



Department of **Consumer
And Employment Protection**
Government of **Western Australia**

EnergySafety

ENERGY SAFETY DIVISION BUSINESS PLAN 2006/07

29 June 2006

CONTENTS

	Page Nos.
Foreword	3
Statement of Intent	5
1.0 Introduction	5
1.1 Departmental objectives	5
1.2 The road ahead for EnergySafety	6
2.0 EnergySafety's objectives	6
3.0 The nature and scope of EnergySafety's activities	8
3.1 Legislation administered	8
3.2 Specific activities	9
4.0 Performance Targets	11
5.0 Information and advice to be provided to the Minister	12
Business Environment and Challenges	13
6.0 Introduction	13
6.1 WA energy industry environment	13
6.2 EnergySafety structure, resources and powers	14
6.2.0 Introduction	14
6.2.1 Electricity Directorate	15
6.2.2 Gas & Emergency Management Directorate	16
6.2.3 Business Services Directorate	17
6.2.4 EnergySafety's staff resources	18
6.2.5 EnergySafety's regulatory powers	18
6.3 Regulatory Environment	19
6.3.1 General	19
6.3.2 Consumer Safety through installation inspections	19
6.3.3 General electrical and gas safety promotion for the community	20

6.3.4	Current level of safety within WA	21
6.3.5	Increased commercial pressure on industry participants in recent years	24
6.3.6	Electrical and gas worker safety	25
6.3.7	Electricity and gas infrastructure safety and supply standards regulation (new)	26
6.3.8	Emergency management demands (new)	26
6.3.9	Industry levy (new)	27
6.3.10	Other new or impending regulatory demands	27
6.3.11	Major policy projects for the forecast period	28
6.3.12	Ongoing policy work	29
6.4	Summary: stakeholder expectation and the need for additional resources	30

Financial Plan

7.0	Introduction	33
7.1	Financial Plan, notes and explanations	33
7.2	Industry levy quantum	37

Proposed Industry Levy

8.0	Introduction	38
8.1	Apportioning the levy between energy sectors	38
8.2	Model for allocation of levy within each energy sector	39
	8.2.1 Proposed Gas Model	39
	8.2.2 Proposed Electricity Model	40
8.3	Future variations in the levy	40
8.4	Administration of the levy scheme	40

FOREWORD

This document sets out the Business Plan 2006/07 for the Energy Safety Division (known as "EnergySafety") of the Department of Consumer & Employment Protection (DOCEP).

EnergySafety is Western Australia's technical and safety regulator for the electricity and most of the gas industry and its principal functions can be summarised as:

- administering electricity and gas technical and safety legislation and providing policy and legislative advice to the Minister and Government;
- setting and enforcing minimum safety standards for electricity and gas networks;
- providing technical advice and support to the Economic Regulation Authority (ERA) and the Ombudsman
- at the request of the ERA or Ombudsman, investigating the performance of 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 and carrying out accident investigations;
- promoting electricity and gas safety in industry and the community; and
- managing liquid fuel shortages and gas supply system emergencies, and promoting energy infrastructure security and resilience.

EnergySafety derives most of its statutory functions through the statutory functions of the Director of Energy Safety, an independent statutory office (established 1 January 1995) that is held by the head of EnergySafety. Since its inception in 1995 as part of the first major restructuring of the State's energy utilities, EnergySafety has had a busy corporate life and has seen its functions considerably expanded to include inter alia electricity and gas network regulation, energy efficiency regulation and various aspects of emergency management.

EnergySafety now faces a further challenge: to become fully industry funded so that the cost of its activities is fully met by those who benefit from them. The Government has decided to proceed with this significant policy initiative (which mirrors what other major jurisdictions have already done) and the 2006/07 financial year is expected to be the first under which EnergySafety will be fully industry funded. This will take place through additional funding from a levy on energy industry participants, as determined by the responsible Minister in accordance with the *Energy Safety Act 2006*. The legislation provides for this levy to be subject to review by Parliament.

This Business Plan is a key part of the process for the implementation of the new levy, as required by the legislation, since it sets out the following for EnergySafety, for 2006/07:

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

- Details of the proposed industry levy.

Once the Business Plan has been approved by the Minister, it will (in accordance with the legislation) form the basis for the Minister's determination on the overall fixed amount to be levied on energy industry participants, and the manner per which it is to be allocated between participants, for the 2006/07 year.

Albert Koenig
DIRECTOR OF ENERGY SAFETY and
EXECUTIVE DIRECTOR, ENERGYSAFETY

June 2006

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 2006/07 required by the *Energy Safety Act 2006* that sets out the requirements for the implementation and administration of the energy industry levy that is to provide the additional funding that will make EnergySafety fully industry funded from 2006/07.

1.1 Departmental Objectives

The Department of Consumer and Employment Protection (DOCEP), of which EnergySafety is a Division, has the following overall objectives:

Vision Statement

The Corporate Vision of DOCEP is for:

"A fair, safe and prosperous community".

Mission Statement

DOCEP's Mission is:

To create an employment and trading environment that provides for the growth, safety and protection of the community by:

- *Enhancing capacity*
- *Enhancing an effective regulatory environment; and*
- *Enforcing the law.*

Strategic Directions

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

1. Influencing and shaping our community's environment.
2. Enhancing the capability of the community.
3. Enhancing the regulatory environment.
4. Enforcing the law.
5. Strengthening DOCEP as an organisation.

EnergySafety, now being part of DOCEP, both contributed to and embraces these strategic corporate directions for its own area of business.

Following commencement on 1 January 1995 as the Technical & Safety Division of the then Office of Energy and subsequent public sector restructuring in mid 2002, EnergySafety became a Division of DOCEP, which has four other key regulatory functions, each also represented by a separate Division that operates relatively independently: Labour Relations, Consumer Protection, Resources Safety and WorkSafe.

This "all regulatory" nature of the department provides a positive corporate environment for EnergySafety as the State's energy industry technical and safety regulator.

1.2 The road ahead for EnergySafety

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 various aspects of emergency management including promoting improvements to critical energy infrastructure protection and resilience (from 1996 onwards).

During recent years the State's level of economic activity has continued to expand and this has naturally generated increased work for industry and thus also for EnergySafety, additional to that already experienced through the expansion of the regulatory framework. This is particularly relevant as further expansion of the regulatory framework to include new regulatory initiatives such as:

- the regulation of gas appliance and equipment energy efficiency;
- regulating how the heating value of commingled gases is determined and managed; and
- a regulatory regime for ensuring vegetation is kept clear of power lines;

are expected to be actioned during the next 2 years.

Industry has indicated its support for EnergySafety's functions and work. The major challenge for EnergySafety in the early part of the 5 year period ahead is to balance its staff resource capacity and expertise with expected workload and related government, industry and community expectations. EnergySafety as a regulator needs to have staff who understand the various business and technical areas of the electrical or gas industries and who can expertly 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 impacts.

Staff of this kind are difficult to recruit and retain, especially whilst WA's economy is so strong. However it is important that EnergySafety does succeed in this area, as such staff are critical to the success of EnergySafety in respect of the services it provides to industry and the community – and also to public sector organisations such as the ERA and Ombudsman.

The key factors to achieving this will be –

- the successful implementation of full industry funding as the means to achieving a stable and adequate funding base for EnergySafety; and
- the ability for EnergySafety to offer employment packages that are considerably more competitive in the context of today's industry environment than the present, as the

professional functioning of the office whilst it has a 30% vacancy rate as at present is not sustainable.

2.0 EnergySafety's Objectives

EnergySafety is the State's technical and safety regulator for all the electrical industry and most of the gas industry¹, through the functions of the Director of Energy Safety.

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 in accordance with the Act is required to table in Parliament any direction given to the Director.

EnergySafety through the role of the Director of Energy Safety has a wide suite of statutory functions. In summary, on the basis of those functions, EnergySafety seeks to ensure:

- the safety of people (the public, energy workers and consumers) and property in respect of electricity and gas utility infrastructure;
- that residential and business consumers receive electricity and gas supplies that are metered accurately and meet minimum standards of reliability and quality so that appliances function safely;
- that consumers have safe electrical and gas installations at their premises;
- that electrical and gas appliances purchased are safe to use;
- that common household appliances and certain types of electrical equipment perform and are labelled to satisfy energy efficiency standards; and
- the safety of persons working on electricity and gas supply networks and consumers' installations.

Energy Safety is also an active participant in the State's emergency management framework, with particular responsibilities for:

- managing liquid fuel shortages;
- managing gas supply system emergencies;
- promoting energy industry infrastructure resilience; and
- representing lifeline organisations (e.g. water, electricity, gas, telecommunications, and main roads organisations) at State Emergency Management Committee level.

EnergySafety also provides technical advice and support to the Economic Regulation Authority (ERA) and the Ombudsman's Office in relation to a variety of energy industry issues, and at the request of the ERA or Ombudsman, investigates the performance of network operators, particularly in respect of energy supply reliability and quality and related complaints.

¹ Safety regulation of the high pressure (>1.9Mpa) gas transmission system and upstream gas production is the responsibility of the Resources Safety Division of DOCEP.

In addition to the above functions, EnergySafety performs a considerable amount of policy development work related to energy industry technical and safety issues, some of which takes place in national technical standards forums and regulatory coordination forums. EnergySafety also has the key function to provide advice to the responsible Minister generally, and this includes proposals for the improvement of energy industry legislation and statutory requirements in a technical and safety regulatory context.

One of the functions closely associated with the safety of consumers' installations and the safety of workers carrying out work on consumers' installations is the licensing of workers and contractors who meet defined competency requirements. EnergySafety carries out this licensing for electrical contractors, electrical workers and gas fitters.

In respect of electrical workers and contractors, the statutory Electrical Licensing Board (which has industry members who are appointed by the Minister) oversees this function and also deals with minor disciplinary actions, whilst recommending to the Director which more serious cases warrant referral to the State Administrative Tribunal for possible licence cancellation or suspension. The internal Gas Licensing Committee makes similar recommendations on gas disciplinary proceedings.

