EUPA
TRAINING COUNCIL

Electrical, Utilities & Public Administration
Training Council Inc

industry workforce development plan

2011

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The **Electrical, Utilities and Public Administration Council (EUPA) Inc** continues to promote Vocational Education and Training as the means to supply industry with highly skilled labour both now and into the future. EUPA has established networks with influential industry peak bodies, industry leaders and associations as well as training providers across its scope of operations to deliver on this outcome.

As was the case in 2010 the resources sector continues to be the most significant economic driver for the state however, EUPA continues to be committed to ensuring the needs of the industries it represents are also recognised by government as essential to state development.

EUPA has an industry coverage which is the foundation for all other sectors of the Western Australian economy. Industry from all corners of the state rely upon the sectors EUPA services to provide social infrastructure, administer government services, build and maintain public utilities, enable power and provide community safety.

Under the direction of the Department of Training and Workforce Development, EUPA has compiled individual industry sector *Environmental Scans* and this 2011 *Workforce Development Plan* in consultation with our stakeholders.

This work continues to inform the Department of matters that impact on the industry sectors EUPA represents and the proposed strategies and actions to be championed by the training council on their behalf. This 2011 Workforce Development Plan however is now structured to also contribute to the strategic goals articulated by the Department in *Skilling WA* – A workforce development plan for Western Australia.

EUPA aims to continue to provide leadership and forward-looking industry advice to government to support the States' economic development and in so doing is proposing strategies to ensure its continued engagement in workforce development and training initiatives for each of its industry sectors.

Joe Fiala
Chairperson
EUPA Training Council

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Executive Summary

The *Electrical Utilities and Public Administration Training Council* is responsible for industry sectors critical to all other sectors of the Western Australian economy. Industry from all corners of the State rely upon the sectors EUPA represents to provide social infrastructure, administer government services, build and maintain public utilities, enable power and provide community safety. Employing over 250,000 individuals the industries EUPA represent are critical to the economic development of the State.

EUPA	
Electrical and Telecommunications	Public Sector
Electricity Supply - Generation, Transmission, Distribution and Rail	Public Safety
	Corrective Services
Water	Local Government
Gas	
Waste	

Workforce Development Drivers

Many agencies have made forecasts as to the impact economic development will have on Western Australia over the next decade. As a result of this development, EUPA has identified the following workforce development drivers which are impacting on the industry sectors it represents. These drivers are evident to some extent in all regions of the State.

Population Growth

Western Australia has recorded the highest population growth of all states in Australia and it has been predicted that by 2056 it will be in the order of 4.3 million. The States' workforce has been predicted to grow significantly by various commentators over the coming years and it is regularly being reported that Western Australia will be require some 150,000 additional workers by 2017 and that 70,000 of these will be required by 2015.

Some of the impacts population growth will have on the industries EUPA represent include:

- Increased demand for Domestic Housing (Electrical)
- Expansion of Utilities Infrastructure (Electricity, Gas, Water, Waste)
- Demand for Transport Services (Electrified Rail, Signals)
- Increased demand for Public Services (State and Local Government)
- Increased expectations of Public Safety (Police, Emergency Services (Fire & SES) Environment & Conservation)

Competition for skilled labour

Resource projects demand for skilled labour from the sectors EUPA represents is significant, including occupations such as engineers, technicians, electricians, instrumentation, fixed and mobile plant operators, project managers, planners, human resources workers and managers, administrators, inspectors and OHS specialists.

Demand for Energy

There are a growing number of new businesses and homes connecting to the electricity distribution grid and the average amount of power used per home and business continues to increase. Western Power reports that in the past five years, the amount of power consumed each year has risen by approximately five per cent per annum and its' forecasts suggest this level of growth is set to continue.

In addition to which gas is rapidly becoming an alternate energy fuel source and Government climate and carbon reduction policy is driving change to alternate technologies for energy production.

Energy 2031 – Strategic Energy Initiative outlines the States' Energy Policy and indicates that demand for energy is driving expansion of energy production capabilities:

Affecting: Traditional electricity production (Carbon fuels)

                Electricity transmission and distribution,

                Gas transmission and distribution

                Alternate energy sources – Solar, Wind, Wave, Geo Thermal (Hot Rocks)

Climate Change and Environment

It is accepted that climate change will significantly impact on the State. As a result Government climate and carbon reduction policy is driving demand for additional workforce capabilities in environmental and sustainability technology applications:

Affecting: Water Sources and Treatment

                Waste Management

                Environmental Management

                Public Safety (Emergency Services Fire and SES)

Technology Development

Most technological developments utilise electrotechnology in some form. Current technology developments significantly impacting on the industry sectors EUPA represents include:

- Micro solar and wind electricity generation (including domestic installations)
- National Broadband Network (infrastructure construction and connectivity)
- Electrical and electronic data and communication technologies
- Rapid changes and adoption of new technologies (in all industry sectors will have a electrical or electronic application)

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Figure 1 - Industry Overview

Industry Sectors

Public Administration

The Public Administration Industry comprises the State Public Sector (inclusive of Public Safety and Corrective Services) and the Local Government sector.

The Western Australia Public Sector is comprised of 180 different departments and agencies and it significantly contributes to the economic development of the State through the direct employment of over 150,000 individuals and the provision of necessary support services that enable communities to function and grow.

The **Local Government** sector provides important governance, development initiatives and social and economic progress to all Western Australian communities. There are 138 local government authorities functioning throughout the State with 1300 elected members and employing over 14,000 FTE (Full Time Equivalent).

Electrical

The (Electrotechnology) industry sector covers the design, installation and maintenance of electrical and data systems in domestic, commercial and industrial premises. It also encompasses the installation and maintenance of refrigeration and air-conditioning equipment and other electrical and electronic appliances.

The sector is highly regulated and technical in nature where the vast majority of employment occurs in occupations such as Electrical Engineers, Technicians and the Electrotechnology Trades.

As of 30 June 2011 there were over 40,000 licenses on issue to electrical contractors, electrical trade workers, refrigeration and air-conditioning trade workers and apprentices in training.

Utilities

The utilities sector comprises of electricity and gas supply, waste and water services. It is the smallest sector with some 20,000 people employed in Western Australia.

There is a constant demand for utility services however employment is affected by the economic cycle, demand and supply factors, industry policies, climate change and longer term trends in the energy industry especially the deregulation of energy markets.

Electricity Supply and Distribution is expected to be the main driver behind employment growth however environmental and sustainability issues are at the forefront of industry development.

■ Electrical   ■ Utilities   ■ Public Administration

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Electrical

The Electrical industry is characterized by micro-businesses however many medium to large electrical contracting organisations do operate across the State. While many electricians work in the building and construction sector the electrical trade includes specialist areas such as "instrumentation" and "hazardous areas" which are seen as necessary to gain employment in the resource sectors of mining, oil and gas exploration, mineral processing and data and telecommunications which are relevant to the National Broadband Network.

Major Challenges

- Competition from other industry sectors for employees with similar skill sets

- Introduction of National Licensing (July 2012).

- In 2012/13 there will be a lower number of apprentice electricians graduating due to a low intake during the economic downturn of 2009

- Construction of the National Broadband Network to commence (October 2011).

New and Emerging Skills

- Rapid advances and adoption of new technologies requiring electrotechnology skills

- Design and installation of grid connected photovoltaic (solar) systems

- Electricians with instrumentation and hazardous areas skills

- Domestic and commercial / industrial integrated energy management systems

- Installation of smart metering systems

- Energy efficiency management and auditing

- Wind energy systems

- Co-generation and local generation

Occupations in Demand (ANZSCO)

341111	Electrician (General)	342314	Electronic Instrument Trades Worker
341112	Electrician (Special Class)	342315	Electronic Instrument Trades Worker (Special Class)
342111	Air Con and Refrigeration Mechanic		
342313	Electronic Equipment Trades Worker	342414	Telecommunications Technician

Workforce Development Opportunities

- Employment opportunities for those from the electrotechnology trades is predicted to grow significantly, therefore the States' capacity to train apprentices in sufficient numbers to meet the predicted demand for electricians will be severely tested.

- Potential apprentices not having the numeracy and literacy capabilities required.

- Employers preference to draw their new apprentices from those individuals who have completed an electrical pre-apprenticeship where the individual's capabilities are assessed prior to employment.

- The various processes for migrant electricians to obtain skills recognition and then to obtain an electrical workers license are confusing.

Utilities

Electricity Supply

The electricity generation sector has both public and privately owned power stations that utilise fossil fuels of coal and gas or renewable sources of power such as wind, solar, geo-thermal, hydroelectric and biomass combustion to produce the State's electricity needs.

There are some eighty-five (85) electricity generation stations that utilise non-renewable fuel sources and twenty-nine (29) that utilise renewable fuel sources of various capacities (and stages of construction) throughout the State

Western Power and Horizon Power operate and maintain the large transmission and distribution networks which connect to the majority of consumers and these networks include the South West Interconnected System, North West Interconnected System, Esperance System, and Electricity Supply Authorities supplying some regional towns.

