Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**
Energy*Safety*

Energy*Safety*
Business Plan 2018/19

December 2017

This Business Plan was approved under
Part 2 of the Energy Safety Act 2006 by
The Hon Bill Johnston MLA
Minister for Commerce and Industrial Relations
on 22 December 2017

Government of **Western Australia**
Department of **Mines, Industry Regulation and Safety**
Energy*Safety*

Energy*Safety* Business Plan 2018/19

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Foreword

This document sets out the Business Plan 2018/19 for the Energy*Safety* Division (Energy*Safety*) of the Department of Mines, Industry Regulation and Safety.

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

Energy*Safety* is responsible for the technical safety regulation of electricity and most of the gas industry in Western Australia.

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.

Energy*Safety* became industry funded in 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.

As required by the legislation, this Business Plan for 2018/19 sets out

- a statement of intent;
- the business environment and challenges, including major projects;
- the financial plan;
- details of the proposed 2018/19 energy industry levy; and
- a brief outline in Appendix A of 2016/17 outcomes (the tenth 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 for 2018/19 and the manner in which it is to be allocated between participants.

Ken Bowron
Director of Energy Safety

December 2017

Statement of Intent

This Statement of Intent is part of the Business Plan 2018/19 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 Mines, Industry Regulation and Safety (DMIRS), of which Energy*Safety* is a Division, has the following objectives:

Our vision is:

Supporting a safe, fair and responsible future for the Western Australian community, industry and resources sector.

To deliver on our vision the statement identifies three priority areas for DMIRS, specifically:

- Fair but strong regulation of our industry sectors;
- Building a responsible future; and
- Delivering services supporting the community and industry sectors.

The following priority areas are the 'pillars' of DMIRS' operations:

- Customer-centric
- Compliance Focus; and
- Future Focus.

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

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*.

The Director ensures that the Acts and regulations covering electricity and gas safety are effectively administered, maintained for currency and appropriately communicated to stakeholders. The Director provides executive direction and leadership of Energy*Safety*.

Energy*Safety* administers technical safety regulations made under the *Electricity Act 1945* and *Gas Standards Act 1972*. These Acts and associated regulations set out the minimum technical safety requirements to which consumer electrical and gas installations and networks in WA must be constructed and maintained. The primary focus of Energy*Safety*'s legislative framework is the safety of energy consumers and the community at large.

Energy*Safety* performs four key functions to ensure the safety of energy consumer installations:

- it administers occupational licences to ensure only competent trade persons can perform electrical and gas work;

  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.

- it prescribes the minimum technical safety requirements for all electricity and gas installations (that is, the *Electricity Act 1945* and *Gas Standards Act 1972* apply wherever energy is used in WA);

- it prescribes the minimum requirements for consumer electrical and gas appliances and equipment; and

- it administers a compliance framework ensuring electrical and gas fitting work undertaken by licensed operatives on consumer installations is appropriately inspected.

Energy*Safety* also administers safety regulations applicable to gas distribution networks and all electricity networks in Western Australia. Gas and electricity network operators have extensive assets located in road reserves and other areas open to public access. Energy*Safety* monitors network operators to ensure their assets are designed, constructed, operated and maintained in a manner that ensures public and community safety.

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

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 meeting its obligations detailed in the department's OSH Management Plan.

3 Legislation Administered

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, and 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, Government and the Director General, DMIRS;
- provides technical advice and support to the Department of Finance's Public Utilities Office, Economic Regulation Authority (ERA) and the Energy Ombudsman; and
- promotes electrical and gas safety to the public, businesses and tradespersons in the electricity and gas industries.

5 Information and Advice to the Minister

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

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

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

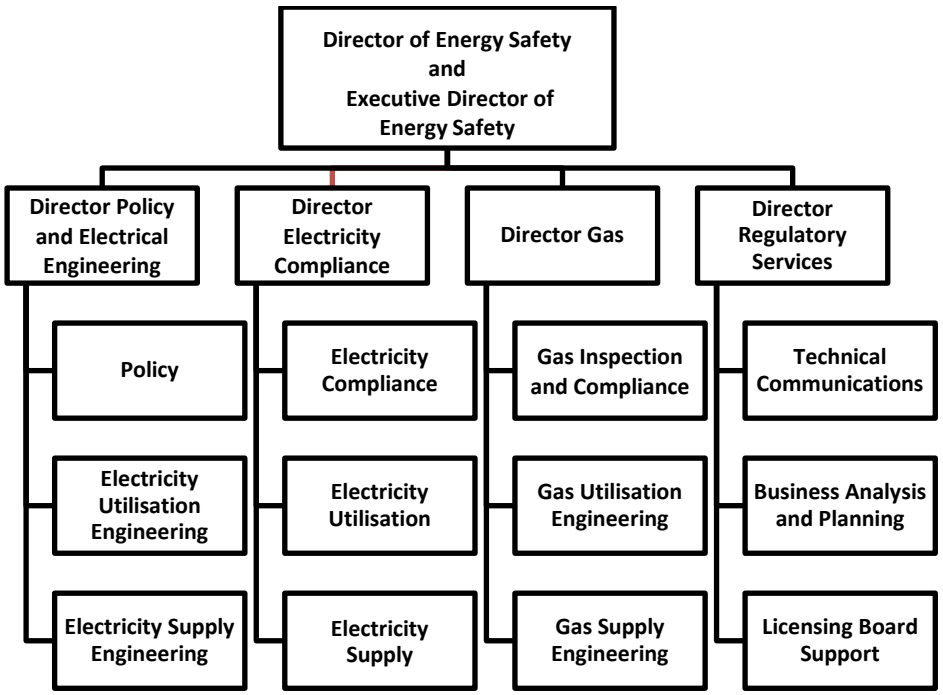
- proposals for major policy projects, such as new legislation or amendments;
- reports on the status and management of major policy projects;
- proposed regulatory actions that may affect the public or businesses;
- information releases dealing with subjects relevant to this Ministerial portfolio;
- reports on the status of major investigations or audits;
- briefings on contentious energy safety issues;
- 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-sensitive energy issues (e.g. major regulatory reform projects).

About Energy*Safety*

6 Energy*Safety* Structure, Directorate Functions and Resources

Energy*Safety* is located in the Mason Bird Building on the corner of Sevenoaks Street and Grose Avenue, Cannington. It is headed by the Director of Energy Safety.

6.1 Organisational Structure



This structure has evolved over time in response to rapid growth in the electricity sector over the past decade as well as to better integrate with departmental structures as part of wider Machinery of Government initiatives. This will allow for the future development and maintenance of critical technical expertise relevant to each industry sector.

Under the DMIRS "2017-18 Proposal for Change" document, the establishment of a new Building and Energy Division is proposed. Once finalised, this may affect the organisational structure for the division.

6.1.1 Policy and 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;
- ❖ Electricity Utilisation; 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 Regulatory Services Directorate

This Directorate is headed by the Director Regulatory Services and is responsible for 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 is also responsible for providing support to the statutory Electrical Licensing Board and the Gas Licensing Committee as well as managing the delivery into Energy*Safety* of licensing services, which are provided by the Department's Licensing Services Directorate. It manages this through a licensing policy framework, a Service Level Agreement and liaison between the Electrical Licensing Board, the Gas Licensing Committee, the Director Energy Safety and the Licensing Service Directorate.

The Directorate has three Branches, as follows:

- ❖ Licensing Boards Support;
- ❖ Business Analysis and Planning; 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;
- 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 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 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 to 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 and Gas Networks

Electricity and gas 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 are required to develop and implement Safety Management Systems 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, Safety Statistics and Key Achievements

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	16/17 Target	16/17 Actual	17/18 Target*
Measures			
Electricity related deaths	0*	0	0*
Electricity related accidents[1] (including fatalities)	12	17	12
Electrical installations inspected and found non-complying (includes matters not directly affecting safety)	10%	12%	10%
Number of Energy*Safety* audits of electricity network operators' Inspection System Plans[2]	2	2	2
Investigations under Acts and Regulations	300	295	300
Seminar, Education Program and Training (Licensees, Network Operators and Public)	100	134	100

7.1.2 Gas	16/17 Target	16/17 Actual	17/18 Target
Measures			
Gas related deaths	0*	1	0*
Gas related accidents[1] (including fatalities)	10	11	10
Gas installations inspected and found non-complying (includes matters not directly affecting safety)	7%	13%	10%
Number of Energy*Safety* audits of gas network operators' Inspection System Plans[2]	2	13	2
Investigations under Acts and Regulations	500	872	500
Number of Type A and type B gas appliance variations/exemptions granted	80∝	41	60∝
Presentations to Industry or other Groups	50	57	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.

7.2 Key Performance Information

Energy*Safety* is a division of the Department of Mines, Industry Regulation and Safety (DMIRS). It provides regulatory services to the Western Australian community through licensing and compliance activities in the area of energy safety.

Energy*Safety*'s outcomes are linked to the Government's goal of Strong Communities: Safe Communities and supported families. Specifically, Energy*Safety's* goal is "Enhanced community safety and resilience".

[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.

7.2.1 Outcomes and 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 and are currently under review. The Indicators used by Energy*Safety* to measure its effectiveness in achieving the desired outcome are:

	15/16 Actual	16/17 Target	16/17 Actual	17/18 Target	Note
Key Effectiveness Indicators					
The number of electricity-related serious injuries and fatalities per million population	3.05	0	6.60	0	1
The number of gas-related serious injuries and fatalities per million population	4.57	0	4.27	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

	15/16 Actual	16/17 Target	16/17 Actual	17/18 Target	Note
Key Efficiency Indicators					
Average cost of Regulatory Services	$3,887	$6,326	$2,059	$6,326	2
Average Cost of Provision of Licensing Services	$30.30	$32.40	$32.10	$32.40	3

2. The 2016/17 and the 2017/18 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 2015/16 and 2016/17 are lower and reflect Energy*Safety*'s difficulty in attracting the required staff in regulatory roles.

