

# ENERGY SUPER

## REPORT TO THE TRUSTEE ON THE ACTUARIAL INVESTIGATION AS AT 30 JUNE 2019

6 NOVEMBER 2019



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## 1

## Key Results and Recommendations

This report on the actuarial investigation of the defined benefit liabilities of Energy Super (the Fund) as at 30 June 2019 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 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.

### 1.1. Change in Financial Position

|   | Position at 30 June 2019 |                   | Position from 30 June 2016<br>Investigation Report |                             |
|---|--------------------------|-------------------|--|-----------------------------|
|   | \$'000s                  | Asset<br>Coverage | Projected<br>Coverage at<br>30 June 2019           | Coverage at<br>30 June 2016 |
| <b>Defined Benefits Only<sup>1</sup></b>          |                          |                   |  |                             |
| Assets  | 1,217,866                |                   |  |                             |
| Liability for Vested Benefits                     | 887,870                  | 137.2%            | 122%   | 124%                        |
| Liability for Actuarial Value of Accrued Benefits | 862,204                  | 141.3%            | n/a  | 123%                        |
| Liability for SG Minimum Benefits <sup>2</sup>    | 687,567                  | 177.1%            | n/a  | 183%                        |

<sup>1</sup> Excludes additional accumulation accounts (but includes Family Law Spouse and Surcharge Offset Accounts) for defined benefit members.

<sup>2</sup> Superannuation Guarantee (SG) Minimum requisite Benefits as set out in the Benefit Certificate

At 30 June 2019, the Fund was in a satisfactory financial position. The 137.2% coverage of Defined Benefit Vested Benefits was also above the financing objective of 110% coverage adopted for this investigation.

The coverage levels at 30 June 2019 were higher than the levels at the previous actuarial investigation mainly due to the following items of positive experience:

- Investment earnings of 8.7% p.a., which were higher than the long-term rate assumed at the previous actuarial investigation of 6.5% p.a.; and
- Salary growth of 4.2% p.a., which was lower than the salary growth rate assumed at the previous actuarial investigation of 4.5% p.a. (plus promotional increases).

## 1.2. Recommended Contribution Rates and Projection

I recommend that the Employers contribute to the Fund from 1 July 2019 as follows:

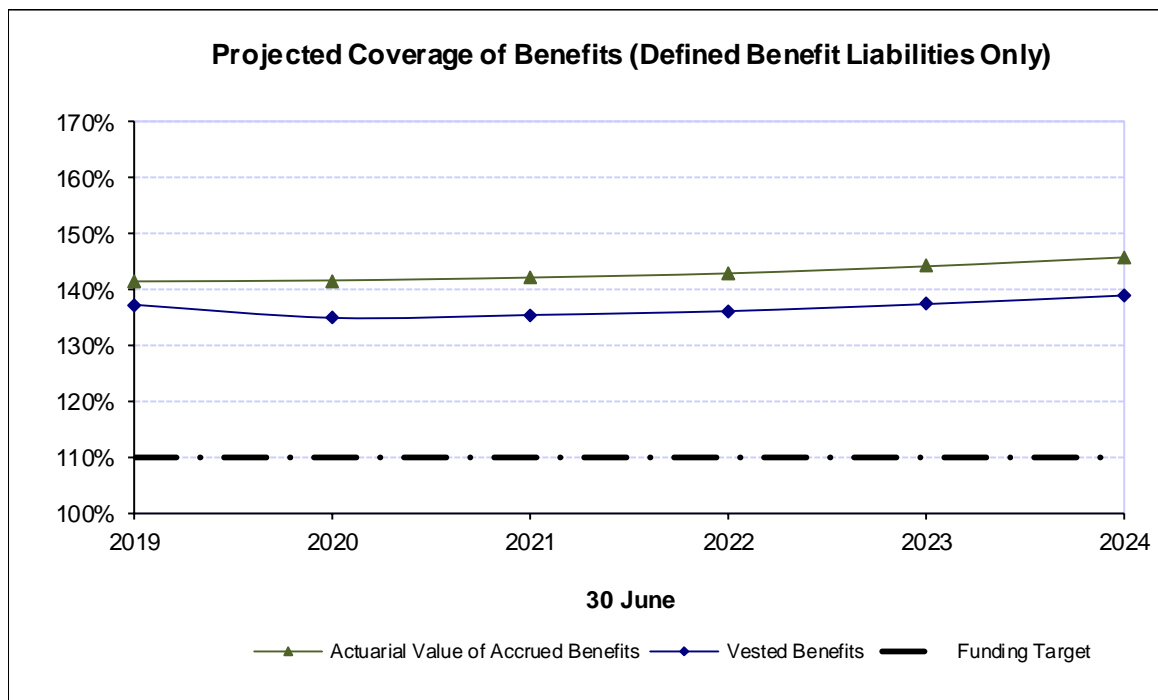
Defined Benefit Section:

- Employer contributions at 0% of defined benefit members’ salaries. This recommendation applies indefinitely; and
- Member contributions (including salary sacrifice contributions) in accordance with the Trust Deed.

Defined Contribution Section:

- Employer contributions for defined contribution members should continue to be paid at the rate or rates agreed; and
- Member salary sacrifice contributions.

Based on the assumptions adopted for this investigation and allowing for any material experience after the investigation date as detailed in this report, we have prepared the following projection of the Fund’s financial position.



The graph above shows that even with no further Employer defined benefit contributions coverage of Defined Benefit Vested Benefits is expected to remain well in excess of 110% (the financing objective adopted in this investigation) over the period to 30 June 2022 and beyond.

Given the strong financial position in respect of the Defined Benefit Section, there is also scope for a temporary Employer contribution holiday in respect of Defined Contribution members, although we have not made any recommendations in this regard.

It may also be appropriate to review the investment strategy, in conjunction with the Employers, in light of the strong financial position. For example there may be scope (and appetite) to take on additional investment risk. Alternatively there might be a preference to reduce investment risk to minimise the possibility that the Employers may need to make further defined benefit contributions at some point in the future.

### **1.3. Risks**

The Trustee should note that the above projection is based on the assumptions adopted, which represent a single scenario from the range of possibilities. The future is uncertain and the Fund's actual experience will differ from those assumptions; these differences may be minor in their overall effect, or they may be significant and material. In addition, different sets of assumptions or scenarios may also be within the reasonable range and results based on those alternative assumptions would be different. The Trustee's monitoring of the experience specified in the Notifiable Events section of the Funding and Solvency Certificate will provide a further means of identifying adverse experience which may warrant an immediate review of the Fund's financial position.

Section 6.4 provides an illustration of the impact of investment volatility on the projected coverage of Vested Benefits.

Section 6.3 provides a further illustration of the impact of investment risk, finding that a 1% pa reduction in the assumed future investment return would result in a 7% increase in the assessed value of liabilities. Section 8 discusses other risks associated with the liabilities.

### **1.4. Other Findings and Recommendations for the Trustee**

#### **Suitability of Policies**

- The investment policy for the defined benefit section of the Fund is suitable.
- The crediting rate policy for the defined benefit section of the Fund is suitable.
- The insurance arrangements for the defined benefit section of the Fund are suitable.
- The Shortfall Limit (for the purposes of SPS 160) is suitable.

#### **Other Recommendation**

- The Trustee could consider adopting a formal process to regularly monitor the Fund's financial position.

### **1.5. Action Required**

The Trustee should consider this report and confirm its agreement (or otherwise) to the contribution recommendations, and the recommendation regarding regular monitoring of the Fund's financial position.

# 2

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## Liability Measures as at 30 June 2019

### 2.1. Vested Benefits

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

At 30 June 2019, Fund assets were greater than Vested Benefits. Accordingly, the Fund was considered to be in a “satisfactory financial position” under SIS legislation. The 137.2% coverage of Defined Benefit Vested Benefits was also above the financing objective of 110% coverage adopted for this investigation (refer Section 4).

