

The Australian Workforce and Productivity Agency (AWPA) is currently updating its advice on the Australian Government's **Skilled Occupation List (SOL)** for 2014.

We are seeking your input on the occupations/industry sectors your organisation represents or that you belong to as an individual. In particular, we are seeking evidence of:

- demand and supply imbalance,* both nationally and regionally
- medium-to-long term demand and supply trends which may impact upon Australia's employment outlook
- formal licensing or registration requirements.

Please email this completed form to SOL@awpa.gov.au by COB Friday 22 November, 2013.

Note: The SOL is concerned **only** with medium-to-long-term skills needs rather than immediate skills shortages. As such, AWPA is only seeking to obtain information on longer term trends, rather than immediate shortages and costs. For the purposes of this exercise, 'medium-to-long term' is defined as a period of around two to ten years.

* **Skill demand and supply (im)balance** occurs when the quantity of a given skill supplied by the work force and the quantity demanded by employers diverge at the existing market conditions. Labour market supplies and demands for occupational skills are continuously fluctuating. At a certain point in time, there will be labour market imbalances and accompanying skill imbalances because of the disequilibrium between the demand for and supply of skills.

1. Name:

Organisation: Master Electricians Australia

2. What are the industry/industries and ANZSCO occupation/s that you or your organisation represents for the purposes of this submission?

Industry/industries:	ANZSCO code (four-to-six digit)	Occupation/s
Electrical	341111	Electrician (General)
Electrical	341112	Electrician (Special Class)
Electrical	341113	Lift Mechanic
Electrical	342111	Airconditioning and Refrigeration Mechanic
Electrical	342211	Electrical Linesworker
Electrical	342212	Technical Cable Joiner
Electrical	342313	Electronic Equipment Tradesworker
Electrical	342314	Electronic Equipment Tradesworker (General)
Electrical	342315	Electronic Equipment Tradesworker (Special Class)

3. Are there any occupations that you represent where there is evidence of imbalances in the demand for and supply of skills in the medium-to-long term?

If possible, provide a quantified estimate of the demand and supply for your nominated occupation(s) out to 2020.

According to a report from DEEWR, *Australian Jobs 2013*, Electrician continues to be listed in the top five occupations expected to provide the largest number of new jobs over the next five years across Australia, with 23,800 new jobs projected to be created.

Another DEEWR Report, *Electrotechnology and Telecommunications Trades*, uses the internet vacancy rate as one indicator of the supply/demand disparity for electrotechnology occupations. According to DEEWR's research, the proportion of vacancies filled for electricians declined from more than 70 per cent in May 2011, to 61 per cent in September 2011. Electrical Linesworker positions also appear to be difficult to fill, with less than 40 per cent of surveyed vacancies filled within four weeks of advertising, down from 55 per cent in 2010. While projections for the next decade are not available, these figures are an indication of a supply/demand imbalance.

A technical paper released by the National Centre for Vocational Education Research (NCVER), *Tradespeople for the resources sector: Projections 2010-2020*, provides projections on expected employment growth to 2020 for specific trade occupations. The paper canvasses the best, worst and average case scenarios for each occupation based on historical apprenticeship commencement rates to population projections, incorporating assumptions about attrition. According to this report, in the average scenario, the workforce for electricians is expected to grow by close to 46,000 by 2020 increasing from 132,200 in 2010 to 178,150 in 2020. In contrast, the worst case scenario would see 5,915 fewer electricians employed in the sector in 2020 than there were in 2010. While there are notable differences between the average and worst case scenarios, it is certainly an indication of the potential critical under supply of electricians that could be facing the Australian economy out to 2020.

The *E-Oz Enviroscan 2013* confirms the increasing demand for electrotechnology skills. EE-Oz reports that, according to census data, between 2006 and 2011, the national workforce grew by approximately 8%, while the electrotechnology workforce grew at an average of 19.47%. Figures for electricians are particularly striking with a 23% increase in demand between 2006 and 2011. So, in a period in which the workforce grew by 8%, employment of electricians grew at almost three times that rate.

The *E-Oz Enviroscan 2012* also forecast the potential for a looming undersupply, projecting that when taking regular workforce attrition into account, the increase in the electrical workforce in 2013 will be half of the increase in 2012, which was itself insufficient to meet predicted workforce demand. For electrical apprentices this decrease represents 24% fewer apprentices or over 1500 fewer qualified electricians graduating in 2013. NCVER confirms this trend, anticipating an electrical workforce expansion of only 3%, with the 2013 cohort expected to represent a marked reduction in graduates, exacerbating labour shortfalls and worsening the skills shortages already affecting the industry.