In broad terms, there is no specific intention during the period ahead to vary the manner in which EnergySafety has approached its work to date. Inevitably the substantial amount of policy work and operational work to be done will require decisions to be made about priorities and the extent to which some activities including compliance enforcement are undertaken. These decisions will be greatly affected by the resources available.

3.0 The nature and scope of EnergySafety's activities

3.1 Legislation administered

As the State's technical and safety regulator for all electrical and most gas infrastructure, installations and activities, the Director of Energy Safety with support of the staff administers the following legislation:

- *Energy Coordination Act 1994* (major parts)
- *Energy Coordination (Designation of Inspectors) Regulations 1995*

- *Electricity Act 1945* (most parts)
- *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*

Additionally, the *Fuel, Energy and Power Resources Act 1972* is available to EnergySafety for managing liquid fuel emergencies, as this Act allows the Minister to impose fuel rationing subject to certain conditions being met.

3.2 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 being offered for sale, to check compliance with prescribed safety and energy efficiency requirements (such as the star rating labelling scheme and MEPS).
- 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 being 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 consumers' unsatisfied complaints about unacceptable electricity supply reliability and quality, when referred by the ERA or Ombudsman; and
 - auditing network operators' compliance with their approved meter management plans, to ensure acceptable meter accuracy.

- 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 consumers' unsatisfied complaints about gas supply reliability and quality; and
 - auditing network operators' compliance with prescribed meter management requirements, to ensure acceptable meter accuracy.
- Appoint and oversee 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 (although incidents associated with electricity or gas utilities supply systems, or their customers, are usually inspected first by the utilities' inspectors).
- Enforce statutory requirements through advice, warnings, prosecutions, and in the case of licence holders, also through disciplinary action.
- Respond to consumer concerns generally, regarding electrical and gas technical and safety matters.

Furthermore Energy Safety:

- provides wide-ranging energy related policy advice and support to the Minister, Government and DOCEP's Director General;
- promotes electricity and gas safety to both the public and industry operatives;
- participates in the State's emergency management framework through membership of the State Emergency Management Committee and chairing of the Lifeline Services Group;
- administers statutory gas supply system emergency management powers; and
- maintains emergency plans for liquid fuel shortages (petrol rationing etc) on the basis that emergency rationing can be actioned via legislative powers if required.

4.0 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	04/05 Actual	05/06 Target	06/07 and beyond Target
GAS			
Gas related deaths	0	0	0
Gas related accidents ²	90	75	65
Average defects per installation inspected	0.12	0.10	0.08
No. of EnergySafety audits of gas suppliers' Inspection Plans	2	2	2
No. of Type B appliance variations assessed	50	55	50
Investigations into breaches of Acts and Regulations	308	300	300
Presentations to Industry or other Groups	6	8	8

MEASURES	04/05 Actual	05/06 Target	06/07 and beyond Target
ELECTRICITY			
Electricity related deaths	4	0	0
Electricity related accidents ²	44	40	35
Average defects per installation inspected	0.077	0.076	0.075
No. of EnergySafety audits of electricity suppliers' Inspection Plans	5	2	5
Investigations into breaches of Acts and Regulations	1037	1000	1000
Presentations to Industry or other Groups	13	10	10

² Accidents are those incidents where the person has received some type of medical treatment (including assessment tests) by a health professional.

5.0 Type of information and advice to be provided to the Minister

EnergySafety currently provides advice and support to the Minister for Energy, as the legislation administered is part of the portfolio of the Minister for Energy, but also provides advice and support to the Minister for Consumer & Employment Protection, since the department (DOCEP) to which EnergySafety belongs is responsible to this Minister.

In practical terms this means that presently EnergySafety reports to the Minister for Energy on statutory matters, and reports to the Minister for Consumer & Employment Protection (via the Director General of DOCEP, as appropriate) on resource related and administrative matters. The references in this Business Plan to "responsible Minister" are in that context.

This arrangement is expected to be simplified after the passing of a Bill (presently awaiting debate in the Legislative Council) that has been drafted to allow inter alia the sections of the energy legislation that deal with technical and safety regulation matters to be transferred to the portfolio of the Minister for Consumer & Employment Protection. Once this takes place, as is expected later in 2006, EnergySafety will be reporting to only the latter Minister.

Interaction between the Ministers' offices and EnergySafety normally takes place via the Director of Energy Safety, however EnergySafety's Director Gas & Emergency Management, Director Business Services and Director Electricity are available to liaise directly if required.

The type of advice and information provided to Ministers by EnergySafety includes the following:

- Proposals for major policy projects such as new legislation, or amendments.
- Advice on the status and management of major policy projects, such as proposals for legislation.
- Advice on proposed regulatory actions that may have some significant impact on the public, or on a corporation.
- Advice on information releases that deal with subjects relevant to the Ministerial portfolio area.
- Advice on the status of major investigations or audits that have received media publicity.
- Advice for dealing with industry enquiries (verbal or written) to the Ministers' offices, if requested to do so by the relevant Minister or his/her staff. This may involve correspondence and / or meetings.
- Advice on resource requirements and work programs.
- Advice on emergency management issues (liquid fuels and gas supply system shortages).
- Advice on nationally significant energy issues (e.g. flue-less gas space heaters, International Energy Agency matters etc).

BUSINESS ENVIRONMENT AND CHALLENGES

6.0 Introduction

This part of the Business Plan provides an overview of the energy industry environment that exists within Western Australia today and highlights the demands on EnergySafety's technical and safety regulatory functions that the changes of recent years have created.

EnergySafety has established itself as an organisation that is prepared to "do the hard yards" with modest resources, without fear or favour, so as to protect the community and people working in the energy sector.

The following sections provide an outline of the current state of play in WA's energy industry and identify –

- where there have been significant changes (demonstrated through examples) in the demand for energy related regulatory services and safety promotion; and
- new regulatory or other responsibilities which have been added since inception in 1995, or which are planned to be added.

It is shown that although *EnergySafety* is now a mature regulator working smarter each year in order to produce more with less, if *EnergySafety* is to cope with its current workload and further additions, then additional resources are needed, both for labour and other expenditure.

The issue of what additional resources are needed is summarised in section 6.4.

6.1 WA energy industry environment

WA's energy industry is about to complete its final major restructuring, with the disaggregation of Western Power into separate generation, networks, retail and integrated regional businesses on 1 April 2006.

The gas industry was substantially restructured in 2000 with the sale of AlintaGas and this commenced the progressive opening of the market to full retail competition. It is well known that the highly competitive gas supply market that has emerged from these changes is very favourably viewed by industry, especially in the resources sector.

The electricity supply industry has had a much slower reformation but it is clear that many positive changes should take place in the immediate years ahead. For example, the networks business of Western Power (which will be the entity that retains this name) will after 1 April 2006 be able to use all its revenue as would any independent business. Industry observers should then no longer have the concern that Western Power (as a vertically integrated utility) may instead use these funds to support other parts of the Western Power business such as generation. This concern was valid as during the last 10 years the Western Power networks business clearly failed to receive the level of engineering attention and reinvestment that it deserved, evidenced by the Mt Barker and later Tenterden fires from clashing conductors and the ongoing, wide-spread supply interruptions and safety problems from pole-top fires.

Of course Western Power will not be the only network operator, as there are several Pilbara and Goldfields based electricity network operators, however experience has shown that these are generally maintained in a manner consistent with the resources sector's standards that seek to minimise safety problems and 'downtime'.

Therefore looking ahead to the next 5 years and the networks of the major players during this period, it is likely that existing shortcomings with Western Power's SWIS electricity supply network will require major attention, as will the networks of the Regional Business. On the other hand, the younger nature and generally better state of the gas distribution networks operated by Alinta and others should mean they require comparatively less attention from a safety and performance perspective.

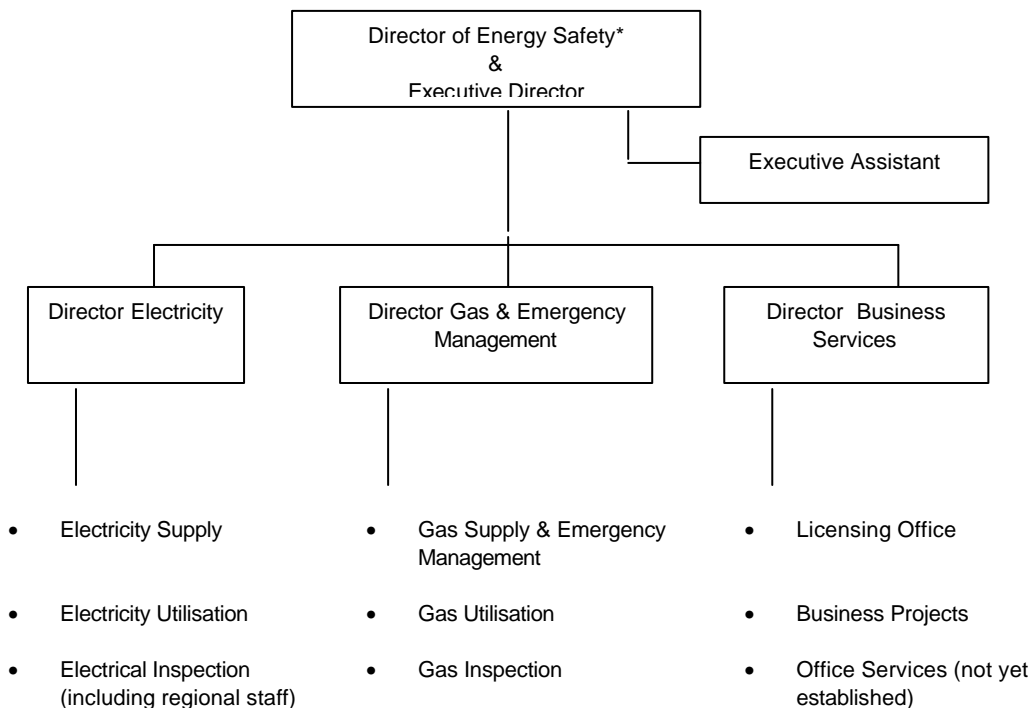
These matters are now also the subject of attention from the Economic Regulation Authority (ERA) which through its gas and electricity network licensing regime will monitor the safety and performance of network assets, in addition to approving network access rules and transport charges. The Ombudsman now deals with consumer complaints.