### 2.2. SG Minimum Benefits

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).

Fund assets at 30 June 2019 were also greater than SG Minimum Benefits and hence the Fund was considered to be “solvent” under SIS legislation.

### 2.3. Actuarial Value of Accrued Benefits

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, I have not applied a minimum of the Vested Benefits.

The 141% coverage of the Actuarial Value of Accrued Defined Benefits at 30 June 2019 again confirms the Fund’s strong financial position.

#### 2.3.1. *Summary of Method of Attributing Benefits to Past Membership*

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 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 all types of benefit is based on the member's period of membership (or accrued benefit multiple) and accumulated contributions at the reporting date.

The weighted average term of the accrued benefit liabilities is 7 years.

### **2.3.2. *Changes in Methodology of Calculating the Actuarial Value of Accrued Benefits***

There is no change to the method used for the determination of Accrued Benefits at the previous actuarial investigation for benefits on retirement, resignation, involuntary retirement, and death/TPD after age 60.

For the death/TPD benefit under age 60, we have brought the method for apportioning of benefits between past and future membership into line with all the other types of benefit. This change in method results in a reduction of less than 1% in the Actuarial Value of Accrued Benefits.



## 3

## Experience

## 3.1. Change in Financial Position since Previous Investigation

The table below shows the coverage of assets over Vested Benefits, the Actuarial Value of Accrued Benefits and the SG Minimum Benefits as at 30 June 2019, and the corresponding values at the previous investigation date.

|   | Position at 30 June 2019 |                | Position from 30 June 2016 Investigation Report |                          |
|---|--------------------------|----------------|---|--------------------------|
|   | \$'000s                  | Asset Coverage | Projected Coverage at 30 June 2019              | Coverage at 30 June 2016 |
| <b>Defined Benefits Only*</b>                     |                          |                |   |                          |
| Assets  | 1,217,866                |                |   |                          |
| Liability for Vested Benefits                     | 887,870                  | 137.2%         | 122%  | 124%                     |
| Liability for Actuarial Value of Accrued Benefits | 862,204                  | 141.3%         | n/a   | 123%                     |
| Liability for SG Minimum Benefits                 | 687,567                  | 177.1%         | n/a   | 183%                     |

\* Excludes additional accumulation accounts (but includes Family Law Spouse and Surcharge Offset Accounts) for defined benefit members.

The coverage levels at 30 June 2019 were higher than the levels at the previous actuarial investigation mainly due to the following items of positive experience:

- Investment earnings of 8.7% p.a., which were higher than the long-term rate assumed at the previous actuarial investigation of 6.5% p.a.; and
- Salary growth of 4.2% p.a., which was lower than the salary growth rate assumed at the previous actuarial investigation of 4.5% p.a. (plus promotional increases).

## 3.1.1. Investment Returns and Crediting Rates

The table below shows the rates of investment earnings (after tax, investment fees and asset based administration fees) for assets supporting defined benefits, and crediting rates applied to defined benefit members' accounts, over the period since the previous investigation.

| Year Ending                    | Investment Return | Crediting Rate |
|--------------------------------|-------------------|----------------|
| 30 June 2017                   | 11.8%             | 8.7%           |
| 30 June 2018                   | 9.0%              | 8.5%           |
| 30 June 2019                   | 5.3%              | 8.7%           |
| <b>Compound Average (p.a.)</b> | <b>8.7%</b>       | <b>8.6%</b>    |

The average investment return for the three-year period to 30 June 2019 was 8.7% p.a. compared to our longer term assumption at the last actuarial investigation of 6.5% p.a. The higher than assumed investment return had a positive impact on the Fund's financial position.

The average crediting rate was also higher than that previously assumed (6.5%), but its impact on the Fund's financial position was minor given that only approximately 10% of the defined benefit liabilities are linked to the crediting rate (refer to Section 6.1). In addition, ultimately any differences between the crediting rate and the actual investment return will largely be timing differences due to the operation of the three year averaging formula.

### **3.1.2. *Salary Increases***

Salaries for the current defined benefit members increased by an average of 4.2% p.a. over the period compared to our longer term assumption at the last actuarial investigation of 4.5% p.a. (plus promotional increases). The lower than assumed salary increases had a positive impact on the Fund's financial position.

### **3.1.3. *Changes in Membership/Decrements***

During the period under review the number of defined benefit members within the Fund decreased and the decrease was broadly in line with what was assumed at the last actuarial investigation. This has not in itself had a material impact on the Fund's overall financial position, but it is beneficial to the coverage of benefit liabilities as the surplus is spread over a smaller base.

### **3.1.4. *Contributions***

Employer contributions paid over the three-year period to 30 June 2019 were broadly in-line with the contribution recommendations made at the previous actuarial investigation.

# 4

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## Contribution Requirements

### 4.1. Financing Objective

The financing objective I have adopted for this investigation is to maintain the value of the Fund's assets in respect of defined benefit members at least equal to 110% of Defined Benefit Vested Benefits.

Most of the defined benefit liabilities are not linked to the returns on the underlying assets. A margin in excess of 100% coverage of vested defined benefits is therefore desirable to provide some security against adverse experience such as poor investment returns. I consider that the target margin of 110% strikes a suitable balance between the Trustee's desire to provide security for members and the Employers' desire to avoid an unnecessary build-up of surplus.

Based on the assumptions adopted for this investigation, achieving the financing objective of 110% of Vested Benefits for defined benefit members would also result in at least 110% coverage of the Actuarial Value of Accrued Benefits and a high margin of coverage over 100% of SG Minimum Benefits. Hence it is not considered necessary to adopt specific financing objectives in relation to these other benefit liability measures.

I have taken into consideration the provisions of the Trust Deed and any professional requirements as set out below.

#### 4.1.1. Professional Requirements

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

- (a) members' benefit entitlements (including any pension increases provided by the Trust Deed or in accordance with either precedent or the intentions of the Trustee and/or Fund Sponsor) are fully funded before the members retire; and*
- (b) the assets of the Fund from time to time, after making full provision for the entitlements of any beneficiaries or members who have ceased to be employed, exceed the aggregate of benefits which employed members would reasonably expect to be payable to them on termination of membership, including the expenses of paying those benefits, and having regard to the provisions of the Trust Deed and the likely exercise of any Options or Discretions." (Paragraph 5.5.4 of PS400).*

Accordingly the actuary needs to be satisfied that any funding program is expected to provide a level of assets which meets or exceeds immediate benefit entitlements based on members' reasonable expectations. Should assets fall below that level, the funding program needs to aim to lift assets to at least the required level over a reasonable time period (a maximum of 3 years under SPS160 – refer Section 11.3.1) and to maintain assets at or above the required level thereafter.

The financing objective has been set on the basis that members' reasonable expectations on termination would be to receive their Vested Benefit entitlement.

#### **4.1.2. Provisions of the Trust Deed**

The rules of the Fund require that:

- the Trustee ensures an actuarial investigation of the Fund is conducted when required by legislation. Accordingly actuarial investigations are carried out at three yearly intervals at a minimum; and
- The Employers contribute at the rates agreed with the Trustee, on the advice of the Actuary to the Fund.

#### **4.2. Financing Method**

There are various financing methods that could be followed in setting the Employer contribution level. This investigation uses a "Target Funding" method.

Under this method, the Employer contribution rate required to provide a target level of coverage of a particular benefit liability measure is determined.

Under this method of financing, the level of the Employer contribution may vary from time to time to ensure that the Fund remains on course towards its financing objective (110% coverage of Defined Benefit Vested Benefits).

I consider that the Target Funding method is suitable in the Fund's current circumstances as it allows the recommended contribution rate to be determined specifically to meet the Fund's financing objective.

