# Attachment 21.1

# AON:
# Insurance Premium Forecast Report

## September 2014

# Insurance Premium Forecast

## SA Power Networks

September 2014

*FINAL REPORT*

# Contents


**Executive Summary** **1**

**1. Background and Approach** **2**

**2. Summary of Results** **5**

**3. Analysis by Risk Class** **6**

3.1 Liability 6

3.2 Property 11

3.3 Other Classes 15

**Appendix 1 Insurance Premium Forecast** **18**

**Appendix 2 About Aon** **19**

# Executive Summary

SA Power Networks has requested Aon Risk Solutions ("Aon") to provide an independent forecast of its insurance premiums for the period 1 July 2015 to 1 July 2020, being the next regulatory control period.

Table 1 below sets out Aon's insurance premium forecast for SA Power Networks for the upcoming regulatory period.

**Table 1 – Insurance Premium Forecast – 1 July 2015 – 1 July 2020 ($'000)**

| Risk Class | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | Total |
|---|---|---|---|---|---|---|
| [redacted] | | | | | | |

The approach to determine this forecast was to estimate exposure growth and premium rate growth for the forecast period and apply these growth rates to SA Power Networks' current base premiums. This produced base premiums for the relevant forecast policy periods to which statutory charges were added to produce total costs. These were allocated to the relevant financial year using a straight monthly pro-rata approach.

Details of the premium calculations and all assumptions made are outlined in the following sections of the report.

# 1. Background and Approach

## 1.1 Background

SA Power Networks has requested Aon Risk Solutions (“Aon”) to provide an independent forecast of its insurance premiums for the next regulatory control period (1 July 2015 to 1 July 2020).

Aon has developed a comprehensive forecast for the period, which is explained and set out in this report. This forecast reflects Aon’s expert view of what SA Power Networks can reasonably expect in relation to its insurance premium costs given Aon’s understanding and knowledge of SA Power Networks' specific circumstances and the likely insurance market conditions which will apply during the period. Aon has relied upon the latest insurance costs incurred by SA Power Networks as the base cost as actual costs represent the most accurate and reliable starting point for developing a forecast.

## 1.2 About Aon and Our Relevant Experience

Aon is the leading global provider of risk management, insurance and reinsurance brokerage, and human resources solutions and outsourcing services. Through our more than 66,000 colleagues worldwide, Aon unites to empower results for clients in over 120 countries via innovative and effective risk and people solutions and through industry-leading global resources and technical expertise.

In Australia and in the utilities sector, Aon has been the leading provider of price reset consultancy services in the last 10 years to network service providers (“NSPs”) in the areas of insurance and self-insurance. Our industry knowledge and experience, coupled with our understanding of the specific circumstances that are currently influencing SA Power Networks' insurance costs, and Aon’s wider insurance market intelligence, means that we are well placed to undertake this exercise.

Further details about Aon and our experience are outlined in Appendix 2.

## 1.3 Scope of Services

The scope of services for this consultancy is to provide an independent forecast of SA Power Networks' insurance premiums and associated charges for the upcoming 2015-20 regulatory period.

For each major class of insurable risk, we will:

- Outline the systematic drivers of insurance costs;
- Review the historical premium costs and circumstances that have influenced any changes over the current (2010-2015) regulatory period;
- Provide a premium forecast for the 2015-20 regulatory period, including outlining:
  - The quantification method adopted including forecast changes to exposure and premium rates;
  - All the assumptions and data relied upon in undertaking that quantification, including their sources; and
- Provide Aon’s independent assessment of future insurance premiums.

## 1.4 Approach

The approach to calculate the insurance premium forecast is outlined below:

## 1.5 Factors that Affect the Cost of Insurance

When pricing insurance underwriters will typically consider the risk that is being insured. Pricing for major classes is usually determined as a premium rate multiplied by a measure of exposure (ie. declared asset values, annual revenue, number of vehicles etc.). Whilst exposure is largely determined by the insured, premium rates are determined by the insurer and are largely out of the control of the insured.

It is important to recognise that insurance premium rates (and therefore insurance premiums) are subject to external factors that SA Power Networks' other operating costs are not. Whilst insurance premiums largely reflect the risk that is being insured, other factors have considerable bearing on insurance pricing, particularly for low frequency, high severity risks. These include:

- recent claims activity;
- global natural catastrophes;
- insurer competition;
- market capacity (amount of available insurer capital); and
- capital requirements.

