



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

ENERGY SAFETY DIVISION BUSINESS PLAN 2010/11

December 2009

This Business Plan was approved under
Part 2 of the *Energy Safety Act 2006* by
the Hon Troy Buswell BEd MLA
Minister for Commerce
on 25 January 2010



**ENERGY SAFETY DIVISION
BUSINESS PLAN 2010/11**

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FOREWORD

This document sets out the Business Plan 2010/11 for the Energy Safety Division (EnergySafety) of the Department of Commerce (Commerce).

EnergySafety 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 and 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;
- administering the regulatory scheme that determines the "higher heating value" of natural gas in distribution systems subject to the commingling (mixing) of gas from different sources;
- providing technical advice and support to the Economic Regulation Authority (ERA) and the Energy Ombudsman;
- at the request of the ERA or Energy Ombudsman, investigating the performance of electricity and gas network operators, particularly in respect of energy supply reliability and quality;
- 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;
- promoting electricity and gas safety in industry and the community.

The Director of Energy Safety is an independent statutory office (established 1 January 1995) held by the head of EnergySafety.

EnergySafety 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 EnergySafety'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 2010/11, sets out:

- A statement of intent;
- The business environment and challenges, including major projects;
- The financial plan;

- Details of the proposed 2010/11 energy industry levy; and
- A brief outline in Appendix A of the 2008/09 year outcomes (the third complete year of the industry funding scheme), for information.

Once the Business Plan has been approved by the Minister, it will (in accordance with the legislation) form the basis for his determination on the amount to be levied on energy industry participants, and the manner in which it is to be allocated between participants, for the 2010/11 year.

Ken Bowron
**DIRECTOR OF ENERGY SAFETY and
EXECUTIVE DIRECTOR, ENERGYSAFETY**

December 2009

STATEMENT OF INTENT

1.0 INTRODUCTION

EnergySafety is the statutory technical and safety regulator for Western Australia's electrical industry and most of the gas industry. This Statement of Intent is part of the Business Plan 2010/11 required by the *Energy Safety Act 2006* setting out the requirements for the administration of the energy industry levy that, with revenue from electrical contractor, electrical worker and gas fitter licensing, provides EnergySafety with all its capital and operating expenditure for 2010/11.

1.1 DEPARTMENTAL OBJECTIVES

The Department of Commerce (Commerce), of which EnergySafety 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.*

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

2.0 ENERGYSAFETY'S OBJECTIVES

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 direction by the responsible Minister, who is required under the Act to table in Parliament any direction given to the Director.

EnergySafety 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.

EnergySafety also provides electricity and gas-related technical advice and support to the Economic Regulation Authority (ERA) and the Energy Ombudsman.

In addition to the above functions, EnergySafety develops policies concerning energy industry technical and safety issues, in some cases through membership of national technical standards and regulatory coordination forums. EnergySafety 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. EnergySafety 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.

There is no specific intention during the period ahead to vary the manner in which EnergySafety has approached its work to date. The policy and operational work will require decisions about priorities and the extent to which some activities, including compliance enforcement, are undertaken. These decisions will be affected by the human and financial resources available.

3.0 THE ROAD AHEAD FOR ENERGYSAFETY

3.1 INTRODUCTION

EnergySafety'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 EnergySafety's functions and work. Now that industry funding is in place, the major challenge for EnergySafety 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.

Many issues confront EnergySafety to address, including major new policy initiatives, regulatory operational matters and corporate development issues, as the following sub-sections demonstrate.

3.2 POLICY PROJECTS

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

3.2.1 COAG National Regulatory Reform Initiatives

COAG has initiated the following national regulatory reform projects relevant to EnergySafety. The outcomes affect EnergySafety's role, structure, funding and the legislation it administers.

During 2008 and 2009 EnergySafety made a significant commitment to the following projects, representing an extra workload for staff and affecting project priorities and costs. This will continue for several years and funding has been included in the Business Plan.

Occupational licensing

Electrical and gas fitting licences have been chosen as part of the first group by COAG for a national licensing system that allows the one occupational licence to be used in all Australian jurisdictions. This will require a national database and IT system.

Existing regulators' licensing offices (such as that of EnergySafety) will operate the national licensing system on a delegated basis.

National interim advisory committees (pending the passing of legislation in all States and Territories) will develop regulations concerning licensing and related enforcement of regulatory requirements. EnergySafety is represented on the committee for electrical licensing.

This reform project will affect the current Western Australian regulatory regime. Licensing conduct standards and enforcement are all part of a unified regulatory framework in WA.

Energy Supply Industry Regulation

The technical and safety regulation of electricity and gas transmission/distribution is being reviewed by an energy industry Leaders Group appointed by the Ministerial Council for Energy (MCE). The objective is to enhance the harmonisation of such regulation to reduce regulatory burden and improve labour mobility across jurisdictions.

The project is becoming more complex than originally thought. The reasons for industry complexity and barriers to labour mobility have been identified to be not primarily regulatory but differences between in-house work practices among the utilities.

A harmonisation plan and consultation Regulatory Impact Statement have been prepared by the Leaders Group, with a view to finalising a plan for MCE approval by the end of 2009.

The project could lead to an outcome ranging from modest reform producing consistency in both regulation and work practices, to drastic change leading to a single national regulator for the electricity and gas supply industries. This would fragment the present integrated approach to energy industry regulation. The latter outcome would greatly affect the role, structure and funding of EnergySafety.

At this time, the recommendation is for an Intergovernmental Agreement (IGA) to commit to national acceptance of an Energy Network Safety Standard (for safety cases) and mutual recognition of these across jurisdictional borders. Accompanying this are proposals for skills passports and training to enhance worker mobility.

National Construction Code

One of the committees 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 site, industrial installations and maintenance. Moving along the reform path suggested would create fragmentation of standards and could affect regulation enforcement.

Following strong representations, electrical and gas fitting regulations and standards will be excluded from the proposed building code for the time being.

3.2.2 Review of Legislation Administered By EnergySafety

Legislation administered by EnergySafety has, since commencing in 1945, been written and amended frequently over many years.

Legislation produced by other parties and dealing with gas and electricity supply and utilisation can affect the functions of EnergySafety, e.g. *Electricity Industry Act 2004* and its regulations and codes.

EnergySafety 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 EnergySafety's responsibility;
- any inconsistencies or conflicts;

- any overlaps; and
- inconsistencies in existing WA energy safety legislation.

The *Energy Acts Amendment Bill 2010* (previously Energy Legislation Amendment Bill 2009 and often referred to as the Omnibus Bill) is the start of this process but by no means the end.

3.2.3 Safe Electrical Work

To reduce the incidence of serious electrical accidents among electricians (see section 7.3.2), it had been proposed to replace the existing Part IX of the *Electricity Regulations 1947* as its contents are now redundant because of a new set of regulations dealing with minimum requirements for safe work practices by electricians. Due to various delays experienced on this project, the deletion of the redundant regulations in Part IX has been affected by other amendment regulations. It is now proposed to create a new Part V in the regulations that will reference OSH legislation and will provide the basic requirements of what is expected of electrical workers and contractors in complying with the OSH legislation. This will allow EnergySafety inspectors to audit the performance of electrical workers and contractors without the need to repeat the OSH regulations in the *Electricity Regulations 1947*. Consideration will be given to referencing in the regulations the *Code of Practice for Safe Work Practices by Electricians* issued by EnergySafety in 2008, thus making the code's contents mandatory. The project is expected to conclude in the first half of 2010 and implementation will continue throughout 2010/11.

3.2.4 Gas Appliance Efficiency

To improve efficiency of gas appliances and equipment, it is planned (as part of national changes) to regulate gas use efficiency through major changes to the *Gas Standards Act 1972* and related regulations. This work continues and is the subject of consultation at the national level. The current focus is to develop tests for various gas appliances. It has still to be decided what form the legislation will take but it is expected that it will be similar to the approach used by the electricity industry.

3.2.4 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 and electricity supply reliability and quality.

Four years ago EnergySafety 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 drafted and enacted, should work satisfactorily. It is proposed to obtain Government approval for the drafting work to take place during 2010.

3.2.6 Electrical Equipment and Appliances

A complete review of Australia's regulatory regime for the safety of electrical equipment and appliances is in progress. EnergySafety is participating with other regulators in this national review. It is designed to ensure harmonious regimes are operated by each jurisdiction, which have the capacity to deal with the challenges of global manufacturing. Most electrical products are now imported. This project is proceeding well and a final national regulatory impact statement is soon to be issued, outlining options and related costs/benefits. The outcomes of the review will be presented to a Ministerial Council for approval in 2010, after which there will be further industry consultation followed by an implementation phase. The commence date is proposed for 1 July 2011.

3.2.7 Home Safety Assessment Scheme

The Government has endorsed an EnergySafety proposal to implement a scheme under which home owners may engage an electrical contractor on a fee for service basis to provide an assessment report on the electrical installation of residential premises. The objective is to establish clear standards for such condition reports, which would have value to persons planning to sell, purchase or renovate property. A similar gas scheme may follow.

3.2.8 Unenclosed Joints in Ceiling Spaces

Many homes have unenclosed electrical cable joints in ceiling spaces, which are a serious safety hazard. Previous policy allowed joints simply to be taped if 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 bare. Such joints should be protected by covering them in insulated plastic junction boxes. EnergySafety will negotiate a policy change with industry and the need for the change will require education for the general public.

3.2.9 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 impose a more pro-active compliance management regime on network operators. Current regulations tend to encourage a reactive approach from network operators, often relying on corrective action instructions from the regulator, following safety incidents. Amendments planned for the *Electricity (Supply Standards and Safety Systems) 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.

3.2.10 Distribution Overhead Powerlines

During recent years there have been concerns about the safety of overhead lines in the Western Power distribution system covering the SW of the State. Too many wood power poles have fallen over unassisted. These concerns were exacerbated by the findings of the 2008 audit of Western Power's distribution wood pole management systems. EnergySafety issued an order in mid 2009 requiring Western Power to correct the problems identified in the audit. EnergySafety also commenced a formal audit of two other aspects during 2009/10:

- Pole top fires causing wildfires; and
- High voltage conductor clashing causing wildfires.

EnergySafety continues to deal with Western Power on its mitigation strategies to ensure that all reasonable measures are employed to avoid such incidents in future, since their

effect on the community can be severe. This is an activity that continues to demand significant attention and resources.

As can be seen, there is significant major project policy work to be carried out in 2010/11, in addition to the day-to-day policy work including advice to Ministers, participating on Standards Australia committees for key technical standards, preparing and issuing guideline information to industry and the community, and general safety promotion.

In addition to the work required to complete the above projects, once they are finalised they expand the regulatory ambit, requiring additional administration and enforcement effort.

3.3 OPERATIONAL WORK PROJECTS AND ISSUES

Apart from the policy work described above, operational work associated with administering the existing regulatory framework must continue.

Some of the operational work is relatively routine, such as responding to requests for advice, dealing with complaints, carrying out 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 EnergySafety's Inspection Branches, for electricity and gas installations not connected to a network¹ (e.g. boats, caravans, pastoralist's facilities, mine sites, Rottneest Island and Christmas/Cocos Islands).

