Mercer

Report to the Trustee on the Actuarial Investigation as at 30 June 2022

Equipsuper

20 December 2022

welcome to brighter

Contents

1 Introduction

This actuarial investigation covers the Employer Benefit Accounts ("EBAs", see Section 1.3) of the Defined Benefit Divisions of Equipsuper (the "Fund") where we are the responsible actuary, referred to as "relevant EBAs" throughout this report. EBAs where we are not the responsible actuary, i.e. City of Perth, Toshiba Australia, Canon Medical Systems, IBM, Toyota and BOC have been ignored. Further, the Accumulation Division and Account-Based Pension Division of the Fund are generally ignored for this report as the accrued liabilities in respect of these Divisions are the sum of members' account balances.

This report on the actuarial investigation of relevant EBAs as at 30 June 2022 has been prepared to meet the requirements of the Fund's governing rules and the SIS legislation. This report should not be relied upon for any other purpose or by any party other than the Trustee of 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 previous triennial actuarial investigation of relevant EBAs was carried out as at 30 June 2019 by David Scott on behalf of Mercer Consulting (Australia) Pty Ltd, and the results thereof were summarised in a report dated 20 December 2019. As the Fund has lifetime pensioners, the superannuation legislation requires annual actuarial investigations. These were undertaken as at 30 June 2020 and 30 June 2021, with results summarised in reports dated 5 November 2020 and 4 November 2021, respectively.

Reference in this report to the previous actuarial investigation is generally to the previous triennial actuarial investigation of relevant EBAs as a full analysis of experience and recalculation of long-term contribution rates for the purposes of the Trustee's Contribution and Funding Policy (CFP) for relevant EBAs are undertaken as part of the triennial actuarial investigation only, and not as part of the annual actuarial investigations.

1.1. The Divisions of the Fund

The Fund is a multi-employer superannuation fund, with the following Divisions:

The Defined Benefit Divisions (Divisions B, C, CA, W and F) - These Divisions provide benefits in defined benefit form (i.e. benefits are expressed as formulae based on salaries at or close to termination of employment), including lifetime pensions, and are generally closed to new entrants.

Throughout this report reference to the Electricity Division refers to benefits provided through Divisions B and C, reference to the Gas Division is to benefits provided through Division CA, and reference to the Water Division is to benefits provided through Division W, reflecting the origin of the various divisions. Note, there are no longer any Division CB members remaining in the Fund. These industry sub-divisions have reduced relevance due to consolidations across industry sectors where one employer may now have employees across more than one industry.

Division F provides defined benefits for members who have transferred into the Fund with benefit designs different from those provided by other Defined Benefit Divisions.

The Accumulation Divisions (Divisions D, E and F) - These Divisions refer to the accumulation benefit categories in the Fund. These categories are generally open to new members and provide benefits in accumulation form (i.e. benefits are simply the accumulation of contributions (after deduction of tax and expenses) with investment earnings). Division E includes account-based pensions.

1.2. Purposes of the Actuarial Investigation

The actuarial investigation has been prepared for the Trustee of the Fund and is concerned primarily with the Defined Benefit Divisions of the Fund. The purposes of this investigation are:

- To meet the Trust Deed requirement to have an actuarial investigation at least every three years;
- To review Fund experience for the period since the previous actuarial investigation as at 30 June 2019;
- To meet the legislative requirements of an annual actuarial investigation due to the presence of lifetime pensioners (as APRA has not provided an exemption), including the requirements of APRA Prudential Standard SPS 160; and
- To "recalibrate" factors used in the application of the Trustee's CFP to review the financial position of each EBA every six months and for other actuarial calculations undertaken between triennial actuarial investigations.

Note that employer contribution rates are determined in accordance with the Trustee's CFP at each six monthly review of the financial position, and are confirmed as part of the triennial or annual actuarial investigations.

1.3. EBAs

In order to allow the Fund to operate as a multi-employer superannuation fund, the Defined Benefit Divisions are divided into a number of EBAs, which are used to apportion the Defined Benefit Division assets amongst the participating employers.

The Fund operates an accounting system which attributes all cash flows in and out of the Defined Benefit Divisions to the EBAs to which the cash flows relate. This allows the Fund to avoid cross-subsidies of employer costs within the Fund, and allows contribution rates to be determined separately for each employer, based on the adequacy of the EBA assets relative to the accrued liabilities attributable to that EBA.

1.4. Description of the Actuarial Investigation Process

A brief description of the actuarial investigation process is as follows:

- The first part of the investigation process is to analyse the factors which have impacted on the Fund over the three years since the previous triennial actuarial investigation;
- Having regard to this analysis, we then determine the assumptions about future Fund experience to be used in the review. These assumptions are then used to assess the present value of the Fund's accrued liabilities;
- We then consider the adequacy of Fund assets as at the review date to meet various measures of accrued liabilities; and
- Put forward recommendations in relation to future employer contribution rates.

2 Key Results and Recommendations

2.1. Summary of Results

A summary of the financial position of the relevant EBAs as at 30 June 2022 is set out below:

	$'000	Asset Coverage
Assets	1,730,813	
Vested Benefits	1,467,828	117.9%
Actuarial Value of Accrued Benefits	1,484,369	116.6%
Retrenchment Benefits	1,509,956	114.6%
Minimum Requisite Benefits	1,114,662	155.3%

Details of the financial position in respect of each relevant EBA are set out in Section 4. A summary of the experience since 30 June 2019 is set out in Appendix B.

The assets are less than Vested Benefits for EBAs E16, G6, G9 and W4. The "unsatisfactory financial position" of these EBAs have been reported to the Trustee and APRA as required by the SIS legislation. These EBAs also have assets less than the Actuarial Value of Accrued Benefits. EBAs G8 and O8 have assets less than the Actuarial Value of Accrued Benefits, but greater than the Vested Benefits.

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.

We have calculated a "long-term contribution rate" for each employer, ranging from 7.5% to 16.9% of salaries, as set out in Section 5.

2.2. Recommendations

We recommend:

- The Trustee continues to monitor the financial position of each EBA on a six monthly basis; and
- Employer contributions be determined every six months as part of the review of the financial position of EBAs in accordance with the Trustee's CFP.

We confirm that the Fund's current investment policy remains appropriate in the absence of any specific input from employers seeking a variation for their EBA.

We confirm that the current insurance arrangements remain appropriate and provide adequate protection for the Fund.

In our view the Trustee's updated CFP, dated 14 November 2022 remains appropriate.

3 Experience and Assumptions

Introduction

In order to determine the long-term employer contribution rates for each EBA and calculate the Actuarial Value of Accrued Benefits, it is necessary to make assumptions about the future experience of the Fund.

The most important of these assumptions are the rate of investment return to be earned on the Fund's assets and the rates at which members' salaries will increase. Assumptions are also made about the rates at which members will terminate employment for various reasons.

3.1. Assumptions used to Value Active Defined Benefit Members

Investment Return/Discount Rate

The assumed future investment return is used to discount projected future benefit payments and contributions to a present value for the purpose of determining the long-term employer contribution rate.

For the last actuarial investigation as at 30 June 2019, at the request of Equipsuper and based on calculations undertaken by JANA Investment Advisers (JANA), it was assumed that EBAs invested in the Defined Benefit investment option would earn a long term rate of investment return of 4.4% pa (net of tax, investment expenses and standard expenses) for assets supporting active members and 5.1% pa (net of investment expenses and standard expenses) for assets supporting lifetime pensioners.

Over the three year period to 30 June 2022, the average investment return (net of tax and investment expenses) earned on the Defined Benefit investment option was 3.9% pa (based on the movement in unit prices over the period). This will have had a negative impact on the EBAs invested in the Defined Benefit Option.

The assumed investment returns for the 30 June 2022 actuarial investigation have been determined with input from JANA to align with the basis used for review, construction and management of portfolios. The investment returns have allowed for index investment performance, investment tax (where applicable) and standard non-investment expenses of 0.3% of assets. No explicit allowance has been made for investment expenses, on the basis that above index performance by investment managers is expected to exceed the investment expenses. A different investment return applies for EBAs with a non-standard long-term investment strategy and a proportion of assets held in cash greater than 10%.

The table below summarises the investment return assumptions used in this actuarial investigation:

EBA*	Investment Return (% pa)
E16	3.1%
E17	3.7%
E19	3.7%
E21	3.5%
E23	3.7%
E24	3.4%
G6	3.3%
G7	2.7%
W1	3.6%
W5	3.7%
O3	3.0%
O5	3.4%
O15	3.7%
O19	4.4%
O20	3.7%
O21	3.8%
O22	2.5%
Others	4.0%

* E21 added and O8 removed from the table in our assumptions paper dated 18 October 2022 due to investment strategy changes

Salary Increases

The AWOTE (Average Weekly Ordinary Time Earnings) assumption of 3.0% pa adopted for the actuarial investigation as at 30 June 2019 remains appropriate for this investigation. This is based on Mercer's expectations and the Reserve Bank of Australia's forecasts in conjunction with the current economic environment.

