



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

Energy Safety

Business Plan 2019/20

This Business Plan was approved under
Part 2 of the Energy Safety Act 2006 by
The Hon John Quigley MLA
Minister for Commerce and Industrial Relations
on 21 January 2019



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

Energy Safety Business Plan 2019/20

Contents

Foreword	5
Statement of Intent	6
1 Departmental Objectives	6
2 The Role of the Director of Energy Safety	7
3 Legislation Administered	8
4 Specific Activities	9
5 Information and Advice to the Minister	11
About the Building and Energy Division	12
6 Building and Energy Structure, Directorate Functions and Resources	12
6.1 Organisational Structure (energy safety activities).....	12
6.1.1 Policy, Standards and Engineering Directorate	13
6.1.2 Electricity, Gas and Plumbing Compliance Directorate	13
6.1.3 Regulatory Services Branch	14
6.2 Energy Safety Compliance Framework	15
6.2.1 Consumer Installations	15
6.2.2 Electricity and Gas Networks	16
Performance Indicators, Safety Statistics and Key Achievements	17
7 Performance Indicators	17
7.1 Regulatory Work Indicators	17
7.1.1 Electricity	17
7.1.2 Gas.....	17
7.2 Key Performance Information.....	17
7.2.1 Outcomes and Key Effectiveness Indicators	17
7.2.2 Key Efficiency Indicators.....	18
8 Electricity and Gas Safety Statistics	19
8.1 Electricity and Gas Safety Statistical Outcomes	19
8.1.1 Electrical Safety Statistics.....	19
8.1.2 Gas Safety Statistics.....	23
9 Key Achievements	25
9.1 Completion of the Morley Galleria Investigation	25
9.2 New Laws for Supervision of Electrical Work	25
9.3 Industry Roadshows on New Laws and Standards for Electrical Work	26
9.4 Electricity Amendment Regulations 2018 – RCD Requirements.....	26
9.5 Review of Inspection System Plan Sampling Rates	26
9.6 Review of Gas Network Operators’ Safety Cases	27
Business Environment and Challenges	28

10	Western Australia's Energy Industry Environment.....	28
10.1	Size and Growth of the Industry – Number of Licensed Operatives.....	28
10.2	Volume of Installation Work Performed by Electrical and Gas Operatives.....	29
10.3	Volume of Compliance Work Undertaken by Building and Energy	31
	Initiatives to Manage the Challenges	32
11	The Period Ahead – Significant Issues Impacting Energy Safety.....	32
11.1	Major Policy Initiatives.....	32
11.1.1	Energy Safety Bill	32
11.1.2	Review of Electricity Network Operator Guidelines and Inspection System Plans	32
11.1.3	Implementing the National Electrical Equipment Safety Scheme....	33
11.1.4	Audits of Gas Network Operator's Safety Cases.....	33
11.2	Corporate Projects and Issues	33
11.2.1	Compliance Management System Updates	34
11.2.2	HR Management and Recruitment Strategies Review	34
11.2.3	Licensing Services.....	35
11.2.4	Public Communications	35
12	Regulatory Operational Matters	36
12.1	Inspections of Installations Not Connected to a Network and the Indian Ocean Territories	36
12.2	Investigations of Breaches to the Legislation.....	36
12.3	Investigations of Serious Accidents and Fatalities	36
12.4	Investigations of Network Incidents	36
12.5	Monitoring of Gas and Electricity Consumer Appliances	36
12.6	Audits of Network Operator Inspection System Plans	37
12.7	Audits of Electrical Contractors and Gas Fitters	37
12.8	Australian Standards Development Work.....	37
12.9	Regulator Liaison	37
	Financial Plan	38
13	2019/20 Financial Plan	38
13.1	Notes and Explanations	41
13.1.1	Recurrent Expenditure.....	41
13.1.2	Capital Expenditure	41
13.1.3	Income.....	42
13.2	Cash Balances.....	42
	Industry Levy.....	44
14	Industry Levy Statement.....	44
14.1	Industry Levy Quantum	44
14.2	Apportionment of Levy Between Energy Sectors	44
14.3	Allocation of Levy Within Energy Sectors	45
14.4	Administration of the Levy Scheme	45
	Appendix A - A brief outline of 2017/18 issues and activities	46
15	Significant Issues Affecting Energy Safety in Western Australia.....	46
15.1	Operative Licensing Activities	46
15.1.1	Electrical Licensing	46
15.1.2	Electrical Licensing Board.....	46
15.1.3	Gas Licensing.....	47
16	Prosecutions and Infringement Notices	48

- 16.1 Prosecutions48
 - 16.1.1 Prosecutions – Breaches of Electricity Related Legislation48
 - 16.1.2 Prosecutions – Breaches of Gas Related Legislation.....48
- 16.2 Infringement Notices49
 - 16.2.1 Infringement Notices – Breaches of Electricity Related Legislation 49
 - 16.2.2 Infringement Notices – Breaches of Gas Related Legislation.....49
- 17 Major Policy Work50**
 - 17.1 Committee Participation50
 - 17.2 National Regulatory Reform Projects50
- 18 Statutory Reporting and Statistics.....50**
 - 18.1 Electricity Act 1945.....50
 - 18.2 Electricity Related Incidents and Fatalities52
 - 18.3 Gas Standards Act 197252
 - 18.4 Gas Related Incidents and Fatalities.....54

Foreword

This document sets out the Business Plan 2019/20 for the energy safety functions performed by the Building and Energy Division (Division) of the Department of Mines, Industry Regulation and Safety (DMIRS).

The Executive Director Building and Energy is the head of the Division and is designated as the Director of Energy Safety (Director), an independent statutory office established on 1 January 1995.

The Director has responsibility for functions ensuring the technical safety regulation of electricity and most of the gas industry in Western Australia.

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

Energy safety activities 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 2019/20 sets out:

- a statement of intent;
- the business environment and challenges, including major projects;
- the financial plan;
- details of the proposed 2019/20 energy industry levy; and
- a brief outline in Appendix A of 2017/18 outcomes (the eleventh 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 2019/20 and the manner in which it is to be allocated between participants.

Ken Bowron
Director of Energy Safety

December 2018

Statement of Intent

This Statement of Intent is part of the Business Plan 2019/20 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 the operational and capital funding required to perform the Director's functions.

1 Departmental Objectives

The Department of Mines, Industry Regulation and Safety (DMIRS), of which Building and Energy 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.

As part of DMIRS, the Building and Energy Division both contributes to and embraces these strategic priorities and corporate direction.

2 The Role of the Director 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 the energy safety activities of the Building and Energy Division (Division).

The Division 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 the energy safety legislative framework is the safety of energy consumers and the community at large.

The Division performs four key functions to ensure the safety of energy consumer installations:

- in conjunction with services delivered to it by DMIRS's Licensing Services Directorate, it administers occupational licences to ensure only competent trade persons can perform electrical and gas work;

Occupational licensing has a direct influence on consumer and worker safety. Licences are issued 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 Western Australia);
- 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.

The Division 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. The Division monitors network operators to ensure their assets are designed, constructed, operated and maintained in a manner that ensures public and community safety.

The Division 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 and his management team 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. The Division 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 the Director to:

- Ensure 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 safety of consumers and industrial gas installations and 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 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 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, the Director:

- 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

The Director provides advice and support to the Minister.

Interaction between the Minister's office and the Division takes place through the Director of Energy Safety, the Deputy Director General of the Industry Regulation and Consumer Protection Group and the Director General of DMIRS. However, the Division's Director Policy, Standards and Engineering and Director Electricity, Gas and Plumbing Compliance may respond directly when circumstances require.

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

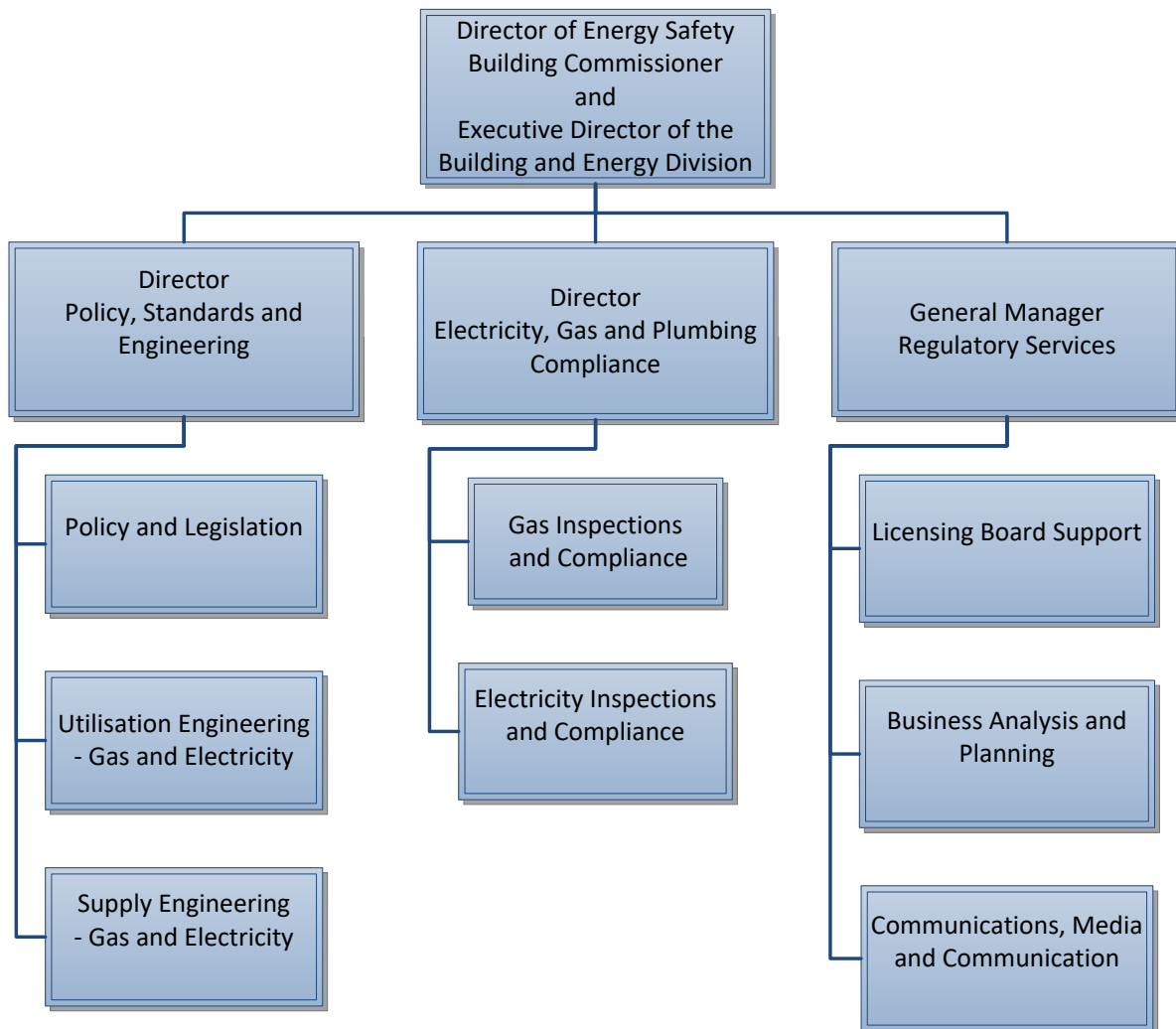
- proposals for major policy projects, such as new legislation or amendments;
- reports on the status and management of major policy projects;
- proposed regulatory actions that may affect the public or businesses;
- information releases dealing with subjects relevant to this Ministerial portfolio;
-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

