CENTRE FOR
INTERNATIONAL
ECONOMICS

**ATTACHMENT A**

# *NCP review of the Northern Territory Electrical Workers and Contractors Act*

*Prepared for the Department of Industries and Business*

*Centre for International Economics*
*Canberra & Sydney*

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# *Glossary*

| | |
|---|---|
| ABS | Australian Bureau of Statistics |
| ANTA | Australian National Training Authority |
| ANZRA | Australia New Zealand Reciprocity Association |
| CEPU | Communications, Electrical and Plumbing Union |
| CIE | Centre for International Economics |
| CV | Curriculum vitae |
| DIB | Department of Industries and Business |
| ERAC | Electrical Regulatory Authorities Council |
| EWC | Electrical Workers and Contractors |
| GBE | Government business enterprise |
| HV | High voltage |
| ITAB | Industry Training and Advisory Body |
| LHS | Left hand side |
| MPA | Master Plumbers Association |
| NCP | National Competition Policy |
| NECA | National Electrical Contractors Association |
| NOHSC | National Occupational Health and Safety Commission |
| NRLS | National Restricted Licensing System |
| NT | Northern Territory |
| NTP | National Training Packages |

# *Summary*

## Background

The Department of Industries and Business commissioned the Centre for International Economics (CIE), in conjunction with Catalyst Consulting (formerly Desliens Business Consultants) to conduct this review of the *Electrical Workers and Contractors Act*. The purpose of the review was to assess the consistency of the Act with the principles of National Competition Policy. The review team undertook public consultation as part of the review process, including through the preparation of an issues paper and receiving public submissions to it, and consulting with stakeholders in Darwin and Alice Springs.

## Industry and regulatory framework

Persons regulated by the *Electrical Workers and Contractors Act* include:

- electrical workers and contractors across all fields of specialisation and grade who enter the industry from within the Northern Territory;
- electrical workers and contractors across all fields of specialisation and grade who enter the industry from other Australian jurisdictions and New Zealand who choose to work in the Northern Territory;
- utilities and other employers, and householders who employ the services of an electrical worker in the Northern Territory; and
- any person in the Northern Territory who performs limited electrical work without a licence.

Regulations require the obtaining of a licence or other instrument to perform electrical work above a designated threshold, and impose penalties for unlicensed work. The Act and its Regulations are administered by the Electrical Workers and Licensing Board, who delegates certain authorities to the Department of Industries and Business.

## Objectives

The Act contains no explicit objectives. Inferred objectives found to be still important to the regulation of electrical workers and contractors in the Northern Territory include:

- ensuring safe work outcomes for electrical tradesmen and women, their employers, customers, and the wider community;
- enabling maximum worker mobility between employers and between states and territories, within necessary safety constraints; and
- providing a realistic degree of flexibility in regulation to enable less skilled work to be done, and to respond to the requirements of various employers and household purchasers of electrical services.

## Nature of restrictions

The *Electrical Workers and Contractors Act* impacts on competition through restrictions on market entry and conditions imposed on lawful market conduct, including;

- restrictions on the performance of electrical work without requisite qualifications, including restrictions on the scope of work available to electricians, depending on grade of licence and area of specialisation;
- the ability of the Electrical Workers and Contractors Licensing Board to prevent entry to the industry unless satisfied of the character and credentials of applicants;
- additional conditions to be satisfied to obtain a contractors licence;
- limits on the type of work that can be performed by apprentices; and
- limits on electrical work performed by unlicensed persons.

These result in limits on the availability of services, particularly in areas where more specialised skills, or the training to acquire them, are unavailable, and impact on industry costs.

## Benefits and costs

By and large, the benefits of existing licensing requirements exceed the costs imposed on regulators, electrical workers and contractors, and the wider community.

While concrete quantification is not possible, the current licensing system is expected to deliver benefits by way of:

- reduced accidents, particularly for less experienced electrical workers;
- reduced damage to property and equipment and less down time in terms of foregone activity in the household and industry sectors;
- reduced fatalities; and
- providing a seemingly cost effective mechanism delivering separate benefits to regulators, industry participants, and consumers.

Yet safety benefits are also achieved via restrictions on the supply and use of electricity and electrical devices and inspections and audits of electrical work contained in the *Electricity Reform Act*. Thus the identified benefits of injury prevention or reduction and reduced equipment and property damage should not be considered solely attributable to licensing.

There are many costs associated with the licensing. Costs are incurred by the regulator, by way of administration, monitoring and enforcement of regulation, and those being regulated, who must comply with regulations. Other costs include efficiency costs, where competition between actual and potential electrical workers and contractors is reduced, or costs associated with reduced consumer choice. However, the costs of current regulation are modest. No stakeholders submitted that costs were an adverse barrier to entry. Costs are greatest for those groups not well suited to licensing, and for whom any costs, even modest costs, are net costs.

## Alternatives

The alternatives to current arrangements which were analysed include:

- amendments to the current system to address areas where costs exceed benefits, or where benefits can be achieved less restrictively;
- co-regulation, via an industry-driven, government sanctioned, competency based approach;
- industry-run regulation;
- registration;
- negative licensing; and
- the removal of industry-specific regulation.

The latter three were dismissed because they were found to be unable to achieve the objectives of regulation.

## Summary of recommendations

- Licensing should be retained, but other means of signalling competence be afforded comparable status. Licensing should be flexible enough to accommodate alternative means of signalling a persons' competence to perform set tasks.
- There are several reasons for removing the additional experience requirement for contractors. The Board should seriously consider these. The objectives of the requirement should be clearly articulated by the Board, and it should be demonstrated that experience is the best way of satisfying those objectives if they are to be retained.
- The fit and proper person test was found to be problematic for several reasons. However, on balance, the cost of the test is likely to be low, and it does have an important benefit of giving the Board discretionary powers of exclusion to respond to instances of inappropriate conduct. The test should be amended to overcome concerns relating to its arbitrariness, and signal to potential licence applicants the criteria against which their fit and proper status will be assessed.
- The exemption to licensing requirements afforded to PAWA should be removed. However, approved competency based assessments should be recognised as a substitute for licensing in certain situations.
- A more general review of the Act is both warranted and recommended. At a minimum, a more general review should:
  - incorporate the recommendations in this report, including the incorporation of explicit regulatory objectives;
  - enable the act to explicitly accommodate the National Restricted Licensing System currently in place;
  - make explicit the application of licensing, permit and record keeping provisions of the Act with regard to PAWA, other utilities, and other categories of employers, including households;
  - eliminate the overlap between the assessment and accreditation activities of the Board and those developed and endorsed by industry through the National Training Packages processes;
  - review the industry-dominated composition of the Board, and consider advantages of consumer and government representation;
  - update the language of the Act, including the removal of gender specific language; and
  - review of the adequacy of the level of enforcement of licensing provisions and penalties where restrictions to competition are relaxed.

# 1 Introduction

ELECTRICAL WORKERS AND CONTRACTORS in the Northern Territory (NT) are directly regulated by the *Electrical Workers and Contractors Act 1997*. The Act contains various restrictions to competition, including certain requirements to be satisfied prior to market entry, and others while participating in the market. Accordingly, as part of the commitment of all Australian governments under the Competition Principles Agreement, the Act needs to be reviewed for consistency with the principles of National Competition Policy (NCP).

This review was initiated by the Department of Industries and Business (DIB), who commissioned the Centre for International Economics (CIE), in conjunction with Catalyst Consulting (formerly Desliens Business Consultants) to conduct the review. The terms of reference for the review are set out in Appendix A.

## National Competition Policy — the framework for the review

A key objective of NCP is to develop open, integrated markets throughout the economy to promote competition where it encourages more efficient resource use, stimulates cost reductions and brings quality improvements. NCP assumes that competition is desirable *unless* a legislated restriction can be shown, on a case-by-case basis, to deliver socially beneficial or desirable outcomes that are greater than those with no such restriction in place. The specific test contained in the Competition Principles Agreement is that legislation should not restrict competition unless it can be shown that:

- the benefits of the restriction to the community as a whole outweigh the costs (of the restriction); and
- the objectives of the legislation can only be achieved by restricting competition (Clause 5(1) of the *Competition Principles Agreement*).

*Both* these criteria must be met if a restriction is to be retained. To keep a restriction, it is necessary to demonstrate that to do so will result in a public

net benefit. It is not sufficient to demonstrate that its removal would result in no or little net benefit.

### *Market failure as a justification for intervention*

Legislative restrictions that restrict competition may be justified in order to correct 'market failure' – where unfettered competition produces flawed outcomes. Yet market failure is relative. All markets fail to some degree because the benchmark against which failure is measured is an *ideal* case. Under NCP, the test is whether a set of arrangements generate net benefits by comparing actual market outcomes with what can realistically be achieved by intervention. For example, we should ask if today's licensing is the best way to reduce safety hazards associated with electrical work (in a net benefit sense), rather than whether it eliminates dangers altogether.

## The review assessment process

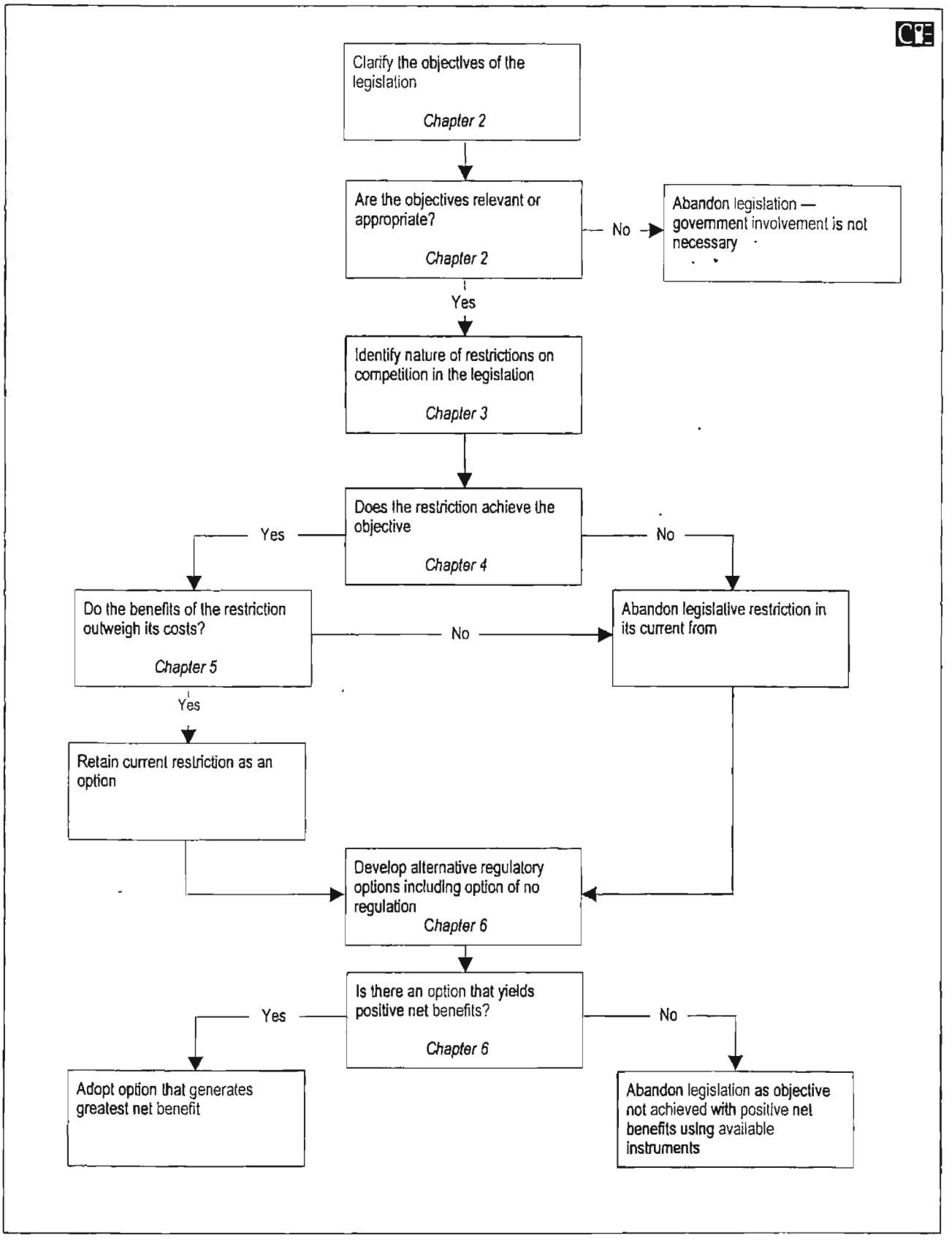
The key steps for an NCP review are to:

- describe the industry and regulatory structure;
- clarify the objectives of the legislation;
- identify the nature of every restriction on competition;
- analyse the likely effects of the restrictions on competition and on the economy generally;
- assess the balance between costs and benefits of the restrictions; and
- consider alternative means of achieving the same results including non-legislative approaches.