The weighted average rate of salary increases experienced over the period 1 July 2019 to 30 June 2022 for members who remained throughout the period was determined for each EBA and ranged from 0.8% pa to 4.9% pa. A summary of the salary increase experience over each of the past three year periods for each Division is as follows:

Division	Salary Increase (% pa) for Three Years Ended 30 June:		
	2016	**2019**	**2022**
Electricity	4.4%	4.2%	3.3%
Gas	3.4%	2.6%	2.2%
Water	3.3%	4.6%	2.5%
Other	4.6%[1]	3.4%[2]	3.4%
Total	**4.3%**	**3.9%[2]**	**3.3%**
AWOTE	2.2%	2.5%	2.7%

[1] excluding O19 and O20 as they had less than three years' experience

[2] includes transfers into E7, the establishment of O21 and O22, adjusted for three years' experience

The approach we propose to adopt for determining the salary increase assumptions is based on the experience of each EBA as follows:

Average Rate of Salary Increases over three years to 30 June 2022		Proposed Assumption		Number of EBAs
Absolute	Relative to AWOTE	Absolute	Relative to Assumed AWOTE	
0.0% pa to 0.9% pa	-2.7% pa to -1.8% pa	2.0% pa	AWOTE - 1.0% pa	1
1.0% pa to 1.9% pa	-1.7% pa to -0.8% pa	2.5% pa	AWOTE - 0.5% pa	7
2.0% pa to 2.9% pa	-0.7% pa to +0.2% pa	3.0% pa	AWOTE	12
3.0% pa to 3.9% pa	+0.3% pa to +1.2% pa	3.5% pa	AWOTE + 0.5% pa	9
4.0% pa to 4.9% pa	+1.3% pa to +2.2% pa	4.0% pa	AWOTE + 1.0% pa	5

The proposed salary increase assumptions were communicated by Equipsuper to relevant employers, with three employers requesting a variation from the rate produced by the above approach. Further details are provided in Appendix C.

Membership Turnover

We have analysed membership experience and compared the actual number of terminations of defined benefit members by various causes over the three years to 30 June 2022 with the expected number based on the assumptions used in the previous investigation as at 30 June 2019 for the Electricity (Division C members), Gas and Water Divisions. We have not carried out an analysis for Division F as there is not sufficient data for a reliable analysis of the experience for each employer given the relatively small number of members and exits. In addition, we have not carried out an analysis in respect of members in Electricity Division B due to the small number of members remaining in this division.

A comparison of the actual and expected number of terminations over the three years to 30 June 2022 is as follows:

Cause of Termination	Electricity (Division C)		Gas		Water	
	Actual	Expected	Actual	Expected	Actual	Expected
Death	3	7	0	0	3	1
TPD	2	13	0	0	0	3
Resignation	14	14	0	1	5	2
Retrenchment	10	14	0	1	3	2
Retirement	230	230	14	12	42	53

Following the analysis of experience, we have reviewed the assumptions used for the 2019 investigation. Comments on the main assumptions are as follows:

- Mortality and disability rates for active members have been updated to be in line with the insurance premium rates that are currently in use for the Defined Benefit Divisions of the Fund;
- The number of resignations for Division C over the three years to 30 June 2022 was in line with the number expected on the assumptions adopted at the previous actuarial investigation. No change was made to the resignation decrements for Division C;

- No change was made to the resignation or retrenchment decrements for Gas and Water given the relatively small number of members;
- The number of retrenchments for Division C was broadly in line with the number expected on the assumptions adopted at the previous actuarial investigation. No change was made to the retrenchment decrements for Division C; and
- No change was made to the retirement decrements, again as experience was broadly in line with the previous assumptions.

More details regarding the turnover assumptions together with specimen rates for selected ages are set out in Appendix C.

3.2. Assumptions used to Value Pensions

In order to value the Fund's pension liabilities, it is necessary to make assumptions about the future mortality of pensioners as well as the future rates of pension indexation and rate of return on assets backing pensions. Assumptions on the proportion of eligible active members electing a pension on retirement are also required.

Investment Return/Discount Rate

Investment earnings on assets backing pension liabilities are not subject to tax, and thus a higher investment return is justified compared with assets relating to active members. The long-term investment return assumption adopted for this investigation for valuing pension liabilities is 4.5% pa.

This assumed investment return has also been determined with input from JANA to align with the basis used for review, construction and management of portfolios. The investment return has allowed for index investment performance and standard non-investment expenses of 0.3% of assets.

No explicit allowance has been made for investment expenses, on the basis that above index performance by investment managers is expected to exceed the investment expenses.

A different investment return applies for EBAs with a proportion of assets held in cash greater than 10%. The table below summarises the lifetime pension investment return assumptions used in this actuarial investigation:

EBA*	Lifetime Pensioner Investment Return (% pa)
E16	3.5%
E21	3.8%
E24	3.8%
G6	3.6%
G7	2.9%
W1	4.0%
W5	4.1%
O5	3.8%
O21	3.9%
Others	4.5%

* E21 added from the table in our assumptions paper dated 18 October 2022 due to investment strategy changes

Rate of Pension Increases

The existing Gas Division pensions which commenced prior to 2004 increase at 5% pa, the pensions for O1, O5, Division WC and certain O21 pensions do not increase, while all other pensions are indexed in line with changes in the Consumer Price Index (CPI).

For the triennial actuarial investigation as at 30 June 2019, it was assumed that pensions that increase in line with the CPI would increase on average by 2.25% pa. Pensions that increase in line with the CPI at different times during the year received an average increase in the range of 1.8% pa to 2.8% pa over the three years from 1 July 2019 to 1 July 2022.

We propose to adopt assumed pension increase rates of 5.0% pa for the first year, 3.5% pa for the second year and 2.5% pa thereafter. This reflects the short term inflationary pressure being observed and the future outlook for CPI increases over the foreseeable future.

Pensioner Mortality

The number of lifetime pensioners in the Fund is not sufficient to undertake a reliable analysis of the mortality experience over the three years since the previous investigation. Thus we propose to maintain pensioner mortality based on Mercer's 2012 - 2017 analysis of experience of large pension funds. Allowance is also made for future improvements (i.e. reductions) in the rates of mortality based on the improvement factors published in the Australian Life Tables 2015-17. These factors have been derived from historical trends of the Australian population over the last 25 years.

The pensioner baseline mortality assumptions are unchanged from the 30 June 2019 actuarial investigation, but the improvements factors have been updated to the latest available.

Proportion of benefits taken as lifetime pensions

Members of Division B, members of Division CA who joined the fund prior to 1 September 1987 and members in certain categories (WREV, WLAS and WC) of the Water Division can elect to take some or all of their benefit on retirement on or after age 55 in the form of an immediate lifetime pension or lump sum.

For the last actuarial investigation as at 30 June 2019, it was assumed that 80% of eligible members from Division B, 50% of eligible members from Division CA and 25% of eligible members of Water would elect to take a lifetime pension on retirement.

The following table sets out the proportion of members (of those eligible to elect to take a lifetime pension) who retired over the three years to 30 June 2022 and who elected to take some or all of their benefit as a lifetime pension.

Division	Proportion of members taking a pension
B	85%
CA	45%
W	45%

The proportion of members taking a lifetime pension incorporates an allowance for the fact that not all members took 100% of their benefit in pension form.

For the purposes of the investigation as at 30 June 2022 we propose to retain the existing assumptions that 80% of eligible benefits for Division B members and 50% of eligible benefits for Division CA members will be taken as lifetime pensions.

Despite the increase in the proportion of members taking a pensioner for Water, we propose to maintain the existing assumption that 25% of eligible benefits for Water members will be taken as lifetime pension. This is due to the experience being distorted by the last WREV member taking their full benefit as a pension. There are no WREV members remaining in Water and therefore we propose to exclude this experience item in determining our assumption.

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 have took 100% of their benefits in the form of a lifetime pension at 30 June 2022. The EBAs impacted are E23, G7 and G8.

3.3. Other Assumptions

There are a number of other assumptions that need to be made in the actuarial investigation process. These are summarised in Appendix C.

4

Financial Position

4.1. Data

The data provided for this actuarial investigation has comprised:

- Asset and membership data as at 30 June 2022 provided in July 2022 for purposes of the six monthly review of EBAs;
- The Fund's financial statements as at 30 June 2022, finalised in September 2022.

We have analysed the membership data provided and are satisfied that there are no material deficiencies that would impact on the results of this investigation.

To ensure consistency between the results of this actuarial investigation and the results of the analysis of EBAs as at 30 June 2022, which were communicated to employers in September 2022, we have used the data provided for the review of EBAs.

4.2. Value of Fund Assets as at 30 June 2022

The financial statements as at 30 June 2022 show net assets of $29,586,438,000 including reserves of $227,096,000, comprising an Operational risk financial, Administration, Insurance and Investment reserve.

The assets attributable to the relevant EBAs is $1,730,813,000, after exclusion of the assets attributable to:

- The City of Perth, Toshiba Australia, Canon Medical Systems, IBM, Toyota and BOC EBAs;
- Assets of EBA E14 (assets are in the process of being distributed as the EBA is winding up);
- Reserves;
- Benefits payable; and
- Other adjustments made between when data was provided for the actuarial investigation and when the financial statements were prepared.

The sub-division between the relevant EBAs is set out in Section 4.4.

4.3. Accrued Liabilities at 30 June 2022

Accumulation Division and Account-Based Pension Division

Benefits payable from the Accumulation Division and Account-Based Pension Division are equal to the value of the member's account balance at the time of payment (plus any insurance proceeds if applicable). Accordingly there is no need to carry out an actuarial assessment of liabilities in respect of these Divisions, and the accrued liabilities in respect of these Divisions as at 30 June 2022 are the sum of account balances.

Reserves

For the purpose of this report, we have not undertaken an analysis of the potential liabilities in relation to the reserves. Separate advice has been provided in relation to the adequacy of the self-insurance reserves, most recently in our letter to the Trustee dated 2 June 2022.