These are organisations with which EnergySafety will need to liaise as the electricity and gas supply businesses continue to become more competitive, which is inevitable. For example, once any of the industry participants may trade in electricity and gas, which is expected during the forecast period, other market players (possibly with links to network operations) will enter the WA market. That will put further cost pressures on industry participants in all aspects of the business, including network investment and operations.

6.2 EnergySafety structure, resources and powers

6.2.0 Introduction

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



**** denotes a statutory position***

- Technical Communications

The desire to become more efficient due to workload pressures and at the same time retain and develop critical technical expertise relevant to each sector caused a review in 2003 that resulted in the restructure of the Division into 3 Directorates shown above.

6.2.1. 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 utilities (e.g. Western Power) and licensed contractors, as well as enforcement activities.

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 inspectors' rulings.

The Electricity Directorate is based at West Leederville, but also has senior electrical inspectors based at Karratha, Geraldton, Kalgoorlie and Bunbury. The branch operates on a 24/7 basis in response to the reporting of electrical incidents (fires, injury, major electricity supply interruptions etc).

6.2.2 Gas & Emergency Management Directorate

This Directorate is headed by the Director Gas & Emergency Management 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;
- All gas related operational work;
- The development of emergency management strategies and plans, plus the operational execution of the latter in respect of liquid fuel shortages, the coordination of lifeline services emergency plans including infrastructure assurance, plus liaison with emergency management and infrastructure security organisations at State and national level; and
- Gas supply system emergency management (e.g. shortage of gas ex the DBNGP).

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 and emergency management matters, 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. Alinta) 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 (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 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 inspectors' rulings and requests for variations from prescribed requirements.

The Directorate is based at the West Leederville Office. Support is provided from senior electrical inspectors at country locations, where practicable.

The branch operates on a 24/7 basis in response to the reporting of gas incidents (fires, injury, major gas supply interruptions, etc).

6.2.3 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 wide range of business planning, business performance measurement, financial planning and management accounting functions, plus communication with industry.

The Directorate currently has 3 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, as relevant:

- 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 in respect of electrical operatives for the Electrical Licensing Board, and in respect of gas fitting operatives, for the Director of Energy Safety, the more serious proceedings being 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;
- representing EnergySafety's needs in relation to various corporate and central agency activities, including 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); and
- industry technical (regulatory) communication, annual reporting and safety promotion generally.

6.2.4 EnergySafety's staff resources

EnergySafety's approved staff establishment is 46 FTEs, a number that has effectively not increased since EnergySafety's inception in 1/1/1995. It is proposed that during 2006/07 an additional 5 FTEs be engaged, and during 2007/08 a further 5 to take the total to 56, which is expected to be the longer term permanent staffing level required.

Additional personnel can be engaged on a contract basis as and when necessary to augment resources, however the total of 56 is seen as necessary so as to provide sufficient internal capacity for regulatory issues management, the retention of key technical and regulatory knowledge for specialist electricity and gas regulatory functions, and succession planning.

6.2.5 EnergySafety's regulatory powers

EnergySafety's regulatory powers originate from the regulatory functions of SECWA, the State's vertically integrated electricity and gas utility and regulator that ceased at the end of 1994. The regulatory functions at that time were tailored solely to suit safety regulation of consumers' installations and not electricity and gas networks.

Following a considerable amount of "industry consultation", Governments introduced comprehensive regulations for the gas supply industry in 2000 and then the electricity supply industry in late 2001. Unfortunately there are inadequate powers for the issuing of remedial orders in case of non-compliance and inadequate penalties for enforcing these regulations and others. It is hoped that the Government will be able to address this during 2006.

In an environment where increasing competition will inevitably put cost pressures on all energy industry players including network operators, it is important that the regulator can act to maintain a level playing field and also protect the community.

The next section describes in more detail some of the changes that are having an impact on the regulatory landscape and thus EnergySafety's business.

6.3 Regulatory Environment

6.3.1 General

Major changes have occurred to the regulatory environment since the inception of EnergySafety in 1995 and the following demonstrate some of the drivers that have increased demand for electricity and gas related regulatory services:

- EnergySafety was established on 1 January 1995 as the Technical & Safety Division of the Office of Energy (staff and financial resources have not been increased since then).
- During the period from December 1994 to 2005:
 - The WA population³ increased from 1.726m to 2.003M, or a 16% increase;
 - Electricity use⁴ (gwh) increased by about 40%;
 - Natural gas use⁵ increased by about 60%; and
 - The number of licensed operatives (electrical and gas) increased⁴ from 27,745 to 31,214 or 12.5%.

These statistics represent significant growth in demand for existing energy related regulatory services and safety promotion, as discussed through examples, in this section. Moreover, new regulatory responsibilities have also been added since 1995 and these plus further planned initiatives are described in this section 6.

6.3.2 Consumer safety through installation inspections

EnergySafety oversees and manages (through authorisations, audits etc) an electrical and gas consumer installation safety inspection regime. This regime engages some 170 (estimated as 100 full-time equivalent) inspectors, employed by the various electricity and gas companies or operating on a fee-for-service basis, across WA. They sample inspect the work of licensed operatives at consumers' electrical and gas installations of all types (commercial, institutional, industrial and residential).

These inspectors carry out about 27,000 inspection type activities per year.

EnergySafety also performs some installation inspection work itself, where required, such as in remote areas not serviced by utilities. The safety outcomes for the community have been very positive, with much reduced incidence of serious defects in installations during recent years. Indeed, it is pleasing to report a reduction in the number of disciplinary cases dealing with incompetence or persistent negligence among electrical and gas workers / contractors. This outcome has also been aided by the inspectors' effective auditing of contractors and attaining acceptance, in the case of electrical contractors, of incentive based, self-managed quality controls.

³ ABS

⁴ Office of Energy, ABARE

⁵ EnergySafety

EnergySafety established this cost effective consumer installation inspection regime as a way of avoiding the need for these inspectors to be on the public sector payroll (in some jurisdictions / sectors such inspectors are employed by the public sector). This has therefore been a good outcome for WA, but it needs to be recognised that this external workforce requires oversight (e.g. auditing), support and related action by EnergySafety.

Furthermore, the workload arising from the reports submitted by these inspectors, which result in follow-up EnergySafety investigations, possible prosecutions and disciplinary actions, is substantial and growing due to population, energy use and industry growth.

It is a good example of the increase in work across EnergySafety's various responsibilities.

6.3.3 General electrical and gas safety promotion for the community

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. They need to be ongoing, as the message requires constant reinforcement to be effective.

Public safety and similar campaigns aimed at the general community are mainly reliant on the use of media advertising. Recent surveys have shown that TV advertising is very effective, whereas other forms of media are not. Unfortunately, TV advertising is expensive and requires adequate funding being made available.

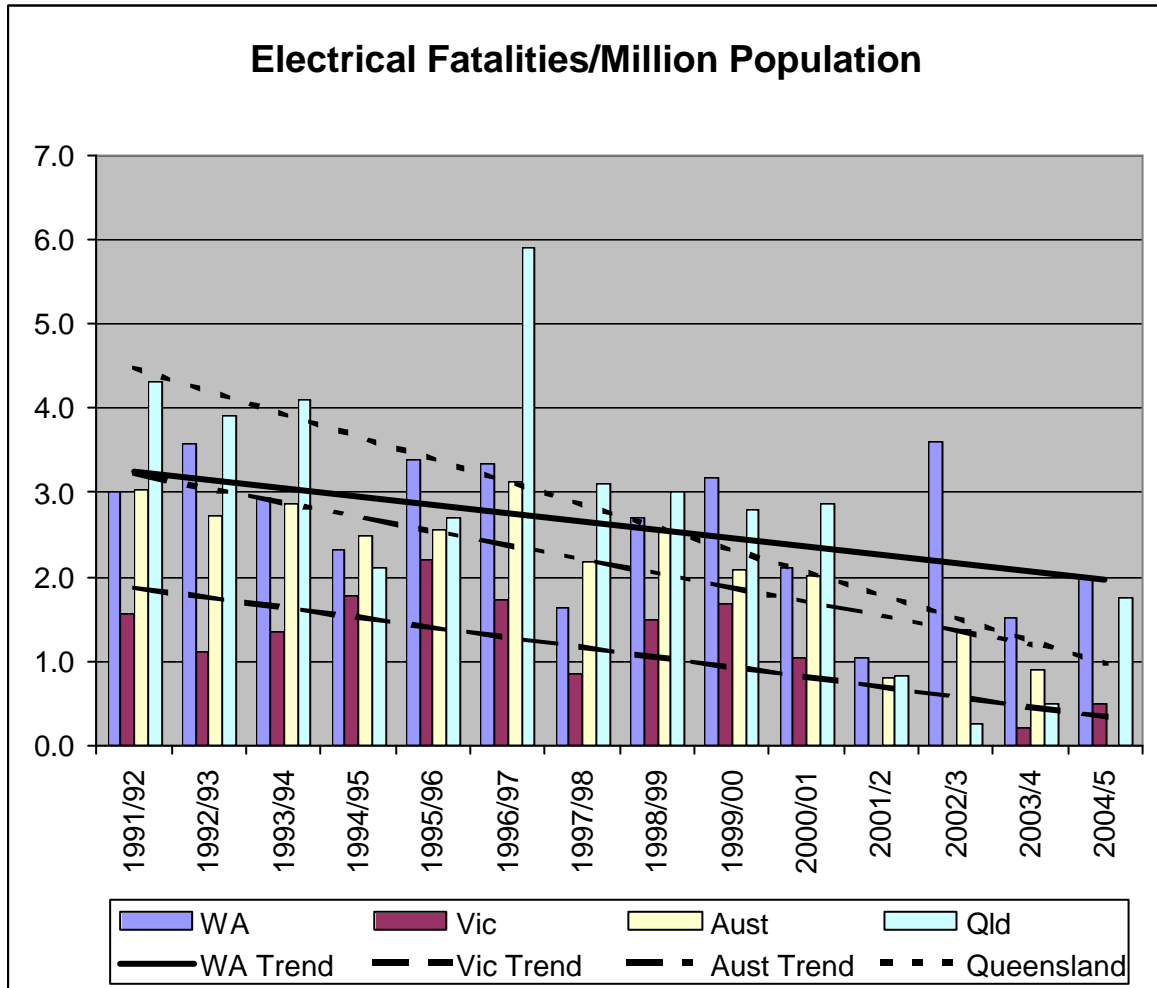
Funding needs to be sufficient to avoid piecemeal campaigns and the inability to participate effectively in cooperative and coordinated campaigns with major commercial and industry stakeholders. There is also value in the use of modest bonus and incentive mechanisms, such as safety awards and promotional campaigns, which can be very efficient in engaging community involvement and interest in safe practices.