6 Building and Energy Structure, Directorate Functions and Resources

The Division is located in the Mason Bird Building on the corner of Sevenoaks Street and Grose Avenue, Cannington. It is headed by the Executive Director Building and Energy, who is designated as the Director of Energy Safety and the Building Commissioner.

6.1 Organisational Structure (energy safety activities)



As identified in the EnergySafety Business Plan 2018/19, the organisational structure of the Department changed with the implementation of Machinery of Government initiatives, which resulted in the amalgamation of the Department of Commerce and the Department of Mines and Petroleum to establish the Department of Mines, Industry Regulation and Safety from 1 July 2017. Additionally, within the merged departmental structure, the operations of the Building Commission and the EnergySafety Division were merged to form the Building and Energy Division.

The structure that had previously been in place within EnergySafety had evolved over time in response to rapid growth in the electricity sector over the previous decade or so.

With the exception of support functions and the centralisation of occupational licencing transaction functions, the resources available to perform the regulatory functions of the

Director of Energy Safety have not significantly changed. These resources integrated readily with the new departmental structure and were already well aligned with the regulatory functions performed by the Building Commission. The structure will continue to allow for the future development and maintenance of critical technical expertise relevant to each of the energy industry sectors.

While the directorates detailed below also have merged with resources providing functions related to the regulation of the plumbing and building services industries, the functions identified here are referenced only in relation to the energy safety component of their activities where applicable.

6.1.1 Policy, Standards and Engineering Directorate

This Directorate is headed by the Director Policy, Standards and Engineering. In respect of energy safety regulation, the Directorate 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 four engineering branches:

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

The Directorate is headed by the Director Electricity, Gas and Plumbing Compliance. In respect of energy safety regulation, the Directorate is responsible for:

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

The Directorate has four Branches:

- ❖ Electrical Inspection Supply;
- ❖ Electrical Inspection Utilisation;
- ❖ Electricity Compliance; and
- ❖ Gas and Plumbing Inspection.

These Branches deal with the following key activities:

- conducting compliance investigations and inspections of electricity and gas suppliers concerning network safety and quality (composition) of natural gas and LP Gas supplied;
- inspecting electricity and gas 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 electricity and gas 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, the Gas Licensing Committee and the functions of the Licensing Services Directorate;
- 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 Directorate is based at the Cannington Office, but also has senior electrical inspector positions at Geraldton and Bunbury. The branch operates on a 24 hour/7 day basis to respond to electrical and gas incidents.

6.1.3 Regulatory Services Branch

This Branch is headed by the General Manager Regulatory Services and is responsible for the Division's administrative functions and office systems, the provision of a wide range of business planning, business performance measurement and reporting, financial planning, communication and education activities with industry and the community.

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

The Branch has four operational units, as follows:

- ❖ Licensing Boards Support;
- ❖ Business Analysis and Planning;
- ❖ Technical Communications and Education; and
- ❖ Applications and Data Support.

These units deal with:

- ensuring the efficiency and quality of 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 General Manager 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 and expenditure budget development;
- the Division's financial management, performance indicator development and reporting;
- overseeing the development of the annual Energy Safety Business 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 the Division's key performance indicators; and
- industry technical (regulatory) communication, community education, safety promotion and annual reporting.

6.2 Energy Safety 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 the Director. These Notices are the main indicator of the activity in industry and are the trigger for installation inspections.

To have confidence that work is being performed safely by operatives, 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 inspectors issuing Inspector's Orders requiring corrective actions be undertaken. The more serious breaches are referred to the Director for further action.

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

The Division 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 the Division'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. 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.

The Division devotes significant resources to investigating serious accidents and fatalities.

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.

The Division 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, 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. The Division 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 the Division's regulatory work, as well as the influence of this work on energy safety outcomes.

7.1.1 Electricity	17/18 Target	17/18 Actual	18/19 Target*
Measures			
Electricity related deaths	0*	1	0*
Electricity related accidents ¹ (including fatalities)	12	15	12
Electrical installations inspected and found non-complying (includes matters not directly affecting safety)	10%	12%	10%
Number of audits of electricity network operators' Inspection System Plans ²	2	1	2
Investigations under Acts and Regulations	300	190	300
Seminar, Education Program and Training (Licensees, Network Operators and Public)	100	96	100

7.1.2 Gas	17/18 Target	17/18 Actual	18/19 Target
Measures			
Gas related deaths	0*	0	0*
Gas related accidents ¹ (including fatalities)	10	8	8
Gas installations inspected and found non-complying (includes matters not directly affecting safety)	10%	7.8%	7.5%
Number of audits of gas network operators' Inspection System Plans ²	2	6	2
Investigations under Acts and Regulations	500	952	500
Number of Type A and type B gas appliance variations/exemptions granted	60 [∞]	23	20 [∞]
Presentations to Industry or other Groups	50	59	50

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

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

7.2.1 Outcomes and Key Effectiveness Indicators

The desired Outcome related to energy safety is a *Community in which the use of electricity and gas is regulated and safe*.

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.

The Indicators used by the Division to measure its effectiveness in achieving the desired outcome are:

	16/17 Actual	17/18 Target	17/18 Actual	18/19 Target	Note
Key Effectiveness Indicators					
The number of electricity-related serious injuries and fatalities per million population	6.60	0	5.78	0	1
The number of gas-related serious injuries and fatalities per million population	4.27	0	3.08	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

	16/17 Actual	17/18 Target	17/18 Actual	18/19 Target	Note
Key Efficiency Indicators					
Average cost of Regulatory Services	\$2,059	\$6,326	\$2,763	\$6,326	2
Average Cost of Provision of Licensing Services	\$32.10	\$32.40	\$32.14	\$32.40	3

2. The 2017/18 and the 2018/19 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 2016/17 and 2017/18 are lower and reflect the Division's difficulty in attracting the required staff in regulatory roles.

The department conducted 4,503 inspections or investigations during 2017/18, which was slightly below target (4,900) and substantially lower than last year's figure of 6,054. The decrease in the number of compliance inspections can be attributed to reduced availability of resources to conduct electricity compliance inspections and investigations. There was also a decrease in gas compliance inspections which was due to inspection resources being reallocated (from compliance inspections) to attend to an increased number of enquiries and breach investigations.

This has led to the average cost of regulatory services in 2017/18 of \$2,763 being 34 per cent higher than the 2016/17 result of \$2,059 and four per cent higher than the target of \$2,663.

The budget reflects the Division's ongoing commitment to fill vacant positions. The additional staff will allow the conduct of 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 2018/19. This can be affected by the number of licences issued as a consequence of the cyclical nature of licensing renewals.

The department administered 60,759 registrations and licences in 2017/18, which is comparable to last year's figure of 63,669 and slightly higher than the anticipated 63,550. The average cost of provision of licensing service of \$32.14 in 2017/18 is similar to the 2016/17 result of \$32.10 and 11 per cent lower than the target of \$36.12. The variation from target is due to processing a higher volume of licences that was expected during 2017/18.

8 Electricity and Gas Safety Statistics

8.1 Electricity and Gas Safety Statistical Outcomes

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

The electricity 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 the Division's Compliance Management System (CMS) and the data presented in this Plan reflects the information available as of 1 July 2018.

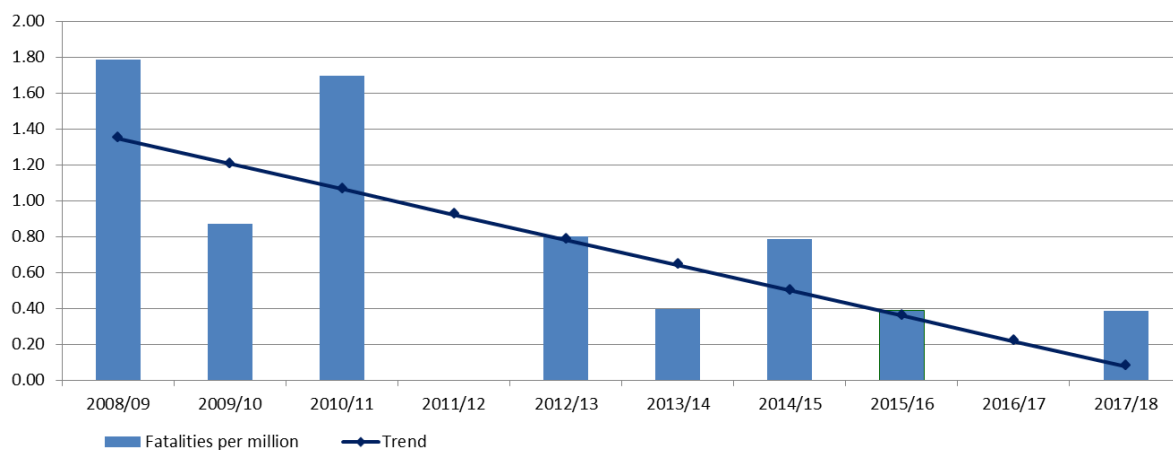
8.1.1 Electrical Safety Statistics

Electrical Fatalities

The number of fatalities per million population related to electricity continues a declining trend over the ten year period.

