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

Energy*Safety*
Business Plan 2017/18

December 2016

This Business Plan was approved under
Part 2 of the Energy Safety Act 2006 by
The Hon Michael Mischin MLC
Minister for Commerce
on 13 December 2016

Government of **Western Australia**
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Energy*Safety* Business Plan 2017/18

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Foreword

This document sets out the Business Plan 2017/18 for the Energy*Safety* Division of the Department of Commerce (Energy*Safety*).

Energy*Safety* is Western Australia's technical and safety regulator for the electrical industry and most of the gas industry. Its principal functions are:

- administering electrical 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 gas fitters;
- investigating and reporting on electrical and gas-related accidents; and
- promoting electrical 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 Energy*Safety*.

Energy*Safety* 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, is not contentious and no changes are considered necessary at this time.

The costs of Energy*Safety*'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 2017/18 sets out:

- a statement of intent;
- the business environment and challenges, including major projects;
- the financial plan;
- details of the proposed 2017/18 energy industry levy; and
- a brief outline in Appendix A of the 2015/16 year outcomes (the ninth complete year of the industry funding scheme), for information.

On approval by the Minister, this 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 2017/18 year.

Ken Bowron
Director of Energy Safety

December 2016

Statement of Intent

This Statement of Intent is part of the Business Plan 2017/18 required by the *Energy Safety Act 2006.* It sets out the requirements for the administration of the energy industry levy. The levy, in conjunction with revenue from electrical contractor, electrical worker and gas fitter licence fees, provides Energy*Safety* with all its operational and capital funding.

1 Departmental Objectives

The Department of Commerce (Commerce), of which Energy*Safety* is a Division, has the following objectives as stated in its Strategic Plan 2016–2020:

Vision

A productive, equitable and safe Western Australia

Mission

To be a trusted agency that enhances the wellbeing of our community and the growth of our State

Values

- *Putting our citizens first*
- *Trust and respect*
- *Taking responsibility*
- *Innovative thinking*
- *Providing great service*
- *Delivery with pride*

Strategic Priorities

- *Adapt the regulatory environment so enterprises thrive while the community is protected*
- *Make life easier for the community and businesses*
- *Help people make smart risk-aware decisions*
- *Intervene decisively when needed*
- *Grow local industry*
- *Think "Commerce-wide"*
- *Enable a flexible, responsive and engaged workforce*

Energy*Safety*, as part of Commerce, both contributes to and embraces these strategic priorities and corporate directions.

2 The Role of Energy*Safety*

The Director of Energy Safety ("Director") is an independent statutory office established under Section 5 of the *Energy Coordination Act 1994*.

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

In performing these functions, Energy*Safety* 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 all persons working on electrical and gas installations; and
- the safety of all persons using electricity and gas.

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

Licensing is closely associated with consumer and worker safety. Energy*Safety* issues licences to electrical contractors, electrical workers and gas fitters who meet defined competency requirements.

The statutory Electrical Licensing Board (which includes industry members appointed by the Minister) oversees licensing of all electrical operatives 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.

The Director of Energy Safety and his Executive Management Committee are dedicated to maintaining the safety and health of all people associated with and affected by our Division, including employees, contractors, visitors and members of community. Energy*Safety* is committed to implementing the measures detailed in the Department of Commerce's OSH Improvement Plan and supporting the continuous improvement of the department's OSH Management Plan.

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*

4 Specific Activities

The legislation provides for Energy*Safety* 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 electricity 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 gas 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:
  - monitoring electricity network operators' asset management practices;
  - monitoring electricity network operators' compliance with their respective safety management plans;
  - monitoring the safe work practices of network operators' employees and contractors, including attendance to incidents; and
  - investigating network operators' asset failures, network 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 distribution 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 electrical and gas inspectors in the State, including those employed by 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, prosecutions and, in the case of licence holders, through disciplinary action.
- Respond to consumer complaints about electrical and gas technical and safety matters.

Additionally, Energy*Safety*:

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

5 Information & Advice to the Minister

Energy*Safety* provides advice and support to the Minister for Commerce.

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

Advice and information provided to the Minister by Energy*Safety* includes the following:

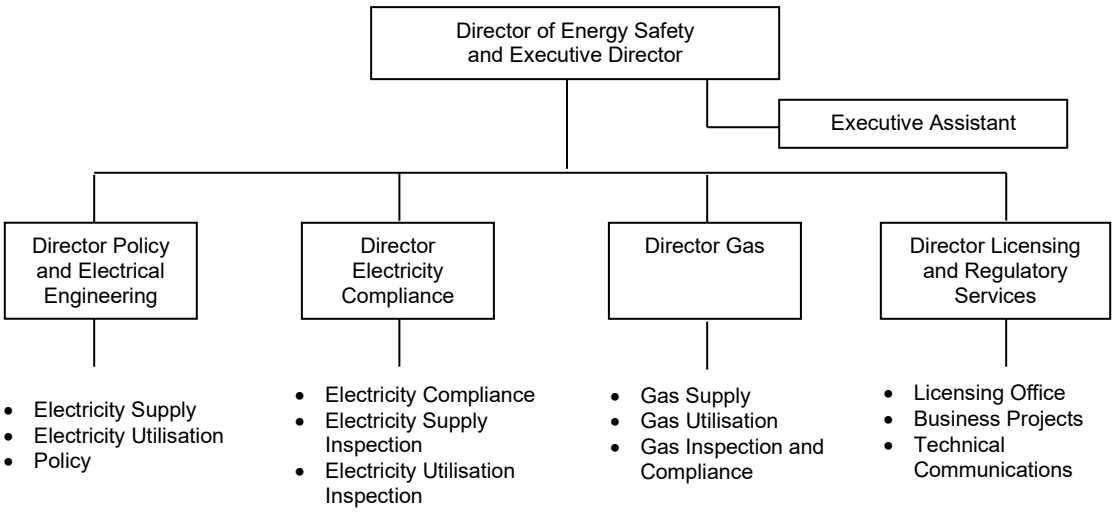
- proposals for major policy projects, such as new legislation or amendments;
- reports on the status and management of major policy projects;
- proposed regulatory actions that may affect the public or businesses;
- information releases dealing with subjects relevant to this Ministerial portfolio;
- reports on the status of major investigations or audits;
- responses to enquiries 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).

About Energy*Safety*

6 Energy*Safety* Structure, Directorate Functions & Resources

Energy*Safety* is located in the Mason Bird Building 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.

6.1 Organisational Structure



This structure has enabled Energy*Safety* 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.

6.1.1 Policy & Electrical Engineering Directorate

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

- policy coordination, new legislation and regulatory reform proposals;
- technical and safety policy, including technical standards development, industry liaison and assessment of requests for amendments to regulatory requirements;
- coordinating major projects and planning initiatives;
- guiding and approving Inspection System Plans, which set out consumer installation inspection practices;
- assisting the Director with appeals against network operator Inspector's Orders.
- providing advice on technical safety matters to the Director, Director General and the Minister; and
- providing technical support to the Electrical Licensing Board.

There are two engineering branches:

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

Each branch 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 during complex investigations and corporate compliance audits.

6.1.2 Electricity Compliance Directorate

The Directorate, headed by the Director Electricity Compliance, 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 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, ensuring compliance to codes of conduct and 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;
- supporting 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 Pilbara, Kimberley and Goldfields regional areas 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.

6.1.3 Gas Directorate

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

- all gas-related technical and safety work, including ministerial advice, advice on legislative changes and 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, headed by a Principal Engineer

deal with gas industry technical safety 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, during complex investigations and corporate compliance audits of gas network operators and licensed gasfitting contractors, as well as enforcement activities. The Gas Utilisation Branch is also responsible for guiding and approving gas supplier Inspection Plans, which set out consumer installation inspection practices and commitments, and conducting audits to ensure compliance.

- ❖ 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;
- inspecting gas consumers' installations in 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 the appointments of all gas inspectors in WA, maintaining codes of conduct, monitoring compliance, especially related to approvals of industrial gas appliances;
- carrying out investigations into serious accidents (fatalities, injury and damage) and incidents, and recommending safety promotion, warnings, prosecutions and disciplinary actions;
- advising consumers, gas businesses and tradespersons about energy safety and compliance matters;
- providing 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 branches of the Gas Directorate are based at the Cannington Office. The Gas Inspection branch operates on a 24-hour/7-day basis to respond to gas incidents.

6.1.4 Licensing & 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, Energy*Safety*'s administrative and office systems, the provision of a wide range of business planning, business performance measurement and reporting, financial planning and communication with industry.

The Directorate has three Branches, as follows:

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

These Branches deal with:

- ensuring efficiency and quality 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 managing 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. The Director Licensing and Regulatory Services is the chair 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;
- administration of the Division's industry levy scheme, including data collection and modelling, licence revenue forecasting, expenditure budget development;
- the Division's financial management, performance indicator development and reporting;
- overseeing the development of the annual Business Plan and maintenance of the Directorate'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 and Governance Services Division);
- statistical analysis and reporting in respect of electricity and gas related incidents, and Energy*Safety*'s key performance indicators; and
- industry technical (regulatory) communication, annual reporting and safety promotion.

6.2 Energy*Safety*'s Compliance Framework

6.2.1 Consumer Installations

Under electrical and gas safety legislation, electrical contractors and gas fitters must certify that the work they have undertaken is complete, is safe, complies with the legislation and is ready for connection to the energy supply. This certification is made by submitting a Notice, to the relevant gas supplier or electricity network operator and, where installations are not connected to a network, to Energy*Safety*. These Notices are the main indicator of the activity in industry and are the trigger for installation inspections.

To gain satisfactory confidence that the work undertaken by operatives is being done safely, to the required safety standards and to a trade-finish, network operators are required to inspect all the work for which they receive a Notice or a sample of this work if they have an approved Inspection System Plan. The sampling system is based on the historical safety performance of the operatives, volume of work they undertake and the complexity of the installation work undertaken.

All Inspectors employed by network operators are designated by the Director of Energy Safety under the *Energy Coordination Act 1994*.

Under their inspection system plans, network operators are required to conduct a preliminary assessment of defects and breaches they uncover during the course of their inspections. The less serious cases are generally dealt with by the inspector issuing an Inspector's Order requiring corrective actions be undertaken. The more serious breaches are referred to Energy*Safety* for further action.

Energy*Safety* Inspectors review the referrals from network operators' inspectors and decide on the compliance actions required. They will generally complete the investigations.

Energy*Safety* receives Notices for work undertaken on installations not connected to a network. A large proportion is for work associated with resources projects. Inspections of these installations are undertaken by Energy*Safety*'s in-house inspectors, who also conduct inspections of retail outlets selling appliances and domestic properties on such issues as ensuring compliance with RCD laws.

The Division devotes significant resources investigating serious accidents and fatalities.
It also audits the network operators' approved Inspection System Plans on a regular basis to ensure they are complying with those Plans and maintaining an adequate system of inspection

6.2.2 Electricity & Gas Networks

Gas and electricity network operators have extensive assets that are located in road reserves and other areas open to public access. It is essential that these assets are designed, constructed, operated and maintained in a manner that ensures public and worker safety.

Energy*Safety* engages proactively with the network operators to ensure they have sound asset management strategies.

Gas network operators are required to develop Safety Cases to manage their risks. Similarly, under legislation introduced in 2015, electricity network operators will have to develop and implement Safety Management Systems by August 2017 to manage their networks safely.

Under electrical and gas safety legislation, gas suppliers and network operators must notify the Director of Energy Safety of all serious incidents. Energy*Safety* investigates all such notifiable incidents and devotes significant resources, which often require technical specialist skills.

