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

ENERGY*SAFETY* DIVISION BUSINESS PLAN 2012/13

December 2011

This Business Plan was approved under
Part 2 of the *Energy Safety Act 2006* by
the Hon Simon O'Brien MLC
Minister for Commerce
on 16 February 2012

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FOREWORD

This document sets out the Business Plan 2012/13 for the Energy Safety Division (Energy*Safety*) of the Department of Commerce.

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

- administering electricity and gas technical and safety legislation;
- providing policy and legislative advice to the Minister;
- setting and enforcing minimum safety standards for electricity and gas networks;
- enforcing natural gas and LP gas quality standards;
- providing technical advice and support to the Office of Energy (OOE), Economic Regulation Authority (ERA) and the Energy Ombudsman;
- setting and enforcing minimum safety standards for consumers' electrical and gas installations;
- setting and enforcing safety and energy efficiency standards for consumers' electrical and gas appliances;
- licensing electrical contractors, electrical workers and gas fitters;
- investigating and reporting on electrical and gas-related accidents; and
- promoting electricity and gas safety in industry and the community.

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

Energy*Safety* became industry funded from 2006/07 under the *Energy Safety Act 2006* and *Energy Safety Levy Act 2006*. This mirrored practice in other jurisdictions. The scheme is operating successfully and no changes are considered necessary.

The cost of Energy*Safety*'s activities is met by those who benefit from them, through the combination of licensing revenue and an industry levy. The legislation provides for the levy to be subject to review by Parliament.

As required by the legislation, this Business Plan for 2012/13 sets out:

- A statement of intent;
- The business environment and challenges, including major projects;
- The financial plan;
- Details of the proposed 2012/13 energy industry levy; and
- A brief outline in Appendix A of the 2010/11 year outcomes (the fifth complete year of the industry funding scheme), for information.

Once the Business Plan has been approved by the Minister, it will form (in accordance with the legislation) the basis for his determination on the amount to be levied on energy industry participants, and the manner in which it is to be allocated between participants, for the 2012/13 year.

Ken Bowron
DIRECTOR OF ENERGY SAFETY

December 2011

STATEMENT OF INTENT

1.0 INTRODUCTION

This Statement of Intent is part of the Business Plan 2012/13 required by the *Energy Safety Act 2006.* It sets out the requirements for the administration of the energy industry levy that, with revenue from electrical contractor, electrical worker and gas fitter licensing, provides Energy*Safety* with all its capital and operating funding for 2012/13.

1.1 DEPARTMENTAL OBJECTIVES

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

Vision

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

Mission

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

- *Promoting innovation and science*
- *Enhancing capacity; and*
- *Ensuring a world class regulatory environment.*

Strategic Directions

The five Directions featured in Commerce's *Future Directions* document are:

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

Energy*Safety*, as part of Commerce, both contributes to and embraces these strategic corporate directions for its own area of business.

1.2 ENERGY*SAFETY*'S PROGRAMS

Energy*Safety* is undertaking a wide range of programs for Government. These include:

- Residual Current Devices awareness program: RCDs (safety switches) are the most effective way to prevent electrocutions. An advertising campaign was conducted in 2011 to ensure consumers are aware of the safety benefits. A follow-up campaign is planned for 2012.

- Wood Pole Audit: Energy*Safety* continues to work with Western Power to identify old, untreated and unsupported jarrah poles in rural areas, and ensure they are replaced, because of the potential threat of fire and to life.

- Bush Fire Investigations: Energy*Safety* carries out major investigations into significant wild fires allegedly caused by electricity distribution system failures.

- Inspections of domestic installations: Energy*Safety* encourages householders to have their electrical installations inspected for safety on a fee-for-service basis, using participating electrical contractors. A similar service for gas consumers is planned.

- Gas Appliance Rectification Programme: Energy*Safety* is managing a major project to inspect and if necessary service or replace pre-1980 natural gas appliances, following advent of a broader gas specification into the market, thus allowing for more competition in the supply of natural gas. This project is planned to be completed by the end of 2012.

- Legislation is being drafted to simplify existing laws, meet national requirements for energy efficiency, clarify the responsibilities for vegetation near powerlines, update the systems for approval of electrical appliances, amend the period within which proceedings may commence for offences in accordance with a recent Coroner's recommendation and enable proper investigation and sharing of information between agencies responsible for bushfires.

- Electrical Licensing: As at 30 June 2011, there were 35,261 electrical workers, 4,325 electrical contractors and 251 in-house licence holders registered, an increase of 7.5% over the previous year.

- Gas Licensing: As at 30 June 2011, there were 7,533 persons registered for gas fitting work, an increase of 3.4% over the previous year.

- The Licensing Office at Energy*Safety* deals with a high volume of electrical and gas licence applications. The increased workload has been well managed by staff to ensure timeliness.

- Prosecutions: Energy*Safety* investigates and if necessary prosecutes breaches of the laws applicable to electricity and gas installations and equipment repair.

- National Regulatory Reform Projects: Significant progress has been made in developing national regimes for electrical appliance safety approvals, gas appliance safety approvals, national electrical and gas occupational licensing, and the harmonisation of energy supply technical and safety regulation. This work continues to be a significant component of the policy area.

- Standards development work: Energy*Safety* plays a significant role in the development of Australian Standards, covering subjects such as electrical installations (AS/NZS 3000 Wiring Rules), high-voltage installations including electricity substations, marina electrical installations, gas installations, industrial gas appliances and gas distribution networks.

- Committee participation: Energy*Safety* continues to be involved in a number of national regulatory and technical standards bodies.

- Safety statistics: In 2011, 1053 electric shock incidents were reported to Energy*Safety*. There were 12 serious electricity related accidents and four fatalities. Fifty six gas related incidents were reported. There were 13 serious gas related accidents, with individuals injured, and no fatalities.

2.0 ENERGY*SAFETY*'S ROLE

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

Energy*Safety* seeks to ensure:

- the safety of people (the public, energy workers and consumers) and property affected by electricity and gas utility infrastructure;

- that consumers have safe electrical and gas installations at their premises;

- that electrical and gas appliances and equipment (for domestic, commercial and industrial purposes) purchased or hired are safe to use;

- that residential and business consumers receive gas supplies that are metered accurately and meet minimum standards of quality so appliances function safely;

- that common household appliances and certain types of electrical equipment perform and are labelled to satisfy prescribed energy efficiency standards;

- the safety of persons working on electrical and gas installations; and

- the safety of all persons using electricity and gas.

Energy*Safety* also provides electricity and gas-related technical advice and support to the Office of Energy (OOE), Economic Regulation Authority (ERA) and the Energy Ombudsman.

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

A function closely associated with consumer and worker safety is licensing. Energy*Safety* carries out licensing for electrical contractors, electrical workers and gas fitters who meet defined competency requirements.

The statutory Electrical Licensing Board (which includes industry members appointed by the Minister) oversees licensing electrical workers and contractors and makes recommendations on disciplinary matters. The internal Gas Licensing Committee, operating under a delegated authority of the Director, deals with gas licensing matters and makes recommendations on disciplinary issues. The licensing activities will be affected by the National Occupational Licensing System, planned for 2013. Details of the proposed changes and their timing will become clear during 2012.

3.0 THE PERIOD AHEAD FOR ENERGY*SAFETY*

3.1 INTRODUCTION

Energy*Safety's* functions have undergone significant expansion since its creation on 1 January 1995 to include major additional responsibilities such as gas network regulation (2000) and electricity network regulation (2001), equipment energy efficiency regulation (2000 and later) and gas heating value regulation in late 2007.

During the industry consultation of 2005/06 dealing with the then industry funding proposals, industry clearly indicated its support for Energy*Safety*'s functions and work. Now that industry funding is in place, the major focus in the period ahead is to deliver the outcomes expected. This requires an appropriate balance between staff resource capacity and expertise and government, industry and community needs and expectations.

The issues confronting Energy*Safety* have been categorised as major new policy initiatives, regulatory operational matters and corporate development issues as follows:

3.2 POLICY PROJECTS

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

3.2.1 COAG National Regulatory Reform Initiatives

The Council of Australian Governments (COAG) has initiated a number of national regulatory reform projects relevant to Energy*Safety*. The outcomes affect Energy*Safety's* role, structure, funding and the legislation it administers.

During 2008 to 2011 Energy*Safety* made a significant commitment to the following COAG projects, representing an extra workload for staff and affecting project priorities and costs. This will continue for some years and funding has been included in the Business Plan.

<u>Occupational Licensing</u>

COAG has chosen electrical and gasfitting licences for the first group under a national occupational licensing system (NOLS). It is proposed that one occupational licence would be valid in all Australian jurisdictions. This will require a new national licensing authority, database and IT system.

Existing regulators' licensing offices (including Energy*Safety*) will operate the national licensing system on a delegated basis.

Legislation has been passed in Victoria and adopted by other States and Territories. The Western Australian Legislative Council Standing Committee on Uniform Legislation and Statutes Review identified problems with this legislation. This has resulted in the National NOLS Taskforce coordinating a Bill to amend the model Victorian legislation and including a number of areas previously intended to be dealt with in regulations.

The Taskforce proposes that this draft amendment Bill, the draft regulations and the Regulatory Impact Statement will be released in early 2012, with a public consultation period to run for six weeks from the beginning of February to mid-March 2012.

The Federal Government's National Taskforce will be organising public information sessions in February 2012 to coincide with the consultation period for the draft amendment Bill and regulations.

Interim advisory committees have assisted the Taskforce to develop regulations on licensing and related enforcement requirements. Energy*Safety* is represented on the committees for electrical and gasfitting licensing.

This reform project will affect the current Western Australian regulatory regime, with a major effect on Energy*Safety*'s legislation and functions. Licensing, conduct standards, compliance and enforcement are all part of a unified regulatory framework in WA.

The effect of this program on Energy*Safety*'s licensing revenue is yet to be determined. New electricity licences required by existing operatives from other jurisdictions wishing to work in WA will not apply under the national system, thus reducing licensing fee revenue. This is especially true for electrical occupations where the high fly-in-fly-out component could reduce licensing revenue by 25%. However, the means to address this shortfall have yet to be determined. The net effect is expected to become clear during 2012 and no allowance has been made in this plan.

Energy Supply Industry Harmonisation

The Ministerial Council on Energy (MCE) established a review to develop an enhanced safety framework for the energy (gas and electricity) supply industry. The primary aim of this work is to ensure improved public and industry safety through regulatory and non-regulatory means. This will contribute to the efficient delivery of energy network service by:

- Facilitating greater labour mobility;
- Lowering compliance burdens, while not reducing safety standards; and
- Facilitating increased safety system consistency across jurisdictions.

Safety regulation of the energy supply industry affects several government departments and agencies for the Commonwealth and most jurisdictions. The MCE developed an Intergovernmental Agreement (IGA) to formalise the cooperation between the Commonwealth, State and Territory governments to develop a harmonised safety system.

The MCE established the Energy Supply Industry Safety Committee (ESISC) to advise and assist with the development and implementation of the nationally harmonised system. ESISC is a non-statutory advisory body and comprises an independent chair, officials from each state and territory and the Commonwealth, representatives from the gas and electricity industries, and representatives from training bodies, the unions and energy sector contractor businesses.

Energy*Safety* represents Western Australia on the ESISC.

Commitment has been made to develop an Energy Network Safety System (ENSS - safety case standard) for electrical networks and Standards Australia has established a working party to develop this new Standard.

National Construction Code

A committee reporting to COAG is considering a proposal from the building industry to create a National Construction Code. Aside from the building standards presently in the Building Code of Australia, it has also proposed to include all electrical, plumbing and gas standards.

Electrical and gas standards (as currently developed by the energy industry through Standards Australia) have a much wider reach than just building construction. They cover all types of electrical and gas installations including mine sites, industrial installations and maintenance. The reform path suggested would create fragmentation of standards and could affect regulation enforcement.

Following strong representations, electrical and gasfitting regulations and standards will be excluded for the time being but Energy*Safety* will monitor closely the Code's development and proposed scope.

National OHS Review

In March 2008 the Australian Government appointed an advisory panel to conduct a national review of current Occupational Health and Safety (OHS) legislation across all jurisdictions, and recommend to the Workplace Relations Ministers' Council (WRMC) the optimal structure and content of a model OHS Act.

Energy*Safety* has been providing comments to WorkSafe on the model Regulations and the possible overlaps which the two divisions will need to work through as the process of occupational health and safety harmonisation proceeds.

The outcome of the final model regulations may have a significant effect on Energy*Safety*'s responsibilities and legislation. It may also affect its working relationship with WorkSafe and the two organisations are working cooperatively in monitoring the regulations.

3.2.2 Review of Legislation Administered by EnergySafety

Legislation administered by Energy*Safety* has, since commencing in 1945, been written and amended frequently.

Legislation produced by other parties and dealing with gas and electricity supply and utilisation can affect the functions of Energy*Safety.* The *Electricity Industry Act 2004* and its regulations and codes are an example. It is expected that the following will affect Energy*Safety*'s legislation and functions:

- National Occupational Licensing System;
- Energy Supply Industry Safety Regulation;
- Electricity Appliance Certification Review;
- Gas Appliance Certification Review; and
- National Occupational Safety and Health Act – electricity regulation.