Defined Benefit Divisions

We have calculated a number of measures of accrued liabilities for the Defined Benefit Divisions of the Fund. Each measure includes the actuarial value of lifetime pensions, and includes allowance for deferred benefits.

Vested Benefits are the amounts payable as of right now should all active members voluntarily resign or, if eligible, retire at the investigation date. Coverage of less than 100% of these benefits is defined in the SIS legislation as an “unsatisfactory financial position”.

The **Actuarial Value of 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 of payment. This value is calculated using actuarial methods and assumptions. In determining the value, we have not applied a minimum of the Vested Benefits.

Less than 100% coverage of these benefits would not necessarily be a concern, provided the long-term trend is toward 100%. Greater than 100% coverage of these benefits would generally indicate a sound level of funding.

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.

The Actuarial Value of Accrued Benefits is the same as the measure of “accrued benefits” used in the Australian Accounting Standard AASB 1056 for superannuation funds. More details on the method can be found in Appendix E.

Retrenchment Benefits are payable on retrenchment, assuming any discretion of the employer is exercised in full. Coverage of these benefits is desirable but not essential.

Superannuation Guarantee (SG) Minimum Benefits are the minimum benefits required under SG legislation, as defined in the Benefit Certificate (also referred to as Minimum Requisite Benefits or MRBs). Coverage of less than 100% of these benefits is defined in the SIS legislation as “technically insolvent”.

We have calculated each of these measures for the Defined Benefit Divisions as at 30 June 2022 covered by this investigation to be as follows:

Accrued Liability Measure	Total as at 30 June 2022 ($000)
Vested Benefits	1,467,828
Actuarial Value of Accrued Benefits	1,484,369
Retrenchment Benefits	1,509,956
SG Minimum Benefits	1,114,662

4.4. Comparison of Accrued Liabilities with Fund Assets

The table on the following page summaries the accrued liabilities as at 30 June 2022 for each EBA in the Defined Benefit Divisions of the Fund covered by this investigation. A comparison with the value of assets in each EBA as at 30 June 2022 is also shown.

EBA	SG Minimum Benefits ($000)	Vested Benefits ($000)	Actuarial Value of Accrued Benefits ($000)	Retrenchment Benefits ($000)	Assets ($000)	Ratio of Assets to Actuarial Value of Accrued Benefits	Ratio of Assets to Vested Benefits
Electricity Industry							
E5	198,151	256,272	262,054	278,617	277,760	106%	108%
E16	23,806	30,510	30,585	30,640	27,721	91%	91%
E17	43,796	59,789	61,501	60,576	83,865	136%	140%
E19	10,606	13,898	13,207	13,927	14,938	113%	107%
E20	191,746	252,984	251,048	257,207	281,996	112%	111%
E21	98,006	119,452	119,615	120,728	172,520	144%	144%
E23	3,810	5,328	6,072	5,404	7,796	128%	146%
E24	78,681	102,405	101,900	104,487	121,369	119%	119%
Sub-total*	**648,602**	**840,638**	**845,982**	**871,586**	**987,965**	**117%**	**118%**
Gas Industry							
G2	1,727	1,727	1,727	1,727	4,923	285%	285%
G3	14,131	15,378	15,320	15,378	20,672	135%	134%
G6	15,917	18,477	18,093	18,477	17,499	97%	95%
G7	^	^	^	^	^	101%	269%
G8	15,842	18,478	23,401	18,502	20,985	90%	114%
G9	^	^	^	^	^	88%	88%
Sub-total*	**49,013**	**55,657**	**61,123**	**55,681**	**66,550**	**109%**	**120%**
Water Industry							
W1	39,473	50,863	51,624	51,115	70,329	136%	138%
W2	13,440	19,042	18,448	19,082	25,790	140%	135%
W3	13,842	19,703	19,206	19,703	29,675	155%	151%
W4	43,374	57,865	57,932	59,323	56,822	98%	98%

EBA	SG Minimum Benefits ($000)	Vested Benefits ($000)	Actuarial Value of Accrued Benefits ($000)	Retrenchment Benefits ($000)	Assets ($000)	Ratio of Assets to Actuarial Value of Accrued Benefits	Ratio of Assets to Vested Benefits
W5	38,448	52,285	55,063	53,892	59,478	108%	114%
Sub-total*	**148,577**	**199,758**	**202,273**	**203,115**	**242,094**	**120%**	**121%**
Other Employers							
O1	^	^	^	^	^	223%	222%
O2	5,678	9,205	9,665	9,209	9,690	100%	105%
O3	11,471	12,556	12,547	12,556	15,491	123%	123%
O4	727	1,762	1,762	1,762	1,950	111%	111%
O5	15,521	17,247	17,441	17,247	22,680	130%	132%
O8	42,105	82,544	86,900	86,728	85,298	98%	103%
O9	5,666	8,094	8,668	8,562	9,660	111%	119%
O11	7,468	9,921	9,947	9,921	11,491	116%	116%
O12	^	^	^	^	^	109%	109%
O13	^	^	^	^	^	109%	105%
O15	^	^	^	^	^	109%	105%
O16	3,478	4,222	4,237	4,222	4,678	110%	111%
O18	25,225	38,149	37,627	38,722	41,500	110%	109%
O19	9,324	21,428	20,442	21,428	22,154	108%	103%
O20	31,541	34,522	34,216	34,751	38,674	113%	112%
O21	82,711	102,652	102,137	104,566	126,804	124%	124%
O22	17,862	18,955	18,961	18,955	27,079	143%	143%
Sub-total*	**263,046**	**366,351**	**369,567**	**374,150**	**425,414**	**115%**	**116%**
Pensions backed by annuities	1,633	1,633	1,633	1,633	1,633	100%	100%
Disablement pensions	3,791	3,791	3,791	3,791	7,157	189%	189%
Total Defined Benefit*	**1,114,662**	**1,467,828**	**1,484,369**	**1,509,956**	**1,730,813**	**116.6%**	**117.9%**

* totals may not add up due to rounding
^ redacted for reasons of privacy

It can be seen from the table above that as at 30 June 2022, assets of E16, G6, G9 and W4 were less than the Vested Benefits and assets of the aforementioned EBAs plus G8 and O8 were less than the Actuarial Value of Accrued Benefits. Where the assets were less than Vested Benefits, the EBA was in an “unsatisfactory financial position” as defined in the SIS legislation as at 30 June 2022.

EBA G9 is also “technically insolvent” as defined in the SIS Regulations with assets less than the SG Minimum Benefits.

The EBAs noted above and EBA E5 do not have sufficient assets to fully cover retrenchment benefits. The retrenchment benefit in the Defined Benefit Division is often equal to the full (undiscounted) accrued retirement benefit. As long as there is no intention to retrench all (or a substantial number of) members at one time, it is not necessary to hold assets to fully cover retrenchment benefits.

The Trustee's current CFP recognises that the EBA may suffer a financial strain from the payment of a benefit in excess of the Vested Benefit (e.g. retrenchment benefit), and accordingly generally requires additional contributions where benefits in excess of Vested Benefits are paid if the Funding Ratio (see Section 5) is less than the Target Funding Ratio (TFR) or between the TFR and TFR + 5% and the employer is contributing at less than the long-term rate.

4.5. SG Minimum Requisite Benefits

Minimum Requisite Benefits (MRBs) are the minimum benefits required to be provided by an employer for the purpose of SG legislation. The calculation of MRBs are described in the benefit certificate dated 18 October 2018 for relevant EBAs of Defined Benefit Divisions B, C, CA, F and W and accumulation members.

For relevant EBAs, MRBs are generally substantially less than Vested Benefits. We have explicitly calculated MRB amounts for all members (the MRB was set to equal the Vested Benefit if sufficient data was not available to calculate the MRB). The MRB for lifetime pensioners is taken to be the actuarial value of the pension based on the assumptions adopted for the investigation.

We are satisfied that the assets exceed MRBs for each relevant EBA, other than G9. The Fund, and each EBA other than G9, was therefore not "technically insolvent" for the purpose of the SIS legislation.

As the Vested Benefits of EBA G9 relates to one lifetime pensioner, and we regard these benefits as SG Minimum Requisite Benefits, we have concluded that EBA G9 is "technically insolvent" as defined in the SIS Regulations.

Under the SIS legislation, the Fund is required to have a "Funding and Solvency Certificate" which confirms that current and projected net assets will be sufficient to meet Minimum Requisite Benefits. A Funding and Solvency Certificate for relevant EBAs, except G9, will be issued alongside this actuarial investigation report.

A Special Funding and Solvency Certificate for EBA G9 will be issued in addition to this Funding and Solvency Certificate.

4.6. Probability of Payment of Pensions

Regulation 9.31(1)(ba) of the SIS Act requires the actuary to include in the actuarial investigation a statement of the actuary's opinion as to whether, at the review date, there is a high degree of probability that the fund will be able to pay the pensions as required under the fund's governing rules. We have interpreted this requirement to apply for each EBA supporting pensions as well as Equipsuper as a whole.

As at 30 June 2022, we have found there is a high degree of probability that certain, but not all, 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.

4.7. Change in Financial Position since Previous Investigation

The table below shows the coverage of assets over Vested Benefits and the Actuarial Value of Accrued Benefits for the relevant EBAs as at 30 June 2019, and the corresponding values at the previous review date.