Chart 1.1 illustrates the review assessment process adopted in this review. A restriction to competition is only to be retained if it is shown to produce net benefits, and there is no less restrictive way to do so. Public interest issues are to be taken into account in assessing the net benefits including:

- ecological sustainability;
- social welfare and equity;
- occupational health and safety;
- industrial relations and access and equity;
- economic and regional development including employment and investment growth;

## 1.1 Review assessment process



- interests of consumers;
- competitiveness of Australian businesses; and
- efficient resource allocation.

## *Consultations*

Consultation with various stakeholders was encouraged throughout the review, several were held during the review assessment process. All identified stakeholders were contacted and invited to participate in the review. Members of the review team met or spoke with representatives from the:

- Power and Water Authority (PAWA);
- Communications, Electrical and Plumbing Union (CEPU);
- National Electrical Contractors Association (NECA);
- the Territory Construction Association (TCA);
- electrical inspectors and other representatives from the Department of Industries and Business (DIB) in both Darwin and Alice Springs;
- the NT Chamber of Commerce in Alice Springs;
- Tangentyere Council; and
- Tangentyere Constructions.

There were three formal written submissions to the review. Numerous verbal comments, which were made by stakeholders have also been taken into consideration in the review.

The Tangentyere Council mentioned above was consulted in part to obtain a consumer perspective on the issues encompassed by the review, particularly for more vulnerable groups such as Aboriginal communities living in remote areas. Several inquiries were also made of DIB staff in Darwin and Alice Springs as to the nature and frequency of customer complaints regulating electrical workers and contractors, to help identify issues of importance for consumers. No individual consumers responded to advertisements inviting the community to participate in the review.

# 2 *Industry structure and regulation*

IDENTIFYING THE MARKET is an important early step in an NCP review. This includes establishing the dimensions of the market affected by regulation, and where regulation impacts on the market.

## The electrical workers and contractors 'market'

The *Electrical Workers and Contractors Act 1997* regulates the performance and supervision of all electrical work performed in the NT, including the contracting to perform electrical installation work.

'Electrical work' is defined by the Act as

> ...work done in connection with the installation or repair of an electric line or electrical article for the generation, transmission, supply or use of electric energy, but does not include work done in –
>
> a) manufacturing, or assembling at the place of manufacture, electrical articles; or
>
> b) constructing for and on behalf of the Authority and under its supervision a new overhead line on steel towers, not being towers supporting any other overhead line that is in service or has previously been in service.

The Authority referred to above is Northern Territory Power and Water Authority (PAWA), which under Section 42 is permitted to supervise or perform electrical work notwithstanding anything elsewhere in the Act – suggesting its work is not regulated by the Act. No other utility or other business is afforded this status. However, PAWA is a holder of a contractors' licence. Under the Act, it is an offence for licensed contractors to employ unlicensed workers to supervise or perform electrical work (Section 54A). Despite this apparent inconsistency, for the purposes of this review PAWA is regarded as part of the industry subject to the requirements of the *Electrical Workers and Contractors Act* and its Regulations.

There is a substantial difference between the electrical work performed by employees of PAWA and many electrical contractors, and those services

purchased by households, or the 'average consumer'. Utilities and some commercial contractors undertake *industrial*, up to high voltage (HV) electrical work, performed by elect-fitter mechanics, linesmen, and cable joiners. PAWA has commented to the review that this differs significantly from household wiring. Several HV lines in the Northern Territory are owned by PAWA, who determines access to them. There is no apparent legislative basis for this authority. The NT Government also owns HV power lines other than via PAWA assets, including the Darwin Katherine HV line, as a 'private line'.

### *Industry size and composition*

The NT electrical workers and contractors industry is comprised of 3727 tradesmen and women. The size of the NT industry is not large compared to other states. There are 650 licensed electrical contractors (although not all permanently reside in the NT), compared to 4500 in Queensland. In 1998/99 alone, there were 2000 electrical workers licenses issued in Queensland (Queensland Electrical Licensing Board 1999, p. 15). And the 3727 electrical trades-persons in the NT compares with 24 481 registered electrical operatives in Western Australia (WA Office of Energy 1999, p. 32). On a per capita basis, this means that the NT is very well served, with a population of just under than 200 000, compared to almost 3.5 million in Queensland and over 1.8 million in WA (ABS, 1999).

There are a limited number of apprentices registering in the NT each year, typically around 15–25, some of whom withdraw from completing their training each year.

It is not possible to estimate the precise value of the electrical workers and contractors industry in the NT from available statistics. According to the Northern Territory Budget 2000–2001, the total annual value of the NT electricity, gas and water industry is just over $100 million, or around 1.6 per cent of gross state product. A proportion of this would be generated by the electrical trades industry (NT Treasury 2000, p. 16).

### *Competition from electrical tradespersons outside the NT*

Electrical workers and contractors are licensed in all Australian States and Territories and in New Zealand. Electrical workers and contractors can apply for a reciprocal licence to operate in the NT if their home state has the same licensing structure, generally offered to holders of A Grade electrical mechanics' licences, or equivalent. Alternatively, mutual recognition applies, which means that a person holding a licence in one

state or territory is entitled to a comparable licence in another. Such mechanisms enable those licensed outside the NT to operate in the NT, subject to the requirements of the Act under review.

Examples of some differences across state and territory borders include licence renewal periods (which vary for electrical workers between 3 and 5 years), the duration of additional experience required for contractors (only 1 year in Queensland compared to 2 in the NT and many other jurisdictions), and the definition of electrical work, affecting the scope of work that can be done by unlicensed persons.

The fluid and mobile nature of the electrical trades industry, assisted by reciprocity and mutual recognition, results in a potentially significant degree of competition from electrical tradespersons outside the NT. In its submission to this review, the Communications, Electrical and Plumbing Union notes that:

- interstate contractors often bring their own workforce to the NT, partly for convenience, and partly because of the (perceived) availability of higher skills and competency outside the NT due to greater training and industrial experience and opportunities interstate; and
- the itinerant nature of the NT population creates competition between prospective employees as itinerant workers often do not care about Awards and Agreements and tend to cut the wage rates and sell their skills for a lesser rate, despite being contrary to regulations in place (CEPU (i), p. 2).

The latter point refers to illegal non-compliance with the provisions of the Act under review, and the requirements of other acts effecting the electrical workers and contractors industry. The claim is that certain people operate unlicensed, and move on before their unlicensed status is detected or penalties are imposed.

## Regulation of electrical workers and contractors in the NT

Similar to arrangements in other Australian jurisdictions, the NT *Electrical Workers and Contractors Act* segments the electrical trades industry by distinguishing between types of electrical work and levels of competency.

The Act refers to four categories of electrical worker, including:

- electrical cable joiner;
- electrical fitter;

- electrical linesman; and
- electrical mechanic.

The Regulations pursuant to the Act distinguish between two classes of electrical mechanic and fitter (A and B), and create an additional category for a refrigeration mechanic (R). A Grade licences are issued in the categories of Electrical Mechanic, Electrical Fitter, Electrical Linesman, and Electrical Cable Joiner. B Grade licences are available to electrical mechanics and fitters who fail to complete the requisite course, although such licences are currently being phased out. Grade B licences are not expected to be part of the National Licensing Scheme currently under development (see below). Each category has its own market entry and conduct requirements (some with considerable overlap), as described later in chapter 4.

The vast majority of industry participants are A Grade licence holders, as shown in table 2.1.

Restricted licences are also available in the NT for those wanting to perform some electrical work, but not the full scope of work that can be performed by a fully skilled electrical worker. The Act does not mention restricted licences *per se*, although there is provision for an R Grade licence endorsed as refrigeration mechanic or instrument fitter. There is also mention of a temporary permit system, and this section is used to validate restricted licensing for other categories. PAWA reports that restricted licences are very important to its work, particularly in remote areas.

2.1 **Participants in the NT electrical trades industry as at end June 1999**

| | No. of persons | % |
|---|---|---|
| A grade electrical workers | 2 672 | 71.7 |
| B grade electrical workers | 12 | 0.3 |
| R grade electrical workers | 370 | 10.0 |
| Electrical contractors | 650 | 17.4 |
| Apprentices[a] | 23 | 0.6 |
| **Total** | **3 727** | **100** |

[a] Does not necessarily include all new apprentices eligible for registration, and may include some second year apprentices registering late.

*Source*: Electrical Workers and Contractors Licensing Board Annual Report 1998-99.

## *The Electrical Workers and Contractors Licensing Board*

The Act establishes the Electrical Workers and Contractors Licensing Board (the Board), responsible for administering licensing and registration. The Act outlines procedural and reporting requirements for the functioning of the Board, sets out an appeals process, and procedures for the suspension

and cancellation of licences. In practice, responsibility for licensing and registration is delegated to an officer in the Department of Industries and Business and the Board is principally involved with restricted licensing, ratification of licences that have been granted under delegation, and broader industry issues. The Board must consist of five members:

- an electrical engineer with an A Grade licence *or* a qualified electrical engineer who has or could have relevant affiliations;
- an employee who is an electrical engineer with an A Grade licence *or* a qualified electrical engineer who has or could have relevant affiliations;
- a representative of institutions providing apprenticeship training for apprentice electrical workers;
- a representative of electrical contractors; and
- a representative of electrical workers.

By and large the Board is an industry Board. There is no deliberate representation of consumers or government.

## *Contemporary changes in the industry*

The NT electrical trades industry is subject to changes occurring on a national scale. In addition to the National Restricted Licensing System (NRLS) currently in place, a National Licensing System is also under discussion. Under this scheme it is proposed that the linesman, fitter and cable joiner categories be dropped and one A Grade licence be issued without specifying area of specialisation. The curriculum vitae of individuals would be relied upon for demonstration of specialised skills. The national licensing proposal is of interest, but is not in the scope of this review.

Other important developments include national training packages for the assessment, recognition and development of competencies, which are being developed for various parts of the electrical workers and contractors industry. Competencies are endorsed by the Australian National Training Authority (ANTA) at the national level.

Competencies of electrical tradespersons working in the NT can be assessed by a Registered Training Organisation (RTO), given that status by the NT Employment Training Authority, and the assessment is in accordance with ANTA guidelines. PAWA have already adopted this competency-based assessment of their employees, rather than relying exclusively on the licensing system.

For instance, PAWA does employ unlicensed electrical workers who have been declared competent to perform specified electrical tasks by an RTO. Licensing assists PAWA in its screening and assessment process, but it is not necessarily sufficient to guarantee work placement with the organisation.

Several Industry Training and Advisory Bodies (ITABs) such as the National Utilities and Electrotechnology Industry Training Advisory Body (NUEITAB) are developing National Qualifications for the industry sectors they represent. Training packages describe the standards of work performance expected from individuals, and the national qualification/ certification they will be issued when deemed competent for the respective NUEITAB Industries.