Performance Indicators & Statistics

7 Performance Indicators

7.1 Regulatory Work Indicators

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

7.1.1 Electricity	15/16 Target	15/16 Actual	16/17 Target*
Measures			
Electricity related deaths	0*	1	0*
Electricity related accidents[1] (including fatalities)	12	8	12
Electrical installations inspected and found non-complying (includes matters not directly affecting safety)	10%	13%	10%
Number of Energy*Safety* audits of electricity network operators' Inspection System Plans[2]	2	3	2
Investigations under Acts and Regulations	650#	318	300
Seminar, Education Program and Training (Licensees, Network Operators and Public)	100	197	100

7.1.2 Gas	15/16 Target	15/16 Actual	16/17 Target
Measures			
Gas related deaths	0*	0	0*
Gas related accidents[1] (including fatalities)	10	12	10
Gas installations inspected and found non-complying (includes matters not directly affecting safety)	7%	8%	7%
Number of Energy*Safety* audits of gas network operators' Inspection System Plans[2]	2	13	2
Investigations under Acts and Regulations	500	956	500
Number of Type A and type B gas appliance variations/exemptions granted	80∝	68	80∝
Presentations to Industry or other Groups	50	49	50

∝ Target based on current edition of AS 3814-2009 and known future gas turbine installations in power stations

***** Energy*Safety* 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 fatalities.

Pre 2015/16, all network operator notifiable incidents were classified as "breach investigations". In August 2015, the Electricity (Network Safety) Regulations 2015 were introduced and changed the definition of "notifiable incidents" so that only the more serious ones require reporting. Additionally, in CMS these reports are now classified as "Notifications" and only those which require further investigations are recorded as a "breach investigation".

7.2 Key Performance Information

Energy*Safety* is a Service (Service 3) of the Department of Commerce, being the provision of regulatory services to the Western Australian community through licensing and compliance

[1] 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.

[2] Inspection System Plans of energy distributors have a life cycle of several years and hence compliance audits are timed to fit with that cycle.

activities in the area of energy safety. Energy*Safety*'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*.

7.2.1 Outcomes & Key Effectiveness Indicators

The desired Outcome of Energy*Safety* 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 Energy*Safety* to measure its effectiveness in achieving the desired outcome are:

	14/15 Actual	15/16 Target	15/16 Actual	16/17 Target	Note
Key Effectiveness Indicators					
The number of electricity-related serious injuries and fatalities per million population	7.32	N/A	3.05	0	1
The number of gas-related serious injuries and fatalities per million population	9.63	N/A	4.57	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.

7.2.2 Key Efficiency Indicators

	14/15 Actual	15/16 Target	15/16 Actual	16/17 Target	Note
Key Efficiency Indicators					
Average cost of Regulatory Services	$4,251	$6,393	$3,887	$6,326	2
Average Cost of Provision of Licensing Services	$32.68	$33.01	$30.30	$32.40	3

2. The 2015/16 and the 2016/17 Targets reflect the costs associated with a full staff contingent and based on the assumption that the workload will remain constant. However, the Actuals for 2014/15 and 2015/16 are lower and reflect Energy*Safety*'s difficulty in attracting the required staff in regulatory roles.

   The budget reflects Energy*Safety*'s ongoing commitment to fill vacant positions. These additional staff will allow Energy*Safety* to conduct more proactive activities, which should increase regulatory services and, thus, reduce the average cost over time.

   The average cost can also be significantly affected by the need to investigate serious accidents, which often involves more inspectors' time and the engagement of specialist services.

3. The average cost of provision of licensing services is expected to remain reasonably static in 2016/17. This can be affected by the number of licences issued as a consequence of the cyclical nature of licensing renewals.

8 Electrical & Gas Safety Statistics

8.1 Electrical & Gas Safety Statistical Outcomes

The electrical and gas safety outcomes for Western Australia are summarised below, based on incidents reported by industry and the general public. The reported incidents are recorded in Energy*Safety's* Compliance Management System and the data presented in this Plan reflects the information available as of 1 July 2016.

8.1.1 Electrical Safety Statistics

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

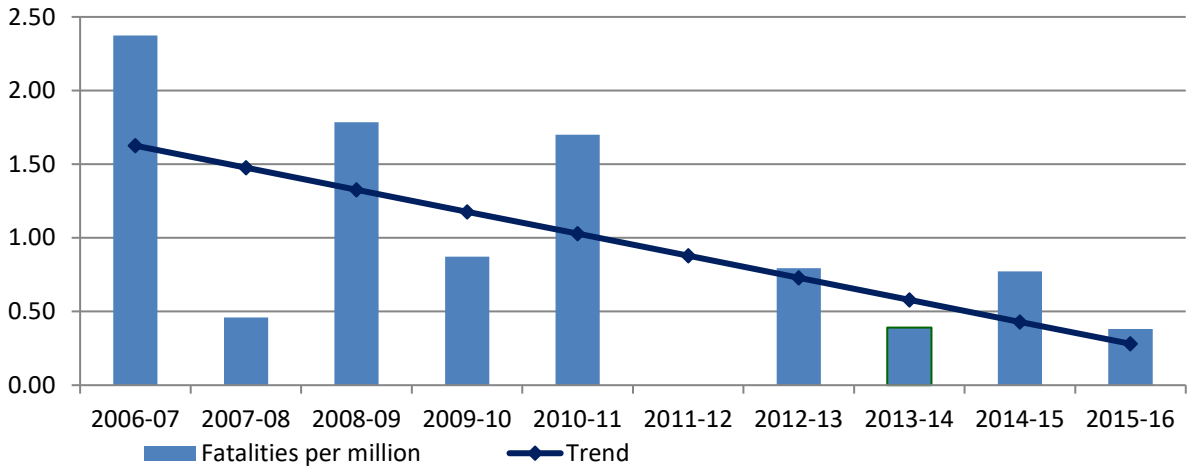
In October 2009, new laws were introduced mandating that properties being sold or leased in WA are to be fitted with at least two RCDs at the time of sale/lease. This legislation has resulted in a reduction in the number of fatalities.

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

Electrical Fatalities

During 2015/16, there was one fatality reported in Western Australia where electricity was found to be the cause. An electrical worker was electrocuted while repairing an air conditioner in the roof space of a domestic property.

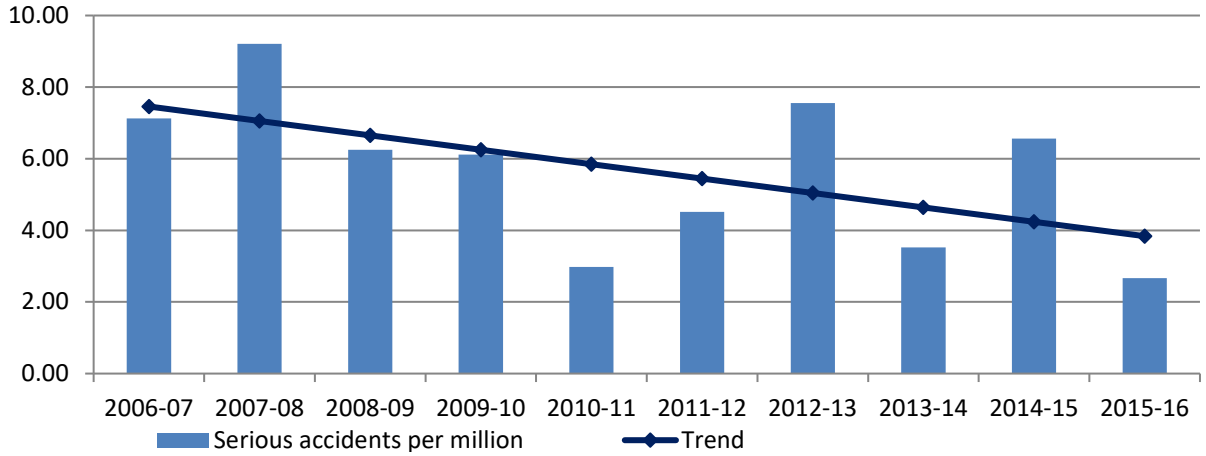
Chart A: Electricity related fatalities per million population



Electrical Accidents – Non fatal

WA's electrical accidents (non-fatal) per million decreased over the past ten years (Chart B). Accidents have been broadly classified into serious electrical accidents which typically require the victim to be hospitalised for treatment of injuries; and electrical accidents (medical treatment) where first-aid or medical attention, excluding attendance for a precautionary electrocardiograph (ECG) is sufficient for the treatment of injuries sustained in the incident.

Chart B: Electrical Accidents per million population



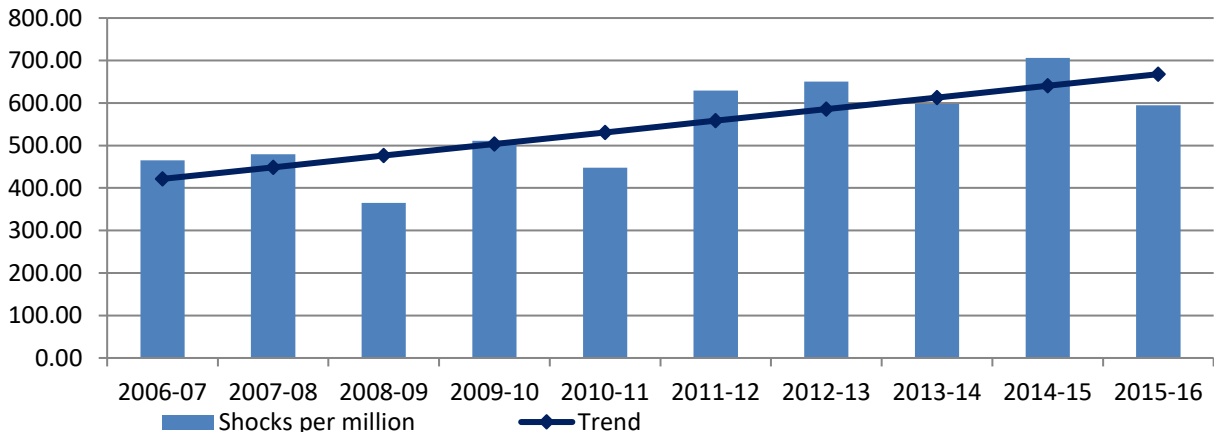
During 2015/16, there were seven non-fatal accidents compared with 15 in 2014/15. Overall the rate of accidents has been marginally decreasing over the past ten years.

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 Energy*Safety* 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: Electrical Shocks per million population



During 2015/16 there were 1,560 electrical shocks reported compared with 1,876 in 2014/15, which represents a 16.8% decrease compared to the previous year.

The general upward trend in the numbers of reported shocks indicates 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.

Electrical 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 Energy*Safety*'s published Code of Practice.

The trend for workplace fatalities and serious accidents (Chart D) is decreasing. The trend for fatalities and serious accidents resulting from 'live' work (Chart E) is also decreasing but at a slower rate. The spike in 2014/15 is due to the Morley Galleria Shopping Centre explosion where two electrical workers died and two others were seriously injured.