Energy*Safety* attempts to amend the legislation it administers when industry, technical and/or government policy changes occur. Amendments also simplify and remove:

- any provisions that are no longer Energy*Safety*'s responsibility;
- any inconsistencies or conflicts;
- any overlaps; and

- inconsistencies in existing WA energy safety legislation.

Proposed legislation reforms that have been approved for drafting by Cabinet in November 2011 will amend selected Acts and parts of Acts for which Energy*Safety* has responsibility, to remove any inconsistencies between them and the suite of legislation associated with the *Electricity Industry Act 2004*. The reforms will also provide for:

- the requirements for the energy efficiency and labelling of gas appliances;
- the appropriate sharing of information with other Western Australian investigation agencies for bushfires and energy-related safety agencies in Australia and New Zealand;
- the rationalisation of statutory responsibilities for the control of vegetation near power lines;
- expiry dates for certificates of competency for gas fitting;
- removal of duplication and overlap between existing legislative provisions; and
- updating the systems for approval of electrical appliance to match national initiatives.

3.2.3 Vegetation Control

Section 54 of the *Energy Operators (Powers) Act 1979,* dealing with the control of vegetation near power lines, will be replaced with a new regulatory regime under the *Electricity Act 1945*. This will give a more balanced approach to responsibilities for ensuring that vegetation is kept safely clear of overhead power lines by land occupiers, local authorities and electricity network operators. This is important for public safety, fire prevention and electricity supply reliability and quality.

Seven years ago Energy*Safety* developed and issued a set of guidelines for network operators and land occupiers (including local government and other government entities). It specified responsibilities for keeping vegetation clear of power lines, based on rules developed during the mid 1990s and used by Western Power and Horizon Power since that time. These guidelines were well received and have shown that the new regulatory scheme (which is intended to be based on the same principles), once enacted, should work satisfactorily.

3.2.4 Electrical Equipment and Appliances

A complete review of Australia's regulatory regime for the safety of electrical equipment and appliances has occurred. Energy*Safety* is participating with other regulators in this national project. It is designed to ensure harmonious regimes are operated by each jurisdiction, which have the capacity to deal with the challenges of rapidly changing technology and global manufacturing. Most electrical products are now imported. This project is proceeding well and a final national regulatory impact statement has been issued, outlining options and related costs/benefits. The commencement date is proposed for 1 July 2012 and will require a national IT database, now under development.

Energy*Safety* does not approve appliances but recognises the approvals granted in other jurisdictions. This enhanced system will require implementation during 2012/13.

3.2.5 Household Electrical Safety

Many homes have unenclosed (bare) electrical cable joints in ceiling spaces, which are a serious safety hazard. Previous policy allowed joints simply to be taped if Residual Current Devices (RCDs) were fitted. This has produced an unintended safety problem because the

tape has dried over time and fallen away from the joints, leaving them exposed. Such joints should be protected by covering them in insulated plastic junction boxes.

Similarly, many older homes contain Vulcanised India Rubber (VIR) insulated wiring. Over time this insulation has deteriorated leaving bare live wires exposed in the ceiling spaces.

Energy*Safety* will consult with industry on the need for the change and thereafter will develop an education program for the general public.

3.2.6 Electrical Industry Safety Cases

Following the State Coroner's inquiry into the Tenterden fires fatalities, caused by clashing power line conductors, it is appropriate to encourage a more pro-active compliance management regime on network operators. Current regulations tend to cause a reactive approach, often relying on corrective action instructions from the regulator, following safety incidents. Amendments planned for the *Electricity (Supply Standards and System Safety) Regulations 2001* will require network operators to produce and follow a safety case, a recognised approach for evaluating all safety risks and assigning priorities for mitigation measures. This approach is used in most other Australian jurisdictions. It is proposed to use the ENSS (safety case) being developed in the harmonisation of the energy supply industry described in 3.2.1 above for this purpose.

3.2.7 Distribution Overhead Powerlines

During recent years there have been concerns about the safety of overhead lines in the Western Power distribution system covering the south-west of the State. These concerns were confirmed by the findings of the 2006 and 2008 audits of Western Power's distribution wood pole management systems. Energy*Safety* issued an order in mid 2009 requiring Western Power to correct the problems identified in the audit. Energy*Safety* also commenced a formal audit of two other recognised fire causes during 2009/10:

- Pole top fires; and
- Conductor clashing.

When these audits are complete it is proposed to conduct an audit into conductor failures. This is expected to commence in 2012/13.

Energy*Safety* continues to work closely with Western Power on its mitigation strategies to ensure that all reasonable measures are employed to avoid incidents in future, since their effect on the community can be severe. Energy*Safety* devotes significant attention and resources to this program to ensure the safety of local communities as far as possible.

3.2.8 Gas Safety in Multi Storey Units

The Gas Appliance Rectification Programme survey uncovered a number of poorly maintained gas installations in large blocks of flats. The majority of the premises visited had instantaneous gas hot water systems installed and connected to multiple flued systems. Many had been installed with old asbestos flue systems. In installing retrofitted water heaters there has been disturbance to the integrity of the asbestos flues resulting in inappropriate flue connections (flexible aluminium, duct tape) and dislodgement of asbestos spigot connectors. In some cases larger water heaters have been installed with higher gas input than the flue system capacity.

This is a concern for the network operator (ATCO Gas Australia) and Energy*Safety*. A program to undertake inspections of all known multiple-flue systems in blocks of flats has commenced and will continue through 2012/13.

This major project work in 2012/13 is in addition to day-to-day policy work, including advice to the Minister, participating on Standards Australia committees for key technical standards, preparing and issuing guideline information to industry and the community, and safety promotion.

3.3 OPERATIONAL PROJECTS AND ISSUES

Apart from the policy development activities, operational work associated with administering existing regulations is growing rapidly.

Some of the operational work is relatively routine, such as responding to requests for advice, dealing with complaints, carrying out minor investigations and, as appropriate, making decisions on whether to warn, infringe or prosecute a person or business. There is also a routine level of installation inspection work carried out by Energy*Safety*'s inspection branches, for electricity and gas installations not connected to a network[1] (e.g. boats, caravans, pastoralist's facilities, mine sites, and Rottnest, Christmas and Cocos Islands).

During recent years the State's economic activity has continued to expand. This has generated increased work for industry and thus also for Energy*Safety*, additional to that caused by the expanded regulatory framework.

Reorganisation of the State's electricity power industry in 2006 has led to a much greater regulatory involvement with network operators, especially Western Power. Issues such as Energy*Safety*'s 2008 audit of the utility's wood pole distribution system and the spate of electricity–caused fires and other incidents since has demanded a greatly increased commitment of Energy*Safety*'s staff resources.

Energy*Safety* has managed to cope with demands on its Licensing Office. The very high level of industry activity over recent years has resulted in a sustained influx of electrical and gas operatives seeking local work. The Licensing Office's staff resources were increased, leading to a substantial reduction in the average time required from application to issue of a licence. Nonetheless, considerable work pressure remains in this area and is kept under review.

The work of the Licensing Office has been affected by the introduction in October 2010 of the new corporate computer-based Complaints and Licensing System (CALS) which replaced the older computer systems developed in 1995. The new system serves several Commerce Divisions but has been customised for each and deliberately designed in a modular fashion so that should future organisation changes occur, a Division's system can be relocated with the Division. CALS is still undergoing minor changes and Licensing Office staff require training, following changes to routine procedures.

Some operational work has become more time consuming. For example, during 2009/10, the Government, acting on Energy*Safety*'s advice, approved legislation to mandate the fitting of two RCDs to protect all socket outlets and lighting circuits in all homes before the land title is transferred and, for rental properties, before a new tenant takes up occupancy or before August 2011 for continuing tenancies. This requirement caused a flood of enquiries from the

[1] Installations connected to a network or pipeline are required to be inspected by the network operator or pipeline licensee, which is required to report results to Energy*Safety*.

general public, the housing sector and electrical contractors. Many of the issues raised complex technical considerations requiring modifications to the legislation or changes to the relevant standards. Plans are being developed for a compliance program.

Some operational work can evolve into major projects. For example, Energy*Safety* remains concerned with Western Power's management of its extensive wood pole electricity distribution system. Major compliance audits were completed in late 2006 and 2008, and an Order was issued October 2009. Energy*Safety* continues to monitor Western Power's response to ensure that it properly addresses the issues of concern. Additionally, Energy*Safety* has been responding to questions from the Legislative Council Standing Committee on Public Administration which has been conducting a review of Western Power and Horizon Power's transmission and distribution systems.

Energy*Safety* has established panel contracts for technical personnel to be available for short term projects. This will allow some targeted compliance audits to be conducted, mainly involving the network operators working in the Pilbara and other remote locations. The Business Plan includes funding for this work.

Energy*Safety* conducts programmed (and targeted) compliance audits on a sample of industry operatives including –

- electrical contractors;
- gas fitters including authorisation holders; and
- airconditioning and refrigeration contractors (working under restricted electrical licences).

Also, a sample of retail premises selling electrical and gas products will be audited to check compliance required with –

- electrical safety approvals;
- gas safety approvals;
- energy efficiency labelling; and
- minimum energy performance standards (MEPS).

The performance of Installation Inspectors employed by network operators must also be 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 after work by electrical contractors and gas fitters. They report cases of non-compliance to Energy*Safety* for possible follow-up action. They are obliged, in accordance with the terms of their designation, to comply with a Code of Conduct. An audit of Western Power during 2008 and 2009 showed a number of significant problems and resulted in the removal of the designation of one Inspector. Energy*Safety* commits resources to ensure improvements occur. Installation inspection is a front-line function to ensure public safety.

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

3.4 SAFETY PROMOTION

Energy*Safety* and energy suppliers must promote continually:

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

Energy*Safety* deals with this need through a combination of industry-specific activities including safety sessions during regional visits, publications aimed at industry and the public (Energy Bulletin and the Energy*Safety* website), and through television, radio, newspaper advertisements and articles in industry publications.

Safety improvement and safety promotion show a clear correlation. Television has proven to be the most effective medium for reaching the general community. But, a substantial campaign is required to have any worthwhile impact. Given that the cost of such campaigns is significant, Energy*Safety* has run a major TV campaign approximately every two years. In future, consideration needs to be given to annual campaigns to ensure that public awareness is high and to improve the State's gas and electrical safety performance compared with other jurisdictions.

3.5 CORPORATE PROJECTS AND ISSUES

3.5.1 Attraction and Retention

Energy*Safety*, as a regulator, needs staff who understand the business and technical aspects of the electrical and gas industries. They must evaluate and negotiate safety and performance issues with their industry counterparts.

This requires a competent grasp of industry-specialist technical practices (including safe field work practices), the energy legislation and occupational health and safety obligations, industrial relations implications and economic effects. Some staff, particularly engineers, also need strong skills in policy development and written communication.

Staff with such capabilities are difficult to recruit and retain, especially while WA's economy remains so strong and competition for suitable staff is high.

Currently Energy*Safety* is able to offer more competitive employment packages to its engineers and inspectors through the "Attraction and Retention Benefit" (ARB). The ARB has had had modest results in attracting new recruits but has been very helpful in retaining staff in most cases.

Further recruiting is required and is expected to continue to be a critical activity, especially as some staff are approaching retirement age. Part-time work and part-time contract work options are also utilised to supplement Energy*Safety*'s core of full time, permanent personnel. With Energy*Safety*'s older workforce, this has serious implications for an effective succession plan.

The 2008/09 global financial problems had a short term effect on the State's economy but since then strong growth has resumed, especially in the resources sector. Recruiting specialist technical personnel has become harder. Energy*Safety* competes for staff with the gas and electricity network operators, major consultancies and large construction

contractors. Hence it is expected that the ARB or its replacement Attraction and Retention Incentive (ARI) arrangements will need to continue. The financial forecasts have been cast accordingly. The ARI will have to reflect salary realities in the booming WA economy or Energy*Safety* will not succeed in attracting and retaining its critical technical staff.

3.5.2 Compliance Management Program

The new Complaints and Licensing System (CALS) was commissioned in October 2010, replacing aging legacy systems. CALS and its future enhancements can be expected to improve the efficiency of licensing work.

During 2010, Commerce reviewed its approach to developing a Compliance Management System (CMS). Due to the significant differences in compliance legislation and processes between agencies, it was agreed to develop an individual solution for Energy*Safety*. Energy*Safety* processes (including inspection processes) have been mapped to ensure consistency between directorates and to ensure efficient processes. Tenders were called in November 2011, closing mid December, and the successful provider is expected to be known in early 2012. The new computer system (and processes) will be progressively delivered by end 2013. The financial forecasts include the expected budget for this major project.

3.5.3 National Licensing System

COAG's national licensing initiative will affect Commerce's IT systems very significantly. This project has been delayed considerably, with commencement dates for electrical and gas occupations now expected to be May 2013.

It remains unclear how existing IT systems in each jurisdiction will integrate with the new national register. The options range from developing a simple linkage between Commerce's systems and the national register (so that data can be uploaded and downloaded) to dispensing with the Department's systems and adopting the new national register.

Because the final approach to the IT issues remains unclear, Energy*Safety* is not justified in making a specific provision in this Business Plan. More funds may be needed but the amount and timing of expenditure cannot be determined yet with satisfactory precision. The IT issues are likely to be resolved during 2012, permitting, if required, a proper assessment of the funds and staff resources Energy*Safety* will be expected to contribute.