   In addition, through the Energy Safety Service, the department conducted 6,054 inspections or investigations during 2016/17, which was significantly more than both last year's figure of 3,040 and the anticipated 2,000. The increase in the number of compliance inspections can be attributed to a combination of elements including Energy*Safety* engaging additional temporary inspectors to carry out remote inspections and that the rearrangement of metropolitan work programs led to an increase in inspections related to residual current device (RCD) compliance and electrical contractor advertising. This increase in inspection numbers led to the average cost of regulatory services in 2016/17 of $2,059 being significantly less than both the 2015/16 result of $3,887 (47 per cent) and the target of $6,326 (67 per cent).

   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 2017/18. This can be affected by the number of licences issued as a consequence of the cyclical nature of licensing renewals.

   Through the Energy Safety Service the department administered 63,669 registrations and licences in 2016/17, which is comparable to both last year's figure of 64,335 and the anticipated 63,730. The average cost of provision of licensing service of $32.10 in 2016/17 is comparable to both the 2015/16 result of $30.30 and the target of $32.40.

8 Electrical and Gas Safety Statistics

8.1 Electrical and Gas Safety Statistical Outcomes

Each year, Energy*Safety* publishes statistical information about electrical and gas incidents occurring during the previous fiscal year. An analysis of such data found that gas and electricity related incidents involving energy consumers have been trending down over time.

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 (CMS) and the data presented in this Plan reflect the information available as of 1 July 2017.

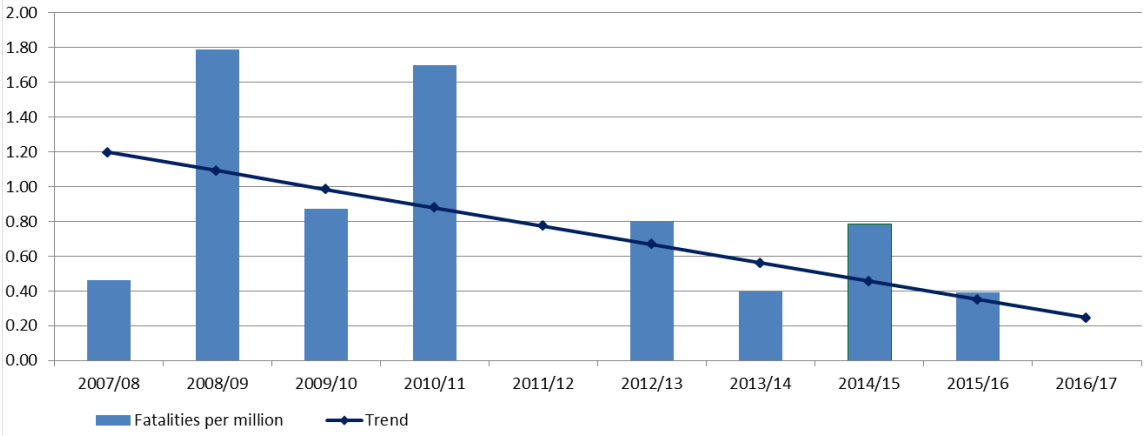
8.1.1 Electrical Safety Statistics

Electrical Fatalities

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

During 2016/17, there was no fatality reported in Western Australia where electricity was found to be the cause.

Chart A: Electricity related fatalities per million population



This net improvement in consumer safety can be attributed to the effectiveness of Energy*Safety*'s compliance activities reflecting new laws introduced over time to address trends in the electricity industry.

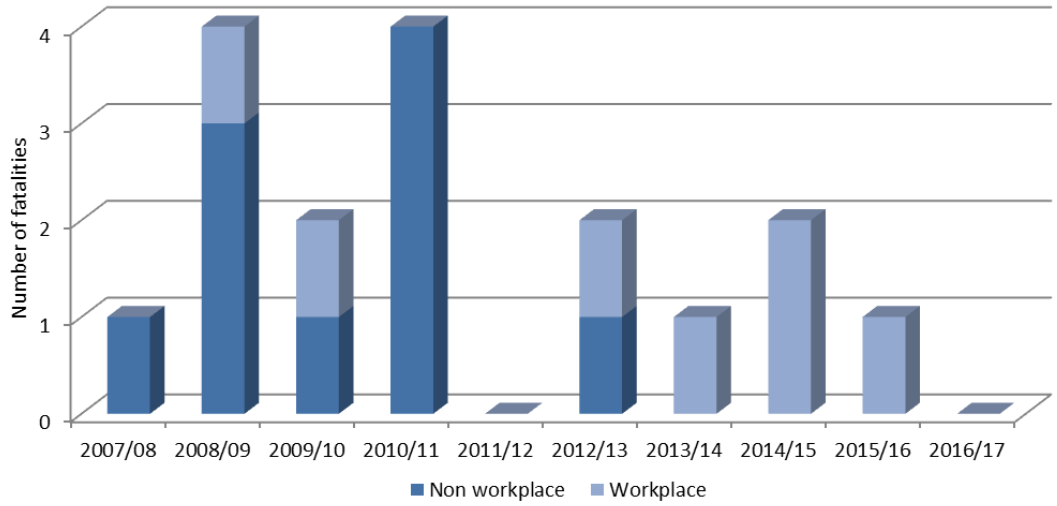
Since 2000 it has been mandatory in new residential installations for all circuits supplying socket outlets and lighting points to be protected by residual current devices (RCDs). Installations built prior to this date do not require this.

In 2009, following an upward trend of accidents involving consumers, Energy*Safety* recommended that the Government introduce laws requiring all home sellers and landlords to install at least two RCDs, protecting all socket outlets and lighting circuits, before they offer the properties for sale or rent. It was judged at the time that these laws would affect the majority of residential dwellings in WA over approximately a 15 year period.

This initiative, along with public safety awareness campaigns, is now reaping its rewards. Electrical safety regulators across Australia have since been working on similar initiatives.

All electrical fatalities recorded from 2013/14 onwards were workplace related.

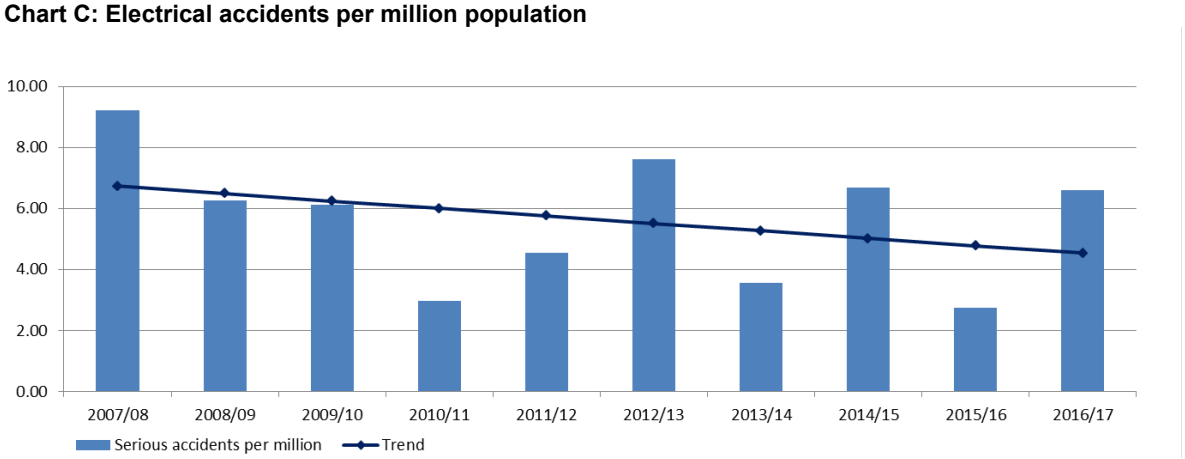
Chart B: Workplace and non-workplace electrical fatalities



Electrical Accidents – Non fatal

WA's electrical accidents (non-fatal) per million decreased over the past ten years (Chart C). 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 C: Electrical accidents per million population

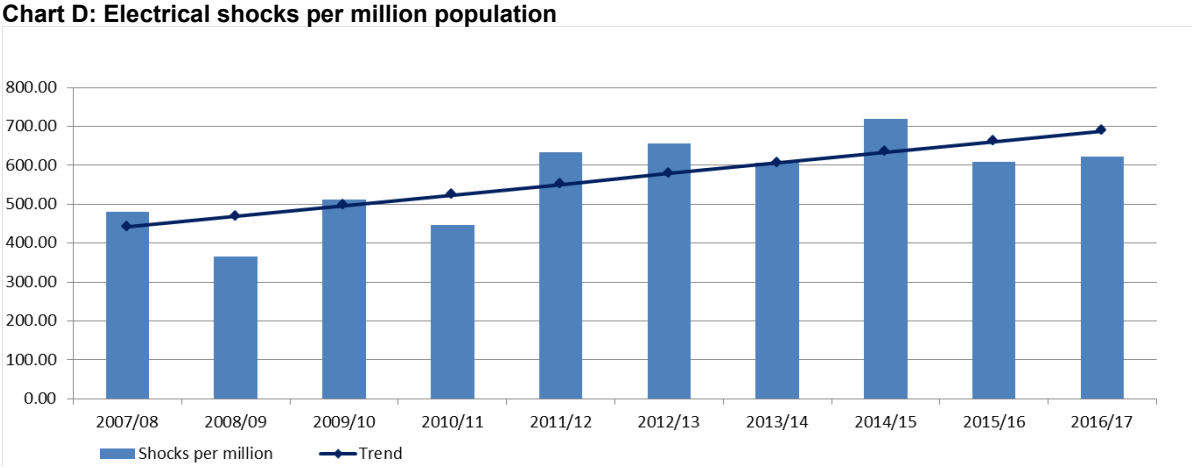


During 2016/17, there were 17 non-fatal accidents compared with eight in 2015/16. Overall the rate of accidents has been slightly decreasing over the past ten years.