During 2017/18, there was one fatality reported in Western Australia where electricity was found to be the cause.

Chart A: Electricity related fatalities per million of population



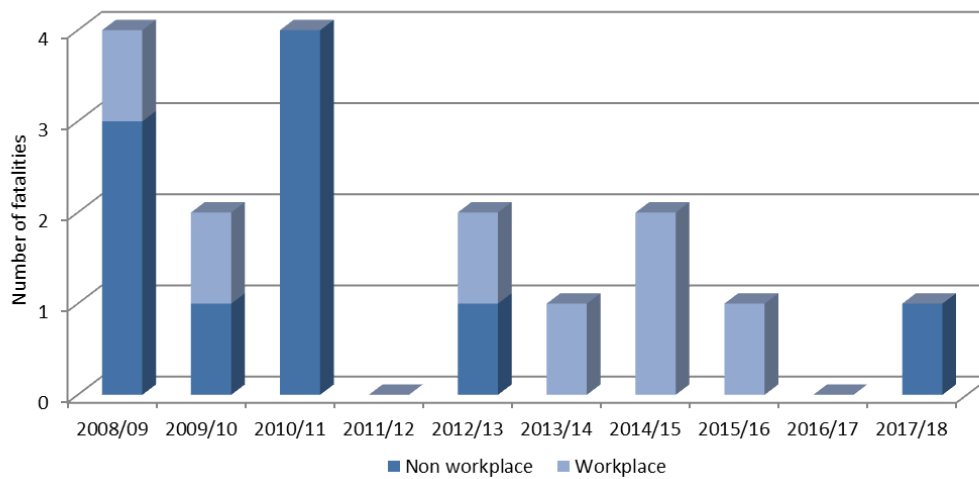
This general improvement in consumer safety over a long period can be attributed to the effectiveness of the Division's compliance activities reflecting new laws specifically introduced over time to improve safety outcome trends in the electricity industry.

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, new laws were introduced 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. These laws affect the majority of residential dwellings in Western Australia.

This initiative, along with public safety awareness campaigns, is demonstrating improved safety outcomes to the extent that electrical safety regulators across Australia have implemented similar initiatives.

Chart B: Workplace and non-workplace electrical fatalities



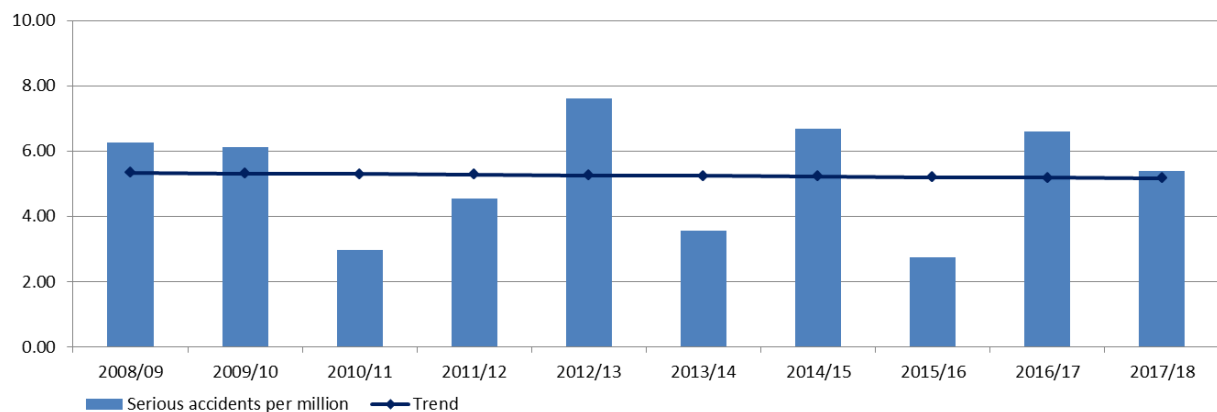
The number of non-workplace fatalities has decreased since 2013/14. The fatal incident in 2017/18 did not occur in a workplace.

Electrical Accidents – Non fatal

The number of electrical accidents (non-fatal) per million of population in WA has remained steady over the past ten years (Chart C). During 2017/18, there were 14 non-fatal accidents compared with 17 in 2016/17.

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.

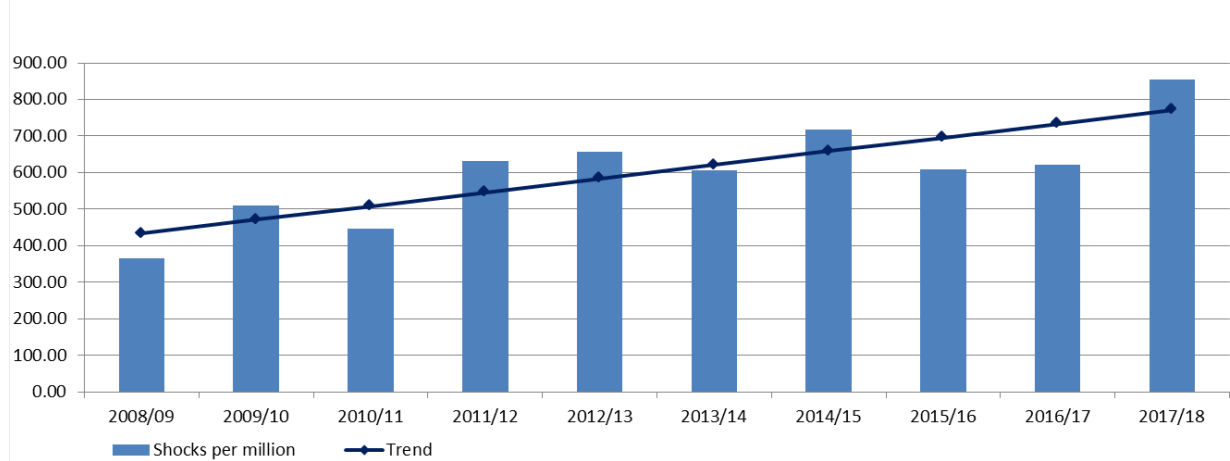
Chart C: Electrical accidents per million of population



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 of population

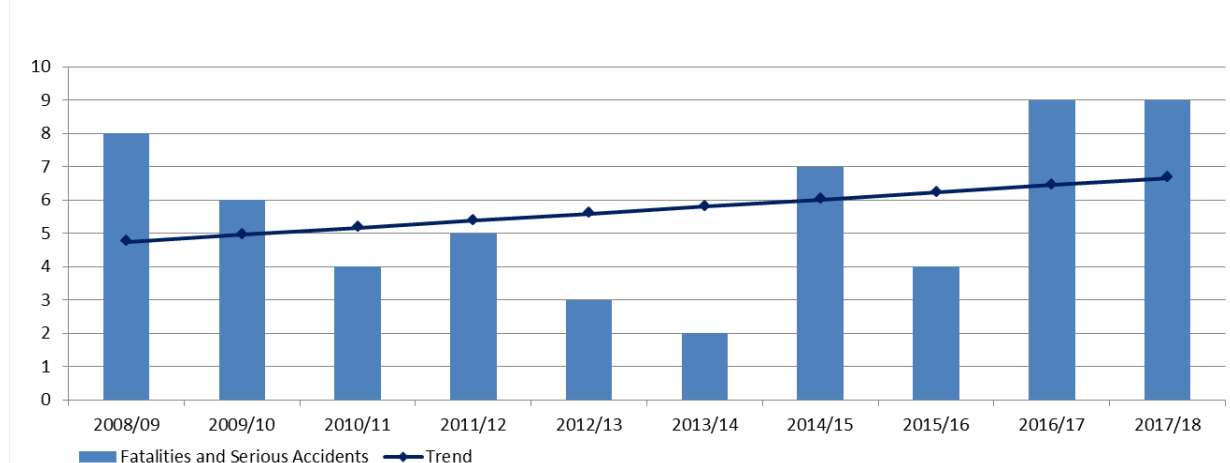


During 2017/18 there were 2,216 electrical shocks reported compared with 1,602 in 2016/17, which represents a 38% increase compared to the previous year. The general upward trend in the numbers of reported shocks indicates a greater general public and industry awareness, through publications and advertisements, 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 greater knowledge related to 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



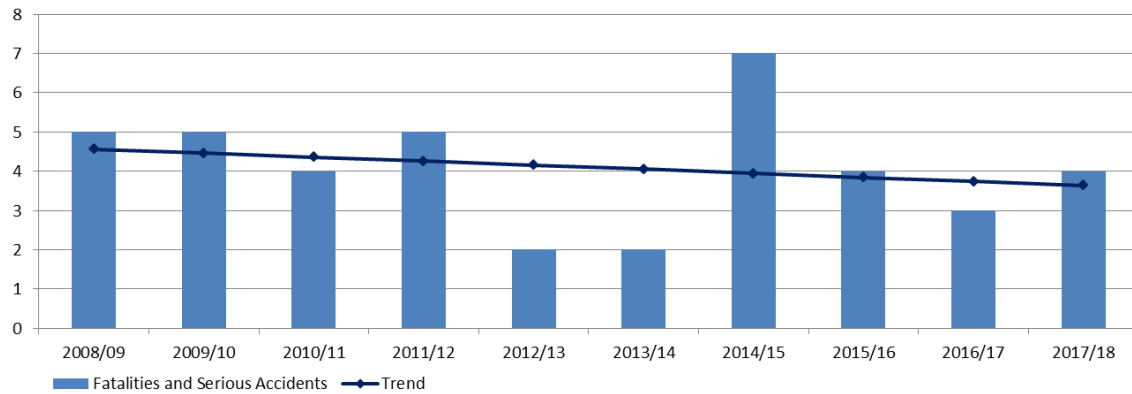
The trend for fatalities and serious accidents involving electrical workers (Chart E) shows an increase over the ten year period, with a higher number of accidents involving electricians being recorded in 2016/17 and 2017/18.

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.

New regulations restricting work on energised electrical equipment and a new Code of Practice for persons working on or near energised electrical equipment was published and came into effect in May 2018.