Policy limits and deductibles also influence the cost of insurance. Unless otherwise stated, insurance policy limits and deductibles are assumed to remain constant for the purpose of this analysis.

In addition to this, taxes and statutory charges need to be paid by the insured. These are determined by the government and can change quite regularly. A perfect example of this is the recent change to the fire services levy in Victoria; which is now recovered through property rates rather than Property insurance premiums.

All commentary in this report relates to changes to base premiums in nominal values (unless otherwise stated). Additional calculations have been applied to determine statutory charges, taking into consideration expected statutory charges in the upcoming regulatory period.

## 1.6 Allocation of Costs to SA Power Networks

For the major risk classes: Property and Liability, SA Power Networks and [redacted] purchase a group policy. As such, the premiums under the group program need to be allocated between SA Power Networks and [redacted]. This allocation is based in proportion to declared values and customer numbers for the property and liability programs respectively.

## 1.7 Key Assumptions

These premium forecasts are made on the basis that SA Power Networks' approach to risk financing remains consistent throughout the upcoming regulatory period (ie. SA Power Networks' choice of deductibles and limits remain the same). It also assumes that SA Power Networks takes up Aon's recommendation [redacted] Other than this recommendation, the assumption is made that SA Power Networks does not take out any additional insurance policies over the next regulatory period.

## 1.8 Recommendation

[redacted] insurance has been developed in recent years in response to growing global experience and understanding of network security risks. This class of insurance is now sufficiently matured to cost effectively cover material risks which are uninsured by more traditional policies (e.g. liability insurance). The policies can provide cover for first party and potential third party costs following network security breaches, data breaches and privacy breaches. This includes notification to a regulator and/or customers, business interruption costs, cyber extortion costs and third party claims. The take-up of [redacted] insurance is emerging as an important component of an insured's risk reduction strategy in the utility sector as the potential repercussions of this threat and the associated disruption to services is becoming more evident with the increased reliance on information technology in the delivery of services.

Aon recommend the class of insurance is included within SA Power Networks' insurance program, at a likely cost in the region of [redacted]

## 1.9 Data

The following data was relied upon in determining historical and forecast insurance premiums:

- Historical insurance premiums provided by Aon's premium summary sheets and reconciled with actual invoices;
- Historical exposure for Property, based on declared asset schedules updated annually by SA Power Networks;
- Forecast Regulated Asset Base ("RAB") numbers provided by SA Power Networks;
- Aon's Insurance Market Update Q1 2014; and
- Benchmarking sourced from Aon's Global Risk Insight Platform ("Aon GRIP").

# 2. Summary of Results

Table 2 below outlines Aon's view of an appropriate insurance premium forecast for SA Power Networks for the upcoming regulatory period.

**Table 2 – Insurance Premium Forecast by Risk Class – 2015-20 ($'000 nominal)**

| Risk Class | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 | Total |
|---|---|---|---|---|---|---|
| [redacted] | | | | | | |

# 3. Analysis by Risk Class

## 3.1 Liability

### 3.1.1 Systematic drivers

Liability insurance provides SA Power Networks with cover for third party personal injury, third party property damage and third party financial loss. Liability risk can largely be split between two levels of severity:

- **Attritional** – [redacted]
- **Catastrophic** – [redacted]

Attritional losses do not really have a material impact on premium changes. These losses are inherently consistent and are already priced into the insurance premium in the primary layer. Catastrophic losses, however, are the real focus of underwriters and are therefore the real drivers behind any changes to premiums.

The key liability risk for SA Power Networks is bushfire liability risk. [redacted]

### 3.1.2 Review of Current Regulatory Period

Base premium costs allocated to SA Power Networks have increased by [redacted] between the 2008/09 policy year and the 2013/14 policy year.

The main reason for these substantial changes is that, whilst claims caused by SA Power Networks were modest [redacted], the industry claims caused by other NSPs caused a shift in market pricing and the market's view of bushfire liability risk for all NSPs in south east Australia.