Meanwhile, the national licensing system is the source of significant uncertainty and risk for Energy*Safety*'s IT system development.

3.5.4 Gas Appliance Rectification Programme

Cabinet approved the development of legislation to enable natural gas of a broader quality range to be supplied into the domestic market. This is expected to increase security of supply, increase pricing competition and enable producers to choose the most efficient method of developing gas fields.

In 2008 Energy*Safety* surveyed a sample of residences and estimated that there are approximately 20,000 pre-1980 gas appliances that may be damaged or pose a safety risk if operated on lower energy-content gas. These appliances must be identified and disconnected before such gas can be supplied.

Cabinet decided that the owners of these appliances will be given the opportunity to have them serviced to make them safe or replaced at no cost. The estimated cost of this work

was approximately $35m. The gas producers supplying lower energy content gas over a period of ten years are to pay the cost. There will be no State or levy monies used.

The *Gas Supply (Gas Quality Specifications) Act 2009* provides legal backing for these policies to be developed. Energy*Safety* administers Part 5 Division 2 that deals with the Gas Appliance Rectification Programme.

A project office has been established in Energy*Safety*. All costs incurred during this programme are being separately identified. They will be met directly by the gas producers and not from Business Plan funding for normal Energy*Safety* activities.

The Programme has two phases:

- The first phase commenced with a tender to supply the services of a call centre and investigative services to identify the location and type of work to be carried out to either modify or replace defective appliances. This tender was awarded to Alinta Assist in April 2010 and physical work commenced in mid May 2010.

- The second phase of the Gas Appliance Rectification Programme began in April 2011. The work involved is the replacement and/or servicing of domestic natural gas appliances that have been identified during a safety inspection and may pose a safety risk if allowed to operate on the changed gas.

It is expected that all this work will be completed in December 2012 ready to allow the flow of the broader specification gas into the metropolitan distribution system in early 2013.

4.0 ENERGY*SAFETY'S* ACTIVITIES

4.1 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 (Supply Standards and System Safety) Regulations 2001*

- *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*

- *Gas Supply (Gas Quality Specifications) Act 2009* (Part 5, Division 2)

Energy*Safety* also assists the Economic Regulation Authority (ERA) and the Energy Ombudsman's office in the enforcement of prescribed standards for electricity supply reliability and quality, in accordance with the provisions of the following legislation:

- *Electricity Industry (Licence Conditions) Regulations 2005*
- *Electricity Industry (Ombudsman Scheme) Regulations 2005*
- *Electricity Industry (Network Quality and Reliability of Supply) Code 2005*

4.2 SPECIFIC ACTIVITIES

The legislation provides for Energy*Safety* to:

- Ensure the safety of consumers' electrical installations and appliances, by:
  - licensing electrical workers and electrical contractors (through the functions of the associated Electrical Licensing Board);
  - enforcing prescribed technical standards for electrical installing work;

  - requiring electricity network operators to conduct consumer installation safety inspections in accordance with prescribed requirements and auditing this work to ensure compliance;
  - conducting safety inspections of consumers' electrical installations that are not connected to utility networks; and
  - auditing electrical appliances and equipment offered for sale, to check compliance with prescribed safety and energy efficiency requirements (star rating labelling scheme).

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

- Ensure the safety and acceptable performance of electricity transmission and distribution infrastructure by:
  - auditing electricity network operators' design standards and constructed networks for compliance with prescribed safety requirements;
  - monitoring the safe work practices of network operators' employees and contractors, including attendance to incidents;
  - investigating failures in service of network operators' assets, accidents causing injury or death and wildfires ignited by network operator assets; and
  - investigating unsatisfied consumers' complaints about unacceptable electricity supply reliability and quality, when referred by the ERA or Ombudsman.

- Ensure the safety and acceptable performance of gas distribution infrastructure by:
  - auditing gas network operators' design standards and constructed networks for compliance with prescribed safety requirements;
  - monitoring the safe work practices of network operators' employees and contractors, including attendance to incidents;
  - monitoring the quality of gas provided to consumers generally, for compliance with prescribed requirements;
  - investigating unsatisfied 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 inspectors in the State (including those of network operators).

- Ensure the safety of electrical and gas workers by enforcing prescribed safety requirements and providing guidance in respect of safe work practices.

- Issue exemptions or variations to certain regulatory requirements (electrical and gas).

- Investigate electrical and gas safety incidents (incidents associated with electricity or gas network operator customers, are usually inspected first by the network operators' inspectors).

- Enforce statutory requirements through advice, warnings, infringements, prosecutions and, in the case of licence holders, also through disciplinary action.

- Respond to consumer complaints involving electrical and gas technical and safety matters.

Furthermore Energy*Safety*:

- provides energy-related policy advice and support to the Minister, Government and Commerce's Director General; and

- promotes electricity and gas safety to the public and industry operatives.

5.0 PERFORMANCE TARGETS

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

MEASURES	10/11 Target	10/11 Actual	11/12 and beyond Target
GAS			
Gas related deaths	0	0	0
Gas related accidents[2] (including fatalities)	8	12	10
Gas installations inspected and found non-complying (includes matters not directly affecting safety)	11%	13%	11%
No. of Energy*Safety* audits of gas network operators' Inspection Plans[3]	2	1	2
Investigations under Acts and Regulations	300	259	200[#]
No. of Type B gas appliance variations assessed	66	59	60[∝]
Presentations to Industry or other Groups	15	32	20

[∝] Target based on current edition of AS 3814-2009 and known future gas turbine installations in power stations
[#] Target decreased to normal value after being increased in 2010/11 to account for changes to Australian Standard and effect of gas appliance rectification activities.

MEASURES	10/11 Target	10/11 Actual	11/12 and beyond Target
ELECTRICITY			
Electricity related deaths	2	4	0[**]
Electricity related accidents[2] (including fatalities)	15	12	12
Electrical installations inspected and found non-complying (includes matters not directly affecting safety)	7%	14%	14%
No. of Energy*Safety* audits of electricity network operators' Inspection Plans[3]	1	0	2
Investigations under Acts and Regulations	650	451	650
Presentations to Industry or other Groups	10	4	5

***** *Trend analysis is used to set the targets*
*** *Energy*Safety *aspires to a target of zero fatalities but has no direct control over accidents and fatalities. It strives through education, policies and enforcement to prevent any electrocutions.*

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

6.0 INFORMATION AND ADVICE TO THE MINISTER

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

Interaction between the Minister's office and Energy*Safety* takes place through the Director of Energy Safety and the Director General, Department of Commerce. However, Energy*Safety*'s Director Gas, Director Policy & Electrical Engineering and Director Electricity Compliance are available to respond directly if required.

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

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

BUSINESS ENVIRONMENT AND CHALLENGES

7.0 WA'S ENERGY INDUSTRY ENVIRONMENT

During the next five years, existing shortcomings with Western Power's electricity supply network will continue to require major attention as will, to a lesser extent, the networks of Horizon Power. The younger age and generally better state of the gas distribution networks operated by Atco Gas and others should mean they require comparatively less regulatory attention from safety and performance perspectives.

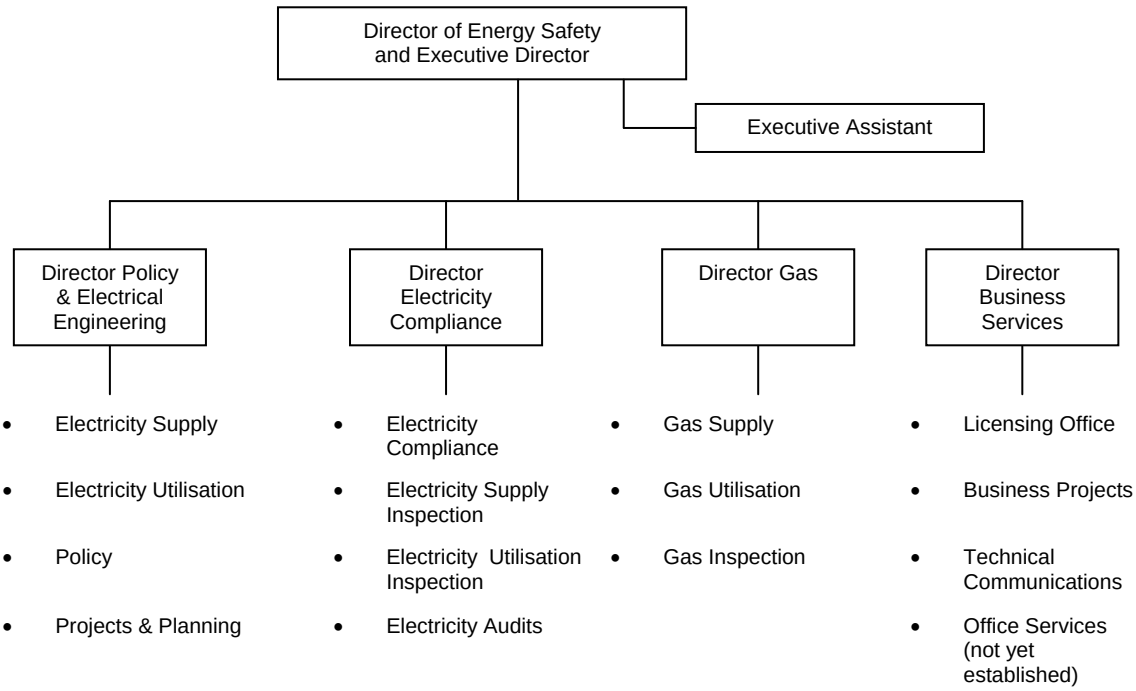
For electrical contracting and gasfitting, it is largely a case of continuing with current regulatory initiatives which appear to be efficient and effective.

New enforcement measures during 2007/08 (larger fines and the introduction of Infringement Notices) encouraged substantial improvement in electrical and gas industry compliance during the period, although there is a trend to challenge the higher infringement fines and take the matters to court. This increases costs for both Energy*Safety* and the defendant.

7.1 ENERGY*SAFETY* STRUCTURE, RESOURCES AND POWERS

7.1.1 Introduction

The Executive Director, Energy Safety Division ("Energy*Safety*"), heads the Division. The incumbent also holds the statutory office of Director of Energy Safety.



This structure was changed after gaining approval in the previous Business Plan. It reflects the rapid growth in the electricity sector and will take some years to fully implement. The structure will allow for the development and maintenance of critical technical expertise relevant to each industry sector. The Energy*Safety* Division is located at offices on the corner of Sevenoaks Street and Grose Avenue in the Perth suburb of Cannington.

7.1.2 Policy & Electrical Engineering Directorate

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

- All Energy*Safety* policy coordination, including ministerial advice, new legislation and regulatory reform proposals that cross directorate boundaries;
- All electricity-related technical and safety policy work, including ministerial advice, new legislation, regulatory reform proposals, technical standards development, industry liaison and assessment of requests for variations to regulatory requirements; and
- Coordinating major electrical projects and planning initiatives.

There are two engineering branches:

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

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

7.1.3 Electricity Compliance Directorate

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

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

The Directorate has three Branches, as follows:

- ❖ Electricity Supply Inspection
- ❖ Electricity Utilisation Inspection
- ❖ Electricity Compliance

These Branches deal with the following key activities:

- Conducting corporate compliance audits of electricity suppliers concerning network safety;
- Guiding and approving electricity supplier Inspection Plans, which set out electricity consumer installation inspection practices and commitments, and conducting audits to ensure compliance;
- Inspecting electricity consumers' installations in remote locations (not connected to networks);
- Conducting compliance audits of electrical equipment retailers for compliance with safety and energy efficiency (labelling and MEPS) requirements;

- Recommending to the Director of Energy Safety the appointments of all electrical inspectors in the State, monitoring their performance, maintaining codes of conduct, monitoring compliance;
- Carrying out investigations into serious accidents (fatalities, injury and damage) and recommending safety promotion, warnings, prosecutions or disciplinary actions as appropriate.
- Advising consumers and industry operatives about energy safety and compliance matters;
- Technical and investigative support to the Electrical Licensing Board and the Licensing Office;
- Monitoring safe work practices used in industry;
- Participating in industry safety promotion campaigns (e.g. regional presentations); and
- Assisting the Director with appeals against network operator inspector's rulings.

The Electricity Compliance Directorate is based at the Cannington Office, but also has senior electrical inspectors at Geraldton, Kalgoorlie and Bunbury. The NW and far north of the State are covered by a senior electrical inspector based in the Perth office, who conducts regular programmed inspections in these areas. The branch operates on a 24/7 basis to respond to electrical incidents (fires, injury, fatalities).

7.1.4 Gas Directorate

This Directorate is headed by the Director Gas and is responsible for –

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

The following two Branches:

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

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

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

- Conducting corporate compliance audits of gas suppliers concerning network safety and quality (composition) of NG and LPG supplied;
- Guiding and approving gas supplier Inspection Plans, which set out gas consumer installation inspection practices and commitments, and conducting audits to ensure compliance;

- Inspecting gas consumers' installations in remote locations (not serviced by networks), with special focus on industrial installations such as mine sites with industrial gas appliances;
- Conducting compliance audits of gas appliance retailers, and gas appliance re-conditioners, for compliance with safety requirements;
- Recommending to the Director of Energy Safety the appointments of all gas inspectors in the State, maintaining codes of conduct, monitoring compliance, especially in relation to the approval of industrial gas appliances;
- Carrying out investigations into serious accidents (injury and damage) and incidents, and recommending safety promotion, warnings, prosecutions, disciplinary actions etc, as appropriate;
- Advising consumers and industry operatives about energy safety and compliance matters;
- Technical and investigative support to the Gas Licensing Committee and the Licensing Office;
- Monitoring safe work practices used in industry;
- Participating in industry safety promotion campaigns (e.g. regional presentations); and
- Assisting the Director with appeals against external inspector's rulings and requests for variations from prescribed requirements.