##### **4.2.1. Changes in Financing Method**

The Aggregate Funding method was adopted at the last investigation which does not target any particular funding level and aims to have a constant contribution rate over the life of a fund. The change has no impact on the recommended contribution rate given the strong financial position of the Fund.

#### **4.3. Employer Future Service Cost**

Based on the assumptions adopted for this investigation, I estimate that the Employers' long-term defined benefit funding costs (i.e. the normal cost of funding future service defined benefit accruals for each category) is 16.2% of defined benefit members' salaries.

The Employers' long-term defined benefit funding cost above includes expected expenses, the cost of insurance premiums and allowance for contributions tax.

## 4.4. Recommended Contributions

I recommend that the Employers contribute to the Fund from 1 July 2019 as follows:

### Defined Benefit Section:

- Employer contributions at 0% of defined benefit members' salaries. This recommendation applies indefinitely; and
- Member contributions (including salary sacrifice contributions) in accordance with the Trust Deed.

### Defined Contribution Section:

- Employer contributions for defined contribution members should continue to be paid at the rate or rates agreed; and
- Member salary sacrifice contributions.

## 4.5. Valuation Balance Sheet

The following balance sheet shows the present value of the Fund's liability for benefits and expenses compared to Fund assets and the present value of future contributions (in this case with Employers making no future contributions).

| Item   | Actuarial<br>Value<br>\$m |
|--|---------------------------|
| Present Value of future defined benefits payments in respect of membership accrued at the valuation date | 862.2                     |
| Present Value of future defined benefits payments in respect of membership after the valuation date      | 232.0                     |
| Present Value of future Fund operating costs and tax on contributions                                    | 8.2                       |
| <b>Total Present Value of future payments out of Fund</b>  | <b>1,102.4</b>            |
| Value of Fund Assets at 30 Jun 2019  | 1,217.9                   |
| Present Value of future Employer contributions   | 0.0                       |
| Present Value of future Member contributions   | 64.0                      |
| <b>Total available Assets (in absence of other contributions)</b>  | <b>1,281.9</b>            |
| Excess/(Deficit) of Assets to value of benefits  | 179.5                     |

The excess of assets over the value of benefits (in respect of both past and future membership) of \$179.5 million means that it is not expected to ever be necessary to make any further defined benefit Employer contributions.

## 4.6. Projected Financial Position

The next section of the report shows the projected financial position on the recommended contributions compared with the Financing Objective adopted by the Trustee.

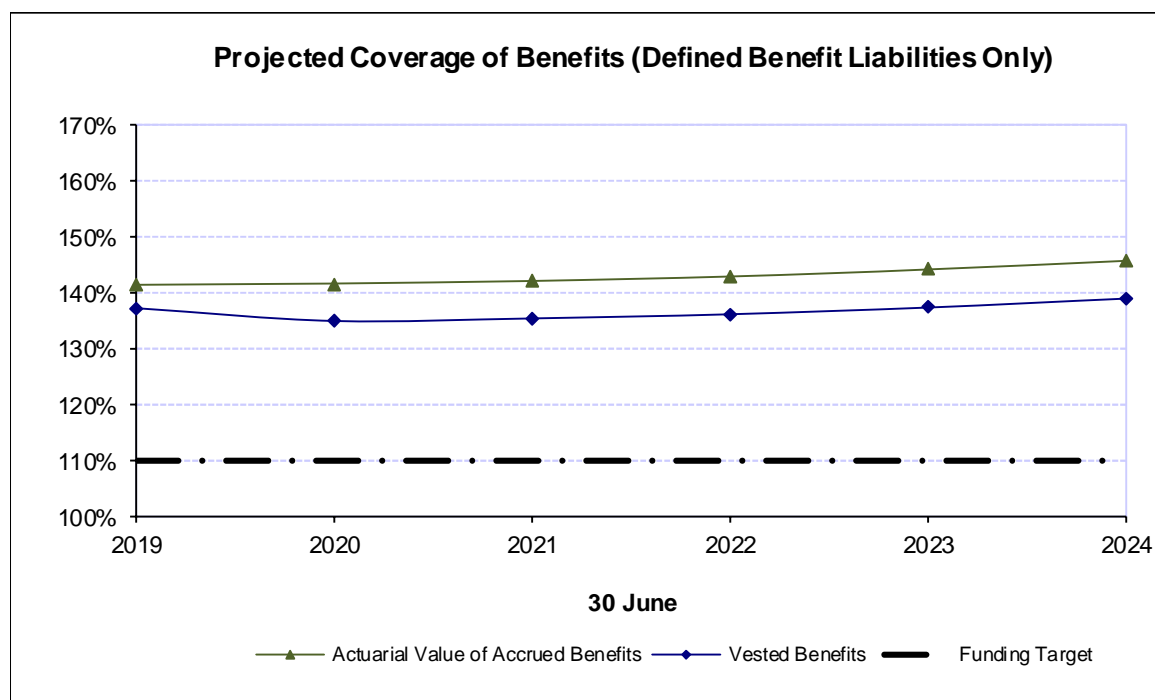
# 5

## Projection of Financial Position

I have prepared a projection of Fund assets and benefit liabilities based on:

- the actuarial assumptions adopted for this investigation;
- assuming that the Employers contribute on the basis as recommended above.

The results of the projection are as follows:



The Trustee should note that this projection is based on the assumptions adopted, which represent a single scenario from the range of possibilities. The future is uncertain and the Fund’s actual experience will differ from those assumptions; these differences may be minor in their overall effect, or they may be significant and material. In addition, different sets of assumptions or scenarios may also be within the reasonable range and results based on those alternative assumptions would be different.

## 5.1. Meeting the Financing Objective

The projection shows that even with no further Employer contributions coverage of Defined Benefit Vested Benefits is expected to remain well in excess of 110% (the financing objective adopted in this investigation) over the period to 30 June 2022 and beyond. The projection also shows that the Actuarial Value of Accrued Benefits is also expected to remain well covered indefinitely.

# 6

## Investment Policy and Related Risks

### 6.1. Investment Policy

The assets supporting defined benefit liabilities are invested in the Fund's Defined Benefit Option. This option has a benchmark 66% exposure to 'growth' assets such as shares, property and some alternative assets, and a benchmark 34% exposure to 'defensive' assets such as cash and fixed interest (refer to the table below for the actual and benchmark investment allocations of these assets as at the investigation date). 'Growth' assets are expected to earn higher returns over the long term compared to 'defensive' assets, but at the same time to exhibit more variation in returns from year to year.

| <b>30 June 2019</b> | <b>Benchmark Allocation</b> | <b>Actual Allocation</b> |
|---------------------|-----------------------------|--------------------------|
| Australian Shares   | 24.0%                       | 25.0%                    |
| Overseas Shares     | 23.0%                       | 24.0%                    |
| Property            | 9.0%                        | 8.0%                     |
| Fixed Interest      | 15.0%                       | 13.0%                    |
| Alternatives        | 26.0%                       | 26.0%                    |
| Cash                | 3.0%                        | 4.0%                     |
| <b>Total</b>        | <b>100.0%</b>               | <b>100.0%</b>            |

The defined benefit provided by the Fund is generally the greater of an amount determined by reference to accumulated member contributions (and thus is linked to the crediting rate) and an amount which is a multiple of final average salary (and thus linked to salary).

Approximately 90% of the defined benefit liabilities relate to the multiple of final average salary and are not linked the investment return on the Fund's assets. The volatility of the Fund's investment returns will therefore affect the financial position of the Fund from year to year (since assets will move but liabilities will generally not move in synch) and is likely to impact on the required level of Employer contributions.

Given that it is not known when members will take their benefit with certainty, the exact term of the Fund's liabilities is unknown. However, despite the Defined Benefit Section being closed to new members, the projections carried out as part of this actuarial investigation indicate that it is expected to be a number of years before the defined benefit assets start to wind down. The weighted average term of the Fund's liabilities is 7 years such that the Fund is expected to benefit from the higher returns expected from 'growth' assets over the long term.