### 3.1.3 Exposure

[redacted]

### 3.1.4 Premium Rates

**General Overview**

According to insurer statistics, bushfires in Australia are more frequent than any other country in the world. The exposure to catastrophic bushfire losses, measured in terms of loss of life, injuries, property damage and economic loss, is increasing given demographic shifts and urban expansion. Some also suggest that climate change may be a contributing factor.

All major cities in Australia are experiencing rapid growth at the margins which are housing an increasing proportion of their inhabitants. The major underlying reason is economic, as outer suburban housing is much cheaper than in the city centre. It is also driven by lifestyle choices, including a desire to be nearer to the bush. Those seeking lifestyle changes and lower priced property in many cases are part of a massive development boom along much of Australia's coast ("sea-changers") and in some inland towns ("tree-changes").

Despite the ever increasing number of new mitigation measures such as building codes, weather warnings, fire location information, firefighting training, predicting fire behaviour and informing fire safety, once a major bushfire takes hold in weather conditions favourable for rapid fire development and spread they are almost impossible to put out through human attempts at fire control and suppression. The focus becomes limiting the economic impact from property damage and loss of life.

From the available data and information, it is apparent that there is a systemic risk of bushfire in Australia with the frequency of major events closely correlated with weather and climatic conditions. Longer and hotter fire seasons increase the risk of major fires often referred to as 'mega-fires'.

**Market Factors**

The Bushfire Liability market is still volatile after the Black Saturday fires in 2009. Recently the Kilmore East class action against SP Ausnet and other parties involved in the legal action settled for a reported $500M, [redacted]. In response to catastrophic events of this nature, the insurance market will look to re-rate risks, particularly if the event characteristics (e.g. its magnitude) were unexpected. The re-rating of a risk will take time to reach a steady state as the full quantum of the event becomes known. In addition, at present further class action activity is underway or developing relating to bushfires in NSW and Victoria, continuing to ensure that future changes to pricing and market capacity remain likely, with the extent of those changes uncertain.

For Bushfire Liability, global capacity has been slowly declining [redacted]

[redacted]

This declining capacity impacts on the ability to maintain current pricing of Bushfire Liability,

**SA Power Networks' specific factors**

[redacted]

[redacted]

### 3.1.5 Allocation to SAPN

[redacted] three years.

[redacted] expects that the allocation will continue on this basis and has used [redacted] for all future years.

### 3.1.6 Insurance Premium Forecast Calculations

[redacted]

This is based on a number of reasons (as outlined in Section 3.1.4), namely:

- [redacted]
- Loss ratios over the last 10 years;
- [redacted] and
- The [redacted] market for Bushfire Liability insurance.

The table below outlines the calculation of the insurance premium forecast based on these premium changes.

[redacted]

## 3.2 Property

### 3.2.1 Systematic drivers

Property insurance provides SA Power Networks with cover for damage to insured assets. Insured assets largely include substations, and any other non-network assets declared under the policy.

Given the size of the policy deductible ([redacted] insured losses would largely relate to the following:

- **Machinery Breakdown** – typically a major Transformer failure, which has a low frequency and expected severity of less than [redacted].
- **Catastrophic – Single site** – fire / explosion or weather event that severely impacts a major site. Low likelihood.
- **Catastrophic – Multi site** – weather event that creates an aggregated exposure across multiple sites. Unlikely to lead to major damage at any one site. Remote likelihood.

[redacted], SA Power Networks' Property rates are largely driven by market factors, which include:

- General market conditions (insurer competition and market capacity);
- Recent global catastrophes; and
- Recent industry loss experience.

### 3.2.2 Review of Current Regulatory Period

For SA Power Networks, base premium costs have increased by [redacted] between the 2008/09 policy year and the 2013/14 policy year.

The main reason for this increase is that exposure [redacted] has increased by about [redacted] over the five year period. Due to this, there has been a corresponding direct increase in premium.

### 3.2.3 Exposure

[redacted]

In order to estimate growth in declared asset values, SA Power Networks has advised that growth in the regulated asset base (“RAB”) will provide a good approximation. SA Power Networks' RAB forecasts from 2013/14 to 2019/20 are shown below:

| Regulated Asset Base (RAB) | 2013/14 | 2014/15 | 2015/16 | 2016/17 | 2017/18 | 2018/19 | 2019/20 |
|---|---|---|---|---|---|---|---|
| [redacted] | | | | | | | |
| [redacted] | | | | | | | |
| [redacted] | | | | | | | |

[redacted]

[redacted]

### 3.2.4 Premium Rates

Aon's Insurance Market Update, Q1 2014 suggests that market competition is at an all-time high due to a continual increase in capacity in the global marketplace in 2013. This means that market conditions are favourable in general and this is currently the case for SA Power Networks.