Gas

The term "gas" in the context of the Utilities industry' refers to the sector which supplies natural gas via transmission and distribution pipelines, and Liquid Petroleum Gas (LPG), via cylinders, to domestic, commercial and industrial customers.

Employment in the industry involves design of transmission, distribution, processing and/or storage systems; construction and maintenance of the systems; commissioning and decommissioning of systems; and metering and billing of customers.

The Gas industry is a major supplier of energy to homes and factories, supplying around 30% of industry energy needs and 20% of domestic needs

In Western Australia, there are twenty eight gas pipelines, being some 7,666km in total length owned by thirteen different organisations.

Waste

The waste industry in Western Australia is divided into three major segments,

1. Municipal solid waste,
2. Commercial and industrial
3. Construction and demolition

Each of these activities involves waste collection, the processing and treatment of waste, and the disposal of waste at landfills.

There is also a range of support and ancillary activities associated with the waste management industry, including approvals and regulatory activities, as well as the planning, procurement, construction and the implementation of waste management initiatives.

The drivers for changes in the waste management industry relate to growth in the quantities of waste generated and methods used for its collection, treatment and disposal.

Water

Organisations in the water industry design, construct, operate and manage complex water and wastewater networks, from water catchment management, water collection, treatment and distribution systems, and wastewater treatment plants and outfalls.

Current water demand outstrips available supply in many areas of the State as cyclical weather patterns and climate change have impacted on water supply.

Water is required to sustain industry sectors such as agriculture, mining and manufacturing and underpin urban activity as well as being an essential services associated with public health.

Major Challenges

- Population Growth - creates increased demand for the installation of new infrastructure / maintenance of existing ageing infrastructure, and the provision of a broader range of services.

- Ageing workforce - impending retirement of skilled workers (all sectors)

- Climate Change – Government policy and growing community awareness is emphasising the need for a clean, green, sustainable environment premised on effective management practices.

- Competition from other industry sectors for employees with similar skill sets.

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New and Emerging Skills

Skills gaps emerging in technical, professional and managerial occupations are too numerous to list here. See page 47 for a full summary, however some examples include:

- Renewable energy planning and design
- Lineworker with telecommunications competencies
- Vegetation Control worker
- Waste Trackers and Auditor
- Environmental Scientists and Engineer specializing in Waste Treatment processes

- Energy Markets
- 'Live Line Glove and Barrier' qualified worker
- Electrician (with HV switching experience)
- Waste Education Officer

Occupations in Demand (ANZSCO)

The list of occupations in demand is too numerous to provide here. See the EUPA Workforce Development Plan 2011 for a full summary – some examples include:

233311	Electrical Engineer	233512	Industrial or Mechanical Engineer
312311	Electrical Engineering Draftsperson	341111	Electrician
No Code	Instrumentation Technician	342211	Transmission Lineworker
342211	Distribution Lineworker (including High Voltage Live Line workers)	342212	Cable Jointer
233211	Civil Engineer	233915	Chemical and Environmental Engineer
233512	Mechanical Engineer	139999	Project Director/ Managers/ Analyst
No Code	Control Room Officer	No Code	Gas Distribution Officers/Main and Line Fitter
312611	Safety Inspector		
721999	Mobile Plant Operator (Landfill)	733111	Truck Drivers (Waste Collection Truck Driver)
		No Code	Operator (Waste Recovery Facilities)

Workforce Development Opportunities

- Opportunity exists to achieve greater acknowledgement of the Utility sector and occupations in the ANZSIC and ANZSCO codes to give greater clarity to the sector in defining career paths.

- Job roles are changing due to environmental pressures and government policy, with the likelihood that demands for new qualifications and skills sets will evolve for employees in areas not yet envisaged. Therefore training providers will need to better engage with industry so that they are able to meet future needs.

- Employment growth in the Utilities sector is predicted to be better than the national average over the coming years to 2013-14.

- Transmission and distribution lineworkers are a global skill shortage. Migration may not be an option to address skill shortages.

- There are too few RTOs in WA with scope to deliver Utilities sector qualifications, particularly for higher level qualifications.

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Public Administration

Public Service (State)

The Public Sector has grown above the rate of the States' population growth for the past ten years and it is expected to continue.

The Public Sector Commission is the peak agency with a whole-of-government responsibility and it is through the Commission that EUPA provides advisory service to the sector.

The Commission has carriage of a formal Public Sector Reform program that responds to the Economic Audit Committee and focuses in part on:

- Capacity Building and Development;
- Contemporary Management Frameworks;
- Autonomy and Flexibility in Decision Making
- Changes to Legislation

The Commission invests significant resources in the sector through its Capability and Development Division.

EUPA does not seek to replicate the work of the Commission. Details of workforce development initiatives relevant to the Public Sector can be obtained directly from the Commission.

Public Safety

Major Public Safety organisations in Western Australia are:

Department of Environment and Conservation Administers legislation concerning environmental regulation. Of particular interest to the public safety sector is the 'Environmental Enforcement Unit' and five branches grouped under 'Environmental Regulation'.

Fire and Emergency Services Authority – Prevent, prepare for, respond to and recover from emergencies in partnership with the community and other agencies. FESA responds to a wide range of emergencies including hazardous substance, land/marine search and rescue, fire and natural or man-made disasters.

FESA administers numerous volunteer services.

WA Police - Responsible for policing the largest single police jurisdiction in the world, with a structure comprising three regions, 14 districts and 157 police stations.

Surf Life Saving WA – patrols the beaches of Western Australia through the assistance of approximately 16,000 volunteers.

Corrective Services

This sector covers services that protect the community through offender management.

Job roles include direct prisoner supervision, facility management, offender rehabilitation and social services. Organisations in this sector provide critical support services to offenders – diverting them from committing further crimes and assisting them to become more responsible citizens.

In Western Australia, the sector is mainly comprised of the following three organisations:

- Department of Corrective Services.
- Serco Asia Pacific – A private contracted organisation that manages the operations of the Acacia medium security prison.
- G4S – A private contracted organisation that manages court security and custodial services.

Local Government

Local Governments seek to attract and retain a diverse workforce at all occupational levels to provide services and deliver on the functions of Local Government which include:

- Infrastructure - Waste management, local roads and bridges
- Recreation - Parks, stadiums, swimming pools, community centres, caravan and camping grounds
- Facility Management - Ports & marinas, cemeteries, parking (including enforcement), libraries and museums,
- Environmental Management - Natural resource management and climate change
- Health - Regulatory inspection, monitoring and enforcement, immunisation and animal control
- Building Services - Planning, inspections, licensing and certification
- Planning - Land use, development, building
- Community and Economic Development - Social infrastructure, community assets
- Corporate Management Services

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Major Challenges

- Population growth and demand for services
- Competition from the resources sector for employees
- Public Sector and Local Government employment conditions
- An ageing workforce
- Low youth participation rates
- Demand for regional services
- Public Safety services very reliant on a large volunteer workforce

Occupations in Demand (ANZSCO)

The list of occupations in demand is too numerous to provide here. See page 69 for a full summary, however some examples include:

132311	Human Resource Manager	511111	Contract, Program and Project Administrator
223311	Training and Development Professional	139112	Commissioned Officer Fire
599599	Inspectors and Regulatory Officers	139113	Commissioned Officer Police
441211	Fire and Emergency Workers	441312	Police Officer
272311	Psychologists	272511	Social Worker
442111	Prison Officer		Local Government occupations in demand include:
272412	Interpreter		
272413	Translator	232611	Urban and Regional Planner
272612	Recreation Officer	312113	Building Inspector
132411	Policy and Planning Manager	411711	Welfare Support Worker
		721211	Earthmoving Plant Operator

Workforce Development Opportunities

- Promotion of the Public Sector and Local Government careers across the community will need to highlight the breadth of work, stability and flexible employment conditions available relative to a wide range of employment opportunities in customer service, technical, para-professional and professional roles

- Retention of those considering retirement will assist in lessening the loss of corporate knowledge and providing additional mentoring support for new entrants.

- Aboriginal participation in the workforce is a sustainable benefit and is supported by a commitment to achieve COAG outcomes.

- Alternative employment arrangements such part time, work from home and transition to retirement are current strategies which can be further explored for increased workforce participation.

- Regional growth and higher density living will demand higher levels of service provision. (Education, Police, Health, Recreation, Childcare, Aged care etc)

- Increases to the levels of prison populations are already being met with construction of new infrastructure which will require additional staffing needs to be met.

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- Higher numbers of immigrants from CaLD backgrounds require better community representation within agencies and better community engagement.

- Migration continues to be a key strategy to meet current and future labour demand in all sectors.

Existing workforce capability strategies/priorities that the PSC is progressing include:

- Implementation of Strategic Directions for the Public Sector Workforce.

- Implementation of an Aboriginal Employment Strategy.

- Development of Foundations of Government (HR) program.

- Increased public sector workforce planning.

- Increasing youth representation and opportunities via (e.g.) graduate programs, apprenticeships and traineeships.