Chart D: Fatalities and serious accidents involving electrical workers in WA

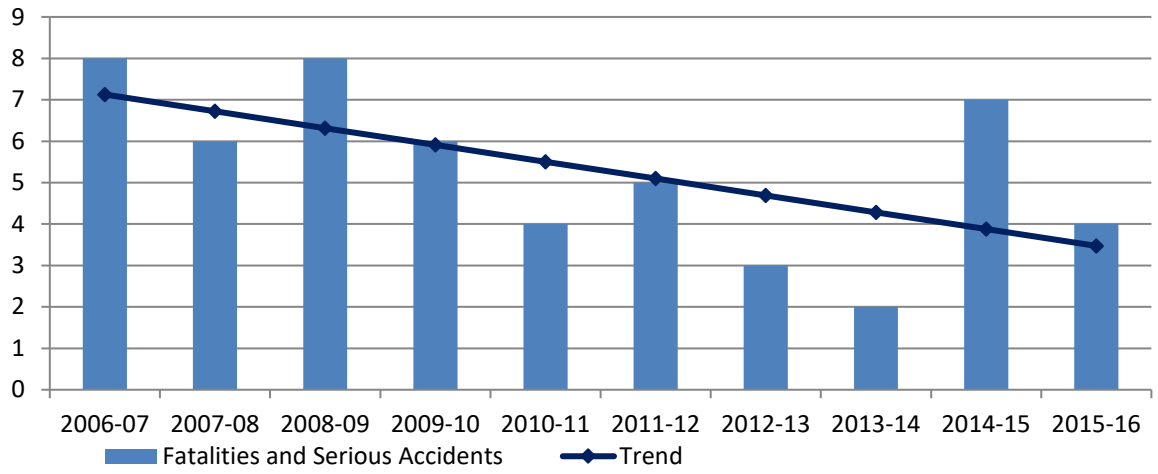
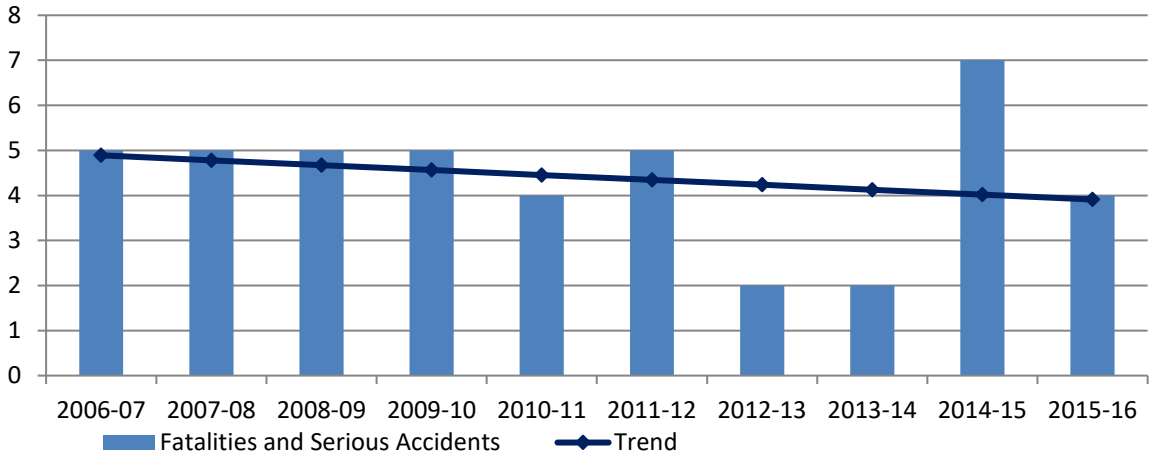


Chart E: Fatalities and serious accidents resulting from "live" work involving qualified electricians in WA

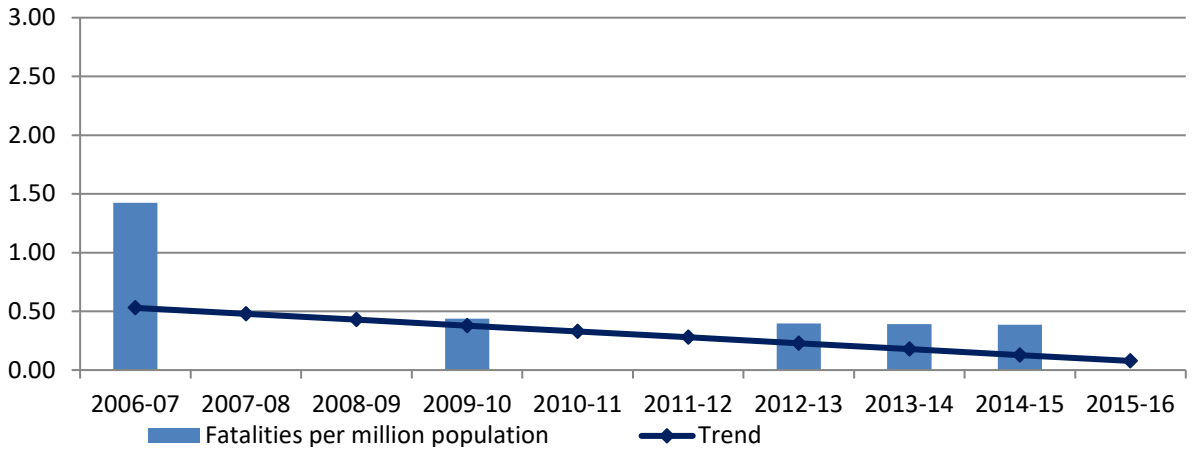


8.1.2 Gas Safety Statistics

There were no gas-related fatalities reported in 2015/16, compared to one fatality in 2014/15.

Despite fatalities in WA during 2006/07, 09/10, 12/13, 13/14 and 14/15, the long-term trend line has been reducing steadily over the past ten years.

Chart F: Gas related fatalities per million population

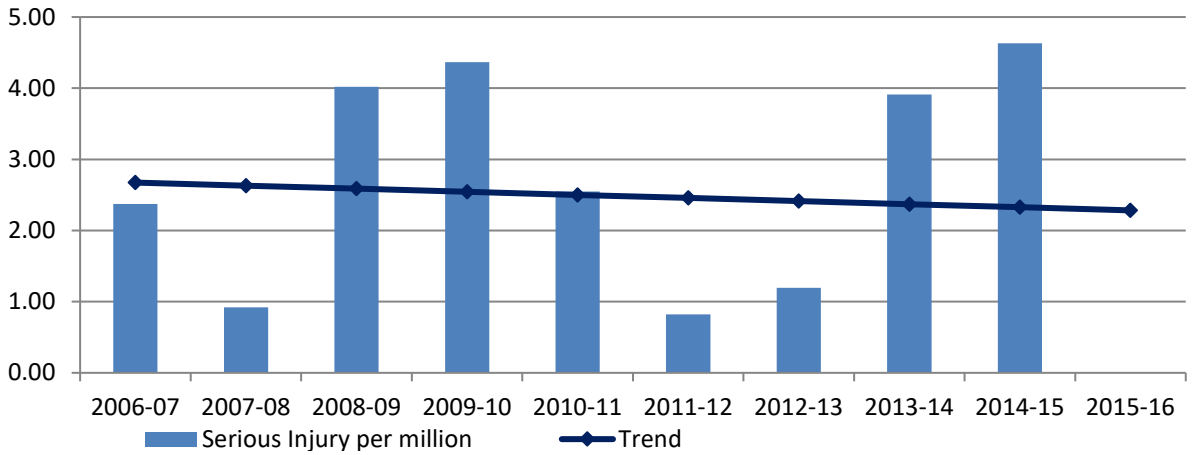


Gas incidents by their nature can harm several people in a single incident. The figures for gas-related fatalities have shown a net decline.

Gas Accidents – Serious Injury

The numbers of serious injuries per million population have trended slightly downwards 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 the importance of using it safely has helped with the current trend.

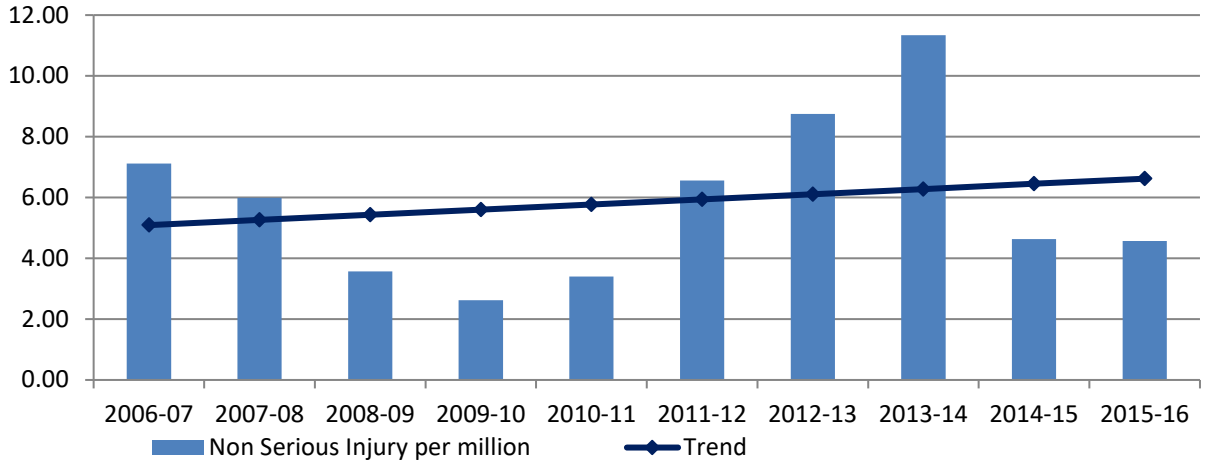
Chart G: Gas related incidents resulting in serious injury per million population



Gas Accidents – Non-Serious Injury

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. Although an improvement in this has been seen over the past few years, the overall trend shows a gradual increase during the ten year period. This will require close monitoring.

Chart H: Gas related incidents resulting in non-serious injury per million population



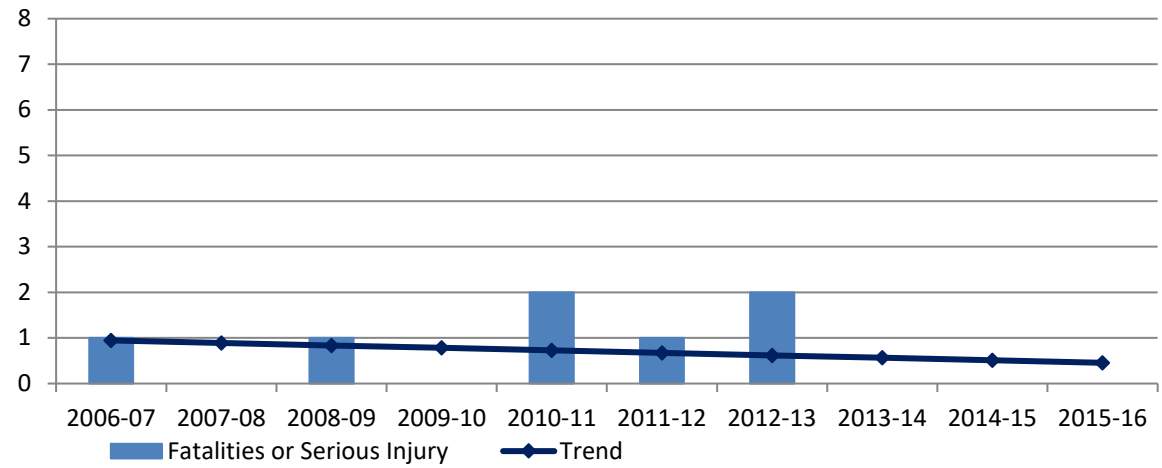
Gas Worker Safety

There have been no gas-related fatalities involving gas workers in the ten year period from 2006/07.

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 2015/16. Serious injuries involving gas workers are lower compared with electricians.

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

Chart I: Gas incidents resulting in fatality of serious injury involving gas workers



Business Environment & Challenges

9 Western Australia's Energy Industry Environment

During the next few years, new trends in technology, an ever-increasing reliance on imported consumer electrical products and the aging of the energy infrastructure in Western Australia will continue to influence Energy*Safety*'s workload.

The volume of work undertaken by Energy*Safety* depends on several key factors:

- the size of the industry i.e. the number of licensed operatives;
- the volume of installation work undertaken by electrical and gas operatives;
- the defect rate in the work undertaken by licensed operatives;
- the number of energy-related incidents;
- the complexity of investigations; and
- the performance of network operators in managing their public-safety risks.