Campaigns that have been conducted, such as last year's TV campaign for electrical and gas safety demonstrate that the Energy Safety has achieved good value for the funds committed. To summarise, it is in the interests of energy consumers that this type of activity is conducted on a regular basis and this is further emphasised in section 6.3.4.

6.3.4 Current level of safety within WA

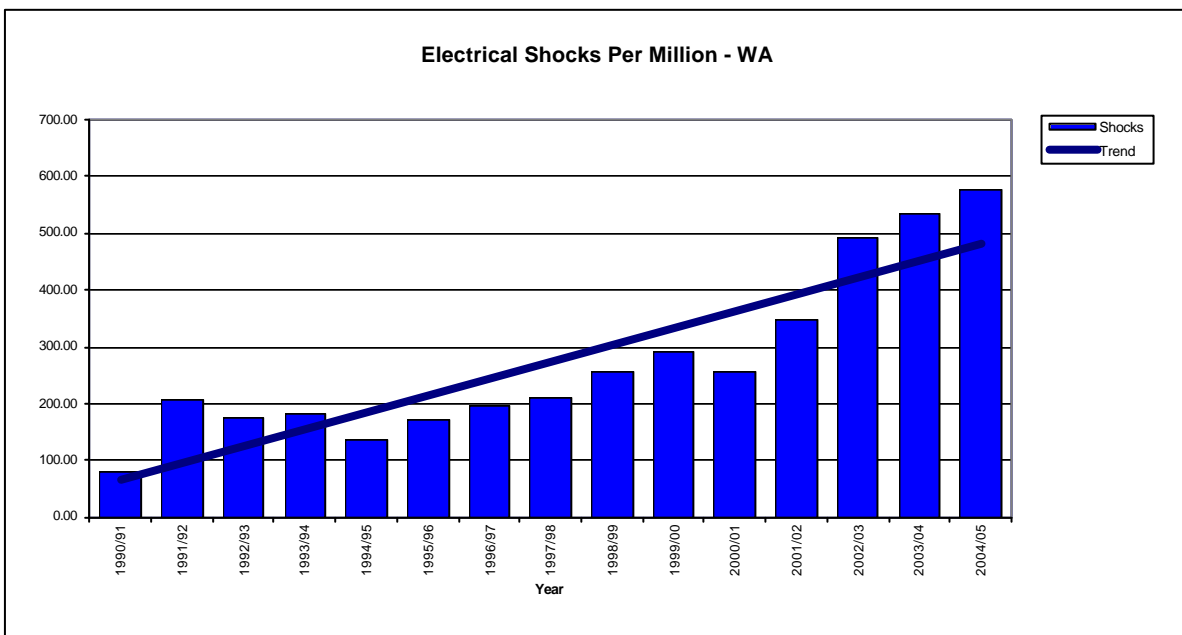
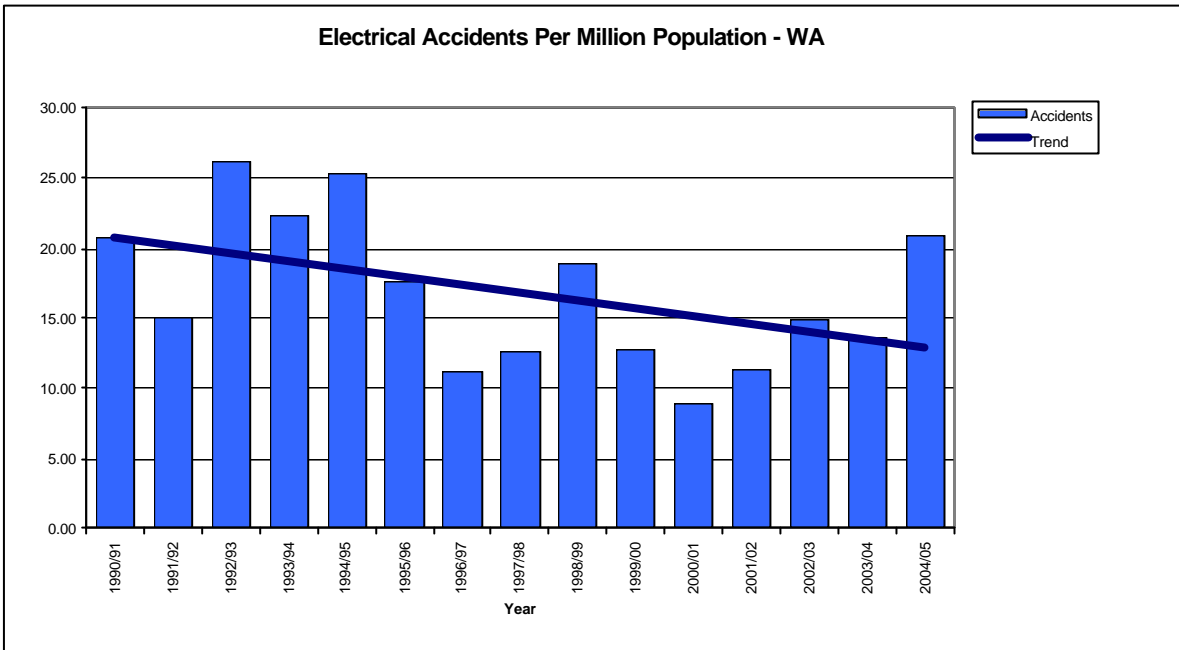
While the long-term trends appear to be in the right direction, the following graphs show that Western Australia has a higher level of electrical fatalities than many other jurisdictions. For example WA is at about three times the level of Victoria.

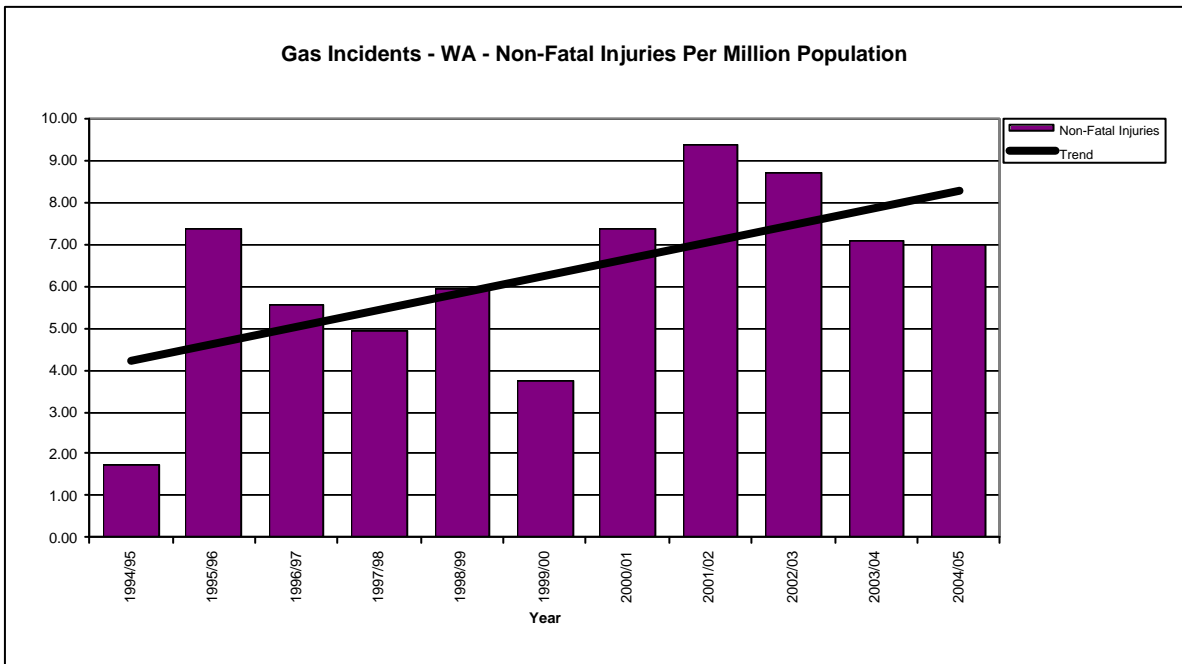
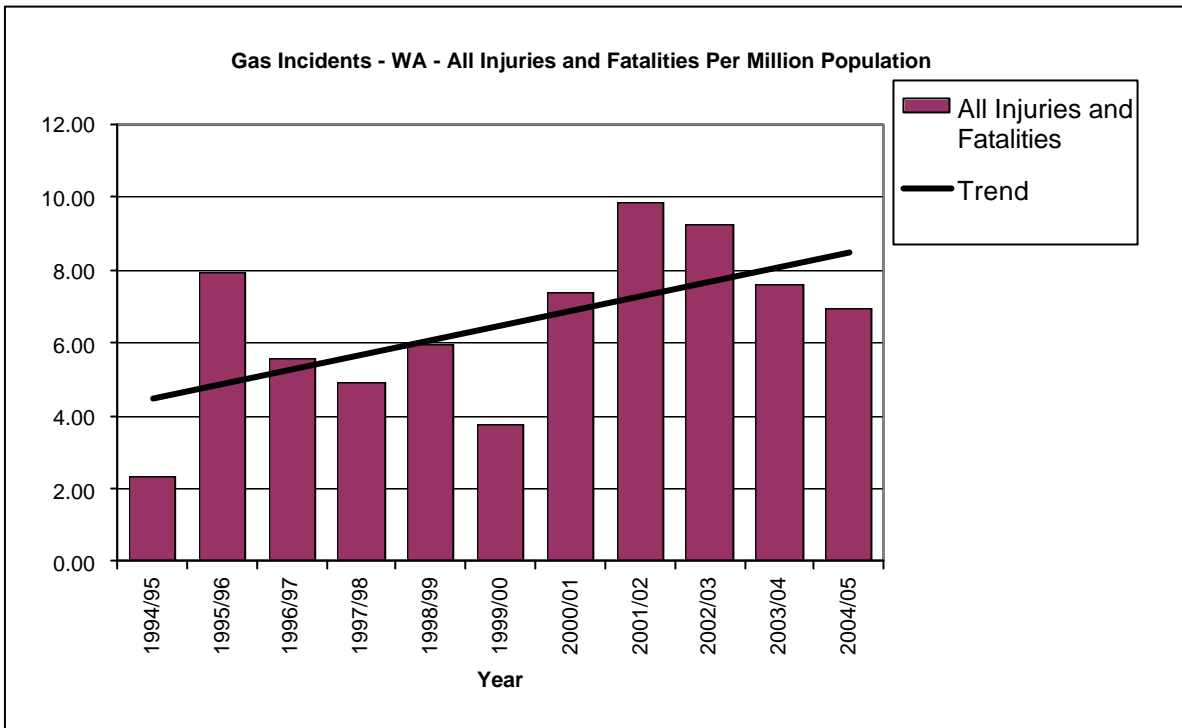
Furthermore, during some recent years significant escalation of electrical fatalities (electrocutions) and accidents took place.