- Increasing policy capability skills.

- Regional expansion of the above strategies/priorities.

Skilling WA - A workforce development plan for Western Australia

Skilling WA provides a framework to build, attract and retain a skilled workforce to ensure the State has the capacity to and capability for continued economic success. It focuses on growing the workforce through increased participation, targeted skilled migration and attracting and retaining a skilled labour force in Western Australia's regions. (*Skilling WA – Ministers Message)*

Skilling WA Strategic Goals:

1. Increase participation in the workforce particularly among the under-employed and disadvantaged, mature-aged, Aboriginal and Torres Strait Islander and other under-represented groups.

2. Supplement the Western Australian workforce with skilled migrants to fill employment vacancies unable to be filled by the local workforce and address those factors which support a growing population.

3. Attract workers with the right skills to the Western Australian workforce and retain them by offering access to rewarding employment and a diverse and vibrant community and environment to live in.

4. Provide flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to Western Australia's prosperity.

5. Plan and coordinate a strategic State Government response to workforce development issues in Western Australia.

The following outlines the strategies EUPA recommends to address workforce development issues for the industry sectors it represents within the Skilling WA framework.

It will be through implementation of these strategies that EUPA aims to contribute to the achievement of the strategic goals of Skilling WA.

Table 1 - Skilling WA Strategic Goal 1 Strategies

Skilling WA Strategic Goal 1 - Increase participation in the workforce particularly among the under-employed and disengaged, mature-aged workers, Aboriginal and Torres Strait Islander and other under-represented groups.		
ISSUES	**STRATEGIES**	**RESPONSIBILITY**
Specific opportunities exist to provide for employment of aboriginal people in both the State Public Sector and Local Government.	Establishment of Public Administration and Local Government traineeships for new entrants and indigenous people (Public Administration and Local Government)	EUPA, Public Sector Commission, WALGA
	Assist the PSC develop an Aboriginal Leadership initiative	EUPA, PSC
	Assist Local Governments identify and implement employment opportunities targeted at youth, women and minority groups (Local Government)	EUPA
	Promotion of Careers and Training in Local Government (Local Government)	EUPA and WALGA
All industry sectors EUPA represents recognise the need to promote and engage those under-employed from various community sectors.	Engagement with the Department of Corrective Services re- indigenous training initiatives in the Kimberley related to the construction of the Derby Prison. (Correctional Services)	EUPA and DCS
The Utilities sector have specific issues related to general awareness of career opportunities within the respective sectors	Seek ways to overcome industry image issues and develop mechanisms to promote as an industry of choice (Waste) Produce a skills roadmap identifying occupations and qualification requirements (Waste)	EUPA and Waste IWG
	Promote interest in gas related industry amongst school leavers and underrepresented groups (Gas)	EUPA Gas IWG
	Review the implementation of the Essential Services Officer Certificate III Qualification Pilot - Indigenous Workers (Horizon Power initiative) (Electricity Supply Industry)	EUPA and Horizon Power
	Assist the sector identify and implement employment strategies targeted at youth, women and minority groups for entry into the electrical trades (Electrical)	EUPA, IWG and NECA
	Research potential for the development of an Indigenous Electrical Pre-Apprenticeship (Electrical)	EUPA, NECA and RTOs

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Table 2- Skilling WA Strategic Goal 2 Strategies

Strategic Goal 2 - Supplement the WA workforce with skilled migrants to fill employment vacancies unable to be filled by the local workforce and address those factors which support a growing population		
ISSUES	**STRATEGIES**	**RESPONSIBILITY**
Many of the occupations within the industry sectors EUPA represents do not appear in the current ANZSCO and as such are not able to be included on the SPOL and therefore not be considered for skilled migration purpose. Migrant electricians find the processes for skills recognition and obtaining an electrical workers license confusing and frustrating. The demand for electricians to support the resource projects cannot be satisfied through current apprenticeship training arrangements and skilled migration (various forms of visa) will be the only way to satisfy industry needs for skilled labour. All sectors EUPA represent recognise Skilled Migration to be an important future labour source.	Analyse shifting labour market demand due to issues such as industry competition for labour, climate change, adoption of new technology and specific projects.	EUPA
	Influence SPOL to ensure identification of Public Sector occupations (Public Administration)	EUPA and PSC
	Seek to collaborate with the National ISCs to influence the ABS (ANZSCO) to better define occupations in the industries EUPA represents so that they can be included on the State Priority Occupation List	EUPA and National ISCs
	Seek to streamline processes for the recognition of overseas qualifications for employment in the Electricity Supply Industry sector; including the provision of gap training. (Electricity Supply Industry) Work to increase numbers of cable jointers (migration and local training opportunities) (Electricity Supply Industry)	EUPA and the ESI Asset owners
	Work with the Office of Energy Safety and the Electrical Licensing Board to make the processes of skills recognition and licensing for migrant electricians less confusing	EUPA with the OES and ELB
	Engage with the Department of Training and Workforce Development Industry Advisory Group on Skilled Migration. Establish reference group from the EUPA membership to advise industry skilled migration position and requirements for dialogue with the Department Advisory group above. Advise the State Skilled Migration strategy - ensure attraction of skilled (electrician) migrants in sufficient numbers. (Electrical)	EUPA

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Table 3 – Skilling WA Strategic Goal 3 Strategies

Strategic Goal 3 - Attract workers with the right skills to the WA workforce and retain them by offering access to rewarding employment and a diverse and vibrant community and environment to live in.		
ISSUES	**STRATEGIES**	**RESPONSIBILITY**
The Utilities and Public Administration sectors seek to improve the means by which industry occupations are promoted to the community There are very few organisations able to work with industry at the enterprise or agency levels to assist in the development of attraction and retention strategies There are over 27,000 electrical worker licenses on issue in WA but it is estimated that as many as %50 of those that hold a licence do not work in the industry Competition from the resources sector for workers with specific occupations (qualifications and skill sets)	Promote alternative employment arrangements such part time, work from home and transition to retirement as possible strategies which can be implemented for increased workforce participation.(all sectors) Promote attraction and retention strategies to industry – flexible employment arrangements to offset the loss of skilled labour to the resources sector (All sectors but specifically Electrical Gas and Water)	EUPA
	Promotion of Public Sector employment to school leavers, migrants, etc (Public Admin)	PSC EUPA and WDCs
	Increase utilisation of the Local Government Training Package (Local Government) Identify training related productivity opportunities and demand for training in the sector (Local Government) Promote the uptake of Para Professional Qualifications relative to the professional occupations of the sector. (Local Government)	EUPA and Workforce Development Centres EUPA EUPA and WALGA
	Engagement of employers in the industry training arrangements (Waste) Work with employers on developing strategies aimed at the retention of skilled workers including existing worker training support as a retention strategy (Waste) Promote interest in waste related industry amongst school leavers and underrepresented groups (Waste)	EUPA and Waste IWG EUPA and Workforce Development Centres
	Work with employers to address attraction and retention of regional Western Australians in employment in the Electricity Supply Industry sector (Electricity Supply Industry)	EUPA
	Seek to improve the retention of apprentices in the trade and ways to address apprentice employment conditions (Electrical) Facilitate a forum to engage electrical licence holders not working in the trade to consider returning to the trade. (Electrical)	EUPA

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Table 4 - Skilling WA Strategic Goal 4 Strategies

Strategic Goal 4 - Provide Flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to WA's prosperity		
ISSUES	**STRATEGIES**	**RESPONSIBILITY**
Too few training providers with the capacity to meet the Utilities and Public Administration industry sectors skilling needs. Very little training available to the industry sectors EUPA represents in regional WA.	Promote the Public Administration Training Package to the Public Sector Assist the Public Sector Commission establish a school base traineeship (Career pathway) utilising a Public Administration qualification (Public Administration) Seek to secure funding for the delivery Public Administration Training Package qualifications for existing workers (Public Administration) Assist the PSC in the development of a VET initiative to address a Policy Skills deficit	EUPA PSC, EUPA, DTWD and Department of Education EUPA, PSC
There is a lack training culture in industry sectors such as waste and industry is unaware of the funding support available for the provision of training services.	Engage training providers to build capacity and capability to deliver to the Local Government sector (Local Government) Promote Workplace Trainer Qualifications (TAE) to Local Governments to offset lack of RTO delivery to the sector (Local Government)	EUPA
Training providers report they have very little to capacity to further expand training services to electrical apprentices due to lack of space, resources and trainers	Identify training opportunities related to the adoption of new technologies by industry (All sectors but specifically Water) Engage training providers to build capacity and capability to deliver to the sector (Water) Promote the uptake of Para-Professional qualifications and develop linkages to the tertiary sector in Project Management, Asset Management and Building Services (Water)	EUPA and all IWGs EUPA and Water IWG
	Regional training providers encouraged to deliver to the sector to create local employment opportunities (Gas) Identify mechanisms by which the industry can access funding assistance for access to training (Gas)	EUPA
	Seek to enhance the capability and capacity of the training system to cater to the Electricity Supply Industry sector and increase the number of RTOs servicing the sector Seek to increase participation in education and training related to the Electricity Supply Industry (Electricity Supply Industry) Identify vendor specific training relevant to the Electricity Supply sector delivered in WA	EUPA and ESI IWG

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Table 5 - Skilling WA Strategic Goal 4 Strategies (Cont..)