During recent years the State's economic activity has continued to expand, despite the global financial crisis. This has generated increased work for industry and thus also for EnergySafety, additional to that caused by the expanded regulatory framework.

EnergySafety has just 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 will be affected by the introduction during early 2010 of the new corporate computer-based licensing system "CALs" which will replace the older computer systems developed in 1995. The new system will serve several Commerce Divisions but will be 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. The Licensing Office staff will require training and changes to routine procedures will be needed.

Some operational work can become much more time consuming than expected.

For example, during 2009/10, the Government, acting on EnergySafety'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 enquires from the general public, housing industries and electrical contractors. Plans are being developed for a compliance program to begin in early 2010.

¹ Installations connected to a network or pipeline are required to be inspected by the network operator or pipeline licensee, who is required to report results to EnergySafety.

Many of the issues raised relate to complex technical considerations that may require modifications to the legislation or changes to the relevant standards.

Some operational work can also be of a major project nature.

Western Power's management of its extensive wood pole "population" to ensure poles in service are structurally sound is a matter of continuing concern. Major compliance audits were completed in late 2006 and 2008. EnergySafety issued an Order on Western Power in mid 2009 and will now monitor Western Power to ensure that it properly addresses the issues of concern. These issues are of such concern that audits have now commenced on pole top fires and clashing conductors, which also cause wildfires.

EnergySafety has established panel contracts for technical personnel to be available for short term projects. This will allow some carefully targeted compliance audits to be conducted over the next three years, mainly involving the network operators working in the Pilbara and other remote locations. Funding is identified for this work under the Business Plan.

The formal approval during late 2007 of amendments to the *Gas Standards (Gas Supply and System Safety) Regulations 2000*, developed with industry to accommodate gases of different heating values commingling in distribution systems, will require an operational project to implement a suitable management regime. This work was delayed due to legal arguments by the operator of the DBNG pipeline but these should be addressed during 2009 and the implementation work will continue into 2010/11.

EnergySafety 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 with –

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

The performance of the network Installation Inspectors 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 non-compliances to EnergySafety 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 has shown a number of significant problems and resulted in the removal of the designation of one Inspector. EnergySafety will be committing 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 are reporting defects as required by the statutory obligations.

3.4 SAFETY PROMOTION

EnergySafety and the energy suppliers need to 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).

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

There is a clear correlation between safety statistics and safety promotion. 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, EnergySafety runs a major TV campaign approximately every two years. In line with the Government's request to restrain such costs, EnergySafety deferred the planned campaign for 2009/10. It is proposed to return to the two year cycle during 2010/11. Special funding is provided for these campaigns in the Business Plan.

3.5 CORPORATE PROJECTS AND ISSUES

3.5.1 Attraction and Retention Benefit

EnergySafety, 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 OSH obligations, industrial relations implications and economic effects. Some staff, particularly Engineers, also need strong skills in policy development work.

Staff of this capability are difficult to recruit and retain, especially while WA's economy remains so strong.

To assist, the Minister approved in early 2007 a proposal for EnergySafety to offer more competitive employment packages to its engineers and inspectors. This "Attraction and Retention Benefit" (ARB) supported a major new recruiting campaign by EnergySafety, for various types of vacant technical positions. This had modest results. Overseas recruiting was largely unsuccessful and some key positions remain vacant. The ARB has however been very helpful in retaining staff in some areas.

Further recruiting is required during 2009/10 and is expected to continue in 2010/11, especially as some staff are approaching retirement age. Part-time work and part-time contract work options are also utilised to supplement EnergySafety's core of full time, permanent personnel.

The 2008/09 global financial problems clearly have affected the State's economy, especially in the resources sector. While the general labour market has eased, recruiting specialist technical personnel did not become any easier. EnergySafety competes for staff with the gas and electricity network operators and major consultancies. Hence it is expected that the ARB arrangements will need to continue and the financial forecasts have been cast accordingly.

3.5.2 Compliance Management Program

Commerce has a corporate compliance management program (CMP) comprising a replacement licensing information system (CALs) and compliance management system (CMS).

A review of EnergySafety's licensing and compliance systems was undertaken in late 2006 as part of Commerce's safety and health systems review. This review assessed issues, gathered requirements, measured those requirements against the current system and its technologies, and identified options for addressing current and future needs. It presented a series of recommendations for replacing the systems across all the Department's regulatory divisions. It formed the foundation of the initial compliance management program (CMP) which was instigated to manage and deliver the changes required over a number of years. Initial funding for CMP was provided from WorkSafe and Resources Safety Divisions, with the anticipation that EnergySafety would not be required to provide any initial funding. Its contribution would be reviewed as the program developed.

All of the EnergySafety systems currently rely on old and unsupported technologies. It is a scarcity of resources to undertake long term support or enhancements. Limited support is provided by some internal Commerce Information Services staff that also support other similar systems, although detailed knowledge of the business processes and systems has been lacking for some time. This has put EnergySafety in a vulnerable position for many years, with a recent event demonstrating the criticality of these systems.

In early September 2009, there was an unrecoverable hardware failure which resulted in a five day outage and loss of data. The ability to service customers coming to the EnergySafety front counter at Cannington was compromised and staff reverted to manual processes and procedures for business continuity. The restoration of the services was problematic due to limited knowledge about the systems, their inter-relationships and the compatibility of hosting technologies. The systems were eventually restored onto a virtualised platform, providing more resilient and recoverable hardware. However, this does not resolve the underlying software issues and risks of the systems running on unsupported application and database technologies.

During 2008 it was identified that the CMP scope was more complex than originally estimated, with a corresponding increase in budget. It was agreed that EnergySafety should contribute an initial amount to the program and the sum of \$800,000 was reflected in the 2009/10 Business Plan. This amount, plus an additional \$225,000 identified as a contingency to maintain the existing legacy systems and not used, has been agreed to be EnergySafety's share for the CALs component of the CMP.

In late 2008, a process to develop a tender for the CMS component of the CMP was instigated to determine if suitable existing products are available.

To minimise risk for such a significant investment, a tender was issued with a Proof of Concept as part of the tender evaluation process for the preferred supplier. This was not only to allow the system business fit to be more accurately assessed, but also so the regulatory divisions could contribute to the process (ultimately being the users of the

system). The program estimates could be refined for a more accurate indication of the budget, timeframes and delivery approach. Full life-cycle costs also need to be evaluated, including version upgrades, licensing and maintenance costs. A report into the tender, including the Proof of Concept evaluation is scheduled for early 2010.

In late 2008, Resources Safety Division (RSD) was transferred from Commerce to the Department of Mines and Petroleum. A review of anticipated costs, timeframes and relative complexity of integrating two agencies resulted in RSD leaving the program in September 2009. The remaining regulatory stakeholders, WorkSafe and EnergySafety, faced a revised program strategy that continued to demonstrate a shortfall of funding, despite the exclusion of RSD from the program, which reduced complexity, delivery time and risk for both EnergySafety and WorkSafe.

As it is industry funded and must ensure that all expenditure is justified and related only to gas and electricity safety, EnergySafety commissioned a review of its requirements for licensing and compliance management practices and processes, and the shortcomings of the current solutions.

This formal review examined the rationale for replacing EnergySafety's systems, considered the value of this to EnergySafety and detailed the potential consequences for EnergySafety's business if it were not to occur.

The report recommended that EnergySafety remain as part of the integrated Commerce CMP program for full replacement of its licensing and compliance systems.

The expected contribution to overall Commerce costs by EnergySafety is \$2.625m. Of this amount \$0.81m will be required in 2009/10 and the remaining \$1.815m in 2010/11 and 2011/12.

CALS which is under construction by Commerce's information systems staff is expected to commence operation in early 2010 and replace the ageing ELA and GLA applications. CALS can be expected to considerably improve the efficiency of licensing work during 2011/12.

EnergySafety's senior staff have a major role in the development of Commerce's corporate Compliance Management System (CMP) which will support the enforcement activities of Commerce's regulatory Divisions. CMP will deliver an integrated major electronic information system covering:

- incident reporting,
- investigations,
- warnings,
- infringement notices,
- prosecutions,
- disciplinary actions,
- certain types of installation inspections,
- compliance audits,
- the issuing of remedial action orders,
- inspector field work scheduling and reporting, and
- appliance approvals.

This development work is expected to be completed during 2010/11 and the new information system will provide many operational benefits and vastly improved data on safety incidents.

3.5.3 National Licensing System

COAG's national licensing initiative may affect Commerce's IT systems very significantly. There is to be a national licensing register. At the time of preparing this Business Plan, the register is to be based on the Central Licensing System developed by the NSW state government.

What remains unclear is how existing IT systems in each jurisdiction will integrate with the new register (which will be effectively a substantial new database). The options range from developing a simple linkage between Commerce's new CMP 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.

In either case, Commerce will be called upon to allocate funds and staff to keep pace with the national licensing initiative. These allocations have begun already and are likely to gather pace during 2010 and 2011.

Because the final approach to the IT issues remains unclear, EnergySafety does not feel justified in making a specific provision in this Business Plan. The IT issues are likely to be resolved during the first half of 2010, permitting, if required, a proper assessment of the funds and staff resources EnergySafety will be expected to contribute.

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

3.5.4 Gas Appliance Rectification Program

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 competition in the price of gas and enable gas producers to choose the most efficient method of developing gas fields.

In 2008 EnergySafety 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. Consequently the use of these appliances needs to be prohibited 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 is approximately \$35m. The gas producers that supply lower energy content gas over a period of ten years are to pay the cost. There will be no State monies used.

The Office of Energy has arranged for the *Gas Supply (Gas Quality Specifications) Act 2009* to provide legal backing for these policies to be developed and for EnergySafety to administer Part 5 Division 2 that deals with the Gas Appliance Rectification Program.

The program requires the establishment of a project office in EnergySafety. All EnergySafety costs incurred during this program will be ringfenced and met directly by the gas producers and not from the industry funding identified in this Business Plan that supports normal EnergySafety activities.

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 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)

EnergySafety 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 EnergySafety 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) and 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 and 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 concerns generally 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 EnergySafety's regulatory work, as well as the influence of this work on safety outcomes.

MEASURES	08/09 Target*	08/09 Actual	09/10 and beyond Target*
GAS			
Gas related deaths	0	0	0
Gas related accidents ² (including fatalities)	12	10	12
Gas installations inspected and found non-complying (includes matters not directly affecting safety)	14%	13.5%	13%
No. of EnergySafety audits of gas distributors' Inspection Plans ³	5	1	3
No. of Type B gas appliance variations assessed	40	102 [∅]	70 [∞]
Investigations under Acts and Regulations	200	292	200
Presentations to Industry or other Groups	12	8	10

[∅] Large number due to number of gas turbine installations in power stations

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

MEASURES	08/09 and beyond Target*	08/09 Actual
ELECTRICITY		
Electricity related deaths	3	4
Electricity related accidents ² (including fatalities)	25	18
Electrical installations inspected and found non-complying (includes matters not directly affecting safety)	7.0%	13.0%
No. of EnergySafety audits of electricity distributors' Inspection Plans ³	2	2
Investigations under Acts and Regulations	650	496
Presentations to Industry or other Groups	10	12

* Trend analysis is used to set the targets

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

EnergySafety provides advice and support to the Minister for Commerce.

