payable and other adjustments made between when data was provided for the actuarial investigation and when the financial statements were prepared, the assets attributable to the relevant EBAs is \$1,710,162,000.

The assets in respect of the Accumulation Division and Account-Based Pension Division as at 30 June 2023 amounted to \$29,834,724,000. It has been assumed that the assets available to support these benefits are equal to this amount.

Comment on data

The data to undertake this valuation has been obtained from data maintained by the administrator of the Fund, from information supplied by the various employers participating in the Fund. We have carried out various checks as to the consistency of the information supplied and we have no reason to suspect any significant deficiencies in the data. Adjustments have been made to the data for benefits payable. The City of Perth, Toshiba Australia, Canon Medical Systems, IBM, Toyota and BOC EBAs were excluded from the valuation.

SUMMARY OF ACTUARIAL ASSUMPTIONS

Investment Earnings

4.0% pa net of tax, investment expenses and standard administration expenses for the Defined Benefit investment option. Note, a different investment return applies for Employer Benefit Accounts with a non-standard long-term investment strategy or a proportion of assets held in cash greater than 10%. The EBAs with different investment return assumptions are outlined in more detail in our triennial actuarial investigation assumptions letter dated 18 October 2022

4.5% pa net of investment expenses and standard administration expenses for assets backing pension liabilities. Note that a different investment return applies for Employer Benefit Accounts with a proportion of assets held in cash greater than 10%.

Future Salary Increases

Vary by Employer Benefit Account from 2.5% pa to 4.0% pa as detailed in table below:

EBA	Future Salary Increase Assumption Used (% pa)
E5	3.0%
E16	3.0%
E17	3.5%
E19	2.5%
E20	3.5%
E21	3.0%
E23	3.0%
E24	3.0%
G3	3.0%
G6	2.5%
G7	2.5%
G8	3.5%
W1	3.0%
W2	3.0%
W3	3.0%
W4	3.5%
W5	3.0%
O1	2.5%
O2	4.0%

EBA	Future Salary Increase Assumption Used (% pa)
O3	3.5%
O4	3.0%
O5	4.0%
O8	4.0%
O9	3.5%
O11	3.0%
O12	2.5%
O13	3.5%
O15	2.5%
O16	4.0%
O18	3.0%
O19	3.5%
O20	3.0%
O21	3.0%
O22	4.0%

Future pension increases

5% pa for ex Gas Division pensions which commenced prior to 2004. Nil for EBAs O1, O5, Division WC and O21 pensions which commenced after 2001 and 3.5% pa for the first year and 2.5% pa thereafter for all other pensions.

Tax and Surcharge

All future employer contributions are currently subject to 15% contribution tax, after deduction of any insurance premiums and administration and management costs. All contribution recommendations quoted in this report are gross of contribution tax.

No allowance has been made for:

- 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.

Expenses

Standard administration expenses: 0.3% pa of assets supporting defined benefits, allowed for in determining assumed investment return.

Where the non-investment expenses for an Employer Benefit Account are in excess of 0.5% of salaries, an allowance for these additional expenses as a percentage of defined benefit salary roll has been included:

EBA	Additional expense allowance (% of salaries of defined benefit members)
G7	10.0%
W4	1.0%
O11	3.0%
O12	7.5%
O13	3.0%
O16	1.0%
O21	1.0%
O22	3.0%

Pensioner Mortality

Rates are based on Mercer Standard pensioner mortality based on Mercer's 2012 to 2017 experience analysis of large pension funds; the decrements also allow for mortality improvement in the future based on the 25-year mortality improvement factors developed by the Australian Government Actuary as part of preparation of Australian Life Tables 2015-2017.

Commutation of Pension Benefits in calculating the Actuarial Value of Accrued Benefits

It is assumed that 80% of Division B, 50% of eligible Division CA and 25% of Water Division members would elect to take a lifetime pension on retirement. Spouses of Division B members who die in service are assumed to take 40% of their benefit as a pension.

For EBAs where there are fewer than 10 members or the current lifetime pension members account for more than 15% of the EBA membership, all eligible Division B and Division CA members are assumed to take 100% of their benefits in the form of a lifetime pension at 30 June 2023. The EBAs impacted are E23, G7 and G8.