Technological and other changes inevitably effect most industries, and may raise questions about the appropriateness of certain regulations. As noted by PAWA:

> The Act remains largely unchanged since 1978 despite significant structural and technological change and growth within the industry and occupations to which it applies (PAWA, p. 1).

# 3 Objectives

The *Electrical Workers and Contractors Act* was introduced in 1978 at a time when electrical contractors were unlicensed and electrical workers and contractors were regulated differently to those in other Australian states.

The stated purpose of the Act is 'to provide for the licensing of electrical workers and contractors and for other purposes'. A broad statement such as this does not provide a clear insight into the objectives of the Act, nor the reasons for government involvement in the regulation of the electrical trades. The second reading speeches at the time the Act was introduced provide some insight into the Acts objectives, namely:

- to promote the safe operation of the electrical trades, for workers, contractors and the public alike;
- to provide confidence to consumers in using electrical tradespersons;
- to achieve reciprocity of licences among the states, presumably to both reinforce the safety objective as well as provide tradespersons with the mobility to follow available work; and
- to provide flexibility within the industry for less than fully skilled electricians to enter and perform lower skilled duties.

## Ensuring safe working outcomes

Safety issues are paramount in the electrical trade, given the danger of fire and danger to lives. The objective of safety protection remains as relevant and important today as it was at the time the legislation was drafted. Given safety concerns in other jurisdictions, seeking compatibility with regulation elsewhere is a further means of protecting safety standards in the NT. In its submission to this review, the CEPU reinforces the safety objective of the Act in stating its reasons for resisting de-regulation:

> ...to maintain a strong and effective regulator of electrical usage for the safeguarding of workers, users, consumers and equipment. (CEPU (i), p. 1)

It is unlikely that broader regulations, not exclusive to the electrical trades industry, would afford adequate safety protection to workers and the community. The CEPU submitted that

> It is important to maintain high electrical standards irrespective of the development and/or emergence or broader health and safety legislation. Standards in both areas move at times at different speeds and with some variations. (CEPU (i), p. 3)

### *Enhancing consumer confidence to employ licensed persons*

Providing confidence to consumers follows from the safety objective. Consumers are more likely to select a licensed tradesperson if they believe that person is better able to perform electrical work in a safe and efficient manner. By reducing consumer risk associated with engaging electrical tradespersons, the legislation seeks to reduce overall risk.

Under the current Act, this objective applies principally to the quality of the work performed, rather than risks associated with the character of the individual performing it. However, the trace-back mechanism implicit in licensing may also provide some assurance that those who engage in inappropriate behaviour or substandard work can be disciplined.

The pursuit of consumer confidence is not an *a priori* relevant objective of regulation unless the lack of confidence is due to, or results in some form of market failure. For instance, if consumers were not confident that a licensed person could perform safer work than themselves, they might attempt to tamper with very dangerous electrical wiring, causing injury to themselves and potentially others.

## Enhancing worker mobility

Providing electrical workers with the mobility to work in other jurisdictions is an important objective of any regulations pertaining to the building industry, where activity is notoriously volatile and cyclical. The achievement of mobility is important in moderating the peaks and troughs of electrical work associated with building activity. Attempts to achieve reciprocity with other states would facilitate this mobility.

The merits of seeking to achieve such reciprocity depend in large part on the standards in other areas. In the case of electrical workers and contractors, standards are very similar, therefore other objectives are unlikely to be compromised in the pursuit of mobility for tradespersons.

Enhancing worker mobility is not directly related to the correction of market failure. However it does seek to offset the adverse consequences of those regulations that do – that is, market entry restrictions designed to support the community's interest in the performance of safe work, which is unlikely to be satisfied in the absence of regulation.

## Providing the flexibility for less skilled work to be done

There are times when work needs to be done, but cannot be performed by a fully skilled tradesperson. The Act tries to provisions for these circumstances and allows for practices and rules to be developed so that limited *types* of work can be done to an acceptable level of safety. Enabling less than fully skilled electricians to perform some tasks is of particular importance in the more remote areas of the Northern Territory where fully skilled professionals are unavailable. The intention of the Act to allow for less skilled work to be done is a practical means of ensuring certain work is undertaken legally, and within necessary safety protocols. This recognises, for instance, that a fully skilled tradesperson might be unable to service very distant areas where they are not a resident.

Stakeholder discussions suggest there is some tension in the community between the safety objective and the desire to allow less skilled persons to undertake restricted electrical work. In instances where work is performed by less skilled persons, there may be a limited trade-off with more stringent safety standards. Still, regulating restricted work is likely to be in less conflict with the safety objective than would be the likely alternative – the performance of illegal work.

# 4 *Nature of restrictions*

ALL LEGISLATION REGULATES BEHAVIOUR in some way, but not all regulation necessarily restricts competition. The *Electrical Workers and Contractors Act* impacts on competition through restrictions on market entry and conditions imposed on lawful market conduct, including;

- restrictions on the performance of electrical work without requisite qualifications, including restrictions on the scope of work available to electricians, depending on grade of licence and area of specialisation;
- the ability of the Electrical Workers and Contractors Licensing Board to prevent entry to the industry unless satisfied of the character and credentials of applicants;
- additional conditions to be satisfied to obtain an electrical contractors licence;
- limits on the type of work that can be performed by apprentices; and
- limits on the electrical work that can be performed by unlicensed or unregistered persons.

These result in:

- consequent limits on the availability of services, particularly in areas where more specialised skills, or the training to acquire them, are unavailable; and
- impacts on industry costs, both for those being regulated (fees payable), for those responsible for regulating (administration and enforcement), and purchasers of regulated services.

Other restrictions to competition are imposed on electricians by the *Electricity Reform Act 2000*. For instance, inspection, random audit, and self-certification requirements originate from the *Electricity Reform Act* and Electricity By-Laws. The specification of wiring standards and rules are also part of that Act. The *Electricity Reform Act* also allows for the setting and enforcement of standards. However, restrictions to competition outside of the *Electrical Workers and Contractors Act* are outside the scope of this review.

## Restrictions on entry and conduct

One of the more closely watched aspects of regulation in an NCP review is the extent to which market entry is restricted. An NCP presumption is that voluntary exchanges in unrestricted and competitive markets lead to efficient and fair outcomes in most instances.

### *Licensing*

Licensing in the NT is a barrier to entry. All electricians and electrical contractors must be licensed, and there are limits on the work that can be done by unqualified people. Requirements at entry and renewal include qualification, experience and other conditions, shown in table 4.1.

The Act does not specify requirements for HV work but PAWA requires special safety training before it will allow persons to work on its network. The Act allows only PAWA to supervise and perform electrical work without using licensed operators. Although, as mentioned previously, PAWA's contracting licence would apparently require it to utilise licensed personnel. PAWA has additional-to-licensing requirements of its workers to demonstrate necessary competencies to protect workplace safety.

### *Character checks*

The Board has some discretion in accepting new entrants into the industry through character assessments. At the time of application and renewal, licensees are subject to an unspecified fit and proper person test, which can include a criminal records check. In practice, this test is not applied as part of the application process, but on an 'as needed' basis.

The Board also has the flexibility to require applicants to undertake further training or sit certain examinations if deemed necessary.

### *Restrictions on the scope of work available*

Separate licences are issued for each trade classification and grade. This means that a given licence allows a person to perform only set tasks for that vocation. For apprentices and B Grade licence holders, there are also supervisory requirements by an A Grade licence holder for the performance of only designated tasks.

## 4.1 Entry requirements

| *Category* | *Qualification requirements* | *Experience requirements* | *Other conditions* |
|---|---|---|---|
| **Electrical mechanic** Grade A | ▪ Complete course for electrical mechanic or fitter/mechanic apprentices at a College | ▪ Complete apprenticeship for electrical mechanic or fitter/ in or outside the NT<br>▪ During apprenticeship obtain at least 12 months experience in the work of an electrical mechanic in the NT or been the holder of a relevant licence outside the NT | ▪ Has, in the opinion of the Board, sufficient knowledge of the trade, evidenced where the Board sees fit by an examination conducted or approved by the Board and is deemed a 'fit and proper person'<br>▪ Pay prescribed fees. Term of licence is 5 years |
| **Electrical fitter** Grade A | ▪ Complete course for electrical mechanic or fitter/mechanic apprentices at a College<br>▪ Was the holder of an electrical mechanic's licence grade R, endorsed for electrical fitting without restriction prior to the EWC Act | ▪ Complete apprenticeship for electrical mechanic or fitter/ mechanic in or outside the NT<br>▪ During apprenticeship obtain at least 12 months experience in the work of an electrical fitter in the NT or been the holder of a relevant licence outside the NT | ▪ Has, in the opinion of the Board, sufficient knowledge of the trade, evidenced where the Board sees fit by an examination conducted or approved by the Board and is deemed a 'fit and proper person'<br>▪ Pay prescribed fees. Term of licence is 5 years |
| **Electrical linesman** Grade A | ▪ Complete course for electrical linesman/X.P.L.E. cable jointing apprentices at a College<br>▪ Was the holder of an electrical mechanic's licence grade R endorsed as a linesman prior to the EWC Act | ▪ Complete an apprenticeship to the trade of electrical linesman/X.P.L.E. cable jointing<br>▪ Has at least 3 months experience or working on overhead electrical line construction or maintenance | ▪ Has, in the opinion of the Board, sufficient knowledge of the trade, evidenced where the Board sees fit by an examination conducted or approved by the Board and is deemed a 'fit and proper person'<br>▪ Pay prescribed fees. Term of licence is 5 years |
| **Electrical cable jolner** Grade A | ▪ Completed course for electrical linesman/X.P.L.E. cable jointing apprentices at a College<br>▪ Was the holder of an electrical mechanic's licence grade R endorsed as a cable joiner prior to the EWC Act | ▪ Complete an apprenticeship to the trade of electrical linesman/X.P.L.E. cable jointing<br>▪ Has been employed as an assistance in electrical cable joining work for at least 2 years | ▪ Has, in the opinion of the Board, sufficient knowledge of the trade, evidenced where the Board sees fit by an examination conducted or approved by the Board and is deemed a 'fit and proper person'<br>▪ Pay prescribed fees. Term of licence is 5 years |
| **Electrical mechanic or fitter** Grade B | ▪ Failed to compete the course for electrical fitter/mechanic apprentices at a College | ▪ As for Grade A | ▪ As for Grade A |
| **Apprentices** | ▪ Registration only | | ▪ Only work on physically isolated electrical article/ installation/line<br>▪ Work under direct supervision for 3800 hours, then general supervision |
| **Electrical Contractors** | ▪ Complete course for electrical fitter/mechanic apprentices at a College | ▪ Has held an electrical workers licence for not less than 2 years;<br>▪ Has experience in both performing electrical installation work and supervising others in performing such work | ▪ Pass a test set or approved by the Board when required to do so by the Board<br>▪ Pay prescribed fees<br>▪ Annual renewal required |
| **Refrigeration mechanic** Grade R | ▪ Complete course in relation to refrigeration mechanics | | ▪ Has, in the opinion of the Board, sufficient knowledge of the trade, evidenced where the Board sees fit by an examination conducted or approved by the Board<br>▪ Pay prescribed fees. Term of licence is 5 years |

Source: *Electrical Workers and Contactors Act* and the Electrical Workers and Contractors Regulations.

The 'average person' is prohibited from conducting his or her own electrical work except under specific circumstances. For instance, a person cannot perform or supervise electrical work without the relevant licence or permit unless the operating voltage is less than 32 volts alternating current or 115 volts direct current. Students or those engaged in training cannot perform any electrical work unless it is part of a specified training course and under direct supervision of the training body. And apprentices can only work on physically isolated electrical articles, installations or lines.

