



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

Energy Safety Business Plan 2020–21



This Business Plan was approved under
Part 2 of the *Energy Safety Act 2006* by
The Hon John Quigley MLA
Minister for Commerce
January 2020



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Foreword



This document sets out the Business Plan 2020–21 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 2020–21 sets out:

- a statement of intent;
- the business environment and challenges, including major projects;
- the financial plan;
- details of the proposed 2020–21 energy industry levy; and
- a brief outline in Appendix A of 2018–19 issues, activities and outcomes (the 12th 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 2020–21 and the manner in which it is to be allocated between participants.

Saj Abdoolakhan
Director of Energy Safety

December 2019

Statement of Intent

This Statement of Intent is required by the *Energy Safety Act 2006*. It establishes the strategic framework under which the Building and Energy Division operates within the Department of Mines, Industry Regulation and Safety and outlines how it intends to contribute to the delivery of the priorities and purpose of government in the broad sphere of being a regulator, service provider and policy maker in delivering energy safety outcomes for Western Australia.

In addition, this Business Plan 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, and resources required to perform the functions of the Director of Energy Safety.

1 Departmental objectives

The Department of Mines, Industry Regulation and Safety (DMIRS), of which Building and Energy is a Division, assists in achieving the Government's Strategic Goals of:

- **Better Places** – A quality environment with liveable and affordable communities and vibrant regions; and
- **Strong Communities** – Safe communities and supported families.

DMIRS' purpose is:

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

The approach of DMIRS to delivering on this purpose is to **maximise our impact as a regulator, service provider and policy maker**.

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

Building and Energy recognises that it contributes as a regulator, service provider and policy maker, and that it assists in delivering this purpose as part of the Industry Regulation and Consumer Protection Group through the DMIRS Outcome Based Management Framework, Service 3 – Industry Advice and Regulation, which is **the provision of advice and regulatory services to the Western Australian community in the areas of consumer protection, building and plumbing, electricity and gas, and labour relations**.

The priority focus for the Division is to:

- maintain regulation that is clear, relevant and enforced;
- behave consistently and transparently;
- create relationships that encourage compliance;
- foster public trust and confidence;
- deliver quality services at the lowest cost possible;
- reduce the complexity of the customer journey through government;
- use digital technologies to improve the customer and staff experience;
- respond to customer feedback;
- manage our policy environment to drive behaviours that are in the public interest;
- predict then address emerging policy challenges;
- gather the latest intelligence on the operating environment; and
- explore new approaches to achieving regulatory intent.

In focussing on these priority areas, the Division will contribute to positive impacts including:

- regulated entities know and play by the rules;
- individuals and businesses have the confidence to operate in Western Australia;
- better regulatory outcomes at a lower cost to the community;
- public confidence is high in our areas of responsibility;
- we know and monitor our costs and keep them lean;
- customers have fewer touchpoints when doing business with us;
- customers and staff find it easier to do business;
- customers are satisfied with their treatment;
- business, community and industry behaviour supports policy intent;
- disruptors are identified early enough for pre-emptive policy action;
- intelligence is regularly shared and used for public benefit; and
- new ideas on how to address regulatory challenges are on the policy agenda.

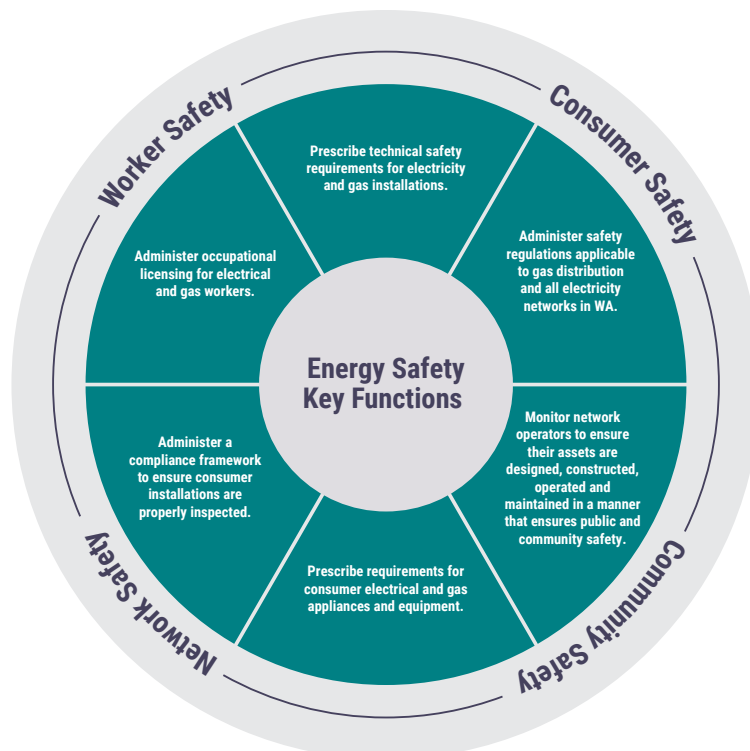
2 The Role of the Director of Energy Safety

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 six key functions to ensure the safety of energy consumers, energy workers and the wider community:



The Division:

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

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 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. The Director Standards and Engineering, Director Transition/Policy 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:

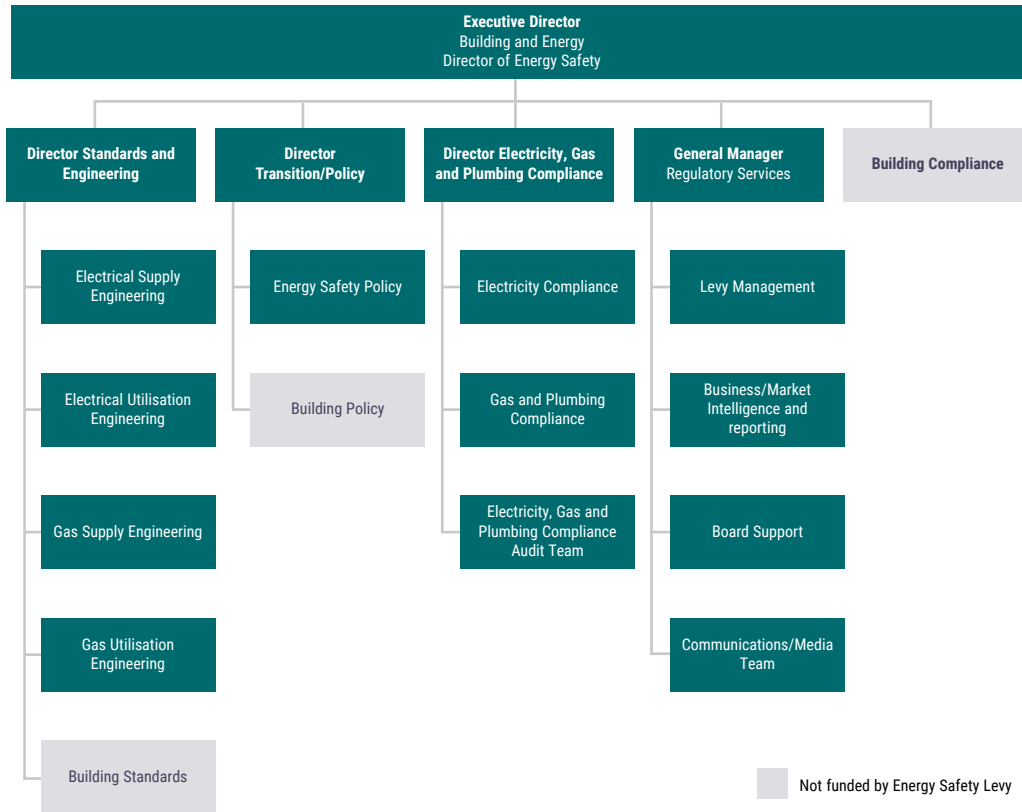
- proposals for major policy projects, such as new legislation or amendments;
- reports on the status and management of major policy projects;
- proposed regulatory actions that may affect the public or businesses;
- information releases dealing with subjects relevant to this Ministerial portfolio;
-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

5 Building and Energy structure, Directorate functions and resources

Building and Energy 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 the designated Director of Energy Safety.

5.1 Organisational structure (energy safety activities)



The operations of the former Building Commission and EnergySafety Divisions merged to form the Building and Energy Division in January 2018.