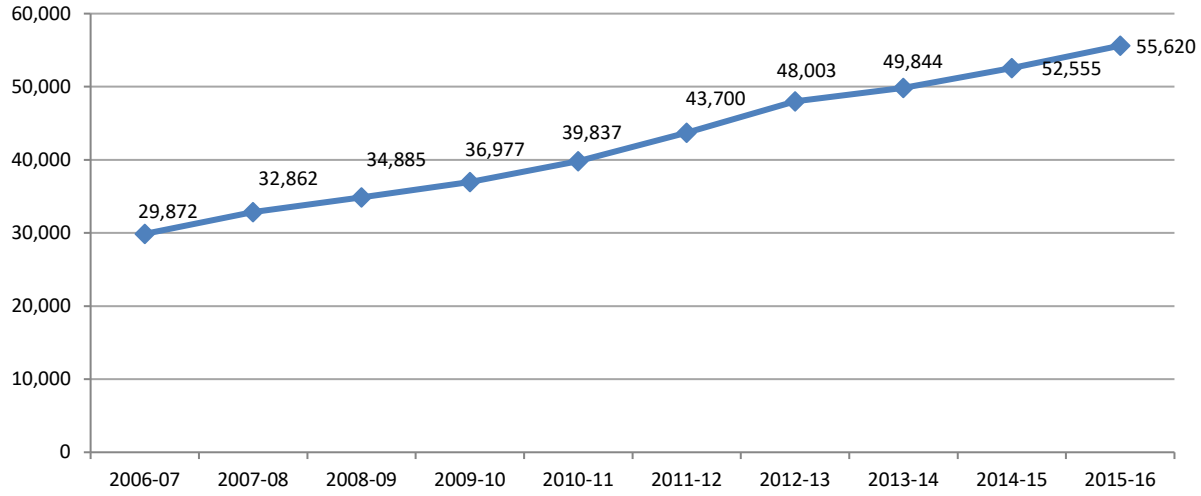
The downturn in the State's resources sector and the fall in construction activity have not eased the regulatory burden on Energy*Safety*. Work demand trends to date show no sign of abating.

9.1 Size & Growth of the Industry – Number of Licensed Operatives;

From the number of licensed operatives in Western Australia, it is clear the size of the gas and electrical industries has not decreased. On the contrary, the number of licensed electrical operatives has grown steadily since 2007/08. During 2015/16 alone, 3,065 new electrical licences were issued. Similarly, the gas industry has experienced steady growth during this time.

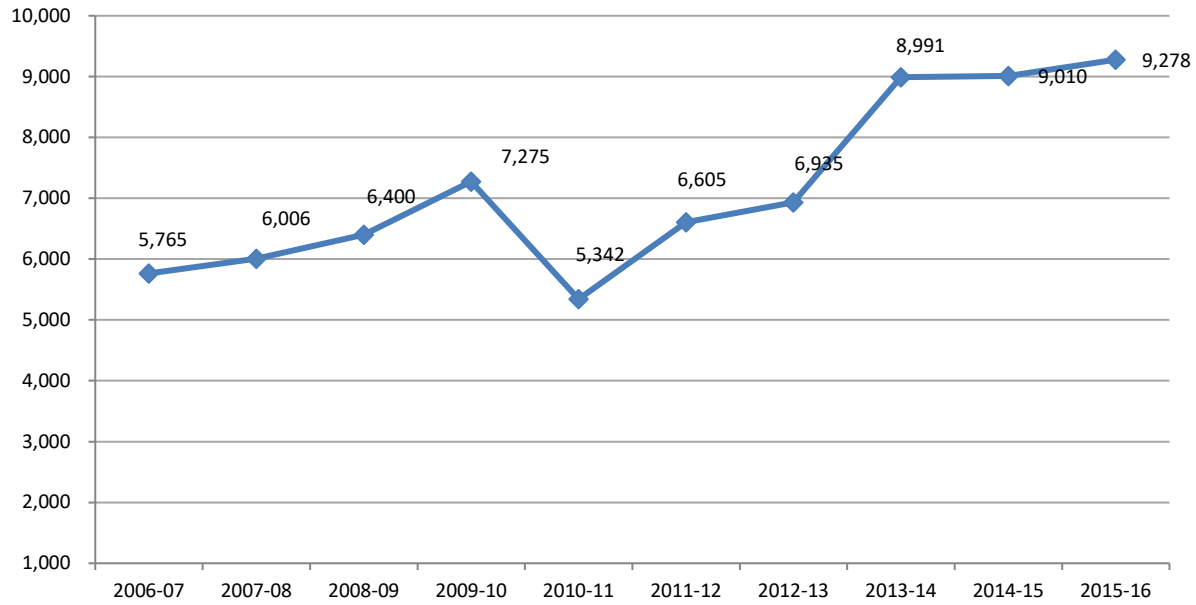
In 2007 (the year after industry funding was implemented), there were 29,872 electrical worker's licences. In 2016, there were 55,620, an increase of 86%, an average of 9.5% per annum over the period.

Chart J: Annual trend in numbers of electrical licences administered



In 2007, there were 5,765 gasfitting permits and authorisations. In 2016 there were 9,278, an increase of 61% at an average of 6.8% per annum over the period.

Chart K: Annual trend in numbers of gas permits/authorisations administered



Through the past year the general overall trend increase in numbers of energy industry licenced operatives has continued.

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, although a slow-down in the rate of increase is expected. A significant number of interstate tradespeople (mainly electricians) applied for licences in WA during the mining boom years of 2011 to 2013. It will be interesting to see if they maintain their licenses when they are due for renewal (usually five years after registration). The above aggregated numbers show an 82% increase in the total number of licenced operatives in WA in the past ten financial years (average of 6.9% per annum).

9.2 Volume of Installation Work Performed by Electrical & Gas Operatives

The volume of installation work undertaken by electrical and gas operatives has steadily increased since 2012/13[3].

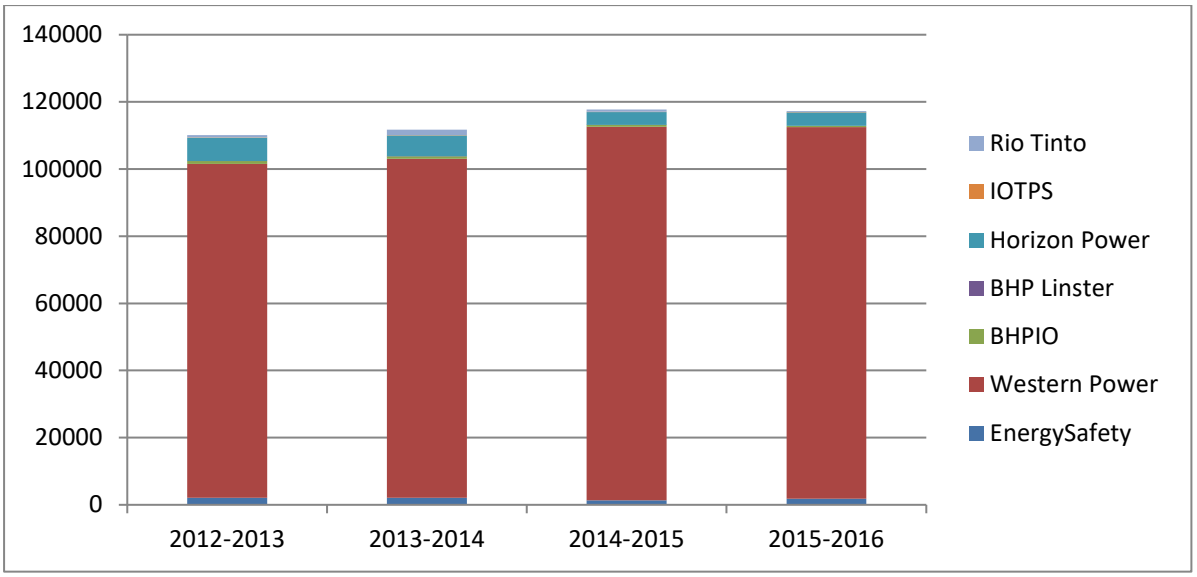
Under electricity and gas safety legislation in WA, electrical contractors and gasfitters must certify that the work they have undertaken is complete, is safe, complies with the legislation and is ready for connection to the energy supply. This certification is made by submitting a Notice of Completion (Notice), to the relevant gas supplier or electricity network operator and, where installations are not connected to a network, to Energy*Safety*.

These Notices are the major indicator of the activity in industry and are the trigger for installation inspections.

The number of Notices received by Energy*Safety* and electricity network operators for major work increased by 10% from 2013/14 to 2014/15 (from 99,000 to 110,000). This number was maintained in 2015/16.

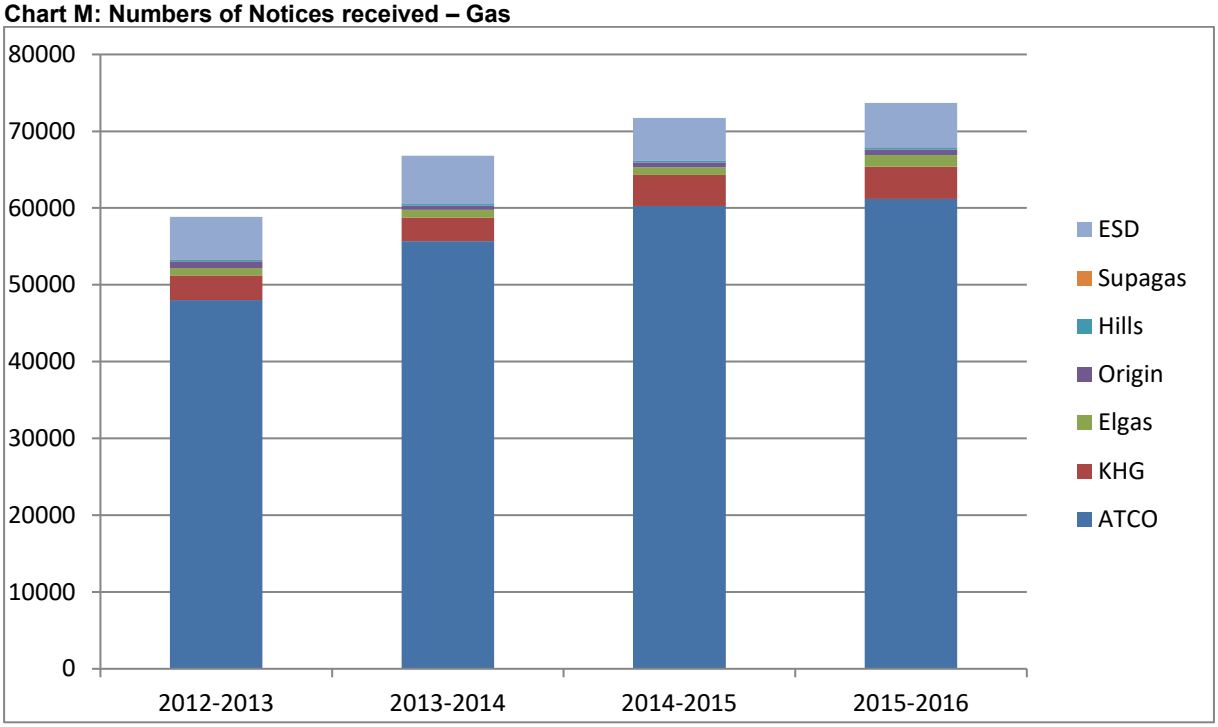
Chart L: Numbers of Notices of Completion received – Electrical

[3] Pre-2012/13 figures are not available.



The total combined number of Notices for the gas industry increased steadily by 10 per cent from 2013/14 to 2014/15. It increased by 3% from 2014/15 to 2015/16.

Chart M: Numbers of Notices received – Gas



To gain sufficient confidence that the work undertaken by operatives is being done safely, to the required safety standards and to a trade-finish, a sampling system, based on the historical safety performance of the operatives, volume of work they undertake and the complexity of the installation work undertaken, is used. On average, 25 per cent of the installations for which a Notice is received, is being inspected annually by network operators.