Electric Shocks

Generally, an electric shock that does not cause injury or harm may be experienced due to an error by a person (e.g. contacting energised parts), faulty equipment in the home or workplace or due to a fault or deficiency with the electricity supply network.

Chart D: Electrical shocks per million population



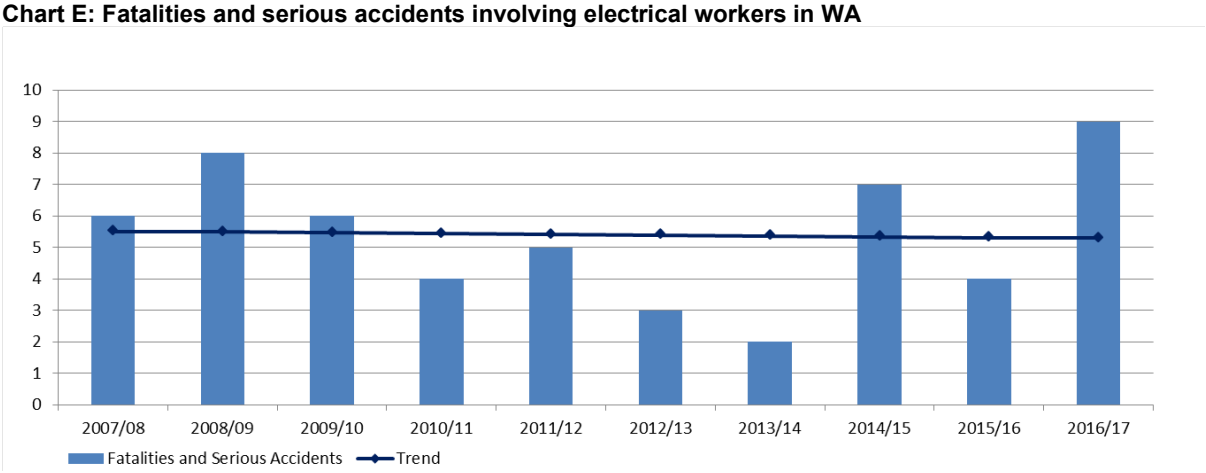
During 2016/17 there were 1,602 electrical shocks reported compared with 1,560 in 2015/16, which represents a 3% increase compared to the previous year.

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 electric shocks and 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 energised electrical equipment.

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

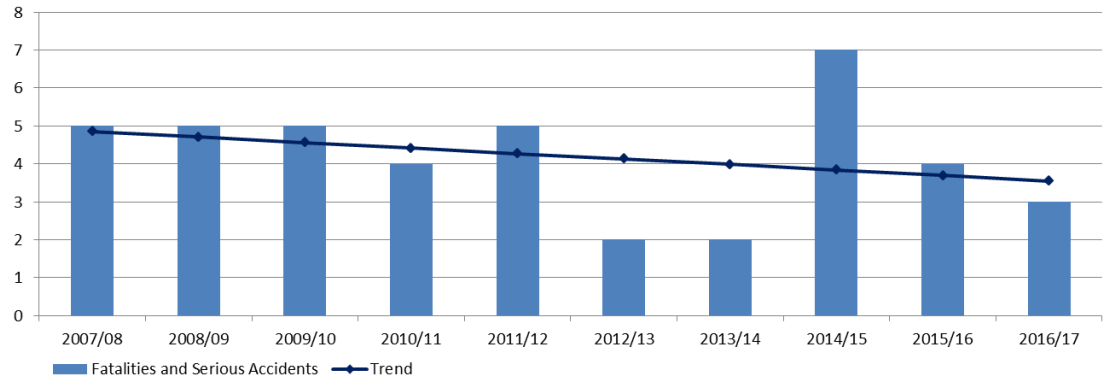


While the trend for serious accidents (Chart E) is reasonably static over the ten year period, more accidents involving electricians receiving electric shocks were recorded in 2016/17.

The trend for fatalities and serious accidents resulting from 'live' work (Chart F) is decreasing.

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

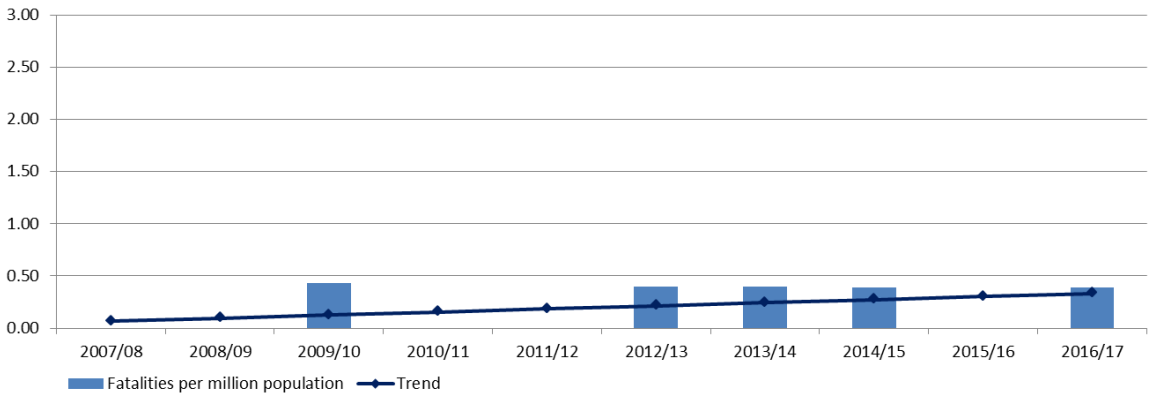


8.1.2 Gas Safety Statistics

There was one gas related fatality reported in 2016/17. The victim was alleged to have been sniffing liquefied petroleum gas. A fire and explosion occurred in which the victim sustained burns and succumbed to his injuries.

With the exception of 2015/16, there has been one gas related fatality every year for the last five years.

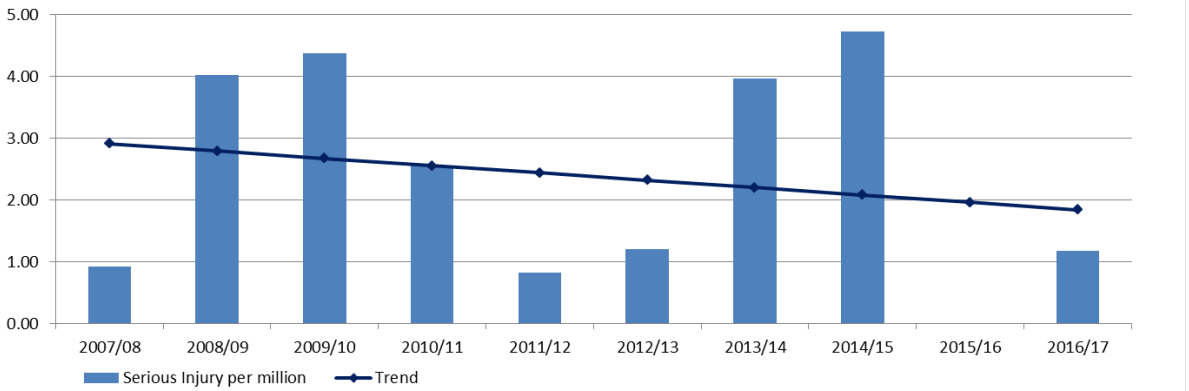
Chart G: Gas related fatalities per million population



Gas Accidents – Serious Injury

The numbers of serious injuries per million population have shown a declining trend over the reporting period. Increasing awareness about the dangers of gas and the importance of using it safely has helped with the current trend.

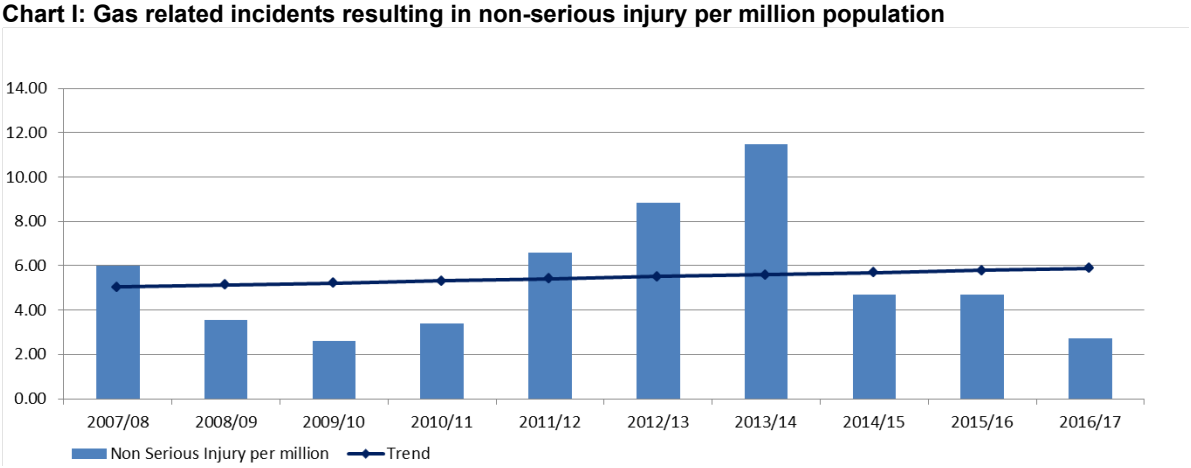
Chart H: Gas related incidents resulting in serious injury per million population



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. The overall trend shows a gradual increase during the ten year period. This will require close monitoring.