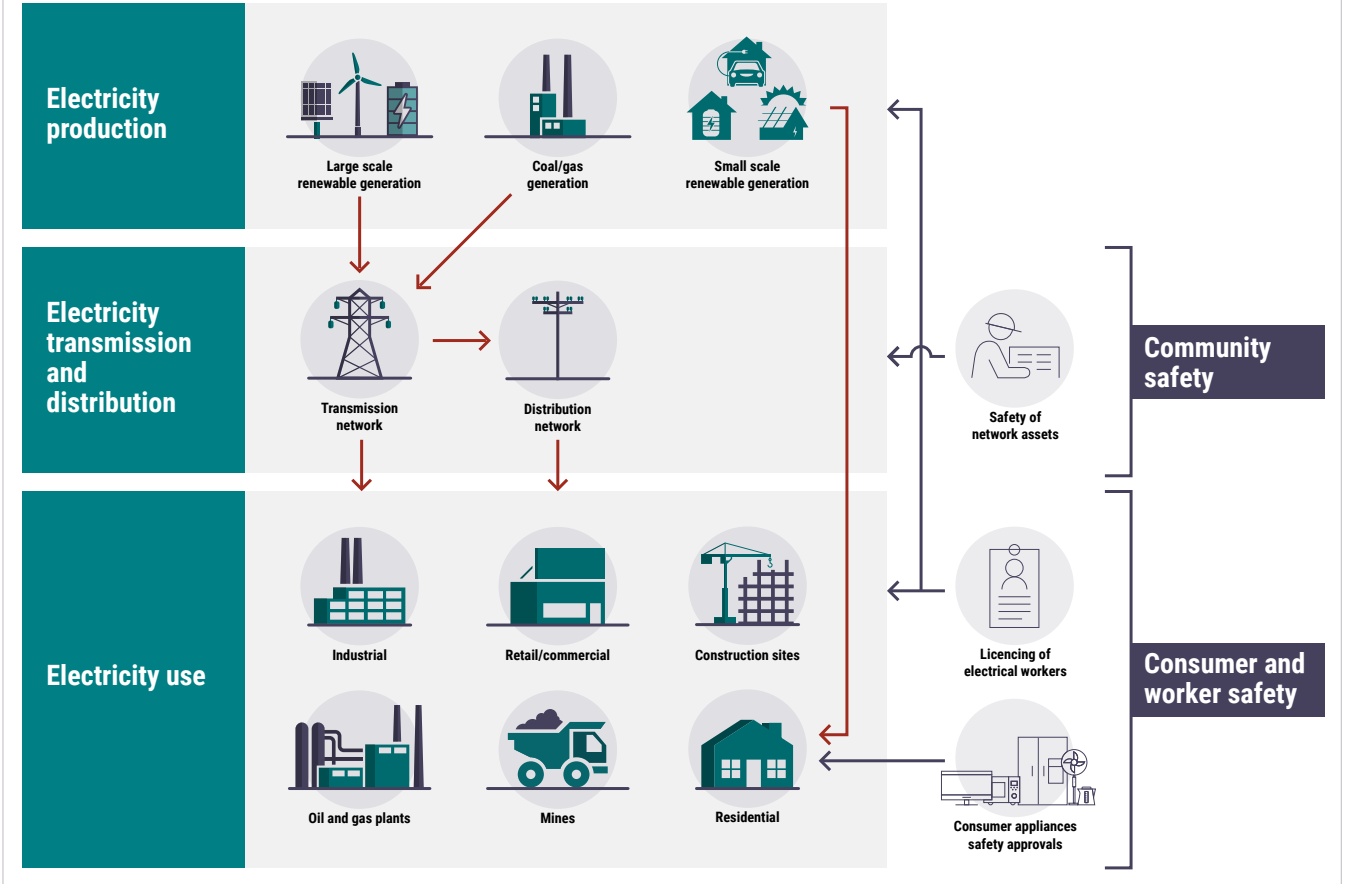
With the exception of changes in corporate and business support functions and the centralisation of occupational licensing transaction functions, the resources available to perform the regulatory functions of the Director of Energy Safety have not significantly changed. The structure will continue to allow for the future development and maintenance of critical technical expertise relevant to each of the energy industry sectors.

While each directorate of the Division has merged with resources providing functions related to the regulation of the plumbing and building services industries, the functions reflected here reference only the energy safety component of their activities.

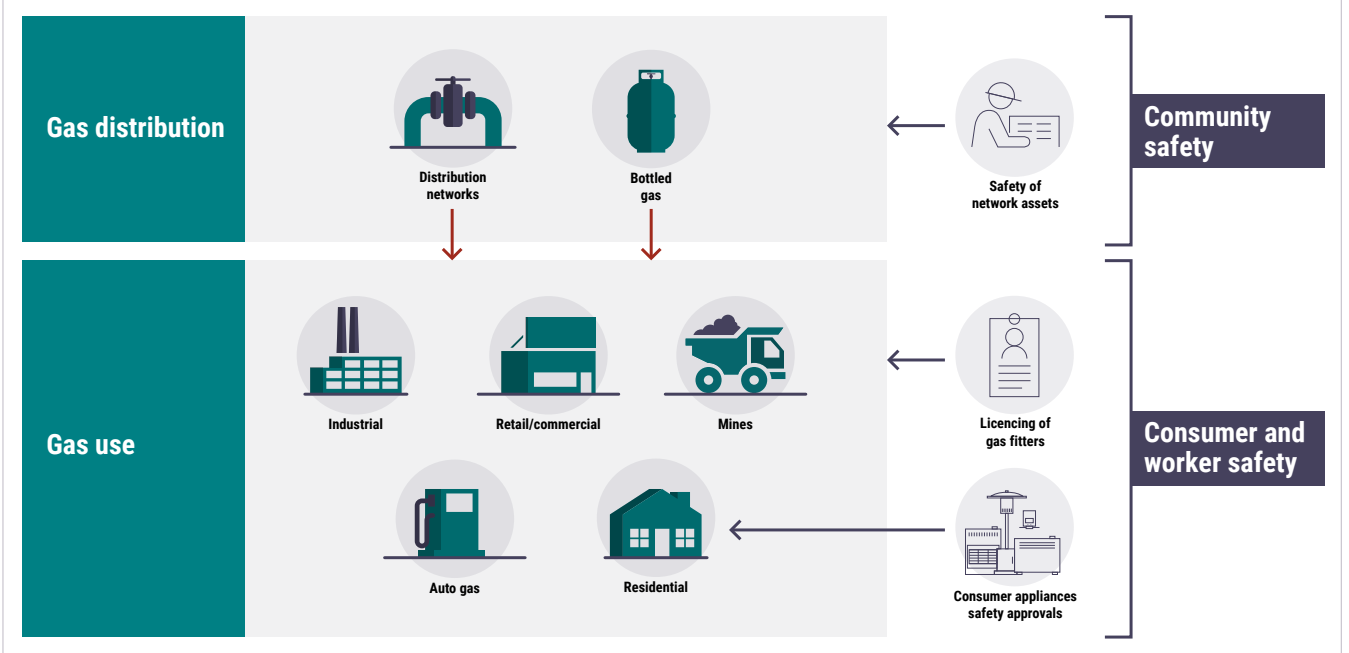
5.2 Energy safety compliance framework

The following diagrams provide an overview of the WA electricity and gas regulatory frameworks (relevant to energy safety) and the Director's roles.

Electricity regulatory framework



Gas regulatory framework



5.3 Energy Safety Compliance Functions

5.3.1 Safety of consumer installations

Building and Energy's strategies for safe installations focus on ensuring that low voltage electrical and gas installations are safe when they are built, repaired and maintained by competent, licensed and registered tradespeople, who follow technical guides and comply with legal requirements and prove the installation is safe to use through mandatory testing.

Gas appliances, piping, electrical cables, switches and other parts of an installation must comply with Australian Standards for safety.

When electrical or gas fitting work is undertaken in a domestic residence, the owner is usually not competent to judge whether the work is being performed safely or that any new electrical or gas installations are safe to use. Similarly, a person in control of an industrial workplace (consumer installation) may not have the technical aptitude to ensure the electrical or gas fitting work is being done safely. It is therefore imperative that the legislation is effective in ensuring electrical work and gas fitting work meet prescribed technical safety requirements and deliver safe electrical installations for consumers.

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 signed compliance notice to the relevant gas supplier or electricity network operator or, where installations are not connected to a network, to the Director. These notices are the main indicator of work 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 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 and gas suppliers are required to conduct a preliminary assessment of defects and breaches they uncover during their inspections. The less serious cases are generally dealt with by inspectors issuing Inspector's Orders and Notices of Defect, requiring corrective actions be undertaken. The more serious breaches are referred to the Director for further action.

The Division's electricity and gas inspectors review the referrals from network operators and gas suppliers and decide on the compliance actions required. They will generally complete the investigations.

The Division receives all Notices for work undertaken on installations not connected to an electricity network or a gas supplier's system. 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 for compliance with particular safety laws, such as the use of RCDs. It also audits the network operators' and gas suppliers' approved Inspection System Plans on a regular basis to ensure they are complying with those plans and maintaining an adequate system of inspection.

Building and Energy devotes significant resources to investigating serious accidents and fatalities.

5.3.2 Safety of consumer appliances, equipment and building products

Electrical equipment ranges from consumer goods, such as washing machines, televisions and smart phones through to large industrial machines. Switches, plugs and switchboard components in a building are also electrical equipment. Gas appliances are typically used in domestic settings, and include water heaters, cooktops, space heaters, and outdoor appliances such as barbeques. Commercial catering appliances are typically used in commercial kitchens and restaurants.

Building and Energy administers legislation which aims to minimise the hazards of electricity and gas and to reduce the risks of electric shocks, fire, explosion, burns and asphyxiation. Consumer exposure to the risks of electricity and gas is greatest when using their energy appliances.