Under their inspection system plans, network operators are required to conduct a preliminary assessment of defects and breaches they uncover during the course of their inspections. The less serious cases are generally dealt with by the inspector issuing an Order requiring corrective actions be undertaken. The more serious breaches are referred to Energy*Safety* for further action. They generally trigger an investigation by Energy*Safety*.

The defect rate, revealed by inspections of the 25 per cent of installations for which Notices are submitted, remains disappointingly high at around 13 per cent of those inspected. Of these, around two per cent typically are serious defects, capable of causing electrocution or fires. They demand investigation priority for Energy*Safety*'s technical staff and cannot be ignored.

9.3 Volume of Compliance Work Undertaken by Energy*Safety*

Chart N: Total number of jobs – Electricity

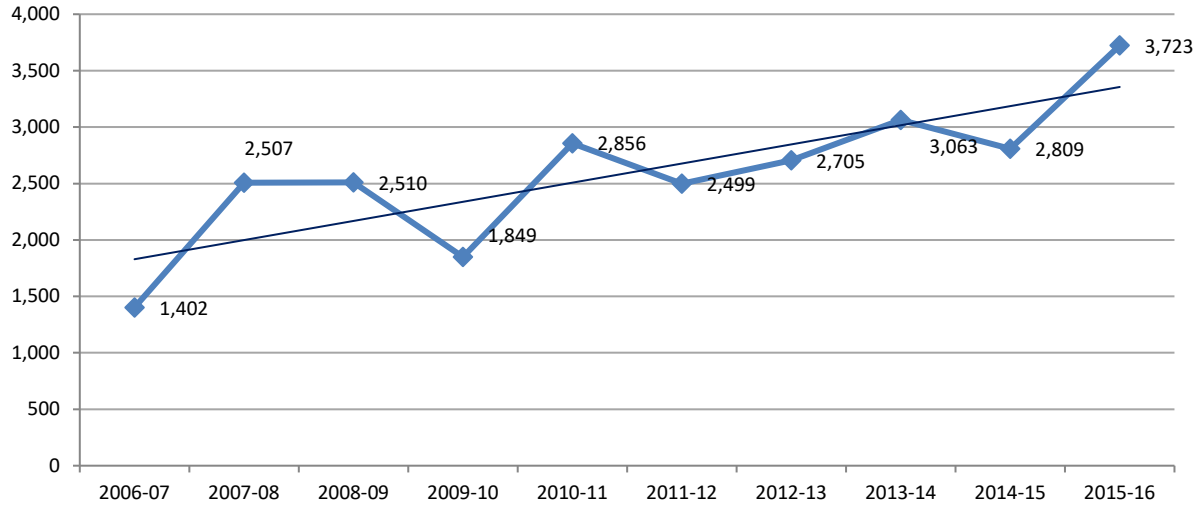
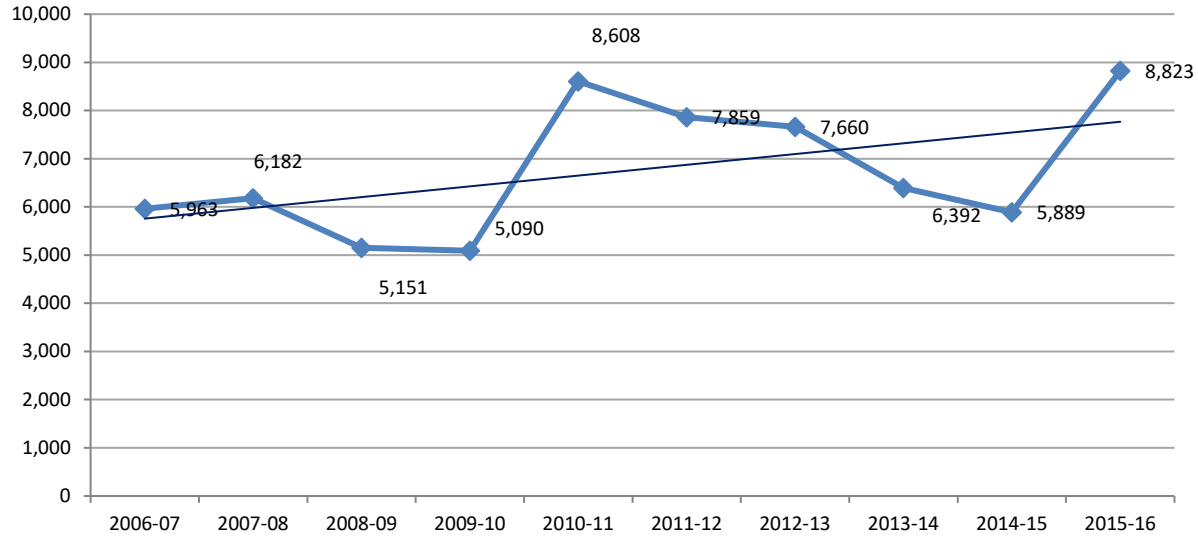


Chart O: Total number of jobs – Gas

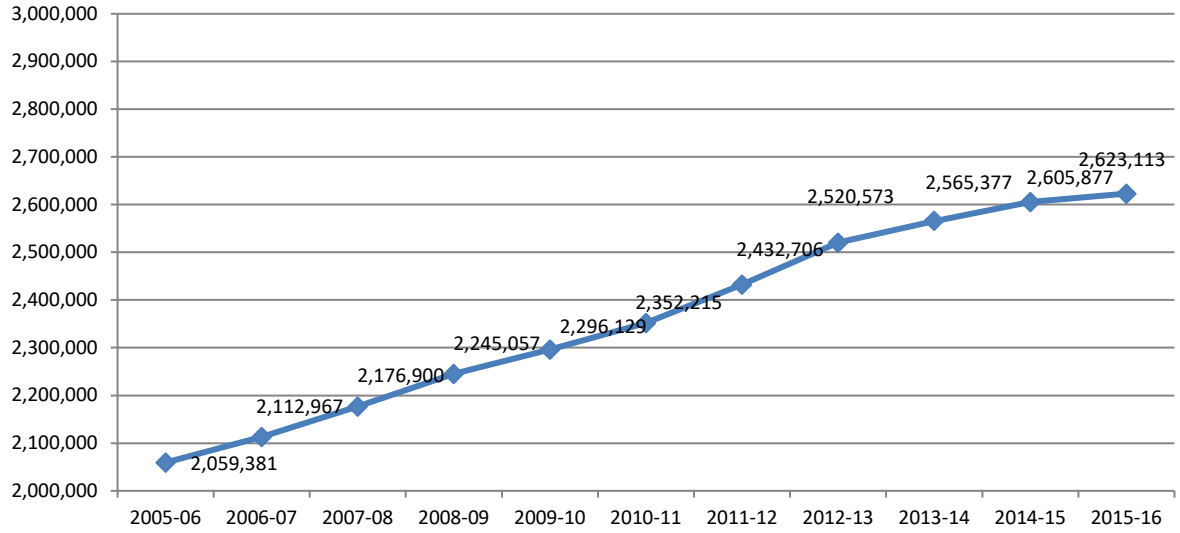


Note: The above graphs indicate the electricity and gas workloads. Due to differences in type of jobs, their classification and complexity, the overall numbers cannot be compared between electricity and gas. However, they indicate the trend in workload for each energy source.

Jobs numbers associated with electricity and gas have continued to increase. The rate of increase for gas-related jobs showed a drop between 2010/11 and 2014/15. The long-term expectation in workload for both gas and electrical jobs is increasing in line with the rising numbers of operatives. Energy*Safety* sees nothing that would indicate this is likely to change in the short to medium term.

9.4 Population Growth in Western Australia

Chart P: Population growth in Western Australia



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

9.5 Aging Energy Network

Energy network assets are generally long lived and are maintained and refurbished in accordance with asset management strategies, often informed by condition-assessment inspections.

However, if asset management strategies are not adequate, this may lead to an upward trend in network incidents.

Energy*Safety* will continue to monitor the network operators' asset management practices to ensure, with some confidence, that they are managing their assets effectively and prudently.

9.6 Evolving Energy Sector

For years, electricity flow has been one way from generation to load. The electricity utility was fundamentally responsible for generating power and selling it to the customer. Energy customers were simply "consuming" electricity.

Recent advances in energy- generation and storage technology have changed the way the energy sector operates. Consumers can now make more informed choices about energy usage. They can become energy producers and "storers" themselves. In essence, consumers will more and more be producing, storing and sharing energy. The term "prosumer" is often used to describe this type of consumer.

Network operators, on the other hand are finding localised micro-grids more appealing than transmitting energy over long distances. While both network operators and "prosumers" can benefit from this new energy model, there are challenges to be addressed to enable a smooth transition.

Australian Standards and electrical safety legislation will have to adapt to this new trend.

Initiatives to Manage the Challenges

10 The Period Ahead – Significant Issues Impacting Energy*Safety*

Energy*Safety* 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 Energy*Safety* has now been in place for eleven 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.

10.1 Major Policy Initiatives

To address the challenges ahead, Energy*Safety* proposes to implement or continue the following initiatives during 2017/18.

10.1.1 Energy Safety Bill

Legislation administered by Energy*Safety* 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 Energy*Safety.* The *Electricity Industry Act 2004* and its regulations and codes are examples.

Energy*Safety* 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 Energy*Safety*'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 in drafting the proposed Energy Safety Bill in recent years, much work lies ahead. Further progress of this Bill into 2017/18 will depend primarily on the Parliamentary Counsel's availability and the priority accorded by government.

10.1.2 Review of Safe Electrical Work Practices

To reduce incidences of serious electrical accidents, new parts will be added to the Electricity (Licensing) Regulations 1991 and the Occupational Safety and Health Regulations 1996. The new parts will set out minimum standards for safe electrical work practices by electricians and other workers, particularly when proposing to work on or near live parts of a consumer's installation.

The new regulations will prohibit work on or near energised electrical equipment unless this is unavoidable, in which case formal safe work procedures complying with the regulations must be prepared and followed. It will also make it mandatory for workers to turn off the power before they undertake work in enclosed ceiling spaces of domestic dwellings.

The government has endorsed the joint Energy*Safety* and WorkSafe proposals to ban work on energised electrical equipment. This follows the death of three electrical workers in 2013/14 and 2014/15 in Western Australia.

The new policy proposal will involve amending the Electricity (Licensing) Regulations 1991, administered by Energy*Safety* 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 that prescribe specific control measures when operating under an exception will also be included in the legislation.

It is proposed the general provisions prohibiting work on energised equipment will be broadly consistent with those which currently apply in other Australian jurisdictions.

The new requirements which will make it mandatory for workers to turn off the power before they undertake work in enclosed ceiling spaces of domestic dwellings will be a first in Australia. It follows several deaths in ceiling spaces of domestic properties.

It is anticipated that the legislation will be prepared in 2017 and work on implementing it with industry will occupy Energy*Safety* throughout 2017/18.

10.1.3 Management of Privately-Owned Consumer Poles

In September 2014, the Western Australian Government approved a series of initiatives to address the widespread misconception among the public about the ownership and responsibility for maintenance of private power poles. A public awareness campaign was undertaken in October 2014 to advise consumers about their responsibilities for power lines and poles on their property. Government also approved that the relevant legislation be amended to resolve the existing legislative and regulatory ambiguity.

Provisions will be included in the Energy Safety Bill to address this issue. The effectiveness of these initiatives will be assessed during 2017/18.

10.1.4 Review of Electricity Network Operators' Asset Management Strategies

For years, Energy*Safety* has been concerned about the urgent safety risks arising from aging electricity infrastructure in WA. It has been continuously monitoring network safety incidents and gauging the effectiveness of asset management strategies. Its concern about Western Power's management of its wood pole assets led to the Order (01-2009) being issued in 2009.

During 2015/16, Energy*Safety* completed its review of Western Power's compliance with the Order to satisfy itself that the requirements had been met. The review found that Western Power has met its obligations under the Order, thereby improving public safety and reducing the risk of bushfires ignited by falling poles in the State's extensive rural distribution network.

