



Government of **Western Australia**  
Department of **Commerce**  
*Energy Safety*

## **Energy Safety Division Business Plan 2016/17**

December 2015

Approved under Part 2 of the *Energy Safety Act 2006*:

A handwritten signature in blue ink, appearing to read "M Mischin".

Hon Michael Mischin MLC  
MINISTER FOR COMMERCE

Date: 11 January 2016



Government of **Western Australia**  
 Department of **Commerce**  
 Energy**Safety**

## EnergySafety Division Business Plan 2016/17

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## Foreword

This document sets out the Business Plan 2016/17 for the EnergySafety Division (EnergySafety), Department of Commerce.

EnergySafety is Western Australia's technical and safety regulator for the electricity industry and most of the gas industry. Its principal functions are:

- administering electricity and gas technical and safety legislation;
- providing policy and legislative advice to the Minister for Commerce;
- setting and enforcing minimum safety standards for electricity and gas networks;
- enforcing Natural Gas and LP Gas quality standards;
- providing policy and technical advice to the Minister for Commerce and Parliament;
- providing technical advice and support to the Department of Finance's Public Utilities Office, Economic Regulation Authority (ERA) and the Energy Ombudsman;
- setting and enforcing minimum safety standards for consumers' electrical and gas installations;
- licensing electrical contractors, electrical workers and gasfitters;
- investigating and reporting on electrical and gas-related accidents; and
- promoting electricity and gas safety in industry and the community.

The Director of Energy Safety is an independent statutory office, established on 1 January 1995, and is the head of EnergySafety.

EnergySafety became industry funded from 2006/07 under the *Energy Safety Act 2006* and *Energy Safety Levy Act 2006*. The legislation provides for the levy to be subject to review by Parliament. The scheme is operating successfully and is not contentious, and no changes are considered necessary at this time.

The costs of EnergySafety's activities are met by those who benefit from them through the combination of licensing revenue and an industry levy.

As required by the legislation, this Business Plan for 2016/17 sets out:

- a statement of intent;
- the business environment and challenges, including major projects;
- the financial plan;
- details of the proposed 2016/17 energy industry levy; and
- a brief outline in Appendix A of the 2014/15 year outcomes (the ninth complete year of the industry funding scheme), for information.

On approval by the Minister, the Business Plan will form the basis for his determination on the amount to be levied on energy industry participants, and the manner in which it is to be allocated between participants, for the 2016/17 year.

Ken Bowron  
**Director of Energy Safety**

December 2015

## Statement of Intent

This Statement of Intent is part of the Business Plan 2016/17 required by the *Energy Safety Act 2006*. It sets out the requirements for the administration of the energy industry levy. Apart from occasional specific-purpose grants, the levy, with revenue from electrical contractor, electrical worker and gas fitter licence fees, provides EnergySafety with all its operating and capital funding.

### 1 Departmental Objectives

The Department of Commerce (Commerce), of which EnergySafety is a Division, has the following objectives:

#### **Vision**

*A business environment that is productive, innovative, fair and safe.*

#### **Mission**

*To create a contemporary, diversified economy that provides for the growth, safety and protection of the community.*

#### **Values**

- *Integrity and professionalism;*
- *Making a difference;*
- *Value our people and their contribution; and*
- *Innovation*

#### **Strategic Directions**

*The five Directions featured in Commerce's Corporate Plan 2013 – 2016 are:*

- 1. Influencing and shaping our commercial environment*
- 2. Empowering business and our community*
- 3. Developing a world class regulatory environment*
- 4. Enforcing the law*
- 5. Strengthening organisational capacity*

EnergySafety, as part of Commerce, both contributes to and embraces these strategic corporate directions.

## 2 The Role of EnergySafety

The Director of Energy Safety (“Director”) is a statutory office established under Section 5 of the *Energy Coordination Act 1994*. The Director is an independent regulator subject only to written direction by the responsible Minister, who is required under the Act to table in Parliament any direction given to the Director.

EnergySafety performs two essential safety functions: it licences all gas and electricity operatives to ensure that minimum training and safety levels are met and maintained; and ensures that all gas and electrical work is performed to adequate safety levels, with appropriate inspection and compliance enforcement.

In performing these functions, EnergySafety seeks to ensure:

- the safety of people (the public, energy workers and consumers) and property affected by electricity and gas utility infrastructure;
- that consumers have safe electrical and gas installations at their premises;
- that electrical and gas appliances and equipment (for domestic, commercial and industrial purposes) purchased or hired are safe to use;
- that residential and business consumers receive gas supplies that are metered accurately and meet minimum standards of quality so appliances function safely;
- the safety of persons working on electrical and gas installations; and
- the safety of all persons using electricity and gas.

EnergySafety develops policies concerning energy industry technical and safety issues, in some cases through membership of national technical standards and regulatory coordination forums. EnergySafety also provides advice to the responsible Minister, including proposals for improved technical and safety legislation.

Licensing is closely associated with consumer and worker safety. EnergySafety issues licences for electrical contractors, electrical workers and gasfitters who meet defined competency requirements.

The statutory Electrical Licensing Board (which includes industry members appointed by the Minister) oversees licensing of all electrical workers and contractors and makes recommendations on disciplinary matters. The internal Gas Licensing Committee, operating under the delegated authority of the Director, deals with gas licensing matters and makes recommendations on disciplinary matters.

### **3 Administered Legislation**

The Director of Energy Safety and his staff administer the following legislation:

- *Energy Safety Act 2006*
- *Energy Safety Regulations 2006*
- *Energy Safety Levy Act 2006*
  
- *Energy Coordination Act 1994* (other than Parts 1A, 2A, 2B, 2C and 2D)
- *Energy Coordination (General) Regulations 1995*
  
- *Electricity Act 1945*
- *Electricity (Licensing) Regulations 1991*
- *Electricity Regulations 1947*
- *Electricity (Network Safety) Regulations 2015*
  
- *Gas Standards Act 1972*
- *Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999*
- *Gas Standards (Gas Supply and System Safety) Regulations 2000*
- *Gas Standards (Infringement Notices) Regulations 2007*

EnergySafety also assists the Department of Finance's Public Utilities Office (PUO), the Economic Regulation Authority (ERA) and the Energy Ombudsman's office with technical advice as required.

### **4 Specific Activities**

The legislation provides for EnergySafety to:

- Ensure the safety of consumers' electrical installations and appliances, by:
  - licensing electrical workers and electrical contractors (through the Electrical Licensing Board);
  - enforcing prescribed technical standards for electrical work;
  - requiring electricity network operators to conduct consumer installation safety inspections in accordance with prescribed requirements and auditing this work to ensure compliance;
  - conducting safety inspections of consumers' electrical installations that are not connected to utility networks; and
  - inspecting electrical appliances and equipment offered for sale, to check compliance with prescribed safety requirements.
- Ensure the safety of consumers' gas installations and appliances (including industrial gas appliances), by:
  - licensing gas fitters;
  - enforcing prescribed technical standards for gasfitting work;
  - requiring gas network operators, gas pipeline licensees and LP Gas cylinder distributors to conduct consumer installation safety inspections in accordance with prescribed requirements and auditing this work to ensure compliance;
  - overseeing the work of external inspectors approving industrial gas appliances;
  - conducting safety inspections of consumers' gas installations that are not connected to utility networks or are not supplied with LP Gas directly from a gas distributor; and

- inspecting gas appliances and equipment offered for sale, to check compliance with prescribed safety and efficiency requirements.
- Ensure the safety and acceptable performance of electricity transmission and distribution infrastructure by:
  - inspecting electricity network operators’ design standards and constructed networks for compliance with prescribed safety requirements;
  - monitoring the safe work practices of network operators’ employees and contractors, including attendance to incidents; and
  - investigating failures in service of network operators’ assets, accidents causing injury or death and fires ignited by network operator assets.
- Ensure the safety and acceptable performance of gas distribution infrastructure by:
  - auditing gas network operators’ design standards and constructed networks for compliance with prescribed safety requirements;
  - monitoring the safe work practices of network operators’ employees and contractors, including attendance to incidents;
  - monitoring the quality of gas provided to consumers generally, for compliance with prescribed requirements;
  - investigating consumers’ complaints about gas supply reliability and quality; and
  - auditing network operators’ compliance with prescribed meter management requirements, to ensure acceptable meter accuracy.
- Appoint and monitor the performance of all electricity and gas inspectors in the State (including those of network operators).
- Ensure the safety of electrical and gas workers by enforcing prescribed safety requirements and providing guidance on safe work practices.
- Issue exemptions or variations to certain regulatory requirements (electrical and gas).
- Investigate electrical and gas safety incidents.
- Enforce statutory requirements through advice, warnings, infringement notices, and prosecutions and, in the case of licence holders, also through disciplinary action.
- Respond to consumer complaints involving electrical and gas technical and safety matters.

Additionally, *EnergySafety*:

- provides energy-related policy advice and support to the Minister for Commerce, Government and Director General, Department of Commerce; and
- promotes electricity and gas safety to the public, businesses and tradespersons in the electricity and gas industries.

## **5 Information and Advice to the Minister**

EnergySafety provides advice and support to the Minister for Commerce.

Interaction between the Minister's office and EnergySafety takes place through the Director of Energy Safety and the Director General, Department of Commerce. However, EnergySafety's Director Gas, Director Policy & Electrical Engineering, Director Electricity Compliance and Director Licensing and Regulatory Services respond directly when circumstances require.

Advice and information provided to the Minister by EnergySafety includes the following:

- proposals for major policy projects, such as new legislation or amendments;
- reports on the status and management of major policy projects;
- proposed regulatory actions that may affect the public or businesses;
- information releases dealing with subjects relevant to this Ministerial portfolio;
- reports on the status of major investigations or audits;
- responses to enquiries (oral or written), if requested to do so by the Minister or his staff, which may involve correspondence and/or meetings;
- resource requirements and work programs; and
- nationally significant energy issues (e.g. major regulatory reform projects).

## **Business Environment and Challenges**

### **6 Western Australia's Energy Industry Environment**

During the next five years, existing shortcomings with Western Power's electricity supply network will continue to require continuing attention as will, to a lesser extent, the networks of Horizon Power. The younger age and generally better state of the gas distribution networks operated by ATCO Gas and others mean they require comparatively less regulatory attention from safety and performance perspectives. However, older gas networks such as Albany need an increasing focus.

It is expected that the current regulatory initiatives will largely continue for electrical contracting and gasfitting.

### **7 Resources, Structure and Functions**

EnergySafety is located on the corner of Sevenoaks Street and Grose Avenue, Cannington and is headed by the Executive Director. The incumbent also holds the statutory office of Director of Energy Safety.

#### **7.1 Staff Resources**

In 2006/07 EnergySafety's establishment level was 56 FTEs.

In 2011 the Government approved increasing the FTE level from 56 to 64 by 2014/15, with all the new positions being required in the rapidly expanding electricity sector. Budget savings initiatives implemented through 2014/15 has reduced the numbers by one FTE. The approved FTE level for 2016/17 is 63.

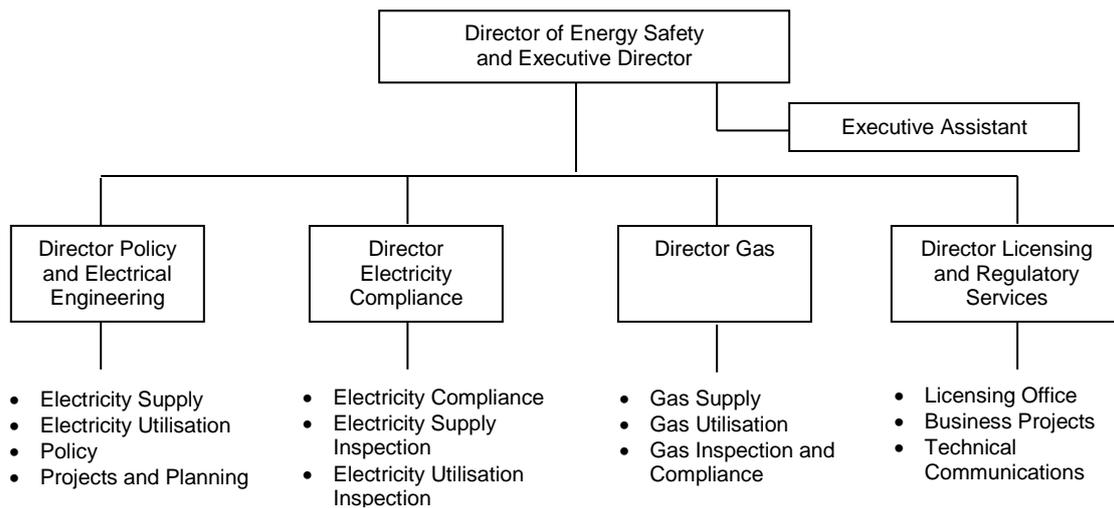
EnergySafety has historically encountered considerable difficulty attracting and retaining the highly skilled and experienced technical staff it requires to perform its statutory functions. The remuneration it can offer has not been competitive compared with equivalent roles in the private sector and energy industry.

The Attraction and Retention Incentive (ARI) scheme, discussed in Section 10.3.1, is expected to continue to help in attracting suitable candidates for these vacancies.

The ARI has been an important mechanism in ensuring the division has been able to meet the demands of the industry and community. The current arrangement has been approved until 30 June 2016 with a further review to be undertaken of the broader employment market and its comparison and relevance to the target technical and engineering employment requirements of EnergySafety.

EnergySafety's financial forecasts have been set assuming the current level of ARI into the forward estimates period.

## 7.2 Organisational Structure



This structure has enabled EnergySafety to respond effectively to the rapid growth in the electricity sector over the past decade and allows for the future development and maintenance of critical technical expertise relevant to each industry sector.

The rate of defects found in new and modified electrical installations is improving but continues to be too high (see page 14). There is also a backlog in installation inspections.

The workload across all directorates has increased significantly the past ten years, fuelled by the growing economy, resources sector boom and high population growth in WA.

Although sufficient FTE levels are approved, difficulties with recruitment to critical inspector positions has meant that EnergySafety's resources have not been optimal and are not able to support the increased load or undertake the necessary safety functions. Assuming recruitment to the required levels is successful, it is expected that EnergySafety will be able to manage the growing workloads into the future.

In 2007 (the year after industry funding was implemented), there were 33,133 electrical worker's licences. In 2015, there were 52,796, an increase of 59%. Similarly, in 2007, there were 6,734 gasfitting permits and authorisations. In 2015, there were 9,068, an increase of 35%. Increased licensing activity is accompanied by a commensurate increase in inspection and compliance work.

In 2014/15 a total of 1,711 investigations were opened and 363 of these were outstanding at 30 June 2015.

In 2014/15, 35 prosecutions were undertaken. 5 potential prosecutions lapsed as they exceeded the two-year statutory limitation timeframe. Increased FTEs and proposed changes to legislation, incorporating provisions to change statutory timeframes, should further improve the situation so that fewer prosecutions lapse.