The legislation prohibits the sale of household electrical and gas appliances unless approved by an Australian regulatory authority. The Director maintains and publishes registers of prescribed items requiring approval, as well as the minimum safety requirements which such equipment must meet. Prescribed electrical and gas equipment is required to meet relevant Australian and New Zealand Standards, be independently tested and approved for sale by an Australian safety regulator. Similar requirements apply across jurisdictions in Australia.

Building and Energy undertakes audits of retail outlets to ensure appliances 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, such as the internet. Many of these appliances do not meet Australian Standards and are unsafe. Building and Energy is involved in removing these items from sale and educating the public on the safety risks posed by unsafe appliances.

5.3.3 Safety of electricity and gas networks

Electricity and gas are supplied to households, businesses and industry through large networks. Pipelines convey large quantities of fuel gases for industrial purposes and to consumers. Electricity poles and wires are easily identified in the streetscape and countryside, but gas networks and large pipelines are usually hidden underground. All need to be designed, built, operated and maintained to prevent dangerous failures, and all are susceptible to damage by environmental and man-made threats.

Building and Energy administers safety regulations applicable to all electricity and gas distribution networks which have implications for community safety.

Gas and electricity network operators have extensive assets 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 community safety. Failures of asset management systems have in the past led to several major accidents, to which the Division has had to devote significant investigation resources.

Building and Energy actively monitors network safety incidents and gauges the effectiveness of network operators' asset management strategies. It engages proactively with electricity and gas network operators to ensure they maintain sound asset management systems. Identifying, describing and assessing public safety risks associated with electricity and gas distribution are critical components of Building and Energy's role.

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 network's safety.

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.

5.3.4 Safety of electricity and gas workers and workplaces

Building and Energy ensures the safety of electricity and gas workers by enforcing prescribed safety requirements and providing guidance on safe work practices.

A licensing system is in place to ensure only competent workers carry out electrical and gasfitting work in WA. The Electricity (Licensing) Regulations 1991 and Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999 provide that electrical and gas work in consumer installations may only be carried out by persons with the appropriate worker's licence, unless it is a type of work that is exempt by regulation.

Only those who meet national competency standards are eligible to be licensed. A disciplinary process is also in place to ensure that only competent workers remain licensed. The competency standards cover work practices, equipment and installation.

The legislation prescribes the minimum safety standards to ensure safe electrical and gas installations. It also prescribes work practices which must be adhered to by licensed electrical and gas workers and contractors to ensure their own safety and those of their co-workers.

The Electricity (Licensing) Regulations 1991 was amended in 2018 to prescribe the minimum safe work practices when working on or near energised electrical installations. The legislation also prescribes the minimum supervision requirements which must be afforded to electrical workers undergoing training.

Performance indicators, safety statistics and key achievements

6 Performance indicators

6.1 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.

6.1.1 Electricity	18–19 Target	18–19 Actual	19–20 Target*
Measures			
Electricity related deaths	0*	0	0*
Electricity related accidents ¹ (including fatalities)	12	10	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	3	2
Investigations under Acts and Regulations	300	242	300
Seminar, Education Program and Training (licensees, network operators and public)	100	76	100

6.1.2 Gas	18–19 Target	18–19 Actual	19–20 Target*
Measures			
Gas related deaths	0*	1	0*
Gas related accidents ¹ (including fatalities)	8	10	8
Gas installations inspected and found non-complying (includes matters not directly affecting safety)	7.5%	35%	7.5%
Number of audits of gas network operators' Inspection System Plans ²	2	1	2
Investigations under Acts and Regulations	500	446	500
Number of Type A and type B gas appliance variations–exemptions granted	20 ^Δ	30	20 ^Δ
Presentations to industry or other groups	50	15	50

Δ 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.

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.

6.2 Key performance information

During 2018-19, DMIRS transitioned to a new outcome-based management framework. The framework represents strategic direction and alignment to government goals. Energy Safety outcomes are linked to the Government's goal of **Strong Communities: Safe communities and supported families**. This connects to the DMIRS desired outcome of: **Supporting a safe, fair and responsible future for the Western Australian community, industry and resources sector**.

DMIRS adopted high level, aggregated key performance indicators (KPI's), for which the following apply to the energy safety functions.

6.2.1 Key effectiveness indicator

The indicator applicable to the Division to measure its effectiveness in achieving the desired outcome is:

- Satisfaction with DMIRS as an effective industry regulator.

A stakeholder satisfaction survey was conducted in 2018-19 to assess satisfaction with the effectiveness of regulatory services. This included representatives from government departments, local government bodies, community members, industry, non-government organisations and regional community groups. There were 950 responses received.

Key effectiveness indicator	2018–19 Target	2018-19 Actual
Stakeholder satisfaction with DMIRS as an effective industry regulator.	75%	65%

The results show that 65 per cent of respondents were satisfied with DMIRS as an effective industry regulator. This result is 10 per cent lower than the 2018-19 target of 75 per cent. As this is a new indicator no historical data is available. An initial target was set at 75 per cent as an estimate of the level of satisfaction that might be expected overall for highly variable operational areas.

6.2.2 Key efficiency indicator

Key efficiency indicators demonstrate how efficiently we are conducting our activities and can be represented as an average cost per service transaction. Building and Energy was assessed under the indicator:

- Average cost per transaction to deliver industry advice and regulation services.

A transaction is defined for this indicator as:

- an action by DMIRS to provide a service or regulatory action to an external stakeholder, initiated by either party.

An action refers to community education and media services, addressing an enquiry, determination of an application, licence or registration, resolution of a complaint or conciliation, and finalisation of compliance actions such as an investigation, inspection, audit, and/or legal matter all of which are only counted once finalised (e.g. investigations are counted based on the date that the investigation was finalised).

Key effectiveness indicator	2018–19 Target	2018–19 Actual
Average cost per transaction to deliver industry advice and regulatory service	\$185	\$184

The average cost per transaction to deliver industry advice and regulatory services is consistent (less than one per cent) with that recorded in 2017–18. This is due to the cost of service being less (four per cent) than 2017–18 as DMIRS initiated savings measures in response to shortfalls in cash, coupled with slightly fewer (four per cent) transactions from 2017–18.

6.2.3 Key indicators – Energy Safety

A desired outcome related to energy safety is:

- A community in which the use of electricity and gas is regulated and safe.

The indicators used by Building and Energy to internally measure its effectiveness in achieving this desired outcome are:

	17–18 Actual	18–19 Target	18–19 Actual	19–20 Target
The number of electricity-related serious injuries and fatalities per million population	5.78	0 ³	3.82	0 ³
The number of gas-related serious injuries and fatalities per million population	3.08	0 ³	3.82	0 ³

7 Electricity and gas safety statistics

7.1 Electricity and gas safety statistical outcomes

Building and Energy is continually developing its data and analytics capability to become more risk focused, evidence based and targeted in its regulatory activities.

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 2019.

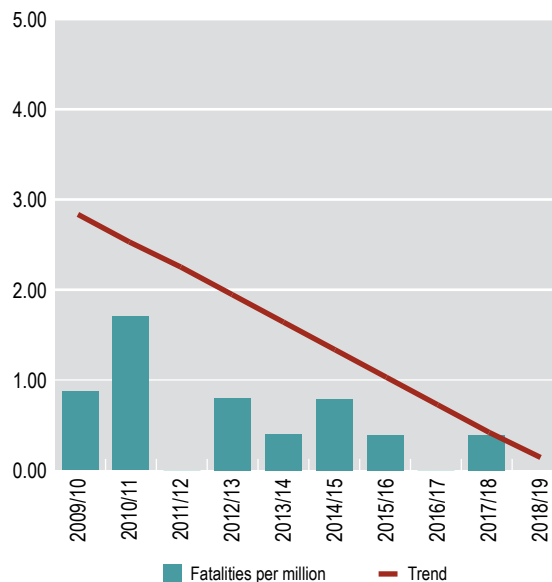
7.1.1 Electrical safety statistics

Electrical fatalities

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

During 2018–19, there were no fatalities reported in Western Australia where electricity was found to be the cause.

Chart A: Electricity related fatalities per million of population



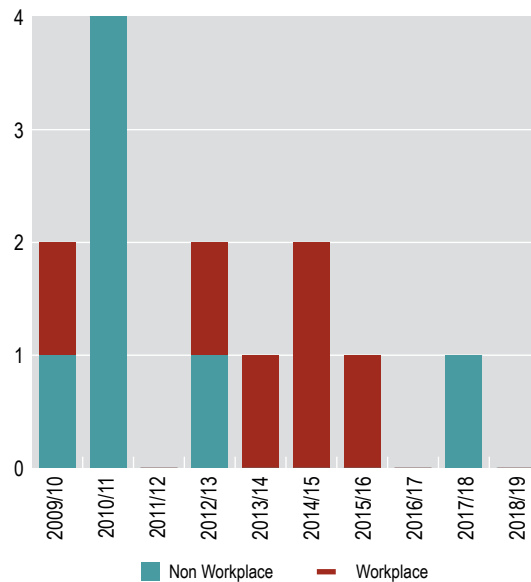
³ The budget targets are set for these indicators at 0 as the desired outcome to be achieved is to have no serious injuries and fatalities.

This general improvement over a long period can be attributed to the effectiveness of sustained industry-wide efforts to improve safety outcomes, including the Division’s legislative reforms and compliance activities.