The Gas Inspection Branch is based at the Cannington Office. Support is provided from senior electrical inspectors at country locations, where practicable.

The branch operates on a 24/7 basis to respond to gas incidents (fires, injury, fatalities and major gas supply interruptions).

7.1.4 Business Services Directorate

This Directorate is headed by the Director Business Services and, in brief, is responsible for the operation of the Licensing Office, the development and maintenance of electrical and gas licensing policies, support to the statutory Electrical Licensing Board and the Gas Licensing Committee, especially for dealing with disciplinary proceedings against licence holders, the operation of Energy*Safety*'s administrative and office systems, the provision of a wide range of business planning, business performance measurement, financial planning and management accounting functions, plus communication with industry.

The Directorate has three Branches, as follows:

- ❖ Licensing Office
- ❖ Business Projects
- ❖ Technical Communications

These Branches deal with the following key activities:

- the development and maintenance of licensing policies covering the licensing of electrical contractors, electricians, restricted electrical workers and the various types of gas fitters;
- administering the Licensing Office, which deals with all electrical and gas licensing enquiries, applications, renewals, and manages the licence holder databases and related applications;

- supporting the Electrical Licensing Board in the discharge of its statutory functions (including provision of its Executive Officer);
- supporting the Gas Licensing Committee in its discharge of the statutory functions delegated by the Director (the Director Business Services is chair);
- managing formal disciplinary proceedings against electrical operatives for the Electrical Licensing Board, and gasfitting operatives for the Director of Energy Safety. Serious proceedings are forwarded to the State Administrative Tribunal;
- administration of the Division's industry levy scheme, including data collection and modelling, licence revenue forecasting, expenditure budget development;
- internal audit, expenditure tracking and projection, performance indicator development and progress monitoring;
- overseeing the development of the annual Business Plan and maintenance of the Division's Operational Plan;
- overseeing and coordinating office services, including records management, FOI, IT services, building services, fleet management; finance and administration services (as provided by Corporate Services Division);
- statistical analysis and reporting in respect of electricity and gas-related incidents, and Energy*Safety*'s key performance indicators; and
- industry technical (regulatory) communication, annual reporting and safety promotion.

7.1.5 EnergySafety's staff resources

In 2006/07 Energy*Safety*'s establishment level was 56 FTEs.

The strategy adopted at the time was that staff would be appointed to that level in line with financial capacity and the availability of suitable personnel. This met limited success.

Since then the Government has approved an ARB (Attraction and Retention Benefit), although this has met with only modest success in the current tight skilled labour market

Some technical personnel have been engaged on a limited term basis or through panel contracts to augment existing permanent staff resources.

In 2011 the Government approved increasing the FTE level from 56 in 2010/11 to 64 by 2014/15. It is expected that this will occur with an additional 2 positions per annum. The approved FTE level for 2012/13 is 60.

7.2 ELECTRICAL AND GAS SAFETY OUTCOMES

7.2.1 General

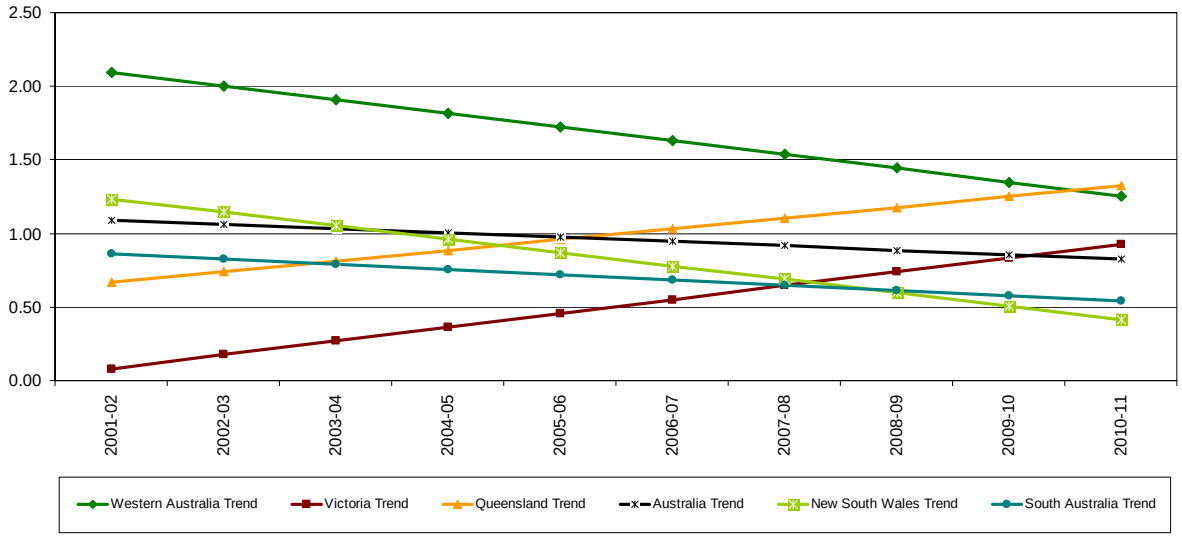
The electrical and gas safety outcomes for Western Australia (WA) have been summarised below, based on incidents reported by industry and the general public. The reported incidents are recorded in Energy*Safety's* inspection systems.

The comparative data has been obtained from regulatory authorities throughout Australian states and territories. Data for WA reflects the information available as of 25 August 2011.

7.2.2 Electrical Safety

Chart A shows the electrical fatalities per million of population results over the past ten years. The chart shows that although WA's fatality rate is above the national average the trend line is moving downward.

CHART A: ELECTRICAL FATALITIES PER MILLION POPULATION TREND



Note: The number of fatalities for Australia in 2010-11 overall does not include Northern Territory as this information was not available at the time of documenting this report.

It is likely that the legislated installation of RCDs in new homes and in additions/alterations has resulted in a declining trend in the number of fatalities. In October 2009, it was made mandatory that properties being sold or leased in Western Australia were fitted with RCDs.

Electrical Fatalities

In 2010/11 there were four electrical fatalities reported in Western Australia where electricity was found to be the cause. An RCD was not fitted in two of the cases.

The fatalities relate to:

- A 22 year old male receiving a fatal shock when a damaged power cord on an outlet board energised the wet floor of a caravan. The caravan was not earthed and all conductive surfaces became live.

- An 18 year old female returning home from a party and walking into a fallen public lighting switchwire. The conductor was live and the resulting injuries were fatal.

- A 78 year old male had installed a bare copper wire 100mm from the ground around the edge of a patio and yard at the rear of the house in order to stop his dogs from playing and digging up the grass. The copper wire was connected to the mains power with extension leads. The incident occurred when one of the dogs touched the wire and was electrocuted. While investigating the victim fell and came into contact with the fallen wire sustaining fatal injuries. No RCDs were fitted.

- A 46 year old male receiving a fatal shock while conducting repair work on a plaster ceiling. The victim came into contact with an exposed live conductor, a bare earthing conductor and an earthed copper water pipe. No RCDs were fitted.

CHART B: WA ELECTRICAL FATALITIES PER MILLION POPULATION (2001-02 to 2010-11)

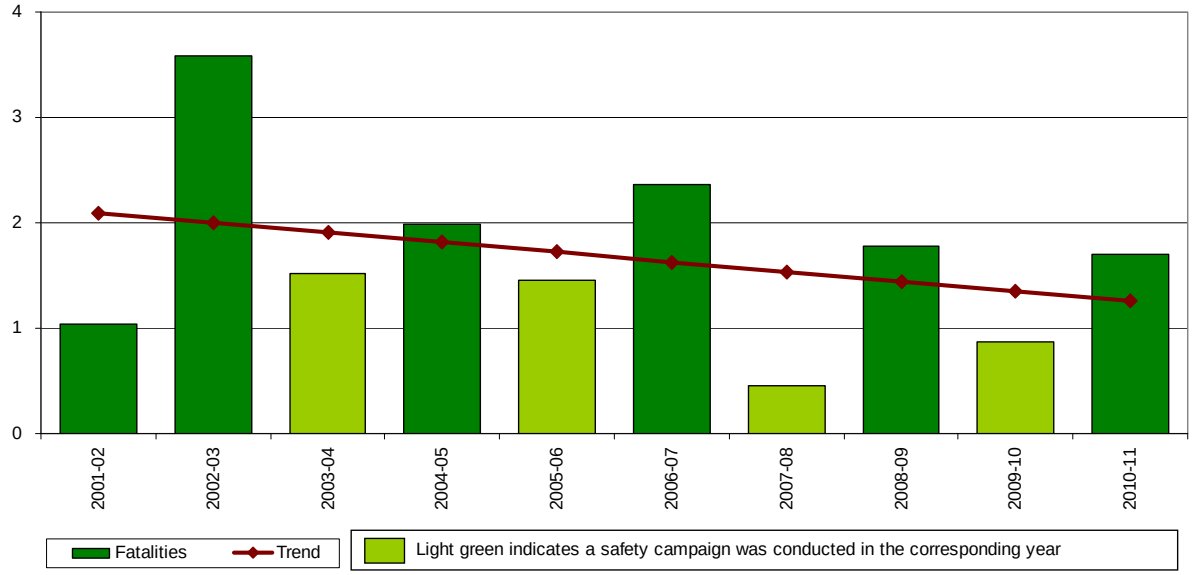


Chart B shows that Western Australia's trend in the number of fatalities continues to move steadily downward.

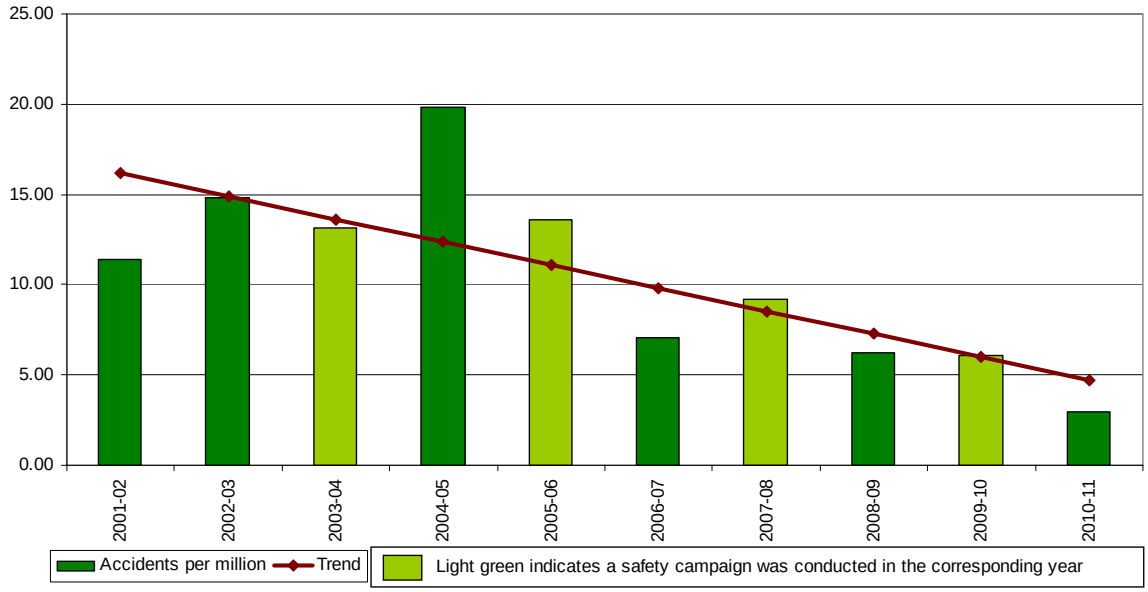
The chart also demonstrates that there is a correlation between media awareness campaigns and electrical safety. There is a corresponding reduction in the number of electrical fatalities in years when Energy*Safety* conducted a safety awareness campaign. This is evident by the results demonstrated in the years 2003-04, 2005-06, 2007-08 and 2009-10.

The 26 to 45 age group has been most affected by electrical fatalities. Over the reporting period, 30% of fatalities in a community setting involved people below the age of 18, 15% involved adult females and 55% adult males. Analysis of fatal incidents indicates that adult males are more likely to attempt their own electrical work. Regular safety awareness campaigns with targeted messages for specific demographic groups would be beneficial along with the message to install and test RCDs.

Serious Electrical Accidents – Non fatal

Chart C below demonstrates WA's serious non-fatal electrical accidents per million over the past ten years. The results clearly show that the trend is in a positive downward direction. Serious non-fatal accidents are accidents where victims require the assistance of health professionals but do not include accidents resulting in persons receiving a precautionary electrograph (ECG) assessment where treatment is not required.

