

Electrical Engineer	New South Wales (NSW)
ANZSCO Code: 2333-11	April 2009
Labour market rating	Shortage
Comment: <i>Shortages were particularly evident in the high voltage electrical power generation and distribution sector.</i>	

Occupational demand

ABS Census data indicate that employment of electrical engineers grew by 2.9 per cent per annum from 2001 to 2006. Demand for the occupation has remained firm over most of the past year, with solid activity in non-residential construction and electricity generation and distribution more than offsetting weak manufacturing conditions. The AIG-PricewaterhouseCoopers *Performance of Manufacturing Index* for March indicates that manufacturing activity in NSW fell for the eleventh consecutive month. The Construction Forecasting Council (CFC) expects the value of non-residential construction work in NSW to grow by 16 per cent in 2008-09, with most of the growth in engineering construction. Under the NSW Government's State Infrastructure Strategy, capital expenditure for the electricity sector was budgeted to increase by 23 per cent in 2008-09.

Occupational supply

DEEWR estimates that supply to the occupation from NSW universities was 240 per annum in the three years to 2008, which was slightly above the figure for the previous three years. The annual training rate (university completions as a percentage of employed electrical engineers) is 4.3 per cent. There are no separate immigration data for electrical engineers. However, net overseas immigration to NSW of electrical, electronics, telecommunications and mechatronics engineers has grown from 171 in 2003-04 to 264 in 2007-08. Given that electrical engineer is the largest of this group, it is likely that supply to this occupation from net overseas migration has been substantial and growing over the past few years.

Employer and industry comments/current labour market

A DEEWR survey of employers who had recently advertised for electrical engineers found that 65 per cent of vacancies were filled within six weeks of advertising, which was similar to the 72 per cent success rate in 2008. Shortages were particularly evident in the high voltage electrical power generation and distribution sector, although positions requiring five years or more experience in specific areas such as rail infrastructure, alternative energy, specialised manufacturing or specialised industrial equipment also proved difficult to fill. Employers and recruitment agents reported that the majority of applicants for such positions did not have sufficient experience in the required specialisation, lacked sufficient Australian experience or had poor communication skills. Positions for recent graduates, however, were generally filled readily. In some cases employers seeking recent graduates engaged more than they had originally intended due to the number of high quality applicants who applied. In other cases, employers seeking experienced electrical engineers took on a promising recent graduate due to a lack of experienced applicants. Shortages of experienced electrical engineers were also evident in regional NSW, particularly in manufacturing and local government. The consensus of these employers was that they were unable to compete with the remuneration on offer for positions at a similar level in Sydney and in industries such as mining.

Labour market outlook

Although manufacturing activity will be constrained over the short-term by the weakness in the NSW and international economy, the CFC expects non-residential construction to grow by 12.5 per cent in 2009-10 and the NSW government has announced \$18 billion in capital expenditure on the State's electricity system over the five years to 2014. Shortages of electrical engineers with experience in areas directly related to the planned expenditure are likely over 2009-10.