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



We have reviewed the Fund's defined benefit investment policy taking into account the Fund's financial position and the nature and term of the Fund's defined benefit liabilities and confirm we consider that the investment policy adopted is a suitable policy.

However it might be appropriate to review the investment strategy, in conjunction with the Employers, in light of the strong financial position. For example there may be scope (and appetite) to take on additional investment risk. Alternatively there might be a preference to reduce investment risk to minimise the possibility that the Employers may need to make further defined benefit contributions at some point in the future.

## 6.2. Crediting Rate Policy

### Defined Benefit Section

Defined benefit members have accumulation accounts that may form part of the defined benefit. These accumulation accounts include the member contribution account which is used in the calculation of the member's defined benefits. The Trustee's crediting rate policy is to average the investment returns over the past 3 years. As only a small portion of the defined benefit liabilities is currently linked to the crediting rate, the smoothing of investment returns is not at present considered to be a material risk.

### Defined Contribution Section – Smoothed Return Option

The Trustee also provides a Smoothed Return investment option in the Defined Contribution Section of the Fund, that option is closed to new members and further investments (for example rollovers) other than Employer contributions. The Trustee's crediting rate policy for the Smoothed Return investment option is to also average the actual investment returns of the Balanced Option over the past 3 years. The Balanced Option has a benchmark 75% exposure to 'growth' assets (compared to 66% for the Defined Benefit Option).

The total account balances for Defined Contribution members invested in the Smoothed Return investment option was approximately \$113 million as at 30 June 2019.

The smoothing methodology is supported by the reserves of the Fund's Defined Benefit Section as well as explicit Investment Fluctuation Reserves totalling \$16.5 million as at 30 June 2019 for certain Employers.

For Employers with no explicit Investment Fluctuation Reserves, the smoothing methodology of the Smoothed Return option is supported by the Defined Benefit Section assets only, but given the strong financial position of the Defined Benefit Section, we consider that the Smoothed Return investment option is adequately supported.

For Employers with explicit Investment Fluctuation Reserves, we expect that these reserves, in addition to the Defined Benefit Sections assets, will remain sufficient to support the smoothing methodology of the Smoothed Return option. The Trustee could also consider dissolving these reserves and bringing them into the assets supporting the Defined Benefit Section.

### **6.2.1. Documentation**

The Fund's crediting rate policy and related procedures are set out in a policy document dated 28 May 2019.

### **6.2.2. Conclusion**

Based on a review of the main features, I consider that the crediting rate policy adopted 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).

## **6.3. 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 normally 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 Actuarial Value of Accrued Benefits would increase by \$59,644,000 (Employer funding cost impact allowing for contribution tax of  $\$59,644,000 / 0.85 = \$70,169,000$ ), with a resulting reduction in the coverage of the Actuarial Value of Accrued Benefits from 141.3% to 132.1%.

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

## **6.4. Investment Volatility**

As noted above, approximately 90% of the current Vested Benefits for defined benefit members are not linked to investment returns (i.e. are salary based benefits) and therefore the coverage of Vested Benefits is highly sensitive to changes in the investment returns.

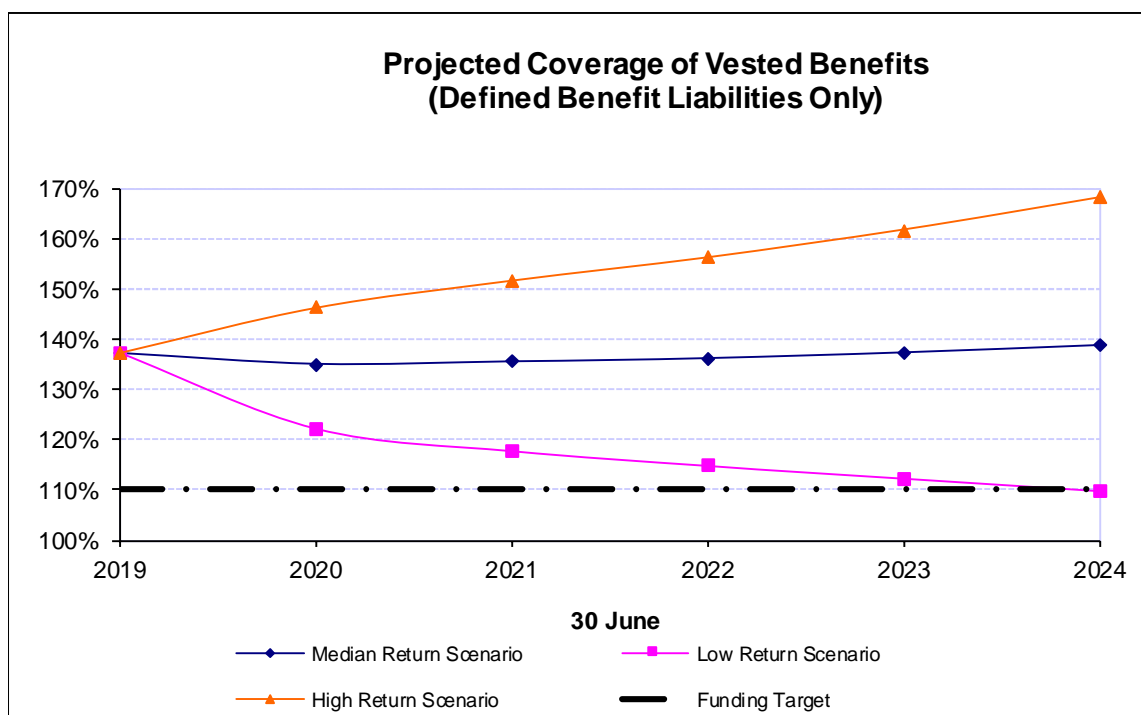
I have considered the impact of investment volatility on the Fund's financial position over the next few years using a "high return" and a "low return" scenario. The returns under both scenarios have been derived from assumptions about the likely risk attached to the Fund's defined benefit investment strategy.

Using Mercer’s assumptions for the means and standard deviations of returns from the various underlying asset classes and the correlations of returns between those asset classes, there is approximately a 10% chance of the cumulative investment return for the Defined Benefit Section being less than the “low return” scenario. Similarly, there is approximately a 10% chance of the Fund’s cumulative investment return being greater than the “high return” scenario.

| 1 July 2019 to 30 June | Assumed Cumulative Investment Return (%) |           |               |
|------------------------|--|-----------|---------------|
|                        | "Low Return"                             | Valuation | "High Return" |
| 2020                   | -5.8%                                    | 4.5%      | 14.8%         |
| 2021                   | -4.6%                                    | 9.2%      | 23.8%         |
| 2022                   | -2.0%                                    | 14.1%     | 31.7%         |
| 2023                   | 0.9%                                     | 19.3%     | 39.6%         |
| 2024                   | 4.1%                                     | 24.6%     | 47.8%         |

The cumulative investment return is the total return from 1 July 2019 up to 30 June in the year shown. The extent of variation allowed for in these projections reflects the Fund’s asset mix and Mercer’s views on potential variability in investment results in various investment sectors.

The graph below shows the effect on the projected ratio of assets to Vested Benefits for defined benefit members under the “high return” and “low return” scenarios, with all other assumptions remaining unchanged.



Based on fluctuations in investment returns only, and assuming other experience is in line with the assumptions adopted for this investigation, there is approximately an 80% chance that the coverage of assets over Vested Benefits at 30 June 2022 will fall in the range from 115% to 156%.

Please note that the Low Return Scenario and the High Return Scenario shown above are illustrations only, and show what may occur under assumed future experiences which differ from our baseline assumptions. These scenarios do not constitute upper or lower bounds and the actual future coverage of Vested Benefits may differ significantly from the range shown above, depending on actual future experience.