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 were further enhanced in 2018 to require RCD protection of every individual power and lighting circuit in homes. These laws affect most residential dwellings in Western Australia.

These legislative amendments, along with public safety awareness campaigns, are 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



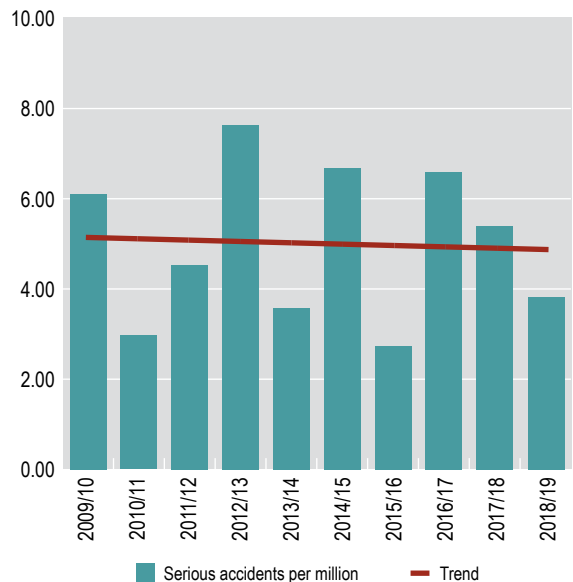
The number of non-workplace fatalities has decreased over the ten year period.

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 2018–19, there were 10 non-fatal accidents compared with 14 in 2017–18.

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.

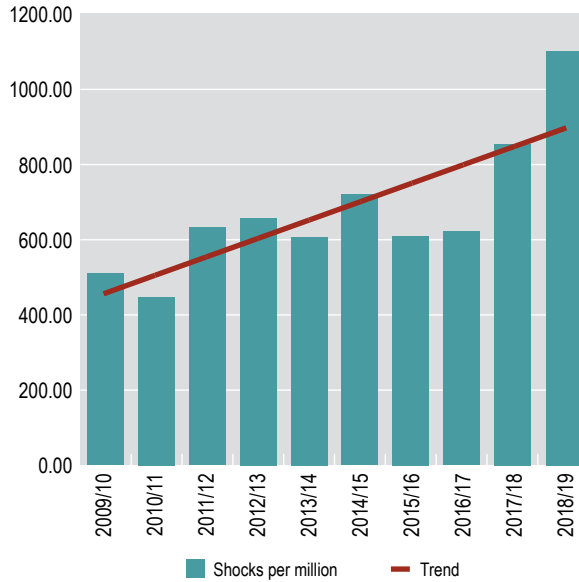
Chart C: Electrical accidents per million of population



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: Electric shocks per million of population

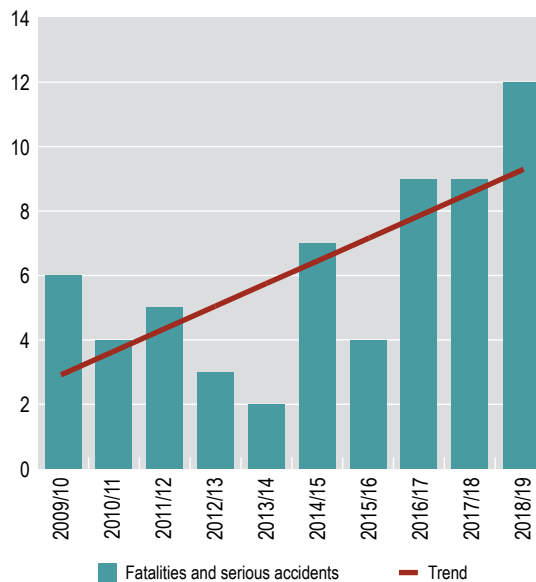


During 2018–19 there were 2,889 electric shocks reported compared with 2,216 in 2017–18, which represents a 30 per cent increase compared to the previous year. The increase is attributed to a greater general public and industry awareness about the importance of reporting electric shocks and so the proportion of incidents that are reported to network operators has increased.

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



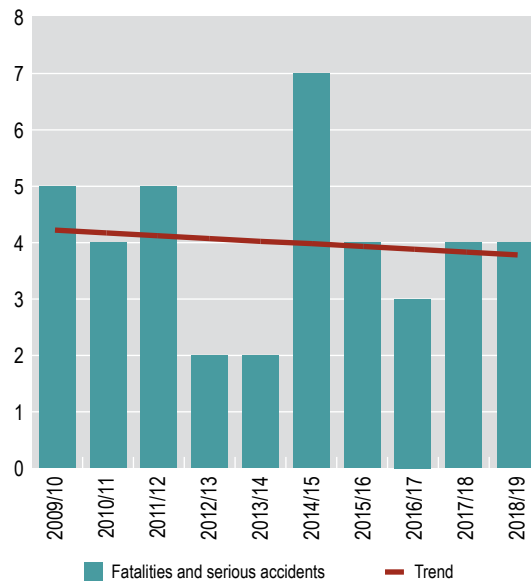
The trend for fatalities and serious accidents involving electrical workers (Chart E) shows an increase over the ten-year period, with a higher number of accidents involving electricians being recorded in the last three years.

Two initiatives to address these incidents were implemented in 2017–18. New regulations restricting work on energised electrical equipment and a new code of practice for persons working on or near energised electrical equipment were published. New guidelines were published on the appropriate levels of supervision to be applied to electrical apprentices.

While the trend for fatalities and serious accidents resulting from ‘live’ work (Chart F) shows some small improvement over time, there is still an unacceptable number of these events. It is still too early to determine if, and to what extent, the new live work rules are having a positive effect on these outcomes.

The spike in 2014–15 is due to the Morley Galleria Shopping Centre explosion where two electrical workers died, and two others were seriously injured.

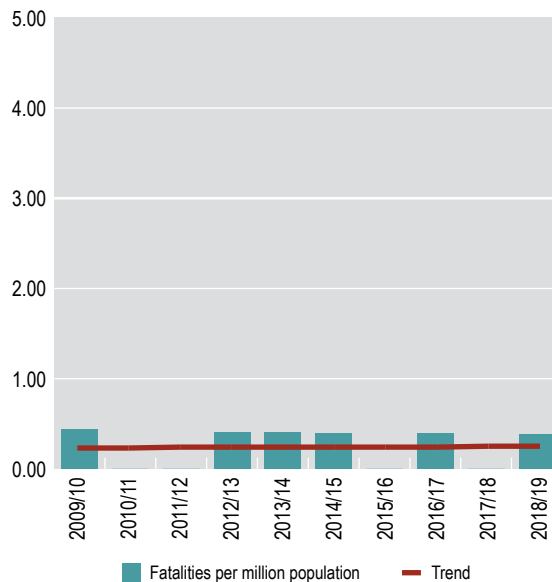
Chart F: Fatalities and serious accidents resulting from ‘live’ work involving qualified electricians in WA



7.1.2 Gas safety statistics

The combustion products of an outdoor portable gas hot water system used indoors may have contributed to the fatality reported in 2018–19. A preliminary investigative report has been prepared.

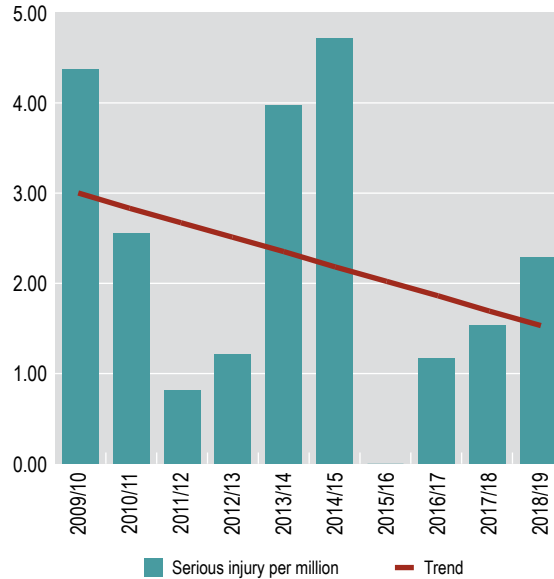
Chart G: Gas related fatalities per million population



Gas accidents – serious injury

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

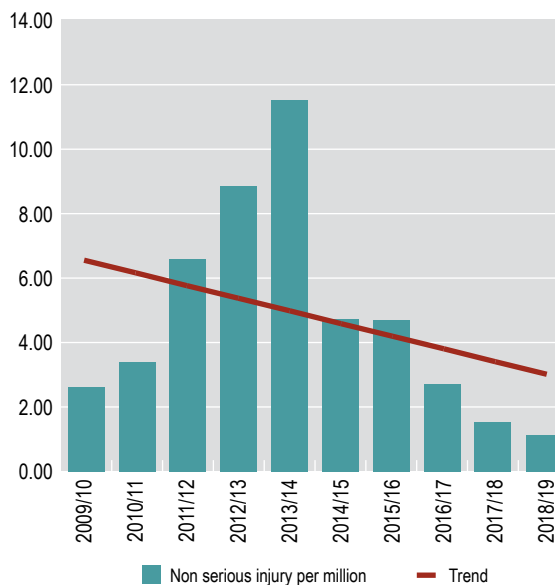
Chart H: Gas related incidents resulting in serious injury per million population



Gas accidents – non-serious injury

Incidents that do not result in a fatality and/or do not require the victim to be hospitalised or seek medical treatment have been categorised as those resulting in non-serious injury. The overall trend shows a slight decrease during the ten-year period and positive improvement in recent years.