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



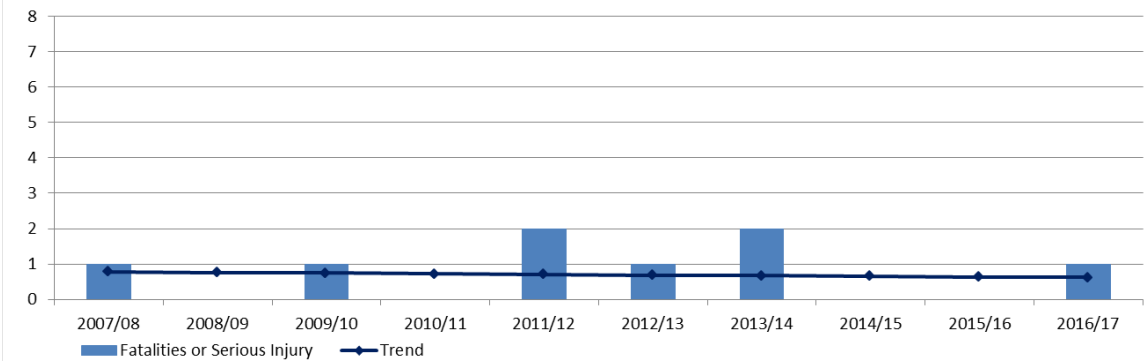
Gas Worker Safety

There have been no gas-related fatalities involving gas workers in the ten year period from 2007/08.

The results shown in Chart J below relate only to gas incidents that caused serious injury. There was one incident resulting in serious injuries to a gas worker in 2016/17. 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 J: Gas incidents resulting in fatality or serious injury involving gas workers



9 Key Achievements

9.1 eNotice

Under electricity and gas safety legislation in Western Australia, electrical contractors and gasfitters must certify that the work they have undertaken is complete, safe, complies with legislation and is ready for connection to the energy supply. This certification is made by submitting a Notice of Completion (Notice), in a form approved by the Director of Energy Safety, to the relevant gas supplier or electricity network operator.

The number of Notices submitted each year exceeds 300,000. This process has been largely paper-based and very labour intensive for all parties.

In 2016/17, Energy*Safety* rolled out eNotice, an online IT application for electronic submission of notices. This was achieved by implementing an enhancement to its new compliance management system (CMS), at a relatively modest cost and within the existing project budget.

eNotice promises annual productivity improvements of at least $1M across industry by significantly reducing the manual effort required for completing, delivering, validating and managing paper Notices.

The new application has been well received by industry. It won most effective Government solution award at the WA Information Technology and Telecommunications Alliance (WAITTA) Award at the 26th annual WAITTA INCITE Awards, which recognise and showcase ICT innovation and excellence across 11 award categories recognising individual achievement, product innovation and project excellence.

eNotice was also a finalist in the Institute of Public Administration Australia Achievement Awards that recognise individual and organisational excellence in public service

9.2 New Legislation to Improve Safe Electrical Work Practices

The government endorsed the joint Energy*Safety* and WorkSafe proposals to ban work on energised electrical equipment. This follows the death of four electrical workers between 2013 and 2016 in Western Australia.

To reduce incidences of serious electrical accidents, new parts were added to the Electricity (Licensing) Regulations 1991 and the Occupational Safety and Health Regulations 1996. The new parts 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 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 also makes it mandatory for workers to turn off the power before they undertake work in enclosed ceiling spaces of domestic dwellings.

The general provisions prohibiting work on energised equipment is broadly consistent with those which currently apply in other Australian jurisdictions. The new requirements which make it mandatory for workers to turn off the power before they undertake work in enclosed ceiling spaces of domestic dwellings is a first in Australia. It follows several deaths in ceiling spaces of domestic properties.

Energy*Safety* is confident that the new legislation will significantly improve the safety of electrical workers and other tradesmen.

9.3 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.

New Inspection System Plans for gas suppliers were approved in 2017/18. Energy*Safety* will devote resources to engage with gas network operators/suppliers during 2018/19 to monitor compliance with the Approved Plans.

9.4 Electricity (Network Safety) Amendment Regulations 2017

In January 2017, the government approved drafting regulations to make several amendments to the *Electricity (Network Safety) Regulations 2015*.

The Amendment Regulations, published in August 2017, update regulation 22 of the *Electricity (Network Safety) Regulations 2015*. Some of the definitions in the legislation were perceived as ambiguous. The amendments clarify, among other things, which incidents network operator must report to the Director of Energy Safety.

9.5 Electricity (Licensing) Amendment Regulations 2017

Thirty individual amendments were made to the *Electricity (Licensing) Regulations 1991*.

The type of work (notifiable work) which must be notified to the network operators was reviewed and new processes for notification of electrical work on transportable structures have also been introduced.

Most of the amendments were aimed to either clarify some of the requirements in the regulations or reduce the administrative burden on industry.

Business Environment and Challenges

10 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.

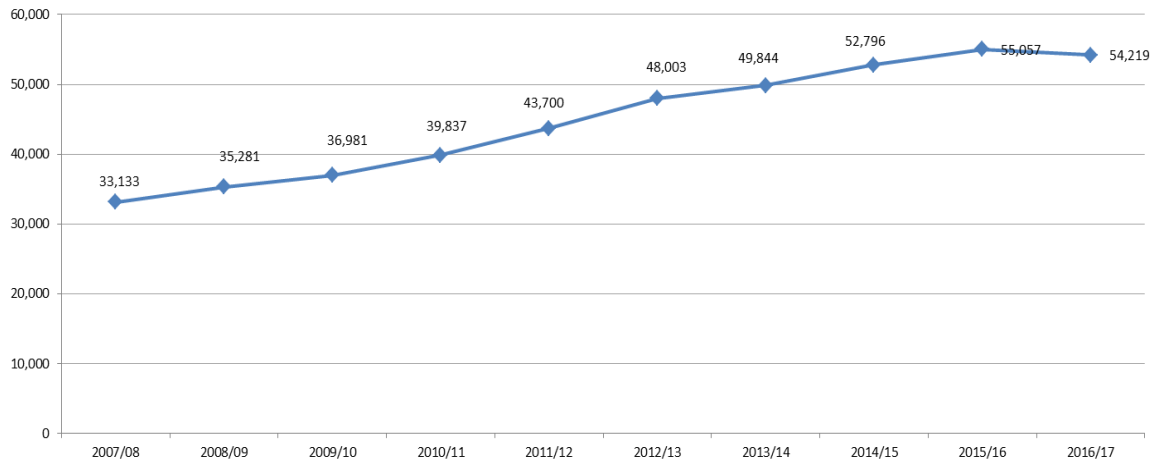
The downturn in the State's resources sector and the fall in construction activity have not eased the regulatory burden on Energy*Safety*. Work demand trends to date show no sign of abating.

10.1 Size and 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 industry has not decreased, but that the size of the electrical industry contracted slightly. The number of licensed electrical operatives has grown steadily since 2007/08, but has plateaued during 2016/17, which is the impact of the cooling mining investment cycle that began in about 2015. The gas industry has experienced steady growth during this time.

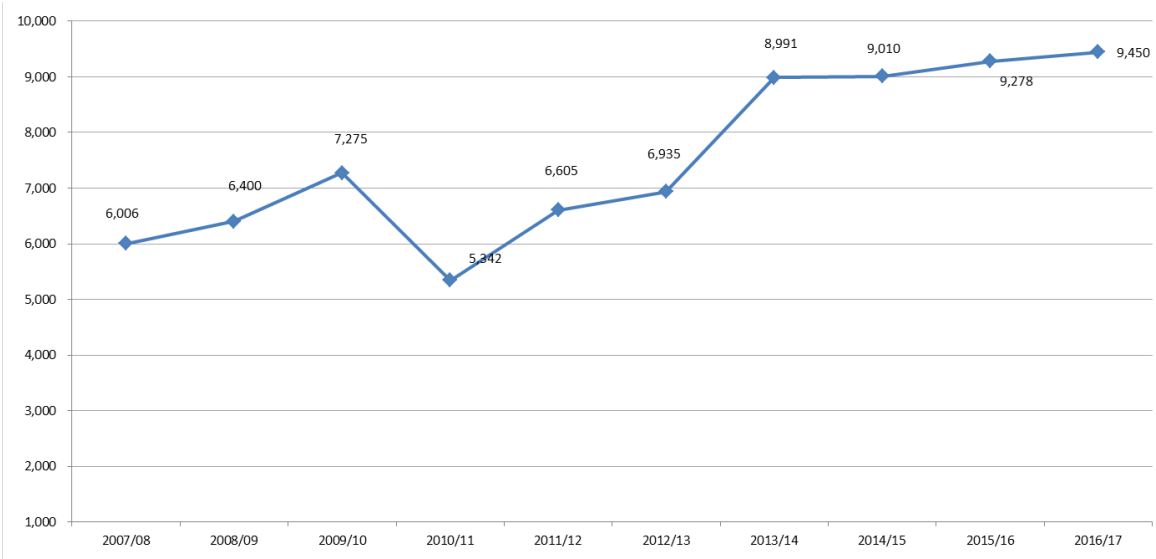
In 2007 (the year after industry funding was implemented), there were 29,872 electrical worker's licences. In 2017, there were 54,219, an increase of 82%, an average of 6.1% per annum over the period.

Chart K: Annual trend in numbers of electrical licences administered



In 2007, there were 5,765 gasfitting permits and authorisations. In 2017 there were 9,450, an increase of 64% at an average of 5.1% per annum over the period.

Chart L: 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. This has started to become apparent in the numbers of electrical licences administered.

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 of ongoing interest to Energy*Safety* to note whether they maintain their licenses when they are due for renewal (usually five years after registration). The above aggregated numbers show a 79% increase in the total number of licenced operatives in WA in the past ten financial years (average of 6.0% per annum).