The Order did not specify a completion date for poles in metropolitan areas. Energy*Safety* will continue to work with Western Power during 2017/18 to ensure the effectiveness of its wood pole management strategy.

Energy*Safety* also insisted network operators develop plans to identify and address all other network safety risks. It will monitor network operator's pole-top fire incidents, conductor clashing incidents, conductor failure incidents and their progress against their respective plans throughout 2017/18.

10.1.5 Review of Electricity Network Operators' Safety Obligations

Under new legislation introduced in 2015, all electricity network operators are required to develop and implement an Electricity Network Safety Management System (ENSMS) complying with Australian Standard, AS 5577-2013, by 6 August 2017.

The legislation also requires network operators to publish regular statements about their network safety performance and reports comparing their actual performance against pre-set safety objectives every year. These reports 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.

Energy*Safety* will not "approve" network operator safety cases or their performance indicators. However, significant resources will be allocated during 2017/18 to guide network operators on how to comply with the legislation and to review their reports and their respective performances against their ENSMSs.

10.1.6 Review of Supervision requirements for Electrical Apprentices

During 2016/17, it became evident that some electrical contracting companies may not be providing adequate supervision to apprentices. Energy*Safety* is concerned electrical apprentices are not being adequately supervised and trained in the breadth and depth of the industry. It found several cases where apprentices were supervising other apprentices. There is also evidence that some apprentices do not see their supervisors for days at a time.

Energy*Safety* is investigating some cases and will be considering whether to recommend amending the legislation to mandate the minimum supervision requirements which should be provided to electrical apprentices.

10.1.7 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. 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 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 Energy*Safety*. Energy*Safety* continues to liaise with ATCO Gas Australia to improve the compliance of multi-storey building gas installations.

Approximately 900 multi-storey installations were identified and risk-ranked so that the more serious installations are addressed first. To the end of June 2016, in conjunction with ATCO Gas Australia, 200 of these more serious multi-storey gas installations have now been improved 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 2017/18 with collaboration between ATCO Gas Australia and Energy*Safety*.

10.1.8 Review of Gas Network Operators' Safety Cases

Under the Gas Standards (Gas Supply and System Safety) Regulations 2000, all gas network operators have to submit a Safety Case to the Director for his approval. The Safety Case has to detail how the network operator will manage its network assets and ensure compliance with prescribed Australian Standards for gas network safety.

The Safety Cases for gas network operators are due for renewal and Energy*Safety* will devote resources during 2017/18 to assist network operators with the development of new Safety Cases.

10.1.9 Review of Gas Suppliers' Inspection System Plans

Under Section 13J of the *Gas Standards Act 1972*, gas network operators and suppliers are required to prepare and submit an Inspection Policy Statement and Plan to the Director for his approval.

These Plans have to detail how the gas network operators/suppliers will inspect and monitor work undertaken by gas operatives on all types of consumer gas installations supplied with gas by the network operators/suppliers. They are the cornerstone of the compliance framework to ensure the safety of consumer gas installations in WA.

The Approved Inspection System Plans for gas suppliers have been in force for the past three years and are due to expire in early 2017. Energy*Safety* will devote resources to engage with gas network operators/suppliers during 2017/18 to assist with the development of new Plans. As part of the process, it will also review the effectiveness of existing inspection and investigation practices.

10.2 Corporate Projects & Issues

The statistics show that, even with a backdrop of trending increases in licensing numbers, compliance work and population growth, the long term trend of incidents and fatalities related to the use of and work with electricity and gas has been downwards.

For several years, Energy*Safety* has experienced rapid workload growth. This coupled with difficulties in attracting and retaining suitably qualified and experienced inspectors and technical staff, led to lower priority work not being undertaken and a significant backlog of higher priority work.

Up until late 2016, Energy*Safety* has been unable to carry out a satisfactory number of inspections of electrical installations and other proactive initiatives, through prioritising its work based on available resources.

Staff establishment available to Energy*Safety* 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.

Energy*Safety* 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, implement automation and adopt electronic means wherever possible for enhancing productivity, as well as making it easier for licence-holders, the general public and network operators to interact with Energy*Safety*.

In 2017/18 Energy*Safety* will persist in its attempt to recruit technical staff to fill its vacant positions. It will also examine the recruitment of lessor skilled inspectors in developmental positions and continue with its engagement of installation inspectors to inspect outstanding work in remote areas.

10.2.1 Enhancements to the Compliance Management System

In an effort to reduce manual processing of compliance-related work, enhancements to Energy*Safety*'s Compliance Management System (CMS) were commissioned from 2015/16 to replace components of the software. The enhanced CMS will improve productivity and efficiency by supporting a mobile inspection workforce and aligning workflows across the gas and electricity directorates.

$1.4 million has been allocated over the two years to 2017/18 to complete enhancements to improve functionality, including support for electronic lodgement of various notifications by external users, improved assessment, investigation processes and some automation of work programing, complex audit scheduling and management of resources for operational activities both metropolitan and regional.

Energy*Safety* has sufficient funds to meet the expected costs of these enhancements.

10.2.2 Human Resource Management & Recruitment Strategies Review

In performing its role as a regulator, Energy*Safety* requires experienced officers who 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.

Technical staff with such skills are generally well-prized in industry and are difficult to recruit and retain. This has especially been the case over the last decade or so, 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, Energy*Safety* competes directly with the gas and electricity network operators, major consultancies and large construction contractors.

Energy*Safety* has been able to offer more competitive employment packages to its engineers and inspectors since 2012 through an Attraction and Retention Incentive (ARI) scheme which has remuneration rates benchmarked against those in the private sector.

While the ARI has been successful in attracting some staff, vacancies still exist. Further recruiting is required and will continue to be a critical activity for Energy*Safety*, 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 Energy*Safety*'s core of full time, permanent personnel.

In 2016/17, Energy*Safety* commissioned a holistic Human Resource Management Review to provide guidance on the way forward for staff and work management.

The review recommended changes to job descriptions and classifications of positions. It also recommended that a review of processes be undertaken to better inform the Division's strategic direction.

In addition, the review found that "existing panel contracts have been working well and have proved useful, and in some cases have been a ready supply for filling advertised permanent roles". It recommended expanding these panel contracts to assist with workload management.

During 2017/18, Energy*Safety* will further investigate and implement the recommendations from the HR Management Review.

10.2.3 Review of EnergySafety's Investigative Practices

Energy*Safety* also commissioned a review of its investigative and prosecutorial practices in 2016/17.

The review commended Energy*Safety* on its existing processes. It did recommend some changes which may lead to improving the efficiency of some of the processes. The recommendations from this review will be considered and implemented during 2017/18.

10.2.4 Review of Electricity Network Operators' Investigative Practices

Energy*Safety* relies on the investigative work of designated inspectors employed by the network operators. While the legislation requires network operators to have effective systems of inspection and investigation, for many years, their investigations have been deficient. Electricity network operators were taking too long to provide their investigation reports to Energy*Safety* and the quality and content of those investigations were very often lacking. This necessitated intervention by Energy*Safety* and rework by the network operators. This also contributed to an inability to complete investigations within specified statute limitations.

To address the issue, the Director published new Guidelines for electricity network operators' inspection system plans in 2013. Timeframes for submission of investigation reports to Energy*Safety* were tightened. The content of the investigation reports and the necessary evidentiary documentation required for each type of breach were specified in the Guidelines. After prolonged negotiations with the network operators, complying Inspection System Plans were approved in 2015/16. This should improve the efficiency of Energy*Safety*'s investigative functions in the longer term.

10.2.5 Licensing Online

To cope with the significant year-on-year increase in licensing numbers and the rising costs of providing licensing services, Energy*Safety* is innovating to adapt to the change.

It is actively participating in the Department of Commerce's Licensing Online initiative which will see licence applications for electricians, electrical contractors and gas fitters moving from a paper-based to an online system.

It is expected that the full benefits of this project will be realised for Energy*Safety* and its customers in the latter part of 2016/17. This should see faster turn-around times with less manual processing and lower costs of providing the services.

10.2.6 Public Communications

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.

Energy*Safety* 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 WA and other jurisdictions shows campaigns should be aimed at both the public and energy industry workers to improve safety awareness.

Energy*Safety* 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 and through articles in industry publications.

The Energy Bulletin was published as a paper-based magazine until 2016 and was circulated to 14,000 electrical contractors and gas fitters. Since that time the Energy Bulletin has been published digitally and emailed to all licensed operatives. It is also available on the website or to any interested parties who wish to subscribe. It is currently being circulated to 47,000 recipients.

Throughout 2017/18 Energy*Safety* will work with Commerce's Media Team to develop innovative and cost effective means to communicate with energy workers and the wider public.

11 Regulatory Operational Matters

Some operational work undertaken by Energy*Safety* 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 are several other activities which Energy*Safety* devotes significant resources to. These are outlined below.

11.1 Inspections of Installation not Connected to a Network

Energy*Safety* receives Notices for work undertaken on installations not connected to a network. A large proportion is for work associated with resources projects. Inspections of these installations are undertaken by Energy*Safety*'s inspectors.

11.2 Investigations of Breaches to the Legislation

When electricity network operators' inspectors or gas suppliers' inspectors uncover a breach of the legislation, they generally refer the matter to Energy*Safety* for compliance action.

Energy*Safety* devotes significant resources conducting investigations into breaches of legislation and preparing briefs for enforcement actions.

11.3 Investigations of Serious Accidents and Fatalities

All investigations of serious electrical and gas related accidents and fatalities are undertaken by Energy*Safety*'s inspectors. These generally are technically complex and require allocation of significant resources. Energy*Safety* draws resources from its in-house engineers. In some cases, experts from other fields (timber, structural etc.) are called upon to assist with these investigations.

11.4 Investigations of Network Incidents

For the past five years, Energy*Safety* has devoted significant resources to investigating several complex investigations, including the Toodyay and Parkerville bushfires and the Albany gas explosion.

Investigations of major incidents generally require many hours of senior inspector and engineer expertise and time.

11.5 Inspections of Remote Sites, Rottnest Island & Indian Ocean Territories

Energy*Safety* inspects electricity and gas installations not connected to a network (e.g. pastoralists' facilities, mine sites), on Rottnest Island and, under a Memorandum of Understanding with the Commonwealth Government, Christmas and the Indian Ocean Territories (Christmas Island and the Cocos [Keeling] Islands).

11.6 Monitoring of Gas and Electricity Consumer Appliances

Energy*Safety* inspectors routinely visit retail outlets to ensure appliances which are prescribed by the Director bear the required certification labels and are safe. There continues to be a trend for gas and electrical appliances to be sourced from overseas, often via non-traditional purchasing practices that are becoming commonplace, such as the internet. It has been found that many of these appliances do not meet Australian Standards and are unsafe.

Energy*Safety* is involved in removing these items from sale and educating the public on the safety risks posed by unsafe appliances.

11.7 Processing of Licence Applications

For a period up until 2013 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 Energy*Safety*. 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 Energy*Safety*'s 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 2016/17 has been to increase use of technology and drive the online processing of licence applications. Renewals for most licence types have been available via an online portal since 2014. New licence applications are expected to be able to be undertaken online by the middle early 2017. 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 applicants and to realise efficiencies in what has traditionally been a very manual process.

11.8 Audits of Network Operator Inspection System Plans

Under the existing compliance framework, electricity network operator and gas suppliers are required to implement their Inspection System Plans as approved by the Director. Energy*Safety* devotes significant time auditing these approved Plans and also monitors their effectiveness.

The performance of Installation Inspectors employed by network operators is also closely monitored. These 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.

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

Targeted audits will continue to be carried out to ensure that all network operators carry out their installation inspection functions in accordance with statutory obligations.