In my view, the Trustee should be satisfied with the expected level of security over the next few years if, consistent with our recommendation, the Employers make no further contributions to the Fund.

## 7

## Insurance Policy and Related Risks

The Fund insures part or all of the benefit payable on death and disablement with an external insurer. For death and total and permanent disablement (TPD) benefits for defined benefit members, the amount of insurance obtained is calculated using a formula (the group life sum insured formula). The current formula is:

Sum Insured = Death/TPD Benefit – Vested Benefits (*subject to a minimum insured amount of nil*)

The aim of the sum insured formula is to cover the excess of the death/TPD benefits over the Fund's assets, unless there is a funding shortfall. Based on the formula in use at the investigation date, the coverage of death/TPD risk as at 30 June 2019 for the Fund was as follows.

|             | Defined Benefit members              | \$'000s   |
|-------------|--------------------------------------|-----------|
|             | Death/Disablement Benefits           | 1,216,547 |
| <b>less</b> | Sum Insured                          | 328,677   |
| <b>less</b> | Assets                               | 1,217,866 |
|             | Uncovered Death/Disablement Benefits | (329,996) |

There is a significant amount of over-insurance, which is directly linked to the surplus of assets in the Fund. The degree of over-insurance will move in line with the surplus – for example would to reduce should the Fund's surplus fall. However that is unlikely to occur unless there is a temporary contribution holiday in respect of the Defined Contribution Section or a material fall in investment markets.

In theory, the Trustee could consider reviewing the sum insured formula with a view to reducing the degree of over-insurance and the associated premiums. However, that has a number of practical difficulties. Those difficulties include:

- Navigating the regulatory requirements relating to self-insurance and insurance management frameworks;
- The surplus (and hence over-insurance) may be temporary, leading to a need to obtain higher insurance in future;
- In practice, errors can occur in the implementation of a change in the group life sum insured formula.

In addition, the net cost of the over-insurance (i.e. premiums paid less claim proceeds received) is expected to be far less than the additional premiums being paid as a result of the over-insurance. On balance I therefore recommend no change to the sum insured formula.

The definition of TPD in the Fund's insurance policy is also used to establish a member's eligibility for the benefit under the Fund's governing rules, thus avoiding any definition mis-match risk.

For temporary disablement income benefits – the benefit provisions are entirely matched by the insurance cover. Accordingly, any such claims will have no immediate financial impact on the Fund.

Note that the Fund ceased self-insurance in 2009. There is a legacy self-insurance reserve of approximately \$3 million to cover any future claims from the self-insurance period.

In my opinion, the current group life insurance arrangements, including the sum insured formula for defined benefit members, are appropriate and provide adequate protection for the Fund.

## **7.1. Documentation**

The death and lump sum total and permanent disablement benefits (TPD) insurance arrangements are underwritten by MLC Limited (“the insurer”) and outlined in two separate policies dated 10 May 2018 and 20 December 2018 between the Trustee and the insurer.

The temporary disablement income benefits insurance arrangements are underwritten by OnePath Life Limited (“the insurer”) and outlined in a policy dated 5 September 2019 between the Trustee and the insurer.

## **7.2. Conclusion**

Having regard to the comments above, I consider that the Fund’s current insurance arrangements are suitable.

# 8

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## Other Risks

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

### 8.1. 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 Actuarial Value of Accrued Benefits would increase by \$59,802,000 (Employer funding cost impact  $\$59,802,000 / 0.85 = \$70,356,000$ ), with a resulting reduction in the coverage of the Actuarial Value of Accrued Benefits from 141.3% to 132.1%.

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.

### 8.2. 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

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## Assets

The net market value of total Fund's assets as at 30 June 2019 was \$7,806,015,000 (based on the audited financial statements).

Note 7 of the financial statements also shows that the total net market value of the Fund's assets as at 30 June 2019 held in respect of the Defined Benefit Section was \$1,217,866,000. The Fund's administrator also provided us with an unaudited breakdown of Defined Benefit Section assets by Employer. These amounts have been used for the purposes of the investigation.

These amounts exclude assets relating to additional accumulation accounts (other than Family Law Spouse and Surcharge Offset Accounts) for Defined Benefit members and accounts for Defined Contribution members.

The assets used for this investigation also exclude the explicit Investment Fluctuation Reserves totalling \$16.5 million as at 30 June 2019 (for the smoothing of investment returns for crediting rate purposes for the Smoothed Return Option in the Defined Contribution Section) and assets to meet the Trustee's Operational Risk Financial Requirement (ORFR).

The scope of this actuarial investigation does not include a review of the adequacy of assets held to meet the Trustee's ORFR or the Trustee's ORFR strategy.



# 10

## Actuarial Assumptions

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

- the amount of benefits paid out; plus
- the expenses of running the Fund, including tax;

less

- members' contributions; and
- the return on investments.

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

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

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

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

### 10.1. Economic assumptions

The key economic long term assumptions adopted for this investigation are:

|  | <b>Assumption</b> |
|--|-------------------|
| Investment returns (after tax, investment and asset based administration fees) | 4.5% p.a.         |
| Crediting rate (after tax and investment fees)                                 | 4.5% p.a.         |
| General salary increases   | 3.0% p.a.         |

The assumption for investment returns is based on the expected long-term investment return for the Fund's current benchmark investment mix, calculated using Mercer's assumptions of the means and standard deviations of returns from the various underlying asset classes and the correlations of returns between those asset classes.

The general salary increase assumption is based on long term economic forecasts for future increases in average weekly earnings (AWOTE) and input from the Employers. For employees under age 40, an additional promotional increase of 1.0% per annum (up to age 40) has been assumed.

## 10.2. Other assumptions

### ***New members***

The Fund's Defined Benefit Section is closed to new entrants. No allowance has been made for new members.

### ***Expenses***

Expenses incurred in the administration of the Defined Benefit Section are assumed to be deducted from investment returns.

The cost of temporary disablement income benefits insurance premiums for all defined benefit members is assumed to be 0.75% of defined benefit members' salaries.

The cost of insurance for death and TPD has been factored into our modelling through explicit assumptions for rates of death and disability. Accordingly, no further allowance is necessary for insurance premiums in respect of these benefits.

### ***Tax***

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

All future Employer contributions are assumed to be subject to 15% contribution tax, after deductions for 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:

- Any surcharge liability as members' benefits will be reduced by a surcharge offset amount equal to the surcharge payments made, accumulated at the Fund crediting rate. Surcharge was abolished with effect from 1 July 2005.
- Excess contributions tax, as this is payable by the member.
- Additional tax on contributions (including defined benefit notional contributions) for those with incomes above the threshold (currently \$250,000), which is also payable by the member.

**Death and Disablement in Service**

Examples of the assumed death and TPD rates for current employee members, based on the experience of similar plans administered or advised by Mercer, are set out below:

| Age Last Birthday(x) | Percentage of members age x at beginning of year assumed to leave the Fund during the year on account of: |             |
|----------------------|---|-------------|
|                      | Death   | Disablement |
| 40                   | 0.09%   | 0.04%       |
| 45                   | 0.14%   | 0.08%       |
| 50                   | 0.24%   | 0.18%       |
| 55                   | 0.40%   | 0.39%       |
| 60                   | 0.68%   | 0.83%       |
| 65                   | 1.15%   | 1.51%       |
| 69                   | 1.81%   | 2.38%       |

**Retirement**

The rates at which members are assumed to leave the Fund due to retirement are set out below:

| Age Last Birthday | Percentage of members age x at beginning of year assumed to leave the Fund during the year on account of early retirement |
|-------------------|---|
| x                 | %   |
| 55                | 10%   |
| 56 to 59          | 5%  |
| 60                | 15%   |
| 61                | 25%   |
| 62                | 25%   |
| 63 to 69          | 35%   |
| 70                | 100%  |

**Resignation**

Specimen rates at which members are assumed to leave the Fund due to resignation are set out below.

| Age Last Birthday(x) | Percentage of members age x at beginning of year assumed to leave the Fund during the year on account of resignation |
|----------------------|--|
| 40                   | 3.8%   |
| 45                   | 2.9%   |
| 50                   | 1.7%   |
| 54                   | 0.3%   |

**Retrenchment**

No specific allowance is made for the possibility of future retrenchments. The retrenchment benefit is the same as the benefit paid on resignation or retirement.