Liability Measure	Coverage of Defined Benefits by Assets	
	30 June 2022	30 June 2019
Vested Benefits	118%	123%
Actuarial Value of Accrued Benefits	117%	122%

The ratio of assets to Vested Benefits has changed over the review period primarily due to the investment returns over the period being lower than assumed in the previous investigation.

Refer to Appendix B for further details of the experience over the three years.

4.8. Subsequent Events

Since 30 June 2022 investment returns on the Defined Benefit investment option have been slightly better expected (2.1% for the four months to 31 October). However, we do not expect the investment returns since 30 June 2022 will have had a material impact on the “unsatisfactory financial position” of EBAs E16, G6, G8, G9 and W4 or the “technical insolvency” of EBA G9. The impact of investment returns after 30 June 2022 will be taken into account as part of the determination of the financial position of EBAs as at 31 December 2022.

We are not aware of any significant events that have occurred since 30 June 2022, which have not already been taken into account, which would have a material impact on the recommendations in this report.

4.9. Coverage of Benefits on Fund Termination

If the Fund is terminated, the liability under the governing rules is limited to whatever assets are then held in the Fund.

5

Contribution Requirements

5.1. Summary of Trustee’s CFP

The final part of the actuarial investigation process is to put forward our recommendations in relation to future employer contribution rates.

The Trustee has in place a CFP whereby the financial position of each EBA is monitored on a half-yearly basis, and contribution rates for the following six months are set based on the ratio of EBA assets to corresponding accrued liabilities (Funding Ratio). Accrued liabilities is the greater of Vested Benefits and the Actuarial Value of Accrued Benefits.

The Trustee’s CFP specifies the following approach to determine a Target Funding Ratio (TFR) for each EBA:

TFR = 100% + 7.69% x GAA x PSPR, rounded to the higher whole number.

Where:

PSPR = proportion of salary and pension related benefits
GAA = proportion allocation to "growth" assets

The formula produces a TFR of 104% where the GAA is 54% and the PSPR is 100%.

Briefly summarised, the policy provides that if the Funding Ratio lies in the range TFR to (TFR + 5%), the employer is to contribute at the “long-term employer contribution rate” as calculated for that EBA in the most recent actuarial investigation of the Fund (see below). The employer is also required, in some cases, 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 exceeds (TFR + 5%), employer contributions are reduced for the following six months so as to utilise one-fifth of any excess of assets over (TFR + 5%) of accrued liabilities during that period. If the Funding Ratio falls below the TFR, employer contributions are increased for the following six months so as to make up one-fifth of any deficit under the TFR of accrued liabilities 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.

If the Funding Ratio falls below 100%, the contributions are increased for the following six months so as to make up the greater of one-fifth of any deficit under the TFR of accrued liabilities and one-third of any deficit under 100% of accrued liabilities. 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 Benefit is below 100%, the employer contribution rate is subject to the minimum of the previously calculated employer contribution rate.

If the Funding Ratio exceeds (TFR + 10%), no employer contributions are required and the EBA can be used to meet contributions to the Accumulation Division to the extent assets exceed 105% of retrenchment benefits.

If the Funding Ratio is below 95%, or would fall below 95% as part of payment of a benefit, the Trustee may require the employer to make an additional contribution reflecting the "unfunded" part of the benefit.

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 2022. The EBAs impacted are E23, G7 and G8.

This actuarial investigation has been based on the CFP approved by the Audit and Finance Committee on 14 November 2022. The key changes to the CFP since the actuarial investigation as at 30 June 2019 were:

- Assets of an EBA held in the Cash investment option are included in determining the GAA when calculating the TFR as these assets are no longer seen to be short term;
- 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 have took 100% of their benefits in the form of a lifetime pension at 30 June 2022; and
- The introduction of pension related benefits to be included in the PSPR definition where they had previously been excluded.

In our view the Trustee's updated CFP, dated 14 November 2022 remains appropriate.

5.2. Calculation of Long-Term Employer Contribution Rates

As part of the actuarial investigation, we have calculated long-term employer contribution rates for each employer. The long-term contribution rate is an estimate of the average cost for each employer of financing the future accrual of benefits.

The rates have been calculated by assuming that the liability, which needs to be financed by the long-term contribution rate, is equal to the higher of (a) and (b), where

(a) is the total present value of all future benefits less TFR x Actuarial Value of Accrued Benefits at the date of calculation; and

(b) is the total present value of all future benefits less TFR x Vested Benefits at the date of calculation.

The rates have then been adjusted to allow for tax on employer contributions at an effective rate of 13.5%, after allowing for tax deductions, and have been set at a minimum of 10.5%, being the current SG rate applicable until 30 June 2023, except where the employer contributes a specified amount to another fund or an additional accumulation account on behalf of all members.

Given the ageing of the membership and the reduction in projected future service, the actuarially calculated long-term rates, before application of a minimum of 10.5%, can be quite low and potentially negative, after allowing for member contributions, especially as the methodology assumes members' accrued liabilities are funded to the TFR.

We believe long-term contribution rates determined on the above basis are appropriate, in conjunction with the CFP.

It should be noted that while the long-term contribution rates are indicative of the likely long-term costs, the actual long-term costs will depend upon the experience for each EBA and in the short-term, actual contributions will reflect application of the CFP.

There has been some consolidation across industry sectors so that an employer may have employees drawn from, for example, both the former electricity and gas industry Defined Benefit Divisions. The calculation of the long-term contribution rates allow for all defined benefit members of the relevant EBA.

For employers where non-investment expenses are expected to be in excess of the standard allowance for non-investment expenses (Appendix C.1) included in determining the assumed rate of future investment returns, an allowance for additional non-investment expenses has been included in the long-term contribution rate.

The following tables set out the long-term contribution rates (expressed as a percentage of salary) for each EBA, as well as the proportion of benefits that are salary and pension related, the Target Funding Ratio and the Shortfall Limit, calculated in accordance with the Trustee's CFP:

EBA	Long term contribution rate (% of salaries)	Estimated proportion of salary and pension related benefits	Target Funding Ratio	Shortfall Limit
Electricity Industry				
E5	13.4%	99%	105%	97%
E16	10.5%	99%	103%	98%
E17	10.5%	99%	104%	97%
E19	10.5%	100%	104%	97%
E20	10.5%	99%	105%	97%
E21	10.5%	100%	105%	97%
E23	10.5%	100%	104%	100%
E24	10.5%	99%	104%	98%
Gas Industry				
G3	10.5%	70%	103%	98%
G6	10.5%	100%	103%	98%
G7	10.5%	100%	103%	100%
G8	10.5%	100%	105%	97%
Water Industry				
W1	10.5%	99%	104%	97%
W2	10.5%	97%	105%	97%
W3	10.5%	100%	105%	97%
W4	10.5%	99%	105%	97%
W5	10.5%	98%	104%	97%
Other Employers				
O1	10.5%	1%	101%	99%
O2	10.5%	49%	103%	98%
O3	10.5%	17%	101%	99%
O4	10.5%	0%	100%	100%
O5	11.2%	90%	103%	98%
O8	16.9%	99%	104%	97%
O9	10.5%	39%	102%	100%
O11	7.5%	54%	103%	98%
O12	15.2%	4%	101%	100%
O13	10.5%	1%	101%	100%
O15	10.5%	16%	101%	100%
O16	11.7%	87%	104%	100%
O18	10.5%	98%	105%	97%
O19	7.5%	100%	106%	96%
O20	9.0%	54%	102%	98%
O21	14.1%	77%	104%	97%
O22	14.9%	26%	101%	99%

For the majority of EBAs, the long-term contribution rates are unchanged from the minimum SG rate at previous actuarial investigation (updated from 9.5% to 10.5%), due to the application of this as a minimum, despite the change in assumptions and ageing of the membership.

The long-term contribution rate for EBA G7 has decreased most significantly as the EBA has only one member, who is valued with an immediate lifetime pension and therefore their present value of future benefits is equal to their current Actuarial Value of Accrued Benefits/Vested Benefits. The long-term contribution rates for EBA O21 and O22 have increased primarily due to lower investment returns after allowing for their significant proportion of assets held in cash.

5.3. Projection of Financial Position

Projections of the financial positions are available to the Trustee and relevant employer if requested. Given the number of projections, the results have not been included in this report. Projections are of limited value for EBAs with a small number of members.

However, we are satisfied that the review of the financial position of each EBA every six months in accordance with the Trustee's CFP, in conjunction with the long-term contribution rates determined as part of this investigation will, based on the assumptions adopted for this investigation, result in each on-going EBA continuing to be in a "satisfactory financial position" with assets in excess of Vested Benefits for the three years to 30 June 2025, or by that date in the case of EBAs E16, G6, G9 and W4.

5.4. Comment on the Closed Nature of the Defined Benefit Divisions

The Defined Benefit Divisions are generally closed to new members, with new members being admitted to the Accumulation Division. The implications of this for employer superannuation costs are as follows:

- As the number of defined benefit members decreases, the average period to retirement shortens and the accrued liabilities become an increasing portion of the total liabilities. Thus it can be expected that the volatility of employer contributions for the Defined Benefit Divisions will increase.

- However, at the same time, the proportion of each employer's superannuation costs which are in defined benefit form will decline and the proportion in accumulation form will increase. As a result, volatility of total superannuation contributions expressed as a percentage of total salary roll will ultimately decrease as a result of the closure of the Defined Benefit Divisions.