Interaction between the Minister's office and EnergySafety takes place through the Director of Energy Safety. However, EnergySafety's Director Gas and Director Electricity are available to liaise directly if required.

Advice and information provided to the Minister by EnergySafety 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 that have received media publicity.
- Advice to assist with responses to with industry 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.
- Advice on nationally significant energy issues (e.g. major regulatory reform projects).

BUSINESS ENVIRONMENT AND CHALLENGES

7.0 WA'S ENERGY INDUSTRY ENVIRONMENT

WA's energy industry is now extensively restructured, following the disaggregation of Western Power into separate generation (Verve Energy), networks (Western Power), retail (Synergy) and integrated regional businesses (Horizon Power) on 1 April 2006.

The gas industry was substantially restructured in 2000 with the sale of AlintaGas. This allowed the progressive opening of the market to full retail competition. The competitive gas supply market from these changes is generally viewed favourably by industry, especially in the resources sector. There is now pressure to introduce additional natural gas capacity to the State's industry, through further expansion of the Dampier – Bunbury natural gas pipeline and new sources of supply. The unfortunate Varanus Island gas facility disruption in mid 2008 highlighted the critical importance of supply diversity.

The electricity supply industry has had a much slower reformation and the economic circumstances are still to be reviewed by Government. However, it is clear that many positive changes should take place in the immediate years ahead. For example, the South West Interconnected Network (SWIN) business of the previous Western Power (which is the entity that retains this name) can now use its revenue for reinvestment and maintenance as would any independent business, contrary to the situation when the networks business was part of a vertically integrated utility. This is a positive change, but it will take a number of years for the shortcomings of the last ten years (evidenced by the continuing fires resulting from clashing conductors and equipment failure, and safety problems from pole-top fires) to be dealt with by the new Western Power. A major distribution wood pole audit in 2008 demonstrated deficiencies in Western Power's processes and resulted in an order being given in 2009 for remedial work.

The same is expected of Horizon Power, also a successor to the old Western Power, generating and supplying electricity at many remote towns of the State including Esperance and parts of the Pilbara.

Rio Tinto and BHP Billiton own and operate electricity networks in the Pilbara and Goldfields. These networks are generally maintained in a manner consistent with the resources sector's standards that seek to minimise safety problems and supply interruptions.

Therefore, looking ahead during the next five years, existing shortcomings with Western Power's SWIN electricity supply network will continue to require major attention, as will the networks of Horizon Power. On the other hand, the younger nature and generally better state of the gas distribution networks operated by WA Gas Networks and others should mean they require comparatively less regulatory attention from a safety and performance perspective.

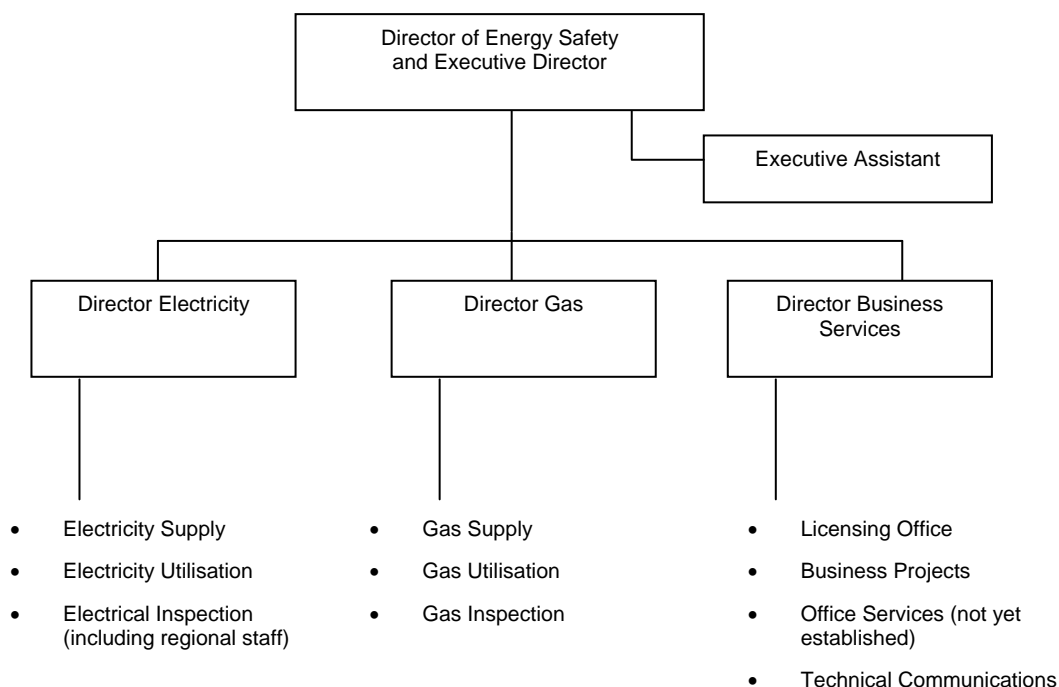
In the electrical contracting and gasfitting areas it is largely a case of continuing with current regulatory initiatives which appear to be working reasonably well.

The implementation of new enforcement measures during 2007/08 (larger fines and the introduction of Infringement Notices) has resulted in substantial improvement in electrical and gas industry compliance during the period.

7.1 ENERGYSAFETY STRUCTURE, RESOURCES AND POWERS

7.1.1 Introduction

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



This structure continues to function successfully and allows for the development and maintenance of critical technical expertise relevant to each industry sector. The EnergySafety Division is located at offices on the corner of Sevenoaks St and Grose Ave in the Perth suburb of Cannington.

7.1.2 Electricity Directorate

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

- 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
- All electricity related operational work.

The following two Branches:

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

each deal 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 Electrical Inspection Branch, when the latter is carrying out complex investigations (such as those dealing with electricity industry work practices, or complaints about electricity supply standards) and corporate compliance audits of electricity network operators and licensed contractors.

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

- conducting corporate compliance audits of electricity suppliers in relation to network safety and supply standards;
- guiding and approving electricity supplier "Inspection Plans", which set out electricity consumer installation practices and commitments, and conducting audits to ensure compliance;
- inspecting electricity consumers' installations in remote locations (not serviced by utilities);
- conducting compliance audits of electrical equipment retailers, in relation to safety and energy efficiency (labelling and MEPS) requirements;
- appointing all electrical inspectors in the State, maintaining codes of conduct, monitoring compliance;
- carrying out investigations into serious accidents (injury and damage) and incidents (supply interruptions), and recommending safety promotion, warnings, prosecutions, disciplinary actions etc, as appropriate.
- advising consumers and industry operatives in relation to 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 external inspector's rulings.

The Electrical Inspection Branch 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).

7.1.3 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:

- the Gas Supply Branch, headed by a Principal Engineer; and
- the 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. Alinta⁴) 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 in relation to network safety and quality (composition) of NG and LPG supplied;
- guiding and approving gas supplier "Inspection Plans," which set out gas consumer installation practices and commitments, and conducting audits to ensure compliance;
- inspecting gas consumers' installations in remote locations (not serviced by utilities), 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, in relation to safety requirements;
- appointing 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 in relation to 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, major gas supply interruptions, etc).

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 EnergySafety's administrative and office systems, the provision of a

⁴ Alinta operates the Perth gas distribution system through the entity "Western Australian Gas Networks"

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

An Office Services Branch is yet to be established, to provide for the efficient future delivery of various corporate services and external contract services necessary for the functioning of *EnergySafety*.

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 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 for gas fitting 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 *EnergySafety's* key performance indicators; and
- industry technical (regulatory) communication, annual reporting and safety promotion.

7.1.5 *EnergySafety's* staff resources

EnergySafety is in a period of significant transition, with changes to all its executive management positions. The long-term Executive Director retired in January 2009. New appointments have been made to this position, the Director Business Services and Director

Electricity during 2008/09. The long-term Director Gas is also retiring and a new appointee took up the role in December 2009.

The Business Plan 2006/07 stated that the then Minister had approved a total of ten extra permanent staff to be appointed progressively to bring EnergySafety's establishment level to 56 FTEs, which is expected to be achieved during 2010/11. The strategy adopted was that the additional staff would be appointed in line with financial capacity and the availability of suitable personnel.

Since then, Government approval for an ARB (Attraction and Retention Benefit) in line with that initially submitted by EnergySafety during October 2006 allowed recruiting to fill vacant positions, although this met with only modest success.

Meanwhile some technical personnel have been engaged on a limited term basis to augment existing permanent staff resources.

There has been a large increase in the number of electrical investigations over the past few years due to:

1. changes in legislation
2. the need to undertake complex network operator audits
3. the extreme growth in construction activities resulting in significant growth in the number of electrical contractors and workers, coupled with a deterioration in work standards in the rush to complete work
4. the increase in legal defences as penalties have increased (many used to plead guilty when the penalties were small but as these have increased over time, there has been an increase in the type and sophistication of defences)

At the same time it has been difficult to fill the vacant inspector positions and to hold onto experienced staff. Additional inspector positions were expected in the approved, budgeted staff increases from 2005/06 to now. However, as there were no suitable people available to fill even the existing vacancies, most of the new positions were used to deal with the large increases in the licensing area. Recently, EnergySafety has filled many of the vacant inspector positions but only with junior people who will take a few years to get enough experience to carry out complex investigations.

All of this has resulted in a growing backlog of investigations and many are taking 18-24 months to complete. A small number of prosecutions have been dropped as the two year statute of limitations has expired. This situation will deteriorate unless addressed through reviewing the required skill sets, looking at the structure and responsibilities in the Electricity Directorate and, most likely, seeking ways to increase the number of experienced inspectors. This review is planned for early 2010.

7.2 ELECTRICAL AND GAS SAFETY OUTCOMES

7.2.1 General

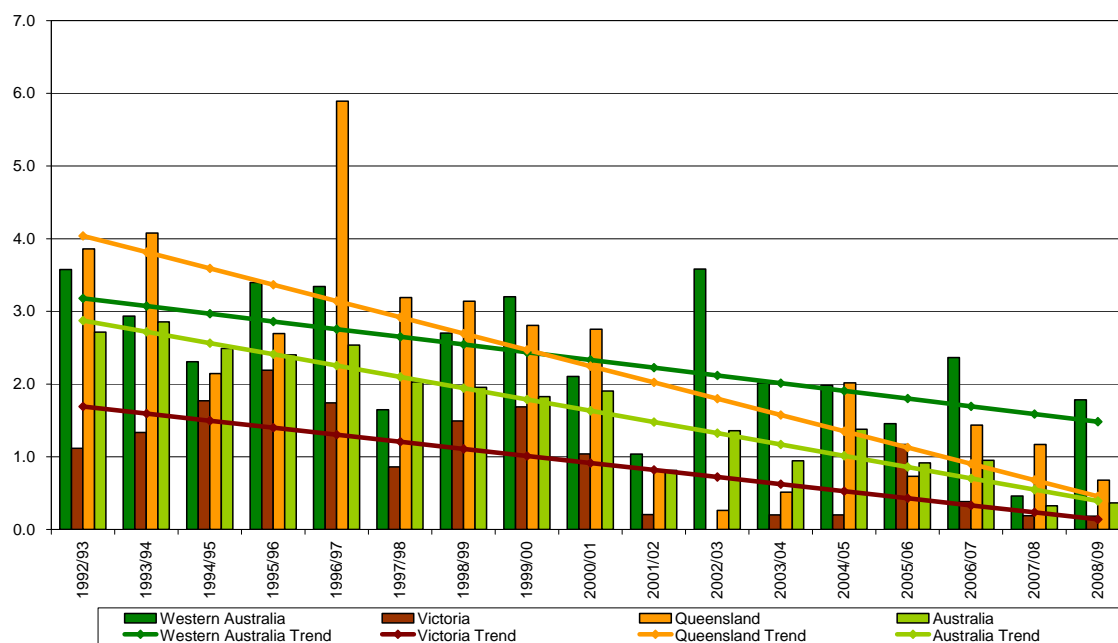
The following is a summary of electrical and gas safety outcomes in Western Australia. The data included in this report are based on Western Australian electrical and gas safety incidents reported by industry and the public, and recorded in EnergySafety's Electrical Inspection and Gas Inspection Systems⁵.