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



Gas worker safety

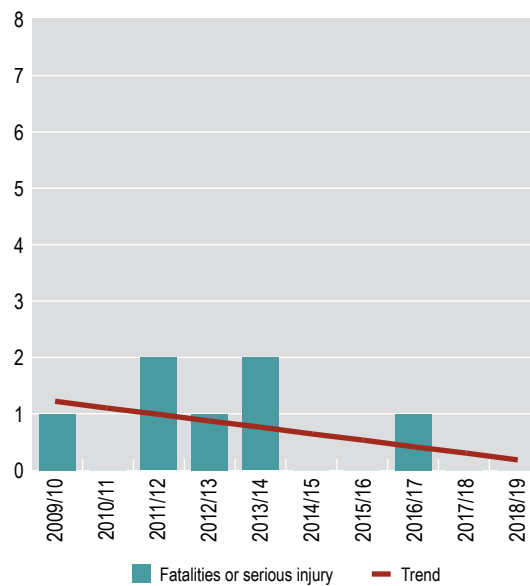
There have been no gas-related fatalities involving gas workers in the ten-year period from 2009–10.

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 2018–19.

It is noted that serious injuries involving gas workers are significantly lower in comparison with electricians.

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



8 Key achievements

8.1 Completion of the Beldon accident investigation

Building and Energy concluded its investigation into the electrical accident that seriously injured a 12-year-old girl at a property in Beldon in March 2018 and publicly released its report detailing the findings on 27 September 2019.

The report found that:

- the accident resulted from the failure of a neutral conductor that formed part of the aerial service cable which supplies electricity to the property;
- the ‘open circuit neutral’ fault occurred inside the mains connection box (MCB) attached to the roof of the property;
- the failure of the neutral conductor caused metallic parts connected to the electrical earthing system at the property, including the garden tap, to become electrically live, up to 230 volts; and
- the neutral conductor of the aerial service cable failed after it was subjected to prolonged heating.

Due to the damaged condition of the MCB, the investigation could not determine the exact cause of the heating and whether it started on the aerial service side or the consumer side of the MCB.

The release of the report received significant media coverage. Consumers were reminded about the importance of reporting electric shocks promptly to the network operators. Following the recommendations from the Director of Energy Safety, the government has approved a broader media campaign to urge consumers to report electric shocks.

8.2 Electricity Amendment Regulations 2018 – RCD requirements

The new version of AS/NZS 3000:2018 – Electrical installations (known as the “Wiring Rules”) was published on 26 June 2018. The Electricity (Licensing) Regulations 1991 have been amended to mandate the new Australian Standards. As such, all installations built after 1 January 2019 must comply with the new standards.

The Electricity Regulations 1947 have also been amended to maintain the RCD requirements for properties being offered for sale and rent.

8.3 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.

8.4 New laws for supervision of electrical work

Following extensive industry consultation, new regulations were introduced in July 2018 which enhanced 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* recommend minimum safety supervision requirements for electrical workers over apprentices.

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

8.5 Implementing the National Electrical Equipment Safety Scheme

The emergence of non-traditional retail sources, such as the internet, have 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).

The Agreement has also been signed by Queensland and Victoria. The remaining states are in the process of amending their relevant legislation prior to signing the document.

8.6 Electronic lodgement of electrical and gas installation compliance notices

In 2015, Building and Energy developed a new online system, eNotice, to enable electronic lodgement of compliance notices for electrical and gas installing work and to eliminate paper notices and the associated manual processes.

Since April 2019, more than 90 per cent of all notice lodgements are being lodged electronically. Building and Energy informed industry that paper forms were no longer accepted as of 30 September 2019.

8.7 Emerging electrical technologies

Building and Energy has participated in, and made a positive contribution to, a number of developments relating to emerging technologies.

An inter-departmental committee established by the Government to prepare a report concerning whether it should actively promote the take-up of electric vehicles (EV) and, if so, what specific initiatives are most likely to be cost-effective. Building and Energy provided technical advice concerning EV charging

requirements, the safety standards involved, effects on consumer installations and implications for managing the electricity networks.

Building and Energy has contributed to the work of Standards Australia in developing technical and safety requirements for EV charging equipment and for battery systems used in conjunction with roof-top solar generators.

Standards Australia recently published the new AS/NZS 5139:2019 - Electrical installations - Safety of battery systems for use with power conversion equipment, applying to battery installations in buildings. Building and Energy also published a Battery Energy Storage Systems (BESS) Guideline to inform electrical contractors about the new standard and the stringent electrical and building requirements which must be met.

Batteries can be a serious safety risk for building occupants and installers if incorrectly installed and operated, potentially leading to electric shock, fire, flash burns, explosion or exposure to hazardous chemicals and released gases.

8.8 Modified compliance procedure for large electrical installation projects

The regulations have been amended to provide for a modified procedure to reduce the number of electrical compliance notices required during large construction projects (such as high-rise buildings, hospitals, etc.).

Electrical contractors can either continue to use the normal procedure or elect to use the modified notice system if:

- the project takes 12 months or more to complete;
- involves a maximum electrical load greater than one megavolt ampere; and
- would otherwise require 20 or more compliance notices to be submitted.

The new procedure was implemented in response to growing industry concerns about the regulatory burden faced by large construction projects.

Business environment and challenges

9 Western Australia's energy industry environment

Emerging technologies, an ever-increasing reliance on imported consumer electrical products and the aging of the energy infrastructure in Western Australia will continue to influence Building and Energy'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.

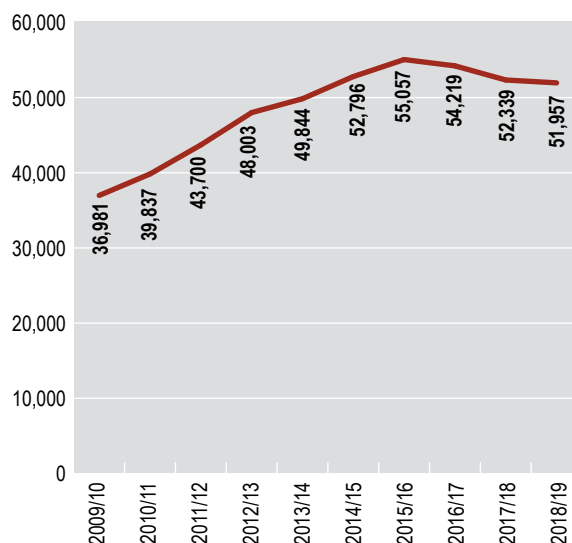
9.1 Size and growth of the industry – number of licensed operatives

From the number of licensed operatives in Western Australia, it is clear the size of the gas and electrical industries has contracted slightly in recent years as a result of the downturn in mining development activity. The number of licensed electrical operatives grew steadily since 2007–08, plateaued during 2016–17 and has dropped off further in 2018–19. The number of gas permit/authorisation holders increased from 2010, but has shown a slowing increase during 2018–19.

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

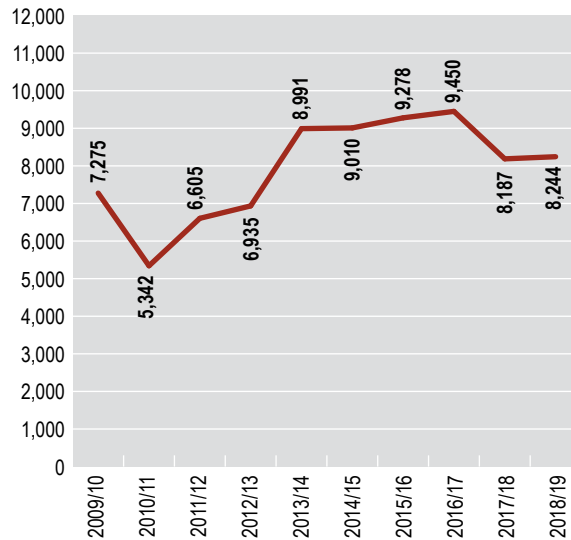
In 2007 (the year after industry funding was implemented), there were 29,872 electrical worker's licences. In 2019, there were 51,957, an increase of 60 per cent over the period.

Chart K: Annual trend in numbers of electrical licences administered



In 2007, there were 5,765 gasfitting permits and authorisations. In 2019 there were 8,244, an increase of 43 per cent 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 over the next three to five years, although a slow-down in the rate of increase was expected and is now being realised. This has become apparent in the number of electrical licences and gas permits/authorisations administered.

The above aggregated numbers show a 36 per cent increase in the total number of licenced operatives in WA in the past 10 financial years.

9.2 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 represent the primary 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 decreased from 115,553 in 2017–18 to 92,594 in 2018–19.

In the gas area, the number of notices received by the Division and the gas network operators decreased from 68,967 in 2017–18 to 67,212 in 2018–19.