CHART C: WA ELECTRICAL SERIOUS ELECTRICAL ACCIDENTS (NON-FATAL) PER MILLION POPULATION



During 2010-11 there were eight non-fatal serious electrical accidents reported compared to 13 in 2009-10. Analysis of serious electrical accidents indicates that 77 per cent of these occur in the workplace. Electrical workers were involved in 36 per cent of serious electrical accidents.

In the non-workplace environment, the family home remains the highest risk environment at 43 percent of total reported incidents in this category. When considering workplace and non-workplace accidents together, family homes account for 10 percent of the total number of accidents. Increasing the use of RCDs in family homes should help reduce this number.

During the ten year period the most significant decrease in electrical accidents occurred in 2010-11.

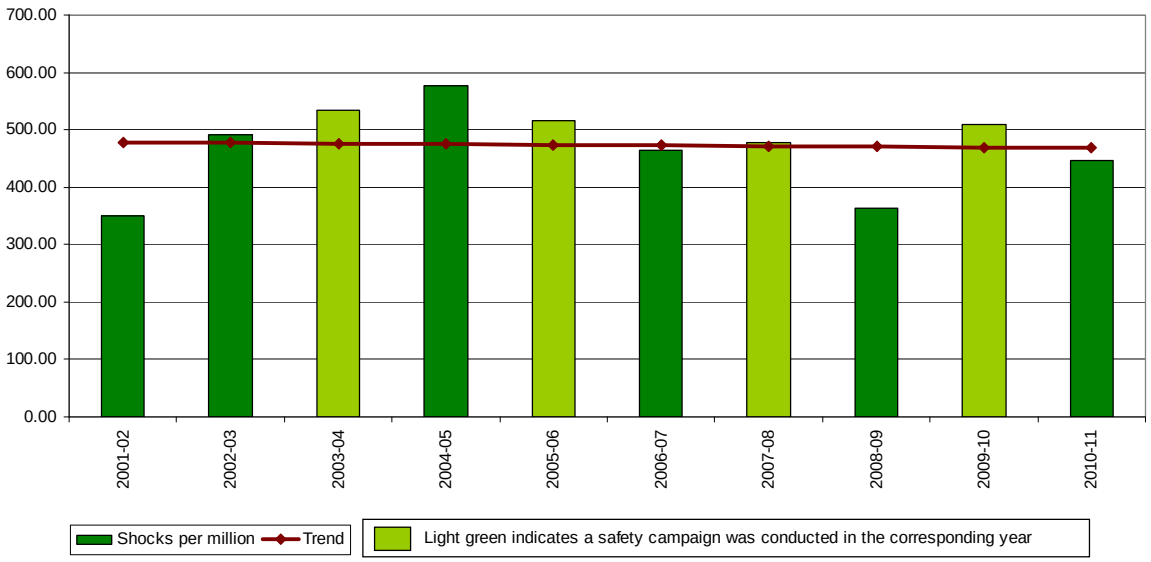
Electric Shocks

An electric shock is an indicator of community electrical safety and over the past few years has become a valuable source of information. This is because a shock incident reported can often identify potential safety hazards which need to be fixed and it has been a useful indicator for Energy*Safety* to recognise trends.

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

Chart D below demonstrates the number of electrical shocks per million over the past ten years. While the chart shows a steady level in the number of shocks reported it is positive in that industry and the public are more aware of the mandatory reporting requirements where previously some shocks had not been reported.

CHART D: WA ELECTRICAL SHOCKS PER MILLION POPULATION



During 2010-11 fiscal year there were 1053 electrical shocks reported compared with 1170 in 2009-10 which represents a ten per cent per cent decrease compared to the previous year.

Western Power's and Horizon Power's commitment to the replacement of their outdated aerial service cables appears to have affected electrical shock incident reporting. The general public and industry, through publications and advertisements, are more aware of the fundamental dangers of minor electric shocks and mandatory reporting requirements.

Chart D also highlights that there are higher reported shocks during those years when an advertising campaign has been conducted.

7.2.3 Gas Safety

There were no gas related fatalities in 2010-11. Chart E below identifies the number of fatal gas incidents per million in population. The graph shows that, despite a fatality in WA during 2009-10, the trend line has not been affected, is still moving in a downward direction and has been since 2002-03. This suggests that the Gas Directorate's proactive inspection program has been an effective communication tool in promoting awareness of gas safety to industry and the general public.

CHART E: WA GAS INCIDENTS RESULTING IN FATALITY PER MILLION POPULATION (2002-03 to 2010-11)

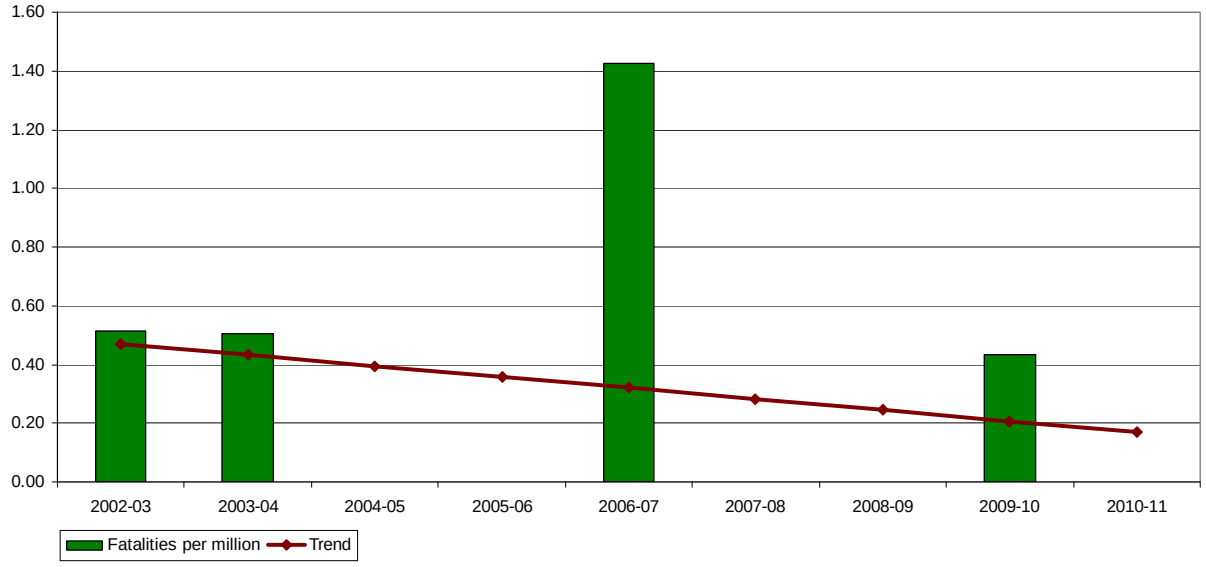
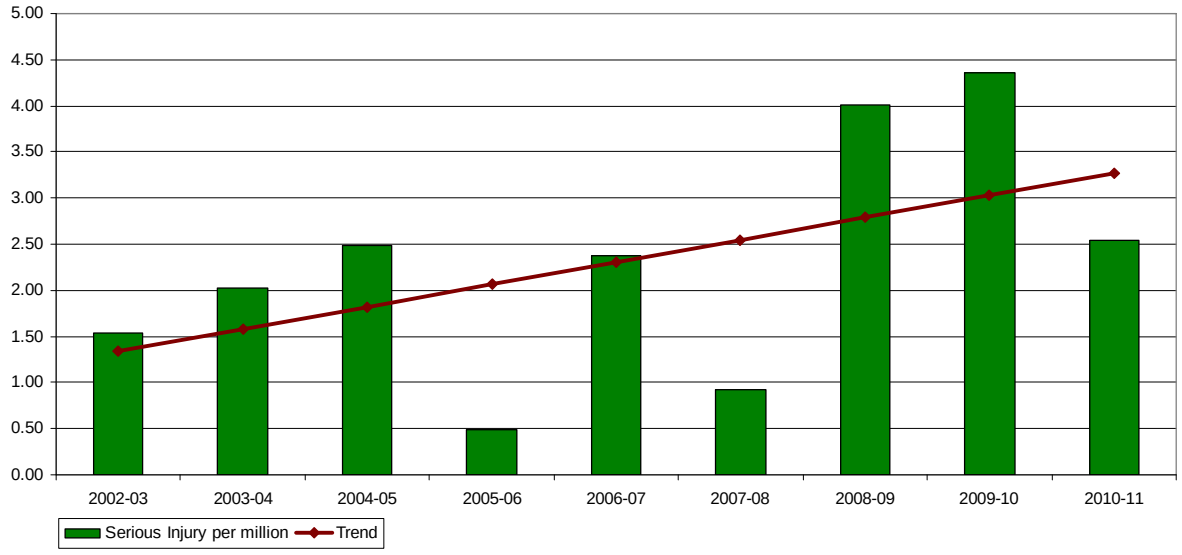


CHART F: WA GAS INCIDENTS RESULTING IN SERIOUS INJURY PER MILLION POPULATION (2002-03 to 2010-11)

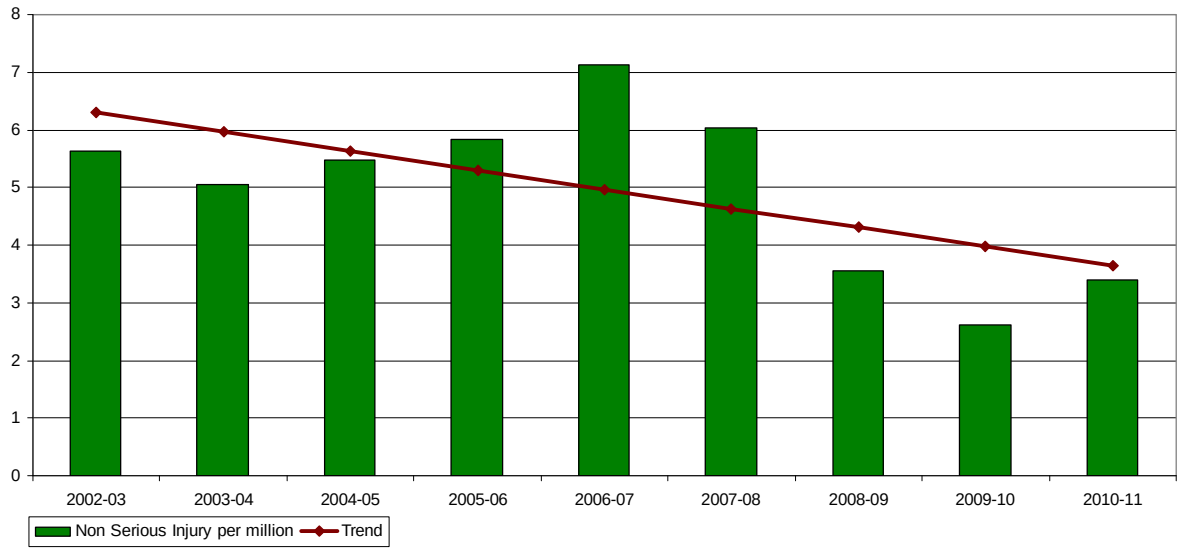


It is important to note that, gas incidents by their very nature can potentially harm several people in a single incident. The figures for gas related fatalities have shown a positive outcome. However, serious injuries have increased over the reporting period (Chart F).

An analysis of the incidents indicates that the most common cause of gas related serious injury is unskilled interference. Increasing awareness on the dangers of gas and utilising gas safely can help to educate the general population and bring about a decrease in the current trend.

Chart F above shows that during the nine year period the trend for the number of serious gas injuries has been rising. 2005-06 and 2007-08 had the lowest number of recorded incidents with serious injury and 2009-10 the highest.

CHART G: WA GAS INCIDENTS RESULTING IN NON SERIOUS INJURY PER MILLION POPULATION (2002-03 to 2010-11)



Incidents that do not result in a fatality and/or do not require the victim to be hospitalised have been categorised as those resulting in 'non-serious injury'. The trend shows a positive gradual decline during the nine year period with 2006-07 and 2007-08 having the highest occurrence of serious accidents and 2009-10 the lowest.

7.2.4 Electrical & Gas Worker Safety

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

A comparison between charts H and I below indicates that, despite their skills which provide them with the knowledge of working with electricity, most of the incidents involving electricians result from performing tasks on live equipment.

The positive aspect of both graphs H and I is that the trends are moving in the right direction which suggest that the efforts by Energy*Safety* warning workers of the dangers of performing live work are effective.