Strategic Goal 4 - Provide Flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to WA's prosperity		
ISSUES	**STRATEGIES**	**RESPONSIBILITY**
Training providers report that delivery of electrical apprentice training is nearing capacity and they experience difficulty in retaining and attracting quality training staff. Pre-apprenticeships are the industry preferred means of identifying would be apprentices.	Address capacity constraints within the training system to train electrical apprenticeships in sufficient numbers (Electrical) Implement Responsive Trade Training Pilots- alternate electrical pre-apprenticeship pathways (Electrical) and NBN related Telecommunications pre-apprenticeship in the Mid West region (Electrical) Engage RTOs to conduct trade refresher training for those electrical licence holders not working in the trade that want to return to the trade	EUPA, DTWD RTOs
Too few training providers in the State that deliver to the Utilities sector.	Explore the establishment of a Utilities Centre of Excellence	EUPA
Job roles are changing due to environmental pressures and government policy, with the likelihood that demands for new qualifications and skills sets will evolve for employees in areas not yet envisaged.	Encourage Training Providers to better engage with industry and to review training services and products in light of climate change, environmental pressures and government policy so that they are able to meet industry expectations and train for a future workforce. (All sectors but specifically Electrical and Utilities) Link to the States' Strategic Energy Initiative.	EUPA and RTOs
Address the skilling needs related to the NBN rollout	Work with training providers to ensure skilling opportunities are provided for those seeking employment related to the National Broadband Network project. (Electrical - Telecommunications)	EUPA and FutureNow Training Council with RTOs

Table 6 - Skilling WA Strategic Goal 5 Strategies

Strategic Goal 5 - Plan and coordinate a strategic State Government response to workforce development issues in WA		
ISSUES	**STRATEGIES**	**RESPONSIBILITY**
The Public Sector Commission has carriage of workforce development components of the Public Sector Reform program.	Facilitate Public Sector Commission and DTWD collaboration on workforce development issues relevant to the Public Sector EUPA to provide advice as is required through the Public Administration Industry Working Group (PAIWG) and the Workforce Planning Consultative Groups.	EUPA, DTWD, PSC
Collaborate with peak bodies, central agencies and employer associations to assist planning and coordination. Industry awareness of the imperative to adopt a coordinated approach to workforce planning is low	Consultation and advice to the respective Training Academies-Police, FESA, Corrective Services. (Public Safety) Promote Private –Public Partnerships for the provision of training services (Electricity Supply Industry)	EUPA
	Engage in the national water operations certification program (Water)	EUPA and GSA
	Prepare local industry for the proposed introduction of national licensing in the sector (circa 2013) (Gas)	EUPA and Gas IWG
	Undertake demographic research of the Gas and Electricity supply sectors to identify strategies to address issues such as loss of workers to other sectors; effects of the ageing workforce and building additional opportunities for skills development.	EUPA
	Promote Private –Public Partnerships for the provision of training services (Gas)	EUPA
	Assist local industry prepare for the proposed introduction of national licensing in the sector July 2012 (Electricity Supply Industry) Assessment requirements for national licensing identified with the Electricity regulator and communicated to RTOs (Electricity Supply Industry)	EUPA
	Work with the Electrical Regulator to streamline RPL processes for migrants (Electrical)	EUPA and ELB
Identification of initiatives to be sponsored through the Workforce Development Fund	Explore potential for industry sector initiatives to be sponsored through the Workforce Development Fund	EUPA and ISCs

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Introduction

This 2011 Industry Workforce Development Plan was produced by the Electrical, Utilities and Public Administration Training Council Inc. (EUPA) under its service agreement with the Department of Training and Workforce Development (the Department).

This plan is founded on EUPA's research and active participation in workforce planning and development initiatives over the last two years. It has been developed through the application of a number of research and consultation methodologies where EUPA staff members undertook significant desktop research, conducted industry surveys and consulted stakeholders in all regional locations.

EUPA Board members and members of the eight EUPA industry working groups have been consulted to validate the draft plan and ensure occupations in demand reflect current industry requirements.

This 2011 version of the industry workforce development plan for the Electrical, Utilities and Public Administration industry sectors provides an overview of each industry sector EUPA represents. It explores the workforce development issues within the strategic contexts outlined in *Skilling WA – A workforce development plan for Western Australia*. The plan then suggests strategies to be implemented by EUPA and other agencies to address these workforce development issues.

The suggested strategies will be reviewed on an annual basis and they will become the basis for EUPA's continued work in servicing the workforce development and training needs of the industry sectors it represents.

EUPA Training Council Industry Coverage

The Electrical Utilities and Public Administration Training Council is responsible for industry sectors critical to all other sectors of the Western Australian economy. The industry sectors EUPA represents provide social infrastructure, administer government services, build and maintain public utilities, enable power and provide community safety. Employing over 250,000 individuals these industries are critical to the economic development of the State.

EUPA	
Electrical and Telecommunications	Public Sector
Electricity Supply - Generation, Transmission, Distribution and Rail	Public Safety
Water	Corrective Services
Gas	Local Government
Waste	

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Document Structure

This workforce development plan is presented as follows:

	Executive Summary
	Introduction
Part 1	**Electrical** incorporating Telecommunications, Refrigeration and Air-conditioning
Part 2	**Utilities** incorporating Electricity Supply (Generation and Transmission Distribution and Rail) Water, Gas, Waste
Part 3	**Public Administration** incorporating the State Public Sector, Public Safety, Corrective Services and Local Government

Each part contains the following:

1. A summary of an "Environmental Scan" produced for each industry sector. The full environmental scans can be viewed on the EUPA web site www.eupa.com.au

2. The identified labour and skill needs for each of the sectors.

3. Workforce development issues, barriers and opportunities evident in each of the industry sectors discussed within the context of *Skilling WA – A workforce development plan for Western Australia.*
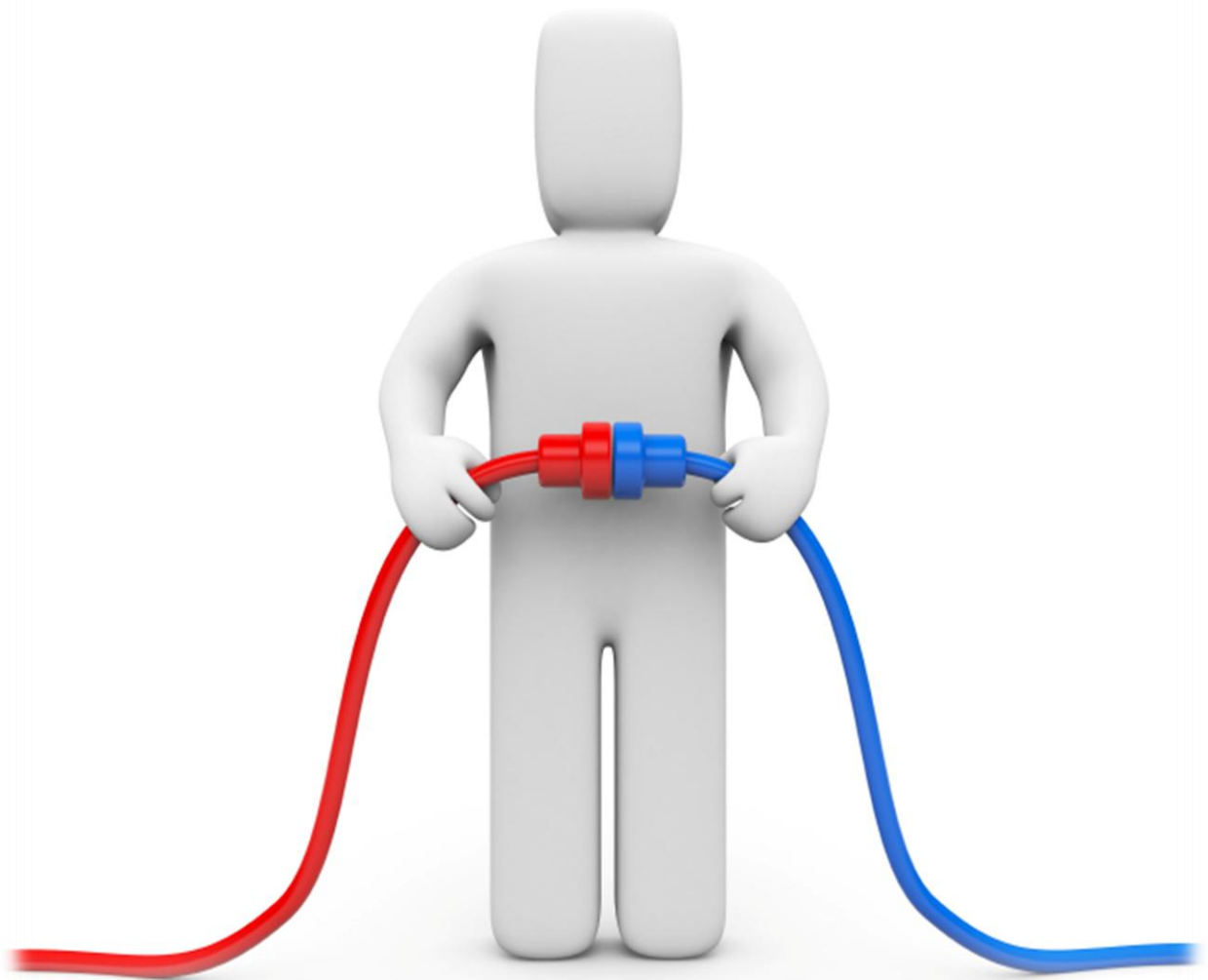
Skilling WA – A workforce development plan for Western Australia.