As at 30 June 2015, the approved FTE was 63, but actual FTEs employed were 54. EnergySafety continues to actively recruit in an endeavour to employ adequate staff numbers to perform the required functions.

### **7.3 Policy and Electrical Engineering Directorate**

This Directorate is headed by the Director Policy and Electrical Engineering and is responsible for:

- all EnergySafety policy coordination, including ministerial advice, new legislation and regulatory reform proposals;
- all electricity-related technical and safety policy work, including ministerial advice, new legislation, regulatory reform proposals, technical standards development, industry liaison and assessment of requests for variations to regulatory requirements;
- coordinating major electrical projects and planning initiatives;
- guiding and approving electricity supplier Inspection System Plans, which set out electricity consumer installation inspection practices and commitments, and conducting audits to ensure compliance; and
- assisting the Director with appeals against network operator inspectors' rulings.

There are two engineering branches:

- ❖ Electricity Supply Branch, comprising two Principal Engineers; and
- ❖ Electricity Utilisation Branch, headed by a Principal Engineer.

Each deals with policy work, including ministerial advice, new legislation, regulatory reform proposals, technical standards development, industry liaison and requests for variations to regulatory requirements. They also provide specialist direction and assistance to the Electricity Compliance Directorate, when the latter is carrying out complex investigations (such as those dealing with electricity industry design failures, major bushfires and industry work practices) and corporate compliance audits of electricity network operators and licensed contractors.

### **7.4 Electricity Compliance Directorate**

The Directorate is headed by the Director Electricity Compliance and is responsible for:

- Ministerial advice, regulatory reform proposals, industry liaison and assessment of requests for variations to regulatory requirements; and
- all electrical operational activities.

The Directorate has three Branches:

- ❖ Electricity Supply Inspection;
- ❖ Electricity Utilisation Inspection; and
- ❖ Electricity Compliance.

These Branches deal with the following key activities:

- conducting compliance investigations and inspections of electricity suppliers concerning network safety;
- inspecting electricity consumers' installations in remote locations (not serviced by networks);
- conducting inspections of electrical equipment retailers for compliance with safety requirements;
- conducting audits of network operators' inspection systems to ensure compliance with approved inspection system plans;
- recommending to the Director of Energy Safety appointment of all electrical inspectors in the State, monitoring their performance, maintaining codes of conduct, monitoring compliance;

- carrying out investigations into breaches, serious accidents (fatalities, injury and damage) and recommending safety promotion, warnings, prosecutions or disciplinary actions;
- advising consumers and electrical businesses and tradespersons about energy safety and compliance matters;
- technical and investigative support to the Electrical Licensing Board and the Licensing Office;
- monitoring safe work practices used in industry; and
- participating in industry safety promotion campaigns.

The Electricity Compliance Directorate is based at the Cannington Office, but also has senior electrical inspector positions at Geraldton and Bunbury. The North West, far North and Goldfields are covered by senior electrical inspectors based in the Perth office, who conduct regular programmed inspections in these areas. The branch operates on a 24-hour/7-day basis to respond to electrical incidents.

## **7.5 Gas Directorate**

This Directorate is headed by the Director Gas, with three Branches, and is responsible for:

- all gas-related technical and safety policy work, including ministerial advice, new legislation, regulatory reform proposals, technical standards development, industry liaison and assessment of requests for variations to regulatory requirements; and
- all gas related operational work.

The following two Branches:

- ❖ Gas Supply Branch, headed by a Principal Engineer; and
- ❖ Gas Utilisation Branch, also headed by a Principal Engineer.

Each deals with gas industry policy work, including ministerial advice, new legislation, national policy issues, regulatory reform proposals, and requests for variations to regulatory requirements. They also provide specialist direction and assistance to the Gas Inspection Branch, when the latter is carrying out complex investigations and corporate compliance audits of gas network operators (e.g. ATCO Gas Australia) and licensed gasfitting contractors, as well as enforcement activities.

The Directorate's Gas Inspection Branch, headed by the Chief Gas Inspector is responsible for the following key activities:

- conducting corporate compliance audits of gas suppliers concerning network safety and quality (composition) of natural gas and LP Gas supplied;
- guiding and approving gas supplier Inspection Plans, which set out consumer installation inspection practices and commitments, and conducting audits to ensure compliance;
- inspecting gas consumers' installations in remote locations (not serviced by networks), with focus on industrial installations such as mine sites with industrial gas appliances;
- conducting compliance audits of gas appliance retailers, and gas appliance re-conditioners, for compliance with safety requirements;
- recommending to the Director of Energy Safety the appointments of all gas inspectors in the State, maintaining codes of conduct, monitoring compliance, especially in relation to the approval of industrial gas appliances;
- carrying out investigations into serious accidents (injury and damage) and incidents, and recommending safety promotion, warnings, prosecutions and disciplinary actions;
- advising consumers and gas businesses and tradespersons about energy safety and compliance matters;
- technical and investigative support to the Gas Licensing Committee and the Licensing Office;

- monitoring safe work practices used in industry;
- participating in industry safety promotion campaigns (e.g. regional presentations); and
- assisting the Director with appeals against external inspector's rulings and requests for variations from prescribed requirements.

The Gas Inspection Branch is based at the Cannington Office. Support is provided from senior gas inspectors at country locations, where practicable. The branch operates on a 24-hour/7-day basis to respond to gas incidents.

## **7.6 Licensing and Regulatory Services Directorate**

This Directorate is headed by the Director Licensing and Regulatory Services and is responsible for the operation of the Licensing Office, the development and maintenance of electrical and gas licensing administration, support to the statutory Electrical Licensing Board and the Gas Licensing Committee, EnergySafety's administrative and office systems, the provision of a wide range of business planning, business performance measurement, financial planning and communication with industry.

The Directorate has three Branches, as follows:

- ❖ Licensing Office;
- ❖ Business Projects; and
- ❖ Technical Communications.

These Branches deal with:

- developing efficiency and quality improvements in licensing administration to service electrical contractors, electricians, restricted electrical workers and the various types of gas fitters;
- administering the Licensing Office, which deals with all electrical and gas licensing enquiries, applications, renewals, and manages the licence holder databases and related applications;
- supporting the Electrical Licensing Board in the discharge of its statutory functions (including provision of its Executive Officer);
- supporting the Gas Licensing Committee in its discharge of the statutory functions delegated by the Director of Energy Safety (the Director Licensing and Regulatory Services is chairman of the Gas Licensing Committee);
- managing formal disciplinary proceedings against electrical licensees for the Electrical Licensing Board, and gasfitting licensees for the Director of Energy Safety. Serious proceedings are forwarded to the State Administrative Tribunal;
- administration of the Division's industry levy scheme, including data collection and modelling, licence revenue forecasting, expenditure budget development;
- internal audit, expenditure tracking and projection, performance indicator development and progress monitoring;
- overseeing the development of the annual Business Plan and maintenance of the Division's Operational Plan;
- overseeing and coordinating office services, including records management, FOI, IT services, building services, fleet management; finance and administration services (as provided by Corporate Services Division);
- statistical analysis and reporting in respect of electricity and gas related incidents, and EnergySafety's key performance indicators; and
- industry technical (regulatory) communication, annual reporting and safety promotion.

## 8 Performance Indicators

### 8.1 Regulatory Work Indicators

The following performance indicators provide an overview of the type and volume of EnergySafety's regulatory work, as well as the influence of this work on safety outcomes.

<b>8.1.1 Gas</b>	<b>14/15 Target</b>	<b>14/15 Actual</b>	<b>15/16 Target</b>
<b>Measures</b>			
Gas related deaths	0	1	0
Gas related accidents <sup>1</sup> (including fatalities)	10	13	10
Gas installations inspected and found non-complying (includes matters not directly affecting safety)	7%	10.22%	7%
Number of EnergySafety audits of gas network operators' Inspection Plans <sup>2</sup>	2	5	2
Investigations under Acts and Regulations	500	1,033	500
Number of Type A and type B gas appliance variations/exemptions granted	90 <sup>∞</sup>	81	80 <sup>∞</sup>
Presentations to Industry or other Groups	50	58	50

<sup>∞</sup> Target based on current edition of AS 3814-2009 and known future gas turbine installations in power stations

<b>8.1.2 Electricity</b>	<b>14/15 Target</b>	<b>14/15 Actual</b>	<b>15/16 Target*</b>
<b>Measures</b>			
Electricity related deaths	0**	2	0**
Electricity related accidents <sup>1</sup> (including fatalities)	12	17	12
Electrical installations inspected and found non-complying (includes matters not directly affecting safety)	14%	12%	10%
Number of EnergySafety audits of electricity network operators' Inspection Plans <sup>2</sup>	2	2	2
Investigations under Acts and Regulations	650	678	650
Seminar, Education Program and Training (Licensees, Network Operators and Public)	100	166	100

\* Trend analysis is used to set the targets

\*\* EnergySafety aspires to a target of zero fatalities but has no direct control over accidents and fatalities. It strives through education, policies and enforcement to prevent any electrocutions.

### 8.2 Key Performance Information

EnergySafety is a Service (Service 3) of the Department of Commerce. EnergySafety's outcomes are linked to the Government's goal of **Results-Based Service Delivery: Greater focus on achieving results in key service delivery areas for the benefit of all Western Australians.**

<sup>1</sup> Accidents are defined as serious safety incidents where a person has received some type of medical treatment (other than just precautionary assessment tests) from a health professional, in a hospital or similar.

<sup>2</sup> Inspection Plans of energy distributors have a life cycle of several years and hence compliance audits are timed to fit with that cycle.

### 8.2.1 Outcomes and Key Effectiveness Indicators

The desired Outcome of EnergySafety is a *Community in which the use of electricity and gas is regulated and safe*.

The Indicators are published in the Department's Annual Report and the Government's Budget Papers each year. The Indicators used by EnergySafety to measure its effectiveness in achieving the desired outcome are:

	13/14 Actual	14/15 Budget	14/15 Estimated Actual	15/16 Target	Note
<b>Key Effectiveness Indicators</b>					
The number of electricity-related serious injuries and fatalities per million population	8	N/A	5	0	1
The number of gas-related serious injuries and fatalities per million population	11	N/A	4	0	1

1 The budget targets are set for these indicators at 0 as the desired outcome to be achieved is to have no serious injuries and fatalities.

### 8.2.2 Key Efficiency Indicators

	13/14 Actual	14/15 Budget	14/15 Estimated Actual	15/16 Target	Note
<b>Key Efficiency Indicators</b>					
Average cost of Regulatory Services	\$3,419	\$4,507	\$3,413	\$4,630	2
Average Cost of Provision of Licensing Services	\$54.70	\$50.45	\$59.52	\$61.21	3

2 The average cost of regulatory services is expected to increase from 2014/15 to 2015/16, due to a decrease in the volume of regulatory service activities expected to be undertaken.

The average cost can be significantly affected by the need to investigate serious accidents involving engagement of specialist services or requiring an abnormal commitment of inspectors' time.

3 The average cost of provision of licensing services is expected to increase from 2014/15 to 2015/16 due to a forecast decrease in the number of licences issued as a consequence of the cyclical nature of licensing renewals.

## 9 Electrical and Gas Safety Outcomes

The electrical and gas safety outcomes for Western Australia (WA) have been summarised below, based on incidents reported by industry and the general public. The reported incidents are recorded in EnergySafety's inspection systems and the data presented in this Plan reflects the information available as of 1 July 2015.

Statistical analyses of electricity and gas safety data indicates improving long-term trends for fatal incidents. It has been demonstrated that lack of safety awareness leads to higher numbers of accidents. Broad media safety advertising campaigns increase awareness and where these have been conducted by EnergySafety it has generally correlated with improved safety outcomes.

Projects focussing on raising awareness of electrical and gas safety would benefit safety outcomes in Western Australia.

### 9.1 Electrical Safety

The trend for electrical fatalities continues to decline over the ten year period.

In October 2009, it was made mandatory that properties being sold or leased in WA were fitted with at least two RCDs. The installation of RCDs in all new homes, additions/alterations and upon sale or renting has resulted in a reduction in the number of fatalities.

Additionally, safety awareness campaigns may have contributed to the declining fatality rate.

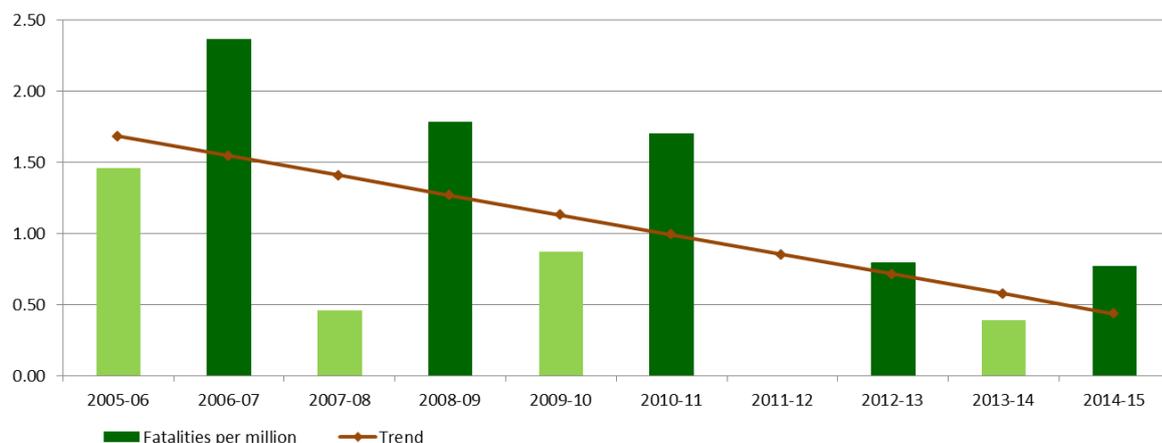
#### Electrical Fatalities

During 2014/15, there were 2 fatalities reported in Western Australia where electricity was found to be the cause, compared to one in 2013/14. Two men died while examining a high voltage fuse/switch which exploded at the Morley Galleria Shopping Centre.

The trend for fatalities however, continues to decrease steadily over the reported period.

Chart A shows electrical fatalities per million population over the past ten years.