As each defined benefit member ages, the underlying cost of providing future benefits in isolation could be expected to increase. However, because members' accrued liabilities are assumed to be funded to the TFR in determining the long-term contribution rate, the investment earnings on the assets supporting these Vested Benefits can be expected to offset, in part, the underlying cost of financing the future accrual of benefits. As a result, we anticipate no significant increases in the underlying defined benefit superannuation costs as a result of members ageing.

Of course, the actual employer contributions required will depend upon the financial position of the relevant EBA and particularly future investment returns and salary increases and other aspects of experience.

6 Investment Policy and Related Risks

6.1. Investment Policy

The Trustee's investment strategy and related matters are detailed in its Investment Governance Framework.

The Trustee operates a Defined Benefit investment option that is generally used for the investment of assets of the defined benefit EBAs. Where agreed with an employer, all or part of an EBA's assets can be invested in one of more of the Fund's other investment options, which are also available for members to select for their investment choice accounts. Some EBAs have part of their assets invested in the Cash investment option, essentially to protect the financial position or to finance benefit payments in the foreseeable future. Section 3.1 outlines the EBAs that have all or part of their assets invested in other investment options as at 30 June 2022.

We have considered the investment strategy of the Fund's Defined Benefit investment option in light of the funding method adopted and the nature of the Fund's liabilities.

At the date of this report, the Strategic Asset Allocation of the Defined Benefit investment option 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 based on the assumptions adopted for this investigation (6.8 years) is such that the EBAs are generally expected to benefit from the higher returns expected from "growth" assets over the long-term. However, this will mean that the investment returns may be subject to a degree of volatility from year to year, which may impact on the financial position 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 EBAs, from 1.3 years to 14.8 years.

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 strategy of the Defined Benefit investment option. The Trustee should seek confirmation from employers 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.

We confirm that the Fund's current investment policy remains appropriate in the absence of any specific input from employers seeking a variation for their EBA.

6.2. Asset Allocation of the Defined Benefit investment option

The asset allocation of the Defined Benefit investment option is determined by the Trustee and as at 30 June 2022 was as follows:

Asset Class	Assets	Strategic Asset Allocation
Australian shares	16.0%	17.0%
Overseas shares	20.4%	21.0%
Property	6.4%	7.0%
Infrastructure	8.8%	7.0%
Alternatives	11.6%	10.0%
Alternative fixed interest	19.1%	15.0%
Traditional fixed interest	12.0%	15.0%
Cash	5.7%	8.0%
Growth / Defensive	**57% / 43%**	**54% / 46%**

6.3. Unit Pricing and Crediting Rate Policy

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 investigation.

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).

6.4. Investment risk – impact on cost to the employers

There is a risk that investment returns will be lower than assumed and the employers will need to increase contributions to offset this shortfall. This risk is borne by the employers.

For example, if the assumed future investment return was reduced by 1% pa with no change in other assumptions, then the overall Actuarial Value of Accrued Benefits for the Defined Benefit Divisions would increase by approximately $104m with a resulting reduction in the coverage of the Actuarial Value of Accrued Benefits from 117% to 109%.

The actual investment return achieved by the Defined Benefit Divisions in future may vary (positively or negatively) from the rate assumed at this review by much more than the (negative) 1% pa illustrated in the example above.

7 Insurance Policy and Related Risks

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 the Trustee has effected is to protect the Fund against unexpectedly large payouts on the death or disablement of members.

For accumulation members, death and lump sum total and permanent disablement (TPD) benefits in excess of total account balances are fully insured, as are disability income benefits.

For defined benefit members, the formula which is currently in use to determine the sum insured for death and lump sum TPD benefits is generally:

Sum Insured = Death/TPD Benefit – Vested Benefit

The death and TPD sum insured formula for members of certain EBAs allow for some variations to the above formula.

Ideally the total amount insured should be approximately equal to the excess of the death/TPD benefits over the Fund's assets. Based on the formula in use at the review date, the "amount at risk" as at 30 June 2022 for the relevant EBAs, including O21 and O22, was as follows.

		Death ($000)	TPD ($000)
	Total Benefits	1,920,988	1,856,175
less	Sum Insured	474,953	414,265
less	Assets	1,730,813	1,730,813
	Amount at Risk	(284,778)	(288,903)

There is a relatively small amount of over-insurance for the relevant EBAs as a whole, and for each ongoing EBA, but it is not at a level where we consider that a change to the current insurance formula is necessary. Adoption of a funding target in excess of 100% of Vested Benefits means that the formula for determining the sum insured is likely to result in an element of over-insurance.

For EBAs E16, G6, G9 and W4, the sum insured formula has resulted in insurance being less than sufficient to provide full protection due to the shortfall of assets compared with Vested Benefits at 30 June 2022. Assuming that the Vested Benefits coverage level grows as expected, the shortfall identified for these EBAs will gradually be eliminated.

We confirm that the current insurance arrangements remain appropriate and provide adequate protection for the Fund.

There remain 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, most recently our letter to the Trustee dated 2 June 2022, 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 and analysis to date suggests that the self-insurance reserves are more than adequate to cover the potential liabilities.

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

The unfunded part of death, 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.

8

Pension Liabilities and Related Risks

This section considers the main risks relating to the lifetime pension liabilities.

8.1. Pension increases

The risk is that future pensioner payments that increase in line with the Consumer Price Index (CPI) increase by more than assumed, increasing the cost of providing pensions and thereby requiring additional employer contributions.

For example, if future pension increases were 1% pa higher than assumed, with no change in other assumptions, then the overall Actuarial Value of Accrued Benefits for the Defined Benefit Division would increase by $27,785,000 with a resulting reduction in the coverage of the Actuarial Value of Accrued Benefits from 117% to 115%.

The actual rate of future pension increases may vary (positively or negatively) from the rate assumed at this investigation by much more than the example illustrated above.

8.2. Longevity

The risk is that pensioners live for longer than anticipated, resulting in the actual cost of pension payments being higher than estimated, and potentially requiring additional employer contributions.

8.3. Pension take-up

The risk is that, where members are eligible to take their benefit as a lifetime pension, more members than assumed elect a lifetime pension (as opposed to a lump sum). Based on the assumptions adopted for this investigation, the actuarially calculated value of the lifetime pension for Division B, CA, WOTH and WLAS members, is generally greater than the value of the lump sum retirement benefit. If more Division B, CA, WOTH or WLAS members take their benefit as a lifetime pension, the liability will be higher than currently estimated and may require additional employer contributions.

8.4. Pensioner liabilities valued at "market value"

The assumptions used to determine the Actuarial Value of Accrued Benefits in respect of the lifetime pensioners in the Defined Benefit Divisions for the purposes of this investigation are considered suitable taking into account the Fund's current circumstances, including the current investment policy.

In particular, the assumptions have been set on the basis that pensioners' reasonable expectations on termination of an EBA would be for a continuation of their existing pension entitlements through a complying superannuation fund with ongoing support of the employer. 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 office) to take on the liability – a higher pension liability value may be obtained. It is likely that an insurance company would base its pricing on a lower “risk-free” discount rate, adopt more conservative mortality assumptions and include expense, risk and profit margins. However, under current market conditions we have recently observed more favourable insurance pricing. The Trustee may want to consider whether it wishes to look into a bulk annuity contract and transfer some (or all) of the current lifetime pension liabilities to an insurer.

9 Other Risks

There are a number of other risks relating to the operation of the Fund. The more significant financial risks, other than investment, insurance and pension risks, relating to the defined benefits are:

9.1. Salary growth risk

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. This risk is borne by the employers.

For example, if the assumed future salary increase rate was increased by 1% pa with no change in other assumptions, then the overall Actuarial Value of Accrued Benefits for the Defined Benefit Divisions would increase by $64,863,000 with a resulting reduction in the coverage of the Actuarial Value of Accrued Benefits from 117% to 112%.

The actual rate of future salary increases may vary (positively or negatively) from the rate assumed at this investigation by much more than the (positive) 1% pa illustrated in the example above.

9.2. Legislative risk

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. This risk is borne by the employers.

9.3. Small EBAs

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. Issues that may require consideration include:

(i) Funding may have previously been based on the Defined Benefit EBA continuing in the longer-term, which may no longer hold. Therefore greater focus is required on the funding of benefits immediately payable to members (e.g. Defined Benefit Vested Benefits);

(ii) With few remaining members (including lifetime pensioners), the experience of a single member or event will have a proportionately larger impact on the financial position. Therefore more frequent monitoring of the financial position will be required;

(iii) Contributions required to finance any shortfalls, specifically as a percentage of salary roll of defined benefit members, can become significant;

(iv) The investment strategy may have been set based on the Defined Benefit liabilities continuing in the longer-term, which may no longer hold. Therefore the strategy may need to be revised to reflect the shorter term of the liabilities;

(v) Fees in respect of the EBA, particularly relative to the number of defined benefit members and salary roll, can become significant. Most actuarial tasks are essentially the same whether there are one or 100 defined benefit members. As defined benefit funds reduce in membership, the actuarial fees may, in fact, increase because of additional monitoring being required. Industry changes such as the SG rate increase can also result in additional fees; and

(vi) The expected wind-down of the remaining defined benefit members.

10 The Regulator and Prudential Standards

The regulator (APRA) has issued a number of Prudential Standards for the superannuation industry, including Prudential Standard SPS 160 relating to the financial management and funding of defined benefit plans. We have commented below on a number of the requirements arising from SPS 160.