Skilling WA provides a framework to build, attract and retain a skilled workforce to ensure the State has the capacity to and capability for continued economic success. It focuses on growing the workforce through increased participation, targeted skilled migration and attracting and retaining a skilled labour force in Western Australia's regions. (*Skilling WA – Ministers Message)*

Skilling WA Strategic Goals:

1. Increase participation in the workforce particularly among the under-employed and disadvantaged, mature-aged, Aboriginal and Torres Strait Islander and other under-represented groups.

2. Supplement the Western Australian workforce with skilled migrants to fill employment vacancies unable to be filled by the local workforce and address those factors which support a growing population.

3. Attract workers with the right skills to the Western Australian workforce and retain them by offering access to rewarding employment and a diverse and vibrant community and environment to live in.

4. Provide flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to Western Australia's prosperity.

5. Plan and coordinate a strategic State Government response to workforce development issues in Western Australia.

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PART 1 – ELECTRICAL INDUSTRY

Electrical Industry - (Electrotechnology)

The Electrotechnology industry covers the design, installation and maintenance of electrical, data and telecommunications systems in domestic, commercial and industrial premises. It also encompasses the installation and maintenance of refrigeration and air-conditioning equipment and other electrical and electronic appliances. The sector is highly technical in nature where the vast majority of employment occurs in occupations such as Electrical Engineers, Technicians and the Electrotechnology Trades.

The industry is characterized by micro-businesses however many medium to large electrical contracting organisations also operate across the State. While many electricians work in the building and construction sector the electrical trade includes specialisations such as "data and telecommunications", as well as "instrumentation" and "hazardous areas" which are seen as necessary to gain employment in the resource and mineral processing sectors.

The number of electricians working in WA almost doubled in the ten year period - 2000 to 2010, (11,215 to 20,738) representing an increase of 9,523 electricians over the ten year period. Despite this increase the Electrician trade has been on the skills shortage list for 12 of the past 21 years and 9 of the past 11 years. This growth is also demonstrated by the significant increase in the number of Electrical Workers Licenses issued in the past year. (see below)

There has also been a threefold increase in the number of Electrical Engineers working in WA over the same period, (965 to 2,810). Likewise the numbers of Electrical Draftspersons and Technicians more doubled in the same period - 823 to 1,953 persons employed.

The electrician trade has strict regulatory requirements where every electrician practicing their trade must hold a valid Electrical Workers License. The Electrical Licensing Board of WA has recorded a general increase in the issue of licenses over the last five years with a significant increase in the number of licences issued throughout 2010 - 11. The Office of Energy indicates that as at 30 June 2011 there were:

- 4,325 licensed electrical contractors currently registered in WA, of which it is estimated that less than fifty percent are active as only 1,532 electrical contractors are advertised within the current 2011 yellow pages.

- 27,219 electrical workers licenses on issue which is inclusive of 1,163 electricians licensed to undertake "Electrical Fitting" work only. (Electrical Fitting means non-domestic or commercial installations or repair)

  This figure represents a 9.3% increase over 2009 – 10 where 23,000 licenses where on issue. However it must be recognized that there are many licenses on issue to individuals who do not currently practice their trade. The labor force data above indicates that over 30% of electrical workers license holders do not identify themselves as electricians.

- 3,868 electrical training licenses issued to indentured apprentices

- 587 electrical training licenses issued to pre-apprentices

- 3,338 restricted electrical licenses issued - of which 2,263 are issued to those that install Refrigeration and Air-conditioning equipment.

  In addition those that install Refrigeration and Air-conditioning equipment must hold a license to handle fluorocarbon refrigerants. The number for people licensed to work with fluorocarbon refrigerants in WA is almost 3000 individuals (includes almost 500 trainees) with full Refrigeration and Air Conditioning endorsement and almost 1000 individuals (includes almost 100 trainees) with split system installation endorsement.

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Electrical – Workforce Development Needs

The following occupations as those that have been identified by industry working groups and industry consultations undertaken by EUPA and are considered those that require training effort or recruitment solutions to ensure the electrical sub-sector maintains a sustainable workforce:

Table 7 - Electrical Occupations likely to require skilling/workforce development solutions

ANZSCO	Occupation
341111	Electrician (General) (Includes Electrical Fitter)
341112	Electrician (Special Class)
342111	Air Conditioning and Refrigeration Mechanic
342313	Electronic Equipment Trades Worker (Includes Security Installer)
342314	Electronic Instrument Trades Worker (General)
342315	Electronic Instrument Trades Worker (Special Class)
342414	Telecommunications Technician
242211	Vocational Education and Training Teacher

Current Apprenticeship and Traineeship Training Effort - Electrical

The table below depicts training supply for the electrical industry sector where Apprenticeships/Traineeships are available. The data presented here is available in more detail through the Training WA Apprenticentre website.

Table 8 - Electrical Training Effort October 2011

Sector	Qualification and Core Occupational Coverage	Training Package	#Apprentices CURRENTLY IN TRAINING	# Trainees/ CURRENTLY IN TRAINING
Electrical	CIII Electrician	UEE	3791	
	CIII Electrical Fitter	MEM	408	
	CIII Electronics and Comms	UEE	120	
	CIII Security Equipment	UEE	9	
	CIII Fire Protection	UEE	30	
	CIII Electrotech / Computer Systems	UEE	4	
	Dip Electronics and Communications	UEE		6

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Refigeration and Airconditioning	CIII Refigeration and Airconditioning Mechanic	UEE MEM	4 Unknown	
Telecommunications	CIII Telecommunications	ICT		143
	CII telecommunications	ICT		40
	CIII Telecommunications Cabling	ICT		1
	CII Telecommunications Cabling	ICT		27

It should be noted that variations exist between the various data sources available to indicate apprentice and trainee numbers. The above is however an indication of numbers as at the end of October 2011.

Apprenticeships utilising the following qualifications were established through the State Training Board EVAC process in December 2010. It is of concern that while industry believes there is a need for instrumentation tradespersons no RTO in this state currently deliver either of the qualifications relative to instrumentation through an apprenticeship pathway. Instrumentation is currently delivered as a specialisation, usually as a Certificate IV offered to electricians. There are those however that would prefer a Certificate III outcome through the apprenticeship pathway independent of the need to be an electrician.

- Cert III in Business Equipment
- Cert III in Custom Electronics
- Cert III in Appliance Servicing
- Cert III in Switchgear and Control Gear
- Cert III in Gaming Electronics
- Cert III in Refrigeration and Air Conditioning
- Cert III in Rail - Communications and Networks
- Cert III in Hazardous Areas - Instrumentation
- Cert III in Renewable Energy

- Cert III in Computer Systems Equipment
- Cert III in Data and Voice Communications
- Cert III in Electrical Machine Repair
- Cert III in Fire Protection and Control
- Cert III in Instrumentation and Control
- Cert III in Security Equipment
- Cert III in Hazardous Areas - Electrician
- Cert III in Explosion-protected equipment overhaul

Electrotechnology - UEE

Currently there are seven public training providers and eleven private registered training organisations that deliver the Electrotechnology Training Package based in Western Australia with eight of these located in major rural towns.

Telecommunications - ICT

There are seven RTOs delivering this Training Package in WA five of which are publicly funded.

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Workforce Development Issues in the Electrical sector related to *Skilling WA*

Participation

Gender Balance:

This industry workforce remains predominantly male – a common attribute of the traditional trades. There is a significant opportunity to grow female employment in alignment to the Department's goal to increase participation in full time and part time work.

> *Skilling WA Strategic Goal 1*
>
> *Increase participation in the workforce particularly among the under-employed and disadvantaged, mature-aged, Aboriginal and Torres Strait Islander and other under-represented groups.*

Ageing Workforce:

The workforce follows general patterns associated with the ageing of the population. Given the physical nature of work, the industry experiences an exodus of skilled labour as workers age. Whilst understandable, the industry cannot afford to let these workers go without thinking innovatively about alternative working arrangements that may allow workers to perform a variety of roles in full or part time capacity.