CHART A: WA ELECTRICAL FATALITIES PER MILLION POPULATION (2005-06 TO 2014-15)



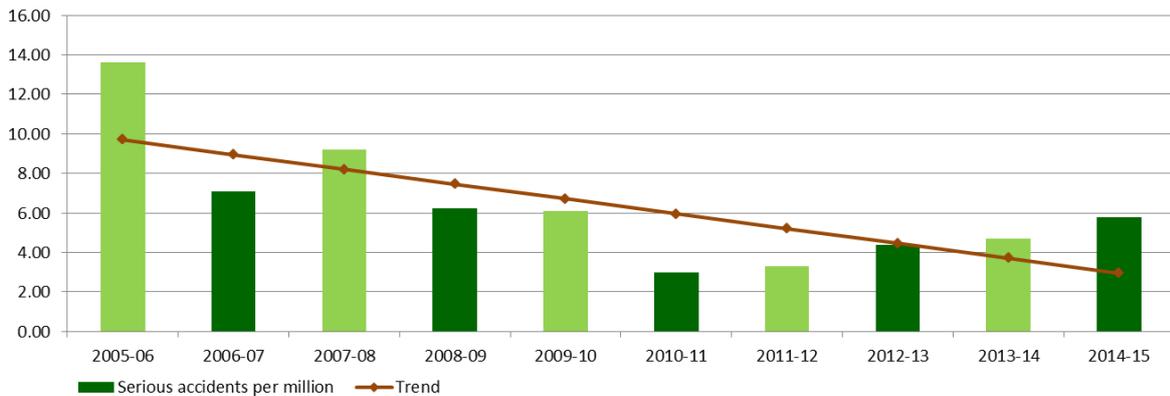
*Note: Light green indicates that a safety campaign was conducted in the corresponding financial year. A safety awareness campaign was conducted in 2011/12 with no fatalities reported for that year.*

Chart A demonstrates a general correlation between media awareness campaigns and electrical safety. A corresponding reduction occurred in the number of electrical fatalities in years following EnergySafety conducting a safety awareness campaign. This is not always reflected in Charts B and C below. The incident at Morley Galleria has highlighted the need for safe management of high voltage installations.

**Serious Electrical Accidents – Non fatal**

WA’s serious non-fatal electrical accidents per million decreased over the past ten years (Chart B). Serious non-fatal accidents are those where victims require the assistance of health professionals but do not include accidents resulting in persons receiving a precautionary electro-cardiograph (ECG) assessment where treatment is not required.

CHART B: WA SERIOUS ELECTRICAL ACCIDENTS (NON-FATAL) PER MILLION POPULATION (2005-06 TO 2014-15)



Note: Light green indicates that a safety campaign was conducted in the year.

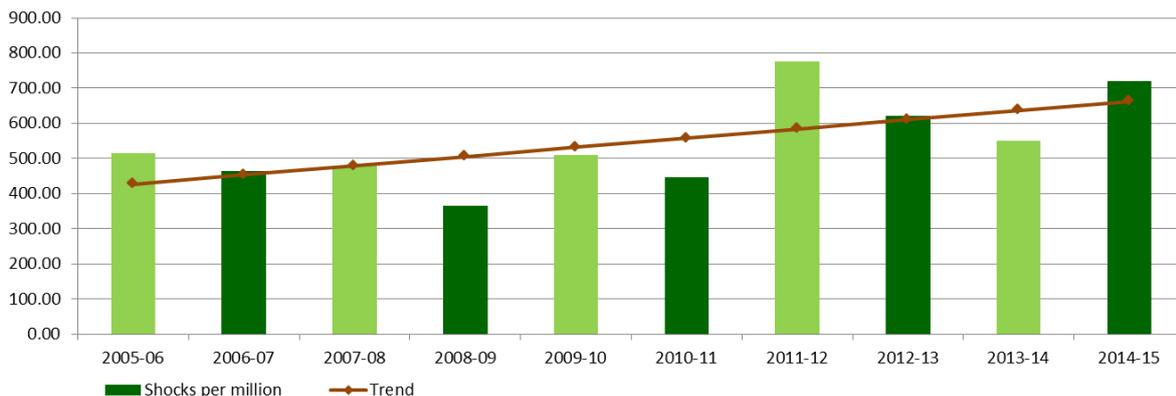
During 2014/15 there were 15 non-fatal accidents compared with 12 in 2013/14. Overall the rate of accidents has been decreasing over the past ten years.

**Electric Shocks**

A reported shock incident can often identify potential safety hazards which need to be addressed and it has been a useful indicator for EnergySafety to recognise trends. Generally, an electric shock that does not cause injury or harm may be experienced due to an error by a person (e.g. contacting live parts), faulty equipment in the home or workplace or due to a fault or deficiency with the electricity supply network.

Chart C shows numbers of electrical shocks per million population over the past ten years.

CHART C: WA ELECTRICAL SHOCKS PER MILLION POPULATION (2005-06 TO 2014-15)



Note: Light green indicates that a safety campaign was conducted in the year.

During 2014/15 there were 1,876 electrical shocks reported compared with 1,413 in 2013/14, which represents a 33% increase compared to the previous year.

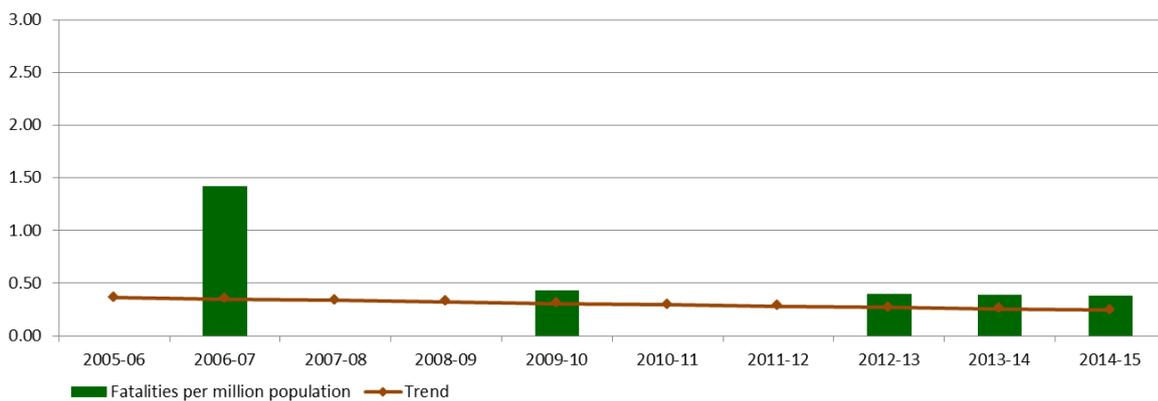
The upward trend in the numbers of reported shocks would indicate a greater general public and industry awareness, through publications and advertisements, of the fundamental dangers of minor electric shocks and the importance of reporting them.

## 9.2 Gas Safety

There was one gas-related fatality reported in 2014/15, compared to one fatality in 2013/14. It was reported to EnergySafety that a fatality had occurred in a caravan fire where the person had been trapped inside. The police found a gas cylinder inside the caravan that had a loose connection and was partially on. The cause of this fatal incident is still undetermined.

Despite fatalities in WA during 2009/10, 2012/13, 2013/14 and 2014/15, the long-term trend line has been moving slightly downward since 2004/05 (Chart D).

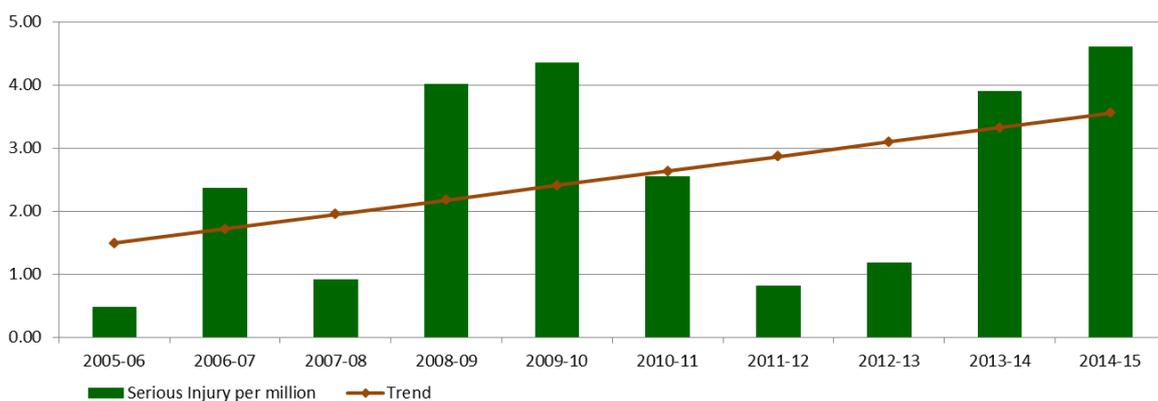
CHART D: WA GAS INCIDENTS RESULTING IN FATALITY PER MILLION POPULATION (2005-06 TO 2014-15)



Gas incidents by their nature can harm several people in a single incident. The figures for gas-related fatalities have shown a positive outcome. However, serious injuries have increased over the reporting period. An analysis of the incidents indicates that the most common cause of gas-related serious injury is unskilled interference. Increasing awareness about the dangers of gas and using it safely should cause a decrease in the current trend.

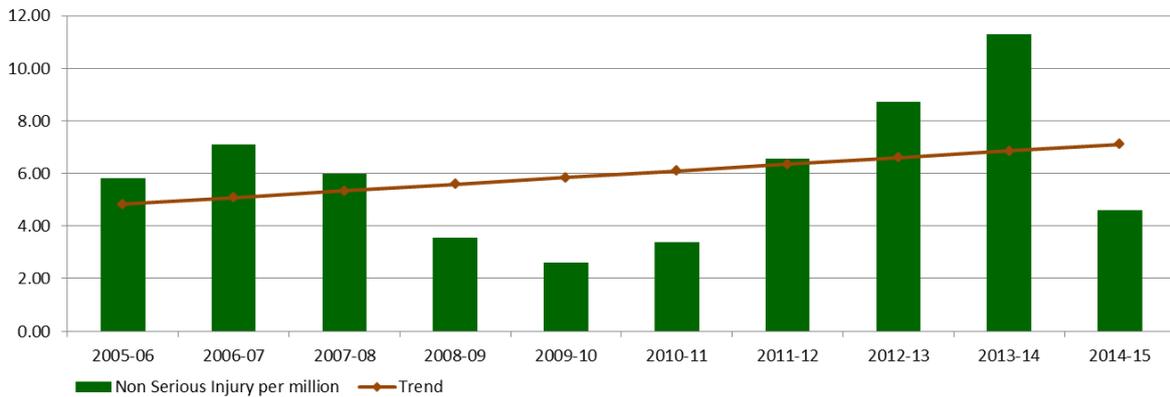
During the ten year period the trend for the number of serious gas injuries has been rising (Chart E). 2005/06 had the lowest number of recorded serious injury incidents and 2014/15 the highest.

CHART E: WA GAS INCIDENTS RESULTING IN SERIOUS INJURY PER MILLION POPULATION (2005-06 TO 2014-15)



Incidents that do not result in a fatality and/or do not require the victim to be hospitalised have been categorised as those resulting in ‘non-serious injury’. The trend shows a gradual increase during the ten year period (Chart F).

CHART F: WA GAS INCIDENTS RESULTING IN NON SERIOUS INJURY PER MILLION POPULATION (2005-06 TO 2014-15)



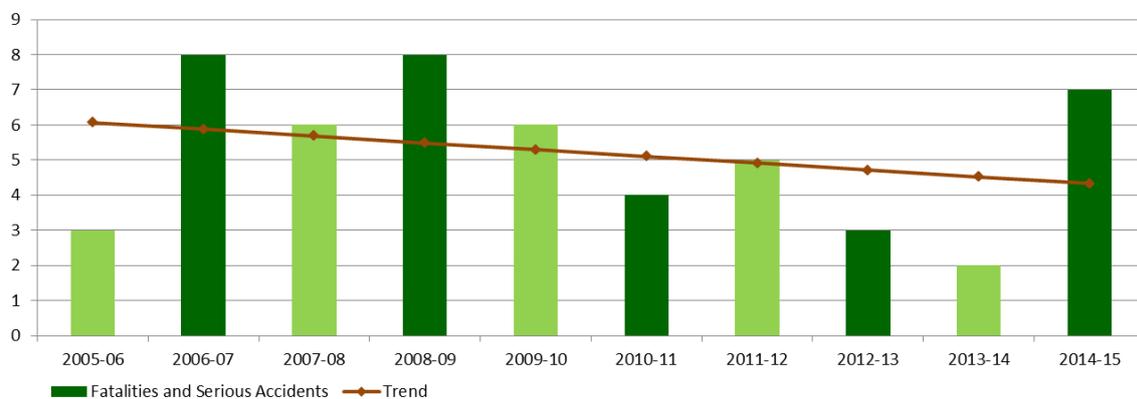
### 9.3 Electrical and Gas Worker Safety

Electrical workers are at greater risk of electrocution than members of the general public or workers in other occupations.

Despite their knowledge of working with electricity, most of the incidents involving electricians result from performing tasks on live equipment, which is contrary to EnergySafety’s published Code of Practice.

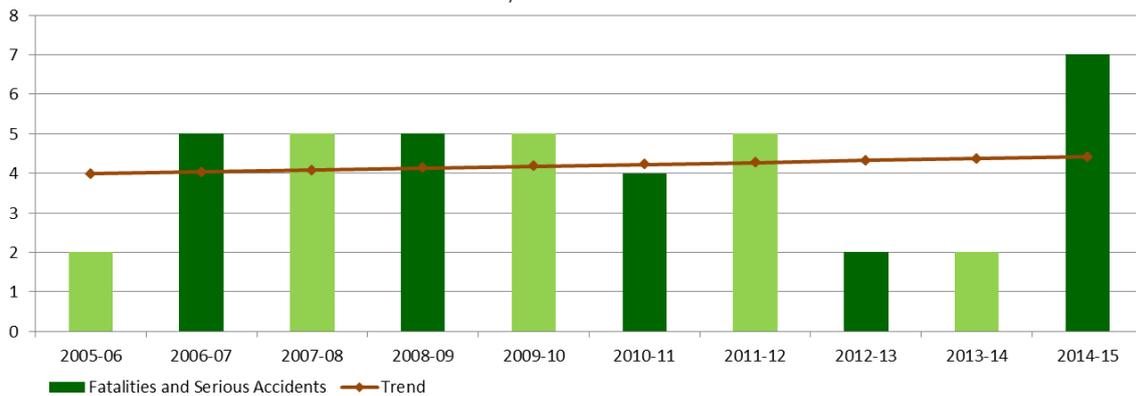
The trend for workplace fatalities and serious accidents (Chart G) is decreasing but the trend for fatalities and serious accidents resulting from ‘live’ work (Chart H) has shown a slight increase. The Morley Galleria Shopping Centre explosion during 2014-15 has influenced the statistics. EnergySafety issued an Order and imposed new safety precautions for the type of high voltage (HV) switches involved in the incident.

CHART G: FATALITIES AND SERIOUS ACCIDENTS INVOLVING ELECTRICAL WORKERS IN WA (2005-06 TO 2014-15)



Note: Light green indicates that a safety campaign was conducted in the year.