CHART H : FATALITIES AND SERIOUS ACCIDENTS INVOLVING QUALIFIED ELECTRICIANS IN WA (2001-02 TO 2010-11)

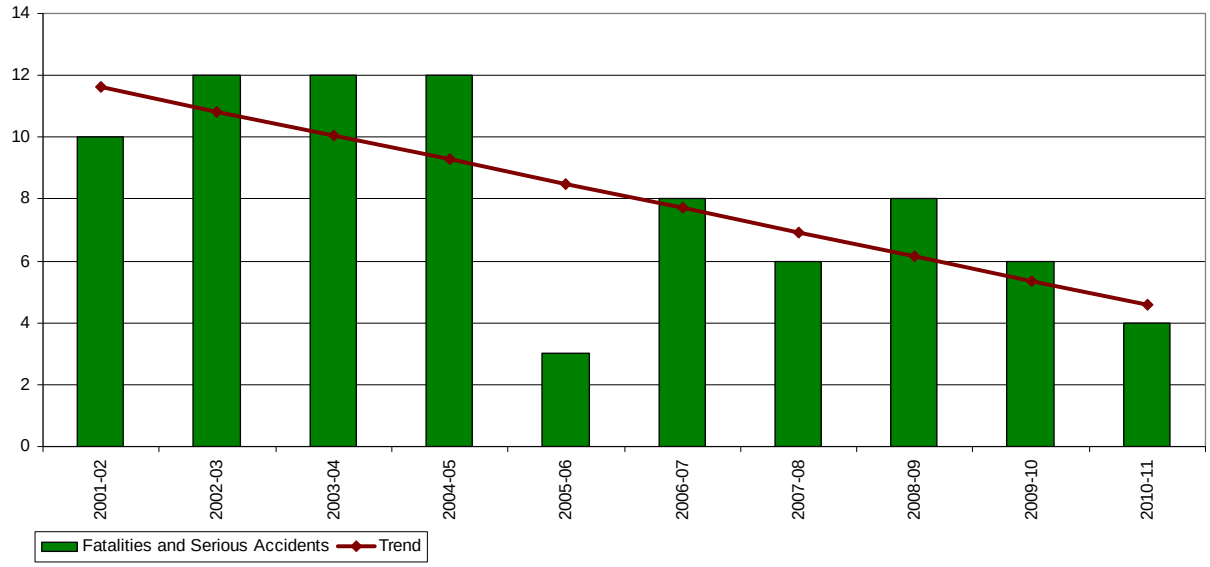
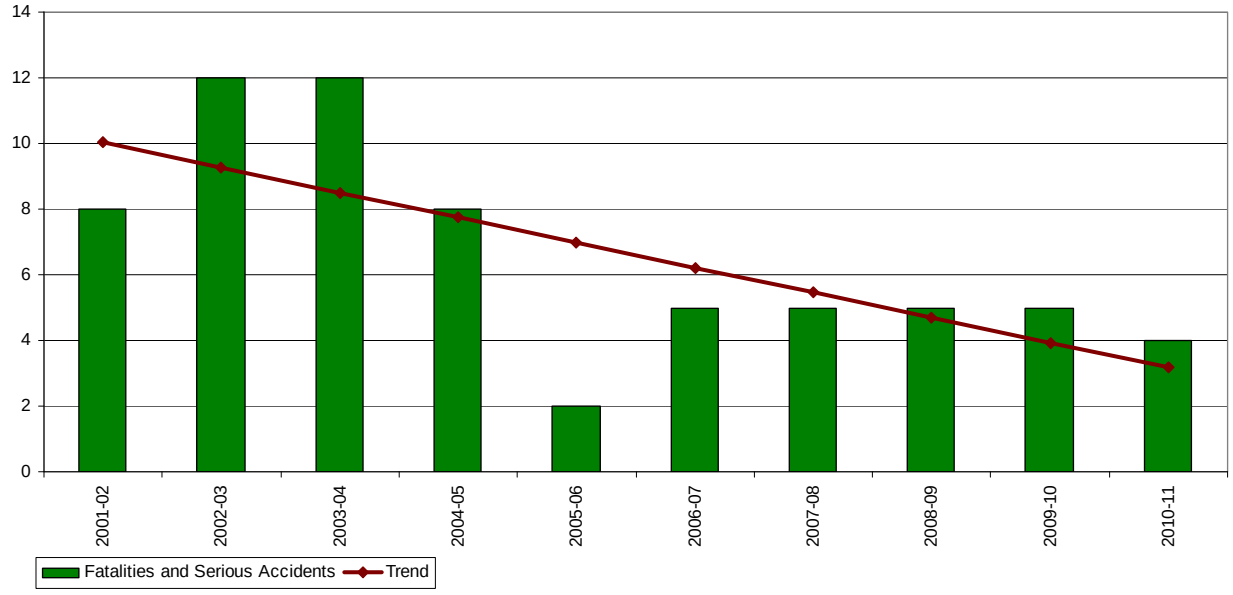


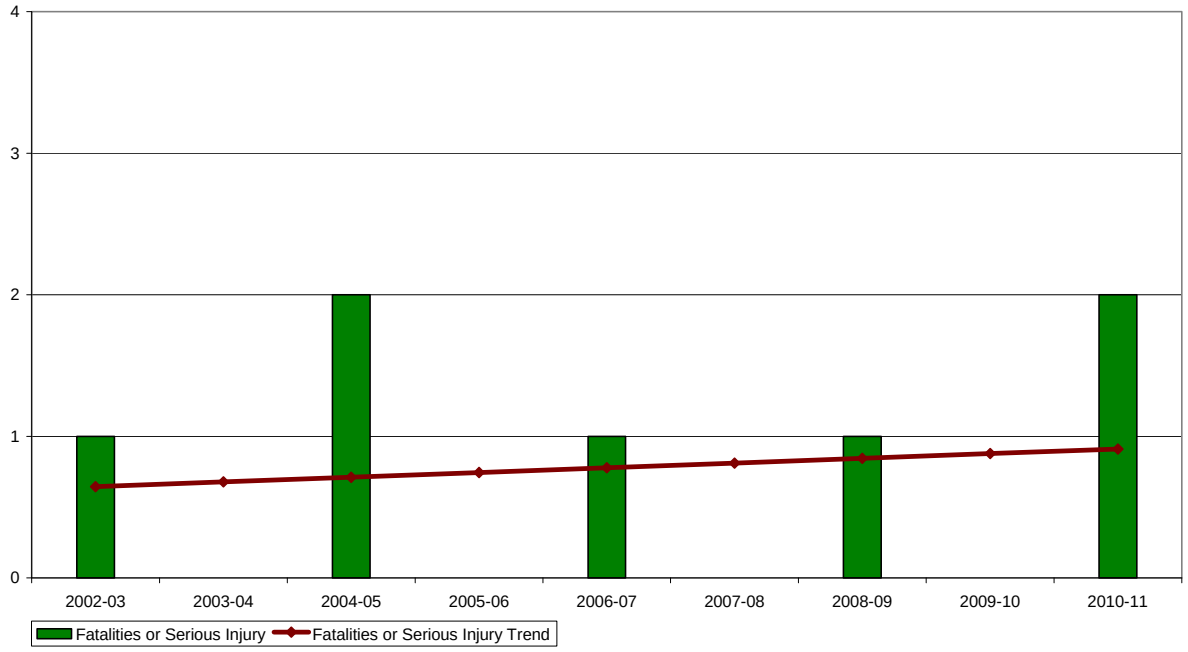
CHART I : FATALITIES AND SERIOUS ACCIDENTS RESULTING FROM 'LIVE' WORK BY QUALIFIED ELECTRICIANS (2001-02 TO 2010-11)



During the nine year period there were no gas related fatalities involving gas workers. The results shown in Chart J below relate only to gas incidents that caused serious injury and involved hospitalisation. The number of serious injuries involving gas workers is lower compared with electricians.

Although the trend shows a slight increase, overall the workplace practices and procedures for gas workers have been rigorous and effective in ensuring safety of workers.

CHART J : WA GAS INCIDENTS RESULTING IN FATALITY OR SERIOUS INJURY INVOLVING GAS WORKERS



Note: The data included in Chart J reflects historical information assembled by EnergySafety.

7.2.5 Concluding Remarks

A statistical analysis of electricity and gas safety data indicates improving trends. Advertising campaigns have a correlation with safety outcomes. This substantiates the hypothesis that advertising campaigns help to increase awareness about safety in the wider community.

Based on statistical trends highlighted in this report, it is very likely that future projects focussed on increasing awareness of electrical and gas safety through education would be of benefit to the people of Western Australia.

7.3 MEASURES TO IMPROVE SAFETY OUTCOMES

7.3.1 General

Human error on the part of the person affected, such as:

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

rather than the failure or incorrect installation of electrical or gas equipment causes many safety incidents. But the frequency of such incidents can also be reduced by improving technology, safety devices and compliance with prescribed installation and work practices standards.

Aside from the use of specific requirements or controls on industry workers, other measures to improve safety outcomes (for both the worker and the end user) include greater Inspector visibility.

A survey conducted by Donovan NFO in 2001 for WorkSafe WA supported the need to increase the visibility of Inspectors in the workplace to motivate businesses to focus on occupational safety and health.

This observation equally applies to energy safety regulation. Such a proactive approach, however, places competing demands on Inspectors' available time.

7.3.2 Installation compliance inspections

Energy*Safety* oversees and manages an electrical and gas consumer installation safety inspection regime. This regime engages some 170 (100 full-time equivalent) Inspectors across WA, employed by the various electricity and gas network operators, LPG suppliers or pipeline licensees, or operating on a fee-for-service basis for these entities. They inspect the work of licensed operatives at consumer's electrical and gas installations of all types (commercial, institutional, industrial and residential) either on an individual basis or, if the network operator (or LPG supplier) has an approved inspection system plan, on a sample basis.

This work continues as a key part of the enforcement regime. Comparisons with the installation inspection regimes of other jurisdictions have shown the WA system delivers very good results. These will be improved further through the new enforcement powers now available, including Infringement Notices.

7.3.3 Retro-fitting of RCDs

RCDs (Residual Current Devices) save individuals from serious shock or electrocution in about 90% of cases in homes or small businesses. They also have extensive application in industrial plants and premises, albeit in different forms to suit the equipment and work environment.

One of the most common forms of serious electrical accident in residential premises is through persons entering the building's roof space to carry out some type of work, then making contact with exposed live parts (due to wiring damage or insulation deterioration) while simultaneously touching some earthed metalwork (e.g. a copper pipe). If the wiring installation has RCD protection, such contact will not cause a serious shock or electrocution.

Unfortunately, the promotional work carried out by Energy*Safety* during the 1990s did not result in significant voluntary retrofitting of RCDs by householders in pre-1991 homes (since then RCDs have been mandatory in new homes when constructed).

The Government has therefore approved the retro-fitting of RCDs as a mandatory requirement on the vendors of residential premises at the time of sale and the landlords of residential premises. Similar initiatives are being pursued or have already been undertaken by regulators in other jurisdictions. This is the most acceptable way of ensuring that the purchasers of a home can be confident the electrical installation is safe, while requiring only a minor outlay for the vendor. The measure should achieve a significant penetration of RCD protection over a 15 year period. The regulations came into operation on 9 August 2009.

During 2009, 2010 and 2011 there were numerous enquiries and issues raised concerning the new regulations, especially near August 2011 when the two year lead-in time for rental properties ended and it became mandatory for all rental properties to have two RCDs

installed. This required many technical interpretations and some minor regulatory changes that increased the workload of the Electricity Directorate.

RCDs are the single best initiative to reduce serious electrical incidents. The Minister approved a major advertising campaign to begin January 2011 to encourage people to install RCDs in all homes. The analysis of the campaign showed that it has been well received by the target audience and that electrical contractors had seen an increase in enquiries and installations of RCDs. However, the analysis also showed that more work is required to increase the awareness and knowledge of RCDs. Energy*Safety* will continue to advertise the importance of RCDs, and the need to test them regularly, in future campaigns.

7.3.4 Electrical and gas safety promotion

Energy*Safety* aims to be proactive in reminding the community of the hazards associated with unsafe electrical and gas installations and appliances through regular safety promotion activities.

Experience here and elsewhere shows campaigns should be aimed at both the public and energy workers in industry, to improve safety awareness concerning electricity and gas use, infrastructure, and the hazards of working with energy. Campaigns need to continue, as the message requires constant reinforcement to be effective.

Public safety and similar campaigns aimed at the general community rely on media advertising. Surveys have shown that TV advertising is most effective compared with other media. Energy*Safety*'s 2008 and 2011 campaigns for example had good awareness recall by the public.

However, TV advertising is expensive and requires substantial planning and funding to be effective. For this reason, TV campaigns have historically been planned to run approximately every two years to limit costs.

In the future, Energy*Safety* will look to annual campaigns to help improve public awareness and to reduce electrical incidents to levels comparable with other states.

7.4 ENERGY EFFICIENCY REGULATION OF APPLIANCES AND EQUIPMENT

Much electrical equipment used in residential premises and industry is subject to energy efficiency requirements, including labelling and minimum energy performance standards (MEPS). Gas appliances and equipment are planned to become subject to energy efficiency requirements during 2011/12. The form of the legislation is yet to be determined but is expected to be similar to the approach used for electrical equipment and appliances.

Energy*Safety* will continue to participate in the Equipment Energy Efficiency Committee which operates under the Ministerial Council for Energy and is chaired by the Australian Greenhouse Office. This will ensure that Energy*Safety* remains up to date about the directions and latest steps of Australia’s energy efficiency program (a key component of national efforts to minimise greenhouse gas emissions).

Energy*Safety* is a participant in the national check testing program for products and equipment subject to energy efficiency regulation. This role will be reviewed as national regulation is introduced in this area.

FINANCIAL PLAN

8.0 INTRODUCTION

The following Financial Plan presents forecasts for Energy*Safety*'s revenue and expenditure budget components (both capital and operating) over the 2012/13 year and beyond.

8.1 FINANCIAL PLAN, NOTES AND EXPLANATIONS

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

(1) estimated revenue from electrical and gas licence fees and other minor revenue-generating activities;

(2) planned operating and capital expenditure; and

(3) the energy industry levy required to make up the shortfall between (1) and (2).