A significant factor in the lower rate of fatalities in Victoria is the extensive public advertising of electrical safety in that State. EnergySafety was able to carry out a modest safety awareness program in 2005 and needs to reinforce the outcomes by undertaking further programs on a regular basis in future years.

Recent electrocutions in WA reinforce that there is a real need for safety promotion and workplace safety improvement programs. For example, 2 lineworkers have been electrocuted during only a 12 month period. EnergySafety as regulator can make a substantial contribution to this area.





There is also a need to raise awareness of the risks for regional Western Australians who are over-represented in the energy accident statistics.

The benefits of saving lives and accidents flow directly to the community. A reduction of 1 fatality and 5 serious accidents would save the community about \$1.2m annually. There are about 4 to 5 fatalities and about 45 accidents⁶ reported annually and the accidents are probably under reported. The information and education strategies used in Victoria are successful and similar effort in WA could save twice the numbers indicated above.

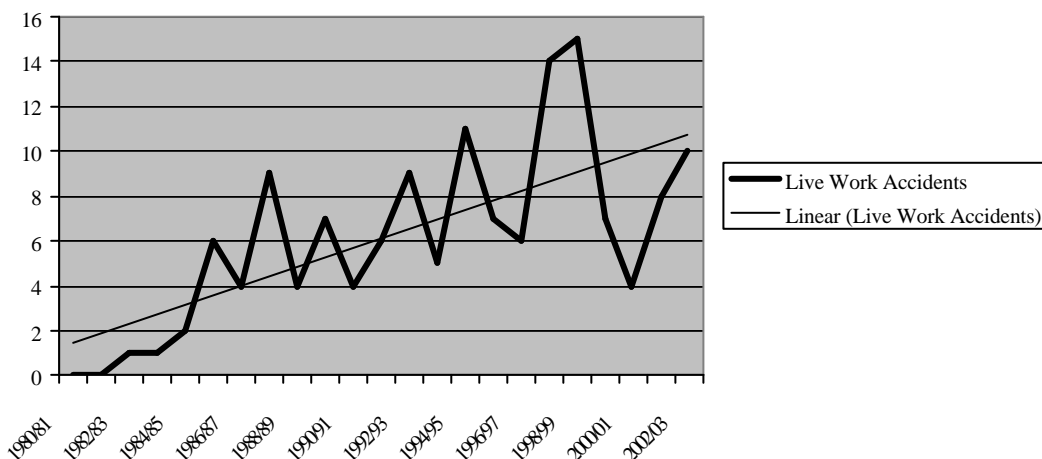
In summary, too many Western Australians will continue to be killed or injured while using energy. The key way of reducing this unfortunate statistic is to advertise safety messages, and to greatly raise awareness of energy related hazards and how to deal with them or avoid them.

6.3.5 Increased commercial pressure on industry participants in recent years

The effects of commercial pressures through increased competition tend to encourage the taking of shortcuts in areas that often involve reduced safety outcomes (e.g. poles fail and result in live, hanging wires) or a reduction in electricity supply reliability (e.g. failure to maintain infrastructure or install fault-isolating switching equipment). These kinds of utility shortcomings are now being revealed to EnergySafety, particularly in the electrical area, and they require action – which is what consumers expect.

Similarly there is increased commercial pressure on electrical contractors and gasfitting contractors, which demands special attention in the interests of energy worker safety. For example there has been a substantial increase in the rate of serious electrical accidents by electricians, due to pressure to do electrical work “live”, so as to avoid the extra effort and cost of shutdowns or alternative arrangements such as after-hours work.

WA Electrical Accidents - Electricians



⁶ Accidents are those incidents where the person has received some type of medical treatment (including assessment tests) by a health professional. Electrical "shocks" are non-serious electrical incidents where the person has experienced a shock or tingle of an electrical nature, but has not required any medical treatment.

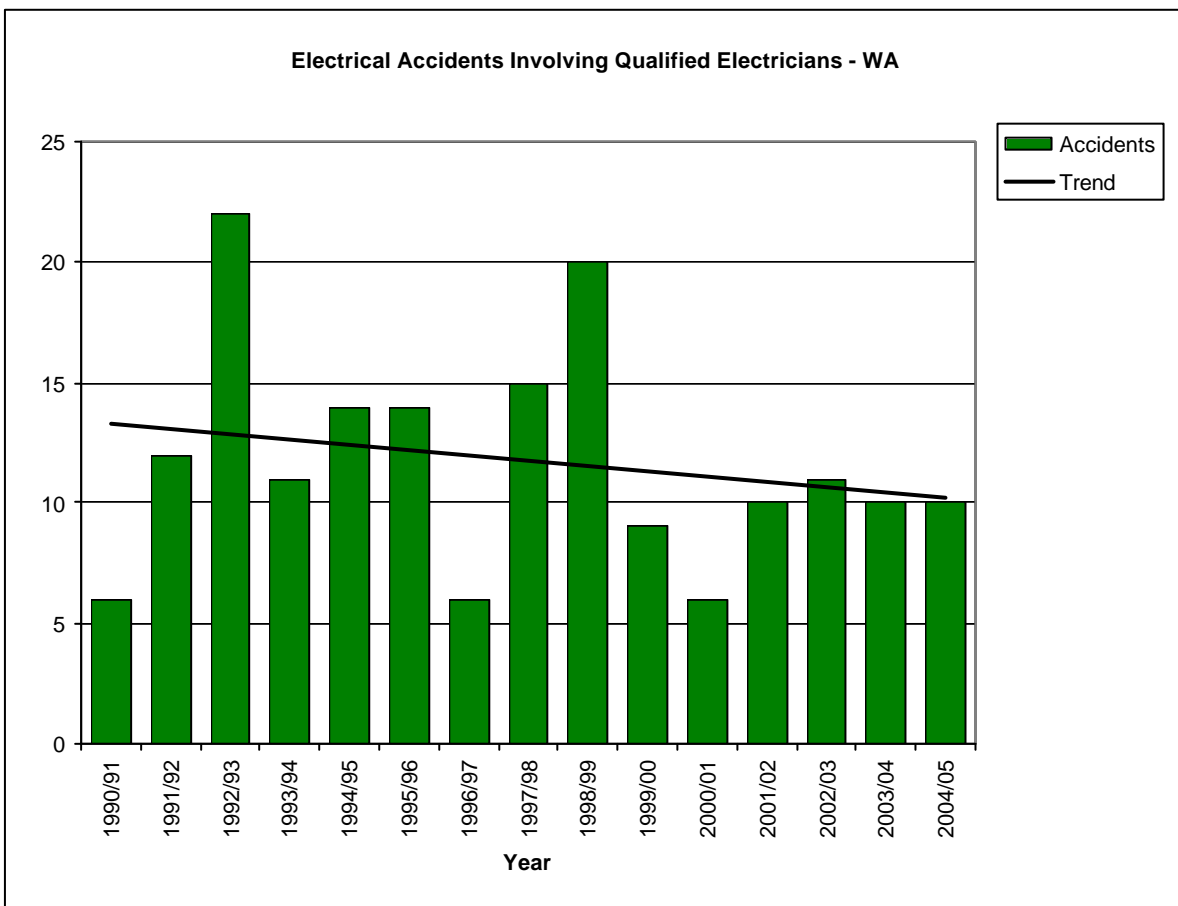
As the above graph shows, recently there has been a trend of an increasing number of serious electrical accidents by electricians, which is receiving attention by EnergySafety. Progress has however been slow due to limited senior specialist staff able to deal with such issues, which have industry sensitivity.

Consumer complaints are also increasingly associated with the effects of commercial pressures and generate a considerable amount of additional work.

It is anticipated that the growth in demand for regulatory services will continue to increase as consumers become progressively more aware of the capacity to raise complaints relating to their electricity and gas supplies and services from electrical and gas licence holders. The service being provided by EnergySafety to the Ombudsman will undoubtedly notice this trend.

6.3.6 Electrical and gas worker safety

There is a need for more industry education. For example electricians, despite their skills (which should make them safer than members of the public) are 40 times more likely to be electrocuted than members of the general public.