CHART H: FATALITIES AND SERIOUS ACCIDENTS RESULTING FROM 'LIVE WORK' QUALIFIED ELECTRICIANS IN WA (2005-06 TO 2014-15)



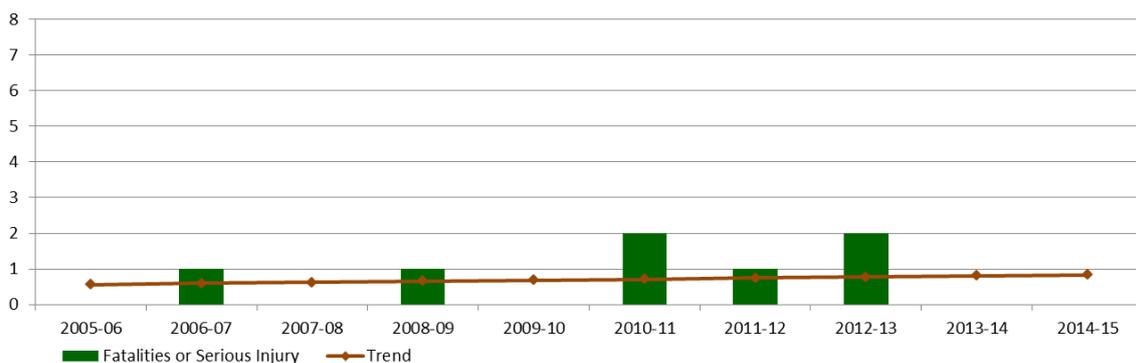
Note: Light green indicates that a safety campaign was conducted in the year.

During the ten year period from 2005/06, there have been no gas-related fatalities involving gas workers.

The results shown in Chart I below relate only to gas incidents that caused serious injury and involved hospitalisation. There were no such injuries reported in 2014/15. Serious injuries involving gas workers are lower compared with electricians.

The trend has remained stable over the reporting period. In general, the workplace practices and procedures for gas workers have been rigorous and effective in ensuring safety of workers.

CHART I: WA GAS INCIDENTS RESULTING IN FATALITY OR SERIOUS INJURY INVOLVING GAS WORKERS (2005-06 TO 2014-15)



### 9.4 Initiatives to Improve Safety Outcomes

Human error on the part of the person affected, rather than incorrect installation of electrical or gas equipment causes many safety incidents. Such errors include:

- assuming something was disconnected when in fact it was live; or
- making unintended contact with live parts when using a tool; or
- failing to clear an area of gas before attempting to relight a gas appliance.

The frequency of such incidents can be reduced by improving technology, safety devices and compliance with prescribed installation and work practice standards.

#### **9.4.1 Installation Compliance Inspections**

EnergySafety oversees and manages an electrical and gas consumer installation safety inspection regime. This regime requires the electricity and gas network operators across WA, LP Gas suppliers and pipeline licensees to inspect the work of electricians and gas fitters at consumers' electrical and gas installations of all types (commercial, institutional, industrial and residential). This is done either on an individual basis or, if the network operator or LP Gas supplier has an approved inspection system plan, on a sample basis. The energy industry engages 181 installation compliance inspectors across WA through direct employment or on a fee-for-service basis (82 Electrical and 99 Gas).

The Director of Energy Safety authorises (designates) these compliance inspectors. In effect, they work jointly for EnergySafety and the network operator when conducting their inspection activities. EnergySafety also audits the network operators' approved inspection system plans.

In addition, EnergySafety has 20 inspector positions, who conduct regulatory inspections and compliance inspections for installations not connected to a network operator. There are a further 24 designations for engineering and senior staff who support the inspectors or become involved in complex issues.

#### **9.4.2 Safety Promotion**

EnergySafety is committed to reminding the community of the hazards associated with unsafe electrical and gas installations and appliances through various safety promotion activities.

Experience in Western Australia and other jurisdictions shows campaigns should be aimed at both the public and energy industry workers to improve safety awareness.

Public safety and similar campaigns aimed at the general community have relied on media advertising. Surveys have shown that television advertising is most effective compared with other media. EnergySafety's 2008, 2011, 2012 and 2014 campaigns, for example, demonstrated high market penetration and good awareness and recall by the public.

The 2014 campaigns focussed on:

- awareness of gas appliance maintenance and safety, particularly bringing the dangers of Carbon Monoxide poisoning to the fore; and
- awareness of the responsibilities for inspections and maintenance of privately owned wood power poles.

The campaigns' effectiveness was assessed as very high and was well received by the public and workers in the electricity industry.

EnergySafety promotes its safety message through a combination of targeted industry-specific activities, including safety sessions during regional visits, publications aimed at industry and the public (e.g. the Energy Bulletin and EnergySafety's website) and through articles in industry publications. Where resources permit and/or specific significant campaigns are warranted, safety promotion may be conducted through television, radio, newspaper advertisements and on-line.

Historically, there has been a strong correlation between safety promotion and safety improvement. This has lessened in recent years. Television has traditionally proven to be the most effective medium for reaching the general community. Any future campaigns would need to be carefully planned and designed, and the communication medium chosen to best reach the target audience.

## 10 The Period Ahead

EnergySafety has experienced significant expansion of its functions since its establishment on 1 January 1995, including taking on major additional responsibilities, such as gas network regulation (in 2000), electricity network regulation (2001) and gas heating value regulation (2007).

Industry funding for EnergySafety has now been in place for ten years and a major focus in the period ahead is to maintain appropriate staff resources and expertise to enable continued delivery of the regulatory and safety outcomes expected by the government, community and the gas and electricity industries.

Significant issues confronting EnergySafety have been categorised below either as major policy initiatives, regulatory operational matters or corporate projects and issues.

### 10.1 Major Policy Initiatives

The following policy projects are in progress and expected to be completed during the next and subsequent financial years.

#### 10.1.1 Review of Administered Legislation

Legislation administered by EnergySafety has, since commencing in 1945, been written and amended frequently, reflecting evolutionary changes in technology and in the electricity and gas industries.

Legislation administered by other agencies, if dealing with gas and electricity supply and utilisation, can also affect the functions of EnergySafety. The *Electricity Industry Act 2004* and its regulations and codes are examples.

EnergySafety attempts to review and recommend appropriate amendments to legislation it administers when industry, technical and/or government policy changes occur.

On 24 June 2013, Cabinet approved drafting of the Energy Safety Bill to modernise and consolidate the present disparate pieces of legislation affecting electricity and gas safety. When enacted, the Bill will replace the *Electricity Act 1945* (the Electricity Act), the *Gas Standards Act 1972* (the Gas Act), relevant parts of the *Energy Coordination Act 1994*, the present *Energy Safety Act 2006*, and the *Energy Safety Levy Act 2006*. The proposed amendments also aim to simplify and remove:

- any provisions that are no longer EnergySafety's responsibility;
- any inconsistencies or conflicts between pieces of legislation; and
- any overlaps that have occurred.

Legislative drafting began in 2013/14. While significant progress has been made towards drafting of the proposed Energy Safety Bill during 2014/15, much work lies ahead. Progress with drafting throughout 2015/16 will depend primarily on the Parliamentary Counsel's availability and the priority accorded to the Energy Safety Bill.

#### 10.1.2 Prohibition of Work on Energised Equipment

The government has endorsed the joint EnergySafety and WorkSafe proposals to ban work on energised electrical equipment. This follows the death of three electrical workers over the past two years in Western Australia.

The new policy proposal will involve amending the *Electricity (Licensing) Regulations 1991*, administered by EnergySafety and the *Occupational Health and Safety Regulations 1996*, administered by WorkSafe, to include a general prohibition of work on energised electrical installations.

It is also proposed to provide exceptions in the regulations to cater for situations where it is not possible to conduct work without the electrical installation being energised. Provisions prescribing specific control measures when operating under an exception will also be included in the legislation.

It is proposed to introduce new requirements which are broadly consistent with those which currently apply in other Australian jurisdictions. It is anticipated that work on this new policy proposal will occupy EnergySafety throughout 2015/16.

### **10.1.3 Electrical Equipment and Appliances Safety**

Since 2008, EnergySafety has been actively participating with other regulators in a national project to address emerging problems and challenges facing the electrical equipment safety system across Australia. In 2009, a national Regulation Impact Statement (RIS) outlining a preferred option for achieving a more consistent and effective Electrical Equipment Safety System (EESS) for Australia and New Zealand was developed.

The proposed new Scheme is designed to ensure regimes operated by each jurisdiction are in harmony and have the capacity to deal with the challenges of rapidly changing technology and global manufacturing.

EnergySafety is engaged in discussions with other State regulators about a proposed Inter-Governmental Agreement (IGA) to provide governance for the implementation and administration of the EESS, including collection, disbursement and auditing of registration fees.

It is proposed that provisions to recognise the new EESS will be incorporated in the Energy Safety Bill. While awaiting further progress on the Bill and on the IGA, interim arrangements have been made in the existing legislation to recognise the EESS national database in WA.

### **10.1.4 Management of Privately-Owned Consumer Poles**

Responsibility for the upkeep and maintenance of private power poles rests with their owner, who is almost always the owner of the property on which the poles are located. Following recent bushfires in Chidlow and Parkerville, a review found there was a widespread misconception among the public about the ownership and responsibility for maintenance of private poles.

In September 2014, the Government approved a series of initiatives to address these issues. A public awareness campaign was undertaken in October 2014 to advise consumers about their responsibilities for power lines and poles on their property. This included the mail-out of an information brochure strongly recommending that consumers engage a licensed electrical contractor to assess the condition of their poles and overhead power lines.

Government also approved that the relevant legislation be amended to resolve the existing legislative and regulatory uncertainty which stems from the difficulty of interpreting the meaning of provisions drafted almost 70 years ago in the context of an electricity supply system that has changed dramatically over this period. It is proposed to include provisions in the new Energy Safety Act to address this issue.

EnergySafety has engaged in consultation with stakeholders and has been working on new Guidelines to assist consumers and electrical contractors to assess the condition of their poles and make informed decisions whenever replacing their aging assets.

The effectiveness of the Government's recommendation to private owners to have their wood poles and overhead power lines inspected by an electrical contractor will be assessed ahead of the 2015-16 bushfire season. EnergySafety will continue to allocate resources to this serious issue throughout 2016/17.

## **10.2 Regulatory Operational Matters**

Apart from the policy development activities, operational work associated with administering existing regulations continues to grow.

Some operational work undertaken by EnergySafety is routine, such as responding to requests for advice, responding to complaints, carrying out minor investigations and, as appropriate, making decisions on whether to warn, issue an infringement notice or prosecute a person or business. There is also a routine level of installation inspection work carried out by EnergySafety, for electricity and gas installations not connected to a network<sup>1</sup> (e.g. pastoralists' facilities, mine sites, Rottnest Island, Christmas and Cocos [Keeling] Islands).

There is a continuing trend for gas and electrical appliances to be sourced from overseas, often via the internet. Many of these appliances do not meet Australian Standards and are unsafe. EnergySafety is involved in removing these items from sale and educating the public on the safety issues (e.g. USB chargers and electrical cable).

For a period up until 2012 the State's economic activity expanded significantly, particularly in the resources sector, where the focus of investment had been on mine site construction and operations. The resources sector expansions generated increased work for industry that flowed through to EnergySafety. This increased workload was in addition to increased responsibility caused by the expanded regulatory framework.

In addition, the high level of industrial activity over recent years has resulted in a sustained influx of electrical and gas operatives seeking local work (both from interstate and overseas).

While the Licensing Office has continued to provide timely turn-around from receipt of applications to the issue of licences, considerable work pressure remains in this area and is continually monitored. A major focus over 2015/16 has been to increase use of technology and drive the on-line processing of licence applications. This is expected to provide better and faster services to operatives seeking licences and permits in the gas and electricity industries, improve processing timeframes for such applications and to realise efficiencies in what has traditionally been a very manual process.

EnergySafety has established panel contracts for technical personnel to be available for short-term projects.

EnergySafety conducts programmed and targeted compliance audits on a sample of electrical contractors and gas fitters (including authorisation holders).

Continued monitoring of the effectiveness of Inspection System Plans and the performance of Installation Inspectors employed by network operators must also be undertaken. The Inspectors are authorised (designated) by the Director of Energy Safety and perform the vital function of checking the compliance of consumers' electrical and gas installations in accordance with an approved plan following work by electrical contractors and gas fitters.

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<sup>1</sup> Installations connected to a network or pipeline are required to be inspected by the network operator or pipeline licensee, which is required to report results to EnergySafety.

They conduct a first level investigation and then report cases of non-compliance to EnergySafety for possible enforcement action. In accordance with the terms of their designation, these Inspectors are obliged to comply with a Code of Conduct.

Targeted audits will continue to be carried out to ensure that all Installation Inspectors report defects as required by their statutory obligations.

### **10.2.1 Gas Safety in Multi-storey Units**

The Gas Appliance Rectification Programme survey undertaken during 2010/11 identified a number of poorly maintained gas installations in large blocks of flats. Many of these installations had instantaneous gas hot water systems connected to multiple flued systems, frequently of old asbestos flue construction. Over time, replacement water heaters have been fitted with higher gas input than the flue system capacity as well as disturbing the integrity of the existing asbestos flues. Many other legacy issues have been identified which pose a serious safety risk for these multi-storey gas installations.

This is a concern for both the network operator (ATCO Gas Australia, the owner of the natural gas distribution network in the metropolitan area) and EnergySafety.

EnergySafety continues to liaise with ATCO Gas Australia to improve the compliance of multi-storey building gas installations.

Approximately 900 multi-storey installations have been identified and risk-ranked so that the more serious installations are addressed first. To the end of June 2015, in conjunction with ATCO Gas Australia, 134 of these more serious multi-storey gas installations have now been completed and made safe.

A program to undertake inspections of all known multiple-flue systems in blocks of flats has been implemented and will continue through 2015/16 and 2016/17 in a collaboration between ATCO Gas Australia and EnergySafety.

### **10.2.2 Management of Major Network Safety Risks**

#### **10.2.2.1 Distribution Wood Pole Safety – Compliance with Order 01-2009**

EnergySafety issued an Order (01-2009) in mid-2009 requiring Western Power to correct the problems identified in audits undertaken in 2006 and 2008. The Order directs Western Power to take specific actions to address the critical issues by 31 December 2015.

EnergySafety continues to work with Western Power to identify unsafe electricity distribution poles and ensure they are reinforced or replaced. The network operator's performance is monitored through regular reports.

EnergySafety is conducting on-site inspections of a sample of treated poles to verify that Western Power's reports actually reflect the situation in the field.

#### **10.2.2.2 Transmission Wood Pole Safety**

Poles in the transmission network are generally designed and maintained to more rigorous standards than those of distribution systems.

EnergySafety is aware that the annual failure rate of poles in Western Power's transmission network is higher than the accepted industry standard.

At EnergySafety's request, Western Power has prepared and implemented a more aggressive program of pole replacement and reinforcement for its transmission assets. The network operator's performance is monitored through regular reports.

#### 10.2.2.3 Conductor clashing incidents

When overhead electricity conductors touch or come close together, a very hot electric arc occurs, melting some of the conductor. Molten metal droplets fall to the ground, retaining sufficient heat to ignite any dry vegetation on the ground leading, in some cases, to serious bushfires.

Western Power has developed plans to identify and address conductors which are at "high-risk" of clashing. EnergySafety will continue to monitor Western Power's progress against the plan throughout 2016/17.

#### 10.2.2.4 Pole-top fires

An audit of Western Power's management practices to minimise pole-top fires completed in 2012 resulted in EnergySafety closely monitoring Western Power's pole-top fire incidents and encouraging the network operator to review its procedures and rectification programmes.