The data for other States and Territories have been obtained from their respective regulatory authorities.

7.2.2 Electrical Safety

Traditionally Western Australia has been compared with Victoria and Queensland. As the following chart shows, the long term trend for electrical fatalities across Australia as a whole is declining. Western Australia has also experienced improvement, but this has been slower than that of other States.

CHART A: ELECTRICAL FATALITIES PER MILLION POPULATION



Note: The number of fatalities for 2008/09 for Australia overall does not include South Australia and Australian Capital Territory as this information was not available at the time of documenting this report. Data for Western Australia reflects information available in the Electrical Inspection System as at 16 November 2009.

Victoria has consistently sustained a low fatality rate compared with other States and the national average. This is believed to be due to its extensive public advertising promoting electrical safety in that State.

One of the drivers for declining fatality (electrocution) rates since 1992 is the mandatory installation of RCDs (residual current devices or "safety switches") in new electrical installations, and in additions/alterations. In some States (e.g. Queensland the retrofitting into older installations has been more effective, as it has been enforced as a condition of

⁵ These information systems are limited in terms of data quality and detail. They are expected to be replaced by new and improved systems during 2010-11.

sale and leasing of residential premises. The Government introduced a similar requirement in WA in 2009 and this is expected to improve safety as the program takes hold.

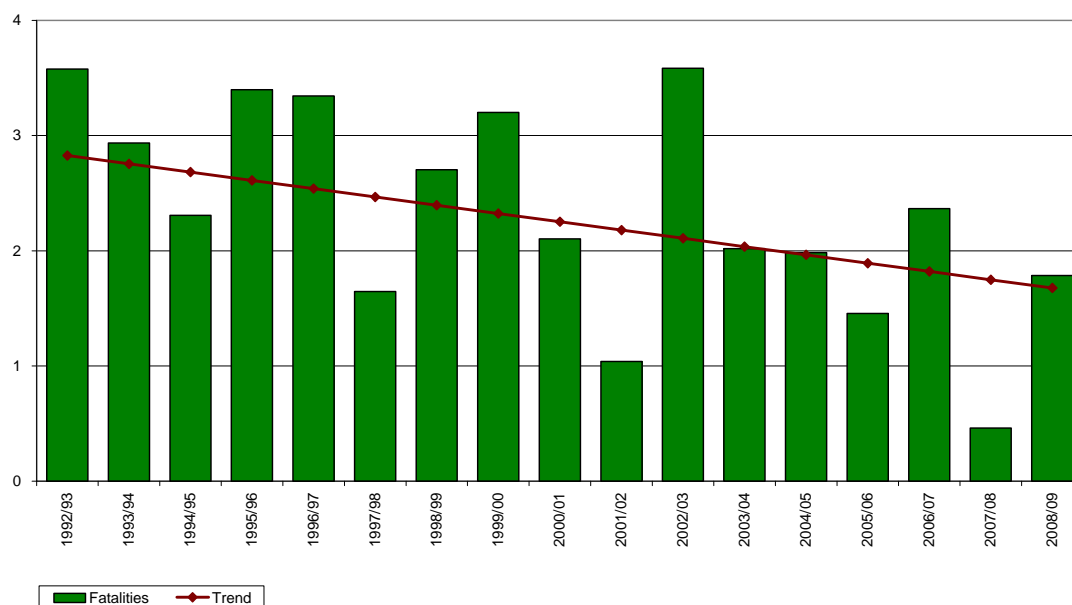
Electrical Fatalities

In 2008/09 there were four electrical fatalities reported in Western Australia where electricity was found to be the cause. An RCD was not fitted in each case.

The fatalities relate to:

- an unlicensed person working on a “live” wiring junction lighting circuit in a dwelling roof space where the deceased came into contact with an active conductor in one hand and the earthing conductor in the other hand, which was connected to the installation’s earthing system;
- installing a shade cloth on a patio when the deceased’s thumb came into contact with “live” parts of an electric drill plug while standing on a metal ladder resting against the steel frame of the patio. It was noted that the rewirable plug did not have the outer cover properly fitted;
- contacting “live” parts of a commercial washer when investigating a fault; and
- dismantling a juice extractor and removing the electric motor. The deceased came into contact with “live” parts when he plugged the motor into the socket outlet.

CHART B: WA ELECTRICAL FATALITIES PER MILLION POPULATION - 1992/93 to 2008/09



Note: Data reflects information available in the Electrical Inspection System as at 16 November 2009.

Chart B shows that while there was a disappointing increase in the number of fatalities in the 2008/09 financial year, Western Australia’s trend continues to move steadily in a downward direction and has been over the past 17 years.

To comply with the government’s request to minimise advertising costs in 2008/09 and 2009/10, EnergySafety did not conduct an electrical safety awareness campaign about

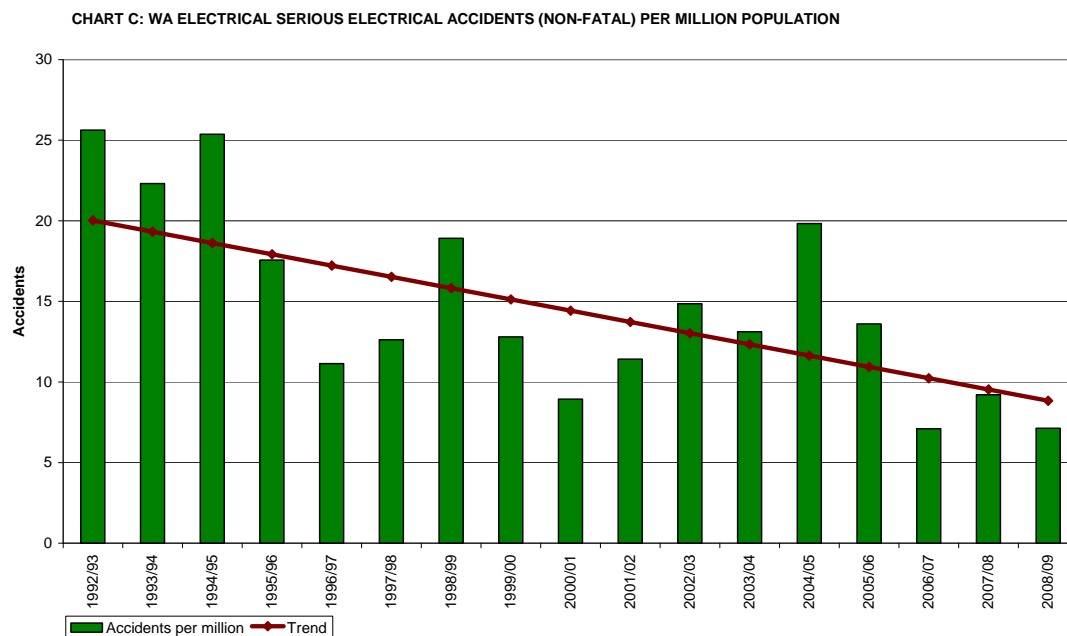
retrofitting RCDs or a general safety awareness campaign as included in the last Business Plan.

Whenever EnergySafety carries out an awareness campaign there is a corresponding reduction in the number of electrical accidents and fatalities. This is demonstrated in the above graph for 2003/04, 2005/06, and 2007/08 where an awareness campaign has been followed by a noticeably lower rate of fatality.

It would therefore be prudent to continue regular safety awareness campaigns in the future - taking into account the WA experience and that in Victoria - as regular safety awareness campaigns materially improve community electrical safety.

Serious Electrical Accidents – Non fatal

There is a clear, decreasing trend in the number of serious electrical accidents per million population. Serious accidents are those requiring persons to be treated by health professionals, but do not include incidents resulting in persons receiving only precautionary electrocardiograph (ECG) assessments (i.e. when treatment is not necessary).



Note: Data reflects information available in the Electrical Inspection System as at 16 November 2009.

In 2008/09 there were 14 non-fatal serious electrical accidents reported. It is interesting to note that 92 per cent of these occurred in workplaces, indicating that there is a need for more emphasis on workplace electrical safety.

Of all the workplace electrical accidents reported for 2008/09, 35 per cent involved electricians. A further seven per cent of workplace incidents reported in the same year involved network operator employees, representing a significant decrease over the 2007/08 figure of 24 per cent. Trends relating to incidents involving electricians have been analysed further in the section on electrical and gas worker safety.

Although there has been a slight increase in electrical accidents in 2007/08 compared with 2006/07, there has been a decrease in 2008/09 to a level equivalent to that of 2006/07. The last three years have recorded the lowest number of accidents in the reported 17 year period, with 2008/09 being the lowest level of accidents per million for the same period.