A report from SkillsInfo, *Employment Outlook for Construction*, confirms that in 2011-12, employers recruiting electricians experienced significant difficulty, especially if they were seeking electricians who had specific licences and experience. Considering that 57% of electricians and 42% of airconditioning and refrigeration mechanics are employed in the construction industry (see *2012 EE-Oz Environmental Scan*), this is evidence of the demand and supply imbalance throughout Australia.

It is also important to note that in a survey of electrotechnology industry employers conducted by Ee-Oz to inform their 2013 Ee-Oz Environmental Scan, it was found that over 70% of those surveyed expected to increase their staffing levels in 2013, while only 12.5% expect to lay staff off. According to this survey, the occupations expected to be in the highest demand over the next 12 months are:

- Electrical (71.43% of respondents)
- Electronics (43% of respondents)
- Refrigeration and air-conditioning (43% of respondents)

The predicted increase in vacancies is confirmed by *Job Outlook* figures which project that over the five years to November 2017, the number of job openings for Electricians will be above average (between 25,001 and 50,000) with a low unemployment rate when compared to all other occupations.

4. Is there evidence of imbalances in the demand for and supply of skills in the medium-to-long term in non-metropolitan areas?

If so, can you indicate in what part of Australia and the number in the occupation in over- or under-supply.

While the skilled shortages in regional areas for electricians appear to have eased to a certain extent, employers are still experiencing difficulty in filling vacancies. This is particularly evident in regional areas of Queensland and Western Australia?.

5. Are there any occupations which require formal licensing or registration arrangements in order to practice/perform in this occupation?

For example:

- *Midwives are required to register with the nurses board in their state or territory*
- *Panelbeaters are required to be registered or certified with the state Motor Vehicle Repair Industry Authority*

Currently each state and territory in Australia has separate licensing arrangements for persons working in electrical occupations. The following electrical occupations represented by Master Electricians Australia require an electrical licence to be issued by the relevant state or territory electrical regulatory body:

Electrician (General)
Electrician (Special Class)
Lift Mechanic
Electrical Linesworker
Technical Cable Joiner
Electronic Equipment Tradesworker
Electronic Equipment Tradesworker (General)
Electronic Equipment Tradesworker (Special Class)

There are also various classes of restricted and/or higher level licences applicable for these occupations in various state/territory jurisdictions.

Refrigeration and air-conditioning mechanics are subject to some jurisdictional licensing which differs amongst the states and territories. There is also a national licensing arrangement requiring any person who handles refrigerant or works on refrigeration and air-conditioning equipment to hold a Refrigerant Handling Licence, issued by the Australian Refrigeration Council.

In early 2014, a new national occupational licensing system is scheduled to commence. Those in electrical and air-conditioning and refrigeration occupations will only need to apply for a single national licence that will allow them to work in their particular occupation anywhere in Australia.

6. Is it expected that your employment sector will be impacted by any medium-to-long term trends which will impact upon demand and/or supply (excluding costs associated with training, labour hire, and international sponsorship)?

Please provide evidence (e.g. data source, policy document) which substantiates these claims.

For example:

- *New benchmarks for childcare centres will be introduced by the Australian Government on 1 January 2014, which will mandate increased staff-to-child ratios and higher qualification standards for childcare workers.*

High-speed Broadband

While the National Broadband Network (NBN) is no longer going ahead, there has been a commitment from the new Federal Government to introduce high-speed broadband through a fibre-to-the-node system. This system involves running fast fibre-to-nodes at the end of streets throughout Australia, with the last mile between the nodes to be covered by the existing copper network. While process may not be as involved as the NBN, it will undoubtedly add to the demand for skilled electrical workers across the country.

As well as the physical roll out of fibre-to-the-node, there will be demand on the customer premises side of high-speed broadband. Skilled electrical and communications workers will be required to assist customers with installation of digital televisions, home security systems and forms of interactive entertainment.

Resources Boom

The mining and resources boom in Australia continues to have a significant impact on the electrical and telecommunications labour markets. Information from SkillsInfo in *Employment Outlook for Mining* indicates that electrician is in the top five of occupations employed by the mining sector and this is set to continue. The resources sector provides demand for electricians in both the construction phases and the on-going operations of mine sites and processing plants. Shortages of electricians are already widespread, with employers attracting relatively small numbers of suitable applicants for their vacancies, specifically in the key mining states of Western Australia, Queensland and the Northern Territory.

The electrical contracting industry employs personnel particularly suited to occupations within the resources sector, in terms of skills and knowledge but also in terms of work ethic, occupational health and safety consciousness and industry culture. Consequently, electrical workers are attractive to the resources industry and employers in local business will find it increasing difficult to match the wages and conditions typical of the resources industry. Electrical workers may also be lured away from the electrotechnology industry to work in other occupations because of the sizeable wages on offer.