Western Power has developed plans to address the issue. EnergySafety will continue to monitor Western Power's progress against the plan throughout 2016/17.

#### 10.2.2.5 Conductor failure incidents

Overhead conductors may fail due to deterioration such as corrosion, or damage through the impacts of foreign objects. EnergySafety devotes significant attention and resources to ensure adequate measures are undertaken to mitigate this risk and monitors Western Power's progress against agreed strategies.

#### 10.2.2.6 Network Operators' Safety Management Systems and reporting of their safety performance

Electricity network operators previously had the option of developing a 'safety case' setting out how they propose to manage worker and public safety risks.

Under the new *Electricity (Network Safety) Regulations 2015*, all network operators are now required to develop a Safety Management System (SMS) complying with a published Australian Standard, AS 5577-2013, within two years from 6 August 2015.

The legislation requires network operators to provide EnergySafety with regular statements about their network safety performance and to publish reports comparing their actual performance against pre-set safety objectives every year. These reports should include statistical information about unassisted pole, conductor and stay-wire failures, clashing conductor incidents, pole-top fires, fires caused by network assets and network-caused shocks.

The new Regulations recognise explicitly that worker and public safety associated with electricity networks is the responsibility of the network operators, not EnergySafety. The Division will not 'approve' network operator safety cases or their performance indicators.

However, much resource will be allocated during 2016/17 to guide network operators on how to comply with the legislation and to review their reports and Safety Management Systems.

### **10.2.3 Safety Awareness**

EnergySafety and energy suppliers promote:

- gas and electricity user safety;
- community safety awareness about electricity and gas infrastructure; and
- how to work safely near electricity and gas facilities (aimed at all types of workers in various industries).

EnergySafety will continue to promote its safety messages as described in Section 9.4.2.

## **10.3 Corporate Projects and Issues**

### **10.3.1 Staff Attraction and Retention**

In performing its role as a regulator, EnergySafety requires experienced officers that understand both the business and technical aspects of the electrical and gas industries. They must be capable of evaluating and negotiating safety and performance issues with their senior industry counterparts.

This requires thorough understanding and working knowledge of industry-specialist technical practices (including safe field work practices), energy legislation and occupational health and safety obligations and economic effects. Some staff members, particularly engineers, also need strong policy development and written communication skills and experience.

Employees with such capabilities are difficult to recruit and retain. This has especially been the case over the last decade, when WA's economy has been strong and competition for suitable staff has been high. In its efforts to recruit specialist technical personnel suited to regulatory work, EnergySafety competes directly with the gas and electricity network operators, major consultancies and large construction contractors.

EnergySafety has been able to offer more competitive employment packages to its engineers and inspectors through an Attraction and Retention Incentive (ARI) scheme which has remuneration rates more in line with those in the private sector. The ARI includes performance incentive components. While recruitment progress had been slow until mid-2014, several factors, including the evolution of the resources sector from construction to operational activity, have meant slightly more successful recruiting outcomes.

Further recruiting is required and will continue to be a critical activity for EnergySafety, especially as many existing staff are approaching or have reached retirement age. Part-time work and part-time contract work options are also used to supplement EnergySafety's core of full time, permanent personnel.

The ARI has been an important mechanism in ensuring the division has been able to meet the demands of the industry and community. The current ARI arrangement has been extended until 30 June 2016 with a further review to be undertaken of the broader employment market and its comparison and relevance to the target technical and engineering employment requirements of EnergySafety.

It is expected that the ARI will continue to help EnergySafety attract and retain officers in critical positions, particularly for electrical inspectors.

For the purposes of budget estimates, EnergySafety's financial forecasts have been set assuming the current level of ARI into the forward estimates period.

### **10.3.2 Compliance Management System**

Since 2010/11, EnergySafety has been developing a new Compliance Management System (CMS). CMS has replaced the out-dated and unsupported electricity and gas inspection regulatory software, which were built in the 1990s and no longer meet the needs of the business. It will also improve productivity and efficiency by supporting a mobile inspection workforce and aligning the workflows across the gas and electricity directorates.

In 2013/14 EnergySafety commenced the development of an in-house software solution that will suit its requirements and integrate with the Department of Commerce's architecture.

In the latter part of 2014/15 EnergySafety commenced using the new system, which provides a basic platform for managing all of EnergySafety's compliance functions. This will be finalised during 2015/16.

The first stages of the project focussed on delivering a system for internal users to replace the redundant electricity and gas inspections software with significant improvements to:

- Notifications (including notice sampling)
- Job creation, allocation and follow up actions (assess, plan, recommend, approve)
- Compliance Actions
- Reporting and analysis

During 2016/17 it is intended to develop further enhancements and introduce improved functionality that is expected to further increase work efficiency:

- Support for external users, including network operators (lodgement of various notifications)
- functionality in the field (mobility)
- enhanced assessment and prosecution processes
- support for the Freedom of Information (FOI) requests
- executive management information
- support for infringement processing
- business planning – work programming, complex audits, scheduling metro/regional activities
- operational/resource management

EnergySafety has sufficient funds to meet the preliminary budget estimates for subsequent stages expected to be progressively delivered. The financial forecasts include the expected budget for these stages.

### **10.3.3 What the Performance Indicators and Statistics Tell Us**

EnergySafety relies on many sources of information and maintains and analyses statistics relating to several key aspects of its operations. This section brings together some of that analysis. It summarises what the key performance indicators, along with the statistics may, be indicating and the issues this may present to EnergySafety in its future focus.

EnergySafety monitors and maintains statistics on serious injuries and fatalities per million population, related to the use of and work with electricity and gas in Western Australia. This is the Division's single most important measure of effectiveness in achieving the Government's desired outcome and is a critical determinant for all the activities and functions performed.

The results are published annually in the State's Budget Papers as well as the Department of Commerce's Annual Report. They are also published in Section 8 of this Plan.

Safety statistics are maintained and comprehensively reported in Section 9 of this Plan.

#### 10.3.3.1 Lag Indicator – Electricity Serious Injuries and Fatalities

It has been shown, in Section 9 of this Plan, that there is a general long-term downward trend in electrical fatalities over the past ten years. Chart A on page 16 demonstrates this quite clearly.

However, Charts B and C on page 17 also indicate that for the past five years, the trend for serious electrical accidents (non-fatal) and electric shocks per million population are actually starting to rise. EnergySafety believes these are not dramatic increases, possibly reflecting the increased awareness of the population and higher reporting incidence. But it does require vigilance and continued monitoring as serious electrical accidents may well lead to fatalities.

#### 10.3.3.2 Lag Indicator – Gas Serious Injuries and Fatalities

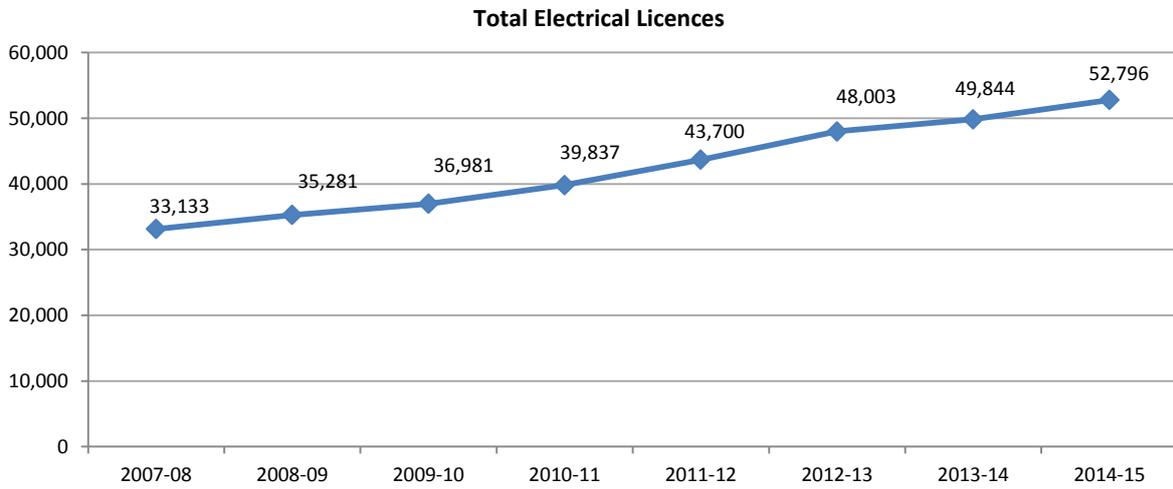
Chart D on page 18 shows the general trend in gas incidents resulting in fatalities has tracked slightly downward over the past ten years and for the past three years has been steady.

However, Chart E on the same page shows a clear long-term increasing trend in gas incidents resulting in injury, with last financial year having the highest number across the ten year period reported.

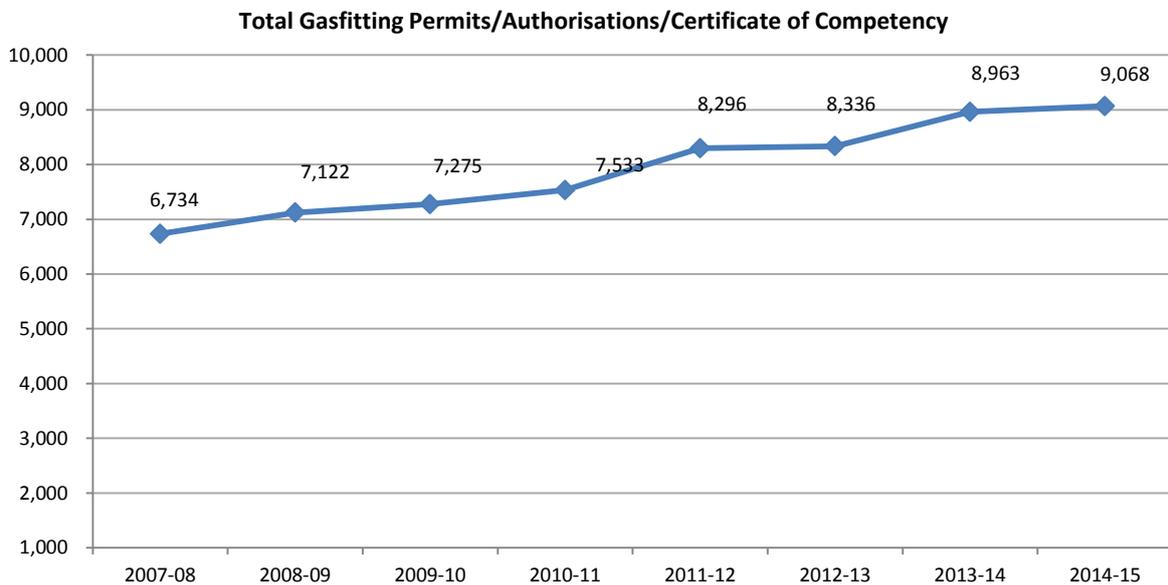
As with the non-fatal electrical accidents, the increases require monitoring and strategies to address them.

**10.3.3.2 Lead Indicator – Licensing Numbers**

In 2007 (the year after industry funding was implemented), there were 33,133 electrical worker’s licences. In 2015, there were 52,796, an increase of 59%.



In 2007, there were 6,734 gasfitting permits and authorisations. In 2015, there were 9,068, an increase of 35%.



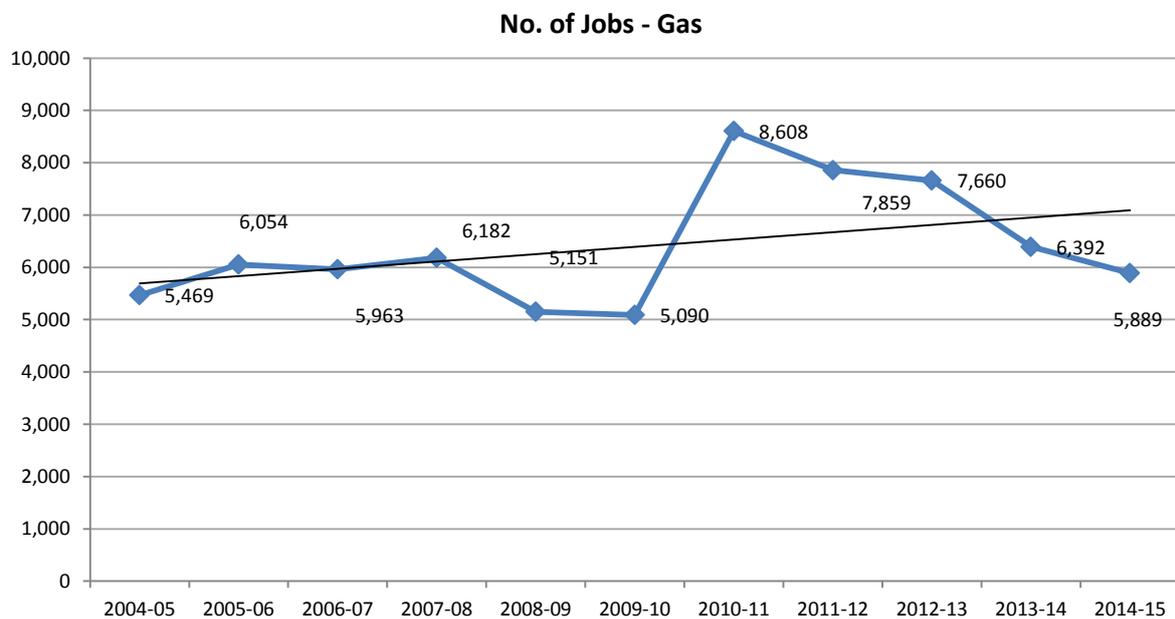
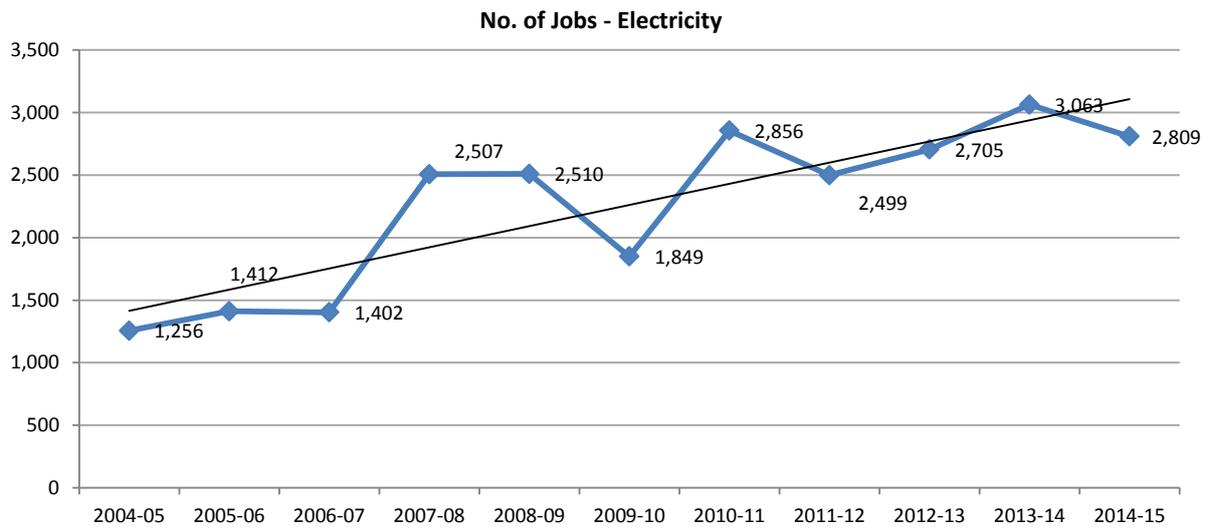
Although the last year has shown a slight slowing down to the increase in numbers of gas permits issued, the general overall trend increase in numbers of energy industry licenced operatives does not show signs of any material abatement.