As part of a long-term agreement that takes advantage of SA Power Networks' good claims experience and the currently favourable market conditions, [redacted]

[redacted], SA Power Networks' [redacted]) benchmark as one of the lowest in the utilities sector [redacted]

[redacted]

[redacted]

### 3.2.5 Insurance Premium Forecast Calculations

Based on information provided by SA Power Networks and our view of forecast changes to exposure and premium rates (as outlined in the previous sections), Aon consider that a prudent organisation would budget for premium increases reflecting:

- Exposure Growth:
- Premium Rate Growth:

## 3.3 Other Classes

### 3.3.1 Systematic drivers

Other classes include a range of ancillary risk classes as outlined in Appendix [redacted]

Premiums for these classes are typically driven by market conditions and recent claims experience.

Given that losses for these policies are usually low frequency, premiums would usually be negotiated as a 'roll-over' (same premium as prior year) in a claims-free year. However, occasionally market factors may cause an increase or decrease in premiums. On other occasions there may be a shift to the exposure or significant premium increases due to recent claims experience.

### 3.3.2 Review of Current Regulatory Period

There were a number of changes to Other Classes in the current regulatory period. The major fluctuations are outlined below with commentary explaining the changes:

- **Motor Vehicle** – [redacted]
- **Income Protection** – [redacted] rs.
- **Environmental Impairment Liability** [redacted]
- **Guaranteed Service Level** – [redacted]
- **Supplementary Legal Expenses** – [redacted]
- **Employment Practices Liability** – [redacted]
- **Computer** – [redacted]
- **Asbestos Liability** – [redacted]

### 3.3.3 Exposure

Underwriting exposure is typically stagnant for these types of risks. Whilst the underlying exposure (such as revenue, employee numbers, network size) may be slightly growing, it does not typically have a flow-on effect to insurance premiums year on year, but it in the long term it will flow through to the premiums.

[redacted]

### 3.3.4 Premium Rates

Given that losses for these policies are usually low frequency, premiums would usually be negotiated as a 'roll-over' (same premium as prior year) in a claims-free year. However, occasionally market factors may cause an increase or decrease in premiums. On other occasions there may be a shift to the exposure or significant premium increases due to recent claims experience.

Based on this, it is not unreasonable for an organisation to budget for increases in the range of [redacted] and [redacted] for these risk classes.

Historical growth for these classes in aggregate is [redacted] per annum. [redacted]

[redacted]

### 3.3.5 Insurance Premium Forecast Calculations

The table below outlines the calculation of the insurance premium forecast based on the assumptions outlined in the following sections.

[redacted]

# Appendix 1 Insurance Premium Forecast

A1.1
SA Power Networks
Insurance Premium Forecast - Summary

| Financial Year (ending 30 June)<br>Risk Class | 2016 | 2017 | 2018 | 2019 | 2020 | Total |
|---|---|---|---|---|---|---|
| Liability | [redacted] | | | | | |
| Property | | | | | | |
| All Other [redacted]) | | | | | | |
| New Policy [redacted]) | | | | | | |
| **Total (Nominal)** | | | | | | |
| **Total (Real $2014-15)** | | | | | | |

**Notes:**
1. All values are taken from calculations outlined in the remainder of Appendix 1.

A1.2
SA Power Networks
Insurance Premium Forecast - Liability

| Policy Year (ending 30 Sep) | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Change to Exposure | [redacted] | | | | | | | | | | | |
| Change to Premium Rates | | | | | | | | | | | | |
| Premium Basis | | | | | | | | | | | | |
| Program | | | | | | | | | | | | |
| Base Premium | | | | | | | | | | | | |
| Program Limit | | | | | | | | | | | | |
| Program Premium | | | | | | | | | | | | |
| - SA Power Networks Allocation | | | | | | | | | | | | |
| **- SA Power Networks Premium** | | | | | | | | | | | | |
| Statutory Charges | | | | | | | | | | | | |
| GST | | | | | | | | | | | | |
| Stamp Duty and other charges | | | | | | | | | | | | |
| **Total Stat Charges (excl GST)** | | | | | | | | | | | | |
| Total Premium (excl GST) | | | | | | | | | | | | |
| **- SA Power Networks Premium** | | | | | | | | | | | | |

| Financial Year (ending 30 June) | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|
| **- SA Power Networks Premium (Nominal)** | | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |
| **- SA Power Networks Premium (Real $2014-15)** | | [redacted] | [redacted] | [redacted] | [redacted] | [redacted] |