Breaches of a licence, such as the performance of work beyond the entitlement of a licence, is dealt with by the Board. Breaches of the unlicensed work provisions are channelled through the Magistrates Court and not dealt with directly by the Board. The Board is involved indirectly through its preparation of cases on behalf of the Crown. Both breach types attract penalties specified in the Act.

## The impact of restrictions on industry costs

Apart from the direct administration and compliance costs to electrical workers and contractors from the licensing system, there is a broader issue of the extent to which regulations lift total industry costs. For instance, the more extensive the experience and qualification requirements for electrical workers, the more costs are raised to consumers for the purchase of those services. The less overlap between the tasks that can be performed between different types of electrical workers, the higher the costs to consumers to purchase a specialised skill.

The actual costs of existing arrangements are outlined in chapter five. It is the view of the review team that these costs have a moderate impact on overall industry costs.

# 5 *Benefits and costs*

ALL REGULATIONS generate benefits and costs. Submissions and comments to the review reflected a range of views as to the net benefit of current arrangements, both for licence holders, employers and consumers. Some saw licensing and associated conditions as a critical means of ensuring the safe performance of electrical work, and the most cost effective way of giving consumers a tangible means of identifying appropriate electrical workers and contractors.

For others, licensing arrangements were considered superfluous to the achievement of the objectives of regulation, given other mechanisms that are in place for assessing the competence of electrical workers. Even if the costs of regulation were small, ineffective regulation would be a costly use of resources.

Divergent views were also expressed on the relative merits of the current Board structure and functions. Other comments highlighted additional costs and complexities created by the separation of regulatory functions governing the industry between the Act under review and the *Electricity Reform Act*.

The current system of regulation is generally regarded as strong regulation. The benefits and costs of the restrictions to competition imposed by the Act must now be assessed.

## Benefits of licensing requirements

For the purposes of an NCP review, benefits of restrictions on competition need to relate to the correction 'market failure'. For instance, market failure might occur if public safety was endangered without regulated controls. Alternatively, it might also occur if information available to one group (such as their ability to perform tasks) is not available to others with whom they do business.

### *Experience and qualification requirements*

Given the complementary nature and objectives of experience and qualification requirements, the benefits of these will be assessed simultaneously. The 'in principle' benefits of experience and qualification requirements include:

- protecting the safety of workers and the community by requiring workers to have the skills and experience to know the risks of electrical work, and to work to appropriate standards;
- ensuring a basic level of competency and service of electrical workers and contractors; and
- raising standards of conduct and integrity, providing greater confidence to purchasers of electrical workers' services.

Given the nature of electrical work, there are also like to be flow-on benefits by way of:

- reduced property and equipment damage through electrical fires;
- potentially less down-time for industry resulting from the reduced incidence of electrical faults and breakdowns; and
- potentially lower insurance costs (and premiums) as a result of both.

It is widely accepted that the community as a whole benefits from protecting the safety of electrical workers and the public. By requiring electrical workers to undergo various degrees of training and prohibiting unlicensed electrical work, there is some degree of community protection from potential danger.

In general, stakeholder comments to the review were largely supportive of the qualification requirements imposed by the Act. Any criticisms were mainly concerned with the relevance of the breadth of qualification requirements for particular workers, rather than questioning the importance of formal training in various areas of electrical work.

The Department of Industries and Business in Alice Springs highlighted the important distinction between electrical workers being shown, and then knowing, *how* to perform electrical work, and understanding *why* work is to be done in a particular way, and the risks associated with different techniques (personal communication). The education function of experience requirements is one of considerable importance to safe work practices and safe outcomes for the community as a whole.

Experience requirements reinforce this education function. Specifying that apprentices perform 3800 hours of electrical work before working independently is one means of better ensuring electrical workers are aware of the potential dangers involved in electrical work, and ways to overcome them.

The additional experience requirements of electrical contractors are less straightforward. The CEPU submitted that the requirement for electrical contractors to have two years practical experience as an A Grade licence holder is an entirely appropriate one.

> The experience...provides the tradesman with a 'more direct exposure to administration, managerial and budgetary needs. These are important in operating an electrical contracting business, so that the practical 2 year experience is a two-pronged advantage of industrial experience in utilising skills gained through apprentice and managerial-type skills gained in advancing toward a business career in the Electrical Contracting industry. (CEPU (ii), p. 2)

The Department of Industries and Business in Alice Springs also considered the two year experience requirement for contractors to be an appropriate and necessary one. This was largely because of the business skills likely to be acquired during that period (personal communication).

However, in terms of the precise wording of the Act, it is possible that certain persons complete their requisite A Grade training and travel or work outside the industry for two years before applying for a contractors licence.

The Act does allow the Board to subject applicants to a test set or approved by the Board. It is perhaps through these provisions that, in practice, as part of the Board's assessment procedures, applicants are required to provide evidence of recent experiences which is equated to two years. In responding to the draft report, the DIB noted that recency of experience is included in the assessment of an application, which is important as there may be new editions of Standards or industry practices in place. An applicant not having been actively engaged in electrical work during the preceding two years may not be granted a contractors licence. Particularly if the applicant had only held a workers licence for a total of those preceding two years (D. Sachs).

Still, without a requirement for the A Grade licence holder to be 'active', the two-year condition as currently written in the Act would not necessarily provide the benefits of experience envisaged by the Act. The fact that administrative practice has overcome this is no demonstration that

the Act meets its objective. It is noted that the two year experience requirement is necessary for the purpose of mutual recognition and uniformity with other states.

### *Fit and proper person test*

The Regulations pursuant to the Act provide the Board with scope to assess the fitness of applicants for any electrical licence by an examination conducted or approved by the Board. According to the Act, the fitness test applies to the applicants' knowledge of the trade. Neither the Act nor Regulations specify the contents of the test.

The fit and proper person test is believed to be very discretionary. A spokesperson from NECA commented that criminal records checks can and have been used (personal communication). There are no statistics on the fit and proper person test, such as the number of applicants tested in this way and to what extent, the composition of the test, and the cost of administering fitness tests.

In response to the draft report for this review, DIB noted that the test encompasses all aspects of the application. It would include type of experience, recency of experience, relevance of experience, breadth and depth of experience, and may including the passing of an examination. The contractor must not only ensure that his or her own work is of a satisfactory standard and meets consumer requirements, but also that of his or her employees. Only in exceptional circumstances would the fit and proper person test include any character references or criminal records search (D. Sachs).

This account suggests that the test is used as a quality of workmanship test, rather than a character test, the objective of which is to further ensure electrical safety, both for electrical workers and the community. There should already be adequate mechanisms in place to ensure this is the case, both within and outside the licensing structure.

Typically fit and proper person tests are not used for this purpose, and rather seek to protect consumers from inappropriate or criminal behaviour. In response to the draft report, the Board noted that the fit and proper person test is a necessary control measure to administer complaints related to manner, behaviour, and attitude to customers. It also commented that no other controls under the Act are available to vary the licensed persons position. On this score, the test does provide an additional benefit (to other licensing provisions) by giving the Board discretionary powers of exclusion where justified.

The review team is aware that concerns have been expressed to the Board about the character of licence holders who work in the household sector. For instance, the Act does not specifically require or enable the Board to cancel or refuse a licence on the grounds that the applicant is convicted of theft or bodily harm, despite the person being licensed to enter consumers' homes. Having a fit and proper person test in place is one means of providing the flexibility to do so.

The difficulty in assessing the benefit of the fit and proper test is that the objectives of the test are not clear from the Act, and to the extent that they can be inferred, it is virtually impossible to demonstrate that the test achieves its objectives. Judging one's fitness for a particular occupation may be inherently subjective.

On the one hand, a person that has served jail time for a crime committed has paid that penalty, and arguably should not be considered ineligible from practising a trade. And the absence of a criminal record or anecdotal reports of misbehaviour is no guarantee that a person will not behave inappropriately. There are also other services provided within households where no such test is applied, such as gardening, cleaning, or meal delivery services.

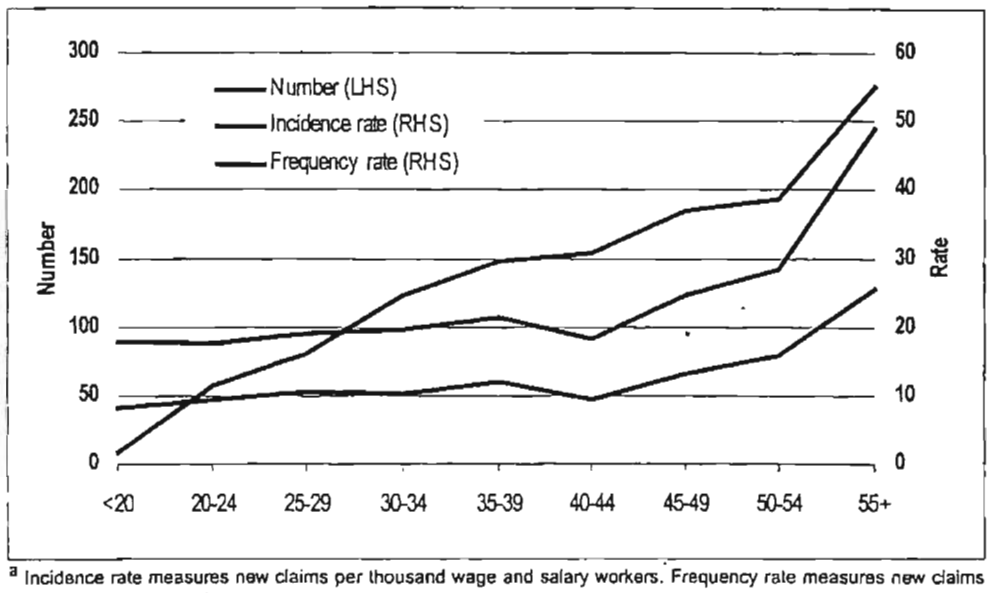
On the other hand, these services do not require a licence. The granting of a licence may give consumers a (false) expectation that character checks have been undertaken. And once a licensing system is already in place, the fit and proper person test is a low-cost way of addressing and perhaps preventing inappropriate actions or outcomes involving licensed electrical workers in certain instances.

### *The extent of the benefits of market entry requirements*

Ideally the benefits of current market entry requirements outlined above would be quantified. In principle, the benefits of enhanced worker safety might be measured by establishing the cost of workers compensation claims related to electrical work, and estimating the reduction in claims as a result of regulation. This would be an estimate of costs avoided as a result of licensing.

The review has been unable to obtain data on the cost of workers compensation claims related to electrical work in the NT. The average direct cost of claims in the Australian Electrical, Gas and Water Supply industry is estimated to be $7600 per case, the third highest of the eighteen industry classifications (NOHSC 1999, p. 25). This might provide a proxy measure of the average cost avoided for accidents prevented by restricting

5.1 **New workers compensation claims in the Australian Electricity, Gas and Water Supply Sector by age group** 1997/98




[a] Incidence rate measures new claims per thousand wage and salary workers. Frequency rate measures new claims per million hours worked.

*Data source*: National Occupational Health and Safety Commission, 1999.

access to electrical work to those with requisite training and experience. However, without a claims profile backdating licensing, the number of accidents prevented, and the total costs foregone, cannot be quantified.

We can observe that the number, frequency and incidence of reported accidents in the Australian Electricity, Gas and Water Supply sector, is lower for younger tradespersons (chart 5.1). This may be interpreted in a number of ways. Without having an age profile of the total number of workers within the industry, it cannot be said conclusively that young people are injured less (or make less claims) than older age groups. However, it is likely that this is the case, and this would not be unrelated to the additional restrictions imposed on less experienced workers until they meet specified training and experience requirements, such restricting work to that which is physically isolated from the power system.

Avoided deaths attributable to licensing would be another benefit of regulation, to the extent that licensing reduces safety risks. There have been an average of 1.1 deaths due to electrocutions per annum in the NT over the past eight years, around 2 per cent of the national average. On a per capita basis, fatalities in the NT are more frequent than the national average (table 5.2). Of the two deaths in the NT in 1998/99, one was as a result of work on an overhead line, and one a result of misuse or interference with equipment of wiring (ERAC 2000).