Increased population coupled with the expansion of domestic building and construction work, would indicate these increasing trends are not likely to significantly drop off over the next three to five years. The above aggregated numbers show a 55% increase in the total number of licenced operatives in Western Australia in the past seven financial years.

There has not been a commensurate increase in the numbers of licensing staff to manage and process licensing documentation or to undertake related increased compliance activities.

### 10.3.3.3 Lead Indicator – Inspection and Compliance Work

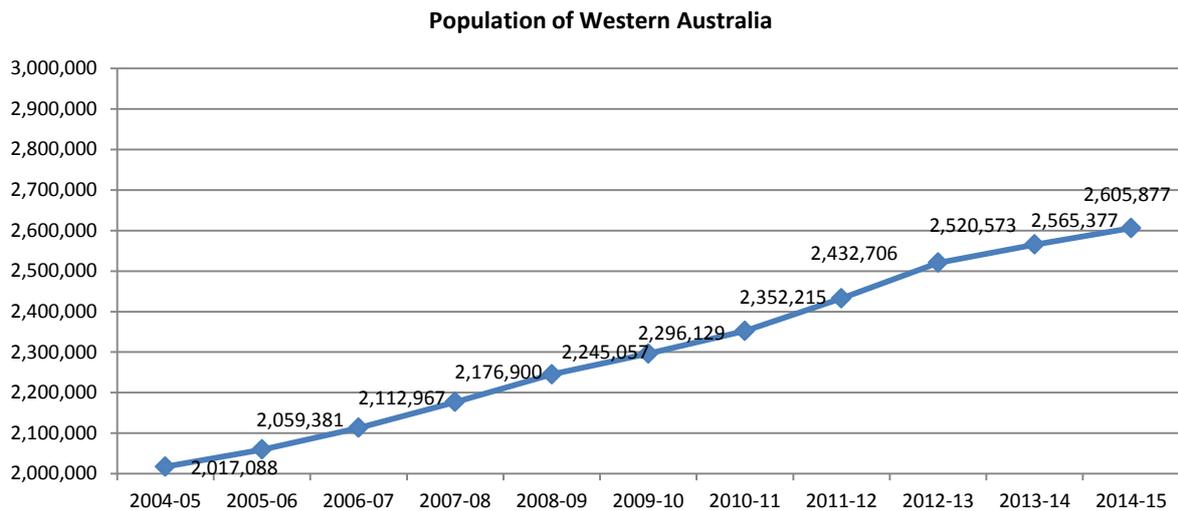
Increased licensing activity is accompanied by a commensurate increase in inspection and compliance work, as indicated in the tables below.



While the above numbers of jobs associated with gas and electrical compliance work have dropped in the past two years, particularly with gas jobs, the focus has been to recruit additional resources to fill positions and concentrate on the more complex and time-demanding work. This is particularly the case in the electrical area. The management of lapsed prosecutions has improved but there is an increase in backlog of installation inspections. Increased numbers of inspectors and new Inspection System Plans from electricity network operators should help address this issue.

The long-term trend in workload for both gas and electrical jobs is increasing. EnergySafety sees nothing that would indicate this is likely to change in the short to medium term.

### 10.3.3.4 Lead Indicator – Population Growth



The trend in population growth for Western Australia has been consistently upward for the past ten years and indications are that this is likely to continue.

### 10.3.3.5 Conclusions

The statistics above show that with a backdrop of trending increases in licensing numbers, compliance work and population growth, the long term trend numbers of incidents and fatalities related to the use of and work with gas and electricity has been downwards. However, this has started to show slight trend increases in the past few years.

As identified in Section 7.1, numbers of staff available to EnergySafety has not increased commensurate with the increased workload experienced. The actual number of Full Time Equivalents has remained relatively steady for the past ten years, with recruitment to specific compliance-related roles having proven difficult over that time.

EnergySafety can make several responses to the ever-increasing workload in an environment of limited resources, while still maintaining sufficient monitoring and response to the trends in serious injuries and fatalities. These include initiatives to reduce red-tape burden and to implement automation and adopt electronic means wherever possible for managing the workload, as well as making it easier for licence-holders, the general public and network operators to interact with EnergySafety.

In an effort to reduce manual processing of compliance-related work, EnergySafety has developed and implemented a new Compliance Management System (CMS) to replace several outdated and unsupported database systems. The CMS will enable automation of much manual work, as well as provide for robust and comprehensive project management processes across the Division. For more information about the new CMS, see Section 10.3.2 (page 28) of this Plan.

It is important for EnergySafety to recognise that the significant year-on-year increase in licensing numbers cannot continue to be managed in the same way with the same staffing resources. In addition, the costs of providing licensing services cannot continue to increase in view of the economic environment Western Australia faces and that the Government is responding to. One of the biggest initiatives being implemented across the Department of Commerce is to provide an on-line portal for licence application and renewal processing. It is expected that the full benefits of this project will be realised for EnergySafety and its

customers in the latter part of 2016/2017. This should see faster turn-around times with less manual processing and lower costs of providing the services.

Educational safety awareness television-based campaigns are costly, but, historically, have shown some correlation with positive safety outcomes. It may be that the decision to cease major media advertising campaigns will need to be revisited in the future, should the trends of serious incidents and fatalities continue upwards as they have in the past few years. Otherwise, alternative means of communication and targeted campaigns will need to be identified.

The ARI has been an important mechanism in ensuring the division has been able to meet the demands of the industry and community. The current ARI arrangement has been extended until 30 June 2016 with a further review to be undertaken of the broader employment market and its comparison and relevance to the target technical and engineering employment requirements of EnergySafety.

It is expected that the ARI will continue to help EnergySafety attract and retain officers in critical positions, particularly for electrical inspectors.

## Financial Plan

### 11 2016/17 Financial Plan

The following Financial Plan presents EnergySafety's expenditure (both capital and operating) and revenue budget forecasts for the 2016/17 financial year and three out-years.

It also includes a comparison between the budget and actual out-turn for the 2014/15 financial year and the approved budget for the current (2015/16) financial year.

The 2016/17 Financial Plan presents the full costs and revenues of EnergySafety, to ensure:

- consistency and alignment with the presentation of the State Budget for government entities;
- consistency and alignment with the internal budget requirements of the Department of Commerce;
- consistency between budget estimates and reporting of actual results, resulting in strong financial management information to assist decision-making and planning;
- the impact of non-cash costs, CPI increases and other cost-escalation factors are understood and decisions about revenue sources (i.e. industry levy levels and reviews of fees and charges) are made in view of full cost expectations;
- accurate income estimates being made for some licence types that can be paid/renewed over various periods (either one year, three years or five years); and
- the full cost of the operation of EnergySafety, which includes recognition that non-cash expenses, such as depreciation and leave liability expenses, are met by revenue from the industry funding model and licensing activity.

While the budget estimates are presented on a full accrual basis, the cash impact is also shown, including cash reserve estimates.

EnergySafety's Financial Plan provides details of:

- planned operating expenditure (which includes the non-cash expenses of depreciation and leave liability movement);
- planned capital expenditure;
- estimated revenue from electrical and gas licensing functions and other minor revenue-generating activities;
- the energy industry levy required to make up the shortfall between expenses and revenues; and
- Full Time Equivalent (FTE) staffing numbers employed by EnergySafety.

Estimates are provided for the 2016/17 financial year and the subsequent three years. By their nature, projections for the out-years are less accurate and are subject to review prior to each year. Expenditure estimates have been escalated based on known incremental factors (such as salary increments that are established in Awards) or on an average at a rate commensurate with the expected rate of CPI.

Licensing revenue projections have been based on known rates of licensing activity growth and take into account the known cycles of licence renewals (which, as identified above, can be annual, three-yearly or five-yearly, dependent on the licence type) and expected effect of economic cycles on prospective licensing applications and renewals. Licensing revenues have also been escalated in subsequent years where appropriate by a rate commensurate with expected CPI levels.

In Financial Plans prior to 2014/15, EnergySafety had budgeted for a full staff contingent, while the actual out-turns have reflected that there has been difficulty in recruiting and that

there is a high likelihood of an ongoing vacancy rate in the order of 6%-7%, or four positions. The vacancy rate at 30 June 2015 was 15.6% (10 staff).

More accurate estimates now provide for an expected vacancy rate of 5 FTEs (7.9%) in 2016/17, reflecting the historical reality of difficulty in recruitment as well as budgeting decisions taken through 2014/15.

The vacancy rate used in estimates for 2017/18 and out-years is expected to reduce to 4 FTEs (6.35%). It is still recognised that EnergySafety is unlikely to have a full staffing contingent at all times during any given financial year. However, historical vacancy rates, coupled with improved recruitment successes in recent years gives EnergySafety reasonable confidence that the vacancy rates will fall and remain relatively steady.

Although EnergySafety's cash reserves remained high to the end of 2014/15 (for the reasons detailed at section 11.2), there is recognition that the cash reserves are required to remain at an optimal level (in the order of between \$6m and \$7m) to recognise leave liability, income received in advance, accumulated depreciation to replace assets as they come to the end of their useful lives, cover unplanned extraordinary expenses associated with major investigations (such as large electricity-caused bushfires, for example) and to provide sufficient funding for EnergySafety to operate for at least a quarter should it encounter funding collection challenges. The 2016/17 Financial Plan has been set to continue a gradual and sustainable reduction in cash reserves over the forward estimates period that will see the optimal level of cash reached in 2017/18.

While EnergySafety holds sufficient cash reserves, there was an increase to the levy in 2014/15 higher than CPI to meet EnergySafety's revised forecast expenses. This situation came about due to increasing costs of EnergySafety from 2014/15 to accommodate full accrual budgeting principles (fund the full cost of operations, including depreciation and leave liability growth etc.).

As the costs of EnergySafety had been steadily increasing over the five years to 2013/14 without a commensurate increase in the levy, the levy was increased by 4% for 2015/16. The levy will be required to increase by 2.5% in 2016/17 and future years to ensure sustainability of EnergySafety's ability to carry out its functions and maintain the necessary cash balances.

The most significant risks to EnergySafety's budget still come from factors outside its control. Electrical and gas licences have grown at a significant rate for the past ten years or so, reflecting the resources boom experienced in that time in Western Australia. Approximately 31% of electrical licences are issued currently to persons with an interstate address. It has been stated for the past several years that, should the resources sector slow-down affect EnergySafety's licensing activity, without another trades-related sector experiencing significant growth, revenues from licensing activity may decline over several years.

This has not yet impacted EnergySafety, however, if it does eventuate, decisions will need to be made concerning either the functions of EnergySafety, further commensurate increases to the industry levy or increases to licensing fees above CPI in order to bring them closer to full cost recovery rates.

The financial plan has been prepared consistent with financial reporting requirements and with internal Department of Commerce budgeting processes.

The current year (2015/16) budget estimates reflect the budget approved by the Minister for the year in the 2015/16 Business Plan as well as a revised budget reflecting whole-of-government budget reduction strategies implemented as part of the overall Department of Commerce budget review.

The Minister's approval of this Business Plan is accepted as approval for the revised 2015/16 budget as highlighted in the table, as well as approval for the 2016/17 budget indicated.

Financial Year	2014/15 Budget	2014/15 Actual	2015/16 Approved Budget	2015/16 Revised Budget	Escalated \$			
					2016/17	2017/18	2018/19	2019/20
					\$'000	\$'000	\$'000	\$'000
<b>1. Expenses</b>								
<b>1.1 Recurrent Expenditure</b>								
a) Employee benefits expense	7,703	7,064	8,131	7,995	8,473	8,560	8,711	8,707
b) Corporate service charges	1,480	1,480	2,959	2,304	2,530	2,595	2,660	2,727
c) Depreciation expense	98	129	98	209	439	556	679	682
d) Legal services	208	180	200	150	159	160	163	166
e) Accommodation expenses	715	749	741	771	826	846	868	889
f) IS support/maintenance (CMS)	250	135	200	0	200	205	210	215
g) IT and minor equipment replacement	80	38	30	44	44	44	45	45
h) Other recurrent expenses	3,510	3,224	2,700	2,520	2,431	2,494	2,504	2,549
<b>Total Recurrent</b>	<b>14,044</b>	<b>12,999</b>	<b>15,059</b>	<b>13,992</b>	<b>15,102</b>	<b>15,460</b>	<b>15,840</b>	<b>15,981</b>
<b>1.2 Capital Expenditure</b>								
a) Software replacements (CMS)	1,000	460	1,000	1,000				
b) CMS project management	250	204	200	200				
c) On-line compliance and customer interface functionality					700	700		
<b>Total Capital</b>	<b>1,250</b>	<b>664</b>	<b>1,200</b>	<b>1,200</b>	<b>700</b>	<b>700</b>	<b>0</b>	<b>0</b>
<b>Total Expenses</b>	<b>15,294</b>	<b>13,663</b>	<b>16,259</b>	<b>15,192</b>	<b>15,802</b>	<b>16,160</b>	<b>15,840</b>	<b>15,981</b>
<b>2. Income</b>								
a) Industry Levy	6,612	6,612	6,876	6,876	7,048	7,224	7,405	7,590
b) Licensing Fees	6,524	7,309	6,791	6,506	6,796	6,738	6,847	7,105
c) Indian Ocean Territories	45	42	45	45	45	45	45	45
d) Other revenues	50	249	51	51	13	13	14	14
<b>Total Income</b>	<b>13,231</b>	<b>14,212</b>	<b>13,764</b>	<b>13,478</b>	<b>13,902</b>	<b>14,021</b>	<b>14,311</b>	<b>14,754</b>
<b>Surplus/(Deficit) for the period</b>	<b>(2,063)</b>	<b>549</b>	<b>(2,495)</b>	<b>(1,714)</b>	<b>(1,900)</b>	<b>(2,139)</b>	<b>(1,529)</b>	<b>(1,227)</b>
Approved FTE	64	62	64	63	63	63	63	63
FTE Actual/Estimate	56	53	56	56	58	59	60	60

The above budget will have the following cash impact:

Financial Year	2014/15 Budget	2014/15 Actual	2015/16 Approved Budget	2015/16 Revised Budget	Escalated \$			
					2016/17	2017/18	2018/19	2019/20
					\$'000	\$'000	\$'000	\$'000
<b>Estimated Opening Balance</b>	<b>11,772</b>	<b>11,772</b>	<b>10,317</b>	<b>11,417</b>	<b>9,613</b>	<b>8,145</b>	<b>6,655</b>	<b>6,619</b>
Industry Levy	6,612	6,612	6,876	6,876	7,048	7,224	7,405	7,590
Licensing Fees	7,034	7,273	7,060	6,756	6,839	6,882	7,011	7,001
All other revenues	95	291	97	97	58	58	59	59
Cash expenses	(15,196)	(14,531)	(16,161)	(15,534)	(15,413)	(15,655)	(14,510)	(14,649)
<b>Cash movement</b>	<b>(1,455)</b>	<b>(355)</b>	<b>(2,128)</b>	<b>(1,804)</b>	<b>(1,468)</b>	<b>(1,490)</b>	<b>(36)</b>	<b>0</b>
<b>Estimated Closing Balance</b>	<b>10,317</b>	<b>11,417</b>	<b>8,189</b>	<b>9,613</b>	<b>8,145</b>	<b>6,655</b>	<b>6,619</b>	<b>6,619</b>

## 11.1 Notes and Explanations

### 11.1.1 Recurrent Expenditure

- a) **Employee benefits expense:** include all expenditure associated with permanent, contract and temporary employees, known salary increases under awards and direct on-costs such as leave entitlements, employee entitlements and the Attraction and Retention Incentive (ARI).