[redacted]

A1.3
SA Power Networks
Insurance Premium Forecast - Property

| Policy Year (ending 30 June) | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Change to Exposure | [redacted] | | | | | | | | | | | |
| Change to Premium Rates | | | | | | | | | | | | |
| Premium Basis | | | | | | | | | | | | |
| Base Premium | | | | | | | | | | | | |
| Declared Values | | | | | | | | | | | | |
| Insurance Rate | | | | | | | | | | | | |
| **SA Power Networks Premium** | | | | | | | | | | | | |
| Statutory Charges | | | | | | | | | | | | |
| GST | | | | | | | | | | | | |
| Stamp Duty | | | | | | | | | | | | |
| **Total Stat Charges (excl GST)** | | | | | | | | | | | | |
| Total Premium (excl GST) | | | | | | | | | | | | |
| **- SA Power Networks Premium** | | | | | | | | | | | | |
| Financial Year (ending 30 June) | | | | | | | | | | | | |
| **- SA Power Networks Premium** | | | | | | | | | | | | |
| **- SA Power Networks Premium (Real $2014-15)** | | | | | | | [redacted] | | | | | |

[redacted]r.

A1.4

SA Power Networks

Insurance Premium Forecast - Other

| Policy Year | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Base Premium | | | | | | | | | | | | |
| Motor | | | | | | | | | | | | |
| Income Protection | | | | | | | | | | | | |
| Broker Fees | | | | | | | | | | | | |
| Insurer Fees | | | | | | | | | | | | |
| [redacted] | | | | | | | | | | | | |
| Environmental Liability | | | | | | | | | | | | |
| XOL WC | | | | | | | | | | | | |
| Crime | | | | | | | | | | | | |
| Marine | | | | | | | | | | | | |
| Statutory Liability | | | | | | | | | | | | |
| Aviation | | | | | | | | | | | | |
| Accident & Health | | | | | | | | | | | | |
| Other | | | | | | | | | | | | |
| [redacted] | | | | | | | | | | | | |
| Supplementary Legal Expenses | | | | | | | | | | | | |
| EPL | | | | | | | | | | | | |
| Computer | | | | | | | | | | | | |
| Asbestos Liability | | | | | | | | | | | | |
| [redacted] | | | | | | | | | | | | |
| Change to Exposure | | | | | | | | | | | | |
| Change to Premium Rates | | | | | | | | | | | | |
| Premium Basis | | | | | | | | | | | | |
| Summary [redacted] | | | | | | | | | | | | |
| All Other [redacted] | | | | | | | | | | | | |
| New Policy [redacted] | | | | | | | | | | | | |
| Base Premium | | | | | | | | | | | | |
| **Base Premium [redacted]** | | | | | | | | | | | | |
| Statutory Charges | | | | | | | | | | | | |
| **Statutory Charges (excl GST)** | | | | | | | | | | | | |
| Total Premium (excl GST) | | | | | | | | | | | | |
| **- SA Power Networks Premium [redacted]** | | | | | | | | | | | | |
| [redacted] | | | | | | | | | | | | |
| Financial Year (ending 30 June) | | | | | | | | | | | | |
| **- SA Power Networks Premium [redacted]** | | | | | | | | | | | | |
| **- SA Power Networks Premium (Real $2014-15)** | | | | | | | | | | | | |

[redacted]

# Appendix 2 About Aon

## Aon at a glance

Aon plc (NYSE:AON) is the leading global provider of risk management, insurance and reinsurance brokerage, and human resources solutions and outsourcing services. Through our more than 66,000 colleagues worldwide, Aon unites to empower results for clients in over 120 countries via innovative and effective risk and people solutions and through industry-leading global resources and technical expertise.