Electric Shocks

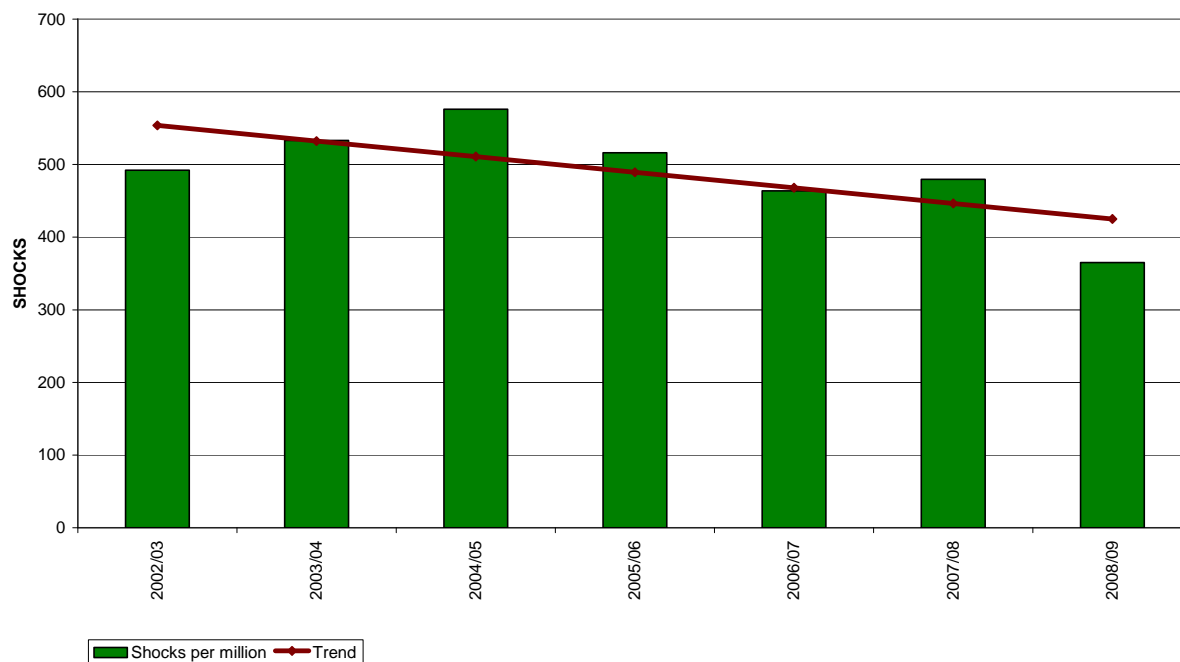
The incidence of electric shocks is an indicator of community electrical safety.

In general terms, an electric shock not causing injury or harm may be experienced by a person due to an error by that person (e.g. touching something “live” while carrying out some work) or another person, or due to faulty equipment in the home or workplace, or due to a fault or deficiency with the electricity supply network.

The reporting of shock incidents is valuable, as sometimes the difference between a shock and an electrocution can be very little – meaning that shock incident reporting can often identify a real safety hazard, so that it can be addressed.

The improved reporting of shock incidents over recent years has made it possible to extract meaningful information to identify future trends as identified Chart D. There have been 818 shocks reported in the 2008/09 financial year, which represents a 21 per cent reduction over the past three years. Chart D shows that the number of shock incidents per million since 2002/03 has substantially reduced from 534 to 364, notwithstanding the increasing population.

CHART D: WA ELECTRICAL SHOCKS PER MILLION POPULATION



Note: Data reflects information available in the Electrical Inspection System as at 16 November 2009.

Western Power’s and Horizon Power’s commitment to replacing all of their aerial service cables can be expected to improve the declining shock rate trend. Creating more awareness among the general public and industry from publications or advertisements about dangers of minor electric shocks will help promote disciplined reporting of shocks, which leads to the identification of potential hazards.

7.2.3 Gas Safety

The graph below shows the number of fatal incidents per million in population. There were no fatalities reported over the 2007/08 and 2008/09 financial years. It also shows a

downward trend in the number fatalities since 2002/03 financial year due to the Gas Directorate's proactive approach to the gas industry.

The trends relating to incidents resulting in fatalities and serious injury are decreasing as illustrated in Chart E and Chart F respectively. The number of gas fatalities per million population has been fewer than one each year with the exception of 2003/04.

CHART E: WA GAS INCIDENTS RESULTING IN FATALITY PER MILLION POPULATION 2002/03 TO 2008/09

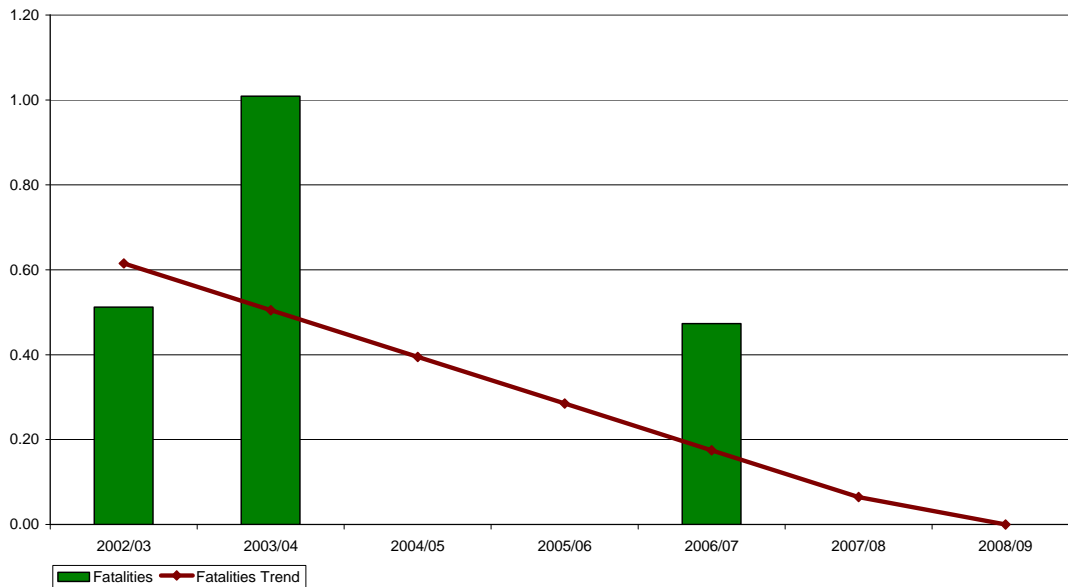
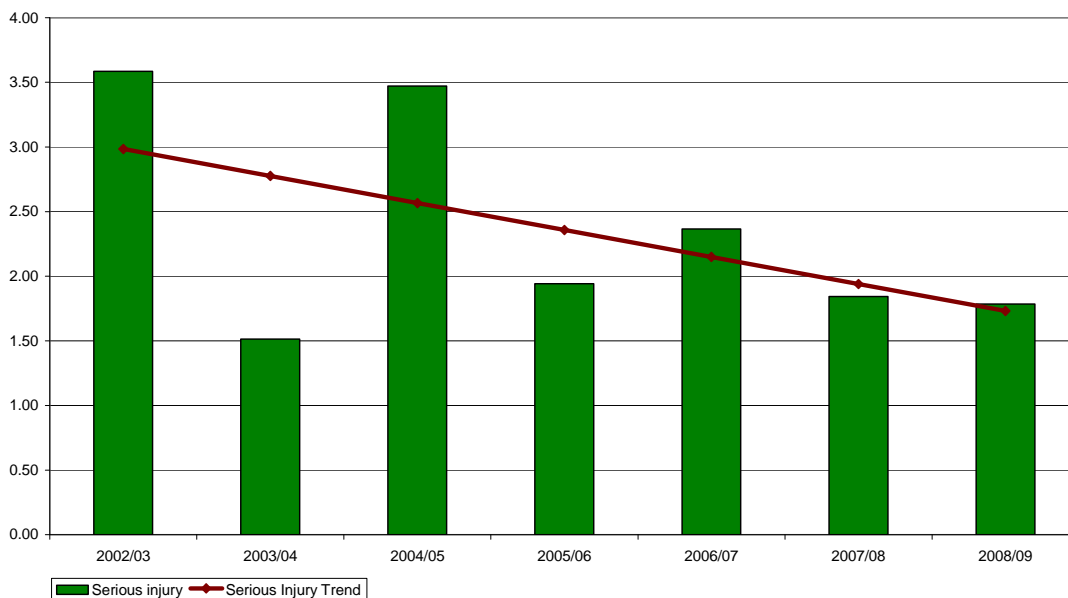
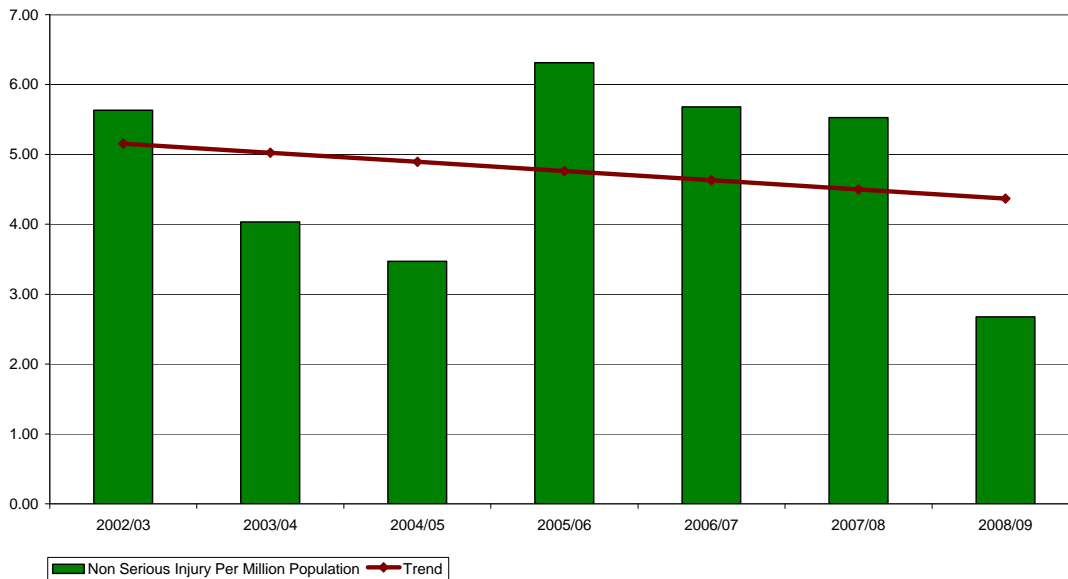


CHART F: WA GAS INCIDENTS RESULTING IN SERIOUS INJURY PER MILLION POPULATION 2002/03 TO 2008/09



Note: Data in Charts E and F reflect information available in the Gas Inspection System as at 16 November 2009.

CHART G: WA GAS INCIDENTS RESULTING IN NON SERIOUS INJURY PER MILLION POPULATION - 2002/03 TO 2008/09



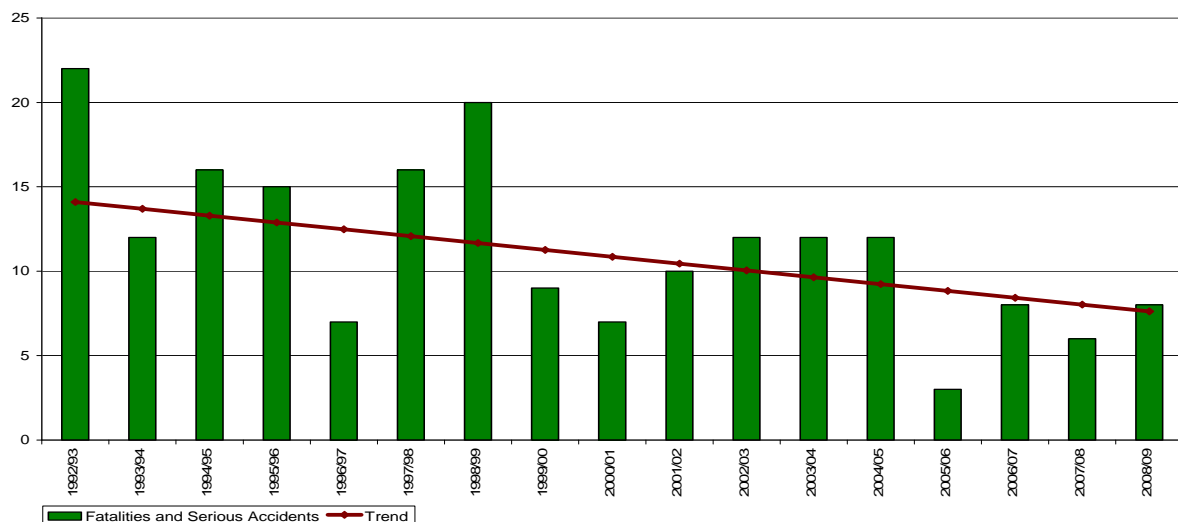
Note: Data reflects information available in the Gas Inspection System as at 16 November 2009.