10.1 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 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 specifies the following approach to determine the Shortfall Limit for each EBA:

Shortfall Limit = 100% - 4.6% x GAA x PSPR, rounded to the lower whole number.

Where:

PSPR = proportion of salary and pension related benefits
GAA = proportion 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 100.0% will be adopted where:

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

We confirm that we believe the formula for determining the Shortfall Limit for each EBA is appropriate. The Shortfall Limits as at 30 June 2022 for each relevant EBA are shown in Section 5.2.

10.2. Monitoring Process

A review of the financial position of each EBA is undertaken every six months with employer contributions determined in accordance with the Trustee's CFP. An estimate of the financial position is also undertaken every three months, for the purposes of reporting to APRA.

We consider that the adopted monitoring process is appropriate.

The Trustee should also continue to monitor the "Notifiable Events" specified in the Fund's Funding and Solvency Certificate and advise the Actuary should any actual or potential Notifiable Events occur.

10.3. Restoration Plan and Actuary's Reporting Requirements

Under SPS 160, a Restoration Plan is also required to be put in place if the actuary finds in a regular actuarial investigation that a 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 that must not exceed three years from the investigation date.

An SPS 160 Restoration Plan is not 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 contribution program (including its period) must be made within the framework of that Restoration Plan.

Section 130 of the SIS Act requires that if an 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 Trustee and APRA in writing immediately.

Under Part 9 of the SIS Regulations, it is necessary to consider the ability of the Fund's assets to cover SG Minimum Requisite Benefits (SG Minimum Benefits or MRBs). If assets are not sufficient, the Fund is considered to be "technically insolvent".

As part of the half yearly review as at 30 June 2022 we determined that the assets of EBAs E16, G9 and W4 were not sufficient to fully cover the Vested Benefits at that date, and thus the EBAs were likely to be in an "unsatisfactory financial position". We advised APRA by way of letters dated 29

August 2022. After allowing for subsequent investment experience to 19 August 2022 we estimated that EBAs E16, G9 and W4 were no longer in an “unsatisfactory financial position”.

However, following the change in assumptions adopted for this actuarial investigation, specifically the discount rate and pension indexation adopted to value the lifetime pensions, we estimate EBAs E16 and W4 remain in an “unsatisfactory financial position”. The change in assumptions has also resulted in G6 being in an “unsatisfactory financial position” as at 30 June 2022. We have advised APRA by way of a letter dated 20 December 2022 of the “unsatisfactory financial position” of EBAs E16, G6 and W4.

In addition, EBA G9 remains in an “unsatisfactory financial position”. As the Vested Benefits of EBA G9 relate to one lifetime pensioner, and we regard these benefits as SG Minimum Requisite Benefits, we have concluded that EBA G9 is also “technically insolvent” as defined in the SIS Regulations. We have advised APRA by way of a letter dated 20 December 2022 of the “unsatisfactory financial position” and “technical insolvency” of EBA G9.

Where a fund or sub-fund is in an “unsatisfactory financial position”, but not “technically insolvent”, SPS 160 requires the Trustee to undertake various actions including:

- Provide a copy of the actuary’s advice to APRA within 15 business days of receipt;
- Consult with the employer about implementing the recommended contribution program;
- Appoint an actuary to be responsible for advice to the Trustee during the restoration period;
- Develop and approve a Restoration Plan within three months;
- Provide a copy of the Restoration Plan to APRA within 15 business days of approval; and
- Implement the Restoration Plan.

10.4. Statements Required by SPS 160

Appendix E provides statements required to be made under APRA Prudential Standard SPS 160.

11 Actuarial Certification

11.1. Purpose

I have prepared this report exclusively for the Trustee of Equipsuper for the following purposes:

- To present the results of an actuarial investigation of the Fund as of 30 June 2022;
- To review Fund experience for the period since the previous triennial actuarial investigation (effective at 30 June 2019);
- To recommend the approach for determination of employer contributions intended to allow the Fund to meet its benefit obligations in an orderly manner, and to reach and 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.

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

The previous triennial actuarial investigation was carried out as at 30 June 2019 by David Scott on behalf of Mercer Consulting (Australia) Pty Ltd, and the results thereof were summarised in a report dated 20 December 2019. As the Fund has lifetime pensioners, the superannuation legislation requires annual actuarial investigations. These were undertaken as at 30 June 2020 and 30 June 2021, with results summarised in reports dated 5 November 2020 and 4 November 2021, respectively.

11.2. Background information of the Fund

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.

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.

11.3. Governing Documents

The actuarial investigation as at 30 June 2022 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."

11.4. Additional information

Significant events since the investigation date – I am not aware of any significant events that have occurred since 30 June 2022 which would have a material impact on the recommendations in this report.

Next actuarial investigation – Required at a date no later than 30 June 2023, unless APRA provides an exemption.

Next Funding and Solvency Certificate – Required at or before the expiry of the current Funding and Solvency Certificate (which expires on 30 June 2027 and must be replaced by 30 June 2026).

Next Benefit Certificate – Required at or before the expiry of the current Benefit Certificate (which expires on 30 June 2023).

11.5. 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 investigation report should not be relied upon for any other purpose or by any party other than the Trustee of 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 investigation report contains a snapshot of a Fund's financial condition at a particular point in time, and 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 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 investigation.

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 investigation date, but are predicted to fall within a reasonable range of possibilities.

To prepare this report, assumptions 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 investigation 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 investigation results.

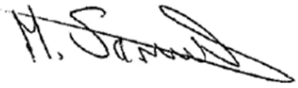
Data and Fund Provisions

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 investigation 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 investigation.

Prepared by



Mark Samuels 20 December 2022
Fellow of the Institute of Actuaries of Australia

I have reviewed this report under Mercer's professional Peer Review Policy. I am satisfied that it complies with the applicable professional standards and uses assumptions and methods that are suitable for the purpose.

Richard Raoul Codron
Fellow of the Institute of Actuaries of Australia

Appendix A

Summary of Assets and Membership Information

A.1. Assets

The net market value of the Fund's assets as at 30 June 2022 shown in the audited financial statements was $29,586,438,000. 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, assets of EBA E14 (assets are in the process of being distributed as the EBA is winding up), 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 $1,730,813,000.

The assets in respect of the Accumulation Division and Account-Based Pension Division as at 30 June 2019 amounted to $27,425,104,000. It has been assumed that the assets available to support these benefits are equal to this amount.

A.2. Membership

The membership data used for this investigation was taken from the database used to administer the Fund. We have carried out some broad "reasonableness" checks on the data and are satisfied with the quality of the data and its suitability for this purpose.

Number of Members

Membership numbers at the previous and current investigation dates are summarised below:

	At 30 June 2019	At 30 June 2022
Division B	12	9
Division C		
- 6% contributors	1,075	859
- 3% contributors	51	38
- 0% contributors	96	67
Division CA	31	17
Division W	209	156
Division F - E7*	6	3
Division F - E16**	17	2
Division F - G3***	6	4
Division F - O1	1	1
Division F - O2	17	15
Division F - O3	42	24
Division F - O4	7	5
Division F - O5	37	15
Division F - O8	149	153
Division F - O9	13	9
Division F - O11	71	49
Division F - O12	3	1
Division F - O13	1	1
Division F - O15	2	1
Division F - O16	7	4
Division F - O19	84	60
Division F - O20	212	97
Division F - O21	240	183
Division F - O22	43	28
Total	**2,432^**	**1,801^**

* relates to members transferring from Russell SuperSolution Master Trust only (excludes members who are included in the Electricity Division)

** relates to members transferring from O8 (excludes members who are included in the Electricity Division)

*** relates to ex-Boral BSP members only (excludes members who are included in the Gas and Electricity Divisions)

^ the members of EBA O18 are included in the Gas and Electricity Divisions

Membership Movements

A summary of active membership movements is given below, with members retrenched after attaining age 55 included with retirements:

	Division B	Division C	Division CA	Division W	Division F	Total
Number of members at 30 June 2019	**12**	**1,222**	**31**	**209**	**958**	**2,432**
Add -						
Opening Adjustment						
New Entrants		1			14	15
Less -						
Resignations		14		5	74	93
Deaths in service		3		3	2	8
Disablements		2			1	3
Retirements	3	230	14	42	228	517
Retrenchments		10		3	12	25
Transfers to other funds						
Number of members at 30 June 2022	**9**	**964***	**17**	**156**	**655**	**1,801**

* includes movements from E21 to W4 and E24

See below for Division F membership movements.

	E7	E16	G3	O1	O2	O3	O4	O5	O8	O9
Number of members at 30 June 2019	**6**	**17**	**6**	**1**	**17**	**42**	**7**	**37**	**149**	**13**
Add -										
Opening Adjustment										
New entrants									12	
Less -										
Resignations	2		1			2		2	1	
Deaths in service										
Disablements										
Retirements	1	13	1		2	16	1	19	7	4
Retrenchments		2					1	1		
Transfers to other funds										
Number of members at 30 June 2022	**3**	**2**	**4**	**1**	**15**	**24**	**5**	**15**	**153**	**9**

	O11	O12	O13	O15	O16	O19	O20	O21	O22
Number of members at 30 June 2019	**71**	**3**	**1**	**2**	**7**	**84**	**212**	**240**	**43**
Add -									
Opening Adjustment									
New entrants								2	
Less -									
Resignations	3					5	37	19	2
Deaths in service						1		1	
Disablements							1		
Retirements	16	2		1	3	18	73	38	13
Retrenchments	3						4	1	
Transfers to other funds									
Number of members at 30 June 2022	**49**	**1**	**1**	**1**	**4**	**60**	**97**	**183**	**28**

Defined Benefit Divisions - Salaries

The following table shows the age distribution of all members of the relevant EBAs as at 30 June 2022 and their current annual salaries.