The survey conducted by Donovan NFO in 2001 for WorkSafe supported the need to increase the visibility of inspectors in the workplace in order to motivate businesses to actively manage occupational safety and health. This observation equally applies to the energy safety regulation area. This proactive approach however places considerable extra and competing demands on the available inspectors.

6.3.7 Electricity and gas supply infrastructure safety regulation (new)

The regulatory regime for consumer installation and appliance safety had been in place for some time but the regulatory regime for utility infrastructure and standards of electricity / gas supplied is still relatively new e.g. the electricity supply related regulations came into effect only in early 2002.

During the period up to the implementation of supply systems regulations, the utilities were self-regulating and there was a limited role for EnergySafety in overseeing their activities. The utilities were also not obliged to report anything other than electrical accidents (and only commenced that in 1999) and hence little was known about the success or otherwise of their operations except when major failures occurred, such as the electrocution of a young employee engineer at a Western Power Coolgardie Substation in early 2000.

EnergySafety is now expected to carry out regular corporate compliance audits of all utilities, including Western Power and Alinta, a point that was strongly made by the State Coroner in his recommendations from the Inquest into the Tenterden fires caused by Western Power's clashing power lines. Not only does this require inspectors with some specialist expertise, but steerage or major input by electrical or gas professional engineers of EnergySafety, increasing the demand on those limited resources. Furthermore, with the reporting of safety incidents as required by the supply system regulations, there are now many more matters to investigate and follow-up.

The capacity to meet these new regulatory obligations is very limited, particularly on the electricity side. For example, it is simply not feasible with current financial or labour resources to undertake regular, targeted (sample) compliance audits of all electricity and gas network operators, so that the community can have confidence that these entities are complying with their safety obligations under the law. Nor does EnergySafety have the order-making powers and penalties to require the necessary corrective actions for non-compliance.

When Energy Safety was designed as an organisation unit in 1994 it was anticipated that once the electricity and gas supply system infrastructure became subject to regulation, additional engineers, technical officers, inspectors and key support staff would be made available, to administer the regulatory regimes. That now needs to take place, however it needs to be noted that the Western Power network is in a worse state than expected, requiring more regulatory effort than had been thought necessary.

6.3.8 Emergency management demands (new)

Energy Safety "inherited" emergency management functions after it had been created. In other words, the original organisation design and establishment on 1 January 1995 had not allowed for any emergency management responsibilities and work. This work has therefore been accommodated on an "as can" basis.

Initially and from late 1995 the role involved only the management of liquid fuel shortages (including membership of the National Oil Supply Emergency Committee NOSEC).

During the last 5 years the role of Energy Safety in the State's emergency management framework has continued to evolve and grow. It now also includes membership of the State Emergency Management Committee (SEMC), responsibility for gas supply system emergency management, coordination of lifeline agencies under SEMC, and coordination and promotion of energy industry infrastructure resilience and security, involving participation in various committees including the national Energy Industry Assurance Advisory Group (EIAAG).

The latter is another example of a rapidly growing and demanding work area taking up an increasing amount of senior staff expertise and time, and it was one of the reasons that the divisional restructuring resulted in creation of the Gas & EM Directorate, however during recent months it has not been possible to participate in EIAAG activities due to pressure of other work and this is not a good outcome for WA.

6.3.9 Industry levy (new)

The change to full industry funding through the levy scheme has already added a considerable workload to the Division through the policy work and industry consultation required, and in future will demand significant ongoing effort for managing the levy submission process, plus the detailed levy allocation and collection of the levy.

The levy is to be applied on electricity and gas industry participants so that energy users (being the ultimate beneficiaries of the regulatory regime through energy safety measures, energy supply performance requirements and energy efficiency measures), will in some way contribute to meeting the cost of regulation – a “user pay” concept which is also being used in a number of other jurisdictions including QLD, SA, VIC and NZ. The methodology to be used for determining the levy is explained in more detail further on in the Plan.

Responsibility for the ongoing management of the levy scheme work will come under the Business Services Directorate.

6.3.10 Other new or impending regulatory demands

Energy Safety's workload continues to grow as new regulatory responsibilities are added, especially as by-products of the electricity and gas supply industry reforms.

For example, an amendment has been made to the *Gas Standards Act 1972* relating to the making of regulations to cover the co-mingling of gas in distribution systems.

The regulations that are under development will ensure the difference between the heating value of the gas consumers actually receive and the declared heating value (the heating value determined by the network operator as a consequence of gas co-mingling occurring in the distribution system) is never more than 1MJ. Once the regulations are introduced additional work will be required to ensure that the network operator and the pipeline operators comply with the provisions contained in the regulations.

Other examples are:

- a) The need to amend the existing legislation dealing with responsibilities for keeping vegetation clear of power lines, so that a clear set of responsibilities exists and a regulatory regime is established under which electricity network operators are required to have management plans and ensure the work is done. The regime is to be developed and overseen by EnergySafety, which will be responsible for approving plans and auditing performance against the plans. This will deliver improved safety and electricity supply reliability outcomes for the community, but requires specific ongoing additional resourcing to cover advisory, dispute resolution and enforcement services.
- b) The Ministerial Council for Energy has agreed a national plan to introduce new energy efficiency labelling and performance standards for gas appliances and equipment. EnergySafety will be carrying out the policy work and administering the scheme once legislated. Whilst this work will have many parallels with EnergySafety's established electrical equipment energy efficiency scheme (which was introduced in 2000 without any additional resources), it clearly will require additional effort and place further pressure on existing resources.

The two schemes are valuable however for mitigating greenhouse gas emissions from residential premises energy use.

6.3.11 Major policy projects for the forecast period

The following is EnergySafety's list of major policy projects. The list is not in any specific order and it should be noted that some of the projects are in progress, some are expected to be completed during 2006/07 and others during the following years.

- 1) Implementation of proposed legislation that is expected to amend existing Acts to provide for better technical and safety enforcement powers such as greater penalties and stronger remedial order-making powers.
- 2) New regulations under the *Gas Standards Act 1972* currently being drafted to deal with the declaration of gas heating values related to the commingling of gas of different heating values within the Alinta gas distribution system.
- 3) Future Bill to consolidate the existing, fragmented electricity and gas technical and safety legislation and separate it from economic regulation legislation. In summary, this will provide an updated, separate set of legislation dealing specifically with electricity and gas technical and safety regulation.
- 4) Infringement Notices: EnergySafety intends to make submissions to have the power to apply Infringement Notices to most parts of its legislation. This will improve enforcement powers.
- 5) The *Electricity Regulations 1947* need an amendment to correct an error from amendments that had been made as part of the electricity reform legislation and Parliamentary Counsel is currently drafting the amendments.
- 6) Part IX of the *Electricity Regulations 1947* needs to be completely repealed and replaced with new regulations covering essential safe electrical work practices for

- the electrical contracting industry (and similar), particularly to deal with work near or on “live” electrical equipment (i.e. live at 415/240 volt).
- 7) The existing national regime for regulating electrical equipment safety is to be reviewed as a national project by the Electrical Regulatory Authorities Council, with all regulators contributing to this 2 year project. Legislation changes will be required.
 - 8) Drafting of legislation amendments dealing with the control of vegetation near power lines. This project also requires a final round of community consultation.
 - 9) A number of amendments to the *Gas Standards (Gasfitting & Consumer Gas Installations) Regulations* are being drafted to update various technical and other requirements.
 - 10) Amendments to the *Electricity Regulations 1947* are necessary to deal with the safety of electrical equipment in road reserves, other than network equipment.
 - 11) Amendment of the *Electricity (Supply Standards and System Safety) Regulations 2001* to make the use of a safety case compulsory for large network operators. Also to ensure that “service apparatus” is covered by the scope of the regulations.
 - 12) Amendment of the *Electricity Act 1945* to require the retrofitting of RCDs to dwellings prior to sale, and also to rental dwellings.
 - 13) Review of the *Gas Standards (Gas Supply & System Safety) Regulations 2000* generally and to update the Australian Standards called up in the Schedules to the regulations.

6.3.12 Ongoing Policy Work

As the State's technical and safety energy industry regulator EnergySafety participates in important policy coordination and development work through a number of WA and national bodies covering electricity regulation, gas regulation, emergency management and technical standards, including:

- National Regulatory Coordination Bodies
 - Electrical Regulatory Authorities Council (ERAC)
 - Gas Technical Regulators' Committee (GTRC)
 - National Appliance and Equipment Energy Efficiency Committee (NAEEEC)
- National and State Emergency and Security Management
 - State Emergency Management Committee (SEMC)
 - National Oil Supply Emergency Committee (NOSEC)
 - Energy Industry Assurance Advisory Group (EIAAG)
- National Standards Councils, Boards and Committees
 - Council of Standards Australia (representing the Government of WA)
 - Electrotechnology Sector Standards Policy Board
 - Gas Sector Standards Policy Board
 - AG6 Gas Installations
 - AG9 Natural Gas Vehicle Technical Standards

- AG8 Gas Distribution 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

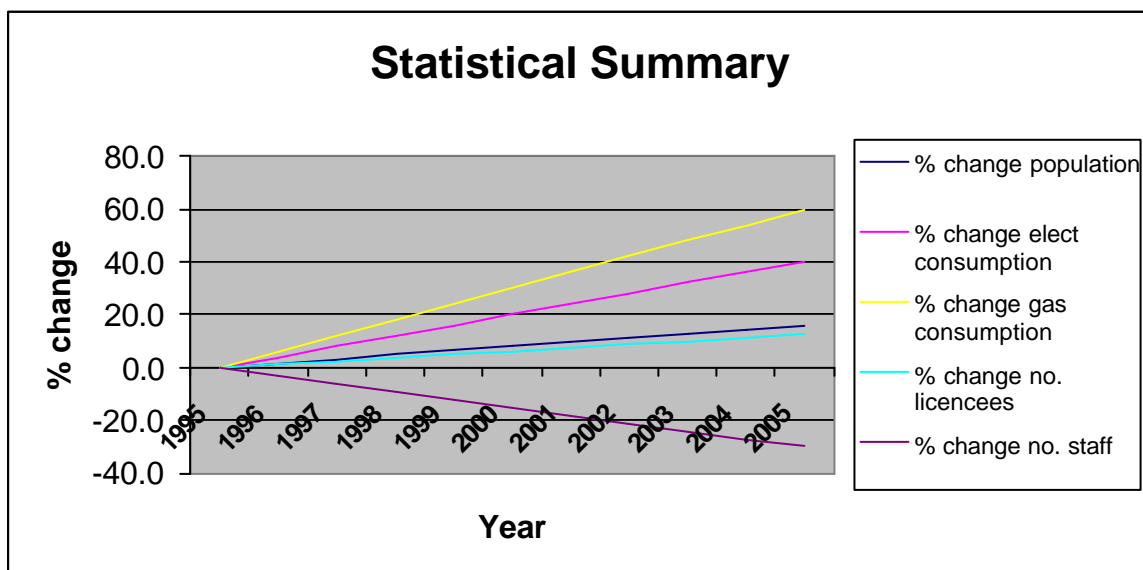
This participation provides valuable input into national technical standards and regulatory policies, many of which are referenced or used in local energy legislation. Participation also provides important opportunities for industry consultation on a wide range of topical issues, at the national level.