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 of this type of incident prior to 2008/09 indicates a slight increase and may be attributed to greater awareness of mandatory reporting requirements. The number of incidents for 2008/09 financial year shows a reduction of 37 per cent compared with 2007/08 financial year and the lowest since 2002/03 financial year.

7.2.4 Electrical & Gas Worker Safety

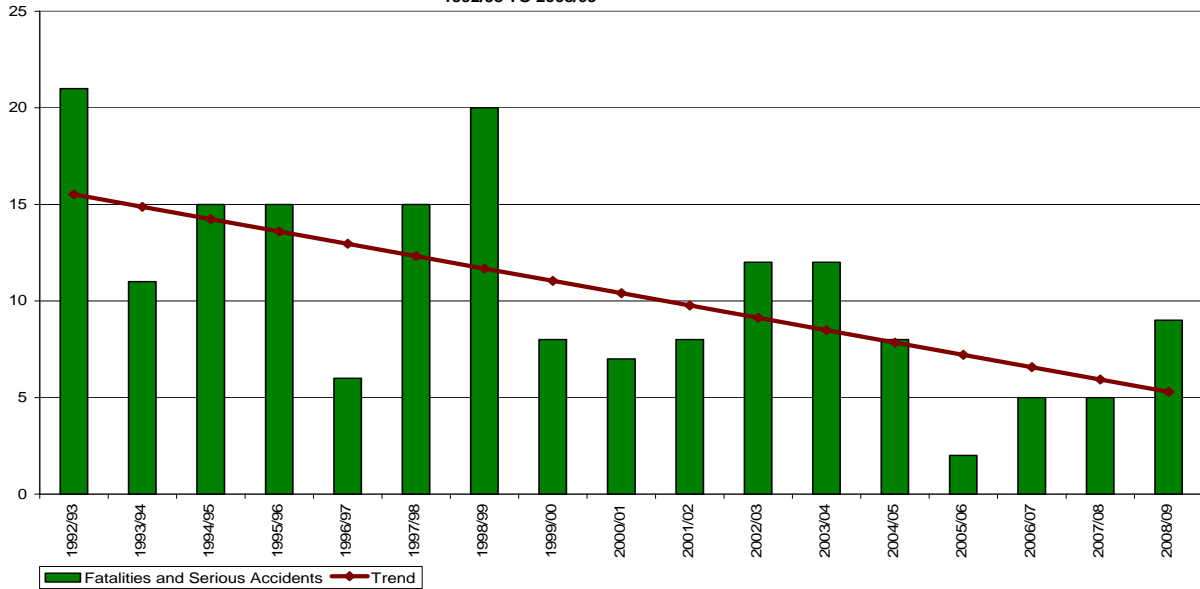
Electrical workers are at greater risk of electrocution than members of the general public or workers in other occupations.

CHART H : FATALITIES AND SERIOUS ACCIDENTS INVOLVING QUALIFIED ELECTRICIANS IN WA - 1992/93 TO 2008/09



A comparison between charts H and I 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.

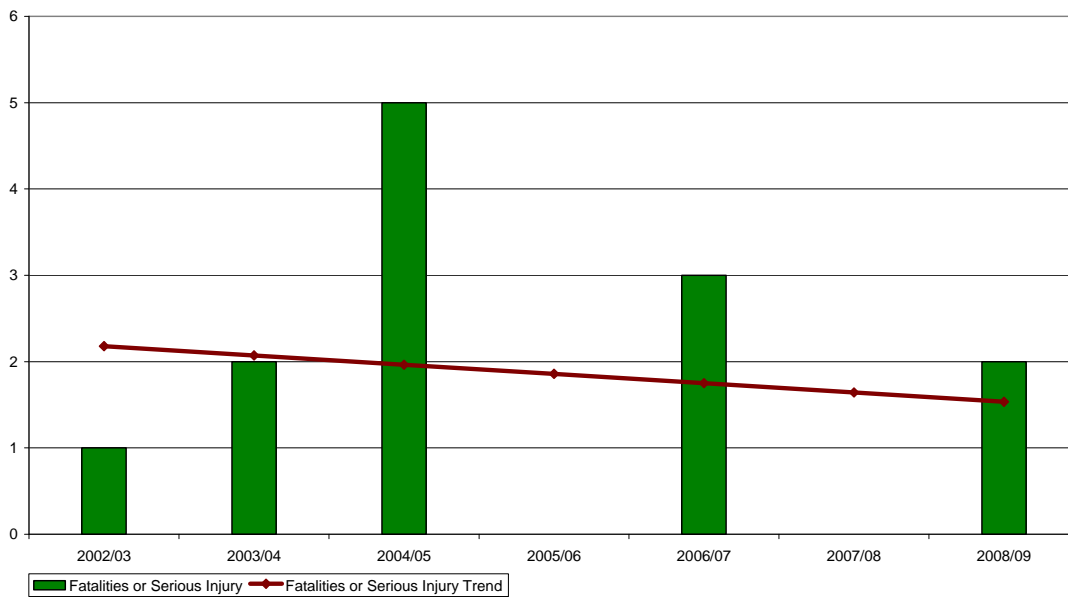
CHART I : FATALITIES AND SERIOUS ACCIDENTS RESULTING FROM 'LIVE' WORK BY QUALIFIED ELECTRICIANS - 1992/93 TO 2008/09



Note: Data in Charts H and I reflect information available in the Electrical Inspection System as at 16 November 2009.

Although there has been an increase in the number incidents for 2008/09 compared with 2007/08, the trends continue to move downward, suggesting the strategies utilised by EnergySafety, warning workers of the dangers of performing 'live' work, are being effective.

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



Note: The data included in Chart J reflect data available at EnergySafety. The data could not be verified for accuracy due to limitations of the data capture capabilities of the existing Gas Inspection System. This system and the electrical equivalent are due to be replaced during 2010/11.

In relation to gas safety, there has not been a fatality involving a gas worker since 1984. The incidents in Chart J below reflect incidents resulting in serious injury.

The number of serious injuries involving gas workers is comparatively lower than electricians, indicating the different hazards and work practices associated with gas work.

7.2.5 Concluding Remarks

The statistical trends in the areas of electricity and gas safety largely reflect positive outcomes. There are indications that TV advertising to promote electrical and gas safety produce an increased awareness of community electrical and gas safety, and reduce safety incidents, especially electrical safety incidents.

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 'dead' 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 the Inspectors available time.

7.3.2 Installation compliance inspections

EnergySafety 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 consumers' 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 the ability to now issue Infringement Notices.

7.3.3 Retro-fitting of RCDs

It is a well established fact that RCDs (Residual Current Devices) will save individuals from serious shock or electrocution in about 90% of cases in the home or small business. 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 damage or deterioration over many years of the wiring) while simultaneously contacting some earthed metalwork (e.g. plumbing pipe). If the wiring installation has RCD protection then such contact will not cause a serious shock or electrocution.

Unfortunately, the promotional work carried out by EnergySafety during the 1990s did not result in significant voluntary retrofitting of RCDs by householders in pre-1991 homes (since then the fitting of RCDs has 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 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 for their use, 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.

7.3.4 Residential installation safety assessments

EnergySafety has Ministerial approval to develop a scheme under which individuals may select and engage an electrical contractor to carry out and report on an assessment of the safety and functionality of a dwelling's electrical installation, based on a standard, structured plan developed and approved by EnergySafety.

Energy Safe Victoria has already implemented a similar scheme.

The need for this type of service, which is proposed to operate on a fee-for-service basis (with payment directly to the contractor), has become increasingly evident in WA, as dwellings age and the persons either proposing to purchase them or renovate them, or simply properly maintain them, need better information.

Each electrical contractor undertaking such a service would be held accountable for the accuracy and quality of their reports to clients.

Once the electrical installation assessments have been implemented in 2010, a similar scheme is expected to be developed for the gas industry.

7.3.5 Electrical and gas safety promotion

Community safety is important and EnergySafety 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 in relation to the safe use of electricity and gas, electricity and gas 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. EnergySafety's 2008 campaign for example had good awareness recall by the public.

However, TV advertising is expensive and requires substantial funding to be effective. For this reason, TV campaigns are planned to run approximately every two years. The campaign for 2009/10 has been deferred to comply with the government's request to minimise advertising and media expenses. The next campaign is planned to run during 2010/11.

7.4 ENERGY EFFICIENCY REGULATION OF APPLIANCES AND EQUIPMENT

Much electrical equipment used in residential premises and industry is already subject to energy efficiency requirements, including labelling and minimum energy performance standards (MEPS).

During 2010/11 EnergySafety will continue to participate actively in the "E3 Committee", 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 EnergySafety 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).

It is also expected that EnergySafety will become a participant in the national check testing program for products and equipment subject to energy efficiency regulation.

FINANCIAL PLAN

8.0 INTRODUCTION

The Financial Plan that follows on the next page details the forecasts for the various components that make up EnergySafety's revenue and expenditure budgets (both capital and operating) over the 2010/11 year and beyond.

Each of the components in the Table is explained in the text of section 8.1.

8.1 FINANCIAL PLAN, NOTES AND EXPLANATIONS

EnergySafety's Financial Plan is designed to provide a detailed overview 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 2010/11, as well as for the four forward years. Projections for the out-years are less accurate and subject to review prior to each year.

SPECIAL EXPENDITURE ITEMS

- a) National regulatory reform projects:

The Commonwealth Government has instigated via COAG the following national, major regulatory reform projects relevant to EnergySafety:

- Occupational licensing
- Energy supply industry regulation
- National Construction Code

The final outcomes may materially affect EnergySafety's role and functions, its structure and funding.

During 2010/11 EnergySafety has made a significant commitment to the following projects, which is an extra workload affecting staff resources, project priorities and costs. This will continue for several years and hence special funding has been provided under the Business Plan [see item 1(a)].

- b) Major advertising campaigns for electricity and gas safety:

It is proposed to have one major campaign every two years as shown. Industry presentations and safety material (e.g. safe work practices videos) are covered under Recurrent Expenditure. Special funding is therefore allowed for in the Business Plan [see item 1(b)].