Age Group	Number of Members					Current annual salaries $000*				
Division	B	C	CA	W	F	B	C	CA	W	F
25 - 29		2			5		297			762
30 - 34		5			10		1,004			1,625
35 - 39		44			34		8,761			5,479
40 - 44		42			49		8,756			7,901
45 - 49		62		1	67		11,071		^	9,648
50 - 54		239	6	37	140		38,529	903	4,333	22,540
55 - 59	6	338	7	60	180	865	54,566	891	7,605	26,603
60 +	3	232	4	58	170	^	35,345	^	7,237	22,980
Total	**9**	**964**	**17**	**156**	**655**	**1,282**	**158,330**	**2,433**	**19,260**	**97,539**

* Totals may not add up due to rounding
^ redacted for reasons of privacy

The average ages of members as at 30 June 2022 were:

Division B	60.6
Division C - 6% contributors	55.2
Division C - 3% contributors	54.0
Division C - 0% contributors	57.7
Division CA	57.5
Division W	58.9

Division F	54.1

Defined Benefit Divisions - Membership Statistics by EBA (excluding Lifetime Pensioners)

EBA	Number of members		Total salaries	Average member contribution rate	Average past membership period	Average age	Average expected future service
	Total Members	% eligible to take a pension*	$'000	%	(yrs)	(yrs)	(yrs)
E5	324	0.3	64,017	5.6	20.1	50.8	8.6
E16	16	-	2,918	4.9	36.3	58.3	5.8
E17	44	4.5	8,156	5.8	39.2	59.7	6.3
E19	9	-	1,870	6.0	40.3	62.1	3.9
E20	280	1.1	39,800	5.4	36.6	57.4	6.6
E21	95	3.2	13,419	4.9	38.3	59.0	6.1
E23	5	40.0	754	4.4	35.6	55.5	10.4
E24	100	-	14,409	5.4	35.9	57.0	6.5
G3	5	-	924	10.4	31.9	64.7	2.4
G6	6	-	1,344	3.5	37.2	62.0	4.1
G7	1	100.0	^	5.0	36.8	59.3	14.8
G8	9	44.4	1,358	5.4	37.8	59.6	9.6
W1	59	13.6	7,434	5.8	36.1	59.8	5.8
W2	21	4.8	2,582	6.1	37.7	58.9	5.2
W3	23	4.3	3,098	4.7	36.2	57.5	5.0
W4	82	-	10,175	5.5	37.1	55.4	7.6
W5	51	35.3	5,864	5.7	36.9	58.5	7.7
O1	1	-	^	5.0	37.7	63.3	2.0
O2	15	-	1,933	4.3	27.2	55.5	4.0
O3	24	-	2,229	4.2	33.8	59.6	4.0
O4	5	-	306	5.0	33.6	65.2	1.3
O5	15	100.0	2,385	3.2	30.8	57.6	4.8
O8	153	-	32,981	0.0	15.7	49.2	7.5
O9	9	-	1,442	6.8	28.2	59.0	5.7
O11	49	-	5,173	3.9	24.2	57.8	4.7
O12	1	-	^	5.0	22.7	58.7	5.1
O13	1	-	^	5.0	29.7	66.2	2.4
O15	1	-	^	5.0	27.0	61.4	4.2
O16	4	50.0	^	5.0	26.0	57.8	5.3
O18	25	8.0	4,877	5.7	37.9	57.8	6.6
O19	60	-	8,014	6.2	30.2	56.8	5.7
O20	97	-	8,505	3.0	27.9	57.1	5.7
O21	183	-	27,564	2.5	19.7	52.1	6.7
O22	28	-	3,592	4.1	33.7	57.3	5.5

^ redacted for reasons of privacy

* refers to all members currently or potentially eligible for a pension benefit on retirement

Lifetime Pensions

The numbers of lifetime pensioners (excluding account-based pensioners) and the amounts of their pensions as at 30 June 2022 were:

Type of Pensioner	Number	Pensions per annum $'000
Age retirements	168	10,948
Disablements	8	378
Spouses	21	588
Children	-	-
Total	**197**	**11,914**

A breakdown of the lifetime pensioners between EBAs is as follows:

EBA	Number	Pensions per annum $'000
E5	23	2,191
E16	10	591
E17	5	311
E19	2	^
E20	17	1,200
E21	28	1,835
E23	1	^
E24	12	746
G2	5	154
G3	11	572
G6	8	542
G8	6	524
G9	1	^
W1	13	380
W2	1	^
W3	1	^
W4	1	^
W5	19	750
O1	1	^
O5	9	369
O16	1	^
O18	2	^
O21	8	563
Pensions backed by annuities	7	351
Disablement pensions	5	154
Total*	**197**	**11,914**

* Totals may not add up due to rounding
^ redacted for reasons of privacy

Deferred Benefits

As at 30 June 2022, 27 former members were entitled to deferred benefits (payable after age 55 and indexed to CPI prior to that date). A breakdown of the deferred members by EBA is as follows:

EBA	Number
W1	1
W5	1
O1	24
O5	1
Total	**27**

Appendix B
Summary of Experience

B.1. Investment Returns

The investment return (net of tax and investment expenses) of the Defined Benefit investment option has been as follows over the three years to 30 June 2022:

Year ended 30 June	Net rate of investment return
2020	2.8%
2021	12.4%
2022	-2.8%
Average (% pa)	**3.9%**

The rates quoted above have been derived from the movement in unit prices of the Defined Benefit investment option. They are net of tax and investment expenses, but not administration expenses. After allowing for administration expenses, the average return was about 3.6% pa.

B.2. Salary Increases

A summary of actual salary increases in respect of defined benefit members who were active as at 30 June 2019 and 30 June 2022 is as follows:

Division	Salary Increase (% pa)
Electricity	3.3%
Gas	2.2%
Water	2.5%
F	3.4%
Total	**3.3%**

B.3. Decrement Experience

The following tables compare the actual numbers of resignations, deaths, disablements, retirements and retrenchments in the three years to 30 June 2022 amongst Electricity Division C, Gas and Water Division members with those expected on the basis of the 2019 actuarial assumptions.

Note that if a member was retrenched after attaining early retirement age, the actual exit has been shown as a retirement for consistency with the expected exits. The split between actual retirement and retrenchment benefits is shown in brackets.

Electricity Division C

	Actual Exits	Expected Exits
Resignation	14	14
Retrenchment	10	14
Retirement	230	230
Death	3	7
Disablement	2	13
Total	**259**	**278**

Gas Division

	Actual Exits	Expected Exits
Resignation	0	1
Retrenchment	0	1
Retirement	14	12
Death	0	0
Disablement	0	0
Total	**14**	**14**

Water Division

	Actual Exits	Expected Exits
Resignation	5	2
Retrenchment	3	2
Retirement	42	53
Death	3	1
Disablement	0	3
Total	**53**	**61**

B.4. Commutation of Pension Benefits in calculating the Actuarial Value of Accrued Benefits

For the last actuarial investigation, it was assumed that 80% of Division B members, 50% of eligible Division CA members and 25% of eligible Water members would elect to take a lifetime pension on retirement.

The following table sets out the proportion of members (of those eligible to elect to take a lifetime pension, weighted by amount of benefit) who retired over the three years to 30 June 2022 and who elected to take some or all of their benefit as a lifetime pension.

Division	Proportion of members taking a pension
B	85%
CA	45%
W	45%

The proportion of members taking a lifetime pension incorporates an allowance for the fact that not all members took 100% of their benefit in pension form.

Appendix C
Actuarial Assumptions

C.1. Economic Assumptions

Investment Returns, Salary Increases and Pension Increases

A summary of the key financial assumptions adopted for this investigation, compared with those adopted for the triennial actuarial investigation as at 30 June 2019, is as follows:

	30 June 2022	30 June 2019
Investment returns (net of tax, investment expenses and standard non-investment expenses) on assets backing active members	4.0% pa*	4.4% pa^
Investment returns (net of investment expenses and standard non-investment expenses) on assets backing pensions	4.5% pa*	5.1% pa
Salary increases	Vary by EBA from 2.5% pa to 4.0% pa (see below)	Vary by EBA from 2.5% pa to 4.5% pa (see below)
Pension increases:		
- for ex Gas Division pensions which commenced prior to 2004	5% pa	5% pa
- for pensions for EBAs O1, O5, Division WC and some O21	Nil	Nil
- for all other pensions	5.0% pa year 1, 3.5% pa year 2, 2.5% pa thereafter	2.25% pa
Standard non-investment expenses	0.3% of assets	0.3% of assets

* a different investment return applies for EBAs with a non-standard long-term investment strategy or a significant proportion of assets held in cash

^ a different investment return applies for EBAs with a non-standard long-term investment strategy

The assumed investment returns have been determined by Equipsuper with input from JANA to align with the basis used for review, construction and management of portfolios, and allow for index investment performance, investment tax (where applicable) and standard non-investment expenses of 0.3% of assets. No explicit allowance has been made for investment expenses, on the basis that above index performance by investment managers is expected to exceed the investment expenses.