All Australian states and territories have similar regulations, therefore systems of licensing across states can not adequately account for differences

5.2 **Electrical fatalities across Australian states and territories**[a]

| *Region* | *Electrocutions* | | | | *Fatalities per 1 000 000* | | | |
|---|---|---|---|---|---|---|---|---|
| | 1995/96 | 1996/97 | 1997/98 | 1998/99 | 1995/96 | 1996/97 | 1997/98 | 1998/99 |
| Northern Territory | 0 | 2 | 0 | 2 | 0.00 | 10.69 | 0.00 | 10.45 |
| New South Wales | 13 | 9 | 17 | 9 | 2.10 | 1.43 | 2.69 | 1.41 |
| Victoria | 10 | 8 | 4 | 7 | 2.19 | 1.74 | 0.87 | 1.49 |
| Queensland | 9 | 20 | 11 | 11 | 2.70 | 5.88 | 3.16 | 3.16 |
| Western Australia | 6 | 5 | 3 | 5 | 3.40 | 2.78 | 1.65 | 2.71 |
| South Australia | 2 | 2 | 2 | 3 | 1.36 | 1.35 | 1.35 | 2.01 |
| Tasmania | 4 | 0 | 1 | 0 | 8.43 | 0.00 | 2.10 | 0.00 |
| Australian Capital Territory | 0 | 0 | 0 | 0 | 0.00 | 0.00 | 0.00 | 0.00 |
| AUSTRALIA | 44 | 46 | 38 | 37 | 2.40 | 2.48 | 2.03 | 1.96 |

[a] Excludes electrocutions due to suicide or on traction systems, mining sites, and ships.

*Source:* Electrical Regulatory Authorities Council, Accident Statistics. http://www.erac.gov.au/news-as.htm, downloaded 22nd August 2000.

in the incidence of fatalities. Clearly licensing does not *prevent* fatalities from occurring, although it would be unrealistic to expect so. Statistics on the incidence of electrical fatalities prior to licensing are unavailable. Therefore it is not possible to judge whether licensing has reduced electrical fatalities in the NT or not.

The review team is unaware of any jurisdiction or country that does not have a licensing or an equivalent competency assessment system in place for electrical workers. This alone suggests that such systems *do* reduce the number of accidents and fatalities that would likely occur in the absence of regulation. But without knowing the extent of any reduction, benefits of reduced fatalities as a result of licensing cannot be quantified.

### *The benefits of a licence mechanism for achieving desired outcomes*

In addition to the benefits of licensing criteria, there are additional benefits associated with the licensing mechanism. Licensing is attractive because it provides:

- regulators with a mechanism to register and monitor market participants, and a trace-back mechanism for following up on complaints or breaches of specified conditions;
- consumers with an identifiable signal of competence, which can be reinforced by education campaigns;
- electrical workers with a mechanism to demonstrate to clients their suitability to perform various jobs, and to protect the reputation of their industry by excluding unlawful work by those unlicensed; and

- electrical contractors with a mechanism to select appropriate tradespersons to perform work under their name, and afford some protection of that name.

## Costs of licensing requirements

There are a range of costs associated with the licensing of electrical workers and contractors in the NT. Costs are incurred by the regulator, by way of administration, monitoring and enforcement of regulation, and the party being regulated, who must comply with regulatory requirements. Other costs include efficiency costs, where competition between actual and potential electrical workers and contractors is reduced, or costs associated with reduced consumer choice.

### *Compliance costs*

Compliance costs are a 'necessary evil' for any legitimate regulatory system. For electrical workers and contractors, the direct application costs for licensing are shown in table 5.3.

The CEPU submitted that these costs are restricted to those being regulated and that industry participants absorb those costs, without passing them on to consumers. Licence fees are calculated to achieve full cost recovery, and are not passed on to consumers. Based on licence fees for contractors and workers of $215 and $10 per annum respectively, and an average of 1824 hours worked per year (based on a 38 hour week), the cost of fees per hour is $0.12. This small amount would not be passed onto consumers. They also suggest that any cost or price increases are due to factors beyond the influence and operation of the Act (CEPU (ii), p. 5). However, these costs

**5.3 Fees payable by electrical workers and contractors**

| *Category* | *Fee* |
|---|---|
| | $ |
| Application fee for an electrical workers licence | 50 |
| Renewal of electrical workers licence | 50 |
| Application fee for an electrical contractors licence | 215 |
| Renewal of electrical contractors licence | 215 |
| Copy of electrical workers' licence | 10 |
| Copy of a permit | 10 |
| Copy of/alteration to an electrical contractors licence | 25 |

*Source*: Electrical Workers and Contractors Regulations, as in force at 9 April 1997 and current as at September 2000.

exclude the costs of workers time taken to prepare and submit licence applications and renewals.

Application and associated fees do not include the opportunity cost of supervision requirements for apprentices. It was suggested to the review that for the first year or so, an apprentice is (affectionately) 'dead wood', and it is some time before a return from an investment in apprentice training is realised. Using the CEPU estimation above, electrical workers work approximately 1824 hours per year. An apprentice requires 3800 hours of supervision before being eligible for a full licence. Thus a potentially large part of a supervisors time is less productive than it would otherwise be if he or she were not supervising others.

There are also potentially significant training costs borne by applicants, having to complete the course for their specialisation of electrical work. The total cost to those undertaking courses varies, depending on how many modules are undertaken. The cost of each module is over $30 per applicant (Northern Territory University, personal communication).

While the costs described in table 5.3 are likely to represent a negligible barrier to market entry, there are also direct compliance costs imposed on electrical workers and contractors under the *Electricity Reform Act*. These include those associated with complying with AS300 standards, audits, inspections and the like. However these costs are outside the scope of this review. While the *Electrical Workers and Contractors Act* does mention the role of inspections, inspectors are appointed and given powers under by the *Electricity Reform Act*, which also specifies the standards of work that inspections relate to.

### *Administration costs*

The administration cost of running the licensing system for electrical workers and contractors has been estimated at approximately $50 000 per annum (Department of Industries and Business). This cost excludes personnel costs and only covers costs of operation, and is 80 per cent of the total estimated cost of administering electrical and plumbing licensing. Administration costs include the cost of administering licensing functions, any disciplinary action, and the cost of Board meetings.

However, this estimate understates the true cost of administration, which should include staff time and opportunity costs. Licensing and associated fees are calculated to achieve full cost recovery, and total over $180 000 per annum, based on new licences and renewals information as at June 1999 (Electrical Workers and Contractors Licensing Board 1998/99).

Board members currently give up their time for 'free' to serve on the Board. However, there is an opportunity cost associated with their time, and in an economic sense, it is not free.

A proposal for a combined Plumbing and Electrical Industry Board put forward by NECA and the MPA was costed at $279 500 per annum for operational costs, excluding set up costs. Given that the DIB estimates that electrical licensing functions comprise around 80 per cent of the cost of licensing both electrical and plumbing workers, the true administration cost of current electrical workers and contractors regulation could be up to $224 000 per annum. Although, the NECA/MPA proposal may involve additional functions which generate costs not currently incurred by DIB or the Board.

### *Efficiency and other costs*

If the current system is unable to be implemented or enforced effectively, there may also be costs by way of adverse reputation effects. For instance, incidences of unlicensed work are not dealt with solely by the Board and are directed to the Magistrates Court. The Act itself is silent on the body authorised to deal with unlicensed work. As mentioned previously, the Board prepares the cases and the Magistrates Court makes its ruling. It is questionable, given competing demands made upon the Court, whether this is an efficient or cost effective means of enforcing the provisions of the Act pertaining to unlicensed work.

The sole nomination of the Power and Water Authority to supervise and conduct certain electrical work notwithstanding the provisions in the Act is in conflict with the principles of competitive neutrality. Legislation which sets in place a competitively neutral operating environment for government businesses delivers a range of benefits (or benefits foregone in its absence). Possibly foregone benefits (costs) from this provision in the Act include:

- encouraging more efficient pricing leading to resources being allocated to their best uses;
- longer term performance efficiency gains due to government business enterprises (GBEs) operating in a more competitive environment;
- savings to governments from better utilisation of infrastructure;
- transparency and greater efficiency in the provision of community service obligations; and
- increased service quality from performance monitoring of GBEs.

On another score, one submission to the review suggested that the current licensing system excludes indigenous Australians from practising in the electrical trades due to their lack of education. The costs of doing so are by way of foregone benefits of improving the economic circumstances of the indigenous population.

> There is an urgent requirement for a change that is necessary to shift economic circumstances to afford people (Black, White and Brindle) employment and training, using physical skills accreditation only to enter the electrical industry (because of lack of eduction) to a complete job and a better way of life. (Ivinson, p. 2)

The Tangentyere Council in Alice Springs expressed similar concerns about the inability of the current system to deliver employment and training access opportunities to indigenous Australians. However, representatives from the Council were not convinced that the qualification and experience requirements of the Act were the problem. For safety reasons, they considered it imperative to keep licensing standards as high as possible. They were more interested in ensuring that employment subsidies and/or dedicated training opportunities were offered or created for Aboriginal people to better enable them to get access to the necessary employment and training requirements for licensing.

The Council has already established Tangentyere Constructions, a management company, to win contracts and subcontract and train Aboriginal people in the electrical and other trades. The company must compete with others, despite having a higher cost structure that its competitors not dedicated to employing indigenous Australians. The Council feels, however, that this initiative is insufficient to overcome the barriers to employment and education that Aboriginal people face in the trades (Tangentyere Council and Tangentyere Constructions, personal communication). The abovementioned programs are outside the scope of this review, but could be considered by other areas of government, perhaps outside of electrical licensing.

There are also wider efficiency costs associated with any restrictions to competition. Competition contributes to achieving higher growth by helping to ensure that the resources of the wider community (land, labour, capital, including skills and ideas) are used in the most valuable and beneficial way. The disciplines imposed by competition are also significant drivers of improved productivity and encouraging innovation.

## Assessment of the net benefits of current arrangements

By and large, the benefits of existing licensing requirements exceed the costs imposed on regulators, electrical workers and contractors, and the wider community.

While concrete quantification is not possible, the current licensing system is expected to deliver benefits by way of:

- reduced accidents, particularly for less experienced electrical workers;
- reduced damage to property and equipment and less down time in terms of foregone activity in the household and industry sectors;
- reduced fatalities, given the inability to identify any jurisdiction or country that does not have market entry barriers in place; and
- providing a seemingly cost effective mechanism delivering separate benefits to regulators, industry participants, and consumers.

One of the reasons why quantification of the benefits of licensing is difficult is because licensing is one of many mechanisms used to achieve them. For instance, licensing does play an important and primary role in educating electrical workers to recognise and respond to dangerous situations. It also provides the public with a means of identifying competent workers, improving overall confidence and safe work practices in the industry. This is supported by submissions and comments to the review.

> We (CEPU) consider that the licensing system is the best and appropriate means of protecting and providing community safety. Associated with this, is the opportunity of greater public awareness. (CEPU (ii), p. 3)

> Compulsory licensing is necessary because an electrical licence can be a licence to kill (NECA, personal communication).

Yet safety benefits are also achieved via restrictions on the supply and use of electricity and electrical devices and inspections and audits of electrical work contained in the *Electricity Reform Act*. Thus the identified benefits of injury prevention or reduction and reduced equipment and property damage should not be considered solely attributable to licensing provisions.

The current licensing system is not fail-safe. Accidents can and still do occur, although the lack of statistical information makes it difficult to assess the extent of those accidents.