The importance of the electrotechnology workforce is such that the current limited availability of these skilled tradespeople (specifically electricians) could potentially constrain the establishment of Australia's mining infrastructure (*Resourcing the Future*, Department of Resources, Energy and Tourism, 2010).

NCVER and ABS also predict that growth in the electrical workforces of the resource rich states of Queensland and Western Australia will be below the national average over the next five years. This is due to comparatively small increases in training intakes despite escalating demand, which has the capacity to constrain infrastructure development with negative, potentially long term, effects.

Renewable Energy Technologies

Despite the new Federal Government's repeal of the carbon tax, escalating electricity prices remain a reality for the Australian public.

This creates a strong incentive for consumers to actively consider their energy consumption decisions and look for more energy efficient alternatives. Renewable energy options are likely to continue to be in high demand from large businesses to individual householders. In fact, this demand can already be seen with the growing popularity of solar photovoltaic (PV) panels.

According to a report from the Bureau of Resources and Energy Economic, *Energy in Australia 2013*, between 2010 and 2011 there was a 150 per cent increase in installed PV capacity in Australia. Supportive government policy in the form of various rebates and tariffs, in combination with the rapid expansion in the global production of PV modules has contributed to dramatic reductions in the price of PV units, making PV technology a more cost competitive option when compared to the fossil fuel-fired alternatives.

Energy Auditing

With the increasing public consciousness of their carbon footprint from both an environmental and financial perspective, there is also a growing demand from both householders and business for the services of an energy auditor.

The 2013 *Ee-Oz Environmental scan* noted that almost 30% of respondents to their industry survey predicted they would need to recruit energy auditors in the next 12 months to meet growing demand. Ee-Oz also reports that while the demand for these skills is strong, Registered Training Organisation (RTO) stakeholders have identified capacity restraints in expanding their delivery of these units based on technical trainers keeping pace with advances in technology and work practices.

Smart Meter roll-out

While an Australia-wide mandatory roll-out of smart meters is not planned for the immediate future, it is likely that the cost of electricity will see more and more consumers requesting the installation of smart meters to help monitor and manage their energy use. In 2012, the Standing Council on Energy and Resources (SCER) released a series of recommendations in response to the Power of Choice Review. These recommendations included commitment to a market driven roll-out of smart meters and other advanced metering.

7. Please provide any other information you consider relevant evidence to support your submission

For example, you may know of some independent studies about your occupation that supports your advice to us.

Department of Education, *Australian Jobs 2013*

<http://docs.employment.gov.au/system/files/doc/other/australianjobs2013.pdf>

Department of Education, Employment and Workplace Relations, *Electrotechnology and Telecommunications Trades*, September 2011

<http://www.deewr.gov.au/Employment/LMI/SkillShortages/Documents/ElectrotechnologyandTelecommunicationsPaper.pdf>

Energy Skills Australia, *Environmental Scan 2013*

http://www.ee-oz.com.au/images/Reports/Environmental_Scans/E-Oz%20Enviromental%20Scan%202013.pdf

Energy Skills Australia, *Environmental Scan 2012*

(<http://www.ee-oz.com.au/files/EE-Oz%202012%20Environmental%20Scan.pdf>)

SkillsInfo, *Employment Outlook for Construction*

(<http://www.deewr.gov.au/lmip/default.aspx?LMIP/Publications/IndustryReports>)

Job Outlook (accessed October 2013)

<http://joboutlook.gov.au/occupation.aspx?search=alpha&tab=prospects&cluster=&code=3411>

SkillsInfo, *Employment Outlook for Mining*, August 2012

<http://www.deewr.gov.au/lmip/default.aspx?LMIP/Publications/IndustryReports>

Department of Resources, Energy and Tourism, *Energy in Australia*, May 2013

<http://www.bree.gov.au/documents/publications/energy-in-aust/bree-energyinaustralia-2013.pdf>

Standing Council on Energy and Resources, *SCER response to the Power of Choice Review*, 2012

8. Would you like to make any additional comments on the SOL?

No.

9. Please provide the name, position and contact details of a person within your organisation who is willing to be contacted if any further information or follow-up is required.

Name: Malcolm Richards

Position: Chief Executive Officer

Contact details: 1300 889 198

MEA Head Office
57 Berwick Street
Fortitude Valley QLD 4006

All information, **including name and address details**, contained in submissions will be made available to the public on the AWPAs website unless you indicate that you would like all or part of your submission to remain in confidence. Automatically generated confidentiality statements in emails do not suffice for this purpose. Respondents who would like part of their submission to remain in confidence should provide this information **marked** as such in a separate attachment. Legal requirements, such as those imposed by the *Freedom of Information Act 1982*, may affect the confidentiality of your submission.