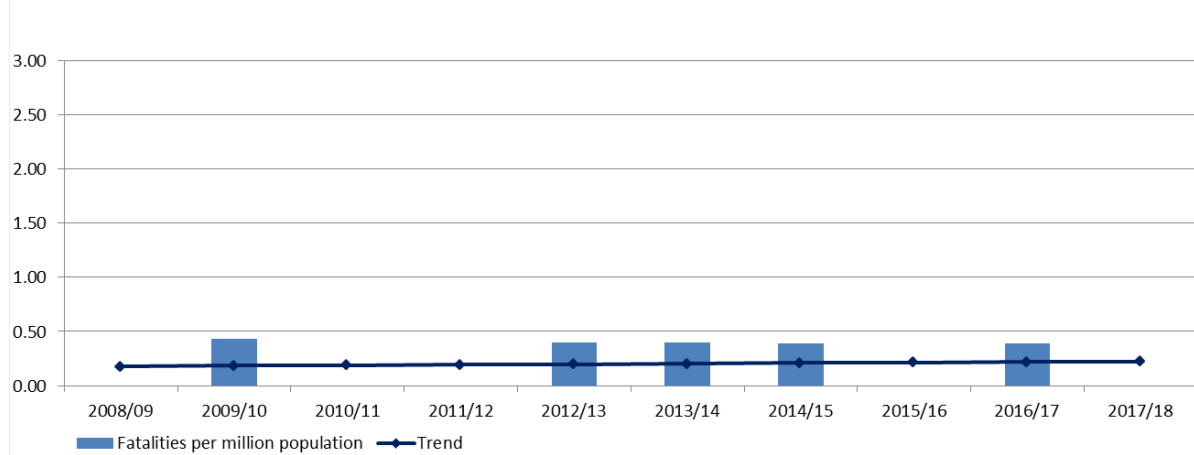
Chart F: Fatalities and serious accidents resulting from “live” work involving qualified electricians in WA



8.1.2 Gas Safety Statistics

There were no gas related fatalities reported in 2017/18.

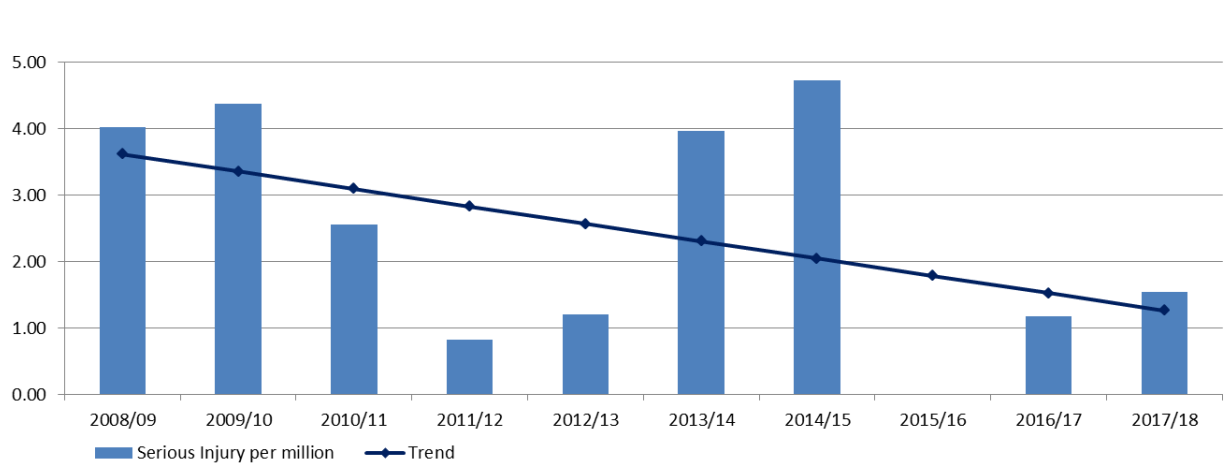
Chart G: Gas related fatalities per million population



Gas Accidents – Serious Injury

The number of serious injuries per million population has shown a declining trend over the reporting period. Increasing awareness about the dangers of gas and the importance of using it safely has helped achieve this decrease.

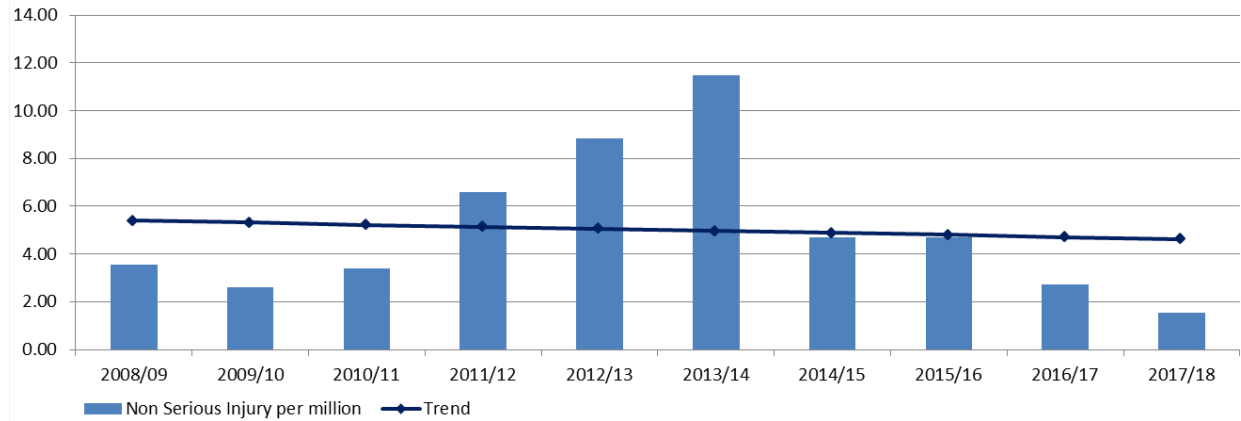
Chart H: Gas related incidents resulting in serious injury per million population



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 slight decrease during the ten year period.

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



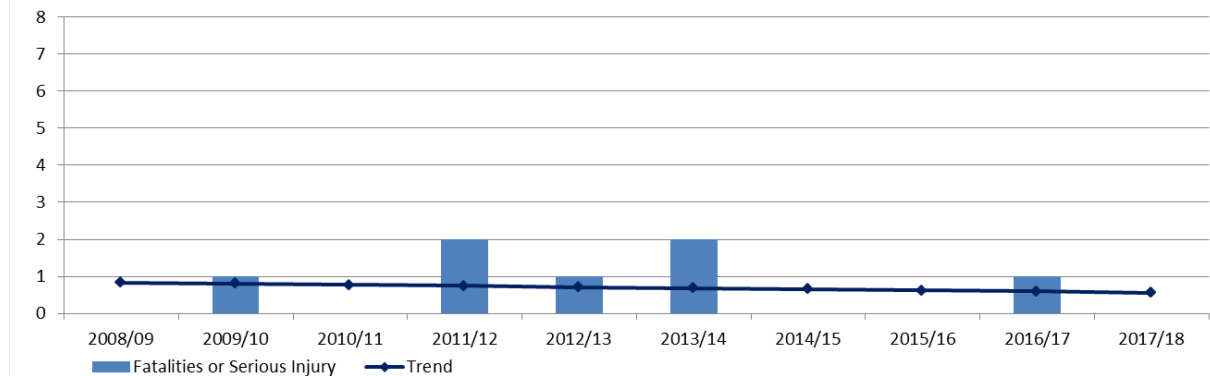
Gas Worker Safety

There have been no gas-related fatalities involving gas workers in the ten year period from 2008/09.

The results shown in Chart J below relate only to gas incidents that caused serious injury. There were no incidents causing serious injury to gas workers in 2017/18. Serious injuries involving gas workers are significantly lower in comparison 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 Completion of the Morley Galleria Investigation

EnergySafety concluded its investigation into the explosion which occurred at the Morley Galleria Shopping Centre in February 2015.

Within days of the accident, EnergySafety issued an Inspector's Order banning any form of maintenance on Long & Crawford units until they are completely isolated from the electricity supply.

As a further safety measure, reflecting information gained during the Galleria investigation, EnergySafety issued a second Inspector's Order in 24 March 2015 prohibiting the maintenance/repair of such switches unless completely isolated from the electricity supply. It allows the fuse switch units to remain in use but prohibits their maintenance/repair unless completely isolated from the electricity supply.

EnergySafety also issued a media statement and also wrote to all consumers likely to have such equipment advising them of the new safety requirements.

The extensive investigation has now identified the sequence of events which led to the catastrophic failure of the switchgear.

No prima facie case that any person had contravened the relevant *Electricity Act 1945* and associated Regulations was established. The corrective actions stipulated by the previous Orders are adequate to mitigate the risks. These Orders remain in force.

To reduce incidences of serious electrical accidents, new parts setting out the minimum standards for safe electrical work practices by electricians and other workers were also added to the Electricity (Licensing) Regulations 1991 and the Occupational Safety and Health Regulations 1996. 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.

9.2 New Laws for Supervision of Electrical Work

Concern had been held for some time about the number of electric shocks suffered by electrical apprentices. Reports received indicated that some electrical contracting companies were not providing adequate supervision to apprentices. Investigations found that, in some cases, apprentices were supervising other apprentices and some apprentices may not have seen their supervisors for several days at a time.

Following extensive industry consultation, new regulations were introduced in July 2018 which enhance the level of safety for apprentices and others undergoing training.

Two new information booklets which provide guidance on supervision requirements and general safe work practices were published. The *Safe Working Guidelines and Assessment for Electrical Apprentices* and the *Safe Working Guidelines for Electrical Workers* provide recommended minimum safety supervision requirements for electrical workers over apprentices.

Two videos were also produced to help educate industry about the new supervision requirements.

9.3 Industry Roadshows on New Laws and Standards for Electrical Work

Ten industry information sessions were conducted across metropolitan and regional areas of Western Australia during April and May 2018. The subjects covered included the new Wiring Rules, new constraints on working on “live” electrical equipment and the new requirements for apprentice supervision.

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 published a new version of the Standard early in June 2018. The legislation was amended to call up the new version of the Standards.

New regulations restricting work on energised electrical equipment and a new Code of Practice for persons working on or near energised electrical equipment was published and came into effect in May 2018.

The new requirements for apprentice supervision came into effect in June 2018.

The roadshows were very well received by industry.

9.4 Electricity Amendment Regulations 2018 – RCD Requirements

The new version of AS/NZS 3000:2007 – Wiring Rules, published on 26 June 2018 as AS/NZS 3000:2018, has varied the requirements regarding the installation of RCDs which affects all new electrical work in residential premises from 1 January 2019.