Chart M: Numbers of Notices of Completion received – Electrical

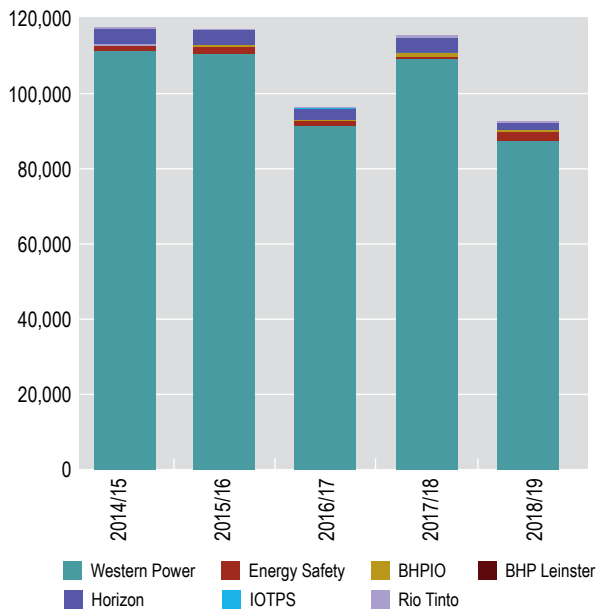
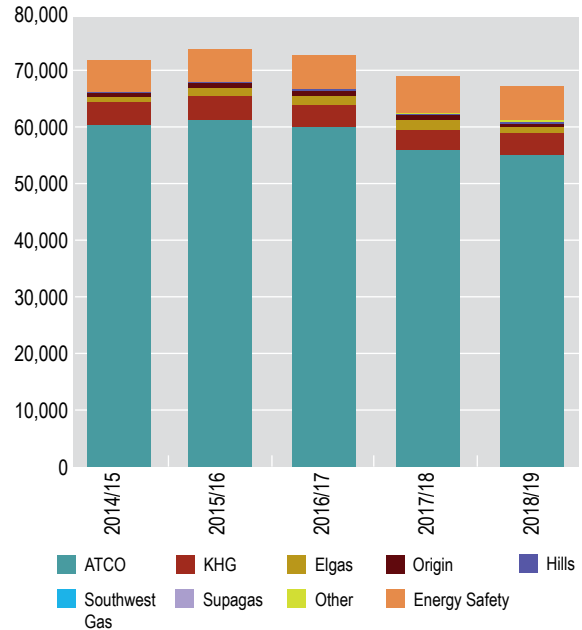


Chart N: Numbers of Notices of Completion received – Gas



9.3 Compliance inspection of electrical and gas installations

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.

Under their Inspection System Plans, gas and electricity network operators are required to conduct a preliminary assessment of defects and breaches they uncover during their inspections. The less-serious cases are generally dealt with by an inspector issuing an Order requiring corrective actions be undertaken. The more serious breaches are referred to the Building and Energy Division for further action, and they generally trigger an investigation.

On average, 25 per cent of electrical installations for which a notice is received is inspected annually by electricity network operators. In 2018–19, 27,381 electrical installations were inspected following receipt of notices.

The defect rate, revealed by inspections of the 25 per cent of installations for which notices are submitted, remains high at around 13 per cent. Of these, around three per cent are serious defects, capable of causing electrocution or fires.

On average, 5.5 per cent of gas installations for which a notice is received is being inspected annually by gas network operators. This statistic is aligned with the five per cent minimum currently specified in the inspection guidelines. In 2018–2019, 14,267 gas installations were inspected following receipt of notices.

The average defect rate revealed by these inspections was 13.67 per cent.

9.4 Volume of compliance work undertaken by Building and Energy

Chart O: Total number of jobs – Electricity

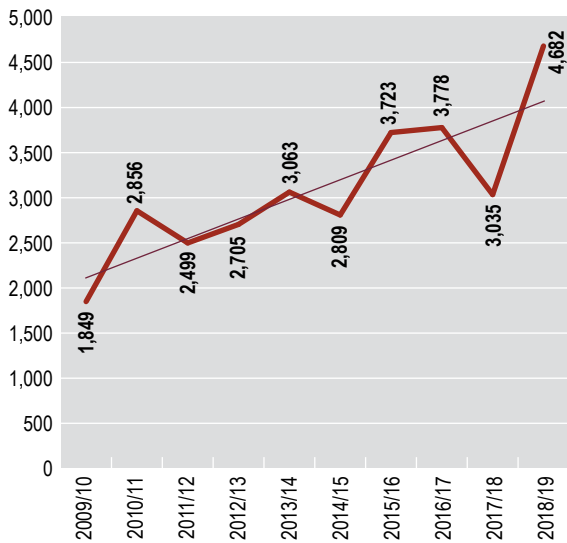
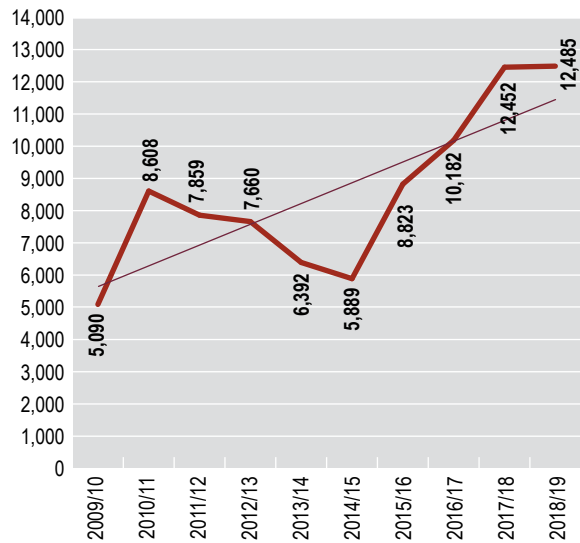


Chart P: Total number of jobs – Gas



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.

Job types vary between electricity and gas in their classification and complexity. They may include (but are not limited to) advice, training, audits, compliance inspections, investigations, notifications, projects, infringements, prosecutions and disciplinary actions.

Despite a small trending 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

10 The period ahead – significant issues impacting Energy Safety

The functions of the Director have significantly expanded 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 fourteen years and a major focus in the period ahead is to maintain appropriate staff resources and expertise to enable continued delivery of the regulatory and safety outcomes expected by the government, community and the gas and electricity industries.

10.1 Major policy initiatives

To address the challenges ahead, the Division proposes to implement or continue the following initiatives during 2020–21.

10.1.1 Energy Safety legislative reforms

Building and Energy is developing proposed amendments to the three different Acts it administers - the *Electricity Act 1945*, *Gas Standards Act 1972* and *Energy Safety Act 2006*. Consequential amendments will also be made to the *Energy Coordination Act 1994* and the *Energy Operators (Powers) Act 1979*.

As at December 2019:

- Initial preparation of amendments to the principal Acts have been prepared. The proposed amendment will be circulated to stakeholders during the second quarter 2020.
- Amendments to the Electricity (Network Safety) Regulations 2015 have been prepared and circulated to stakeholders for comments which are now being reviewed.
- Amendments to the Electricity (Licensing) Regulations 1991 are being prepared and are expected to be circulated to stakeholders in the first quarter of 2020.

10.1.2 Public safety awareness campaign about importance of reporting electric shocks

An electric shock occurs when a person comes into contact with electricity, causing the electrical current to flow through their body. The effects from an electric shock can range from tingling and mild discomfort through to burns, severe internal/external injuries (including heart damage), unconsciousness and fatality.

Electric shocks from taps, pipes or appliances at home are warning signs that something could be wrong with the electrical wiring or appliances.

Bad or degraded neutral connections or electrical faults are common causes of electric shocks. If a neutral connection is degraded, the electrical current may not be able to flow back to the electrical source and may find another path to travel, such as a water pipe, metal taps, gas fittings or any other conductor of electricity. If someone touches the water pipe, metal tap, gas fitting or other conductor, he/she may receive an electrical shock, which can be potentially life threatening. It is therefore imperative that consumers pay attention to electric shocks and report them to the network operators, however minor they are.

Building and Energy has developed a public awareness campaign, jointly with the Western Australian network operators, to encourage electricity consumers to report promptly any electrical shock they experience. The campaign is scheduled to officially launch in January 2020.

It will comprise television, digital and outdoor advertising within Western Power's South West, and Interconnected System and radio and press advertising within Horizon Power's regions. Building and Energy is also developing a comprehensive suite of information for consumers. It will appear on its main website, in relevant Real Estate Bulletins for landlords and tenants, community newspapers and social media pages.

10.1.3 Public safety awareness campaign about the importance of maintaining open-flued gas heaters

Partial combustion of natural gas can produce carbon monoxide (CO), a colourless, odourless and tasteless gas that can cause death or chronic illness if it spills or leaks from gas heaters. Some open-flued gas heaters have been known to spill CO into a room under certain conditions. A blocked flue or chimney, negative air pressure, or non-compliant installation could create the conditions that lead to tragic consequences. There have been several deaths from CO poisoning across Australia.

Building and Energy is proposing an awareness campaign in 2020 to inform consumers about the life-safety risks posed by poorly installed and maintained open-flued gas heaters. It will also remind consumers about precautions when using such heaters and the importance of having their gas appliances serviced regularly.