Entry into Employment:

It has become the norm for employers to draw their new apprentices from those who have completed an electrical pre-apprenticeship where the individual's capabilities are assessed prior to employment. Whilst recognising that this is a valuable employment pathway, this preference limits opportunities to gain employment for those that cannot commit to a period of little to no income.

Language and Literacy and Numeracy:

Industry and RTO representatives have continually identified that potential apprentices do not have the numeracy and literacy capabilities required to enter the industry. Given the increase in the profile of this industry in the current economic climate, the trade attracts a wider range of school leavers – including those that may not normally have considered a trade under 'traditional' circumstances.

Strategies to be implemented by EUPA to address these issues:

- EUPA shall assist the sector identify and implement employment strategies targeted at youth, women and minority groups for entry into the electrical trades.

- EUPA to work with NECA and others to influence employers consider options for providing employees with alternative working arrangements.

- EUPA to encourage continued funding support for the provision of pre-apprentices training programs.

- EUPA shall research the potential for the development of an Indigenous Electrical Pre-Apprenticeship.

- EUPA to provide those who provide career advice with information and materials so that would be electrotechnology apprentices make informed choices of subjects while in high school (yrs 10 and 11) to enable entry into the electrotechnology trades.

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Skilled Migration

Adoption of Skilled Migration:

The National Electrical and Communications Association (NECA) in developing its National Skills Shortages Strategy (April 2009) concluded *"skills shortages are considerably higher in WA compared to the rest of the country".*

It is evident that the demand for electricians to support the resource projects cannot be satisfied through current apprenticeship training arrangements and skilled migration through various forms of entry visas will be the only way to satisfy industry needs for skilled labour.

Skilling WA Strategic Goal 2

Supplement the Western Australian workforce with skilled migrants to fill employment vacancies unable to be filled by the local workforce and address those factors which support a growing population.

It can be seen that the move to a migration strategy has commenced. Throughout 2011, the number of electrical workers licenses issued increased significantly beyond the number of new tradespersons graduating from their apprenticeships in the latter part of 2010. The Office of Energy Safety (Electrical Licensing Board) is indicating license numbers have increased by 9.3% in 2011 and that licenses have been issued to approximately 2000 electricians that have come to the State from elsewhere.(interstate or overseas)

Complexity of Process for Migrants to have Skills Recognised for a License outcome:

EUPA has had numerous contacts from migrants experiencing great frustration with the lack of clarity about the processes they must follow to have their skills recognized and to obtain an electrical workers license.

There are systems that have been put in place for migrants from specific countries by the National ISC and VETASSESS. Further, there are other processes that have been put in place by the Electrical Licensing Board and Trade Recognition Australia and then there are other processes for RTOs contained within the VET Act that allow for Trade Recognition, however the Electrical Licensing Board do not currently recognize the latter process as a means to qualify for an electrical workers license.

In particular, migrants with electrical skills and who are not from the countries identified by VETASSESS are often incorrectly advised for their particular circumstances, which can lead to them being disadvantaged and unable to seek employment as an electrician.

Lower Numbers of Graduating Apprentices:

The states reliance on attracting electricians from elsewhere will be further increased in 2012 as there will be a lower number of apprentice electricians graduating from their training to become licensed electricians due to a low apprentice intake during the economic downturn of 2009.

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Strategies to be implemented by EUPA to address these issues:

- EUPA shall work with the Office of Energy Safety and the Electrical Licensing Board to make the processes of skills recognition and licensing for migrant electricians less confusing.

- EUPA shall engage with the Department of Training and Workforce Development Industry Advisory Group on Skilled Migration to advise of industry needs.

- EUPA shall establish a reference group from the EUPA membership to advise the industries skilled migration requirements to inform the Department's advisory group.

- EUPA shall advise the State Skilled Migration strategy - ensure attraction of skilled (electrician) migrants in sufficient numbers.

- EUPA shall continue to gather industry intelligence to advise on critical occupations to ensure the SPOL is reflective of industry needs.

- EUPA shall where appropriate facilitate employer access to information and support agencies in the skilled migration arena.

Attraction and Retention

Attraction

Attraction to the electrical industry is not considered to be an issue as entry to electrotechnology apprenticeships is the most competitive of all apprenticeships and the completion rates of these apprenticeships is high. It is normal for applications to far outstrip available places as is the case with those that seek a place on an electrical pre-apprenticeship program.

Skilling WA Strategic Goal 3

Attract workers with the right skills to the Western Australian workforce and retain them by offering access to rewarding employment and a diverse and vibrant community and environment to live in.

Predicted Demand:

Demand for electricians is predicted to be significant for the foreseeable future as skills and labour shortages will be experienced due to technology developments and by many industry sectors competing for tradespersons with the same skill sets, that is:

1. Resources, mining and mineral processing

2. Gas and Petroleum extraction and processing

3. Energy production (electricity supply)

4. Telecommunications - National Broadband Network Project

5. Construction both Domestic and Commercial

As discussed previously there has been a 9.3% increase in the number of electrical workers license issued in the past twelve months.

Pre-requisite to other occupations:

It should be noted that in many cases, qualification as an electrician is a pre-requisite for employment in many process control job functions within the mineral processing sector and the electricity production and supply sector. However utilisation of electricians for the purpose of "process control" can be argued as not being an effective use of the States skilled labour as it would be possible to train "process control" workers/operators independent of them being already qualified electricians.

The resources projects' demand for skilled labour from the electrical sector is also significant for occupations such as engineers, technicians and electricians with instrumentation, hazardous area or telecommunications specialisations. Workers with these additional skills will have increasing opportunities in the sectors noted above. Therefore ensuring the state has training provider capacity to provide these up-skilling opportunities for tradespeople will be critical.

However gaining employer support to provide additional skilling opportunities as a retention strategy is problematic as employers claim they are then training staff so that they can seek employment elsewhere.

Ageing Workforce:

The workforce follows general patterns associated with the ageing of the population. Given the physical nature of work, the industry experiences an exodus of skilled labour as workers age. Whilst understandable, the industry cannot afford to let these workers go without thinking innovatively about alternative working arrangements that may allow workers to perform a variety of roles in full or part time capacity.

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It is estimated that some 30% of licensed electricians do not currently practice their trade. Therefore opportunity exists to attract existing qualified and licensed tradespeople back to the trade

Strategies to be implemented by EUPA to address these issues:

- EUPA will Promote attraction and retention strategies to industry – flexible employment arrangements to offset the loss of skilled labour to the resources sector

- EUPA will work with employers on developing strategies aimed at the retention of skilled workers including existing worker training support as a retention strategy

- EUPA will seek to improve the retention of apprentices in the trade and ways to address apprentice employment conditions

- EUPA will facilitate a forum to engage electrical licence holders not working in the trade to consider returning to the trade.

Skilling

Training Capacity Constraints:

The State's capacity to train apprentices in sufficient numbers to meet the predicted demand for additional electricians will be severely tested. Providers of apprentice training report they are nearing capacity and that they have little scope to increase their numbers due to resource, space and staffing limitations.

The resources projects' demand for skilled labour from the electrical sector is also significant for occupations such as engineers, technicians and electricians with instrumentation, hazardous area or telecommunications specialisations. Workers with these additional skills will have increasing opportunities in the sectors noted previously. Therefore ensuring the state has training provider capacity to provide these up-skilling opportunities for tradespeople will be critical.

Trainers:

Training providers report that they experience difficulty in retaining and attracting quality training staff. There is already a shortage of trainers to service the training of apprentices in both public and private RTOs. This situation has become more acute as apprentice numbers have increased.

Training Package Uptake:

Electricians complete a Certificate III (Trade Qualification) and possibly a Certificate IV (for example in instrumentation) however there is generally a low uptake of the Training Package higher level qualifications by industry.

Very few RTOs are equipped or resourced to deliver instrumentation training programs.

Emerging Occupations:

Job roles are changing due to environmental pressures and government policy, with the likelihood that demands for new qualifications and skills sets will evolve for employees in areas not yet envisaged.

Rapid advances and adoption by the community of new technologies requires the electrotechnology workforce to engage in continued development of technical expertise to meet expectations in areas such as:

- Design and installation of grid connected photovoltaic (solar) systems

- Post Trade specialisations and potential for dual trade apprenticeships – electrician / instrumentation and electricians with hazardous areas skills

- Domestic and commercial / industrial 'integrated energy management systems'

- Installation of smart metering systems

- Energy efficiency management and auditing

- Wind energy systems

- Co-generation and local generation

- Telecommunications developments such as the National Broadband Network

Language and Literacy and Numeracy:

Industry and RTO representatives have continually identified that potential apprentices do not have the numeracy and literacy capabilities required to enter the industry. Given the increase in the profile of this industry in the current economic climate, the trade attract a wider range of school leavers – including those that may not normally have considered a trade under 'traditional' circumstances.