The ARI has been an important mechanism in ensuring the division has been able to meet the demands of the industry and community. The ARI has been extended the until 30 June 2016 with a further review to be undertaken of the broader employment market and its comparison and relevance to the target technical and engineering employment requirements of EnergySafety.

EnergySafety's financial forecasts have been set assuming the current level of ARI into the forward estimates period.

It is recognised that EnergySafety is unlikely to have a full staffing contingent at all times during any given financial year. However, historical vacancy rates, coupled with improved recruitment successes in recent years gives EnergySafety reasonable confidence that the vacancy rates will fall and remain relatively steady.

The estimates provide for a vacancy rate of 5 FTEs (7.9%) in 2016/17, reflecting the historical reality of difficulty in recruitment. The vacancy rate used in estimates for 2017/18 and beyond is 4 FTEs (6.35%).

The increases in salaries for 2016/17 reflect an additional two staff expected to be appointed in the year. This increase has been flat-lined for 2017/18 and beyond, per Treasury's recommendations. This is a cautionary and conservative budget position and EnergySafety will continue to monitor recruitment successes and will revise budgets as necessary in future Business Plans.

- b) **Corporate service charges:** EnergySafety relies on central departmental corporate services support (covering finance, HR and IT support) to be provided by the Department of Commerce. The amounts shown are the estimated costs provided by the Department's Corporate Services Division.
- c) **Depreciation expense:** covers the cost of depreciation of EnergySafety's assets, including software systems. From 2016/17 the new CMS, commissioned during 2014/15, will start to have a significant impact on depreciation expenses.
- d) **Legal services:** chiefly provided by the State Solicitor's Office. This is expected to increase moderately as more success occurs in recruitment of electrical inspectors.
- e) **Accommodation expenses:** covers expenses relating to EnergySafety's office accommodation, including, lease costs, maintenance and minor works, cleaning and utility costs.
- f) **IS support and maintenance, Compliance Management System (CMS):** includes recurrent costs associated with support, licensing and maintenance of the new CMS.
- g) **IT and minor equipment replacement:** covers routine replacement of desktop PCs, local printers and related equipment. This has previously been included as part of the capital budget, but minor equipment costing less than the capitalisation threshold is expensed as costs are met during the year.

From 2016/17 this item includes the cost of mobile computing technology used in conjunction with the new CMS in the support of inspectors undertaking field work.

- h) Other recurrent expenses:** includes all insurance costs, superannuation, communications services, travel, training, printing, management and maintenance of a vehicle fleet, technical services, recruitment, taxation expenses, various consumables and other services necessary for operating an office.

### **11.1.2 Capital Expenditure**

**a) & b) Software replacements (CMS):** EnergySafety's corporate IS environment has included:

- the Electrical Inspection System (EIS) which supported the operational work of the Electricity Compliance Directorate and records vital data; and
- the Gas Inspection System (GIS) which supported the operational work of the Gas Directorate and records vital data.

These systems have been replaced with the new CMS. The item at a) reflects the anticipated capital costs of completing development and implementation of the CMS system and the item at b) shows the expected internal IS project support costs.

- c) On-line compliance and customer interface functionality:** In the latter part of 2014/15 EnergySafety commenced using the new CMS, which now provides a basic platform for managing all of EnergySafety's compliance functions. This will be finalised during 2015/16.

The first stages of the project focussed on delivering a system for internal users to replace the out-dated and unsupported electricity and gas inspections software with significant improvements to:

- Notifications (including notice sampling)
- Jobs creation and allocation and follow up actions (assess, plan, recommend, approve)
- Compliance Actions
- Reporting and analysis

During 2016/17 it is intended develop subsequent functionality to enhance this basic platform and introduce improved interfaces for industry and operatives, and this is also expected to further increase work efficiency, including support for:

- external users
- notifications by external users, such as network operators
- functionality in the field (mobility)
- support for the recording of queries
- business planning – work programing, complex audits, scheduling metro/regional activities
- investigation cases
- operational/resource management

### **11.1.3 Income**

- a) Industry levy:** This is the energy industry levy necessary to ensure EnergySafety is fully funded to carry out its legislated functions.

The levy is the amount needed to make up the difference between expected expenditure and the sum of the revenues of (b), (c) and (d) below for all of the four years of the forecast.

- b) Licensing revenues:** are derived from electrical worker, electrical contractor, and gas fitter licence fees. The total revenue per year fluctuates over a five year cyclical basis, as the electrical worker fees are for a five year term and renewals are not equally distributed over the period.

The licensing revenue is presented here on an accrual basis. For 2016/17 this is \$6.796m. On a cash basis the amount is \$6.839m.

- c) Indian Ocean Territories (IOT):** The Department of Commerce has a service agreement with the Commonwealth's Department of Regional Australia, Local Government, Arts and Sport (DORA) to supply regulatory services to the IOT similar to those it provides on the WA mainland, but at full cost to DORA. EnergySafety provides electricity and gas regulatory services under this agreement and the expected reimbursement is shown.

- d) Other revenues:** This covers the sale of publications to industry and other minor recoups.

## 11.2 Cash Balances

EnergySafety's cash balance forms part of the Department of Commerce's bank account and is classified as restricted cash. The cash bank balance was \$11.42m at the end of 2014/15 and this balance has historically grown and stabilised at this level due to:

- underestimates of revenues (the potential reduction in licensing activity as a result of the slow-down in WA's resources boom was overestimated);
- the underspend of the budget (mainly due to the long-term inability to recruit required staff resulting in continuing vacancies and the subsequent inability to complete projects);
- licensing income received in advance;
- deferral of budgeted advertising; and
- underspend in implementing the Compliance Management System.

EnergySafety considers it prudent financial management to aim for a closing cash balance at the end of each budget period sufficient to cover potential cash costs (liabilities) where non-current expenses have been recognised. For example, leave liability growth is included in Employee Benefits Expenses and this expense is covered by the industry levy. EnergySafety's cash balance should therefore be sufficient to cover the cash value of the leave liability. Additionally, EnergySafety has a proportion of aging workforce higher than the average across the Public Sector (25% at or beyond retirement age and likely to be 40% over the life of this Plan). This brings some unique risks and potential absence-related expenses not traditionally accrued for, such as for staff requiring extended periods of absence due to illness for which staff coverage needs to be allowed. The leave liability value recognised is presently in the order of \$1.5m.

Additionally, it is prudent to allow for fluctuations in revenues across years and/or potential non-receipt of quarterly levy payments, and to provide some level of insurance should there be large unplanned expenditure associated with one or more major investigations. It is considered that \$1.0m is a reasonable amount to be held for this purpose.

Depreciation of EnergySafety's assets is recognised as an expense each year, in line with normal accounting practice. The depreciation accumulates in recognition that it provides a source of funds to replace the asset at the conclusion of its useful life. Accordingly, the value of accumulated depreciation should be recognised and maintained as a cash-holding. The value of accumulated depreciation is presently (at 30 June 2015) \$829k. As the new CMS is commissioned and capitalised, the depreciation expense for EnergySafety will increase to more than \$500k per year from 2017/18, bringing accumulated depreciation to approximately \$3.4m over the forward estimates period.

In addition, the licence fees that are received for more than a single year (some for three years, some for five); represent an accrued, or unearned, income that should not represent cash available for expenditure in the year it is received. The total amount (incorporating both current and non-current unearned income) in EnergySafety's bank account at 30 June 2015 was \$5.8m. While this is recognised as unearned income, there is no circumstance where this will be repaid or lost to EnergySafety. It is reasonable that the bank balance should retain the non-current portion of this unearned income, which is approximately \$3.4m at 30 June 2015.

Excluding the current portion of unearned or accrued income, the reasonable, targeted cash balance at any given time from 2016/17 should therefore be in the order of between \$6.0m and \$7.0m. The 2016/17 Financial Plan will see a gradual and sustainable reduction to cash reserves over 2015/16 and 2016/17 that will see this optimal target level of cash holdings reached in the life of this Plan.

## Industry Levy

### 12 Industry Levy Statement

This Statement is produced in accordance with section 6 (1) of the *Energy Safety Act 2006* (the Act).

The Act makes provision for the collection of a levy from energy industry participants. The Levy is in accordance with the section 6 (1) (c) of the Act and the related *Energy Safety Levy Act 2006*. Similar contribution schemes operate for other Department of Commerce divisions and are levied on the gas and electrical industries in other jurisdictions.

For 2016/17, the proposed Energy Safety Industry Levy will be \$7.048m. The Act allows the responsible Minister to determine the levy for the financial year, for notice of this to be published in the Gazette and for EnergySafety to issue notices of assessment accordingly. All revenue raised from the levy will be used solely for energy safety-related activities.

As required by the governing legislation, this section of the Business Plan details the methodology for the calculation and allocation of the appropriate portions of the levy to individual industry participants.

#### 12.1 Industry Levy Quantum

It is required that the levy be applied at a level sufficient to enable the full costs of EnergySafety to be met. Accordingly, a levy of \$7.048m is proposed in this Business Plan for 2016/17.

This enables sufficient funds for the full structure of EnergySafety to operate (less a forecast vacancy rate of 5 FTEs (7.9%)), meet the costs of its liabilities and continue to undertake projects to build on new compliance systems to enhance on-line capability and to progress integration with external systems of energy suppliers and operators.

The increase is 2.5% and reflects estimated costs increases for EnergySafety.

It is expected that EnergySafety will be able to recruit successfully and to reduce its historically high vacancy rate over the forward estimates period. It is however recognised that EnergySafety is unlikely to have a full staffing contingent at all times during any given financial year. Historical vacancy rates, coupled with improved recruitment successes in recent years gives EnergySafety reasonable confidence that the vacancy rates will fall and remain relatively steady through 2016/17 and beyond, and surplus funds will not be realised from under-expenditure at the same levels as has been experienced in prior years.

#### 12.2 Apportionment of Levy between Energy Sectors

The proposed 2016/17 industry levy of \$7.048m will be apportioned as 67% to the electrical industry and 33% to the gas industry in accordance with section 6(2) of the Act.

Therefore the total levy contribution to be received from participants in the electrical industry will be \$4.722m and from participants in the gas industry it will be \$2.326m.

### **12.3 Allocation of Levy within Energy Sectors**

To allocate the levy within each industry sector, EnergySafety will continue to use the model devised for the allocation of the 2006/07 levy after consultation with industry. The model is based on the following:

- a) Levy allocation across the gas sector to be based on the number of gas consumer sites supplied by each gas distribution system licence holder and LP Gas distributors supplying LP Gas in bulk and in portable 45kg cylinders in WA, subject to a minimum aggregate total of 500 sites. The aggregate may be based on multiple networks.
- b) Levy allocation across the electricity sector to be based on the aggregate number of consumer sites served by each network operator subject to a minimum aggregate total of 500 sites. The aggregate may be based on multiple networks.

In mid-2015/16 the Director of Energy Safety wrote to all participants in both energy sectors requiring them to confirm, in accordance with regulation 4(5) of the *Energy Safety Regulations 2006*, the number of LP Gas and consumer sites connected. Responses were received from all participants.

On the basis of the information received, EnergySafety calculated the proportion of all consumers supplied by each supplier within both industry sectors. This proportion was then used to calculate the annual levy contribution payable by each participant.

A similar survey will be carried in mid-2016/17, determining the levy contribution allocations for each supplier for the 2017/18 financial year.

### **12.4 Administration of the Levy Scheme**

EnergySafety maintains a confidential database of industry site or operator-specific information that provides an audit trail in support of the levy calculations for each participant.

In 2013/14, independent auditors were engaged to verify that the participants had robust systems and processes in place to support the customer numbers reported to EnergySafety, so that the apportionment of the levy was undertaken on a reasonable basis. It is expected that this audit will be conducted every three years.

Although the total levy amount falls due for payment at the beginning of each financial year, it is proposed to invoice industry participants quarterly, as in previous years.

The formal assessment for the year will be communicated to individual participants concurrently with an invoice for the first payment. In accordance with section 17(3) (b) of the Act, if an instalment is not paid at or before the due date, the whole of the annual levy becomes due and payable immediately. There will be no reduction in liability as a result of departures from the industry during the year, or back-accounts for arrivals into the industry during the year.

## **Appendix A – A brief outline of 2014/15 year outcomes**

**The following are details of significant work undertaken during 2014/15:**

### **A1 Operational Work Including Compliance Enforcement Activities**

#### **A1.1 Energy Safety Bill**

Drafting is well advanced on the new *EnergySafety Bill 2015*. It consolidates into one Act, the outdated *Electricity Act 1945*, *Gas Standards Act 1972*, parts of the *Energy Coordination Act 1994* and the *Energy Safety Act 2006*. The new Act will cater for major changes to the electricity industry, where many homes and businesses generate and store electricity using solar panels and batteries. Provisions for licensing gas fitters and operation of gas distribution networks will be modernised.

#### **A1.2 Electricity (Network Safety) Regulations 2015**

New *Electricity (Network Safety) Regulations 2015* replaced the *Electricity (Supply Standards and System Safety) Regulations 2001*. The new regulations do not contain references to metering as this is not a safety matter. Regulations about 'safety cases' was removed. The new regulations require network operators to develop and implement a safety management system that complies with *Australian Standard AS 5577 – 2013 'Electricity network safety management systems'*.

#### **A1.3 Compliance Management System**

In the later part of the year EnergySafety commenced using a new computerised compliance management system (CMS). CMS replaces its existing and out dated systems which were built in the 1990s and no longer meet the needs of the business.

This system now provides a basic platform for managing all of the Division's compliance functions. During the next financial year it is intended to enhance this basic platform and introduce improved functionality that should increase work efficiency.