It is assumed Employer Benefit Accounts O5 and O16 take their benefits as a lump sum.

Rates of Early Retirement

Specimen numbers of early retirements per 100 members at each age are given below.

Age	O19	O20 Other Categories	O20 Categories X, Y, YB	O21	O21 (certain transfers)	O22	All other EBAs
55	5	8	5	0	10	5	5
56	5	10	4	0	10	5	3
57	5	11	4	5	10	5	5
58	5	13	5	5	5	5	5
59	5	15	10	5	5	10	5
60	15	15	5	15	5	15	15
61	15	15	5	15	5	15	15
62	15	15	8	15	5	15	15
63	15	15	10	15	20	15	15
64	15	15	13	15	25	15	15
65	100	15	15	50	100	50	15
66	-	15	15	50	-	25	15
67	-	25	25	50	-	25	25
68	-	50	50	50	-	25	50
69	-	50	50	50	-	25	50
70	-	100	100	100	-	100	100

Where employer consent of an early retirement benefit is required for Employer Benefit Account O16 and O20, it is assumed that approval is granted for purposes of calculation of the Actuarial Value of Accrued Benefits. The calculation of Vested Benefits does not assume employer consent.

Rates of Resignation, Retrenchment, Total and Permanent Disablement, Death

Examples of the numbers of deaths, disablements, retrenchments and resignations assumed per 10,000 members at each age are given below.

Division B & C

Age	Deaths	Disablements	Retrenchments	Resignations
30	5	4	100	100
35	6	5	100	100
40	7	8	100	100
45	11	15	100	100
50	16	29	100	100
55	23	50	-	-

Division W

Age	Deaths	Disablements	Retrenchments	Resignations
30	5	3	150	150
35	5	5	150	150
40	7	8	150	150
45	10	15	150	150
50	15	28	150	150
55	22	48	-	-

Division CA

Age	Deaths	Disablements	Retrenchments	Resignations
30	7	4	562	562
35	7	6	354	354
40	9	10	250	250
45	14	19	250	250
50	21	36	250	250
55	30	63	-	-

Division F (excluding O19, O20, O21 and O22)

Age	Deaths	Disablements	Retrenchments	Resignations
30	6	4	562	562
35	7	6	354	354
40	9	10	250	250
45	13	18	250	250
50	19	33	250	250
55	27	58	-	-

O19

Age	Deaths	Disablements	Retrenchments	Resignations
30	6	4	250	250
35	7	6	250	250
40	9	10	250	250
45	13	18	250	250
50	19	33	150	150
55	27	58	-	-

O20

Age	Deaths	Disablements	Retrenchments/Resignations	
			Other Categories	Categories X, Y, YB
30	6	4	790	515
35	7	6	775	410
40	9	10	655	305
45	13	18	490	200
50	19	33	280	95
55	27	58	-	-

O21 and O22

Age	Deaths	Disablements	Retrenchments/Resignations		
			O21	O21 (certain transfers)	O22
30	3	4	605	605	605
35	3	4	468	468	468
40	4	5	150	330	330
45	8	10	150	330	330
50	14	19	150	330	150
55	26	34	150	-	-

Retrenchment

We have assumed that 50% of members who exit before retirement age will be retrenched.

Method of Calculating 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.

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 valuation.

Defined Benefits

The past membership components of all defined benefits payable in the future from the Fund in respect of the current membership are projected forward allowing for future salary increases and credited interest rates and are then discounted back to the valuation date at the investment return rates assumed for the valuation.

The past membership component for each type of benefit is:

Retirement:	based on the member's actual accrued benefit multiple as at the valuation date.
Death and Disablement:	based on the member's actual accrued benefit multiple as at the valuation date.
Resignation:	based on either the member's current accrued resignation multiple, phasing into the current accrued retirement multiple over a five year period or the period remaining to age 55 if shorter, or the member's contributions with interest and vesting.

Changes in Methodology of Calculating the Actuarial Value of Accrued Benefits

The method used for the determination of the Actuarial Value of Accrued Benefits is the same as that used at the previous investigation.