10.1.4 Development of new gas and electricity Inspection System Plan Guidelines

Compliance inspections of gas and electrical installations is a critical cog in ensuring safety of electricity and gas users and the community. Western Australia's inspection monitors installation work performed by licensed tradespeople to ensure they meet the required technical standards and are safe.

Legislation requires both electricity network operators and gas suppliers to carry out these inspections and manage the activity under an Inspection System Plan (ISP) approved by the Director of Energy Safety. The Director issues detailed guidelines for the content and performance requirements of ISPs and periodically audits the businesses' performance against their approved plans.

Building and Energy is currently evaluating the effectiveness of both the guidelines and the associated ISPs. This will inform the new ISP guidelines for both the gas and electricity industries which will be issued during 2020–21.

10.2 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.

Staff establishment available to the Division has not increased commensurate with the increased workload being experienced and recruitment efforts to fill specific compliance-related roles had historically proven relatively unsuccessful.

The Division implemented several initiatives to respond to the ever-increasing workload in an environment of limited resources, while still maintaining sufficient monitoring and response capacity to the trends in serious injuries and fatalities. These include initiatives to reduce red-tape burden, increase automation and implement electronic means for enhancing productivity wherever possible, as well as making it easier for licence-holders, the general public and network operators to interact with the appropriate areas of the Division.

Since 2017–18 the Division has experienced more success in recruitment to technical and inspector positions. While there are significantly fewer vacancies in these areas, during 2020–21 the Division will continue in its recruitment strategies to ensure the filling of any vacant technical positions.

10.2.1 Compliance Management System updates

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.

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 and enhancements 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.

10.2.2 Licensing services

During 2017–18 the Licensing Services Directorate was established in DMIRS. This Directorate takes carriage of licensing processing activities for those divisions that issue occupational licences, including the range of electrical and gas related licences.

While the processing of applications is a service that is provided to the Division, the decision-making responsibilities of the Electrical Licensing Board and the Director of Energy Safety 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.

10.2.3 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 Energy Bulletin was published as a paper-based magazine until 2016 and circulated to 14,000 electrical contractors and gas fitters. Since 2016, 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 circulated to more than 50,000 recipients.

Throughout 2020–21 the Division will continue to work with the DMIRS media team to develop innovative and cost-effective means to communicate with energy workers and the wider public.

11 Regulatory operational matters

Some operational work undertaken by 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 issue a warning, an infringement notice or to prosecute a person or business.

There are several other activities to which significant resources are devoted, as outlined below:

11.1 Inspections of installations not connected to a network and the Indian Ocean Territories

Inspectors inspect electricity and gas installations not connected to a network, such as 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 of this work is associated with resources projects. Inspections of these installations are undertaken by the Division's inspectors.

11.2 Investigations of breaches to the legislation

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

The Division devotes significant resources to conducting investigations into breaches of legislation and preparing briefs for enforcement actions and/or possible prosecution.

11.3 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 and, in some cases, experts from other fields (timber, structural etc.) are called on to assist with these investigations.

11.4 Investigations of network incidents

In recent years, significant resources have been devoted to several complex investigations, including the Toodyay and Parkerville bushfires and the Albany gas explosion.

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

11.5 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 through non-traditional purchasing practices that are becoming commonplace, such as the internet. Many of these appliances have been found to not meet Australian Standards and are, therefore unsafe.

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

11.6 Audits of Network Operator Inspection System Plans

Under the existing compliance framework, electricity network operators 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 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 be undertaken to ensure that all network operators carry out their installation inspection functions in accordance with statutory obligations.

11.7 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.

11.8 Australian Standards development work

Resources are allocated to assist Standards Australia with the development and maintenance of Australian Standards related to electricity and gas safety. Engineers and technical staff represent the interest of safety regulators on several technical committees at national level.

11.9 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

12 2020–21 Financial Plan

The following Financial Plan presents the energy safety associated expenditure and revenue budget forecasts of the Division (both capital and operating), for 2020–21 and three out-years.

It also includes a comparison between the budget and actual out-turn for 2018–19 as well as the approved budget for the current (2019–20) financial year.

The 2020–21 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 DMIRS;
- 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 2020–21 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 can be annually, three-yearly or five-yearly, dependent on the licence type) as well as expected effect of economic cycles on prospective numbers of 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.

It is 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, give reasonable confidence that the vacancy rates will remain relatively low and 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 per cent (or two positions).

Although cash reserves held in the Special Purpose Energy Safety Account remained high to the end of 2018–19 (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 \$10 million) 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) and to provide sufficient funding for energy related operations for at least a quarter should it encounter funding collection challenges.

The 2020–21 Financial Plan has been set to continue to be 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 higher revenues than forecasted during 2018–19 has resulted in higher cash reserves than is optimal. The Division therefore proposes that no increase to the levy is required in 2020–21 to meet forecasted 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 grew at a significant rate for the 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 electrical and gas 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 30 and 31, 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 DMIRS budgeting processes.

The current year (2019–20) budget estimates reflect the budget approved by the Minister for the year in the 2019–20 Business Plan.

The Minister's approval of this Business Plan is accepted as approval for the 2020–21 budget as indicated.

Financial Year	2018–19 Budget	2018–19 Actual	2019–20 Approved Budget	Escalated \$			
				2020–21	2021–22	2022–23	2023–24
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
1. Expenses							
1.1 Recurrent Expenditure							
a) Employee benefits expense	7,778	6,525	7,751	7,806	7,884	7,962	8,042
b) Corporate service charges	2,517	3,603	2,517	3,376	3,461	3,547	3,636
c) Licensing service charges	762	542	795	885	907	930	953
d) Depreciation expense	398	491	620	626	633	639	645
e) Legal services	152	166	174	198	203	208	213
f) Accommodation expenses	807	822	815	904	831	840	848
g) IS support/maintenance (CMS)	190	23	192	196	201	206	211
h) IT and minor equipment replacement	42	23	42	43	44	46	47
i) Other recurrent expenses	2,493	1,537	2,655	2,682	2,709	2,736	2,763
Total Recurrent	15,139	13,733	15,561	16,716	16,872	17,113	17,358
1.2 Capital Expenditure							
a) Software replacements (CMS)		83					
b) CMS project management				250	267		
c) On-line compliance and customer interface functionality	526	41	0				
Total Capital	526	124	0	250	267	0	0
Total Expenses	15,665	13,857	15,561	16,966	17,139	17,113	17,358
2. Income							
a) Industry Levy	7,225	7,225	7,225	7,225	7,225	7,225	7,225
b) Licensing fees	6,931	8,609	7,000	8,012	8,212	8,418	8,628
c) Indian Ocean Territories	45	69	46	47	48	49	51
d) Other revenues	50	2,140	51	52	53	55	56
Total Income	14,251	18,043	14,322	15,336	15,539	15,747	15,960
Surplus/(Deficit) for the period	(1,414)	4,186	(1,239)	(1,630)	(1,600)	(1,366)	(1,398)
Approved FTE	55	55	55	55	55	55	55
FTE actual/estimate	52	52	52	52	52	52	52

Financial Year	2018–19 Budget	2018–19 Actual	2019–20 Approved Budget	Escalated \$			
				2020–21	2021–22	2022–23	2023–24
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Estimated Opening Balance	10,427	14,903	9,878	15,832	15,828	15,805	15,805
Industry Levy	7,225	7,225	7,225	7,225	7,225	7,225	7,225
Licensing fees	7,274	8,959	7,313	8,362	8,507	8,668	8,848
All other revenues	95	69	96	99	102	104	107
Cash expenses	(15,143)	(15,667)	(14,291)	(15,690)	(15,857)	(15,824)	(16,063)
Cash movement	(549)	586	343	(4)	(23)	173	117
Estimated Closing Balance	9,878	15,489	10,221	15,828	15,805	15,978	15,922

12.1 Notes and explanations

12.1.1 Recurrent expenditure

- a) Employee benefits expense: include all expenditure associated with permanent, contract and temporary employees, known salary increases under awards and direct on-costs such as leave entitlements and other employee entitlements.
- b) Corporate service charges: the Division relies on central DMIRS Corporate Services support (covering finance, HR and IT support) to be provided by DMIRS. The amounts shown are the estimated costs provided by the DMIRS Corporate Services Division.
- c) Licensing services charges: the Division relies on licensing processing services to be delivered by the DMIRS Licensing Services Directorate, with which a Service Level Agreement is in place. The amounts shown are the estimated costs provided by the DMIRS 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 DMIRS 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 the Division's office accommodation, including lease costs, maintenance and minor works, cleaning and utility costs.
- g) Information Services (IS) support and maintenance, Compliance Management System (CMS): includes recurrent costs associated with support, licensing and maintenance of the CMS.
- h) Information technology (IT) and minor equipment replacement: covers routine replacement of desktop personal computers, 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.
- i) This item includes the cost of mobile computing technology used in conjunction with the CMS in supporting inspectors undertaking field work.
- j) Other recurrent expenses: includes all insurance costs, superannuation, communications services, travel, training, printing, management and maintenance of a vehicle fleet, technical services, recruitment, taxation expenses, various consumables and other services necessary for operating an office.