11.9 Audits of Electrical Contractors

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

11.10 Australian Standards Development Work

Energy*Safety* allocates resources to assist Standards Australia with the development and maintenance of Australian Standards pertaining to electricity and gas safety. Its engineers and technical staff represent the interest of safety regulators on several technical committees at national level.

11.11 Regulator Liaison

Energy*Safety* is a member of both the Gas Technical Regulators Committee (GTRC) and the Electrical Regulatory Authorities Council (ERAC).

GTRC is an association of Government Departments responsible for the safe use of gas. The committee includes representatives from each State and Territory in Australia and New Zealand.

Similarly, ERAC is a forum which allows electrical safety regulators to discuss issues of common interests and share information about safety trends and policy development strategies.

Energy*Safety* senior staff members participate in regular forums and meetings of the GTRC and ERAC.

Financial Plan

12 2017/18 Financial Plan

The following Financial Plan presents Energy*Safety*'s expenditure (both capital and operating) and revenue budget forecasts for the 2017/18 financial year and three out-years.

It also includes a comparison between the budget and actual out-turn for the 2015/16 financial year as well as the approved budget for the current (2016/17) financial year.

The 2017/18 Financial Plan presents the full costs and revenues of Energy*Safety*, to ensure:

- consistency and alignment with presentation of the State Budget;
- consistency and alignment with the internal budget 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;
- 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 Energy*Safety*, 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.

Energy*Safety*'s Financial Plan provides details of:

- planned operating expenditure, including non-cash expenses such as depreciation and leave liability movement;
- planned capital expenditure;
- estimated revenue from electrical and gas licensing activities 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 Energy*Safety*.

Estimates are provided for the 2017/18 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 modelled 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 the 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. This will need to be monitored to ascertain the impact of online licensing.

With respect to employee benefits expense (salaries) estimates, it is expected that there will be an ongoing vacancy rate in the order of 6%-7%, or four positions.

While the vacancy rate at 30 June 2016 was 19% (12 staff), the vacancy rate used in estimates for 2017/18 and out-years is expected to reduce to four FTEs (6.35%). It is still recognised that Energy*Safety* 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 and initiatives being employed to assist recruitment, give Energy*Safety* reasonable confidence that the vacancy rates will fall to that level and remain relatively steady.

Although Energy*Safety*'s cash reserves remained high to the end of 2015/16 (for the reasons detailed at section 12.2), 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 for unplanned extraordinary expenses associated with major investigations (such as large electricity-caused bushfires, for example) and to provide sufficient funding for Energy*Safety* to operate for at least a quarter should it encounter funding collection challenges.

The 2017/18 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 achieved and maintained.

While Energy*Safety* holds sufficient cash reserves, an increase to the levy in 2017/18 at a rate commensurate with forecast CPI is required to meet Energy*Safety*'s forecast expenses, to ensure sustainability of Energy*Safety*'s ability to carry out its functions and maintain the necessary cash balances.

The most significant risks to Energy*Safety*'s budget are 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. A significant number of electrical licences are currently issued to persons with an interstate address. It has been noted for the past several years that, should the resources sector slow-down affect Energy*Safety's* licensing activity, without another trades-related sector experiencing significant growth, revenues from licensing activity may decline over several years.

This has not yet significantly impacted Energy*Safety.* However 2016/17 to date has seen a slight slow-down in the rate of growth it had experienced over several years. If it does eventuate that this reduces revenue forecasts significantly, decisions will need to be made concerning either the functions of Energy*Safety*, 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 (2016/17) budget estimates reflect the budget approved by the Minister for the year in the 2016/17 Business Plan, incorporating 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 2017/18 budget as indicated.

2017/18 Financial Plan

Financial Year	2015/16 Budget	2015/16 Actual	2016/17 Approved Budget	Escalated $ 2017/18	2018/19	2019/20	2020/21
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1. Expenses							
1.1 Recurrent Expenditure							
a) Employee benefits expense	7,995	7,524	8,473	8,471	8,542	8,455	8,455
b) Corporate service charges	2,304	2,259	2,530	2,674	2,741	2,810	2,880
c) Depreciation expense	209	285	439	414	510	519	527
d) Legal services	150	228	159	183	187	244	247
e) Accommodation expenses	771	790	826	830	851	872	894
f) IS support/maintenance (CMS)	0	0	200	205	225	235	253
g) IT and minor equipment replacement	44	28	44	40	35	37	38
h) Other recurrent expenses	2,520	2,600	2,431	2,553	2,425	2,640	2,587
Total Recurrent	**13,992**	**13,714**	**15,102**	**15,371**	**15,517**	**15,812**	**15,882**
1.2 Capital Expenditure							
a) Software replacements (CMS)	1,000	272	0				
b) CMS project management	200	172	0				
c) On-line compliance and customer interface functionality			700	700			
Total Capital	**1,200**	**444**	**700**	**700**	**0**	**0**	**0**
Total Expenses	**15,192**	**14,158**	**15,802**	**16,071**	**15,517**	**15,812**	**15,882**
2. Income							
a) Industry Levy	6,876	6,876	7,048	7,154	7,261	7,370	7,480
b) Licensing Fees	6,506	7,089	6,796	6,553	6,654	6,941	7,119
c) Indian Ocean Territories	45	104	45	46	47	48	50
d) Other revenues	51	384	13	25	26	26	27
Total Income	**13,478**	**14,453**	**13,902**	**13,778**	**13,988**	**14,386**	**14,677**
Surplus/(Deficit) for the period	**(1,714)**	**295**	**(1,900)**	**(2,294)**	**(1,529)**	**(1,426)**	**(1,206)**
Approved FTE	**63**	**63**	**63**	**63**	**63**	**63**	**63**
FTE Actual/Estimate	**56**	**51**	**59**	**59**	**59**	**59**	**59**

The above budget will have the following cash impact:

Financial Year	2015/16 Budget	2015/16 Actual	2016/17 Approved Budget	Escalated $ 2017/18	2018/19	2019/20	2020/21
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Estimated Opening Balance	**11,772**	**11,417**	**11,239**	**9,771**	**8,137**	**7,943**	**7,721**
Industry Levy	6,876	6,876	7,048	7,154	7,261	7,370	7,480
Licensing Fees	7,034	7,439	6,839	6,848	6,830	6,976	7,049
All other revenues	96	488	58	71	73	75	77
Cash expenses	(14,984)	(14,981)	(15,413)	(15,707)	(14,357)	(14,643)	(14,705)
Cash movement	**(977)**	**(178)**	**(1,468)**	**(1,634)**	**(193)**	**(222)**	**(99)**
Estimated Closing Balance	**10,795**	**11,239**	**9,771**	**8,137**	**7,943**	**7,721**	**7,622**

12.1 Notes & Explanations

12.1.1 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 estimates provide for a vacancy rate of four FTEs (6.35%) in 2017/18. The vacancy rate used in estimates for 2018/19 and beyond remains at four FTEs.

b) **Corporate service charges**: Energy*Safety* relies on central departmental Corporate and Governance 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 and Governance Services Division.

c) **Depreciation expense:** covers the cost of depreciation of Energy*Safety*'s assets, including software systems. From 2016/17 the new CMS, commissioned during 2014/15, has started to have a significant impact on depreciation expense.

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 Energy*Safety*'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.

12.1.2 Capital Expenditure

a) & b) **Software replacements (CMS)**: and

c) **On-line compliance and customer interface functionality:** $1.4 million has been allocated over the two years to 2017/18 to complete enhancements to Energy*Safety*'s new CMS, which includes improved functionality to support electronic lodgement of various notifications by external users, improved assessment, infringement and prosecution processes and some automation of work programing, complex audit scheduling and management of resources for operational activities.

The items at a) and b) reflects the capital costs of completing development and the capitalised internal IS project support costs for implementation of the CMS system, which concluded during 2015/16.

12.1.3 Income

a) **Industry levy:** This is the energy industry levy necessary to ensure Energy*Safety* 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 2017/18 this is $6.553m. On a cash basis the amount is $6.848m.

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. Energy*Safety* provides electricity and gas regulatory services under this agreement and the expected reimbursement is shown.

d) **Other revenues**: This reflects income from the sale of publications to industry and other minor recoups.

12.2 Cash Balances

Energy*Safety*'s cash balance forms part of the Department of Commerce's bank account and is classified as restricted cash. The cash bank balance was $11.24m at the end of 2015/16 and this balance has historically grown and stabilised at this level due to:

- underestimates of revenues;
- 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; and
- underspend in implementing the Compliance Management System.

Energy*Safety* 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. Energy*Safety*'s cash balance should therefore be sufficient to cover the cash value of the leave liability.

Energy*Safety* has a high proportion of aging workforce (21% at or beyond retirement age and likely to be 30% 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 Energy*Safety*'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 2016) $1.11m. CMS has been commissioned and capitalised, meaning that the depreciation expense for Energy*Safety* will increase to more than $500k per year from 2018/19, bringing accumulated depreciation to approximately $3.5m over the forward estimates period.

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 Energy*Safety*'s bank account at 30 June 2016 was $5.78m. While this is recognised as unearned income, there is no circumstance where this will be repaid or lost to Energy*Safety*. It is reasonable that the bank balance should retain at least the non-current portion of this unearned income, which is approximately $3.29m at 30 June 2016.

Excluding the current portion of unearned or accrued income, the reasonable, targeted cash balance at any given time should therefore be in the order of between $6.0m and $7.0m. The 2017/18 Financial Plan will see a gradual and sustainable reduction to cash reserves that will see this optimal target level of cash holdings reached and maintained in the life of this Plan.

Industry Levy

13 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 2017/18, the proposed Energy Safety Industry Levy will be $7.154m. 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 Energy*Safety* 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.

13.1 Industry Levy Quantum

It is required that the levy be applied at a level sufficient to enable the full costs of Energy*Safety* to be met. Accordingly, a levy of $7.154m is proposed in this Business Plan for 2017/18.

This enables sufficient funds for the full structure of Energy*Safety* to operate (less a forecast vacancy rate of four FTEs (6.35%), 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 1.5% from 2016/17 and reflects estimated cost increases for Energy*Safety*.

As detailed earlier in this Plan, it is expected that various complementary initiatives will enable EnergySafety to recruit somewhat more successfully and to reduce its historically high vacancy rate over the forward estimates period. It is however recognised that Energy*Safety* 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 Energy*Safety* reasonable confidence that the vacancy rates will fall and remain relatively steady through 2017/18 and beyond, and surplus funds will not be realised from under-expenditure at the same levels as has been experienced in prior years.

13.2 Apportionment of Levy Between Energy Sectors

The proposed 2017/18 industry levy of $7.154m 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 $4.793m and from participants in the gas industry it will be $2.361m.

13.3 Allocation of Levy Within Energy Sectors

To allocate the levy within each industry sector, Energy*Safety* 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 distributor 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-2016/17 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, Energy*Safety* 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-2017/18, determining the levy contribution allocations for each supplier for the 2018/19 financial year.

13.4 Administration of the Levy Scheme

Energy*Safety* 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 Energy*Safety*, 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, so will be undertaken during the later stages of 2016/17.

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 new participants to the industry during the year.

Appendix A – A brief outline of the 2015/16 year achievements and outcomes

The following are details of significant work undertaken during 2015/16:

A1 Operational Work Including Compliance Enforcement Activities

A1.1 Electricity (Network Safety) Regulations 2015

New Electricity (Network Safety) Regulations 2015 came into force on 6 August 2015. They replaced the existing Electricity (Supply Standards and System Safety) Regulations 2001. The new regulations remove references to metering as this is not a safety matter. Regulations about optional 'safety cases' were also deleted.

The new regulations require network operators to develop and implement a safety management system complying with Australian Standard AS 5577-2013 Electricity network safety management systems. The systems must pay due regard to risks, including the need for risk abatement through proper maintenance procedures. All Australian jurisdictions have agreed to incorporate this standard in legislation dealing with the safe design, construction, maintenance, operation, and decommissioning of their electricity networks.