(notes continued after Table on next page)

FINANCIAL FORECASTS:

\$m

	09/10	10/11	11/12	12/13	13/14	14/15
OPERATING EXPENDITURE:						
1) <u>Special Expenditure Items</u>						
a) National regulatory reform projects	0.150	0.190	0.190	0.190	0.190	0.190
b) Major safety campaign (TV etc)	0.500	0.500	0.000	0.500	0.000	0.500
c) Audits of electricity networks	0.400	0.400	0.400	0.000	0.000	0.000
<u>TOTAL SPECIAL ITEMS:</u>	1.050	1.090	0.590	0.690	0.190	0.690
2) <u>Recurrent Expenditure</u>						
a) Corporate services levy (to Commerce)	0.790	1.140	1.140	1.140	1.140	1.140
b) Special EIS & GIS support	0.075	0.075	0.075	0.000	0.000	0.000
c) Legal services (mainly to SSO)	0.346	0.250	0.250	0.250	0.250	0.250
d) Labour costs (incl ARB)	5.720	6.998	6.998	6.998	6.998	6.998
e) Other recurrent expenditure	2.841	3.265	3.265	3.265	3.265	3.265
<u>TOTAL RECURRENT:</u>	9.772	11.72	11.72	11.65	11.65	11.65
<u>TOTAL OPERATING EXPENDITURE:</u>	10.822	12.81	12.31	12.34	11.84	12.34
		8	8	3	3	3
CAPITAL EXPENDITURE:						
a) Desktop IT hardware/software renewal	0.135	0.090	0.090	0.090	0.090	0.090
b) IS Software replacements CALS *	0.400	0.400	0.000	0.000	0.000	0.000
b) IS Software replacements CMS *	0.000	1.260	0.555	0.000	0.000	0.000
c) Office of Shared Services Implement		0.028	0.000	0.000	0.000	0.000
<u>TOTAL CAPITAL:</u>	0.535	1.778	0.645	0.090	0.090	0.090
<u>TOTAL EXPENDITURE:</u>	12.205*	14.59	12.96	12.43	11.93	12.43
	*	6	3	3	3	3
SOURCE OF FUNDS:						
a) Estimated licensing revenue		4.664	5.117	5.356	5.507	4.895
b) Other minor income		0.150	0.150	0.150	0.150	0.150
c) Indian Ocean Territories service		0.058	0.058	0.058	0.058	0.058
d) Base energy industry levy		9.724	7.638	6.869	6.218	7.330
e) Adjustment to equalise levy		-3.452	-1.366	-0.597	0.054	-1.058
f) Net levy***	6.152	6.272	6.272	6.272	6.272	6.272
g) Carry forward to next year	6.420	2.968	1.602	1.004	1.058	0.000
h) Funds from previous year		6.420	2.968	1.602	1.004	1.058
<u>AVAIL FUNDS FOR EACH YEAR:</u>		14.59	12.96	12.43	11.93	12.43
		6	3	3	3	3
*** total levy over the 5 forward years						
=	31.359	or	6.272	average p.a.		
after allowing for carry forward of	6.420	from	09/10			

Notes:

- (1) *This is EnergySafety's share of the new CMP application (see further notes).
- (2) **The amount shown for 2009/10 includes cost of special items not detailed above.
- (3) ***Proposed 2010/11 levy at \$6.272m is less than the 2009/10 levy plus CPI of 2.1%

(4) All forward estimates are in 2010/11 dollars

c) Audits of electricity networks:

There is a need for electricity transmission and distribution safety compliance audits to 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 panel contract. Special funding is therefore provided for this work under the Business Plan [see item 1(c)].

RECURRENT EXPENDITURE

- a) EnergySafety requires central departmental corporate services (covering finance, HR and IT/IS) to be provided by Commerce and the amount shown is the estimated cost.
- b) Extra expenditure may be required for maintaining the EIS and GIS applications until they are replaced as part of the new corporate Compliance Management System (CMS) application during 2010/11 to 2012/13.
- c) Legal Services are normally provided by State Solicitor's Office and these are charged to EnergySafety at nominal cost.
- d) Labour costs include all expenditure associated with permanent, contract and temporary employees, known salary increases per the award and direct on-costs such as leave entitlements, employee entitlements and superannuation.
- e) Other recurrent expenditure includes all rent and related outgoings associated with EnergySafety'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 etc necessary for operating an office, travel, training, printing costs, vehicles, technical services, recruitment services and FBT.

CAPITAL EXPENDITURE

- a) IT hardware and software replacement 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 EnergySafety.
- b) & c) Information Systems (IS) replacement: EnergySafety's current corporate IS are –
 - the Electrical Inspection System (EIS) which supports the operational work of the Electrical Inspection Branch and collects vital data;
 - the Gas Inspection System (GIS) which supports the operational work of the Gas Inspection Branch and collects 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.

- In the case of the ELA and GLA systems this should be completed during early 2010, with the EnergySafety's capital share of the replacement CALS having been identified as the \$800,000 shown in the previous Business Plan plus the unused \$225,000 identified for EIS and GIS support. The remaining \$400,000 is shown in 2010/11.
- In the case of the EIS and GIS systems the work should be completed by end of 2011/12 with the capital cost being shared between Commerce users. EnergySafety's share has been estimated as \$6.625 across 209/10 to 2011/12.
- Commerce is transitioning to having services provided by the Office of Shared Services. This item covers EnergySafety's capital costs associated with this project

SOURCE OF FUNDS

- a) Licensing revenue: is that 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 this year 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 increase fees beyond CPI adjustments, so as to close the gap and reflect full cost recovery. All fees are expected to be at full cost recovery within five years (Note: as fee increases are at each government's discretion, future increases have not been factored into the forward years, although the 2010/11 revenue estimate is based on proposed fee increases in line with the CPI).
- b) Other minor income: covers the sale of publications and the like to industry.
- c) Indian Ocean Territories (IOT) services: Commerce has a service agreement with the Commonwealth's Department of Transport and Regional Services (DOTARS) to provide regulatory services to the IOT as it does on the WA mainland, but at full cost to DOTARS. EnergySafety is providing electricity and gas regulatory services under this agreement and the expected income is as shown.
- d) Base industry levy: this is the "unadjusted" energy industry levy that would be necessary to make up the difference between each year's total expenditure and the sum of the revenues of (a), (b) and (c) above. In other words, it is the raw amount of the levy needed to make EnergySafety fully industry funded.
- e) Adjustment to equalise the levy: the figures at (d) show that over the five year period the combination of varying expenditure needs and varying licence revenue is such that it requires considerable variation in the levy itself. This is not desirable from a levy administration perspective, hence the Financial Plan at lines (f), (g) and (h) contains an averaging mechanism of the levy over the five year forecast period, so as to reduce year-to-year fluctuations (this averaging is carried out on a yearly, rolling basis). The quantity shown at line (e) is the variation from the average levy, which is calculated at the foot of the page and for completeness shown at line (f).
- f) This line shows the net actual (or equalised, or averaged) industry levy over the five year forecast period. This amount of levy is reasonable when compared with the amounts applied in other jurisdictions, for similar purposes.
- g) Carry forward to next year: the equalisation scheme referred to in (e) and (f) above necessarily provides excess income in some of the five years of the forecast period,

and that needs to be allocated for "carry forward". Similarly, in some years the income from the equalised levy and other revenue may be insufficient to cover all expenditure and in this case a temporary credit facility (from the Department of Treasury & Finance) could be required, if actual figures follow estimates. This is not the preferred strategy as it could put additional pressure on CF funds. It has not occurred in this five year forecast.

- h) Due to underestimates of revenues (the effect of the WA boom was underestimated and the effect of the Global Financial Crisis was overestimated) and 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) has resulted in an anticipated closing balance of \$6.420m at the end of 2009/10. It is proposed to use this as a source of funds over the next five years and to reduce the carry over in keeping with (g) above.

8.2 INDUSTRY LEVY QUANTUM

The Financial Plan shows the industry levy for 2010/11 is required to be \$6.272m, based on the equalisation scheme (as explained in section 8.1) that allows for fluctuations in revenue from licensing and in various types of expenditures.

The proposed 2010/11 levy at \$6.272m is less than the 2009/10 levy of \$6.152m plus a CPI based increase of 2.1%.

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 is to be found in other States, e.g. Victoria and Queensland.

The Levy is based on the concept that there should be a contribution from those parties who benefit from the existence, continuous development and enforcement of WA's electricity and gas technical and safety regulatory framework. It is assumed that entities that contribute a portion of the Levy will pass on this cost to its clients. The clients and beneficiaries of the regulatory framework are gas and electricity users generally as well as purchasers of commodities or goods produced using electricity or gas, irrespective of whether they are at home, at recreation or at work in commerce or industry. All these users benefit from safe energy supply systems, safe and efficient energy installations and appliances, safety promotion and related emergency management work.

For 2010/11, 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 a total of \$6.272m. This legislation allows the responsible Minister to make a formal determination of the levy for the financial year, for notice of this amount to be published in the Government 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 \$6.272m 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 (e.g. in respect of their detailed functions such as critical infrastructure security, installation inspections, gas heating value regulation) 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 2010/11 Industry Levy of \$6.272m 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 \$4.202m.

The corresponding figure for the Gas Industry will be \$2.070m.

9.2 MODEL FOR ALLOCATION OF LEVY WITHIN EACH ENERGY SECTOR

To allocate the Levy within each industry sector, EnergySafety will continue to use the model devised for the allocation of the 2006/07 Levy. This model was devised after consultation with Industry and was agreed to be fair and equitable. The model is based on the following:

- a) Gas 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 sites⁶. The aggregate may be based on multiple networks.
- b) Electricity 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 2009 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 in these responses, EnergySafety 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 2010/11 to determine the levy contributions for each supplier in that fiscal year.

9.3 ADMINISTRATION OF THE LEVY SCHEME

EnergySafety 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 at that time. 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.

⁶ The addition of a minimum of 500 sites for gas suppliers is a variation (since 2007/08) on the original model, based on experience gained through 2006/07.

APPENDIX 'A'

<p>A brief outline of 2008/09 year outcomes for information purposes only</p>
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The following are highlights of the work during 2008/09:

OPERATIONAL WORK INCLUDING COMPLIANCE ENFORCEMENT ACTIVITIES

Residual Current Devices

EnergySafety has developed regulations that will improve the safety of electrical installations by making it compulsory for residual current devices to be installed in a dwelling (house or unit) prior to the sale or lease of the premises and within two years in the case of continuing leased premises. The Minister approved the legislation which was published in the Government Gazette on 8 May 2009.

Wood Pole Audit

EnergySafety completed and published an audit review of Western Power's management of its wood pole assets used for electricity distribution throughout the south west interconnected system. The Chief Electrical Inspector will issue orders on Western Power to correct major deficiencies identified in the review.

Bush Fire Investigations

EnergySafety completed investigations into three significant wild fires initiated by failures of Western Power's electricity distribution system. The investigation reports were published on the EnergySafety website.

National Regulatory Reform Projects

There has been accelerated work, with electrical and gas safety regulators of other jurisdictions, resulting in significant contributions to various 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 trade licensing, and harmonisation of energy supply technical and safety regulation.

As the chair of the Gas Technical Regulations Committee, the Director Gas has had a significant involvement in concluding the Trans Tasman Mutual Recognition Agreement in respect of gas appliances. This is a notable achievement that has taken ten years to conclude and, subject to New Zealand completing the necessary legislative changes, will harmonise the approval of gas appliances to be sold in both Australia and New Zealand.