**10.3. Changes in Assumptions since the Previous Investigation**

The following table sets out changes in assumptions from those used in the previous investigation and the reasons for the changes:

| <b>Assumption</b>               | <b>30 June 2019 investigation</b> | <b>30 June 2016 investigation</b> | <b>Reason for change</b>                          |
|---------------------------------|-----------------------------------|-----------------------------------|---|
| Investment Return               | 4.5% pa                           | 6.5% pa                           | Reflects lower expected investment return outlook |
| Salary                          | 3.0% pa                           | 4.5% pa                           | Revised expectations                              |
| Death/TPD,<br>Resignation rates | Mercer standard rates             | Rates assumed by previous actuary | Align with Mercer standard rates                  |

The overall impact of the changes in assumptions was to increase the Actuarial Value of Accrued Benefits by \$26m or 3.1%. There is no impact on Vested Benefits.

# 11

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## 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.

### 11.1. Shortfall Limit

The Trustee must 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”.

We understand that the Fund’s Shortfall Limit, determined by the Trustee on the basis of previous actuarial advice, is 97%.

The Shortfall Limit is expressed as a percentage coverage level of defined benefit vested benefits by defined benefit assets and it is appropriate to consider the following when determining if the Shortfall Limit remains appropriate:

- The guidance provided in the Actuaries Institute Information Note: Shortfall Limit in Prudential Standard 160 dated June 2013;
- The investment strategy for defined benefit assets, particularly the benchmark exposure of 66% to “growth” assets;
- The results of this investigation regarding the extent to which the current and projected defined benefit Vested Benefits are not linked to the investment return on defined benefit assets (i.e. salary-based benefits) and the current and projected relativity between Vested Benefits and Minimum Requisite Benefits.

Based on the above, we recommend maintaining the current Shortfall Limit.

The projections also indicate that the level of Minimum Requisite Benefits is not expected to be a constraint in determining the Shortfall Limit. We will reassess the suitability of the adopted Shortfall Limit as part of the next regular actuarial investigation. The Shortfall Limit should be reviewed earlier if there is a significant change to the investment strategy for defined benefit assets – in particular a change to a more defensive strategy which has a benchmark allocation to “growth” assets of less than 50% - or if the Trustee otherwise considers it appropriate to do so.

## 11.2. Monitoring Process

SPS 160 also requires the Trustee to determine and implement a process for monitoring the Defined Benefit Vested Benefits coverage against the Shortfall Limit for each plan. 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 plan has breached its Shortfall Limit. The Restoration Plan must be designed to return the plan to a “satisfactory financial position”, so that the Vested Benefits are fully covered, within a reasonable period that must not exceed 3 years and this must be submitted to APRA.

Under the Fund’s Trust Deed, an actuarial investigation is undertaken every three years. The Trustee should give consideration to more regular monitoring of the Fund’s financial position.

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.

## 11.3. Requirements due to Unsatisfactory Financial Position

Under SIS legislation, an unsatisfactory financial position applies where assets are less than Vested Benefits.

### 11.3.1. Restoration Plan

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 plan:

- 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 plan to a “satisfactory financial position”, so that Vested Benefits are fully covered, within a reasonable period that must not exceed 3 years from the investigation date.

A Restoration Plan is not required if the plan is technically insolvent (in which case the insolvency rules must be followed). If a 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.

As indicated by the results of this investigation and the projections, we consider that:

- The Fund is not in an unsatisfactory financial position; and
- The Fund is not likely to fall into an unsatisfactory financial position.

Hence the special requirements of SPS 160 for funds in an unsatisfactory financial position do not apply at this investigation.

### **11.3.2. Actuary's Reporting Requirements**

Section 130 of the SIS Act requires that if an actuary forms the opinion that a plan'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 the regulator (APRA) in writing immediately.

These requirements do not currently apply as I am of the opinion that the Fund's financial position is not unsatisfactory (or about to become unsatisfactory).

## **11.4. Statements Required by SPS 160**

*This section provides statements required to be made under APRA Prudential Standard SPS 160. Values cited relate to the defined benefit liabilities of the Fund. Assets and liabilities relating to Defined Contribution members and the non-defined benefit accumulation accounts of defined benefit members (other than Family Law Spouse and Surcharge Offset Accounts) were excluded.*

- (a) The value of the Fund's defined benefit assets as at 30 June 2019 was \$1,217,866,000. This value does not include assets held to meet the Operational Risk Financial Requirement.
- (b) In my opinion, the value of the liabilities of the Fund in respect of accrued benefits as at 30 June 2019 was \$862,204,000. Hence I consider that the value of the assets at 30 June 2019 is adequate to meet the value of the accrued benefit liabilities of the Fund as at 30 June 2019. 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 Section 10 of this report. Assuming that the Employers contribute in accordance with my recommendations, then, based on the assumptions made for this actuarial investigation which I consider to be reasonable expectations for the Fund, I expect that assets will remain sufficient to cover the value of accrued benefit liabilities over the period to 30 June 2022.

- (c) In my opinion, the value of the liabilities of the Fund in respect of vested benefits as at 30 June 2019 was \$887,870,000. Hence I consider that the value of the assets at 30 June 2019 is adequate to meet the value of the vested benefit liabilities of the Fund as at 30 June 2019. Assuming that the Employers contribute in accordance with my recommendations, then, based on the assumptions made for this actuarial investigation, I expect that assets will remain sufficient to cover the value of vested benefit liabilities over the period to 30 June 2022. Hence I consider that the financial position of the Fund should not be treated as unsatisfactory as defined in SPS 160.
- (d) In my opinion, the value of the liabilities of the Fund in respect of the minimum benefits of the members of the Fund as at 30 June 2019 was \$687,567,000. Hence the Fund was not technically insolvent at 30 June 2019.
- (e) A projection of the likely future financial position of the Fund over the 3-year period following 30 June 2019, based on what I consider to be reasonable expectations for the Fund for the purpose of this projection, is set out in Section 5 of this report.
- (f) Based on the results of this investigation, I consider that the Shortfall Limit does not require review. Comments are set out in Section 11.1 of this report.
- (g) In respect of the 3-year period following 30 June 2019, I recommend that the Employers contribute to the Fund as follows:

Defined Benefit Section:

- Employer contributions at 0% of defined benefit members' salaries. This recommendation applies indefinitely; and
- Member contributions (including salary sacrifice contributions) in accordance with the Trust Deed.

Defined Contribution Section:

- Employer contributions for defined contribution members should continue to be paid at the rate or rates agreed; and
- Member salary sacrifice contributions.

- (h) The Fund is used for Superannuation Guarantee purposes:
- all Funding and Solvency Certificates required under Division 9.3 of the SIS Regulations have been issued for the period from the date of the last investigation to 30 June 2019;
  - I expect to be able to certify the solvency of the Fund in any Funding and Solvency Certificates that may be required in the three-year period from 30 June 2019.



# 12

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## Actuarial Certification

### 12.1. Purpose

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

- To present the results of an actuarial investigation of the Fund as of 30 June 2019;
- To review Fund experience for the period since the previous actuarial investigation (effective at 30 June 2016);
- To recommend contributions to be made by the Employers intended to allow the Fund to meet its benefit obligations in an orderly manner, and to 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 actuarial investigation was conducted as at 30 June 2016 by Shane Mather, on behalf of Sunsuper Financial Services Pty Ltd, and the results are contained in a report dated 30 December 2016.