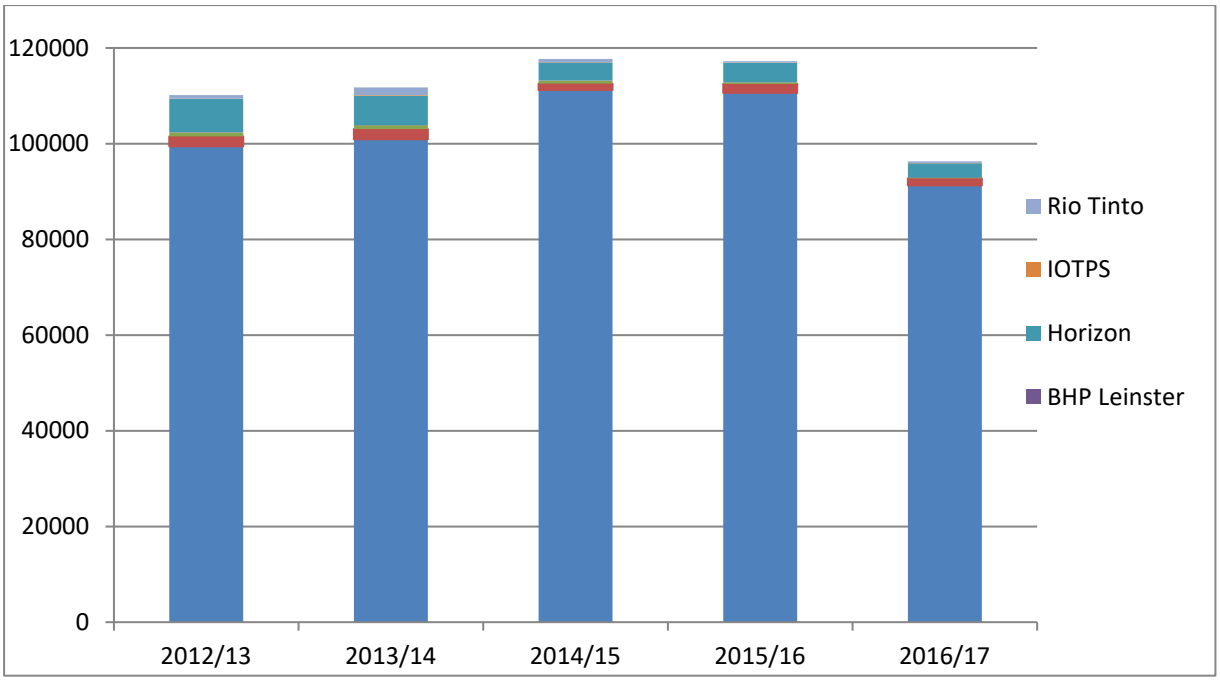
10.2 Volume of Installation Work Performed by Electrical and Gas Operatives

Under electricity and gas safety legislation in WA, electrical contractors and gasfitters must certify that the work they have undertaken is complete, 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.

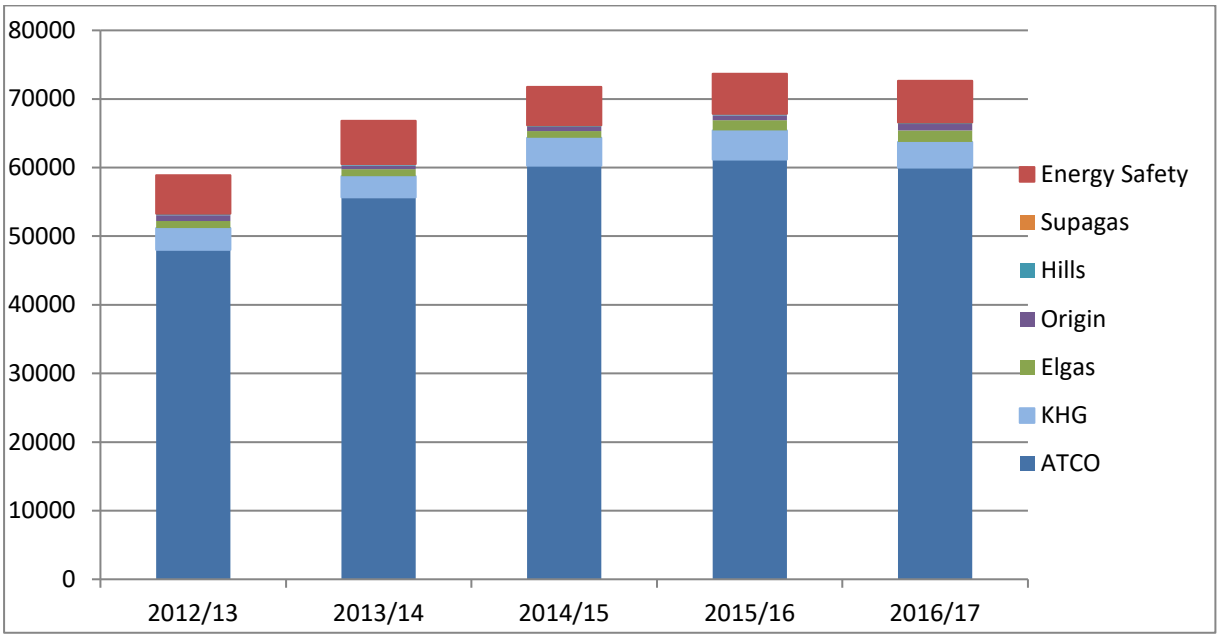
The number of Notices received by Energy*Safety* and electricity network operators for major work dropped from 117,211 in 2015/16 to 96,333 in 2016/17.

Chart M: Numbers of Notices of Completion received – Electrical



The total combined number of Notices for the gas industry increased steadily by 3% from 2014/15 to 2015/16 and decreased by 1% from 2015/16 to 2016/17.

Chart N: 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, 30 per cent of the installations for which a Notice is received, is being inspected annually by network operators. In 2016/17, 28,851 electrical installations were inspected following receipt of Notices.

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 30 per cent of installations for which Notices are submitted, remains disappointingly high at around 12 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.

10.3 Volume of Compliance Work Undertaken by Energy*Safety*

Chart O: Total number of jobs – Electricity

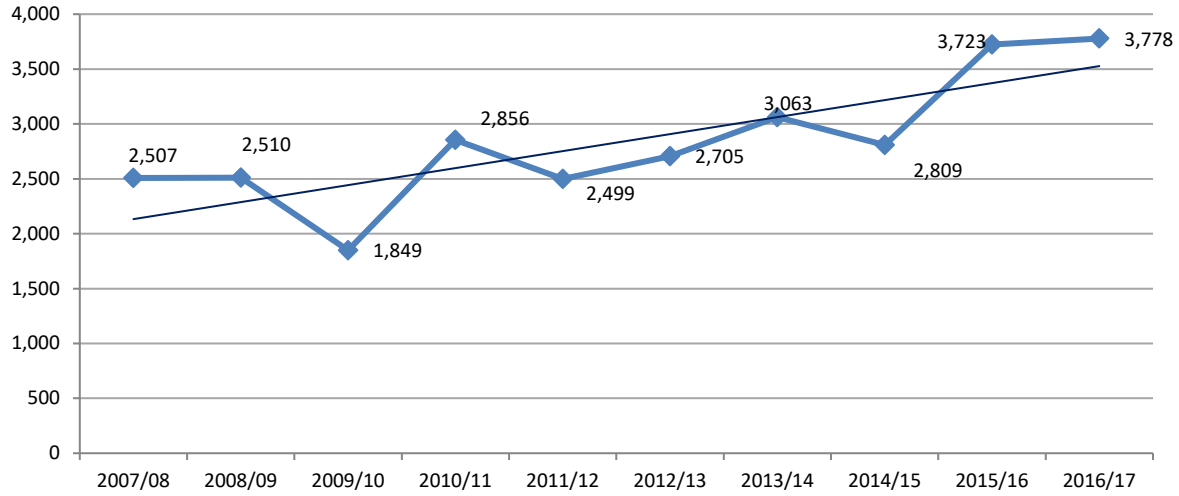
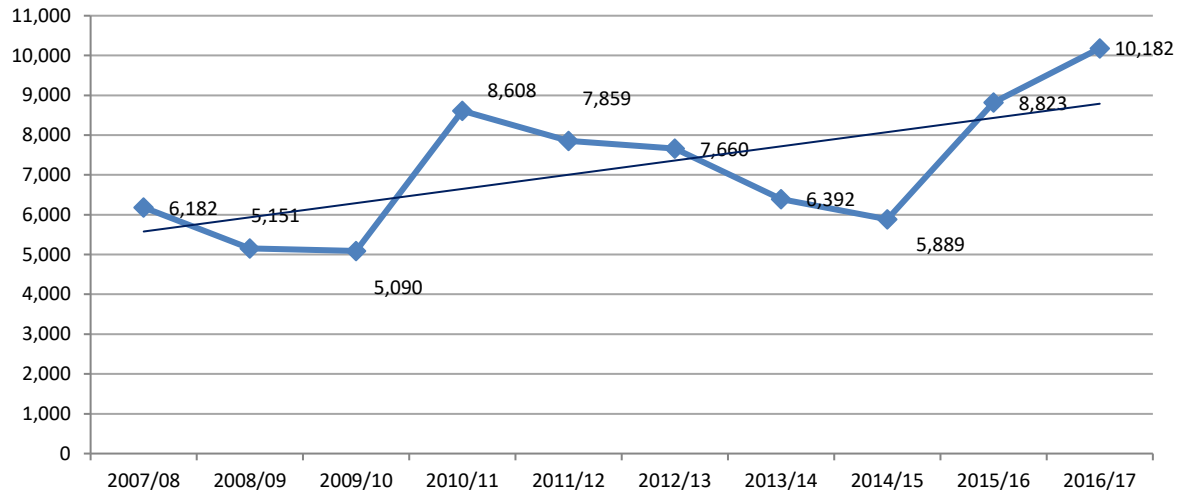