The definition of Australian/New Zealand Wiring Rules has been modified to update the version to AS/NZS 3000:2018 and new regulation 12A has been drafted to provide for the intent of AS/NZS 3000:2007 to be continued for residential premises constructed prior to 1 January 2019 and the intent of AS/NZS 3000:2018 to apply to residential premises constructed after 1 January 2019.

9.5 Review of Inspection System Plan Sampling Rates

Under Regulation 253 of the 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, the Director engaged Data Analysis Australia (DAA) to review the effectiveness of the current sampling rates for electrical inspections of new and modified electrical installations. DAA recommended some changes to the sampling rates. The Division is consulting with network operators in relation to DAA’s recommendations.

9.6 Review of Gas Network Operators' Safety Cases

Under the Gas Standards (Gas Supply and System Safety) Regulations 2000, all gas network operators are required to submit a Safety Case to the Director for his approval. The Safety Case must detail how the network operator will manage its network assets and ensure compliance with prescribed Australian Standards for gas network safety. Each Safety Case is unique as it relates to the specific networks the gas distribution Network Operator operates and maintains.

Safety Cases for all gas networks in WA were received during 2018. These were reviewed and approved by the Director in 2018/19. All safety cases will be audited in 2019/20.

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 the Division's workload.

The volume of work undertaken 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.

It is well documented that there has been a downturn in the State's resources sector and reduced construction activity in Western Australia. However these have not eased the regulatory burden on the Division. 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 and electrical industries have contracted slightly.

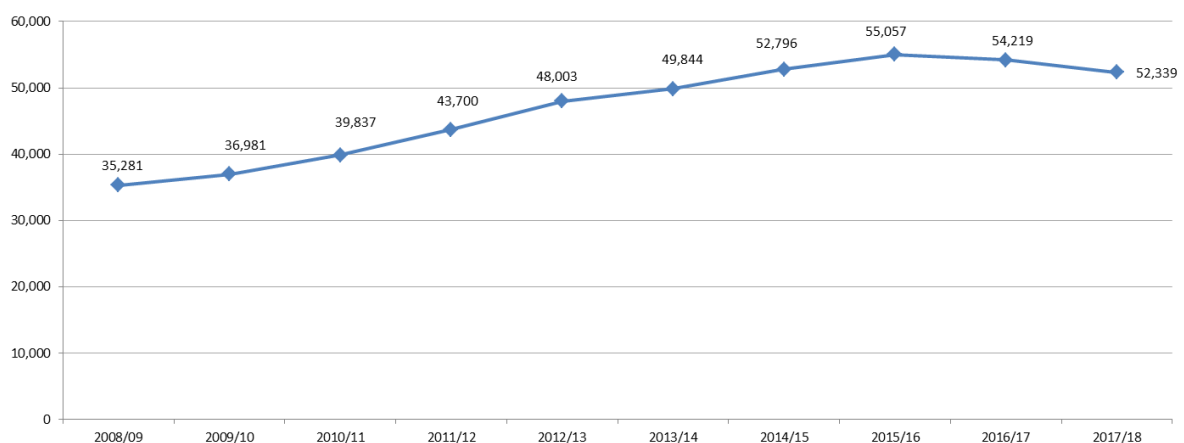
The number of licensed electrical operatives had grown steadily since 2007/08, but plateaued during 2016/17 and has dropped off further in 2017/18.

The number of gas permit/authorisation holders continued to increase from 2010, but has also dropped off during 2017/18

The decrease in numbers of operatives in the industries seems to have resulted from the impact of the cooling mining investment cycle that began in about 2015.

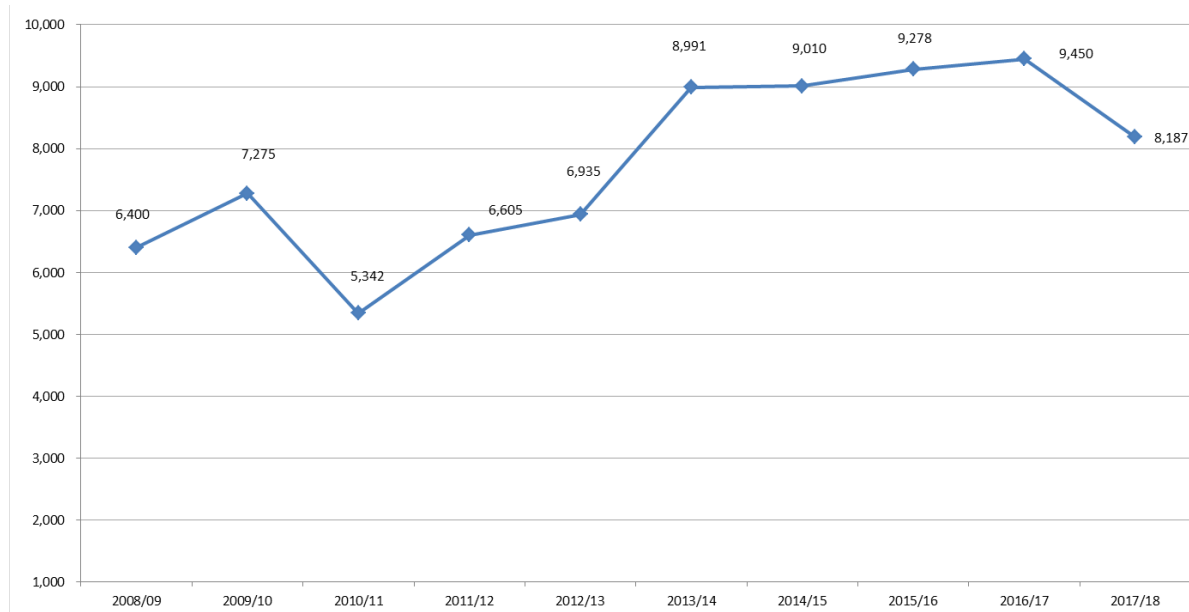
In 2007 (the year after industry funding was implemented), there were 29,872 electrical worker's licences. In 2018, there were 52,339, an increase of 75% over the period.

Chart K: Annual trend in numbers of electrical licences administered



In 2007, there were 5,765 gasfitting permits and authorisations. In 2018 there were 8,187, an increase of 42% over the period.

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



Increased population coupled with the expansion of domestic building and construction work, means that the long-term 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 was expected and is now being realised, starting to become apparent in the numbers of electrical licences and gas permits/authorisations administered.

A significant number of interstate tradespeople (mainly electricians) applied for licences in WA during the mining boom years to 2013. It will be of ongoing interest to the Division to note whether they maintain their licenses when they are due for renewal (usually five years after registration). The above aggregated numbers show a 70% increase in the total number of licenced operatives in WA in the past ten financial years.

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 relevant 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 the Building and Energy Division.

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

The number of Notices received by the Division and electricity network operators for major work increased from 96,333 in 2016/17 to 115,553 in 2017/18.

Chart M: Numbers of Notices of Completion received – Electrical

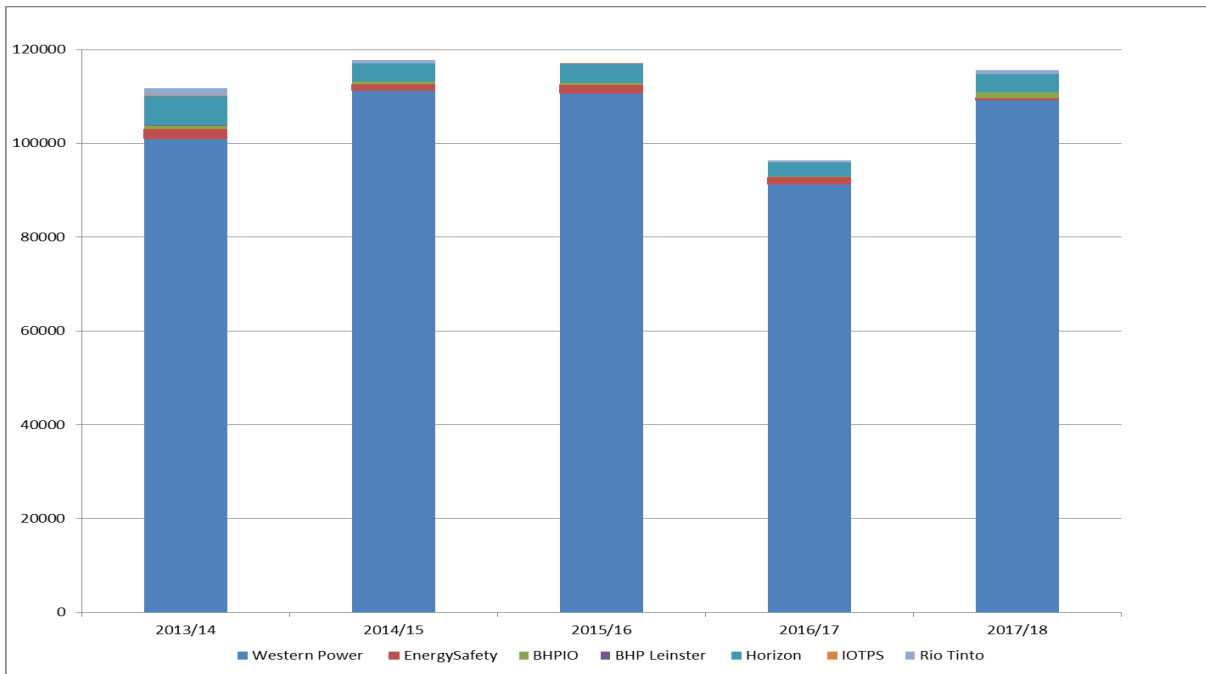
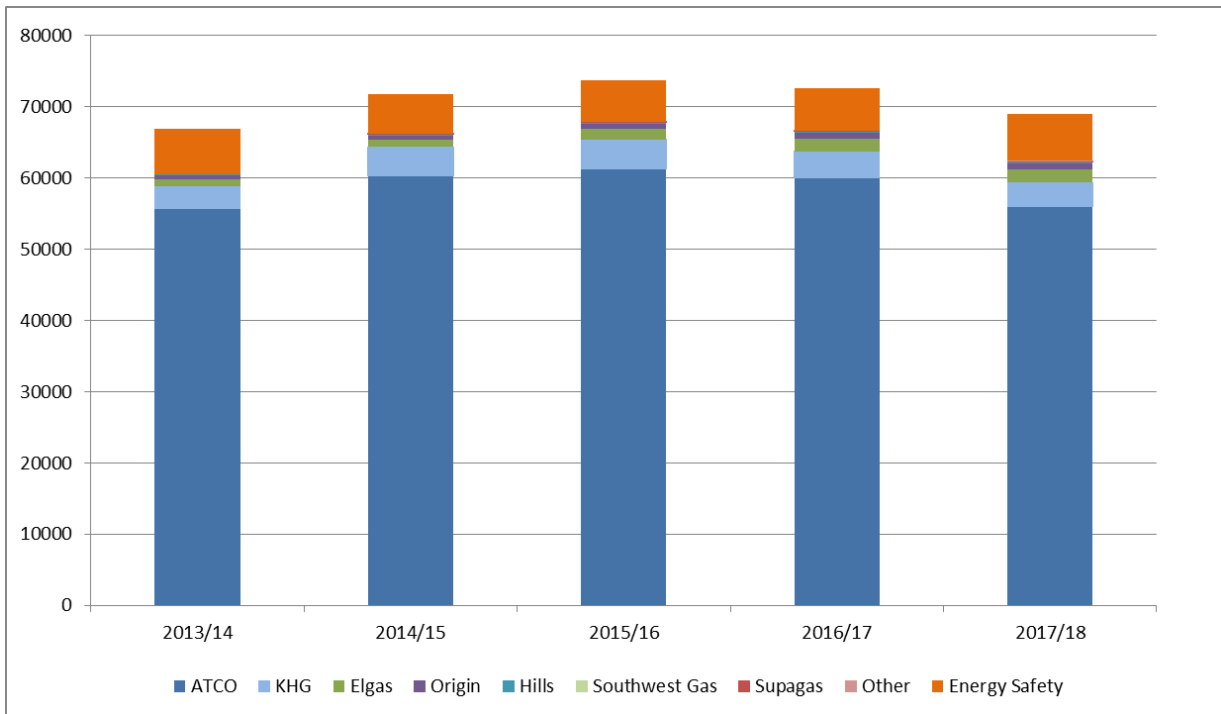