12.1.2 Capital expenditure

- a) & b) Software replacement (CMS); and
- c) On-line compliance and customer interface functionality: The \$526,000 budgeted in 2018–19 was to finalise works on enhancements to CMS, which included 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 items at a) and b) reflect the capital costs of completing the identified enhancements and the capitalised internal IS project support costs for implementation of the CMS system.

12.1.3 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 2020–21 this is \$8.0 million. On a cash basis the amount is \$8.3 million.
- c) Indian Ocean Territories (IOT): DMIRS has a service agreement with the Commonwealth's Department of Infrastructure, Transport, Cities and Regional Development (DITCARD) to supply regulatory services to the IOT similar to those it provides on the WA mainland, but at full cost to DITCARD. 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.

12.2 Cash Balances

Cash balances form part of the DMIRS bank account and are classified as restricted cash. The cash bank balance was \$15.5 million at the end of 2018–19 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 CMS.

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 \$1.35 million.

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 \$1.0 million 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 2019) \$2.3 million. CMS has been commissioned and capitalised, meaning that the depreciation expense will normalise to be in the order of \$620,000 per year, bringing accumulated depreciation to approximately \$4 million 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 2019 was \$6.7 million. 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 \$11 million and \$13 million. The 2020–21 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

13 Industry Levy Statement

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

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

For 2020–21, the proposed Energy Safety Industry Levy will be \$7.225 million. 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.

13.1 Industry Levy Quantum

It is required that the levy be applied at a level sufficient to enable the full costs of energy safety operations to be met. Accordingly, a levy of \$7.225 million is proposed in this Business Plan for 2020–21.

This enables sufficient funds for the full structure of the Division's energy safety related operations (less a forecast vacancy rate of two FTEs, or 3.6 per cent), 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 2019–20 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 low and steady through 2020–21 and beyond, and surplus funds will not be realised from under-expenditure at the same levels as has been experienced in prior years.

13.2 Apportionment of Levy between energy sectors

The proposed 2020–21 industry levy of \$7.225 million will be apportioned as 67 per cent to the electrical industry and 33 per cent 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 \$4.841 million, and from participants in the gas industry it will be \$2.384 million.

13.3 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-2019–20, 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.

Based on 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-2020–21, determining the levy contribution allocations for each supplier for 2021–22.

13.4 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 early stages of 2020–21.

Although the total levy amount falls due for payment at the beginning of each financial year, industry participants will be invoiced 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 – Specific obligations

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 liquefied petroleum gas (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, State Government and the DMIRS Director General;
- 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.

Appendix B – A brief outline of 2018–19 issues and activities

1 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.

1.1 Operative licensing activities

Licensing services are provided by DMIRS' Licensing Services Directorate. The Division manages this service delivery through a licensing policy framework, Service Level Agreements and liaison between the Electrical Licensing Board and the Director of Energy Safety, and the licensing service provider.

DMIRS 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.

1.1.1 Electrical licensing

As at 30 June 2019, there were 46,107 electrical workers and 5,850 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.

1.1.2 Electrical Licensing Board

As at 30 June 2019, the Board's membership comprised:

Mr. K McGill – Chairman.

Mr. P Carter – 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. M Andric – representing the interests of large businesses, who are consumers of electrical services.

Mr. J Ripp – representing the interests of small businesses, who are consumers of electrical services.

Dr. F McGaughey – a residential consumer of electrical services.

Mr. D Saunders – nominated by the Director of Energy Safety.

The Electrical Licensing Board met 22 times during the year.

1.1.3 Gas Licensing

As at 30 June 2019 there were 8,244 persons registered for gasfitting work.

Licensing applications are processed by staff of the Licensing Services Directorate under delegated authority, as in the case of electrical licences.

2 Prosecutions and Infringement Notices

2.1 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 2018–19.

2.1.1 Prosecutions – Breaches of Electricity Related Legislation

Summary for the period 1 July 2018 – 30 June 2019

Legislation	Section / Regulation	Number of Offences	Fines \$
Electricity (Licensing) Regulations 1991	r 49(1)	2	11,744.35
Electricity (Licensing) Regulations 1991	r 52(3)	1	15,881.60
Electricity (Licensing) Regulations 1991	r 33(1)	1	15,237.90
Energy Coordination Act 1994	s 20(2)	2	37,868.35
Total		6	80,732.20

2.1.2 Prosecutions – Breaches of Gas Related Legislation

Summary for the period 1 July 2018 – 30 June 2019

Legislation	Section / Regulation	Number of Offences	Fines \$
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	N/A	0	0
Total		0	0

2.2 Infringement Notices

The Division issues Infringement Notices as this system provides an efficient and cost effective compliance regime for selected breaches. The system covers both the gas and electricity industries and deals with matters of non-compliance in electrical and gas installations.

There were 9 (2 Electricity and 7 Gas) Infringement Notices issued for the year.

The following tables provide summaries of Infringement Notices issued during 2018–19.

2.2.1 Infringement Notices – Breaches of Electricity Related Legislation

Summary for the period 1 July 2018 – 30 June 2019

Legislation/Regulation	Section / Regulation	Number of Offences	Fines \$
<i>Electricity Act 1945</i>	s 33B(2) and 33D	2	2,500
Total		2	2,500

2.2.2 Infringement Notices – Breaches of Gas Related Legislation

Summary for the period 1 July 2018 – 30 June 2019

Legislation	Section / Regulation	Number of Offences	Fines \$
<i>Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999</i>	r 18(2)	1	600
	r 28(3)	5	2,000
	r 30	1	600
Total		7	3,200

3 Major policy work

3.1 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.

3.2 National regulatory reform projects

Development of 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 is ongoing and continues to dominate the policy area and demands significant commitment of senior staff.

4 Statutory Reporting and Statistics

The following statistical information is required to be reported and is reflected in the DMIRS' 2018–19 Annual Report:

4.1 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 and electrical appliances. DMIRS 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.*

Outstanding as at 1 July 2018	2571
Audits	2
Compliance Inspections	2353
Investigations	216
Commenced 2018-19.....	4694
Audits	1
Compliance Inspections	4430
Investigations	263
Concluded 2018-19.....	4921
Audits (Network Operator).....	3
Compliance Inspections	4677
Investigations	241
Outcomes	4993
Appeal - Rejected.....	1
Appeal - Withdrawn.....	18
Completed - No Action Required.....	2931
Corrective Action Request.....	4
Further Investigation Required.....	23
Incident Report/Hazard Alert - Issue.....	2
Infringement - Issue.....	1
Inspector's Order - Issued.....	64
Job Created in Error.....	656
Not Electricity Related.....	2
Not Inspected - No Action Required.....	1124
Prosecution - Lapsed.....	3
Prosecution - Proceed.....	4
Provide Advice - RCDs.....	85
Provide Advice.....	20
Referred to Network Operator	6
Stop Sale Notice - Issue.....	1
Warning - Verbal	5
Warning - Written.....	43

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.

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 2018–19 financial year.

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

As at 1 July 2019, there were 2341 matters outstanding. Of these, there were 2,103 Compliance Inspections; and 238 investigations under the Electricity Act.

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

There were no evident trends or special problems.

- 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 2019–20.

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

There are no proposed changes at this stage.

4.2 Electricity Related Incidents and Fatalities

The following were reported to the Director during the year:

Electric shocks.....	2889
Serious electrical accidents (hospitalisation).....	4
Serious electrical accidents (medical treatment).....	6
Fatalities (included in serious electrical accidents)	0

4.3 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. DMIRS 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:

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

Outstanding as at 1 July 2018 384

Audits	19
Compliance Inspections	147
Investigations.....	218

Commenced 2018-19..... 848

Audits	6
Compliance Inspections	285
Investigations.....	557

Concluded 2018-19..... 1044

Audits	21
Compliance Inspections	396
Investigations.....	627

Outcomes..... 1144

Appeal - Rejected.....	1
Appeal - Withdrawn.....	3
Commissioning Gas Extension Approved.....	6
Commissioning Gas Extension Rejected	2
Completed - No Action Required.....	524
Further Investigation Required	8
Gas Interpretation - Approved.....	4
Incident Report/Hazard Alert - Issue.....	1
Infringement - Issue.....	9
Inspector's Order - Cancel	16
Inspector's Order - Issued.....	159

Not Gas Related.....	18
Not Inspected - No Action Required.....	38
Prosecution - Proceed.....	2
Provide Advice.....	9
Variation/Exemption - Approved	18
Warning - Verbal	233
Warning - Written.....	93

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.

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

As at 1 July 2019, there were 188 matters outstanding. Of these, there were 4 Audits (Network Operator); 36 Compliance Inspections and 148 Investigations under the Gas Act.

c) any trends or special problems that may have emerged;

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

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;

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

e) 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.

4.4 Gas Related Incidents and Fatalities

The following were reported to the Director during the year:

Incidents.....	105
Serious Accidents (Hospitalisations)	3
Serious Accidents (Medical Treatment)	3
Minor Injury	3
Fatalities.....	1

Government of Western Australia

**Department of Mines, Industry Regulation
and Safety**

Building and Energy

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