Entry into Employment:

It has become the norm for employers to draw their new apprentices from those who have completed an electrical pre-apprenticeship where the individual's capabilities are assessed prior to employment. Whilst recognising that this is a valuable employment pathway, this preference limits opportunities to gain employment for those that cannot commit to a period of little to no income.

Strategies to be implemented by EUPA to address these issues:

- EUPA will address capacity constraints within the training system to train electrical apprenticeships in sufficient numbers (Electrical)

- EUPA will implement Responsive Trade Training Pilots- alternate electrical pre-apprenticeship pathways (Electrical) and NBN related Telecommunications pre-apprenticeship in the Mid West region (Electrical)

- EUPA will engage RTOs to conduct trade refresher training for those electrical licence holders not working in the trade that want to return to the trade

- EUPA will explore the establishment of a Utilities Centre of Excellence

- EUPA will encourage Training Providers to better engage with industry and to review training services and products in light of climate change, environmental pressures and government policy so that they are able to meet industry expectations and train for a future workforce. (All sectors but specifically Electrical and Utilities)

- EUPA will work with training providers to ensure skilling opportunities are provided for those seeking employment related to the National Broadband Network project. (Electrical - Telecommunications)

Planning

Population Growth – housing construction:

Population growth throughout Western Australia is predicted to be sustained over the long term and be significant over the shorter term in response to the demand for labour generated through the resources sector. Whilst the domestic construction sector has been described as 'flat' currently, the DTWDs' own forecasts predict some 150,000 additional workers to 2017 and beyond that the States' population is predicted to more than double to some 4.5 million people by 2050. Therefore, housing construction will be expected to increase over the longer term thus creating opportunity for the electrotechnology trades.

In addition an expected 90 percent of new homes will be air-conditioned increase in demand for individuals with the skills and requisite licenses to install new air conditioning units. Further, as the issue of energy efficiency becomes more mainstream, ageing high energy consumption units in existing properties will progressively be renewed, so adding to the demand for skilled labour.

Direct Employment in the Resources Sector:

The advent of demand for electricians by the resources sector is providing alternate employment opportunities for electricians from the domestic construction sector and many electricians are actively pursuing these opportunities. It is anticipated however that once domestic construction starts to expand due to population growth there will be fewer electricians available to the construction sector and the competitive pressures between the industry sectors will be manifested.

Climate Change and Environment:

Government climate and carbon reduction policy is expected to drive demand for additional workforce capabilities in environmental and sustainability technology applications in electrotechnology occupations to apply their skills in green technologies such as design and installation of grid-connected photovoltaic cells, application of small scale wind energy systems, installation of green monitoring tools such as smart metering kits, co-generation with auxiliary green sources, domestic and commercial and energy efficiency management and auditing.

National Licensing:

The introduction of National Licensing (July 2012) – will see new classifications for electrical licences introduced and a process (yet to be developed) for license holders to renew their existing license once it expires.

Construction of the National Broadband Network:

The NBN Company estimates that some 25,000 jobs per year for the next eight years (nationally) will be created by this project. That is some 200,000 jobs nationally and if WA maintains its "10 percent" proportion of all employment it would mean an additional 20,000 jobs in WA over the next ten years being created as a result of the Broadband Network.

While it is common practice for electricians to also have additional skills to undertake electronics, communications and telecommunications activities it is still unclear as to which occupational grouping will be engaged to undertake this significant amount of work.

EUPA

Strategies to be implemented by EUPA to address these issues:

- EUPA will seek to raise the debate with the resources sector as to its current policy of requiring process operators to be qualified electricians where there may be other options for skilling and qualifying of these workers.

- EUPA in association with others will produce and distribute promotional and information resources to prepare local industry for the proposed introduction of national licensing arrangements(electrical, Electricity Supply and Gas)

  EUPA will seek to identify the assessment requirements for national licensing identified with the Electricity regulator and communicate these to RTOs

- EUPA will undertake demographic research of the Electrotechnology sector to identify strategies to address issues such as loss of workers to other sectors; effects of the ageing workforce and building additional opportunities for skills development.

- EUPA will promote Private – Public Partnerships for the provision of training services

- EUPA will work with the Electrical Regulator to streamline RPL processes for migrants.

- Explore potential for industry sector initiatives to be sponsored through the Workforce Development Fund.

- EUPA in association with others will produce and distribute promotional and information resources to advise of the employment and skilling opportunities associated with the National Broadband Project.

Utilities

The utilities sector comprises of electricity and gas supply, waste and water services. It is one of the smallest industry sectors with some 20,000 people employed in Western Australia. Notwithstanding its relative size to other sectors there is a constant demand for utility services however employment is affected by the economic cycle, demand and supply factors, industry policies and longer term trends in the energy industry especially the deregulation of energy markets.

Electricity Supply and Distribution is expected to be the main driver behind employment growth due to major infrastructure construction and maintenance projects, however environmental and sustainability issues are also at the forefront of industry development for all sectors.

Electricity Supply

The Office of Energy in development of the Strategic Energy Initiative (SEI) has of produced a framework to deliver secure, reliable, competitive and cleaner energy to ensure a high standard of living for all Western Australians and to support continued economic growth in the state. The SEI proposes an energy vision for 2030 to deliver certainly to investors, and to enhance future competitiveness and productivity.

The SEI has four strategic goals:

1   Secure energy

2   Reliable energy

3   Competitive energy; and

4   Cleaner energy

The Strategic Energy Initiative aims to develop future energy demand and supply scenarios for Western Australia so that the nature and scale of the challenge in meeting or future energy needs can be understood.

Future Workforce Development issues will be explored within the context of the SEI.

The electricity supply sector EUPA has responsibility for includes:

- Electricity Generation

- Electricity Transmission and Distribution

- Rail Traction (electrified rail)

Electricity Generation

The electricity generation sector has both public and private owed power stations that utilise fossil fuels of coal and gas or renewable sources of power such as wind, solar, hydroelectric and biomass combustion to produce the State's electricity needs. The larger power stations with the highest output of electricity are fuelled by coal and gas with the renewable energy power stations being much smaller producers of electricity.

The main activities of the industry are the operation and maintenance, diagnosis and repair of electricity production plant and equipment in relation to:

- large coal or gas fired steam generation plant

- smaller gas fired steam turbine cogeneration plant

- diesel fired internal combustion engine driven generation plant

- hydro generation plant

- wind driven generation plant.

- solar energy plant

Western Power report that in the past five years, the amount of power consumed each year has risen by approximately five per cent per annum. There are a growing number of new businesses and homes connecting to the grid and the average amount of power used per home has increased. Western Power's forecasts suggest this level of growth is set to continue.

The Office of Energy indicates that there are some eighty-five (85) electricity generation stations that utilise non-renewable fuel sources such as coal, gas or distillate of various capacities (and stages of construction) throughout the state. These are operated by energy supply organisations, mine sites and mineral processing plant.

In addition to which there are twenty-nine (29) electricity generation stations that utilise renewable fuel sources such as wind, biomass, hydro and landfill gas. (again at various stages of construction)

Significant new generation plant (fossil and renewable) has been approved for construction or is in the process of seeking approval for construction.

## Electricity Supply (Transmission and Distribution)

This industry sector covers the transmission and distribution of electricity via overhead and underground lines; cable-jointing, and rail traction.

Operatives in this industry sector may be involved in a wide range of tasks, including, installation, maintenance, servicing, commissioning, network protection, network operation, management, planning and vegetation control.

In recent years, the sector has been significantly affected by:

- Changes in organisational structures (including corporatisation, contracting and internal reviews/re-structures)

- Changes in work methods, staffing levels and management approaches

- Restructuring of the energy market

- The consumer competition policy

- Increasing government and consumer demand for a response to global warming

Western Power and Horizon Power operate and maintain the large transmission and distribution networks which connect to the majority of the consumers and both organisations
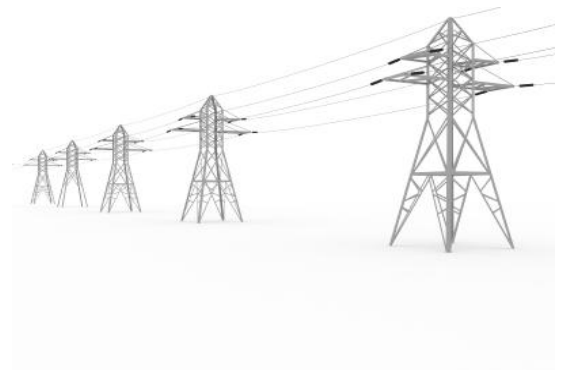
are State Government owned. Western Australia's electricity networks include the South West Interconnected System, North West Interconnected System, Esperance System, and Electricity Supply Authorities supplying some regional towns.

The Office of Energy provides advice to the Government on policy aspects and legislation relevant to Western Australia's electricity networks.

The Government is implementing an integrated strategy to improve the safety, reliability and quality of power supply to Western Australian electricity customers who depend on transmission and distribution networks.