#### **A1.4 Electrical Accident – Greenfields**

On Monday 16 March 2015 two teenagers received electric shocks from a damaged street light pole in Kirkpatrick Drive, Greenfields. One of the teenagers required hospitalisation. Prior to this accident a vehicle had crashed into a pole, damaging its internal wiring.

Western Power attended this crash and found it was not responsible for the repair and maintenance of the street light but checked that it was not live.

Sometime later a Western Power employee, while working in the area, reconnected the electricity supply to this damaged and unsafe street lighting installation. This investigation is continuing.

### **A1.5 High-voltage Switch Maintenance**

On Tuesday 3 February 2015 a high voltage fuse/switch exploded at Morley Galleria Shopping centre in Russell Street Morley. The explosion killed two persons and two others suffered serious burns. The damage also required the shopping centre to bring in temporary generation units while the substation was being replaced.

This accident is being investigated by the Divisions of WorkSafe and EnergySafety under their respective legislation. To protect the functional integrity of both Divisions and to reduce duplication, inspectors from EnergySafety were also appointed as inspectors under the Occupational, Safety and Health Act 1984. The investigation is complex and has required deployment of significant inspection and engineering resources. This put further strain on the agency's ability to meet its electricity compliance functions. The investigation is continuing.

At an early stage in this investigation, EnergySafety became aware that it was unsafe, following the operation of a high voltage switch/fuse, to carry out the switching, repairs or maintenance of this type of high voltage fuse/switch unless it was completely isolated from the electricity supply. Therefore, Orders were issued to make this a mandatory requirement.

### **A1.6 Electricity Inspection Resources**

During the year EnergySafety advertised a senior electrical inspectors' pool to fill the vacancies in the Electricity Compliance Directorate. These additional senior electrical inspectors are required to reduce the lapsed prosecutions for serious offences, investigations and inspections backlog and assist with managing its more serious compliance functions in a timely manner.

Even though there is a downturn in the mining sector and EnergySafety is offering an incentive payment on top of the base salary it is still proving difficult to attract inspectors with the necessary skills that can be trained and developed to fill these positions effectively.

However, during the year the vacancy rate was reduced to four senior electrical inspectors. It is proposed to continue with the senior inspectors' pool advertisements in the next year.

## **A2 Licensing Services**

The Licensing Office at EnergySafety continues to process a high volume of electrical and gas licence applications. The applications are processed in a consistent and timely manner with the available resources.

### **A2.1 Electrical Licensing**

As at 30 June 2015, there were 47,399 electrical workers, 5,149 electrical contractors and 247 in-house licence holders registered.

The Electrical Licensing Board grants licences to eligible electrical operatives and conducts competency assessments of operatives when necessary. It also recommends disciplinary action when appropriate.

#### **A2.1.1 Electrical Licensing Board**

As at 30 June 2015, the Board's membership comprised:

Mr K McGill – Chairman

Mr G Wilton – representing the interests of electrical workers

Mr P Beveridge – representing the interests of electrical contractors

Mr G Kelly – representing the interests of electrical workers with restricted licences

Mr P Tierney – representing the interests of large businesses, who are consumers of electrical services

Mr A Momcilo – representing the interests of small businesses, who are consumers of electrical services

Mr F Hough – a residential consumer of electrical services

Mr S Abdoolakhan – nominated by the Director of Energy Safety

The Electrical Licensing Board met 25 times during the year.

### **A2.2 Gas Licensing**

As at 30 June 2015 there were 7,733 persons registered for gasfitting work. Certificate of Competency holders are not included in this figure.

The Gas Licensing Committee operates under delegated authority of the Director of Energy Safety and considers applications for licences for gas operatives. Routine applications are dealt with by licensing staff under delegated authority, as in the case of electrical licences.

The Gas Licensing Committee met 13 times during the year.

### A3 Prosecutions

Prosecutions follow investigations by inspectors and review and authorisation by senior management of EnergySafety. The investigations are often initiated by inspectors of the electricity and gas distributors, as part of their consumer electrical or gas installation inspection work.

The following tables provide summaries of prosecutions finalised during 2014/15.

#### A3.1 Prosecution actions for breaches of electricity related legislation

<b>Summary of prosecution action for breaches of electricity related legislation</b>				
<b>1 July 2014 – 30 June 2015</b>				
<b>Legislation</b>	<b>Breach</b>	<b>Number of Offences</b>	<b>Fines \$</b>	<b>Court Costs \$</b>
<i>Electricity (Licensing) Regulations 1991</i>	19(1)	4	10,800	2,757.60
<i>Electricity (Licensing) Regulations 1991</i>	33(1)	2		
<i>Electricity (Licensing) Regulations 1991</i>	49(1)	5	25,000	3,658.55
<i>Electricity (Licensing) Regulations 1991</i>	50(1)	2	18,000	781.90
<i>Electricity (Licensing) Regulations 1991</i>	50A	1	7,000	719.30
<i>Electricity (Licensing) Regulations 1991</i>	52(1)(a)	3	6,000	669.90
<i>Electricity (Licensing) Regulations 1991</i>	52(1)(b)(i)	1	1,000	
<i>Electricity (Licensing) Regulations 1991</i>	52(3)	5	221,000	9,526.50
<i>Electricity (Licensing) Regulations 1991</i>	52B	1	1,000	
<i>Electricity (Licensing) Regulations 1991</i>	52C3(1)(b)	1	4,000	
<i>Electricity (Licensing) Regulations 1991</i>	53(2)	1	2,000	719.30
<b>TOTAL</b>		<b>26</b>	<b>295,800</b>	<b>18,833.05</b>

#### A3.2 Prosecution actions for breaches of gas related legislation

<b>Summary of prosecution action for breaches of gas related legislation</b>				
<b>1 July 2014 – 30 June 2015</b>				
<b>Legislation</b>	<b>Breach</b>	<b>Number of Offences</b>	<b>Fines \$</b>	<b>Court Costs \$</b>
<i>Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999</i>	18, 20(1)b, 26(1)(a) 28(2), 28(3), 30, 32	2	2,600	591.93
<i>Gas Standards Act 1972</i>	13(A)b	1	20,000	1,262.65
<b>TOTAL</b>		<b>3</b>	<b>22,600</b>	<b>1,854.58</b>

## A4 Infringement Notices

EnergySafety continues to issue Infringement Notices as a system to provide an efficient and cost compliant regime for selected breaches. The system covers both gas and electricity and deals with non-compliance aspects of electrical and gas installations.

There were 89 (12 Electricity and 77 Gas) Infringement Notices issued by EnergySafety for the year ended 30 June 2015.

The following tables provide summaries of Infringement Notices issued during 2014/15.

### A4.1 Infringement notices issued for breaches of electricity related legislation

<b>Summary of Infringement Notices issued for Breaches of electricity related legislation</b>			
<b>1 July 2014 – 30 June 2015</b>			
<b>Legislation</b>	<b>Section / Regulation</b>	<b>Number of Offences</b>	<b>Fines \$</b>
<i>Electricity Act 1945</i>	33B(2)	10	26,500
<i>Electricity (Licensing) Regulations 1991</i>	52(3)	1	4,000
<i>Electricity (Licensing) Regulations 1991</i>	45 (1)	1	800
<b>TOTAL</b>		<b>12</b>	<b>31,300</b>

### A4.2 Infringement notices issued for breaches of gas related legislation

<b>Summary of Infringement Notices issued for Breaches of gas related legislation</b>			
<b>1 July 2014 – 30 June 2015</b>			
<b>Legislation</b>	<b>Section / Regulation</b>	<b>Number of Offences</b>	<b>Fines \$</b>
<i>Gas Standards Act 1972</i>	13A(2)	12	12,000
	13D(1)	1	1,000
<i>Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999</i>	18(2)(a)	19	11,400
	20(1)(b)	3	1,800
	22	1	600
	23	1	400
	24	1	5,000
	26(1)(a)	10	6,000
	28(2)	8	3,200
	28(3)	17	6,800
	30	1	600
	34(1)	3	1,750
<b>TOTAL</b>		<b>77</b>	<b>50,550</b>

## **A5 Major Policy Work**

### **A5.1 Committee Participation**

Aside from major work on several key technical standards committees, EnergySafety continued to be involved in a number of national regulatory coordination and other technical standards bodies.

The following is a summary list:

- National Regulatory Coordination Bodies
  - Electrical Regulatory Authorities Council (ERAC)
  - Gas Technical Regulators Committee (GTRC)
  - National Equipment Energy Efficiency Committee (Committee E3)
  - Energy Supply Industry Safety Committee (ESISC) (representing the Government of Western Australia)
  
- National Standards Councils, Boards and Committees
  - Member of Standards Australia (representing the Government of WA)
  - Council of Standards Australia (representing the Government of WA)
  - Standards Australia Standards Development Committee
  - AG-006 Gas Installations
  - AG-008 Gas Distribution Networks
  - AG-011 Industrial and Commercial Gas Fired Appliances
  - AG-013 Gas Components
  - ME-046 Gas Fuel Systems for Vehicle Engines
  - ME-15 Storage LP Gas
  - EL-01 AS/ NZS 3000 (Wiring Rules)
  - EL-001-20 AS/NZS 3018 Domestic Electrical Installations
  - EL-001-44 AS/NZS 4836 Safe working on LV electrical installations
  - EN-004 Energy Network Management and Safety Systems
  - EL-002 Safety of Household and Similar Electrical Appliances and Small Power Transformers and Power Supplies
  - EL-043 High Voltage Electrical Installations
  - EL-052 Electrical Energy Networks, Construction and Operation

### **A5.2 National Regulatory Reform Projects**

Significant progress has been made in developing national regimes for electrical appliance safety approvals, gas appliance safety approvals, national electrical and gas occupational licensing, and the harmonisation of energy supply technical and safety regulation. This work continues to dominate the policy area and demands major commitments from senior staff.

## A6 Statutory Reporting and Safety Statistics

The following statistical information is required to be reported by EnergySafety and reflected in the Department of Commerce's 2014/15 Annual Report:

### A6.1 Electricity Act 1945

Section 33 of the *Electricity Act 1945* requires the Director of EnergySafety (the Director) to report on a number of matters:

- (a) the number, nature, and outcome of the investigations and inquiries undertaken under this Act by, or at the direction of, the Director:

The following numbers of investigations were concluded in 2014-15

Nature	Number
Audits	2
Compliance Inspections	248
Investigations - Breaches	652
Investigations - Accidents/Work Practices	26
Investigations - Appeals	8
<b>Total</b>	<b>936</b>

Investigations outcome	
Formal Warning	116
Infringement	12
Prosecution	33
Lapsed Prosecutions (Statute of Limitation)	5

Note: The Investigations outcome table above lists those investigations where a formal outcome has been recorded. A number of the investigations undertaken do not require further action and as such a formal outcome has not been recorded against them.

Additionally, compliance actions may take more than one year to complete. Some prosecutions recorded above may relate to investigations carried out in an earlier year.

- (b) the number and nature of matters referred to in paragraph (a) that are outstanding:

Nature	Number
Audits	2
Compliance Inspections	892
Investigations - Breaches	231
Investigations - Accidents/Work Practices	35
Investigations - Appeals	0
<b>Total</b>	<b>1,160</b>

- (c) any trends or special problems that may have emerged:

Following the high voltage fuse/switch explosion at the Morley Galleria Shopping centre in Russell Street Morley on 3 February 2015, the EnergySafety Division became aware that it was unsafe, following the operation of a fuse, to carry out the switching, repairs or maintenance of this type of high voltage fuse/switch unless it was completely isolated from the electricity supply.

Therefore, Orders were issued to make this a legal requirement. However further action may be required once the investigation is finalised.

The outcomes of this investigation, when finalised, will receive international attention as these fuse/switches are used around the world.

- (d) forecasts of the workload of the Director in performing functions under this Act in the year after the year to which the report relates:

Again this year, the Director has been unable to investigate all electrical safety incidents caused by unlicensed persons, electricians or network operators failing to comply with safety standards and regulations applicable to their work. The upward trend of such incidents continues and an investigation backlog is growing steadily. In addition the complexity of investigating such incidents is increasing. Some persons committing serious breaches of regulations are not prosecuted because the Director, with the resources available to him, is unable to complete his investigations within the two-year statutory limitations period.

The number of outstanding and lapsed investigations is likely to grow unless the Director is able to recruit and deploy additional inspectors and associated equipment.

- (e) any proposals for improving the performance of the Director's functions under this Act:

In addition to efforts to recruit and retain electrical inspectors, the Director has, in conjunction with the Department of Commerce's Information Technology branch, developed and implemented the first stage of a new Compliance Management System (CMS). This new CMS replaced the very outdated systems that did not cater for the multi-faceted aspects of investigating and reporting upon breaches of safety regulations.

This system now provides a basic platform for managing all of EnergySafety's compliance functions. During the next financial year it is intended to enhance this basic platform and introduce improved functionality that should increase work efficiency.

## **A6.2 Electricity related incidents and fatalities**

The following were reported to EnergySafety during the year:

- |   |       |
|---|-------|
| • Electric shocks   | 1,876 |
| • Serious electricity related accidents                                 | 17    |
| • Fatalities <sup>(1)</sup> (included in serious electrical accidents): | 2     |

<sup>(1)</sup> Two men died while examining a high voltage fuse/switch which exploded at the Morley Galleria Shopping Centre.

### A6.3 Gas Standards Act 1972

Section 13CA of the *Gas Standards Act 1972* requires the Director of Energy Safety (the Director) to report on a number of matters, namely:

- (a) the number, nature, and outcome of the investigations and inquiries undertaken under this Act by, or at the direction of, the Director:

The following investigations were concluded in 2013-14

Nature	Number
Breach Investigations	914
Incident Investigation	119
Accident injury - Public	25
Accident injury - Worker	1
Fatal	2*
<b>Total</b>	<b>1,061</b>
Investigations outcome	
Formal warning	216
Infringement	77
Prosecution	2
Lapsed prosecutions	0
Appeals (NODs)	9
Cancelled (NODs)	35
Verbal Warning	412
No Further Action	89

\* of the two fatalities, one was reported to EnergySafety in 2013-14, but concluded in 2014-15.

Note: The Investigations outcome table above lists those investigations where a formal outcome has been recorded. A number of the investigations undertaken do not require further action and as such a formal outcome has not been recorded against them.

- (b) the number and nature of matters referred to in paragraph (a) that are outstanding;

Nature	Number
Breach investigation	89
Incident investigation (fatal)	8
Accident injury - Public	5
Accident injury - Worker	0
Fatal	0
<b>Total</b>	<b>102</b>

### A6.4 Gas related incidents and fatalities

The following were reported to EnergySafety during the year:

- Incidents 87
- Serious gas related accidents (persons injured) 13
- Fatalities<sup>(1)</sup> 1

<sup>(1)</sup> The fatality had occurred in a caravan fire where the person had been trapped inside. The police found a gas cylinder inside the caravan that had a loose connection and was partially on. The cause of this fatal incident is still undetermined.