Transparency is improved considerably under the new regulations. Network operators must provide the Director of Energy Safety with quarterly and annual statements of network safety performance and publish the statements on their respective websites. Network operators must explain publicly how they develop their safety performance targets and the underlying reasoning supporting them.

A1.2 Wood Pole Order

Energy*Safety* issued an Inspector's Order in September 2009 requiring Western Power to address the urgent safety risks associated with its aging distribution wood poles. The Order directed Western Power to take specific actions to address critical public safety risks by 31 December 2015.

During 2015/16, Energy*Safety* completed a review of Western Power's compliance with the Order, to satisfy itself that the requirements had been met. It comprised detailed checking of Western Power's Asset Management Plan, policy documents, interim reports, relevant correspondence and field inspections of rural system poles. Western Power's pole inspectors were also interviewed to confirm the inspection practices now in force complied with the Order. A report summarising the findings of the review was published.

Energy*Safety*'s review found that Western Power has met its obligations under the Order, thereby improving public safety and reducing the risk of bushfires ignited by falling poles in the State's extensive rural distribution network.

A1.3 Inspection System Plans

Network operators are required, under the Electricity Regulations 1947, to establish and maintain an effective system of inspection for the purpose of ensuring safety of consumers' installations connected to their respective networks. In June 2013, the Director of Energy Safety issued guidelines setting out the technical, investigative, reporting, administrative and other requirements for network operators' inspection system plans.

Energy*Safety* worked closely with all network operators throughout 2014 and 2015 to ensure the requirements in the guidelines were understood and properly addressed by network operators in their respective plans. Regular meetings were held to monitor their progress towards developing complying plans.

All network operators currently have an approved Plan. It is anticipated that these new plans will lead to significant qualitative and quantitative improvements to electricity safety compliance.

Energy*Safety* will audit network operators' inspection practices in 2017/18 to ensure they are complying with their approved Plan.

A1.4 eNotices

Under electrical safety and gas safety legislation in WA, electrical contractors and gas fitters must certify that the work they have undertaken is complete, is safe, complies with the legislation and is ready for connection to the energy network. This certification is currently made by submitting a Notice to the relevant gas supplier or electricity network operator. Network operators, on the other hand, cannot supply electricity or gas until they have received a Notice certifying that the installation is safe. These Notices generally trigger an inspection of the installation by the network operator's inspectors. For years the notice-management system has been very much paper-based and created significant administrative work for Energy*Safety*, network operators and industry operatives.

Energy*Safety* has developed an online application to allow for the electronic submission of Notices. This was achieved by developing an enhancement to its compliance management system, at a relatively modest cost and within the existing budget. Apart from the cost savings which will be generated by not printing the paper notices, it is anticipated that the new system will lead to significant productivity improvements for industry, network operators and Energy*Safety*.

A1.5 Electricity Inspection Resources

Energy*Safety* has not been able to fill its vacant electrical inspector positions mainly due to the small cohort of electricians available with the necessary experience and skills. This was also compounded by the recruitment freeze which was lifted towards the end of the year. Energy*Safety* has therefore prioritised its workload and some planned work, such as compliance inspections, was not completed. This also resulted in some investigations taking longer to complete than planned. In two cases Energy*Safety* could not complete the investigation within the two year statutory limitation period.

During the latter part of the year, Energy*Safety* resumed it advertisements for a pool of suitable candidates to fill Senior Electrical Inspectors' vacancies in the Electricity Compliance Directorate. If not successfully addressed, the vacancy rate is expected to increase to 5 or 6 by the end of June 2017, mainly due to the retirement of staff.

The technical positons at Energy*Safety* receive an attraction and retention incentive (ARI) allowance in addition to their base salary. The amount of ARI paid is determined by a comparison to relevant comparable positions in industry. A review in 2016 reduced the ARI amount to reflect the changed economic climate. Therefore, all technical positions were offered and accepted a new ARI for the period 1 July 2016 to 30 June 2019. The effect of this change, over time, will be monitored.

A2 Licensing Activities

The Licensing Office at Energy*Safety* 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 2016, there were 49,956 electrical workers, 5,416 electrical contractors and 248 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.

A2.2 Electrical Licensing Board

As at 30 June 2016, 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 22 times during the year.

A2.3 Gas Licensing

As at 30 June 2016 there were 9,278 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 16 times during the year.

A3 Prosecutions & Infringement Notices

A3.1 Prosecutions

Prosecutions follow investigations by inspectors and review and authorisation by senior management of Energy*Safety*. 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 2015/16.

A3.1.1 Prosecutions – Breaches of Electricity Related Legislation

Summary for the period 1 July 2015 – 30 June 2016

Legislation/Regulation	***Section / Regulation***	***Number of Offences***	***Fines $***
Electricity Act 1945	33B(2)	1	1,500
Electricity (Licensing) Regulations 1991	19(1)	2	5,000
Electricity (Licensing) Regulations 1991	33(1)	2	1,500
Electricity (Licensing) Regulations 1991	49(1)	7	22,106
Electricity (Licensing) Regulations 1991	50	4	27,750
Electricity (Licensing) Regulations 1991	52(3)	6	90,500
Electricity (Licensing) Regulations 1991	59(1)	1	2,000
Electricity (Licensing) Regulations 1991	63(2)	1	2,000
Electricity Regulations 1947	R242(1)(b)	2	130,000
Electricity (Supply Standards and System Safety) Regulations 2001	10(1)(a)	1	70,000
Electricity (Supply Standards and System Safety) Regulations 2001	10(1)(c)	1	35,000
TOTAL		***28***	***387,356***

A3.1.2 Prosecutions – Breaches of Gas Related Legislation

Summary for the period 1 July 2015 – 30 June 2016

Legislation/Regulation	***Section / Regulation***	***Number of Offences***	***Fines $***
Gas Standards Act 1972	13A(2)	1	40,000
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	38(1)	1	7,500
TOTAL		***2***	***47,500***

A3.2 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 61 (16 Electricity and 45 Gas) Infringement Notices issued by EnergySafety for the year.

The following tables provide summaries of Infringement Notices issued during 2015/16.

A3.2.1 Infringement Notices – Breaches of Electricity Related Legislation

Summary for the period 1 July 2015 – 30 June 2016

Legislation	*Section / Regulation*	*Number of Offences*	*Fines $*
Electricity Act 1945	33B(2)	11	25,000
Electricity (Licensing) Regulations 1991	19(1)	1	1,000
Electricity (Licensing) Regulations 1991	52(1)	1	750
Electricity (Licensing) Regulations 1991	53(2)	1	1,000
Electricity (Licensing) Regulations 1991	53(3)	1	1,000
Electricity (Licensing) Regulations 1991	63(2)	1	3,000
TOTAL		***16***	***31,750***

A3.2.2 Infringement Notices – Breaches of Gas Related Legislation

Summary for the period 1 July 2015 – 30 June 2016

Legislation	*Section / Regulation*	*Number of Offences*	*Fines $*
Gas Standards Act 1972	13A(2)	5	5,000
Energy Coordination Act 1994	20(2)	1	1,000
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	18(2)(a)	12	7,200
	20(1)(b)	4	4,800
	23	1	2,000
	26(1)(a)	6	3,600
	28(2)	5	2,000
	28(3)	8	3,200
	34(1)	2	1,500
	42	1	3,000
TOTAL		**45**	**33,300**

A4 Major Policy Work

A4.1 Committee Participation

Aside from major work on several key technical standards committees, Energy*Safety* 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 and Accreditation 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

A4.2 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.

A5 Statutory Reporting & Safety Statistics

The following statistical information is required to be reported by Energy*Safety* and reflected in the Department of Commerce's 2015/16 Annual Report:

A5.1 Electricity Act 1945

Section 33 of the *Electricity Act 1945* requires the Director of Energy*Safety* (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 2015/16

Nature	Number
Audits	3
Compliance Inspections	1,328
Investigations - Breaches	318
Total	**1,649**

	Investigations outcome
Further Inspection/Investigation	37
Formal Warning	128
Infringement	17
Prosecution	24
No Further Action	1,452
Lapsed Prosecutions (Statute of Limitation)	2
Other	76
Total	**1,736**

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 (Network Operator)	0
Compliance Inspections	2,041[#]
Investigations	226
Total	**2,267**

[#] Energy*Safety* will conduct inspections of a sample of these based on industry performance and complexity of the work undertaken.

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

While Energy*Safety* was able to recruit two additional electrical inspector positions in 2015, some electrical inspector positions remain vacant, mainly due to the small cohort of electricians available with the necessary experience and skills. The capacity to recruit was also impacted by the recruitment freeze which was lifted towards the end of the year. Energy*Safety* therefore prioritised its workload to focus on investigations and network operator compliance. Some planned work relating to compliance inspections was not able to be completed. Overall, Energy*Safety* was able to complete investigations within the required two year statutory limitation period with the exception of two cases.
The technical positions at Energy*Safety* receive an Attraction and Retention Incentive (ARI) in addition to their base salary. The amount of ARI paid is determined by a

comparison to relevant comparable positions in industry. A review of comparable positions recommended that the ARI amount be reduced to reflect the changed economic climate. Therefore, all technical positions were offered and accepted a new ARI for the period 1 July 2016 to 30 June 2019. The effect of this change will be monitored over time.

(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:

The downturn in the State's resources sector and the fall in construction activity have not eased Energy*Safety*'s workload. Work demand trends thus far show no sign of abating and appear to continue into 2016/17.

The number of licensed operatives in Western Australia is expected to continue to increase (as in past years). In addition the number of Notices for completed work each year to gas suppliers, electricity network operators and Energy*Safety* is expected to increase.

Energy*Safety*'s inspection and investigation workload is unlikely to decrease.

The number of outstanding and lapsed investigations and compliance inspections will grow unless Energy*Safety* can recruit inspectors to fill its vacant positions.

Energy*Safety* job roles, staff engagement processes, succession planning and staff development is being reviewed to address difficulties in attracting suitable people. Outsourcing of less complex work is also being considered.

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

The trend for serious accidents resulting from 'live' work has shown a slight increase over recent times and Energy*Safety*, in conjunction with WorkSafe, is working on new legislation to address the issue.

The department will implement revised strategies to recruit technical staff to fill the vacant positions. Energy*Safety* has commissioned a Human Resources review to find alternative ways to address this issue. Energy*Safety* will also recruit installation inspectors on fixed-term contracts to assist with compliance inspections in remote areas.

In addition to efforts to recruit and retain electrical inspectors, Energy*Safety* has, in conjunction with the department's Information Technology branch, developed and implemented a Compliance Management System (CMS). CMS provides a basic platform for managing all of Energy*Safety*'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.

A5.2 Electricity Related Incidents & Fatalities

The following were reported to Energy*Safety* during the year:

- Electric shocks 1,560
- Serious electricity related accidents 7
- Fatalities[(1)] (included in serious electrical accidents): 1

[(1)] An electrician/electrical contractor was electrocuted while repairing an air conditioner in a roof space.

A5.3 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 2015/16

Nature	Number
Audit (Network Operator)	13
Compliance inspection	418
Breach Investigations	887
Incident Investigation	69
Accident injury - Public	14
Accident injury - Worker	1
Fatal	0
Total	**1,402**

Investigations outcome	
Formal warning	165
Infringement	45
Prosecution	1
Lapsed prosecutions	0
Appeals (NODs)	15
Cancelled (NODs)	19
Verbal Warning	452
No Further Action	843
Other	52
Total	**1,592**

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
Audit (Network Operator)	13
Compliance inspection	30
Breach investigation	33
Incident investigation	31
Accident injury - Public	0
Accident injury - Worker	0
Fatal	0
Total	**107**

A5.4 Gas Related Incidents & Fatalities

The following were reported to EnergySafety during the year:

- Incidents 91
- Serious gas related accidents (persons injured) 12
- Fatalities 0