Chart P: Total number of jobs – Gas



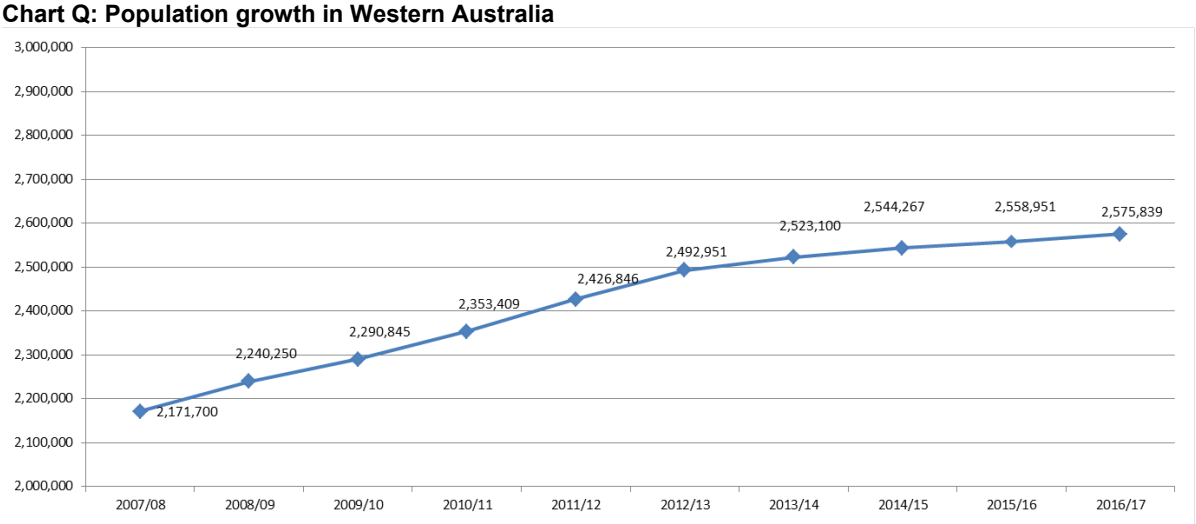
Note: The above graphs indicate the electricity and gas workloads. Due to differences in type of jobs, their classification and complexity, the overall numbers cannot be compared between electricity and gas. However, they indicate the trend in workload for each energy source.

Despite a small reduction in the number of electrical licences and reduction in both electrical and gas notices, job numbers associated with electricity and gas have continued to increase. The number of 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 a continual increase. Energy*Safety* sees nothing that would indicate this is likely to change in the short to medium term.

10.4 Population Growth in Western Australia

Chart Q: 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.

10.5 Aging Energy Network

Energy network assets generally have extended longevity 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.

This is an ongoing issues and 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.

10.6 Evolving Energy Sector

Historically, 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 increasingly 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 need to adapt to this trend.

Initiatives to Manage the Challenges

11 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).

Energy Safety was part of the Department of Commerce which, as part of the government's Machinery of Government strategy, was merged with the Department of Mines and Petroleum to form the Department of Mines, Industry Regulation and Safety on 1 July 2017.

This does not change the focus or responsibilities for Energy*Safety*.

Industry funding for Energy*Safety* has now been in place for twelve 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.

11.1 Major Policy Initiatives

To address the challenges ahead, Energy*Safety* proposes to implement or continue the following initiatives during 2018/19.

11.1.1 Energy Safety Bill

Energy*Safety*'s functions date back to the State Electricity Commission (SEC) of Western Australia, which from the late 1940s held both electricity and gas utility and regulatory functions. The legislation it administers comprises a suite of Acts and Regulations progressively enacted from 1945 onwards.

While Energy*Safety* has, over the years, attempted to review and recommend appropriate amendments to legislation it administers when industry, technical and/or government policy changes occurred, more recent advances in energy-generation and storage technology have changed the way the energy sector operates, as described in section 10.6.

The legislative framework administered by Energy*Safety* now runs the risk of not reflecting realities in the sector. It has become imperative that a review be undertaken to modernise the legislation. In June 2017, the Minister gave his consent for such a review to be undertaken. The outcomes of the review will inform the extent the legislation has to be amended.

The proposed amendments will:

- consolidate the disparate pieces of legislation into one comprehensive Act dealing with electricity and gas safety. It will be easier for industry and the general public to understand and comply with one Act covering energy safety.
- modernise the legislation to ensure it reflects realities in the sector;
- include new provisions to give effect to accepted vegetation control practices and to the new national electrical equipment safety scheme
- clarify network operator responsibilities under s25 of the existing Electricity Act;
- review the "statute of limitations" allowed for investigations;
- include new provisions to allow Energy*Safety* to share information with other regulatory agencies of Government; and
- change the Director of Energy Safety's title to 'Commissioner for Energy Safety'.

Apart from the specific matters mentioned above, the legislation will not provide any additional powers to the Director or staff of Energy*Safety*.

Once the Energy Safety Bill is enacted, it is intended to move promptly to rationalise all of the existing electricity and gas regulations made under the Electricity and Gas Standards Acts.

11.1.2 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 2018/19.

11.1.3 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.

11.1.4 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 were 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 2017, in conjunction with ATCO Gas Australia, 252 of these more serious multi-storey gas installations have been improved and made safe. A program to undertake inspections of higher safety risk multi-storey gas

installations has been implemented and will continue with collaboration between ATCO Gas Australia and Energy*Safety*.

11.1.5 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.

Safety Cases for gas network operators are due for renewal and Energy*Safety* continues to devote resources to assist network operators with the development of new Safety Cases.

11.1.6 Review of Inspection System Plan Sampling Rates

Under Regulation 253 of *Electricity Regulations 1947*, electricity network operators must maintain a system of inspection to ensure the safety of consumers' electrical installations connected to their respective networks. Such systems may rely on conducting sample inspections. All licensed electrical contractors and their employed electricians are subject to these inspections, the frequency of which reflects the safety performance of the electricians involved. Inspections are triggered when a contractor submits a Notice of Completion signifying that a new or modified consumer's electrical installation has been completed.

The Regulation provides for the Director of Energy Safety to publish guidelines from time-to-time setting out the minimum technical, investigative, reporting, auditing and administrative requirements network operators' inspection system plans must meet.

The Director published his Inspection System Plan Guidelines to network operators in 2013. In 2017/18, Energy*Safety* engaged Data Analysis Australia (DAA) to review the effectiveness of the current sampling rates for electrical inspections of new and modified electrical installations.

Once the report is received, Energy*Safety* will meet with network operators to develop implementation plans to incorporate changes recommended by DAA and accepted by Energy*Safety* as appropriate safety enhancements. The Guidelines will be amended during 2017/18 to include such changes and re-issued. Network operators would be required to amend their Inspection System Plans accordingly.

11.1.7 New Wiring Rules

The *Electricity (Licensing) Regulations 1991* require all electrical work performed in Western Australia to comply with Australian Standard AS/NZS 3000:2007, known as the Wiring Rules. The document sets out the minimum safety requirements for new and modified electrical installations in residential, commercial and industrial buildings. The Standard is mandatory in all Australian jurisdictions.

Standards Australia is expected to publish a new version of the Standard early in 2018. Energy*Safety* is represented on the governing committee preparing the new version.

Detailed briefing sessions will be conducted with licensed electrical contractors and employed electricians to alert them to changes. Four such sessions are planned: at Joondalup, Perth, Fremantle and Bunbury respectively.

Energy*Safety* will seek Government approval to incorporate the new Standard in the Regulations.

11.2 Corporate Projects and Issues

The statistics show that, even with a backdrop of trending increases in 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 downward.

For several years, Energy*Safety* 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. Recruitment to specific compliance-related roles has continued to prove difficult.

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 2018/19 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.

11.2.1 Compliance Management System Updates

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 has improved productivity and efficiency and supported a more mobile inspection workforce across the gas and electricity directorates. $526k is allocated in 2018/19 to finish the existing scope of works.

Like all compliance tools, it is imperative that CMS remains flexible and adaptable to a constantly changing environment. As a result, CMS will need regular updates to ensure it continues to meet the needs of the compliance directorates. CMS will need to adapt to new trends in technology, industry's performance, and changes to the legislation and to compliance processes. Energy*Safety* has sufficient funds to meet the expected costs of these updates.

11.2.2 HR Management and 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 an 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.

Little progress occurred in 2017/18 on this project due to resources limitations, other priorities and Machinery of Government changes. It is proposed that, once the new DMIRS structure is finalised, further work will be undertaken to investigate and implement the recommendations from the HR Management Review.

11.2.3 Licensing Services

During 2017/18 a new Licensing Services Directorate was established in the Department. This Directorate took carriage of licensing processing activities for those divisions that issued occupational licences, including Energy*Safety*'s full range of electrical and gas related licence processing. The resources, once imbedded in Energy*Safety* to undertake these activities, were transferred to the new directorate (equivalent of 8 FTE).

This has meant that, while the processing of applications has become a service provided to Energy*Safety*, the decision-making responsibilities of the Electrical Licensing Board and Gas Licensing Committee remain and required support through an appropriate policy framework, procedures, guidelines and a Service Level Agreement, still managed within Energy*Safety*.

In addition, to cope with the historical and predicted increase in licensing numbers and the rising costs of providing licensing services, Energy*Safety* is actively participating in the Department's work to bring licensing online.
This initiative 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 2018/19 and will include faster turn-around times with less manual processing and lower costs of providing the services.

11.2.4 Public Communications

Statistical analyses of electricity and gas safety data indicates generally 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 almost 50,000 recipients.

Throughout 2018/19 Energy*Safety* will continue to work with the department's media team to develop innovative and cost effective means to communicate with energy workers and the wider public.

12 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.

12.1 Inspections of Installations not Connected to a Network and 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, the Indian Ocean Territories (Christmas Island and the Cocos [Keeling] Islands). A large proportion is for work associated with resources projects. Inspections of these installations are undertaken by Energy*Safety*'s inspectors.