Estimates are provided for the next financial year 2012/13, and the subsequent four years. Projections for the out-years are less accurate and subject to review prior to each year.

As the bank balance has been increasing over the past few years for reasons listed below, the Financial Plan includes cost estimates that do not require a levy increase for 2012/13.

OPENING CASH BALANCE

A bank balance of $12.472m is anticipated at the end of 2011/12. This is due to:

- underestimates of revenues (the effect of the WA boom was underestimated and the effect of the Global Financial Crisis was overestimated),
- the underspend of the budget (mainly due to the inability to recruit required staff resulting in continuing vacancies and the subsequent inability to complete projects),
- deferral of advertising; and
- the delay in implementing the Compliance Management System (CMS)
- delayed implementation of the National Licensing System

It is proposed to use this as a source of funds over the next five years and to reduce the closing balance at the end of each year.

SOURCE OF FUNDS

a) Licensing revenue: is derived from electrical worker, electrical contractor, and gas fitter licence fees. The total revenue per year varies on 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. Licence fees may only be set to reflect the cost of administering a licensing system. Most fees are within 5-10% of full cost, with regular steps taken to reflect full cost recovery. All fees are expected to be at full cost recovery within five years. The National Occupational Licensing System (NOLS) is expected to deliver increased costs to Energy*Safety* through the need to fund the National Occupational Licensing Authority (NOLA) and reduced revenue through the recognition of inter-jurisdictional licences. The effect of these issues is yet to be determined, so has not been included in this financial forecast.

(Notes continued after Table on next page)

$ Million (2011/12 Dollars)

	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17
Opening Cash Balance		***12.472**	**7.596**	**5.861**	**3.298**	**1.851**
1. Source of funds						
a) Licensing revenue	5.647	5.619	5.684	5.386	6.251	6.101
b) Other minor revenue	0.130	0.100	0.075	0.050	0.050	0.050
c) Indian Ocean Territories	0.058	0.074	0.074	0.074	0.074	0.074
d) Industry levy (net)	6.444	6.444	6.444	6.444	6.444	6.444
Total Budget Revenue	**12.279**	**12.237**	**12.277**	**11.954**	**12.819**	**12.669**
2. Expenditure						
2.1 Special items						
a) National regulatory reform	0.150					
b) Major safety campaigns		0.350		0.250		0.250
c) Audits of electricity networks	0.250	0.216	0.050			
Total Budget Special Items	**0.400**	**0.566**	**0.050**	**0.250**		**0.250**
2.2 Recurrent items						
a) Corporate Services	1.440	1.480	1.480	1.480	1.480	1.480
b) Legal services	0.150	0.100	0.100	0.100	0.100	0.100
c) Labour costs **	7.381	9.270	9.573	9.877	9.877	9.880
d) Other recurrent **	3.320	2.700	2.770	2.770	2.770	2.770
Total Budget Recurrent	**12.291**	**13.550**	**13.923**	**14.227**	**14.227**	**14.230**
2.3 Capital Expenditure						
a) Desktop IT	0.095	0.040	0.040	0.040	0.040	0.040
b) IS Software replacements	1.500	2.100				
c) IS Project Support		0.600				
d) Office restructure	0.057	0.057				
e) Customer Focused Service		0.200				
Total Budget Capital	**1.652**	**2.997**	**0.040**	**0.040**	**0.040**	**0.040**
Total Budget Expenditure	**14.343**	**17.113**	**14.013**	**14.517**	**14.267**	**14.520**
Revenue Less Expenditure		**-4.876**	**-1.736**	**-2.563**	**-1.448**	**-1.851**
Closing Cash Balance	***12.472**	**7.596**	**5.861**	**3.298**	**1.851**	**0.000**

***** Estimated Actual

** Reduced to reflect historical patterns of expenditure and to maintain the levy at $6.444m

b) Other minor income: covers the sale of publications to industry.

c) Indian Ocean Territories (IOT): Commerce has a service agreement with the Commonwealth's Department of Regional Australia (DORA) to provide regulatory services to the IOT as it does on the WA mainland, but at full cost to DORA. Energy*Safety* is providing electricity and gas regulatory services under this agreement and the expected reimbursement is shown.

d) Industry levy (net): this is the energy industry levy that would be necessary to make up the difference between the total expenditure and the sum of the revenues of (a), (b) and (c) above for all of the five years of the forecast, divided by five to give a consistent annual figure. This averaging mechanism reduces year-to-year fluctuations and is carried out on a yearly, rolling basis. The result is the amount of the levy needed to make Energy*Safety* fully funded and is comparable with the amounts applied in other jurisdictions, for similar purposes. Due to Energy*Safety*'s increasing cash at bank, the levy has been retained at the previous year's level.

SPECIAL EXPENDITURE ITEMS

a) National Regulatory Reform: The Commonwealth Government has instigated via COAG the following national, major regulatory reform projects relevant to Energy*Safety*:

i. Occupational licensing
ii. Energy supply industry safety harmonisation
iii. National Construction Code
iv. National Work Health and Safety Act

The final outcomes are expected to affect materially Energy*Safety's* role, administrative functions, structure and funding.

During 2012/13 Energy*Safety* will continue its commitment to these projects (which was previously provided under Item 2.1(a)) through recurrent funding.

b) Major safety campaigns: These are for both electricity and gas and it is proposed to have a campaign every year as shown. Industry presentations and safety material (e.g. safe work practices videos) are covered under Recurrent Expenditure. Special funding is therefore allowed in Item 2.1(b).

c) Audits of electricity networks: Electricity transmission and distribution safety compliance audits will be conducted, mainly on the network operators working in the Pilbara and remote locations. Western Power is already being audited in various areas but additional issues may arise. Technical labour resources are expected to be available through a newly established multi-year consultant panel contract. Special funding is therefore provided for this work under Item 2.1(c).

RECURRENT EXPENDITURE

a) Corporate Services: Energy*Safety* requires central departmental corporate services (covering finance, HR and IT/IS) to be provided by Commerce and the Office of Shared Services. The amounts shown are the estimated costs.

b) Legal Services: are provided by the State Solicitor's Office and charged to Energy*Safety* on an as-used basis.

c) Labour costs include all expenditure associated with permanent, contract and temporary employees, known salary increases under awards and direct on-costs such as leave entitlements, employee entitlements and superannuation. This includes the costs for the restructure and the Attraction and Retention Initiative. The estimates have been reduced to reflect historical spend patterns and to maintain the levy at its existing level.

d) Other recurrent expenditure: includes all rent and related outgoings associated with Energy*Safety*'s Cannington offices and a minor Inspector's Store nearby for operational equipment, plus other costs such as energy and communications services charges, various consumables and services necessary for operating an office, travel, training, printing, vehicles, technical services, recruitment services and FBT. The estimates have been reduced to reflect historical spend patterns and to maintain the levy at its existing level.

CAPITAL EXPENDITURE

a) Desktop IT: covers only the routine replacement of desktop PCs, local printers and related equipment. All general Commerce IT network infrastructure costs and software user licence costs are covered by the Corporate Services charge to Energy*Safety*.

b) & c) Information Systems (IS) Software Replacement: Energy*Safety*'s current corporate IS are –

- ❖ the Electrical Inspection System (EIS) which supports the operational work of the Electrical Inspection Branch and records vital data;
- ❖ the Gas Inspection System (GIS) which supports the operational work of the Gas Inspection Branch and records vital data;
- ❖ the Electrical Licensing Application (ELA) that handles all electrical worker / contractor licensing transactions and records; and
- ❖ the Gas Licensing Application (GLA) that handles all gas fitter licensing transactions and records.

These systems are in the process of being replaced.

- ➢ The ELA and GLA systems were replaced during late 2010.
- ➢ The EIS and GIS systems should be replaced in 2012/13 with the new CMS. The item at b) reflects the anticipated capital costs of the CMS system and the item at c) shows the expected internal IS project support costs

d) Office restructure: covers the office, furniture and tool costs associated with the eight new positions required in the Energy*Safety* restructure.

e) Customer Focussed Service: covers improvements to licensing services such as introducing on-line forms or expanding to use Australia Post agencies.

CLOSING CASH BALANCE

Averaging the Industry Levy to be consistent over the forecast five year period necessarily provides excess income in some of the five years of the forecast period, which is carried forward. Similarly, in some years the income from the levy and other revenue may be insufficient to cover all expenditure. In such cases a temporary credit facility (from the Department of Treasury & Finance) could be required. This is not the preferred strategy as it

could put additional pressure on the Consolidated Fund. It has not occurred in this five year forecast

8.2 INDUSTRY LEVY QUANTUM

The initial financial forecast showed that the 2012/13 levy would need to increase above the 2011/12 quantum. However, as Energy*Safety* has had an increasing bank balance over the past few years, due to the increase in revenues above budget and underspend of costs below budget, it is proposed that the levy be capped at the 2011/12 level of $6.444m in this Business Plan.

The levy continues to allow for the significant restructure of Energy*Safety*, the CMS project and the increased costs for the provision of Corporate and Shared Services.

The manner in which the levy of $6.444m is to be applied across various industry participants is outlined in Section 9.

INDUSTRY LEVY STATEMENT

9.0 INTRODUCTION

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. A similar contribution scheme levied on the gas and electrical industries operates in Victoria and Queensland.

For 2012/13, the proposed Industry Levy, in accordance with the *Energy Safety Act 2006* section 6 (1) (c) and the related *Energy Safety Levy Act 2006,* will be $6.444m. This legislation allows the responsible Minister to determine the levy for the financial year, for notice of this amount to be published in the Gazette and for Energy*Safety* to issue notices of assessment accordingly. In accordance with the legislation, all revenue raised from the Levy will be used solely for energy safety-related activities.

The proposed $6.444m levy compares favourably with the levy raised in other states, although it is difficult to make detailed comparisons as the various regulators offices have considerable variation in the scope of their work and in their types of income (e.g. through electrical equipment approvals).

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

9.1 APPORTIONMENT OF LEVY BETWEEN ENERGY SECTORS

The proposed 2012/13 Industry Levy of $6.444m will be apportioned as 67% to the Electrical Industry and 33% to the Gas Industry in accordance with Section 6(2) of the Act.

The total Levy contribution received from participants in the Electrical Industry will therefore be $4.317m.

The corresponding figure for the Gas Industry will be $2.127m.

9.2 MODEL FOR ALLOCATION OF LEVY WITHIN EACH ENERGY SECTOR

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

a) Levy allocation across the gas sector to be based on the number of gas consumer sites supplied by each gas distribution system licence holder and LPG distributors supplying LPG 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 2011 the Director of Energy Safety wrote to all participants in both energy sectors requiring them to confirm, in accordance with regulation 4(5) of the *Energy Safety Regulations 2006*, the number of LPG and consumer sites connected. Responses were received from all participants.

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

A similar survey will be carried out prior to 2012/13 to determine the levy contributions for each supplier in that fiscal year.

9.3 ADMINISTRATION OF THE LEVY SCHEME

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

Although the total levy amount falls due for payment at the beginning of each financial year, as in the initial year 2006/07, it is proposed to invoice industry participants at quarterly intervals.

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 time due for payment of that instalment then the whole of the annual levy unpaid becomes due and payable immediately. There will be no reductions in liability for departures from the industry during the year, or back accounts for arrivals into the industry during the year.

APPENDIX 'A'

A brief outline of 2010/11 year outcomes for information purposes only

The following are highlights of the work during 2010/11:

OPERATIONAL WORK INCLUDING COMPLIANCE ENFORCEMENT ACTIVITIES

Residual current device (RCD) campaign

The RCD campaign was launched by the Minister for Commerce, Hon Simon O'Brien MLC, on 17 January 2011. The campaign, organised by Energy*Safety*, comprised television, press, online and radio advertisements. The campaign objective was to encourage home-owners of properties built prior to 2000 to have two RCDs fitted to their premises. Results of the survey to gauge the effectiveness of the campaign were encouraging, with 79 per cent of 560 homeowners interviewed agreeing that the campaign would make them want to install RCDs.

Gas Appliance Rectification Programme

The Gas Appliance Rectification Programme will rectify or replace pre-1980 domestic natural gas appliances so they can use gas of lower heating value. This supports the Western Australian Government's plan to promote a broader specification gas into the market and allow for more competition in the supply of natural gas. A broader gas specification will have safety ramifications for some pre-1980 domestic natural gas appliances still operational in homes around the State. The first stage of the programme involved calls from the public and the provision of investigative services. This was substantially completed, with only a small number of consumers remaining to register their pre-1980 gas appliances. The tender for stage two, which is the supply of, installation, disposal and/or service of domestic gas appliances was awarded to Alinta Assist. Almost 12,000 appliances were identified in the initial stage for replacement and a further 6,000 for servicing. The work on changing appliances commenced in May 2011 and is expected to continue through to December 2012. The timetable for changing appliances is undertaken according to post codes and has been published on the Energy*Safety* internet site.

Electricity and gas licensing national regulatory reform

COAG has chosen electrical and gasfitting licences for the first group under a national occupational licensing system (NOLS). Existing regulators' licensing offices (including Energy*Safety*) will operate the national licensing system on a delegated basis.