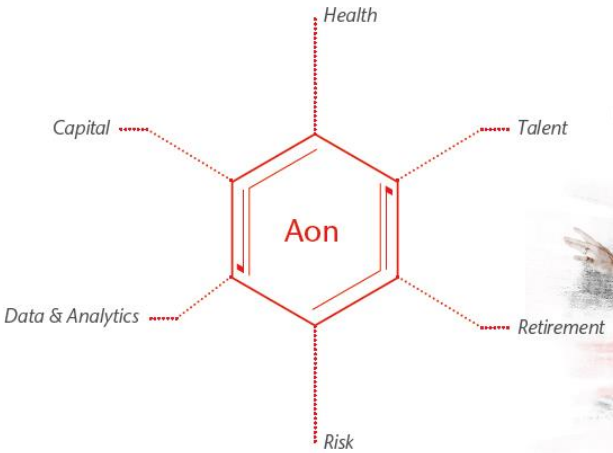
Aon advises companies on their two biggest growth opportunities: managing risk and people. As the leading global adviser in risk and people we see the most data on both topics, and our industry-leading analytical tools allow us to provide clients strategy-defining insights that empower better business results. Better risk management frees up capital for investment in growth; better people management leads to a more productive workforce. At Aon, we are focused on delivering innovative insights on risk and people that empower results for our clients.

A pioneer in risk management and HR consulting, Aon creates innovative solutions for clients, such as the firm's Global Risk Insight Platform (GRIP) and corporate health exchange, both of which have been emulated by others in the industry.

Aon has been the principal partner of Manchester United since 2010. As global businesses with shared values that we live every day, Aon and Manchester United empower results both on and off the pitch. In April 2013, Aon extended its partnership with the club. This was highlighted by the November 2013 announcement of the Aon Training Complex, Manchester United's state-of-the-art training facility.

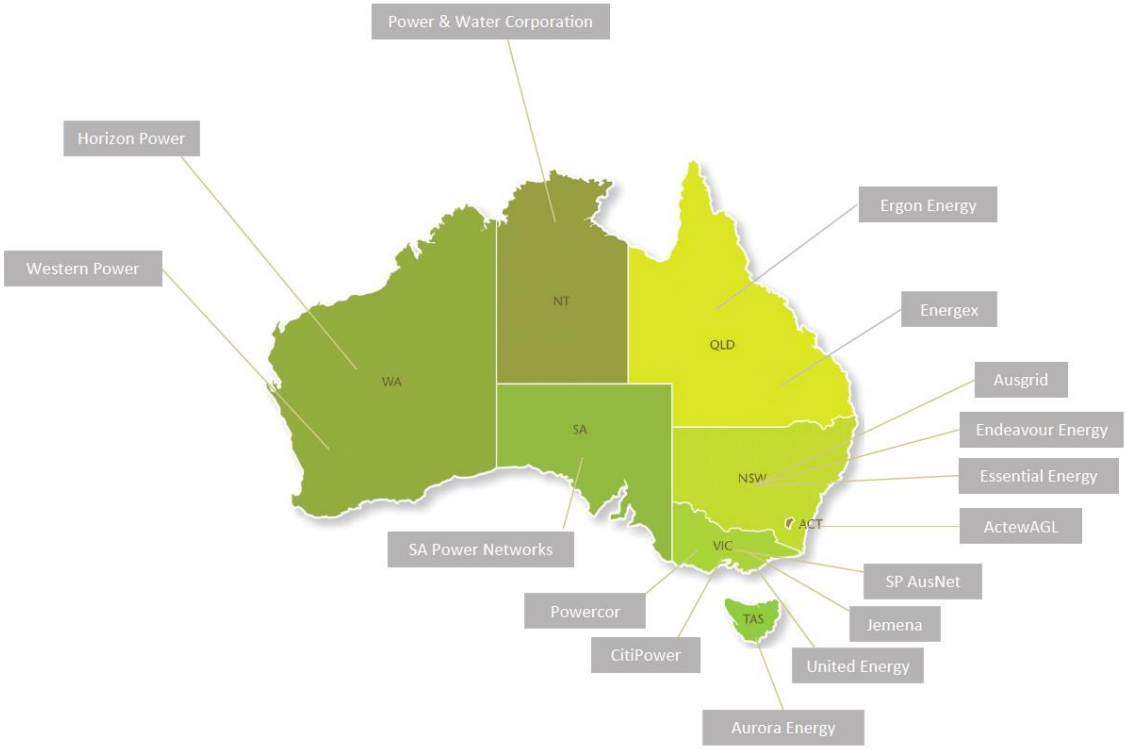
Visit **www.aon.com** for more information on Aon and www.aon.com/manchesterunited to learn about Aon's global partnership and shirt sponsorship with Manchester United. Aon is well placed to provide this service given our experience.