12.2 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.

12.3 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.

12.4 Investigations of Network Incidents

Over the past six 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.

12.5 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.

12.6 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 resulted in a sustained influx of electrical and gas operatives seeking local work (both from interstate and overseas).

While the department continues 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 2017/18 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.

On 1 July 2017 the Departments of Commerce and Mines and Petroleum merged to form the Department of Mines, Industry Regulation and Safety. Structural changes during the establishment of the new department saw the amalgamation of common licensing functions and activities from across the department. It is expected to continue to realise efficiencies through better staffing management and an enhanced capacity and capability for licence transaction processing. In addition, new licence applications are expected to be able to be undertaken online by the middle of 2019.

These two significant initiatives are expected to provide better and faster services to operatives seeking licences and permits in the gas and electricity industries (and other industries serviced by DMIRS), improve processing timeframes for applicants and to realise efficiencies in what has traditionally been a very manual process.

12.7 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.

12.8 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.

12.9 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.

12.10 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

13 2018/19 Financial Plan

The following Financial Plan presents Energy*Safety*'s expenditure (both capital and operating) and revenue budget forecasts for 2018/19 and three out-years.

It also includes a comparison between the budget and actual out-turn for 2016/17 as well as the approved budget for the current (2017/18) financial year.

The 2018/19 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;
- 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 and any cost-escalation factors are understood;
- decisions about revenue sources (i.e. industry levy levels and reviews of tariffs, 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 2018/19 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 and State Wage Policy) 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 or decline, and take into account the known cycles of licence renewals (which, as identified above, can be annually, three-yearly or five-yearly, dependent on the licence type) as well as 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 5.4%-6% (or three positions).

While the vacancy rate at 30 June 2017 was 17.5% (11 staff), the vacancy rate used in estimates for 2018/19 and out-years is expected to reduce to three FTEs (5.4%). The transfer of 8 licensing staff to the Licensing Services Directorate during 2017/18 has reduced Energy*Safety*'s controlled staff contingent to 55 FTEs. Of the 11 vacancies in Energy*Safety* to that point, four licensing positions where held vacant and filled on fixed-term, temporary service basis.

It is still recognised that Energy*Safety* is unlikely to have a full staffing contingent against its 55 FTEs at all times during any given financial year. However, historical vacancy rates in the operational, technical and inspectorate areas, 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 2016/17 (for the reasons detailed at section 13.2), there is recognition that the cash reserves are required to remain at an optimal level (in the order of $10m) 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 2018/19 Financial Plan has been set to continue to be a sustainable with cash reserves that reflect self-sufficiency and flexibility over the forward estimates period that will see the optimal level of cash maintained.

While Energy*Safety* holds sufficient cash reserves, a modest 1% increase to the levy in 2018/19 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.

As has been identified over many years, the most significant risks to Energy*Safety*'s budget are from factors outside its control that will impact licensing activity. Electrical and gas licence volumes have grown at a significant rate for the past ten years or so up until early 2016, 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.

While a noticeable plateauing is evident in the graph of total numbers of electrical licences administered (Page 27, Chart K), this has been factored into budget estimates and has not significantly impacted Energy*Safety.* The affect has been a slight slow-down in the rate of growth that had been experienced in previous periods. Should this decline become more significant and have a more material impact on revenue forecasts, decisions 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 will need to be considered.

The financial plan has been prepared consistent with financial reporting requirements and with internal Departmental budgeting processes.
The current year (2017/18) budget estimates reflect the budget approved by the Minister for the year in the 2017/18 Business Plan.

The Minister's approval of this Business Plan is accepted as approval for the 2018/19 budget as indicated.

2018/19 Financial Plan

Financial Year	2016/17 Budget	2016/17 Actual	2017/18 Approved Budget	Escalated $			
				2018/19	2019/20	2020/21	2021/22
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1. Expenses							
1.1 Recurrent Expenditure							
a) Employee benefits expense	8,473	7,560	8,471	7,778	7,834	7,890	7,946
b) Corporate service charges	2,530	2,466	2,674	2,517	2,580	2,645	2,711
c) Licensing services charges				762	771	779	791
d) Depreciation expense	439	391	414	398	409	416	424
e) Legal services	159	133	184	152	162	170	179
f) Accommodation expenses	826	817	830	807	838	859	881
g) IS support/maintenance (CMS)	200	219	205	190	204	207	212
h) IT and minor equipment replacement	44	52	40	42	47	49	50
i) Other recurrent expenses	2,431	2,721	2,553	2,493	2,598	2,663	2,721
Total Recurrent	**15,102**	**14,360**	**15,371**	**15,139**	**15,444**	**15,679**	**15,915**
1.2 Capital Expenditure							
a) Software replacements (CMS)		406					
b) CMS project management		198					
c) On-line compliance and customer interface functionality	700		1,270	526			
Total Capital	**700**	**604**	**1,270**	**526**	**0**	**0**	**0**
Total Expenses	**15,802**	**14,158**	**15,802**	**16,071**	**15,517**	**15,812**	**15,882**
2. Income							
a) Industry Levy	7,048	7,048	7,154	7,225	7,297	7,370	7,444
b) Licensing Fees	6,796	7,597	6,553	6,931	7,227	7,312	7,370
c) Indian Ocean Territories	45	45	46	45	46	46	46
d) Other revenues	13	11	25	50	51	51	52
Total Income	**13,902**	**14,701**	**13,778**	**14,251**	**14,621**	**14,779**	**14,913**
Surplus/(Deficit) for the period	**(1,900)**	**(263)**	**(2,864)**	**(1,414)**	**(823)**	**(899)**	**(1,002)**
Approved FTE	**63**	**63**	**63**	**55**	**55**	**55**	**55**
FTE Actual/Estimate	**59**	**51**	**59**	**52**	**52**	**52**	**52**

The above budget will have the following cash impact:

Financial Year	2016/17 Budget	2016/17 Actual	2017/18 Approved Budget	Escalated $			
				2018/19	2019/20	2020/21	2021/22
	$'000	$'000	$'000	$'000	$'000	$'000	$'000
Estimated Opening Balance	**11,239**	**11,417**	**12,061**	**10,427**	**9,878**	**10,199**	**10,393**
Industry Levy	7,048	7,048	7,154	7,225	7,297	7,370	7,444
Licensing Fees	6,839	7,947	6,848	7,274	7,313	7,338	7,358
All other revenues	58	56	71	95	96	97	98
Cash expenses	(15,413)	(14,407)	(15,708)	(15,143)	(14,384)	(14,612)	(14,841)
Net Cash Movement	**(1,468)**	**644**	**(1,634)**	**(549)**	**322**	**194**	**59**
Estimated Closing Balance	**9,771**	**12,061**	**10,427**	**9,878**	**10,199**	**10,393**	**10,452**

13.1 Notes and Explanations

13.1.1 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 any Attraction and Retention Incentive (ARI).

The estimates provide for a vacancy rate of three FTEs (5.4%) in 2018/19 and for all out-years.

b) **Corporate service charges**: Energy*Safety* relies on central departmental Corporate Services support (covering finance, HR and IT support) to be provided by DMIRS. The amounts shown are the estimated costs provided by the Department's Corporate Services Division.

c) **Licensing services charges:** Energy*Safety* relies on licensing processing services to be delivered by the department's Licensing Services Directorate, with which a Service Level Agreement is in place. The amounts shown are the estimated costs provided by the Department's Corporate Services Division, and which are reflected in a commensurate reduction from 2018/19 in Energy*Safety*'s salaries and other recurrent expenses budgets that had previously been allocated to licensing activities.

d) **Depreciation expense:** covers the cost of depreciation of Energy*Safety*'s assets, including software systems. The bulk of the depreciation expense relates to the Compliance Management System, which was commissioned during 2014/15 and which was has a significant impact on depreciation expense from 2016/17.

e) **Legal services**: chiefly provided by the State Solicitor's Office. This is not expected to increase significantly over the forward estimates period.

f) **Accommodation expenses:** covers expenses relating to Energy*Safety*'s office accommodation, including, lease costs, maintenance and minor works, cleaning and utility costs.

g) **IS support and maintenance, Compliance Management System (CMS)**: includes recurrent costs associated with support, licensing and maintenance of the CMS.

h) **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.

This item includes the cost of mobile computing technology used in conjunction with the CMS in supporting inspectors undertaking field work.

i) **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.

13.1.2 Capital Expenditure

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

c) **On-line compliance and customer interface functionality:** The $1.796 million budgeted over the two years to 2018/19 is to finalise works on enhancements to Energy*Safety*'s Compliance Management System, which includes improved functionality to support electronic lodgement of various notifications by external users, improved assessment, infringement and prosecution processes, some automation of work programing, complex audit scheduling and management of resources for operational activities. The amounts include modest carry-overs resulting from underspend in prior years.

The items at a) and b) reflects the capital costs of completing the identified enhancements and the capitalised internal IS project support costs for implementation of the CMS system.

13.1.3 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 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 2018/19 this is $6.931m. On a cash basis the amount is $7.274m.

c) **Indian Ocean Territories (IOT)**: The Department 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.

13.2 Cash Balances

Energy*Safety*'s cash balance forms part of the DMIRS bank account and is classified as restricted cash. The cash bank balance was $12.06m at the end of 2016/17 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 (14% at or beyond retirement age and likely to be 20% 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 2017) $1.52m. CMS has been commissioned and capitalised, meaning that the depreciation expense for Energy*Safety* will normalise to be in the order of $400k per year, bringing accumulated depreciation to approximately $3.2m 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 2017 was $6.22m. 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 hold this unearned income.

The reasonable, targeted cash balance at any given time should therefore be in the order of between $9.5m and $11.0m. The 2018/19 Financial Plan will see a sustainable maintenance of cash reserves in this optimal target range over the life of this Plan.