The table below lists the salary increase assumption adopted for each EBA:

EBA	2019 Salary Assumption (% pa)	Salary Increase for three years (% pa)	Future Salary Increase Assumption Used
E5	3.0%/4.5%*	3.7%	3.0%^
E16	3.0%	2.6%	3.0%
E17	4.0%	3.7%	3.5%
E19	4.5%	1.2%	2.5%
E20	3.0%/3.5%**	3.6%	3.5%
E21	3.0%/3.5%**	1.6%	3.0%^
E23	3.0%	2.4%	3.0%
E24	3.5%	2.7%	3.0%
G3	2.5%	2.9%	3.0%
G6	3.5%	1.4%	2.5%
G7	2.5%	1.0%	2.5%
G8	3.5%	3.4%	3.5%
W1	4.0%	2.6%	3.0%
W2	4.0%	2.8%	3.0%
W3	4.0%	2.4%	3.0%
W4	4.0%	3.7%	3.5%
W5	4.0%	2.4%	3.0%
O1	4.0%	1.2%	2.5%
O2	3.5%	4.1%	4.0%
O3	2.5%	3.1%	3.5%
O4	3.0%	2.8%	3.0%
O5	2.5%	4.2%	4.0%
O8	4.5%	4.8%	4.0%
O9	4.5%	3.8%	3.5%
O11	3.0%	0.8%	3.0%^
O12	3.0%	1.9%	2.5%
O13	2.5%	3.3%	3.5%
O15	4.5%	1.6%	2.5%
O16	3.5%	4.4%	4.0%
O18	2.5%	2.8%	3.0%
O19	3.5%	3.8%	3.5%
O20	3.0%	2.9%	3.0%
O21	3.0%	2.3%	3.0%
O22	3.5%	4.9%	4.0%

^ assumed salary increase rate varied with input from employer

* Allowing for merger since 2019 actuarial investigation. EBA E5 salary increase assumption updated from 4.5% to 3.25% prior to merger

** Allowing for merger since 2019 actuarial investigation

No separate allowance has been made for promotional salary increases.

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

Where the non-investment expenses for an EBA were in excess of 0.5% of salaries, we have included an allowance for these additional expenses as a percentage of defined benefit salary roll:

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%

C.2. Other Assumptions

Resignation, Retrenchments, 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 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 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 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

			Retrenchments/Resignations	
Age	Deaths	Disablements	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

			Retrenchments/Resignations		
Age	Deaths	Disablements	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

As highlighted above, we have assumed that 50% of members who exit before retirement age will be retrenched.

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 EBA 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.

Pensioner Mortality

The number of lifetime pensioners is not sufficient to undertake a reliable analysis of experience, thus we have adopted a pensioner mortality table 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 have took 100% of their benefits in the form of a lifetime pension at 30 June 2022. The EBAs impacted are E23, G7 and G8.

It is assumed EBAs O5 and O16 take their benefits as a lump sum.

C.3. Changes in Assumptions Since the Previous Investigation

Assumption	Current Assumptions	Previous Assumptions	Reason for change
Investment returns (for assets backing active members)	4.0% pa*	4.4% pa^	To reflect the Trustee's and investment adviser's views and to align with the basis used for review, construction and management of portfolios.
Investment returns (for assets backing pensions)	4.5% pa*	5.1% pa	To reflect the Trustee's and investment adviser's views and to align with the basis used for review, construction and management of portfolios.
Salary increases	Vary by EBA from 2.5% pa to 4.0% pa (see below)	Vary by EBA from 2.5% pa to 4.5% pa	To reflect varied expectations between employers.
Additional administration expenses	As set out in the table above	As detailed in the report on the previous investigation	To reflect the expenses that have been paid out of each Employer Benefit Account over the past three years.
Rates of death and disablement	As set out in the tables above	As detailed in the report on the previous investigation	All EBAs have been updated to reflect the insurance premium rates which are currently in use.
Pensioner mortality	Mercer pensioner mortality 2012 - 2017. ALT 2015 - 2017	Mercer pensioner mortality 2012 – 2017. ALT 2010 - 2012	Updated Australian Life Tables available

* a different investment return applies for EBAs with a non-standard long-term investment strategy or a significant proportion of assets held in cash

^ a different investment return applies for EBAs with a non-standard long-term investment strategy

Appendix D
Fund Design

D.1. Summary of benefits

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) a multiple accruing at the member's contribution rate for each year of membership in Division C;
(b) a multiple using 6% accrual rate for membership in Division B; and

(c) 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% x FS x 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 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).

<table>
<tr><td>Contributions</td><td>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.</td></tr>
<tr><td>BENEFITS</td><td></td></tr>
<tr><td>Retirement</td><td>• 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>
<tr><th>Member Contribution Rate</th><th>Percentage of Salary in respect of each year of membership prior to 1 July 1993</th><th>Percentage of Salary in respect of each year of membership after 1 July 1993</th></tr>
<tr><td>0.0%</td><td>8%</td><td>7.0%</td></tr>
<tr><td>2.5%</td><td>14%</td><td>12.25%</td></tr>
<tr><td>5.0%</td><td>20%</td><td>17.50%</td></tr>
<tr><td>7.5%</td><td>26%</td><td>22.75%</td></tr>
</table></td></tr>
<tr><td>Death</td><td>• 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.</td></tr>
<tr><td>Total and Permanent Disablement</td><td>• 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.</td></tr>
<tr><td>Partial Disablement</td><td>• a lump sum benefit equal to the accrued retirement benefit.</td></tr>
<tr><td>Temporary Disablement</td><td>• if under age 60, a monthly income benefit equal to 1/12th of 70% of salary payable for a maximum of 2 years.</td></tr>
<tr><td>Resignation</td><td>• 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.</td></tr>
</table>

	• 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.

D.2. 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.

The contribution rates recommended in this report allow for benefits being augmented as necessary to meet the minimum SG benefit described in the Fund's current Benefit Certificate.

The SG rate is 10.5% pa from 1 July 2022 and will increase by 0.5% from 1 July 2023 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).

Appendix E

Statements Required by SPS 160

Equipsuper

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 2022, 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 $1,730,813,000. 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 2022 was $1,484,369,000. Hence I consider that the value of the assets at 30 June 2022 is adequate to meet the value of the accrued benefit liabilities of the relevant EBAs as at 30 June 2022 in total and each EBA individually, except for EBAs E16, G6, G8, G9, W4 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 2025, except for EBAs E16, G6, G8, G9, W4 and O8, and will become sufficient to cover the value of accrued benefit liabilities as at 30 June 2025 for EBAs E16, G6, G8, G9, W4 and O8.

(iii) In my opinion, the value of the liabilities of the relevant EBAs in respect of vested benefits as at 30 June 2022 was $1,467,828,000. Hence I consider that the value of the assets at 30 June 2022 is adequate to meet the value of the vested benefit liabilities of the relevant EBAs as at 30 June 2022 in total and each EBA individually, except for EBAs E16, G6, G9, and W4. EBAs E16, G6, G9, and W4 are 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 2025, except for EBAs E16, G6, G9, and W4, and will become sufficient to cover the value of vested benefit liabilities as at 30 June 2025 for EBAs E16, G6, G9, and W4.

(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 2022 was $1,114,662,000. Each of the relevant EBAs was not technically insolvent at 30 June 2022, except for EBA G9.

(v) The legislative requirements in relation to the "unsatisfactory financial position" of EBAs E16, G6, G9, and W4 and the "technical insolvency" of EBA G9 have been addressed, including reporting to APRA and the Trustee by way of letters dated 20 December 2022.

(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	1,730,813	
Vested Benefits	1,467,828	117.9%
Actuarial Value of Accrued Benefits	1,484,369	116.6%
Minimum Requisite Benefits	1,114,662	155.3%

(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 ratio 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-related.

The review disclosed that each relevant EBA except for EBAs E16, G6, G9, and W4 was in a "satisfactory financial position" as defined in the SIS Regulations at 30 June 2022 as assets were not less than Vested Benefits.

The Actuary recommended that each employer contribute to the relevant EBA in accordance with the CFP 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 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 long-term contribution rates calculated in this valuation range from 7.5% to 16.9% 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, 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 EBAs. However, other than for EBAs E16, G6, G9, and W4, 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 long-term contribution rates will, based on the assumptions adopted for this valuation, result in each relevant EBA, except for EBAs E16, G6, G9, and W4, continuing to be in a "satisfactory financial position" with assets in excess of Vested Benefits through to 30 June 2025 and for EBAs E16, G6, G9, and W4, being in a "satisfactory financial position" by 30 June 2025.

(ix) The date of the next actuarial investigation should be no later than 30 June 2023. 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 CFP 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 2022;
b. I do not 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 2022, due to the "technical insolvency" of EBA G9.

(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 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.

E.1. Note 1: Summary of Method of Attributing Benefits to Past Membership

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 from the Fund in respect of current membership are projected forward allowing for assumed future salary increases and credited interest rates and are then discounted back to the investigation date at the investment return rate assumed for the investigation.

The past membership component for each type of benefit is:

Retirement:	based on the member's actual accrued benefit multiple as at the investigation date
Death and Disablement:	based on the member's actual accrued benefit multiple as at the investigation date
Resignation:	based on either the member's current accrued resignation multiple, phasing into the current accrued retirement multiple over a 5 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 Accrued Benefits is the same as that used at the previous investigation.

Mercer Consulting (Australia) Pty Ltd
ABN 55 153 168 140
AFS Licence # 411770
Collins Square
727 Collins Street Melbourne VIC 3008
GPO Box 9946 Melbourne VIC 3001
+61 3 9623 5555