> Regardless of improvements in the technology alleged to reduce risks, you will find accidents are still happening but go unrecorded...there is no accessible database to prove otherwise, and that both the electrical workers

> and the public have not been encouraged to report them. As an electrical inspector in the Northern Territory since 1976, I have heard of numerous occasions from electrical workers, Power and Water Authority linesmen and electrical contractors but long after the event. (Peter Ivinson, p. 2)

According to the National Occupational Health and Safety Commission (NOHSC), the incidence rate of new workers compensation claims in the Electricity, Gas and Water Supply sector in 1997/98 (claims per 1 000 wage and salary earners) was the highest of any sector in the NT (61.1, compared to 21.5 for all NT industry sectors). The same sector ranked fifth in Queensland, sixth in New South Wales and Victoria, thirteenth in South Australia, fourteenth in Western Australia, and fifteenth in Tasmania (NOHSC 1999, p. 23). It is not possible to determine what proportion of claims in the NT or any other jurisdiction are a result of claims from electrical workers and contractors only. And it has already been mentioned that systems of regulation across jurisdictions are broadly similar. It simply demonstrates that, while licensing has important safety benefits, safety is not assured.

That said, the costs of current regulation are modest. No stakeholders submitted that costs were an adverse barrier to entry. Costs are greatest for those groups not well suited to licensing, and for whom any costs, even modest costs, are net costs. For instance, PAWA considers licensing to be superfluous to its assessment of an individuals' ability to perform competent work. PAWA has implemented an alternative system of assessment to perform this function, described further in chapter 6 under the co-regulation model. If this is the case, ineffective regulation is costly regulation.

In response to the draft report, the Board commented that is does embrace competency based training. While this may be the case, the Board is bound by the requirements of the Act and its pursuant Regulations. It can only accommodate competency based training initiatives to the extent that they are compatible with the Act.

# 6 *Alternative arrangements*

An important step in the NCP review process is to consider whether there are other arrangements that might meet the objectives of the legislation is a less restrictive manner. Alternatives should be assessed on the basis of:

- the effect on competition between electrical workers and contractors;
- the level of compliance costs for those being regulated; and
- the practicality and cost of administration and enforcement.

The main alternatives to current arrangements which were either presented to the review or arose during the analysis include:

- amendments to the current system to address areas where costs are likely to be greater than benefits, or where benefits can be achieved in a less restrictive way;
- co-regulation, via an industry-driven, government sanctioned, competency based approach;
- industry-run regulation;
- registration;
- negative licensing; or
- the removal of industry-specific regulation.

## Options *not* expected to deliver net community benefit

The latter three of the above mentioned options are not considered to be viable alternatives to the current system of regulation, given they are unlikely to satisfy the objectives of regulation. Recapping, the objectives of the Act are:

- ensuring safe working outcomes;
- enhancing worker mobility; and
- providing the flexibility for less skilled work to be done.

With respect to worker mobility in particular, without industry-specific regulation, or with registration or negative licensing, NT trades-persons would be unable to work interstate without significant testing in other jurisdictions. Any cost savings from registration, negative licensing or the removal of industry-specific regulation may therefore be illusory.

### *Registration*

Registration, or recognition of a business entity, would be a low cost alternative to licensing *only if* the main purpose of regulation was to record the status of an electrical worker or contractor and provide a contact list of industry participants to help follow up the enforcement of broader laws. There would be no scope to specify skills, qualifications and experience levels and no quality or health and safety provisions, beyond the requirements of broader laws. Registration would not be a 'quality signal' for consumers, who would be left with considerably less information about a workers fitness to perform tasks than under the current system.

### *Negative licensing*

Negative licensing is a form of occupational regulation which typically involves a statutory requirement that provides for anyone to practice a particular occupation as long as that person does not breach legislative requirements associated with that activity. A licence is not required as a precondition to operate, but certain individuals or companies could be prevented from practicing as electricians. Negative licensing is a 'reactive' approach to licensing and would not explicitly attempt to prevent electrical accidents, except through retrospective deregistration for such things as contributory negligence. The CEPU submitted that 'Negative licensing would not work in the electrical industry' (CEPU (ii), p. 4). With the ever-present safety issues involved, the review team is inclined to agree.

Quite apart from the safety dangers involved, under a negative licensing approach, unless it is accompanied by an inspection system, consumers bear the cost of bringing non-conforming workers to disqualification, without any offsetting benefits to them. While it is unlikely that a negative licensing approach would be considered in the absence of an inspection system, such a system is embedded in the *Electricity Reform Act*. It would be more appropriate to addressed these issues in a more general review of the *Electrical Workers and Contractors Act*, when issues of appropriate separation of regulatory provisions between acts, can be considered.

### *Removal of industry-specific regulation*

Trade-specific regulation could be removed, with consumers relying on consumer protection laws and safety provisions in the *Electricity Reform Act* and others. However, as mentioned previously, the current licensing system plays a major role in the education of electrical workers and of consumers, a role which is not implicit in the *Electricity Reform Act*. As submitted to the review:

> This [removal of industry-specific regulation] opens up industry to de-regulation, abuse and breakdown of training systems, breakdown of safety standards. If one seeks such a system, costs will rise, injuries will increase, and recklessness will become common. It is too dangerous to even contemplate such a scenario. (CEPU (ii), p. 4)

While auditing and inspection requirements and health and safety provisions in other legislation would mitigate these risks, they would be more pronounced than under a system that targets education initiatives directly.

It is possible that a voluntary industry-run system of regulation would emerge to educate workers and consumers about safe work practices and quality workmanship, which could have value in the market place. Electrical workers could choose to comply with industry-determined standards and consumers could seek out and pay for that potentially better standard. However, leaving the safety objectives of the current legislation to the possibility of an adequate voluntary private scheme emerging is not expected to generate net community benefit, particularly in the short to medium term.

## Possible amendments to the licensing system

The current licensing could be amended to address some of the concerns raised in previous chapters and raised in submissions to the review such as:

- re-structuring licensing categories and the conditions imposed on various categories, including for apprentices;
- broadening the acceptability of various courses or modules to satisfy qualification requirements for particular categories;
- deleting provisions found to be unnecessary;
- reviewing the appropriateness of the separation of the auditing and/or inspection of work from market entry requirements; and

- amending the role or operation of the Board to better meet the objectives of the legislation.

### *Restructuring licence categories*

There is already consideration of a national licensing system, which involves the elimination of areas of specialisation from an A Grade licence. One licence would cover any one of electrical linesmen, fitters, mechanics, and cable joiners. A review of proposed national licensing is outside the scope of this review, however it does provide a model for consideration as an alternative to current licensing arrangements.

The role of curricula vita (CVs) would be increasingly important as a signal of areas of specialisation. The use of CVs is already purported to be substantial, with it being common-place for contractors to contact referees identified in workers' CVs. It has also been suggested that the distinction between a cable joiner and a linesman are already no longer necessary (NECA, personal communication).

The major benefits of such an approach would be by way of simplicity and a reduction in compliance and administration costs. However, the CEPU has expressed 'major reservations' concerning the prospect of issuing an A Grade licence without specifying area of specialisation, which could result 'in a linesman wiring up a house' (CEPU (ii), p. 2).

The review team appreciates that distinctions between licence categories do act as a restriction to competition. And that existing categories are partly a reflection of the history of the industry, rather than necessarily an accurate characterisation of the industry today. The relevance of existing licensing categories are also questioned by the emergence of competency based training initiatives (see below). However, concerns remain as to whether consumers are readily able to identify qualified electrical workers without an endorsement or 'co-branding' of some sort. A national approach would be desirable. It would be necessary to accompany such changes with relevant education campaigns, which would become a complement to removing specialisations for licensing.

### *Relaxing certain licensing criteria*

One submission suggested that academic qualification requirements at the lower levels of the electrical industry be 'removed or minimised' and that 'physical skills should only be assessed on work sites'. This amendment was proposed to improve access opportunities for Aboriginal people to the

electrical trades industry. Mr Ivinson suggests that 'a program incorporating the changes needs to be implemented in accordance with the United Nations Charter on human rights for the Australian indigent indigenous people' (Ivinson, p. 2).

Reducing the length of compulsory apprenticeship training has also been raised, which would reduce supervisory costs imposed on employers, and might help attract young people into the trade.

Both amendments would improve access opportunities for people in remote areas, who would find it particularly difficult to attend all current courses and receive all necessary work experience under current licensing arrangements.

However, there are two major difficulties with these proposals:

- firstly, apprentices and less skilled electrical workers would lose their ability to work for several employers in several jurisdictions if they are unable to satisfy prerequisites in other states for instance — an important consideration in the mobile building trade; and
- secondly, it is difficult for this review to judge the safety implications of either proposals.

The CEPU argues against any reduction in the stringency of standards.

> ...the introduction of minimum standards has the real potential of ensuring that minimum is all that occurs. This type of deregulation has the added potential of reducing overall safety standards. High standards should continue to be prescribed. (CEPU (i), p. 2)

These proposals would be more likely to achieve the safety objectives of the legislation if they were accompanied by a complementary system that allowed an authorised body and/or employers to assess the competency of a less experienced electrical worker to perform appropriate electrical work. Any complements would have costs of their own and would need to be subject to a net benefit analysis of some sort.

### *Broadening the scope of regulation*

The CEPU has called for more attention to be placed on the regulation of itinerant employees, which can comprise a substantial proportion of electrical workers in the NT (CEPU (ii), p. 3). While the review agrees that any tendency for mobile persons to behave in contravention of the regulations in any one jurisdiction is a potentially serious problem, the regulation should already be in place to prevent this. The issue then

becomes one of how to better enforce existing regulations, contained in the *Electrical Workers and Contractors Act* and other acts governing the industry, rather than the development of new regulations.

### *The functions and operation of the Board*

Several submissions and comments to the review suggested alternatives or amendments to the current Board system. Some suggested broadening the representation of the Board, others suggested eliminating it and amalgamating residual Board functions into the Department of Industries and Business. This is a matter relevant to competition policy only where the organisation of the Board and its functions affect industry costs, market entry assessment criteria, and meeting the objectives of the legislation.

Mr Ivinson submitted that the Board's composition be altered to:

- include one A Grade electrical worker to be of Aboriginal descent, to improve the relevance of regulation to the indigenous community;
- allow the Insurance Council to be represented on the Board, given it is the underwriter of commercial and residential buildings; and
- include a representative from an allied trade, like Refrigeration or Air Conditioning, since the Board has [purported to have] been having difficultly with the later (Ivinson, p. 1). (No details were provided as to the source or nature of any such difficulties).

There is also the issue of whether government should be formally represented on the Board.

The CEPU submitted that the inclusion of government representatives on the Board should be viewed critically to reduce political intervention, and noted that there is little value in the involvement of consumers on the Board (CEPU (i), p. 2). No reasons were provided why consumers should not be represented on the Board. In response to the draft report for this review, the Board commented that there would be value in having consumers represented if there was interest in that area.

PAWA submitted that the Board should be disbanded with remaining functions incorporated into the Department of Industries and Business.

> As the Department of Industries and Business already has responsibility for a range of licensing and other regulatory activities, inclusion of residual Board functions and responsibilities within the Department should be considered...Whilst the Board's operating costs are relatively insignificant, formal incorporation within the Department will provide the opportunity for

economies of scope and scale to be achieved thereby reducing and enhancing compliance effort and cost (PAWA pp, 3-4).

The review is sympathetic to the desire to reduce any duplication in regulation or additional costs that might be imposed by the involvement of numerous entities in regulation. However, by and large the appropriate functions and representation of the Board or its equivalent would be issues better addressed in a more general review of the *Electrical Workers and Contractors Act*. In principle, however, the representation of the Board should be broadened beyond its industry focus to minimise the potential (or appearance) for the Board to use its more discretionary powers in a way that restricts market entry.

## Co-regulation

There is already considerable involvement of industry in the regulation of electrical workers through the development of competency based skills recognition. This model has the potential to reduce restrictions to competition by providing the flexibility for workers with less or varied formal training and experience to enter the industry. Provisions can be, and are made for safety considerations. While this model is predominantly industry driven, government bodies and sanctions are also involved in the process.