Industry Levy

14 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 2018/19, the proposed Energy Safety Industry Levy will be $7.225m. 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.

14.1 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 $7.225m is proposed in this Business Plan for 2018/19.

This enables sufficient funds for the full structure of Energy*Safety* to operate (less a forecast vacancy rate of three FTEs (5.4%), 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 1.0% from 2017/18 and reflects estimated costs and other revenue sources for Energy*Safety* and considers the optimal cash holding level.

As detailed earlier in this Plan, it is expected that various complementary initiatives will enable Energy*Safety* 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 2018/19 and beyond, and surplus funds will not be realised from under-expenditure at the same levels as has been experienced in prior years.

14.2 Apportionment of Levy Between Energy Sectors

The proposed 2018/19 industry levy of $7.225m 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 $4.841m and from participants in the gas industry it will be $2.384m.

14.3 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-2017/18 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-2018/19, determining the levy contribution allocations for each supplier for 2019/20.

14.4 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 2016/17, 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 again during the later stages of 2019/20.

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 2016/17 issues and activities

15 Significant Issues Affecting Energy*Safety*

In addition to the key achievements highlighted in Section 9 of this Plan, the following issues and activities are also significant and have an impact on the operations of Energy*Safety*.

15.1 Electricity Inspection Resources

Energy*Safety* has continued to struggle to fill its vacant electrical inspector positions, mainly due to the relatively small pool of suitably qualified and experienced electricians available. Energy*Safety* 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.

The technical positons at Energy*Safety* have historically received an attraction and retention incentive (ARI) allowance in addition to their base salary. The amount of ARI paid was determined by a comparison to relevant comparable positions in industry.

A review of the ARI in 2016 had the effect of winding the ARI down to reflect the changed economic climate in Western Australia. The effect of this change on Energy*Safety*'s recruiting efforts will be monitored over coming years.

During the latter part of 2016/17, Energy*Safety* resumed advertising for a pool of suitable candidates to fill Senior Electrical Inspectors' vacancies in the Electricity Compliance Directorate.

15.2 Operative Licensing Activities

On 1 July 2017 the Departments of Commerce and Mines and Petroleum merged to form the Department of Mines, Industry Regulation and Safety. Structural changes during the establishment of the new department saw the amalgamation of common licensing functions and activities from across the department occur on 2 October 2017.

Licensing services are provided by the department's Licensing Services Directorate. Energy*Safety* manages this service delivery through a licensing policy framework, a Service Level Agreement and liaison between the Electrical Licensing Board, the Gas Licensing Committee, the Director Energy Safety and the licensing service provider. It is expected that efficiencies will continue to be realised through better staffing management and an enhanced capacity and capability for licence transaction processing.

The department continues to provide timely turn-around from receipt of applications to the issue of licences, however considerable work pressure remains in this area and is continually monitored.

15.2.1 Electrical Licensing

As at 30 June 2017, there were 48,175 electrical workers, 5,783 electrical contractors and 261 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.

15.2.2 Electrical Licensing Board

As at 30 June 2017, the Board's membership comprised:

Mr K McGill – Chairman
Mr J Murie – 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 19 times during the year.

15.2.3 Gas Licensing

As at 30 June 2017 there were 8,136 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 18 times during the year.

16 Prosecutions and Infringement Notices

16.1 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 2016/17.

16.1.1 Prosecutions – Breaches of Electricity Related Legislation

Summary for the period 1 July 2016 – 30 June 2017

Legislation/Regulation	*Section / Regulation*	*Number of Offences*	*Fines $*
Electricity (Licensing) Regulations 1991	33(1)	1	5,000
Electricity (Licensing) Regulations 1991	49(1)	3	23,000
Electricity (Licensing) Regulations 1991	52(3)	1	35,000
Electricity (Licensing) Regulations 1991	50	1	45,000
	52(B)(1)	1	
	63(2)	1	
Electricity (Licensing) Regulations 1991	49(1)	1	5,000
	52(3)	1	
Electricity Regulations 1947	R242(1)(b)	1	60,000
Electricity (Supply Standards and System Safety) Regulations 2001	10(1)(a)	1	75,000
TOTAL		**12**	**248,000**

16.1.2 Prosecutions – Breaches of Gas Related Legislation

Summary for the period 1 July 2016 – 30 June 2017

Legislation/Regulation	*Section / Regulation*	*Number of Offences*	*Fines $*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	42	1	3,082.35
TOTAL		**1**	**3,082.35**

16.2 Infringement Notices

Energy*Safety* 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 52 (7 Electricity and 45 Gas) Infringement Notices issued by Energy*Safety* for the year.

The following tables provide summaries of Infringement Notices issued during 2016/17.

16.2.1 Infringement Notices – Breaches of Electricity Related Legislation

Summary for the period 1 July 2016 – 30 June 2017

Legislation	*Section / Regulation*	*Number of Offences*	*Fines $*
Electricity Act 1945	33B(2)	5	17,500
Electricity (Licensing) Regulations 1991	45(1)	1	800
Electricity Regulations 1947	14	1	1,000
TOTAL		**7**	**19,300**

16.2.2 Infringement Notices – Breaches of Gas Related Legislation

Summary for the period 1 July 2016 – 30 June 2017

Legislation	*Section / Regulation*	*Number of Offences*	*Fines $*
Gas Standards (Gas Supply and System Safety) Regulations 2000	37	2	20,000
Gas Standards Act 1972	13A(2)	4	4,000
	13(2)	1	2,000
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	18(2)	9	5,400
	20(1)	6	3,600
	20(4a)	1	600
	28(2)	4	1,600
	28(3)	11	4,400
	30	2	1,200
	36(1)	1	1,000
	34(3)	1	1,250
	34(1)	3	3,750
TOTAL		**45**	**48,800**

17 Major Policy Work

17.1 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

17.2 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.

18 Statutory Reporting and Statistics

The following statistical information is required to be reported by Energy*Safety* and is reflected in the Department of Commerce's 2016/17 Annual Report (the final report for the Department of Commerce):

18.1 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, namely:

(a) the number, nature, and outcome, of the –

(i) investigations and inquiries undertaken under this Act by, or at the direction of, the Director; and

The following numbers of investigations and inquiries were concluded in 2016/17

Nature	Number
Audits	2
Compliance Inspections	4,236
Investigations - Breaches	298
Total	**4,536**

Outcomes [1]	
Appeal rejected	1
Further inspection(s)	2
Further investigation	37
Issue incident report/hazard alert	3
Issue inspectors Order	53
Refer to Electrical Licensing Board	4
Licensing Board - Failed competency assessment	1
No further action	3,703
Not inspected	838
Lapsed prosecution	10
Proceed with prosecution	11
Prosecution - Convicted	12
Prosecution - No conviction/ dismissed	1
Prosecution - Withdrawn	3
Infringement	6
Project goal delivered	134
Provide advice	39
RCDs inadequate. Advice given	19
Stop Sale Notice	2
Verbal warning	4
Written warning	78
Total	**4,961**

Note:
Compliance actions may take more than one year to complete. Therefore the outcomes recorded above may relate to investigations carried out in an earlier year. Also there can be more than one compliance action for an investigation.

(ii) matters that have been brought before the State Administrative Tribunal under this Act by the Director.

There were no such matters.

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

Nature	Number
Audits (Network Operator)	0
Compliance Inspections	1,284
Investigations	175
Total	**1,459**

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

During the year Energy*Safety* engaged three electrical inspectors on fixed term contracts to assist in the inspection of electrical installing work carried out by electrical contractors. This initiative reduced the backlog of outstanding inspections by 39 per cent while also addressing the new inspections required under its sample inspection system.

Energy*Safety* has not been able to fill its full time vacant senior electrical inspector positions. In addition two contracted senior electrical inspectors resigned and one senior electrical inspector and two managers retired during the year.

Energy*Safety* has continued to prioritise its workload based on risk assessment and some work was not completed. This also resulted in some investigations taking longer to complete than planned. In 10 cases Energy*Safety* could not complete the investigation within the two year statutory limitation period.

(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 2017/18.

The growth of licensed operatives in Western Australia is expected to decrease slightly when compared to previous years. The number of notices for completed work each year to electricity network operators and Energy*Safety* is expected to increase, as in past years.

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 the vacant positions.

(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 persist in its attempt to recruit technical staff to fill the vacant positions.

Energy*Safety* has 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.

18.2 Electricity Related Incidents and Fatalities

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

Electric shocks	1,602
Serious electrical accidents (hospitalisation)	5
Serious electrical accidents (medical treatment)	12
Fatalities (included in serious electrical accidents)	0

18.3 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 –

(i) investigations and inquiries undertaken under this Act by, or at the direction of, the Director; and

The following investigations and inquiries were concluded in 2016/17

Nature	**Number**
Audit (Network Operator)	13
Compliance inspection	451
Investigations	1,058
Total	**1,552**

Outcomes [(1)]	
Appeal rejected	2
Appeal upheld	13
Appeal withdrawn	2
Corrective Action Request	1
Further investigation	11
Infringement	45
Inspectors Orders cancelled	13
Issue Inspectors Order	10
No further action	776
Not gas related	5
Not inspected	14
Not investigated	25
Proceed with prosecution	1
Provide advice	4
Variation/Exemption approved	21
Verbal warning	441
Written warning	200
Total	**1,584**

Note:
Compliance actions may take more than one year to complete. Therefore the outcomes recorded above may relate to investigations carried out in an earlier year. Also there can be more than one compliance action for an investigation.

(ii) matters that have been brought before the State Administrative Tribunal under this Act by the Director.

There were no such matters.

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

Nature	Number
Audit (Network Operator)	20
Compliance inspection	62
Incident investigation	141
Total	**223**

18.4 Gas Related Incidents and Fatalities

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

Incidents	128
Serious accidents (hospitalisations)	3
Serious accidents (medical treatment)	7
Fatalities	1