6.4 Summary: Stakeholder expectation and the need for additional resources

The preceding section 6.3 identified a number of changes in the regulatory environment that are mostly expanding EnergySafety's work, as is shown graphically below.

The original EnergySafety staff complement in 1995 was 50 FTEs, of which 5 were corporate services personnel who in around 1997 were transferred out of EnergySafety. Since then only 1 position has been added, to convert a longterm contract position dealing with licensing disciplinary matters into a permanent position, taking the current total to 46 FTEs.

In summary, if EnergySafety is to be able to effectively discharge its increased obligations as a consequence of the changes that are occurring in the industry and the growth of its work, then it is considered the staff of EnergySafety will need to increase by 5 extra positions in 2006/07 and a further 5 positions in 2007/08. This will increase the EnergySafety establishment from the current 46 to 56 FTEs in 2007/08.



At this stage there has not been a final decision on the specific types of additional staff required at those two stages, but it can be anticipated that it will be a blend of mid-level technical and administrative personnel. This blend is necessary as in the longer term an office's support systems are as important as field operatives, if professional results are to be delivered for the benefit of industry and the community. Furthermore, if the policy project to amend legislation in regard to the control of vegetation near power lines is to proceed, then an extra 2 inspectors will be required specifically for the ongoing aspects of this work once the changes are implemented.

These proposed staff increases are a modest response to the significant increase (since beginning of 1995) in workload due to organic growth, major new regulatory obligations and the addition of ever growing emergency management responsibilities. For example, Energy Safe Victoria which deals with electricity and gas safety regulation has some 90 personnel, and the Electrical Safety Office QLD which deals only with electrical safety regulation has some 70 personnel. Comparisons should be made cautiously however, as none of the offices perform exactly the same functions (e.g. neither the VIC or the QLD offices referred to carry out critical infrastructure or emergency management related activities of the kind conducted by EnergySafety WA).

The proposed increases in EnergySafety staff numbers will require the provision of additional funding and this is reflected in the Financial Plan.

The extremely tight labour market that currently exists especially for experienced technical personnel will present a challenge to EnergySafety when recruiting additional competent staff and replacing and retaining existing personnel. Currently a 30% vacancy rate exists within the Division, as Public Service salaries are not competitive with those currently offered by the private sector. It is proposed to add allowances that reflect these market conditions, as discussed in the Financial Plan section 7.1 [see 'Recurrent Expenditure' (c)].

To conclude on this issue of the need for additional resources and what value the community may attach to EnergySafety's regulatory framework and related activities, it is worth noting comments from Justice Wheeler at the conclusion of Supreme Court proceedings dealing with an appeal against a conviction, by an errant electrician. She summarised the public expectation⁷ as follows: "... *the community must be able to rely upon licensed electricians to comply with prescribed standards of practice, when the potential consequences of not doing so may result in fatalities. This is why the protection provided by the legislative scheme exists.*"

Furthermore, the Auditor General has found 'inadequate resources' is not a reasonable excuse for not meeting statutory obligations. In essence, the Auditor General found that not discharging such duties to be negligence. Those responsible for these obligations are in an invidious position if the resources are not available to discharge the obligations adequately⁸.

But the risks also sit with Government: experience from inquiries such as Gunning and the Temby Royal Commission has highlighted the risks to Government of an inadequately resourced regulatory agency.

⁷ *Koenig V Alizadeh* [2002] WASCA 267 (24 Sept 2002)

⁸ Eg. the case of Ken Price, Director Explosives & Dangerous Goods (now retired)

The issue was raised again and more directly in early 2005 at the Tenterden Fire inquest. State Coroner A Hope directly emphasised the importance of adequately resourcing EnergySafety so that it can protect the community by enforcing industry compliance with minimum standards.

To conclude, Energy Safety is now a mature regulator but it needs an adequate and stable base budget to ensure it can properly deliver on its statutory obligations and other requirements in the coming years, especially as more players enter the electricity and gas supply industries as a result of disaggregation and market reforms, and as the energy industry becomes increasingly competitive in all its sectors.

FINANCIAL PLAN

7.0 Introduction

The Financial Plan that follows on the next page sets out in detail the forecasts for the various components that make up EnergySafety's revenue budgets and expenditure budgets (both capital and operating) over the 2006/07 year and beyond.

Each of the components in the Table is explained in the text of section 7.1.

7.1 Financial Plan, notes and explanations

EnergySafety's Financial Plan is designed to provide a detailed overview of –

- (1) estimated revenue from electrical and gas operative 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 2006/07, as well as for the 4 forward years, although it needs to be recognised that projections for the out-years are less accurate and subject to review prior to each year. All estimates are in January 2006 dollars.

The following points should be noted in relation to the attached Plan, in the sequence of items listed in the attached Plan:

NEW EXPENDITURE

- a) Extra staff are needed to cope with an increased workload (currently the staff complement is as it was in 1995, when EnergySafety was established and the energy industry regulatory framework was very modest by comparison). The proposal is for 5 extra staff in 2006/07, and 5 further staff in 2007/08 and this item of the Plan lists the expected salary costs (at an average of \$65k per position).

The extra staff as part of the overall team will provide an improved and professional capability to advise industry, coordinate regulatory activities with other agencies including the ERA and Ombudsman, enforce existing requirements and review / prepare proposals.

- b) This item lists the non-salary costs (at an average of \$35k per position) associated with the additional staff to be appointed, as described in (a) above.
- c) As part of its role, EnergySafety needs to conduct electrical and gas safety promotion each year, through programs that are varied from year to year. This is to promote public / consumer safety and also industry safety using TV, radio, print media and industry presentations and safety material (eg safe work practices videos). This requires additional funds which have not been available during recent years due to other cost pressures.

FINANCIAL FORECASTS (\$m):

	06/07	07/08	08/09	09/10	10/11
OPERATING EXPENDITURE:					
1) <u>New Expenditure</u>					
a) 5 extra staff in 06/07 & 07/08	0.325	0.650	0.650	0.650	0.650
b) Operating costs (eg office, vehicles, phones, travel etc) for extra staff 06/07 & 07/08	0.175	0.350	0.350	0.350	0.350
c) Safety promotion (eg TV ads, regional presentations), on - going	0.250	0.250	0.250	0.350	0.350
d) Control of vegetation near power lines (policy work, then ongoing operational work)	0.300	0.300	0.300	0.200	0.200
<u>TOTAL NEW:</u>	1.050	1.550	1.550	1.550	1.550
2) <u>Recurrent Expenditure</u>					
a) Corporate services	0.650	0.721	0.791	0.791	0.791
b) Legal services	0.200	0.200	0.200	0.200	0.200
c) Staff salaries (for all types of EnergySafety work)	3.077	3.077	3.077	3.077	3.077
d) Non-salary expenditure (eg office expenses, travel, super, vehicles,consultants etc)	1.488	1.488	1.488	1.488	1.488
e) Non-salary expenditure not covered by ESD funds	0.300	0.300	0.300	0.300	0.300
<u>TOTAL RECURRENT:</u>	5.715	5.786	5.856	5.856	5.856
CAPITAL EXPENDITURE:					
a) IT hardware replacement	0.080	0.080	0.080	0.080	0.080
b) IS (EIS, GIS, ELA, GLA up-grades, then CALS in 09/10)**	0.000	0.000	0.000	0.000	0.000
<u>TOTAL CAPITAL:</u>	0.080	0.080	0.080	0.080	0.080
TOTAL EXPENDITURE:	6.845	7.416	7.486	7.486	7.486
SOURCE OF FUNDS:					
a) Estimated licensing revenue	2.951	2.784	2.306	2.926	3.015
b) Other minor income	0.015	0.015	0.015	0.015	0.015
c) Indian Ocean Territories service	0.045	0.045	0.045	0.045	0.045
d) Base energy industry levy*	3.834	4.572	5.120	4.500	4.411
e) Adjustment to equalise levy	0.654	-0.084	-0.633	-0.013	0.076
f) Total levy	4.488	4.488	4.488	4.488	4.488
g) Carry forward to next year	0.654	0.569	-0.063	-0.076	0.000
h) Funds from previous year	0	0.654	0.569	-0.063	-0.076
<u>AVAIL FUNDS FOR EACH YEAR:</u>	6.845	7.416	7.486	7.486	7.486

* total levy over the 5 years = 22.438 or 4.488 average p.a.

Financial Plan notes and explanations (continued):

- d) Various governments since 1993 have sought to implement a new regime for the control of trees and other vegetation near overhead power lines, to provide safer community outcomes and better electricity reliability / quality of supply. This is to take place by clearly defining in legislation the responsibilities of all parties and establishing a regulatory framework for ensuring compliance. The project has been delayed on several occasions due to pressure of other work and the need for ongoing funding. It is now proposed to be recommenced in 06/07, requiring detailed policy development work by a consultant, then implementation (including promotional work), followed by ongoing compliance and advisory activities.