Regulatory model for energy efficiency of gas appliances

There has been continued participation at a national level to progress improvements to the energy efficiency of gas appliances and equipment. Agreement on the regulatory model to be used has been delayed and is estimated to be completed by 2010. It is anticipated that the proposed model will provide for each jurisdiction to regulate gas efficiency through existing legislation. Changes to the *Gas Standards Act 1972* will be required.

Inspections of Domestic Installations

Steady progress has been made to implement a scheme, developed by EnergySafety, whereby homeowners may have their electrical installations voluntarily inspected for safety on a fee-for-service basis, using participating electrical contractors. A similar service for gas consumers is planned for the following year. This initiative is in the drafting stage after approval was received from the Government.

Omnibus Bill to control vegetation near power lines

An Omnibus Bill is under preparation to replace the simplistic provisions of Section 54 of the Energy Operators (Powers) Act 1979 (dealing with the control of vegetation near power lines) with a new regulatory regime under the Electricity Act 1945.

Improved regulatory compliance through application of a safety case

As a means of complying with the requirements of the *Gas Standards (Gas Supply and System Safety) Regulations 2000*, Western Australian Gas Networks has opted to use a safety case approach and the safety case will be approved before the end of 2009/10. It will come into operation in 2010/11.

Implementation of amendments to the *Electricity (Licensing) Regulations 1991*

The *Electricity (Licensing) Amendment Regulations 2007* came into effect on 1 July 2008. The amendments introduced the term electrician in place of electrical worker, updated the functions of the Electrical Licensing Board, inserted additional types of electrical work that can be done by unlicensed persons, inserted requirements for designers of electrical installations, inserted obligations relating to persons employing or supervising electrical workers in training, made provisions for notices of completion to be submitted electronically, introduced the Certificate of compliance also known as the Electricity Safety Certificate, altered the process to be followed to report electrical accidents to the relevant network operator and the Director and significantly increased the maximum penalties that apply to offences against the regulations. A substantial amount of work was undertaken by the licensing section staff dealing with enquiries from electrical contractors and workers relating to the amendments immediately before and for some time after the regulations come into force.

Increased demand for licensing services

The Licensing Office at EnergySafety again experienced a high volume of electrical and gas licence applications. The increased workload was well managed by staff of the Licensing Office.

Electrical Licensing

As at 30 June 2009, there were **31,136** electrical workers, **3,906** electrical contractors and **239** 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 2009 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 D Retallack – 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
- Ms A Ciffolilli – a residential consumer of electrical services
- Mr D Saunders – nominated by the Director of Energy Safety.

The Electrical Licensing Board met **25** times during the year.

Gas Licensing

As at 30 June 2009, there were **6,404** persons registered for gasfitting work.

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

The Gas Licensing Committee met **11** times during the year.

Prosecutions

The following tables provide summaries of prosecutions finalised during 2008-09. Prosecutions follow investigations by inspectors and review and authorisation by senior management of EnergySafety. 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

Legislation	Breach	Number of offences	Penalties
<i>Electricity Act 1945</i>	EA Section 25 - did not maintain their service apparatus in a safe and fit condition for supplying electricity or take reasonable precaution to avoid damage to customer premises.	2	\$25,000
	EA 33B(2) - sold electrical apparatus without an approval from the Director	9	\$2,000
<i>Electricity (Supply Standards & System Safety) 2001</i>	E(SS&SS)R, 10(1)(c) - Connected an underground distribution cable to their overhead mains (prescribed activities) when the other end of each cable was unsafe and not terminated within an in-ground cable pit and had "Live" exposed conductors.	1	\$12,000
<i>Electricity (Licensing) Regulations 1991</i>	E(L)R, 19(1) - carried out electrical work without holding an electrical workers licence	15	\$17,300
	E(L)R, 33(1) - carried on business as an electrical contractor without a licence	16	\$7,500
	E(L)R, 49 (1) – carried out substandard electrical work	21	\$16,800
	E(L)R, 50A – permitted unsafe wiring or equipment to be connected to an electrical installation	1	\$1,050
	E(L)R, 50(1) - as an employer, failed to ensure effective supervision of an apprentice.	2	\$1,500
	E(L)R, 51(1) - failure to submit a Preliminary Notice to the relevant Network Operator	4	\$5,300
	E(L)R, 52 (1) - failed to submit a Notice of Completion for completed electrical work	149	\$30,000
	E(L)R, 52(3) - submitted a Notice of Completion to the relevant Network Operator when the electrical installing work was not complete	12	\$16,000
	TOTAL	232	\$134,450

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)	9	\$35,800.00*	\$4,878.40*
Gas Standards Act 1972	Section 13D	1	\$3,000.00	\$671.20
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	15(2)	1	*	*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 18	2	1,200.00*	\$2,857.20*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 18(2)(a)(ii)	2	\$800.00*	\$571.70*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 20(1)(b)	3	\$4,200.00*	\$1,631.90*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 26(1)(a)	2	*	*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 28(2)	8	\$10,000.00*	\$3,515.20*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 28(3)	9	*	*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 28(3a)(b)	9	*	*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 28(3a)(c)	9	*	*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 30	1	*	*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 30(1)(a)	1	*	*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 34	1	*	*
Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999	Regulation 38(1)	3	*	*
TOTALS		61	\$55,000.00	\$14,125.60

* Global Penalty (more than one offence)

Summary of Infringement Notices issued for breaches of electricity related legislation

Legislation	Breach	Number of offences	Penalties
<i>Electricity Act 1945</i>	EA 33B(2) - sold electrical apparatus without an approval from the Director	4	\$7,000
	EA 33F - exposed for sale/hire electrical apparatus without an energy efficiency label	4	\$8,000
<i>Electricity Regulations 1947</i>	ER 316A - carried out vegetation control work within the danger zone (for reward) without training and/or in compliance with the Code of Practice	2	\$1,000
<i>Electricity (Licensing) Regulations 1991</i>	E(L)R, 19(1) - carried out electrical work without holding an electrical workers licence	8	\$4,000
	E(L)R, 33(1) - carried on business as an electrical contractor without a licence	4	\$16,000
	E(L)R, 45 (1) - failed to ensure electrical contractor's number appeared in advertisement	36	\$31,500
	E(L)R, 50A - permitted unsafe wiring or equipment to be connected to an electrical installation	1	\$500
	E(L)R, 51(1) - failure to submit a Preliminary Notice to the relevant Network Operator	2	\$4,000
	E(L)R, 52 (1) - failed to submit a Notice of Completion for completed electrical work	4	\$6,500
	E(L)R, 52(3) - submitted a Notice of Completion to the relevant Network Operator when the electrical installing work was not complete	35	\$53,500
	E(L)R, 53 (2) - employed/instructed an unlicensed person to carry out electrical work	2	\$4,000
	TOTAL	103	\$136,000

Summary of Infringement Notices issued for breaches of gas related legislation

Legislation	Regulation	Number of Offences	Fines
<i>Gas Standards (Gasfitting and Consumer Gas Installations) Regulations 1999</i>	18(2)(a)	81	\$32,400
	20(1)(b)	13	\$5,200
	20(3)	1	\$400
	26(1)(a)	18	\$7,200
	28(2)	28	\$11,200
	28(3)	37	\$14,800
	34(1)	5	\$1,250
	34(4)	1	\$250
Total		184	\$72,700

MAJOR POLICY WORK

National regulatory reform projects

During 2008/09 EnergySafety continued work with electrical and gas safety regulators of other jurisdictions to make significant contributions to various national regulatory reform projects. Significant progress was made in reviewing the regimes for electrical appliance safety approvals, gas appliance safety approvals, energy supply technical and safety regulation harmonisation, a national occupational licensing system and a proposed National Construction Code.

Standards development work

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

Committee participation

Aside from major work on several key technical standards committees, EnergySafety 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)
 - Ministerial Council of Energy Technical & Safety Harmonisation Leaders Group

- National Standards Councils, Boards and Committees
 - Council of Standards Australia (representing the Government of WA)
 - Electrotechnology Standards Sector Board
 - AG6 Gas Installations
 - AG5 Industrial Gas Appliances
 - AG8 Gas Distribution
 - AG9 Natural Gas Vehicle Technical Standards
 - AG10 Specification for Natural Gas Quality
 - AG11 Gas Component & Industrial Equipment Standards Committee
 - CH-038 Liquefied Petroleum Gas
 - EL1 Wiring Rules and related sub-committees
 - EL2 Electrical Appliance Safety
 - EL4 Electrical Accessory Safety
 - EL11 Electricity Metering
 - EL42 Renewable Energy Power Supply Systems

- EL43 High Voltage Electrical Installations
- ME46 Gas Fuel Systems for Vehicle Engines.

SAFETY STATISTICS: SERIOUS ACCIDENTS AND FATALITIES

The following were reported to Energy Safety during the year:

Electricity related incidents and fatalities

Electric shocks:	818
Serious electricity related accidents	20
Fatalities (included in serious electrical accidents):	4

Serious electricity related accidents notified per million population*

Year	The number of electricity caused serious injuries per million population	Five Year Average
1997-98	14	20
1998-99	22	20
1999-00	16	17
2000-01	11	15
2001-02	12	15
2002-03	18	16
2003-04	15	14
2004-05	22	16
2005-06	15	16
2006-07	9	16
2007-08	10	14
2008-09	9	13

Note: In the above table, some of the numbers of serious electricity related accidents notified per million population differ from the figures given in previous reports on activities. These corrections resulted from a comprehensive review of statistics of serious electricity related accidents notified.

* Electrical shock incidents resulting in the person requiring treatment at a medical facility.

The serious electricity related accidents included four fatalities in which electricity was found to be the cause:

- working on a “live” wiring junction lighting circuit in a roof space dwelling where the deceased came into contact with an active conductor in one hand and the earthing conductor in the other hand, which was connected to the installation’s earthing system;
- installing a shade cloth on a patio when the deceased’s thumb came into contact with “live” parts of an electric drill plug while standing on a metal ladder resting against the steel frame of the patio. It was noted that the rewirable plug did not have the outer cover fitted;

- contacting “live” parts 240v of a commercial washer when servicing it; and
- dismantling a juice extractor and removing the 240v electric motor. The deceased came into contact with “live” parts when he plugged the motor into the socket outlet.

Gas related incidents and fatalities

The following were reported to Energy Safety during the year:

Incidents:	62
Serious gas related accidents (persons injured)	10
Fatalities	0

Serious gas related accidents notified per million population

Year	The number of gas caused injuries per million population	Five Year Average
1997-98	5	5
1998-99	5	4
1999-00	3	5
2000-01	7	5
2001-02	7	6
2002-03	10	7
2003-04	7	8
2004-05	7	8
2005-06	8	8
2006-07	9	8
2007-08	8	8
2008-09	4	7

FINANCIAL OUTCOME

The surplus available for “carry forward” at the end of 2008/09 exceeded expectation.

It had been forecast that \$3.175m would need to be carried forward into 2009/10 as part of the levy equalisation scheme. However, the amount carried forward was \$6.932m, principally due to increased licensing revenues and reduced expenditure due to staff vacancies in the 2008/09 year.