Chart N: Numbers of Notices received – Gas



To gain sufficient confidence that work is being undertaken by operatives safely, to the required safety standards and to a trade-finish, a sampling system, based on the historical safety performance of the operatives, volume of work they undertake and the complexity of the installation work undertaken, is used.

On average, 25 per cent of the installations for which a Notice is received, is being inspected annually by network operators. In 2017/18, 24,962 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 the Building and Energy Division for further action. They generally trigger an investigation.

The defect rate, revealed by inspections of the 25 per cent of installations for which Notices are submitted, remains disappointingly high at around 12 per cent. Of these, around three per cent typically are serious defects, capable of causing electrocution or fires.

10.3 Volume of Compliance Work Undertaken by Building and Energy

Chart O: Total number of jobs – Electricity

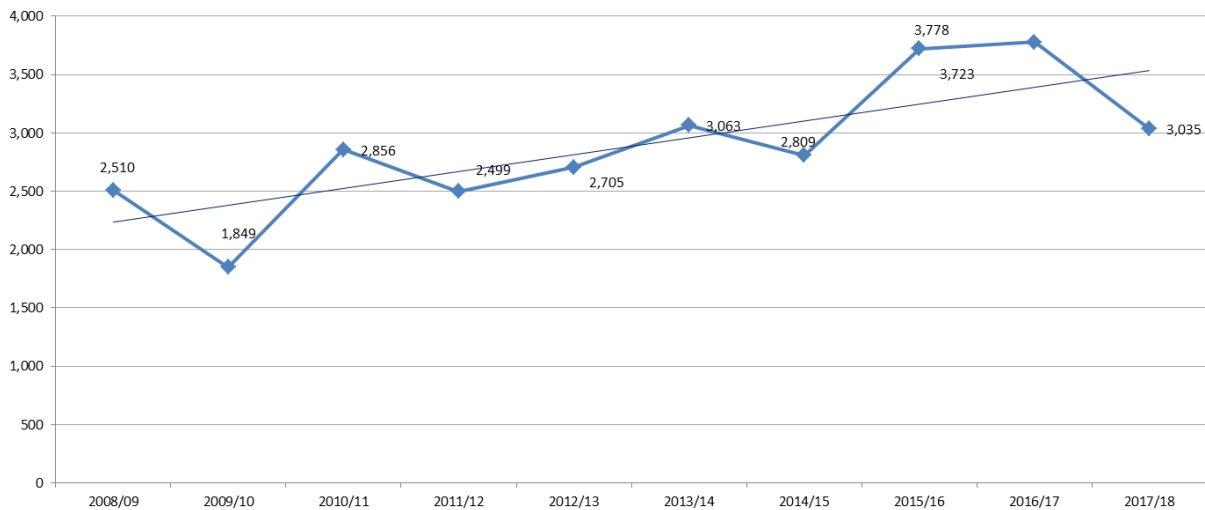
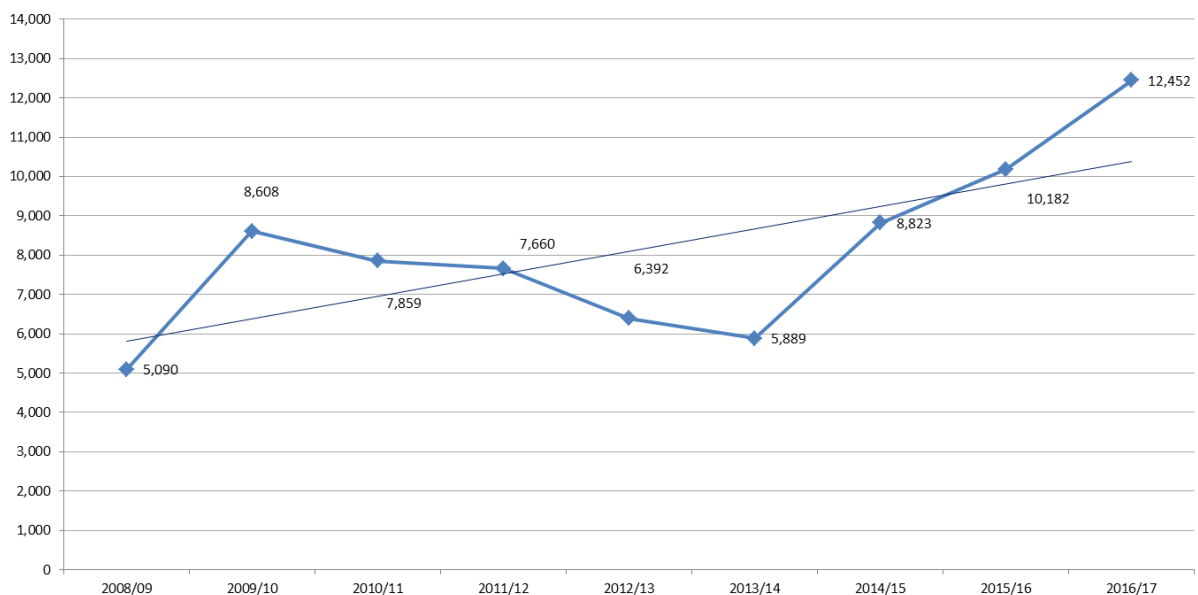


Chart P: Total number of jobs – Gas



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 sector.

Despite a small reduction in the number of electrical licences and gas permits/authorisations, and reductions in both electrical and gas notices, job numbers associated with electricity and gas have generally continued to increase. The long-term expectation in workload for both gas and electrical jobs is a continual increase.

The Division sees no indication this is likely to change in the short to medium term.

Initiatives to Manage the Challenges

11 The Period Ahead – Significant Issues Impacting Energy Safety

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

Industry funding for Energy Safety functions has now been in place for thirteen 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, the Division proposes to implement or continue the following initiatives during 2019/20.

11.1.1 Energy Safety Bill

While EnergySafety had, 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.

The Minister approved a review of the energy safety legislative framework be undertaken to ensure it adapts to evolving technologies in the energy sector. The present disparate pieces of legislation (the *Electricity Act 1945* and the *Gas Standards Act 1972*), affecting electricity and gas safety will be consolidated into one Act covering energy safety.

The review commenced in 2017/18 and has identified existing legislation which:

- will be transferred to the new Bill with no or limited amendment; or
- could be repealed as it is no longer relevant following changes in technology; or
- may result in the transfer of responsibilities to other agencies and legislation.

Higher priority policy projects such as the amendments to the Electricity (Licensing) Regulations 1991 to prohibit work on energised electrical equipment, Machinery of Government reforms and the restructure of DMIRS including the amalgamation of Building Commission with EnergySafety to form the Building and Energy Division slowed the progress of this work during 2017/18. The review work will continue through 2018/19 and 2019/20.

11.1.2 Review of Electricity Network Operator Guidelines and Inspection System Plans

Network operators are required, under the Electricity Regulations 1947, to establish and maintain an effective system of inspection for the purpose of ensuring safety of consumers' installations connected to their respective networks.

In June 2013, the Director of Energy Safety issued guidelines setting out the technical, investigative, reporting, administrative and other requirements for network operators' inspection system plans. Inspection Systems Plans, complying with the guidelines, were approved for all network operators in 2015.

A review of the effectiveness of the current plans will be undertaken in 2018/19 and will inform the development of new guidelines.

11.1.3 Implementing the National Electrical Equipment Safety Scheme

The emergence of non-traditional retail sources, such as the internet has introduced new challenges in ensuring that all electrical equipment supplied for use in Australia is safe. These emerging problems and challenges led electrical safety regulators to collectively conduct a comprehensive review of the electrical equipment safety system to support future regulatory policy.

In July 2018, Western Australia signed an inter-governmental agreement (IGA) which sets out the governance arrangements for a national electrical equipment safety scheme (EESS).

Under the terms of the IGA, participating legislation will introduce nationally consistent performance-based legislation to manage electrical equipment safety. The Electricity Regulations 1947 will be reviewed to accommodate the terms of the IGA.

11.1.4 Audits of Gas Network Operator's 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 all the associated risks and its network assets safely while ensuring compliance with prescribed Australian Standards for gas network safety.