### 12.2. 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 Trustee of Fund, Electricity Supply Industry Superannuation (Qld) Ltd, holds a Registrable Superannuation Entity Licence under the SIS legislation and operates the Fund as required under the Trust Deed.

### 12.3. Governing Documents

The governing rules of the Fund are set out in the Energy Super Trust Deed dated 16 June 1995 (as amended).

## 12.4. Additional information

**Significant events since the investigation date** – I am not aware of any significant events that have occurred since 30 June 2019 which would have a material impact on the recommendations in this report.

**Next actuarial investigation** - Required at a date no later than 30 June 2022. At that time, the recommended Employer contribution rates will be reassessed.

**Next Funding and Solvency Certificate** – required at least 12 months before the expiry of the current Funding and Solvency Certificate (which expires on 31 March 2024).

**Next Benefit Certificate** – required following the expiry of the current Benefit Certificate (which expires 31 March 2020).

## 12.5. 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 increases 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.

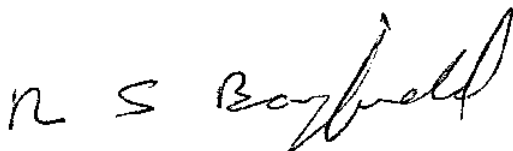
Prepared by



**Guy Holley**  
Fellow of the Institute of Actuaries of Australia

**6 November 2019**

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



**Richard Boyfield**  
Fellow of the Institute of Actuaries of Australia

# APPENDIX A

## Membership Information

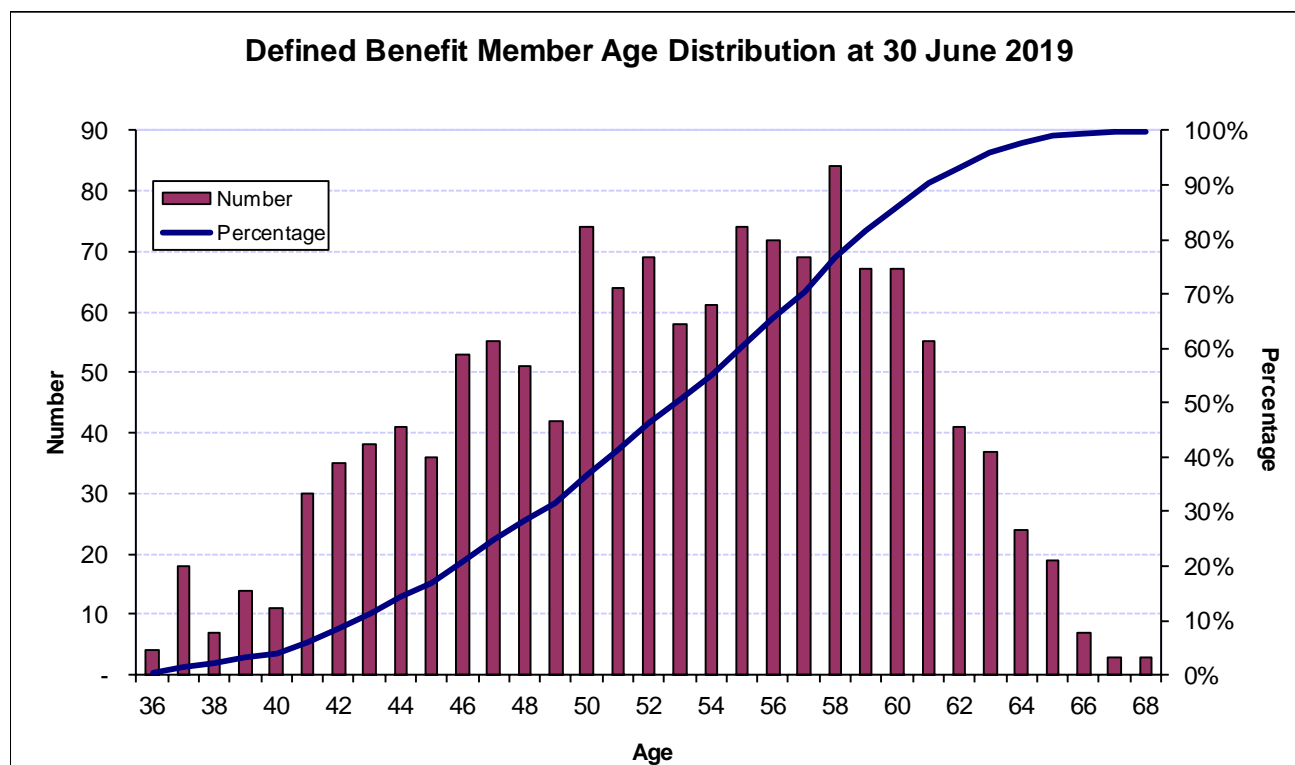
The membership of the defined benefit section has changed since 30 June 2016 as follows:

| Employer                  | Energy Q'ld | CS Energy | IFAA | NRG Gladstone | Powerlink | Stanwell  | Total      |
|---------------------------|-------------|-----------|------|---------------|-----------|-----------|------------|
| Active members 30/6/16    | 1,466       | 90        | 1    | 80            | 84        | 97        | 1,818      |
| Exits                     | 342         | 22        | 1    | 32            | 19        | 18        | 434        |
| New Entrants              | 0           | 0         | 0    | 0             | 0         | 0         | 0          |
| Active members 30/6/19    | 1,124       | 68        | 0    | 48            | 65        | 79        | 1,384      |
| Total salaries at 30/6/19 | \$140,915k  | \$11,184k | n/a  | \$6,354k      | \$9,830k  | \$11,350k | \$179,633k |
| Avg. salary at 30/6/19    | \$125k      | \$164k    | n/a  | \$132k        | \$151k    | \$144k    | \$130k     |
| Avg. age at 30/6/19       | 53.1        | 53.7      | n/a  | 57.3          | 52.2      | 54.3      | 53.3       |

The membership data used for this investigation was taken from several spreadsheets provided by Link Group, the Fund’s administrator. I have carried out some broad “reasonableness” checks on the data and I am satisfied with the quality of the data and its suitability for this purpose.

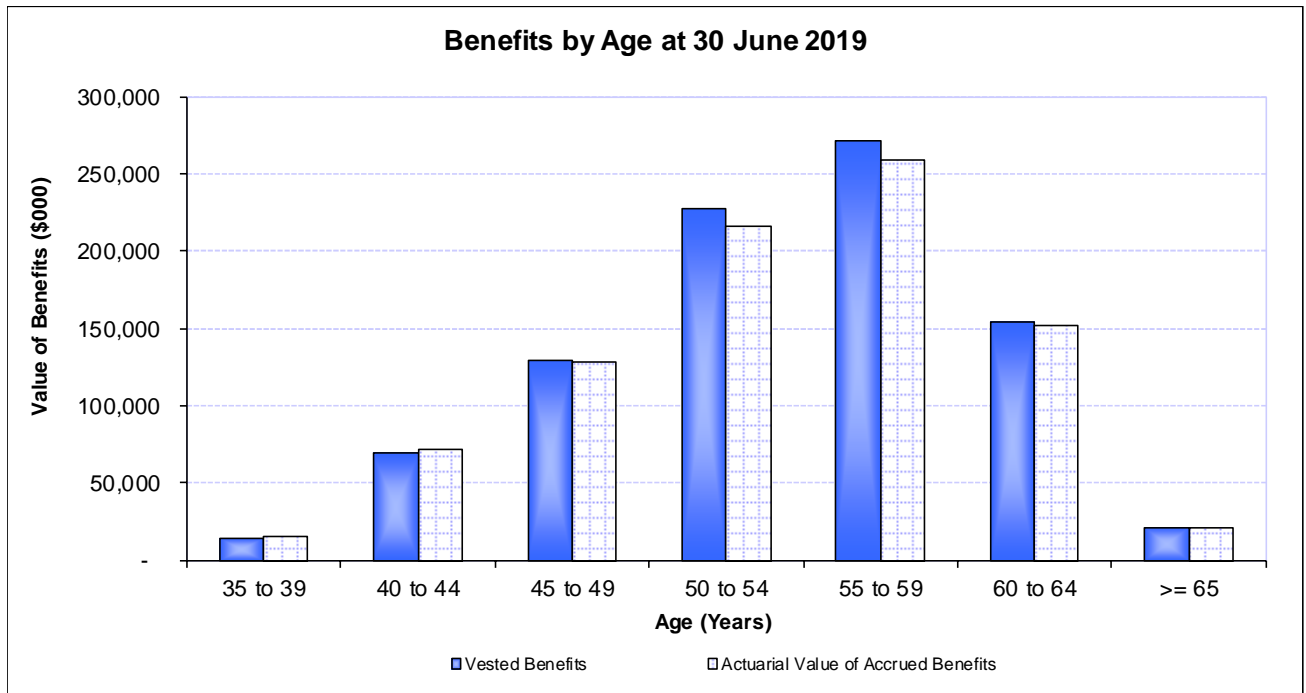
### A.1. Active defined benefit member age profile