Legislation has been passed in Victoria and adopted by other States and Territories. The Western Australian Legislative Council Standing Committee on Uniform Legislation and Statutes Review identified problems with this legislation. This has resulted in the National NOLS Taskforce coordinating a Bill to amend the model Victorian legislation and including a number of areas previously intended to be dealt with in regulations.

The Taskforce proposes that this draft amendment Bill, the draft regulations and the Regulatory Impact Statement for each occupational area will be released for public comment

in early 2012. The public will have six to eight weeks to make comments on the proposals. The draft Regulations and the Regulation Impact Statements will be made available on the Energy*Safety* section of the department's internet site. The Taskforce will be organising public information sessions in February 2012 to coincide with the consultation period for the draft amendment Bill and regulations.

Electricity distribution systems

Following its comprehensive audit in 2008, Energy*Safety* continued its focus throughout 2010-11 on improving the safety of wooden electricity distribution poles in the Western Power and Horizon Power systems. Energy*Safety* is working with both organisations on programs to improve the accuracy and relevance of pole inspection and testing methods aimed at producing data needed for effective and safe management of these critical community assets. At the close of the financial year, Horizon Power was nearing completion of a comprehensive test program to evaluate alternative testing and inspection approaches. Western Power had embarked on a major pole testing program to impose test forces on poles to measure their actual residual strength. Results are expected late 2011. Energy*Safety* has been closely involved with both the program planning and execution of the trials.

Gas Industry Trade Expo

On 16 March 2011, to coincide with the release of AS/NZS 5601: Gas installations, Energy*Safety* held the first Gas Industry Trade Expo in Western Australia to showcase the downstream side of the gas industry. The Expo was a great success with 49 industry exhibitors and more than 800 visitors attending. The Expo provided an opportunity for gas fitters and plumbers to see the latest advancements in technology and meet gas suppliers, retailers, training providers and regulators in one location. It proved to be an ideal opportunity for industry and Energy*Safety* to work together and promote safety and training.

Appliance safety national regulatory reform

During the year, Energy*Safety* contributed to the Electrical Regulatory Advisory Council's new Australia wide approval and certification scheme for electrical appliances and equipment. This is due to be in place by mid 2012.

Electricity supply safety national regulatory reform

The Ministerial Council for Energy is working towards an enhanced safety framework for the energy supply industry. The primary aim of work is to ensure improved public and industry safety through regulatory and non-regulatory mechanisms. The Ministerial Council agreed to the development of an Intergovernmental Agreement for the jurisdictions to adopt a common Energy Network Safety Scheme and to establish an Energy Supply Industry Safety Committee to oversee the ongoing project and to provide advice to the Ministerial Council. Energy*Safety* is representing the State on the Energy Supply Industry Safety Committee (ESISC) and will determine the effects on the current integrated approach to energy industry regulation. ESISC is developing a new standard for safety cases applicable to the electrical power industry, improving the mobility of the energy supply industry workforce and reviewing operational safety practices across jurisdictions. The result will harmonise electricity supply safety management throughout Australia.

Bushfire investigations

Energy*Safety* carried out major investigations into significant wild fires allegedly caused by Western Power's electricity distribution system. At the Government's direction, Energy*Safety*, the Fire and Emergency Services Authority of Western Australia, Western Australia Police and Western Power were developing jointly a protocol to guide coordinated investigations of bushfires suspected to have been ignited by electricity.

New Licensing System

A new Complaints and Licensing System (CALS) was commissioned in October 2010 replacing aging legacy systems. CALS can be expected to improve the efficiency of licensing work during 2011/12. The new system will also be used to raise and monitor infringement notices and is expected to streamline the current process.

Compliance Management System

During 2010 the Department of Commerce reviewed its approach to developing a Compliance Management System (CMS). Due to the significant differences in compliance legislation and processes between agencies, it was agreed to develop an individual solution for Energy*Safety*. Energy*Safety* processes (including inspection processes) have been mapped to ensure consistency between directorates and to ensure efficient processes. Requests for information have been sought from vendors, in order to develop a recommendation on the preferred way forward. A tender was advertised in November 2011, closing in December 2011. The new computer system (and processes) are expected to be progressively delivered by end 2012/13.

Energy Acts Amendments

The proposed *Energy Acts Amendment Bill* is seeking to amend selected Acts and parts of Acts, for which EnergySafety has responsibility, to remove any inconsistencies between them and the suite of legislation associated with the *Electricity Industry Act 2004*. The Bill will also provide for:

- The national requirements for the energy efficiency and labelling of gas appliances;
- The rationalisation of statutory responsibilities for the control of vegetation near power lines;
- Expiry dates for certificates of competency for gasfitting;
- Removal of duplication between and overlap between existing legislative provisions;
- Updating the systems for approval of electrical appliance to match national initiatives;
- Amending the period within which proceedings may be commenced for gas and electricity offences in accordance with the Coroner's recommendations; and
- Enabling proper investigation and the sharing of information between investigating agencies responsible for bushfires.

Demand for Licensing Services

The Licensing Office at EnergySafety continued to receive a high volume of electrical and gas licence applications. The applications have been processed in a consistent and timely manner with the available resources.

Electrical Licensing

As at 30 June 2011, there were **35,261** electrical workers, **4,325** electrical contractors and **251** in-house licence holders registered.

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

Members of the Electrical Licensing Board as at 30 June 2011 were:

Mr K McGill – Chairman

Mr J Murie – representing the interests of electrical workers

Mr P Beveridge – representing the interests of electrical contractors

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

Mr G Bryant – representing the interests of large businesses, who are consumers of electrical services

Mr P Mittonette – representing the interests of small businesses, who are consumers of electrical services

Mr S Abdoolakhan – nominated by the Director of Energy Safety

Ms L McGuigan – a residential consumer of electrical services

The Electrical Licensing Board met 22 times during the year.

Gas Licensing

As at 30 June 2011, there were **7,533** persons registered for gasfitting work. It should be noted that Certificate of Competency holders are not included in this figure.

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

The Gas Licensing Committee met 21 times during the year.

Prosecutions

The following tables provide summaries of prosecutions finalised during 2010-11. Prosecutions follow investigations by inspectors and review and authorisation by senior management of Energy*Safety*. The investigations are often initiated by inspectors of the electricity and gas distributors, as part of their consumer electrical or gas installation inspection work.

Summary of prosecution actions for breaches of electricity related legislation

Summary of prosecution action for breaches of electricity related legislation 1 July 2010 – 30 June 2011				
Legislation	***Breach***	***Number of Offences***	***Fines $***	***Court Costs $***
Electricity (Licensing) Regulations 1991	*Regulation 50(A)*	*1*	*2,000.00*	*649.70*
Electricity (Licensing) Regulations 1991	*Regulation 62*	*1*		
Electricity (Licensing) Regulations 1991	*Regulation 52(3)*	*8*	*20,574.00*	*1,674.10*
Electricity (Licensing) Regulations 1991	*Regulation 53(2)*	*3*	*3,600.00*	*575.00*
Electricity (Licensing) Regulations 1991	*Regulation 63*	*1*	*4,000.00*	*649.70*
Electricity (Licensing) Regulations 1991	*Regulation 49(1)*	*10*	*30,000.00*	*4,948.00*
Electricity (Licensing) Regulations 1991	*Regulation 19(1)*	*2*	*4,500.00*	*1,325.70*
Electricity (Licensing) Regulations 1991	*Regulation 33(1)*	*2*	*500.00*	*649.70*
Electricity (Licensing) Regulations 1991	*Regulation 50(1)*	*4*	*6,500.00*	*7,819.70*
Electricity (Licensing) Regulations 1991	*Regulation 52(1)*	*2*	*0.00*	*0.00*
Electricity (Licensing) Regulations 1991	*Regulation 51(1)*	*2*	*4,000.00*	*649.70*
Electricity Act 1945	*Section 25(1) (a)*	*2*	*55,000.00*	*1,299.40*
Electricity (Supply Standards and System Safety) Regulations 2001	*Section 10(1)*	*1*	*8,000.00*	*649.70*
TOTALS		*39*	*138674.00*	*20890.40*

Summary of prosecution actions for breaches of gas related legislation

Legislation	***Breach***	***Number of Offences***	***Fines $***	***Court Costs $***
Gas Standards Act 1972	*Section 13A(2)*	*4*	*19,000.00*	*5020.10*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	*Regulation 18*	*2*	*5040.00**	*649.70**
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	*Regulation 30*	*2*	*	*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	*Regulation 32*	*2*	*	*
TOTALS		*10*	*19,000.00*	*5020.10*

** Global Penalty (more than one offence)*

Summary of Infringement notices issued for breaches of electricity related legislation

Summary of Infringement Notices issued for Breaches of electricity related legislation 1 July 2010 – 30 June 2011			
Legislation	***Section / Regulation***	***Number of Offences***	***Fines ($)***
Electricity (Licensing) Regulations 1991	52(3)	26	62,500.00
Electricity (Licensing) Regulations 1991	45(1)	1	1,000.00
Electricity (Licensing) Regulations 1991	63	1	2,000.00
Electricity (Licensing) Regulations 1991	52(1)	1	2,000.00
Electricity Act 1945	33B(2)	4	17,000.00
TOTAL		33	84,500.00

Summary of Infringement notices issued for breaches of gas related legislation

Summary of Infringement Notices issued for Breaches of gas related legislation 1 July 2010 – 30 June 2011			
Legislation	***Section / Regulation***	***Number of Offences***	***Fines ($)***
Gas Standards Act 1972	Section 13A(2)	9	13,000.00
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 18(2)(a)	33	19,800.00
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 20(1)(b)	6	3,600.00
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 23	1	400.00
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 26(1)(a)	9	5,200.00
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 28(2)	15	6,000.00
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 28(3)	46	18,400.00
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 34(1)	1	1,250.00
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 42A	1	600.00
TOTAL		121	68,250.00

MAJOR POLICY WORK

National Regulatory Reform Projects

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

Standards development work

During the year, the Energy*Safety* Division played a significant role in the development of Australian Standards, covering subjects such as electrical installations (AS/NZS 3000 Wiring Rules), high-voltage installations including electricity substations, marina electrical installations, gas installations, industrial gas appliances and gas distribution networks.

The first major revision of AS5601 since 2004 has now been completed and was published in December 2010. Energy*Safety* had significant input into the revisions. This standard is the primary compliance requirement for domestic and commercial gas installations. AS 3814 industrial and commercial gas-fired appliances was reviewed, amended and released during 2009. This standard is the primary compliance requirement for large commercial and all industrial gas appliances. Work on important revisions to gas appliance standards was commenced.

Committee participation

Aside from major work on several key technical standards committees, Energy*Safety* continued to be involved in a number of national regulatory coordination and other technical standards bodies. The following is a summary list:

- National Regulatory Coordination Bodies
  - Electrical Regulatory Authorities Council (ERAC)
  - Gas Technical Regulators Committee (GTRC)
  - National Equipment Energy Efficiency Committee (Committee E3)
  - Energy Supply Industry Safety Committee (ESISC)
- National Standards Councils, Boards and Committees
  - Council of Standards Australia (representing the Government of WA)
  - AG-001 Gas Appliances
  - AG-006 Gas Installations
  - AG-008 Gas Distribution Networks
  - AG-009 Natural Gas Vehicle Refuelling Stations
  - AG-011 Industrial and Commercial Gas Fired Appliances
  - AG-013 Gas Components
  - ME-046 Gas Fuel Systems for Vehicle Engines.
  - EL-001 Safe Working on Low Voltage Electrical Installations
  - EL-002 Safety of Household and Similar Electrical Appliances and Small Power Transformers and Power Supplies

- EL-011 Electricity Metering Equipment
- EL-043 High Voltage Electrical Installations
- EL-052 Electrical Energy Networks, Construction and Operation

SAFETY STATISTICS: SERIOUS ACCIDENTS AND FATALITIES

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

Electricity related incidents and fatalities

Electric shocks	1053
Serious electricity related accidents	12
Fatalities (included in serious electrical accidents):	4

Details of the four fatalities are:

- A 22 year old male received a fatal shock when a damaged power cord on an outlet board energised the wet floor of a caravan. The caravan was not earthed and all conductive surfaces became live.
- An 18 year old female was walking home from a party and walked into a fallen public lighting switch wire. The conductor was live and the resulting injuries were fatal.
- A 78 year old male had installed a bare copper wire 100mm from the ground around the edge of a patio and yard at the rear of the house in order to stop his dogs from playing and digging up the grass. The copper wire was connected to the mains power via a number of extension leads. The incident occurred when one of the dogs touched the wire and was electrocuted. While investigating the victim fell and came into contact with the fallen wire sustaining fatal injuries.
- A 46 year old male received a fatal shock while conducting repair work on a plaster ceiling. The victim came into contact with an exposed live conductor, a bare earthing conductor and an earthed copper water pipe.

Gas related incidents and fatalities

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

Incidents	56
Serious gas related accidents (persons injured)	13
Fatalities	0

Financial Outcome

The surplus available for carry forward at the end of 2010/11 exceeded expectation.

It had been forecast that $8.205m would be carried forward into 2011/12 as part of the levy equalisation scheme. However, the amount carried forward was $10.236m, principally due to increased licensing revenues, the delay in implementing the new Compliance Management System and reduced expenditure due to staff vacancies and recruitment delays in the 2010/11 year.