*As the leading firm on the topics of risk and people, Aon provides advice and solutions to clients in six key areas:*

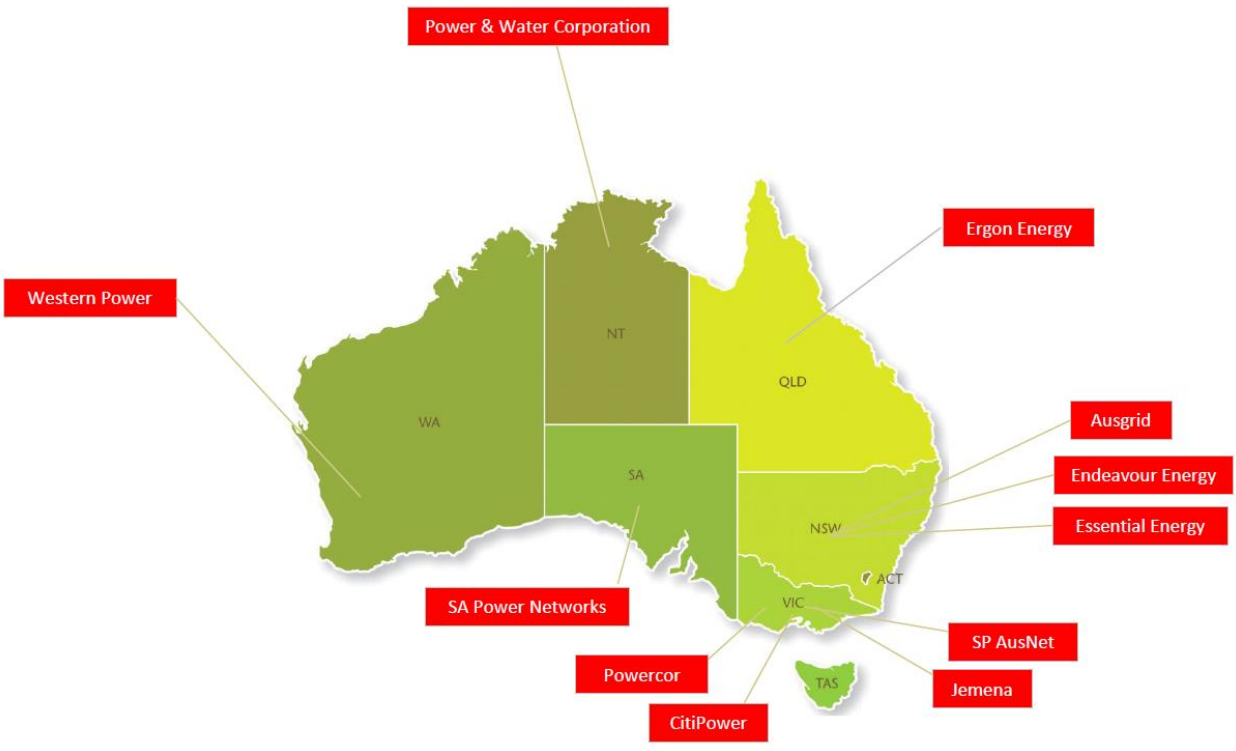



## Electricity distribution experience

### All Australian Electricity Distribution Businesses




### Aon Australian Electricity Distribution Clients



# Contacts

[redacted]

Consultant

Phone [redacted]
Email [redacted]

[redacted]

Principal

Phone [redacted]
[redacted]

[redacted]

Client Manager

Phone [redacted]
Email [redacted]

**Aon**
Level 51, 80 Collins Street
Melbourne VIC 3000
Australia

**aon.com.au**