Safety Cases for all gas networks in WA were received during 2018. These were reviewed and approved by the Director in 2018/19. All safety cases will be audited in 2019/20.

11.2. Review of the Gas Standards (Gas Supply and System Safety) Regulations 2000

In a bid to cut carbon emissions, gas suppliers across Australia have, for some time, been exploring the possibility of blending natural gas with small amounts of hydrogen.

Network operators in Western Australia have begun trials for particular industrial applications.

While the prescribed Australian Standards, AS/NZS 4645-Gas distribution network management, already prescribe requirements for safe management of blended gas, the legislation may need to be reviewed to ensure it adequately cover the associated risks

The review to the legislation will also consider the emerging wider use of fuel cells and new metering technology.

11.2 Corporate Projects and Issues

The statistics show that, even with a backdrop of long-term 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, the Division 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, the Division had 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 the Division has not increased commensurate with the increased workload experienced. Recruitment to specific compliance-related roles had historically proven difficult.

The Division has made 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 the appropriate areas of the Division.

During 2017/18 better success was experienced in recruitment efforts to technical and inspector positions. While there are significantly fewer vacancies in these areas, during 2018/19 the Division will continue in its recruitment strategies to ensure the filling of any vacant technical positions.

11.2.1 Compliance Management System Updates

In an effort to reduce manual processing of compliance-related work, enhancements to the Division'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 complete 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 compliance processes. Building and Energy 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, the Division 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 employees with such skills are generally well-prized in industry and have been difficult to recruit and retain. This has especially been the case over the last decade or so, when WA's economy was strong and competition for suitable staff had been exceptionally high. In its efforts to recruit specialist technical personnel suited to regulatory work, the Division competes directly with the gas and electricity network operators, major consultancies and large construction contractors.

Further recruiting is required and will continue to be a critical activity for the Division, 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 the Division's core of full time, permanent personnel.

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 the range of electrical and gas related licences. The resources, once imbedded within the Division to undertake these activities, were transferred to the new Directorate.

This has meant that, while the processing of applications has become a service provided to the Division, the decision-making responsibilities of the Electrical Licensing Board and Gas Licensing Committee remain within the Division. The required support to these functions is managed within the Division through an appropriate policy framework, procedures, guidelines and Service Level Agreements.

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.

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

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

Safety messages are promoted through a combination of targeted industry-specific activities, including safety sessions during regional visits, publications aimed at industry and the public, through articles in industry publications and by utilising various social media channels.

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 for 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 more than 50,000 recipients.

Throughout 2019/20 the Division 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 the Division 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 significant resources are devoted to, as outlined below:

12.1 Inspections of Installations Not Connected to a Network and the Indian Ocean Territories

Electrical Inspectors inspect electricity and gas installations not connected to a network (e.g. pastoralists' facilities, mine sites), on Rottneest 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 the Division'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 the Director for compliance action.

The Division devotes significant resources to 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 the Division's inspectors. These generally are technically complex and require allocation of significant resources. The Division 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

In recent years, significant resources have been devoted 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

Divisional 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.

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

12.6 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. The Division devotes significant time auditing these approved Plans and in monitoring 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 the Director 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.

12.7 Audits of Electrical Contractors and Gas Fitters

Programmed and targeted compliance audits are conducted on a sample of electrical contractors and gas fitters (including authorisation holders) annually.

12.8 Australian Standards Development Work

Resources are allocated 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.

12.9 Regulator Liaison

The Division is a member and strong participant 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.

Senior Divisional staff members participate in regular forums and meetings of the GTRC and ERAC.

Financial Plan

13 2019/20 Financial Plan

The following Financial Plan presents the energy safety associated expenditure for the Division (both capital and operating) and revenue budget forecasts for 2019/20 and three out-years.

It also includes a comparison between the budget and actual out-turn for 2017/18 as well as the approved budget for the current (2018/19) financial year.

The 2019/20 Financial Plan presents the full costs and revenues of the Division that are attributable to energy safety functions, 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 are 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 delivery of the energy safety related operations and functions of the Division, 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.

The 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 in undertaking energy safety functions.

Estimates are provided for 2019/20 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 the Consumer Price Index (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 any potential impact of efficiencies realised through the amalgamation of licensing functions and better use of technology.

The transfer of 8 licensing staff to the Licensing Services Directorate during 2017/18 reduced the Division's energy safety related staff contingent to 55 FTEs.

It is still recognised that the Division is unlikely to have a full staffing contingent against its 55 energy related function 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 reasonable confidence that the vacancy rates will fall and remain relatively steady.

With respect to employee benefits expense (salaries) estimates, it is expected that there will be an ongoing vacancy rate in the order of 3.6% (or two positions).

Although cash reserves held in the Special Purpose Energy Safety Account remained high to the end of 2017/18 (for the reasons detailed at section 13.2), the level of cash reserves is 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 related operations for at least a quarter should it encounter funding collection challenges.

The 2019/20 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.

Lower than anticipated expenditure and revenues higher than forecast during 2017/18 has resulted in higher cash reserves than is optimal. The Division therefore proposes that no increase to the levy is required in 2019/20 to meet forecast expenses. There is still sustainability in the Division'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 the budget are from factors outside the Division's 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 licensing activity, without another trades-related sector experiencing significant growth, revenues from licensing activity may decline over several years.

While a noticeable plateauing and small drop-off is evident in the graphs of total numbers of electrical licences and gas permits/authorisations administered (Pages 28 and 29, Charts K and L), this has been factored into budget estimates and has not significantly impacted the Division's financial position. The affect has been a slight slow-down in the long-term rate of growth that had been experienced over previous periods. Should this decline become more significant and have a more material impact on revenue forecasts, decisions concerning either the functions of the Division, 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 (2018/19) budget estimates reflect the budget approved by the Minister for the year in the 2018/19 Business Plan.

The Minister's approval of this Business Plan is accepted as approval for the 2019/20 budget as indicated.

2019/20 Financial Plan

Financial Year	2017/18 Budget	2017/18 Actual	2018/19 Approved Budget	Escalated \$			
				2019/20	2020/21	2021/22	2022/23
				\$'000	\$'000	\$'000	\$'000
1. Expenses							
1.1 Recurrent Expenditure							
a) Employee benefits expense	8,471	7,327	7,778	7,751	7,828	7,906	7,985
b) Corporate service charges	2,674	2,218	2,517	2,517	2,517	2,517	2,542
c) Licensing services charges		701	762	795	828	862	870
d) Depreciation expense	414	514	398	620	626	633	639
e) Legal services	184	182	152	174	176	178	179
f) Accommodation expenses	830	828	807	815	823	831	840
g) IS support/maintenance (CMS)	205	115	190	192	194	196	198
h) IT and minor equipment replacement	40	43	42	42	43	43	44
i) Other recurrent expenses	2,553	2,485	2,493	2,655	2,682	2,709	2,736
Total Recurrent	15,371	14,413	15,139	15,561	15,717	15,874	16,032
1.2 Capital Expenditure							
a) Software replacements (CMS)		305					
b) CMS project management		191					
c) On-line compliance and customer interface functionality	1,270		526				
Total Capital	1,270	496	526	0	0	0	0
Total Expenses	16,641	14,909	15,665	15,561	15,717	15,874	16,032
2. Income							
a) Industry Levy	7,154	7,154	7,225	7,225	7,225	7,225	7,225
b) Licensing Fees	6,553	8,130	6,931	7,000	7,070	7,141	7,212
c) Indian Ocean Territories	46	30	45	46	46	46	47
d) Other revenues	25	442	50	51	51	52	52
Total Income	13,778	15,756	14,251	14,321	14,392	14,464	14,536
Surplus/(Deficit) for the period	(2,864)	847	(1,414)	(1,240)	(1,325)	(1,410)	(1,496)
Approved FTE	63	63	55	55	55	55	55
FTE Actual/Estimate	59	51	52	52	52	52	52

The above budget will have the following cash impact:

Financial Year	2017/18 Budget	2017/18 Actual	2018/19 Approved Budget	Escalated \$			
				2019/20	2020/21	2021/22	2022/23
				\$'000	\$'000	\$'000	\$'000
Estimated Opening Balance	12,061	11,417	10,427	14,353	14,696	14,915	14,915
Industry Levy	7,154	7,154	7,225	7,225	7,225	7,225	7,225
Licensing Fees	6,848	8,480	7,274	7,313	7,338	7,264	7,282
All other revenues	71	472	95	96	97	98	99
Cash expenses	(15,708)	(12,621)	(15,143)	(14,291)	(14,441)	(14,591)	(14,744)
Cash movement	(1,634)	3,485	(549)	343	220	(4)	(138)
Estimated Closing Balance	10,427	14,902	9,878	14,696	14,915	14,911	14,778

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 and other employee entitlements.
- b) **Corporate service charges:** The Division 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:** The Division 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.
- d) **Depreciation expense:** covers the cost of depreciation of the Division'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 has a significant impact on depreciation expense from 2016/17 onwards.
- e) **Legal services:** these services have previously been chiefly provided by the State Solicitor's Office, however some legal services are now provided across the Department by an in-house legal team, so some reduction in this cost may occur over the forward estimates period.
- f) **Accommodation expenses:** covers expenses relating to Division'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 incurred 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 \$526,000 budgeted in 2018/19 is to finalise works on enhancements to the Division'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 programming,

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 the Director's energy safety operations are fully funded to carry out 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 2019/20 this is \$7.0m. On a cash basis the amount is \$7.3m.

- 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. The Division 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

Cash balances form part of the DMIRS bank account and are classified as restricted cash. The cash bank balance was \$14.9m at the end of 2017/18 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.

It is considered 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. Cash balances should therefore be sufficient to cover the cash value of the leave liability.

The Division has a high proportion of aging workforce, which 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 \$1.81m.

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 the Division'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 2018) \$2.0m. CMS has been commissioned and capitalised, meaning that the depreciation expense will normalise to be in the order of \$620k per year, bringing accumulated depreciation to approximately \$3.9m 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 the Energy Safety Special Purpose Account at 30 June 2018 was \$6.7m. While this is recognised as unearned income, there is no circumstance where this will be repaid or lost. 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 \$11m and \$13m. The 2019/20 Financial Plan will see a sustainable maintenance of cash reserves slightly higher than this optimal target range over the life of this Plan. This assumes no significant drop off in revenues from licensing fees.

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 Divisions of the Department and are levied on the gas and electrical industries in other jurisdictions.