### *Competency based skills recognition and assessment*

National competencies for the electrical workers and contractors industry are already established, although they continue to be refined. Such competencies are adopted by PAWA as a substitute for licensing in assessing the worthiness of individuals to perform certain tasks, having been instructed to pursue a competency based approach by the Arbitration Committee in 1995-96. National Training Packages (NTPs) are endorsed after extensive consultation involving the Australian National Training Authority (ANTA), the state or territory training authority, and industry representatives through Industry Training Advisory Boards (ITABs).

PAWA submitted that the essence of the NTPs is that they describe and codify the necessary skills and knowledge necessary to work competently within the particular industry (PAWA, p. 3). Before a licence can be issued, all competencies required for licensing must be completed, which may not be covered in NTPs alone.

Assessment of individual employee competency is conducted and certified by a Registered Training Organisation (RTO). Once issued, a statement of attainment or qualification is subject to mutual recognition in all jurisdictions. NTPs identify the skills and knowledge required for particular aspects of electrical work and categorise that work and knowledge into specific competency modules and level, which are assessed against the Australian Qualification Framework. The competency system is said to have a training focus rather than a registration focus (PAWA, personal communication).

Competency units have an occupational health and safety component, which must be passed before the competency is awarded, in keeping with the safety objective of existing legislation. Around 85 per cent of competency is said to be assessed on the job, with only the knowledge component assessed at a formal institution. There is no actual or implied 'fit and proper person' test under this system, although training can include modules that cover business attitude and personal behaviour.

The financial cost of the competency assessment system is greater than current licensing. PAWA estimate that it costs between $700-$1200 for an assessment of an individual. But this excludes the considerable time devoted by an employer in developing and tailoring the competencies to be assessed (personal communication). This is not necessarily an additional cost, given that groups such as PAWA who utilise the competency based approach believe that they receive no value from licensing and would need to bear these costs, whether licensing was in place or not.

There may also be a cost to the mobility of tradespeople under this approach, who might need to complete additional modules before being able to transfer between employers if the skills required for one employer and substantially different to those required for another.

In response to the draft report, the Board emphasised its support for the necessity to complete all modules so that portability is maintained.

### *Competencies as a complement or substitute for licensing*

There is no in principle reason why competencies cannot be integrated into the existing licensing framework. The review team understands that if an individual satisfied the requisite competency modules, a licence can be issued, whether or not that person satisfies the length of experience requirements specified in the Act. For a competency module to be awarded, an individual will already have had to demonstrate their ability to perform

certain tasks, whether it has taken them more or less time than that prescribed in the Act.

In response to the draft report, the Board emphasised that the reason it specifies the number of hours of experience required is to ensure that people do not enter the trade without adequate experience. The scope for any conflict between competency assessment and experience requirements within licensing depend on how competency is assessed.

A full licence will only be granted to a person if they have successfully attained the full list of competencies described by the Electrical Regulatory Authorities Council (ERAC). Whether all modules required by ERAC are appropriate or necessary are beyond the scope of this review. However, PAWA note that

> ...the licensing categories should be capable and flexible enough to recognise specific combinations or levels of the industry determined competencies. The current licence categories are rigid and do not reflect the competency system. (PAWA, p. 3)

There is a National Restricted Licensing System (NRLS) in place, and restricted licences are intended to be available for this purpose. The NRLS prescribes nine work area categories and six units of competency. The authorisation for the licence holder to carry out electrical work is endorsed on the licence in one or more of the nine categories, together with the related units of competency (NT Electrical Workers and Contractors Licensing Board 1996, p. 4).

The difficulty in relying on the NRLS to provide the degree of flexibility requested by PAWA is that they may not include all those competencies considered necessary for certain work functions.

For certain groups, the competency based approach to skills assessment reduces the relevance of full and, in some instances, restricted licensing. For instance, many of PAWA's electrical workers do not have a full or restricted licence, and a licence is no signal to PAWA that a person is capable of performing necessary functions. Neither licence types cover the list of competencies they require.

The major obstacles to replacing licensing with a competency based approach is:

- the complexity of the competency system; and
- differences between industrial and other employers, and household consumers in being able to assess their requirements and the ability of those able to satisfy them.

Industrial employers, for instance, require very different skills to households. PAWA describe themselves as 'industrial consumers' who employ elect-fitter mechanics, linesmen and cable-joiners, all of which are identifiable categories. PAWA are in a better position to articulate the precise skills they require for various tasks, and assess the competency of an individual to perform those tasks (PAWA, personal communication). The current licensing system is not able to effectively satisfy consumers of this type.

However households are unable to adequately interpret and assess whether an electrical worker is competent to perform household electrical tasks, or what competencies are required to perform them. Households are typically unable to specify the precise skills they need for various electrical tasks, and less able to determine the suitability of a person to undertake that task. The Board itself concurs, stating in response to the draft report that in its experience, it has found that competencies are too hard for consumers to interpret. Neither the Board nor the review team has sufficient information to assess their capacity to do so.

PAWA acknowledge that there are so many categories of competencies that there are few people who know them all, and they are quickly employed. Many other businesses are unable to secure that expertise.

## Industry-run regulation

Government licensing could be replaced entirely by an industry-run scheme. This might involve similar features of the current scheme, but run by industry. An example is provided from a proposal put forward in 1997 by NECA and the Master Plumbers Association (MPA). Their proposal was for a mandatory (legislated) industry-funded self-certification system, with random compliance audits and compulsory insurance for contractors to guarantee work to consumers. Insurance companies would make a commercial decision as to whether to cover a particular contractor (NECA and MPA 1997, p. 5).

For work performed valued at over $500, it was proposed that consumers receive a Certificate of Compliance. The Certificate would be the consumer's guarantee of compliance with the appropriate standard, and would also be lodged with the Board as a permanent record of work undertaken.

Compliance costs would likely be higher than the current system, with contractors having to pay $25 for each Certificate issued, as well as being

required to take out insurance, a model already in place in some trades in some jurisdictions.

Restrictions to competition would still exist. Electrical workers would still need to be licensed after successful completion of an apprenticeship with appropriate expertise. Electrical contractors would require a workers licence, self-certifying endorsement, insurance, and competency in small business management (NECA and MPA 1997, p. 5-6). With insurance contingent on approval by commercial companies, an additional barrier to market entry is created. The NECA and the Board have been working towards this model on a national basis.

This model appears to satisfy the objectives of the current Act, potentially more so that current arrangements. However it does not do so in a less restrictive manner. And while this model has the benefit of improving the likelihood that market entry criteria more closely follow trends in the industry, it is unlikely to overcome many of the problems already embedded in the current system. For instance, the desire of certain organisations to require specific skills of their employees may not be compatible with the conditions of a licence. It is also questionable whether, given the size of the NT electrical trades industry, the Board should actively determine standards in the NT, or be passive and draw on trends in other jurisdictions. Consideration would also need to be given to addressing the status of an industry Board under ANZRA.

It is difficult to assess the net benefits of an industry-run scheme without incorporating features of regulation embodied in other acts, including self-inspections, audits, and compliance with standards. It would appear that this model does intend to draw on all aspects of regulations governing electrical workers and contractors, not only market entry criteria. A more general review of the Act, which could assess all provisions governing electrical workers and contractors, could provide an opportunity to do so.

# 7 Recommendations

ELECTRICAL WORKERS AND CONTRACTORS in the Northern Territory face market entry barriers prior to being cleared to undertake or supervise electrical work. Some exemptions are given, some of which are difficult to interpret in practice. The task now is to assess whether current regulations in the *Electrical Workers and Contractors Act* meet the objectives set for them in a net benefit sense. And compared to the alternatives explored, can other less restrictive arrangements do better?

Previous analysis of alternatives to current regulation revealed that there are other arrangements able to satisfy regulatory objectives, either in a less restrictive manner, or more efficiently or appropriately. The following recommendations are made to accommodate those selected aspects of alternative and current arrangements that are believed to deliver improved net benefits for electrical workers and the wider community alike.

## The objectives of the Act

Given the pivotal role of satisfying objectives in an NCP review, it is important to recap and summarise those objectives required to be satisfied by regulations governing the electrical workers and contractors industry. This review has found that the following objectives remain important to the regulation of electrical workers and contractors in the Northern Territory:

- ensuring safe work outcomes for electrical tradesmen and women, their employers, customers, and the wider community;
- enabling maximum worker mobility between employers and between states and territories, within necessary safety constraints; and
- providing a realistic degree of flexibility in regulation to enable less skilled work to be done, and to respond to the requirements of various employers and household purchasers of electrical services.

The Competition Principles Agreement requires that any recommendations arising from the review must be linked to the achievement of these objectives.

**The lack of explicit objectives in the *Electrical Workers and Contractors Act* is an undesirable omission. Explicit objectives should be written into the Act to advise consumer, employers, and electrical workers and contractors of the intentions and expected outcomes of regulations in place.**

## Findings and recommended approach

### *Qualification and experience requirements*

The need to assess the competency of electrical workers prior to work performed remains an important function of regulation in terms of meeting relevant safety objectives. Current arrangements ensure that electrical workers and contractors have some form of training and experience in their relevant field. However, the current qualification and experience requirements of licensing are too great a restriction to competition, without sufficient offsetting benefits for all affected parties. Qualification and experience requirements were found to be:

- unable to provide benefits to certain groups of employers of electrical workers;
- for some employers, unable to ensure that a person is capable of performing the work required of them;
- a potential deterrent to new, particularly younger, market entrants; and
- provide a potential barrier to market entry to electrical workers in remote areas.

Irrespective of regulation, there are competitive pressures in the market for employers and consumers to hire competent electrical workers. But these alone are not sufficient to ensure that the objectives for regulation in the industry are met. Employers and consumers may *intend* to hire competent people, but cannot adequately assess their competence without a formal approach to education and skills recognition – hence the market fails.

The ability of a given purchaser of electrical workers' services to assess their own requirements, and the ability of a trades-person to satisfy them, varies considerably across customer groups. It is therefore unlikely that a uniform approach will best meet the objectives of the legislation for all groups.

**It is recommended that licensing be retained, but that other means of signalling competence be afforded comparable status.**

*Maintenance of a positive licence*

**A positive licensing system such as that currently in place should be retained.**

A positive licence is a simple means for consumers to identify suitable electrical workers that satisfy regulatory requirements. It also provides a convenient instrument for administrators to trace back complaints to individuals, impose disciplinary action, and to recover administration costs from industry.

*Competencies to be better recognised under licensing*

**Licensing should be flexible enough to accommodate alternative means of signalling a persons' competence to perform set tasks.**

The review cannot comment on the merits of the menu of competencies required by ERAC to be completed before a formal licence can be granted. However, businesses holding contractors licences should *not* be considered to be in breach of licensing requirements if their employees are declared competent by recognised alternative means, to undertake electrical work they are assigned to do, irrespective of their licence status. Such instances may rarely arise, given the scope to use restricted licences to signal less than full competencies to perform electrical work.

It should not be assumed that competency based training requires fewer criteria to be satisfied, and in some instances it could be more restrictive to competition. However, the fact remains that employers, particularly those with specialised requirements beyond those of the household sector, should be able to specify the skills they require, and take the necessary steps to ensure those skill sets are properly satisfied by employees.

Employers should be able to work with nominated RTO's to specify the skills set required for a person to be declared competent, irrespective of those prescribed under licensing. While the individual would not be awarded a licence unless all ERAC-declared competencies are satisfied, neither they nor their employer would be considered in breach of licensing regulations.

A case in point is apprentices who have successfully completed requisite competencies for particular employment. The *Australian Power and Energy News* recently reported that seven power-line apprentices have just completed a new nationally accredited training program. The training program was developed under the auspices of the National Utilities

Industry Training Board and ANTA, with input from unions, educators and transmission and distribution authorities in all Australian states.