RECURRENT EXPENDITURE

- a) EnergySafety requires corporate services (re finance, HR and IT/IS) to be provided by DOCEP and the amount shown is the estimated cost, which is escalated proportionally as the number of employees is expanded by 5 and a further 5, as described under "New Expenditure".
- b) Legal Services are normally provided by State Solicitor's Office and these will now be charged to EnergySafety at nominal cost.
- c) Staff salaries will cover all permanent and contract employees, for all types of work including electrical / gas policy work, operational work, safety promotion work and emergency management / critical infrastructure related work. The additional staff to be recruited are not included in this line but under "New Expenditure".

The recurrent salary budget is shown as increased from the 2005/06 \$2.760m amount to \$3.077m to allow for various increases and a full staff complement of 46 FTEs. The current \$2.760m budget is presently adequate only due to the many vacancies in the Division.

To address this real difficulty EnergySafety is currently having in recruiting and retaining technical staff due to major differences between PS salaries and industry salaries, it is proposed to apply an "Attraction & Retention Benefit" or allowance (expected to be up to 30%) to technical staff salaries for as long as is necessary. This allowance is subject to special approval by the Government (approval in principle first by the Labour Relations Division for positions L8 and below, and Department of the Premier & Cabinet for Director level positions, then financial expenditure approval by Cabinet). As that has not yet been obtained the cost is not shown in the Financial Plan at this time.

- d) Non-salary expenditure covers all other expenses not covered by (a) – (c) above, such as office rent and other office expenses, travel, vehicles, superannuation, consultants.
- e) This item also covers non-salary expenditure. It has been listed separately as it is additional to EnergySafety's past budget appropriations from CF, as these have been inadequate during recent years (meaning EnergySafety has required support from the Office of Energy's central funds, and later DOCEP's central funds).

CAPITAL EXPENDITURE

- a) IT hardware replacement covers only the routine replacement of desktop PCs and local printers etc, plus local network hardware. All general DOCEP network infrastructure is covered by the Corporate Services charge on EnergySafety.
- b) Information Systems (IS): 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.

The EIS, GIS, ELA and GLA are near the end of their service life and require a number of modifications to allow them to operate until 2009/10, when a new integrated Compliance and Licensing System (CALs) is to be developed and implemented. This new application is expected to use software modules already developed for CALs to service other parts of DOCEP, thus reducing the amount of custom software development for EnergySafety purposes.

These upgrades and later CALs are anticipated to be funded by the Government although this is subject to further approval.

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 5 year cyclical basis, as the electrical worker fees are for a 5 year term and renewals are not equally distributed over the 5 year period. Licence fees may only be set to reflect the cost of administering a licensing system and currently most fees are within 20% of full cost, with continued steps being 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 5 years (Note: as fee increases are at each government's discretion, future increases have not been factored into the forward years, although the 2006/07 revenue estimate is based on proposed fee increases in excess of CPI as part of this program).
- b) Other minor income: covers the sale of publications and the like to industry.
- c) Indian Ocean Territories (IOT) services: DOCEP 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 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 5 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 a mechanism that provides for an averaging of the levy over the 5 year forecast period, so as to reduce year-to-year fluctuations (this averaging will be 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 equalised (averaged) levy over the 5 year forecast period. It should be noted that this amount of levy is reasonable when compared with the amounts applied in other jurisdictions, for similar purposes (see section 8.0).
- g) Carry forward to next year: the equalisation scheme referred to in (e) and (f) above necessarily provides excess income in some of the 5 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) will be required.
- h) In keeping with (g), this line shows the amount carried forward from the previous year, to allow totals to be calculated.

7.2 Industry levy quantum

The Financial Plan shows the total levy is required to be \$4.488m p.a., based on the equalisation scheme (as explained in section 7.1) that allows for fluctuations in revenue from licensing and in various types of expenditures.

The manner in which this levy is to be applied across various industry participants is discussed in section 8.

PROPOSED INDUSTRY LEVY

8.0 Introduction

The 2006/07 Financial Plan is based on EnergySafety receiving revenues from licensing fees, minor income such as from sale of publications, fees for regulatory services to the Indian Ocean Territories (IOT), and the application of a levy on energy industry participants.

The industry levy is based on the concept that those who benefit from the existence, on-going development and enforcement of WA's electricity and gas technical / safety regulatory framework should fund these activities, since each of the entities that must pay a portion of the levy is (in economic terms) assumed to pass the cost to its clients. These clients or 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 these clients are at home, at recreation or at work in commerce or industry. These clients all benefit from safe energy supply systems, safe and efficient energy installations and appliances, safety promotion and related emergency management work.

The industry levy is proposed to total \$4.488m during 2006/07 and the basis for this levy is provided by legislation in the form of the *Energy Safety Act 2006* and the related *Energy Safety Levy Act 2006*.

The *Energy Safety Act 2006* allows the responsible Minister to make a formal determination of the levy for that year, and for EnergySafety to issue notices of assessment. All revenues described above will, in accordance with the legislation, be paid into a statutory "Energy Safety Account" and will only be able to be used for energy safety related activities.

It should be noted that the proposed \$4.488m levy is reasonable by comparison with what is applied in other jurisdictions. For example, Energy Safe Victoria (which deals with electricity and gas safety regulation and has some 90 personnel) receives levy funds totalling approximately \$9m p.a., whereas the Electrical Safety Office QLD (which deals with electrical safety regulation and has some 70 personnel) receives levy funds of approximately \$7.5m yearly.

The following sections detail the recommended methodology for the application of the levy on individual industry participants, as is required by the legislation.

8.1 The apportioning of the levy between energy sectors

One of the key steps in the levy assessment process, in line with the requirements of the proposed legislation, is for EnergySafety to recommend to the Minister the portion of the levy that is to be applied to the electricity sector and the portion to be applied to the gas sector.

The policy work and enforcement programs of the electricity and gas sides of the EnergySafety office have much in common in a regulatory strategy context. Hence there is no benefit in carrying out a set of detailed cost estimates to ascertain the split between

EnergySafety's electricity and gas related expenditures, either historically or as forecasts, so as to determine a formula for splitting the levy between the electricity and gas sectors.

Instead it is recommended that the levy split is broadly based on the number of electricity staff versus number of gas staff at EnergySafety, which is both logical and relatively easy to do, since the recent restructuring assists this process.

On this basis it is proposed that for 2006/07 and the subsequent 4 years, 67% of the total levy is applied to the electricity sector and 33% of the total levy is applied to the gas sector. At the end of this 5 year period the split be reviewed and adjusted as appropriate, and after that every 5 years.

8.2 Model for allocation of levy within each energy sector

A number of models were considered on how best to allocate the levy across the energy supply industry participants.

It was concluded following consultation with industry that the following approach, which is similar for each form of energy, is the most fair and appropriate and largely reinstates the funding position that existed during the time of SECWA and the initial 1.5 years when Western Power and AlintaGas were the organisations responsible for funding most of the technical and safety regulation (licensing fees being the other source of income):

- (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 (or entity exempted from the requirement to hold such a licence) and LPG distributor entities in WA; and*
- (b) *Electricity levy allocation across the electricity sector to be based on the aggregate number of consumer sites served by each network operator.*

Once the levy has been determined by the Minister in accordance with the proposed legislation, it will be necessary for the levy to be accurately allocated between the gas and electricity energy supply industry participants by EnergySafety. This will first require industry participants to provide information on the number of consumer sites served, as appropriate to the sector.

8.2.1 Proposed gas model

For the purposes of the levy, gas transporters are proposed to fall into two categories:

- (a) gas distribution ⁹network operators (distribution system licence holders and those exempted from the requirement to hold such a licence); and
- (b) entities providing LPG to consumers in bulk and in portable 45 kg cylinders;

and it is considered important that each transporter (or "supplier") contributes its share of the levy.

⁹ This refers to gas transport systems operating at <1.9Mpa

Pipeline licensees (who operate pipelines at > 1.9Mpa) are not included because they are not regulated by EnergySafety and the number of directly fed consumer sites is insignificant.

It is too complex and administratively difficult to attempt to differentiate between consumer sites on a consumption or other "size" basis, hence it is proposed that the gas sector share of the levy is to be allocated between the natural gas distributors and the LPG distributor entities on a "per site" basis (i.e. no distinction between sites of large/small gas users) so that each of the gas suppliers pays a portion of the total gas levy based on the number of sites served.

Once EnergySafety receives the necessary information on the number of sites, the fixed portion of the levy for the coming year will be assessed for each natural gas distributor and LPG distributor entities based on the number of sites supplied, and billed accordingly.

8.2.2 Proposed Electricity Model

The electricity model is to be based upon the aggregate number of sites supplied with electricity by a network operator, subject to a minimum aggregate total of 500 sites being served by that network operator. The aggregate may be based on multiple networks.

Once EnergySafety receives, as for the gas sector, the necessary information on the number of sites served by each network operator who may be liable for payment of the levy, the levy liability will be assessed for each network operator for the coming year, and billed accordingly.

8.3 Future variations in the levy

It is proposed that the total levy to be applied be a rolling 5 year forecast average recalculated each year, based on latest figures.

This will "smooth" out fluctuations from variations in various types of expenditure, revenues and increases to cover inflation.

8.4 Administration of the levy scheme

EnergySafety will maintain a confidential database of industry site or operator specific information that will enable allocation of the levy across participants in the gas sector and those in the electricity sector.

Although the total levy amount is to fall due for payment at the beginning of each year, it is proposed to invoice industry participants at quarterly intervals. The formal assessment for the year will be communicated to individual industry participants concurrently with an invoice for the first payment. There are to be no reductions in liability for departures during the year, or back accounts for arrivals during the year, in the industry.

EnergySafety will annually provide a printed report on its activities (including objectives, results and expenditure) to all the organisations paying a portion of the levy.