For 2019/20, 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 the Director of 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 operations to be met. Accordingly, a levy of \$7.225m is proposed in this Business Plan for 2019/20.

This enables sufficient funds for the full structure of the Division's energy safety related operations (less a forecast vacancy rate of three FTEs (5%)), 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.

This represents no increase from 2018/19 and reflects estimated costs and other revenue sources related to energy safety functions for the Division and also considers the optimal cash holding level.

As detailed earlier in this Plan, it is recognised that the Division 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 reasonable confidence that the vacancy rates will fall and remain relatively steady through 2019/20 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 2019/20 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, the Director 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-2018/19 the Director 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, the proportion of all consumers supplied by each supplier within both industry sectors was established. This proportion was then used to calculate the annual levy contribution payable by each participant.

A similar survey will be carried in mid-2019/20, determining the levy contribution allocations for each supplier for 2020/21.

14.4 Administration of the Levy Scheme

A confidential database is maintained 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 the Director, 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 2017/18 issues and activities

15 Significant Issues Affecting Energy Safety in Western Australia

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 energy safety operations of the Division.

15.1 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 from 2 October 2017.

Licensing services are provided by the department's Licensing Services Directorate. The Building and Energy Division manages this service delivery through a licensing policy framework, Service Level Agreements 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.

15.1.1 Electrical Licensing

As at 30 June 2018, there were 45,966 electrical workers and 5,836 electrical contractors 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.

15.1.2 Electrical Licensing Board

As at 30 June 2018, 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 23 times during the year.

15.1.3 Gas Licensing

As at 30 June 2018 there were 8,187 persons registered for gasfitting work.

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 the Division. 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 2017/18.

16.1.1 Prosecutions – Breaches of Electricity Related Legislation			
Summary for the period 1 July 2017 – 30 June 2018			
Legislation/Regulation	Section / Regulation	Number of Offences	Fines \$
<i>Electricity (Licensing) Regulations 1991</i>	19(1)	1	3,744.35
<i>Electricity (Licensing) Regulations 1991</i>	49(1)	3	38,733.05
<i>Electricity (Licensing) Regulations 1991</i>	52(3)	1	1,500
<i>Electricity Regulations 1947</i>	R242(1)(b)	3	152,674.20
<i>Electricity (Supply Standards and System Safety) Regulations 2001</i>	10(1)(a)	1	55,742.50
<i>Electricity Act 1945</i>	33B(2)	1	2,774.35
		10	255,168.45
TOTAL			

16.1.2 Prosecutions – Breaches of Gas Related Legislation			
Summary for the period 1 July 2017 – 30 June 2018			
Legislation/Regulation	Section / Regulation	Number of Offences	Fines \$
<i>Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999</i>	r. 18(2)	1	3,744.35
	r. 28(2)	1	100.00
	r. 28(3)	1	1,000.00
TOTAL		3	3,082.35

16.2 Infringement Notices

The Division 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 60 (6 Electricity and 54 Gas) Infringement Notices issued for the year.

The following tables provide summaries of Infringement Notices issued during 2017/18.

16.2.1 Infringement Notices – Breaches of Electricity Related Legislation			
Summary for the period 1 July 2017 – 30 June 2018			
Legislation	Section / Regulation	Number of Offences	Fines \$
<i>Electricity Act 1945</i>	33B(2)	5	17,500
<i>Electricity Act 1945</i>	33(1)	1	1,250
TOTAL		6	18,750

16.2.2 Infringement Notices – Breaches of Gas Related Legislation			
Summary for the period 1 July 2017 – 30 June 2018			
Legislation	Section / Regulation	Number of Offences	Fines \$
<i>Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999</i>	18(2)	8	4,200
	20(1)	1	600
	21(a)	1	600
	26(1)(a)	5	3,000
	28(2)	3	1,800
	28(3)	34	13,600
	30	2	1,200
TOTAL		54	25,000

17 Major Policy Work

17.1 Committee Participation

Aside from major work on several key technical standards committees, the Division 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 is ongoing and continues to dominate the policy area and demands major commitment from senior staff.

18 Statutory Reporting and Statistics

The following statistical information is required to be reported and is reflected in the Department of Commerce's 2017/18 Annual Report (the final report for the Department of Commerce):

18.1 Electricity Act 1945

The *Electricity Act 1945* (the Electricity Act) sets out a licensing regime for the electrical trade that serves the Western Australian community, regulates electricity transmission electrical and appliances. The department administers a range of functions under the Electricity Act including the granting and renewal of licences, compliance activities and a range of education and advisory services.

The Director of Energy Safety (the Director) is the responsible authority under the Electricity Act.

Section 33 of the Electricity Act requires the Director to report on a number of matters:

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

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

The following numbers of investigations and inquiries were concluded in 2017/18.

Electricity Act: Number of investigations and inquiries 2017/18

Number	Audits (Network Operator)	Compliance Inspections ⁽¹⁾	Investigations	Total	SAT ⁽²⁾
Outstanding as at 1 July 2017	0	1,247	175	1,422	0
Commenced 2017/18	3	4,002	243	4,248	0
Concluded 2017/18	1	2,844	190	3,035	0
Outstanding as at 30 June 2018 ⁽³⁾	2	2,369	218	2,589	0

(1) Note: Under the legislation, electrical contractors completing electrical installing work on remote installations, not connected to a network operator distribution system, must submit Notices for all notifiable work to the Director of Energy Safety. A proportion of these Notices are selected for compliance inspection.

(2) Matters brought before the State Administrative Tribunal (SAT).

(3) The figure for outstanding compliance Inspections is not an accurate reflection of the number of inspections which were due but not undertaken during 2017/18 alone. It is a cumulative figure which includes a backlog extending over a few years.

Outcome of investigations and inquiries under this Act:

Electricity Act: Outcome of investigations and inquiries 2017/18

Investigations outcomes ⁽¹⁾	Total ⁽²⁾
Appeal Rejected	0
Further Inspection(s)	1
Further Investigation	22
Issue Incident Report/Hazard Alert	0
Issue Inspectors Order	41
Refer to Electrical Licensing Board	1
Licensing Board - Failed Competency Assessment	0
Licensing Board – Passed Competency Assessment	2
No further action	2,435
Not Electricity Related	1
Not Inspected	319
Notice incorrectly submitted	252
Lapsed Prosecution	5
Proceed with prosecution	22
Prosecution - Convicted	10
Prosecution - No Conviction / Dismissed	0
Prosecution - Withdrawn	5
Infringement Issued	6
Infringement Withdrawn	1
Project Goal Delivered	95
Provide Advice	38
Referred to Network Operator	2

Continued over page

Investigations outcomes ⁽¹⁾	Total ⁽²⁾
RCDs inadequate. Advice given	49
Stop Sale Notice	0
Verbal Warning	1
Written Warning	43

- (1) Note: Compliance actions may take more than one year to complete. Therefore, some prosecutions recorded above may relate to investigations carried out in an earlier year.
- (2) An investigation may result in multiple outcomes which may occur before the investigation is completed; therefore, the outcome total will not be consistent with the numbers of investigations undertaken.

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

There were no Matters brought before the State Administrative Tribunal (SAT) under the Electricity Act for the 2017/18 financial year.

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

Of the 2,589 matters referred to in Table 50 as outstanding: there were 2 Audits (Network Operator); 2,369 Compliance Inspections; and 218 investigations under the Electricity Act.

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

While the department has continued to prioritise its workload, some incomplete work has resulted in some investigations taking longer to complete than planned. Investigations for five cases have exceeded 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;

Current work demand trends so far show no sign of abating and appear to continue into 2018/19. Consistent with previous years, the number of Notices for completed work to electricity network operators is expected to increase.

(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. This trend is expected to decline in 2018/19 due to new legislation which prohibits such work or specifies safe practices where such work cannot be avoided.

18.2 Electricity Related Incidents and Fatalities

The following were reported to the Director during the year:

Electric shocks	2,216
Serious electrical accidents (hospitalisation)	3
Serious electrical accidents (medical treatment)	11
Fatalities (included in serious electrical accidents)	1

18.3 Gas Standards Act 1972

The *Gas Standards Act 1972* (the Gas Act) sets out a licensing regime for the gasfitting trade that serves the Western Australian community, regulates gas supply and gas appliances. The department administers a range of functions under the Gas Act including the granting and renewal of licences, compliance activities and a range of education and advisory services.

The Director of Energy Safety (the Director) is the responsible authority under the Gas Act.

Section 13(c)(a) of the Gas Act requires the Director to report on a number of matters:

(f) 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 2017/18

Gas Act – number and nature of investigations and inquiries 2017/18

Number	Audits (Network Operator)	Compliance Inspections	Investigations	Total	SAT ⁽¹⁾
Outstanding as at 1 July 2017	20	61	140	221	0
Commenced 2017/18	39	416	1237	1,692	0
Concluded 2017/18	39	326	1113	1,478	0
Outstanding as at 30 June 2018	20	151	264	435	0

(1) Matters brought before the State Administrative Tribunal (SAT).

Outcome of investigations and inquiries under this Act:

Gas Act – outcome of investigations and inquiries 2017/18

Investigation outcomes	Numbers
Appeal Rejected	0
Appeal Upheld	4
Appeal Withdrawn	2
Corrective Action Request	0
Further Investigation	11
Infringement	55
Inspectors Orders Cancelled	14
Issue Inspectors Order	28
No Further Action	866
Not Gas related	10
Not Inspected	23
Not Investigated	14
Proceed with Prosecution	1
Provide Advice	13
Variation/Exemption Approved	23
Verbal Warning	538
Written Warning	185

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 matters brought before SAT under the Gas Act for the financial year.

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

Of the 435 matters referred to in Table 54 as outstanding: there were 20 Audits (Network Operator); 151 Compliance Inspections and 264 investigations under the Electricity Act.

- (h) *any trends or special problems that may have emerged;*

There were no trends or special problems that emerged during the financial year.

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

There are no changes anticipated to the workload of the Director in performing functions under the Gas Act.

- (j) *any proposals for improving the performance of the Director's functions under this Act.*

There are no proposed changes to the Director's functions at this point in time.

18.4 Gas Related Incidents and Fatalities

The following were reported to the Director during the year:

Incidents	127
Serious accidents (hospitalisations)	4
Serious accidents (medical treatment)	4
Fatalities	0