The graduates are now fully qualified to undertake distribution line work, cable joining and electrical work in substation anywhere in Australia and New Zealand. They originally started their careers as trainee line-workers, working towards a four year Certificate II qualification. By transferring to the new regime, they have completed a formal apprenticeship which lifts their qualification to Certificate III, or trade status level, but still within a four year period (*Australian Power and Energy News 2000*, p. 8 – precise date unknown).

Where an approved alternative system is in place to assess necessary competencies, endorsed by the relevant authorities such as that described above, there should be no need for apprentices to be required to satisfy the specific experience requirements of the Act in order to be licensed. Nor should they have to satisfy the corresponding qualification requirements for licensing, unless they wish to obtain a full licence. The necessary checks and balances are already in place to ensure that competencies are assessed in a manner consistent with the objectives of the legislation.

Employers remain bound by duty of care and workplace health and safety provisions in broader laws. And with the several checks and balances in place in the competency assessment process, the objectives of the legislation would not be compromised.

However, there are two potential limitations to this approach. In those instances where competency based training does not mirror ERAC-declared competencies:

- employees would not be granted a full licence until such a time as they have successfully completed all ERAC declared competencies;
- until such a time those employees would be unable to work in the household sector and for an employer with 'typical' licensing requirements; and
- employees would not qualify for mutual recognition until full licensing requirements are satisfied.

Until such a time as the menu of competencies is reviewed, individuals would continue to need to satisfy all current ERAC-declared competencies to obtain a full licence or obtain mutual recognition of qualifications in other jurisdictions. It is outside the scope of this review to recommend a national approach to altering the licensing framework to better suit the emerging requirements of different client groups.

*Consideration to be given to removing additional contracting requirements*

There are several *in principle* reasons why the additional experience requirements for electrical contractors should be removed.

The requirement that electrical contractors hold an A Grade licence for a period of two years is not necessarily a sufficient test of their ability to successfully contract and manage a business. Some people may never be, and some may already be, once they have successfully obtained an A Grade licence. There is also no apparent market failure that requires a business to be aware of best practice management techniques, for instance, prior to market entry.

The difficulty for the review in recommending the abolition of the additional experience requirement is that it is unclear precisely what additional experience is trying to achieve. Is it management experience, supervisory experience, knowledge of market dynamics, experience in client relations or some other purpose? Why are these important and why should a system of regulation ensure that these skills are acquired? Experience requirements may help make a better manager, but not always, and to the exclusion of many otherwise potentially capable contractors.

**It is the recommendation of this review that the Board give serious consideration to the abolition of the additional two year experience requirement. In making its deliberations, the objectives of the requirement should be clearly articulated. Then, perhaps in consultation with other stakeholders, it should be demonstrated that experience is the best way of satisfying those objectives.**

It is recognised that if the Board agrees that the experience requirement should be removed, contractors would be unable to work outside of the NT under mutual recognition until that have satisfied the experience requirements of other jurisdictions.

Trends in other aspects of regulation of electrical workers and contractors (outside of the Act under review) may complicate this issue further. In response to the draft report, DIB noted that with the advent of self-certification of work by contractors, regulators across the states and territories are looking at ensuring entry skill levels and skills maintenance are addressed at the time of contractor licence application or renewal (D. Sachs). Since self-certification is part of regulation outside the scope of this review, the removal of the two year experience requirement should be considered as part of a broader review of regulations governing the industry.

*Categories of licence*

Licence categories, in terms of area of specialisation, do not adequately reflect recent changes in the electrical workers industry. The removal of licence categories would reduce barriers to competition. This would only be appropriate with regard to an A Grade licence.

However, in order to result in net community benefit, the change would need to be accompanied by an education campaign to advise households how to determine the relevant skills of an individual. Without an endorsement, competency certificate or 'co-branding' of some sort, it is unclear whether the householders in particular would be able to adequately assess competence.

## *Fit and proper person test*

The fit and proper person test is problematic for a number of reasons. The test has no clear objectives and is applied in a discretionary manner, making it virtually impossible to determine its effectiveness. And with no clear procedures or statistics on how the test is applied and how often, the cost of test cannot be determined. Other means of assessing competency already in place (aside from licensing) do not include a comparable fit and proper person test. There is no evidence that this has led to adverse outcomes in those instances.

However, on balance, the cost of the test is likely to be low, and it does have an important benefit of giving the Board discretionary powers of exclusion, and the means of responding to instances of inappropriate conduct. The scope for arbitrary application of the test resulting in a restriction to competition is a concern. This may be partly addressed if the representativeness of the Board were broadened.

It is important that applicants can ascertain their suitability for a licence prior to their application. This would reduce the risk of deterring applications from suitable persons who, in the absence of defined criteria, might incorrectly assess themselves as not satisfying the fit and proper requirement.

**The review team recommends that the fit and proper person test be amended to signal to applicants the criteria on which their fit and proper status will be assessed.**

## *Exemptions to regulation*

**The exemption to licensing requirements afforded to PAWA should be removed. However, approved competency based assessments should be recognised as a substitute for licensing in certain situations.**

In practice, PAWA's exempt status is unclear, given its dual status as a contractor and the Authority. However, the Act does make explicit reference to PAWA's ability to supervise or perform work notwithstanding anything elsewhere in the Act (Section 42).

The reason for PAWA's exemption to due to the activities it undertakes, and the materials it uses to do so, which are sufficiently different to that of a typical electrical worker or contractor. Issues relating to materials used are generally concerned with compliance with standards, conditions imposed not by the Act, but the *Electricity Reform Act*. And for some activities, such as power reticulation, standards imposed on 'electrical work' are inappropriate, again originating from the *Electricity Reform Act*. This review is concerned only with licensing arrangements. On that score, no one organisation should be exempt from regulations, so long as those regulations are made flexible enough to be relevant to the activities it undertakes. That flexibility has been recommended by this review.

At is stands, PAWA's exempt status is in conflict with the principles of competitive neutrality to no apparent advantage. Other utilities are not nominated in this way. The National Competition Policy agenda endorsed by all Australian governments in April 1995 offers a comprehensive package of reforms, comprising:

- extension of the reach of the *Trade Practices Act 1974* to unincorporated businesses and State and Territory government businesses;
- application of competitive neutrality principles so that government businesses do not enjoy a competitive advantage simply as a result of public sector ownership;
- restructuring of public sector monopoly businesses;
- reviewing all laws which restrict competition;
- providing for third party access to nationally significant infrastructure; and
- extension of prices surveillance to State and Territory government businesses to deal with those circumstances where other competition policy reforms had proven inadequate (National Competition Council, downloaded from www.ncc.gov.au 30 August 2000).

The exemption provisions afforded to PAWA are in conflict with the second of these reforms.

As mentioned, this recommendation is intended as a complement to licensing recommendations made above. The current licensing system offers little or no benefit to PAWA, and presumably other utilities or companies with specific electrical training requirements. Companies should not be considered in breach of licensing provisions if they have taken appropriate, 'approved' measures to ensure that the objectives of the legislation are met. This consideration would only apply when companies are working on their own assets. When working in the public arena (ie the household sector), for reasons mentioned elsewhere, normal licensing requirements should prevail.

Minimum voltages thresholds for unlicensed work should remain in place for the safety of individuals and the wider community. Voltages specified in the Act are those not exceeding 32 volts alternative current or 115 volts direct current, that is or may be connected to a source of supply.

## Need to undertake a broader review of the Act

There are several aspects of the *Electrical Workers and Contractors Act* that are outdated, irrelevant, or inappropriate, which do not necessarily impose restrictions to competition (hence outside the scope of this review). Moreover, it is difficult, and to some extent misleading, to separate the costs and benefits associated with provisions in the *Electrical Workers and Contractors Act* from other important aspects of regulation governing electrical workers, where there are restrictions to competition.

In order to satisfactorily assess the net benefit of all restrictions to competition governing electrical workers and contractors in the NT, arrangements imposed by other acts should be reviewed simultaneously with the findings made in this report. As for improving the overall relevance of the Act in light of recent changes in the industry and wider community, a more general review of the Act is both warranted and recommended. At a minimum, a more general review should:

- incorporate the above recommendations with regard to restrictions to competition contained in the Act, including the incorporation of explicit regulatory objectives;
- enable the act to explicitly accommodate the National Restricted Licensing System currently in place, which currently inappropriately relies on outdated permit and R Grade licence provisions;

- make explicit the application of licensing, permit and record keeping provisions of the Act with regard to PAWA, other utilities, and other categories of employers, including households, consistent with the recommendations made in this report;
- eliminate to the greatest extent possible the overlap between the assessment and accreditation activities of the Board and the training assessment and accreditation arrangements developed and endorsed by industry through the National Training Packages processes, which unnecessarily duplicate regulatory and compliance costs;
- review the appropriateness of the industry-dominated composition of the Board, including the advantages of consumer and government representation; and
- update the language of the Act, including the removal of gender specific language.

Given the important safety objective of the Act, measures to minimise the restrictiveness of the licensing system should be accompanied by a review of the adequacy of the level of enforcement of licensing provisions, and perhaps more substantial penalties associated with unlicensed work. In response to the draft report, it was suggested that this might include:

- on-the-spot fines;
- deeds on undertaking to improve performance where it was found lacking; and up to
- the penalty of prohibiting a person from continuing to operate in the industry (D. Hudson).

It would be very important for any such a regime to be highly transparent, and have very clear guidelines as to what action attracts what penalty.

# *Appendix*

# A Terms of reference

THE REVIEW OF THE LEGISLATION shall be conducted in accordance with the principles for legislation review set out in the Competition Principles Agreement. The underlying principle for the review is that legislation should not restrict competition unless it can be demonstrated that:

- the benefits of the restriction to the community as a whole outweigh the costs; and
- the objectives of the legislation can only be achieved by restricting competition.

Without limiting the scope of the review, the review is to:

- clarify the objectives of the legislation, clearly identifying the intent of the legislation in terms of the problems it is intended to address, its relevance to the economy and contemporary issues and whether or not the legislation remains an appropriate vehicle to achieve those objectives;
- identify the nature of the restrictions to competition for all relevant provisions of the specified legislation. This analysis should draw on the seven ways identified by the National Competition Council in which legislation could restrict competition, which include:
  - governs the entry or exit of firms or individuals into or out of markets,
  - controls prices or production levels,
  - restricts the quality, level or location of goods or services available,
  - restricts advertising and promotional activities,
  - restricts price or type of input used in the production process,
  - is likely to confer significant costs on business, or
  - provides some advantages to some firms over others by, for example, shielding some activities from the pressure of competition;
- analyse the likely effect of any restriction on competition and on the economy generally;

- assess and balance the costs and benefits of the restrictions for each anticompetitive provision identified;
- consider alternative means for achieving the same result and make recommendations including nonlegislative approaches; and
- clearly make recommendations. These should flow clearly from the analysis conducted in the review. If change is not recommended and restrictions to competition are to be retained, a strong net benefit for retention must be demonstrated.

When considering the matters referred to above, the review should, where relevant, consider:

- government legislation and policies relating to ecologically sustainable development;
- social welfare and equity considerations, including community service obligations;
- government legislation and policies relating to matters such as occupational health and safety, industrial relations and equity;
- the interests of consumers generally or of a class of consumers;
- government legislation and policies relating to ecologically sustainable development;
- economic and regional development including employment and investment growth;
- the competitiveness of Australian business; and
- the efficient allocation of resources.

The review shall consider and take account of relevant legislation in other Australian jurisdictions and any recent reforms or reform proposals including those relating to competition policy in other jurisdictions.

The review shall be conducted as a public review in accordance with the Guidelines for NCP legislation reviews document that has been endorsed by the NCC. In accordance with the appropriate review model used under these guidelines, the review shall consult with and take submissions from those organisations and individual stakeholders affected or regulated by the legislation, other interested Territory and Commonwealth Government organisations, other State and Territory regulatory and competition review authorities and members of the public.

# *References*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