The 30 June 2019 defined benefit membership split by age is shown in the following graph:



## A.2. Actuarial Value of Accrued Benefits age profile

The following graph shows the Vested Benefits and Actuarial Value of Accrued Benefits of defined benefit members (excluding additional accounts) at 30 June 2019, split by age.



# APPENDIX B

## Fund Design

### B.1. Summary of benefits

A summary of the main benefit provisions in respect of defined benefit members is set out below. Reference should be made to the formal governing documents for definitive statements.

|   |   |
|---|---|
| <b>Final Average Salary (FAS)</b>                   | <ul style="list-style-type: none"> <li>the average of salary over the 12 months immediately prior to exit for all DB members except NRG Gladstone members.</li> <li>the average of salary over the 24 months immediately prior to exit for NRG Gladstone members.</li> </ul>  |
| <b>Member Basic Account</b>                         | Members contribute an amount equal to 5% of the Member's Salary (or 5.9% on a salary sacrifice basis). Such contributions are credited to the Member Basic Account.   |
| <b>Normal Retirement Age</b>                        | 65 to 70  |
| <b>Early Retirement Age</b>                         | 55  |
| <b>Retirement Benefit</b>                           | <p>The benefit payable on Retirement is the greater of:</p> <p>(a) 2.5 times the Member Basic Account immediately before the member attained age 55*; and</p> <p>(b) 19.5% of Final Average Salary for each year of Fund Membership (calculated in years and days).</p> <p>* This is the Member Basic Account as at age 55, with no further contributions or investment earnings after age 55. This limitation does not apply to NRG Gladstone members.</p>   |
| <b>Death/Total and Permanent Disability Benefit</b> | <p>The Death/TPD Benefit for members less than age 60 is equal to the retirement benefit multiple as at age 60 times Projected Final Average Salary, subject to a minimum of 2.5 times the Member Basic Account (limited as for the retirement benefit if over age 55).</p> <p>For NRG Gladstone members, the minimum benefit on death and TPD is calculated as 2.5 times the Member Basic Account at the date of exit with no limitation.</p> <p>The Death/TPD Benefit for members over age 60 is equal to the retirement benefit.</p> |
| <b>Temporary Disability Income Benefit</b>          | <p>A monthly income benefit equals to 80% of member's monthly salary, ceasing at the earlier of:</p> <ul style="list-style-type: none"> <li>two years; and</li> <li>reaching age 65.</li> </ul>   |

**Resignation,  
Retrenchment or  
Serious Ill-Health  
(prior to age 55)**

The benefit payable is the greater of:

- (a) 2.5 times the Member Basic Account; and
- (b) 19.5% of Final Average Salary for each year of completed Fund Membership (calculated in years and days) times a discount factor

Where the discount factor is  $(1 - 2\% \times [55 - \text{current age}])$  with a minimum of 70%.

The period from the current age to 55 is calculated in years and days.

**Additional Accounts**

The total additional accounts are also payable on all forms of exit. However only the Family Law Spouse and Surcharge Offset Accounts are considered defined benefit accounts and included in the figures shown in this report.

As per Clause 33 of the Trust Deed, the Trustee may, in its discretion, permit a person to exercise a right or grant to the person a privilege or benefit under the Fund, if the Trustee is satisfied that -

- (a) the person has lost or ceased to be entitled to the right, privilege or benefit through no fault of the person; and
- (b) it is just and equitable to allow the person to have the enjoyment of the right, privilege or benefit.

Benefits on leaving service for any reason are subject to a minimum Superannuation Guarantee benefit described in the Fund's Benefit Certificate.

## **B.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 and the projected financial positions allow for benefits being augmented as necessary to meet the minimum Superannuation Guarantee (SG) benefit described in the Fund's current Benefit Certificate.

The current SG rate is 9.5% until 1 July 2021. The SG rate is currently legislated to increase by 0.5% pa until it reaches 12% from 1 July 2025.



# APPENDIX C

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## Information for AASB 1056 Purposes

### Energy Super

The following information has been prepared for the purposes of Australian Accounting Standard AASB 1056 to enable the calculation of Member Liabilities at the specified reporting dates for inclusion in the Fund's financial statements. The information is current as at the date specified below, but is subject to modification if circumstances change.

Based on the Adopted Assumptions specified, I confirm that in my opinion, a reasonable approximation of the value of Defined Benefit Member Liabilities (DB Member Liabilities) at 30 June 2020, 2021 and 2022 can be calculated as:

$$\text{DB Member Liabilities} = K \times \text{DB Vested Benefits}$$

where:

- K is the Adopted Assumptions K Factor specified below
- DB Vested Benefits is the total DB component of vested benefits (i.e. excluding additional account balances other than Family Law Spouse and Surcharge Offset Accounts) for active DB members at the relevant date, as determined by the Fund Administrator

Total Member Liabilities would then be determined as

DB Member Liabilities *plus* total additional account balances of DB Members (other than Family Law Spouse and Surcharge Offset Accounts) *plus* total account balances of Defined Contribution Members, all calculated at the relevant date

In my opinion, a reasonable approximation of the DB Member Liabilities at 30 June 2020, 2021 and 2022 on other reasonably possible key assumptions can be calculated as:

$$\text{DB Member Liabilities} = K \times \text{DB Vested Benefits}$$

where:

- K is the relevant K Factor specified in the table below for the relevant specified change in a key assumption

|   | 30 June 2020 | 30 June 2021 | 30 June 2022 |
|---|--------------|--------------|--------------|
| <b>Adopted Assumptions</b>              |              |              |              |
| Investment return pa (active employees) | 4.50%        | 4.50%        | 4.50%        |
| General salary increases pa             | 3.00%        | 3.00%        | 3.00%        |
| <b>Adopted Assumptions K factor</b>     |              |              |              |
| <b>Sensitivity Factors</b>              |              |              |              |
| K factor 1% pa lower investment return  | 1.020        | 1.020        | 1.019        |
| K factor 1% pa higher investment return | 0.897        | 0.897        | 0.896        |
| K factor 1% pa lower salary increases   | 0.896        | 0.896        | 0.895        |
| K factor 1% pa higher salary increases  | 1.020        | 1.020        | 1.020        |

I confirm that the investment return assumption is based on the plan's investment strategy.

I confirm that paragraph 26 of AASB 1056 is not relevant to the plan.

Prior to using the above factors for calculations at 30 June 2020, 30 June 2021 and 30 June 2022, the Trustee should check with the Fund actuary whether there have been changes in economic conditions or other circumstances which have occurred since these factors were determined that, in the opinion of the actuary, would require a change in the Adopted Assumptions and/or a re-calculation of the factors.



**Guy Holley**  
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6 November 2019



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