Electrified Rail

The Public Transport Authority (PTA) is responsible for managing and maintaining WA's metropolitan railway infrastructure and for protecting the long-term viability of the State's freight rail corridor and infrastructure. Passenger rail services are controlled by the PTA through Transperth and Transwa which operates the metropolitan and country passenger services respectively and Great Southern Railway which operates the interstate passenger service.

Freight rail was privatised in 2000 with the interstate standard gauge line now owned by the Australian Rail Track Corporation and the remainder of lines in the state are owned by Babcock and Brown Limited while intrastate freight is mainly operated by the Australian Rail Group (ARG). Four private iron ore haulage railways also operate in the Pilbara region while others are under construction in the Pilbara and the mid west region.

In 1993 Perth electrified the Northern Suburbs Transit System and in 2007 the MetroRail project was completed. This project saw the construction of the traction power supply for the electrification of the 70-kilometre railway line between Perth's city centre and Mandurah.

EUPAs' electricity supply (Rail) interest in this sector covers the following:

1. Catenary Lineworkers (an ESI lineworker specialisation)
2. Signalling Technicians (an electrician specialisation)
3. Rail Communications (telecommunications)

Water Industry

Organisations in the water industry design, construct, operate and manage complex water and wastewater networks, from water catchment management, water collection, treatment and distribution systems, and wastewater treatment plants and outfalls.

The water sector is complex and evolving, particularly in relation to its stakeholders, supply chain and overlap with other allied industries. The major organisations with an interest in water in Western Australia are:

- The Economic Regulation Authority
- Department of Water
- Department of Health (Public Health)
- Department of Environment and Conservation
- The Water Corporation
- Aqwest –Bunbury
- Busselton Water
- Rottnest Island Authority
- Master Plumbers Association
- Water Services Asssociation Australia (WSAA)

- Hamersley Iron (Rio Tinto)
- Ord Irrigation Cooperative
- Harvey Water
- Gascoyne Water
- Preston Valley Cooperative
- Local Governments
- Public Private Partnerships and Alliances*
- Australian Water Association (AWA
- Water Industry Operators Association (WIOA)

*Many alliances now exist which involve partnerships between private companies and the Water Corporation to provide operations, maintenance and asset management services across WA.

The central functions of the water industry are retained in the public sector including all three levels of government, however the boundary between the public and private sectors are now less distinct. Private sector interests cover a range of functions, summarised into categories such as consultants, contractors, manufacturers and suppliers. These functions are also changing, with the introduction of new technologies and approaches for provision of water services and expanding water-related skills areas such as environmental management and those related to climate change.

Current water demand outstrips available supply in many areas of WA as cyclical weather patterns and climate change have impacted on water supply – such as the construction of desalination plants and a move toward water sources that are not dependent on rainfall (e.g. water recycling). Water is required to sustain industry sectors such as agriculture, mining and manufacturing. It underpins urban activity as well as forming one of the key essential services associated with public health. Environmental water flows are also required to sustain the health of the river and groundwater systems

The primary drivers of the water industry are government commitments to water sources, water quality and standards, environmental sustainability and cost effective delivery of services to all communities.

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Gas Industry

The term "gas" in the context of the Utilities industry' refers to the sector which supplies natural gas via transmission and distribution pipelines, and Liquid Petroleum Gas (LPG), via cylinders, to a variety of domestic, commercial and industrial customers.

Employment in the industry may involve design of transmission, distribution, processing and/or storage systems; construction and maintenance of the systems; commissioning and decommissioning of the above systems; metering and billing of customers.

The Gas industry is a major supplier of energy to Australian homes and factories, supplying around 30% of industry energy needs and 20% of domestic needs. Gas has the potential to be a transitional fuel to help meet Australia's growing energy needs until renewable energy and clean coal technologies become more widely available. Government policies are likely to accelerate the implementation of natural gas technologies, which have lower carbon emissions than other fossil fuels.

The advent of the major gas resources projects commencing over the next few years will place significant pressures of the gas transmission and distribution sector in the retention of skilled staff and its ability to compete in attraction of new workers.

Gas Pipelines in Western Australia

In West Australia, there are twenty eight gas pipelines, being some 7,666km in total length and owned by a total of thirteen different organisations. However the four major natural gas transmission pipelines supplying the Western Australian gas market are:

- Dampier to Bunbury Natural Gas Pipeline (DBNGP) extends almost 1600km from the Pilbara region to the South-West of Western Australia. The DBNGP employs approximately 200 people.

- Goldfields Gas Pipeline (GGP) is the second longest pipeline in Western Australia, (1380 kilometres) it services a number of mines between Yarraloola in the Pilbara and Kambalda along with the township of Kalgoorlie. The Goldfields Gas Pipeline employs approximately 100-150 people.

- Parmelia Pipeline (416km) Parmelia Pipeline, transports gas from various fields in the Perth Basin to industrial customers in the Perth metropolitan area and the South West Pilbara Energy Pipeline - from Dampier to Port Hedland.

- Pilbara Energy Pipeline transports gas from the North West Shelf area to Port Hedland

Other major transmission pipelines include the Kambalda to Esperance Gas Pipeline, the Mid West Pipeline and the Telfer Gas Pipeline.

Gas Distribution Networks

ATCO Gas is now the owner and operator of the majority of the reticulated gas infrastructure throughout Western Australia. The gas reticulation networks serve Geraldton, Kalgoorlie, Albany, Bunbury, Busselton, Harvey, Pinjarra, Brunswick Junction, Capel and the Perth greater metropolitan area including Mandurah. These combined networks constitute over 12,800km of gas mains and associated infrastructure.

Over the last five years the annual growth of these networks has been approximately 250km with an average annual new customer connection rate of 20,000.

EUPA

Natural Gas Usage

Western Australia is the most energy and gas-dependent economy in Australia and natural gas supplies more than half of WA's primary energy requirements as it fuels at least 60 percent of the State's electricity generation. Access to secure and affordable natural gas is critical for the State's manufacturing, processing and mining industries and the thousands of jobs they represent.

The State's two largest individual users of gas are Alcoa which operates three alumina refineries in the south-west) and Burrup Fertilisers (which operates the world's largest ammonia plant on the Burrup Peninsula, near Dampier). Together they account for more than half of the natural gas consumed in WA.

Liquefied Petroleum Gas (LPG)

Western Australia currently has two major domestic market production points for LPG. They are the BP Refinery located at Kwinana and Wesfarmers LPG also located at Kwinana. Western Australia also has the infrastructure and/or ability to import LPG domestic supplies via ship and road tanker from other locations.

Waste Industry

The waste industry is divided into three major sectors, being the municipal solid waste (MSW) sector, commercial and industrial (C&I) waste sector and the construction and demolition (C&D) waste sector. Each sector is supported by ancillary services.

Within each of the waste sectors, there are activities undertaken that involve waste collection - essentially transport logistics, processing and treatment of waste normally undertaken within a facility (enclosed factory or yard) and the disposal of waste at landfills.

There is also a range of support and ancillary activities associated with the waste management industry, including approvals and regulatory activities, as well as the planning, procurement, construction and implementation of waste management initiatives.

The major drivers for change in the industry relate to the growth in quantities of waste generated and the methods used for collection, treatment and disposal.

The development of waste management policies in Western Australia are at an early stage with the release of the State Waste Strategy 2011.

However the stated aim of the State Waste Strategy is to "*move Western Australia to best practice in Waste Management by 2020 and to drive a decade of significant improvement in the management of waste.*" (*Waste Authority, 2010*). The Waste Strategy has specific strategies in the areas of Waste Avoidance, Resource Recovery, Waste Disposal and Data, Monitoring, Reporting and Review.

The Waste Strategy has the potential to significantly impact on the waste management industry, primarily by promoting the recycling and processing of an increasing amount of waste from the three waste streams.

Recycling

In recent decades, local governments have introduced recycling collection service or drop off facilities to recycle paper products and packaging materials. They have also separated out green waste and some white goods from their bulk verge collection services. This has caused an increase in the amount of waste that is diverted from going to landfill.

More recently, significant progress has also been made, and more is planned, for the diversion of MSW from landfill through the processing of this waste in resource recovery facilities. These are large facilities that process the waste into usable products such as compost, energy and recycled packaging material. All of the five metropolitan regional councils in the Perth region either have or are planning to establish a resource recovery facility to process at least part of their MSW.

EUPA

Utilities – Workforce Development Needs

The following occupations as those that have been identified by industry working groups and industry consultations undertaken by EUPA that are considered those that require training effort or recruitment solutions to ensure the utilities sub-sector maintains a sustainable workforce:

Table 9 - Utilities Occupations likely to require skilling/workforce development solutions

Utilities Sector	ANZSCO	Occupation
Electricity Generation Due to influences such as expanding generation capacity, adoption of new technologies, competition between industry sectors and aging of the current workforce	233311	Electrical Engineers
	233511	Industrial Engineer
	233512	Mechanical Engineers
	312311	Electrical Engineering Draftspersons and Technicians
	341111	Electricians
	No Code	Instrumentation Technicians
	323211	Mechanical Fitters
	399213	Plant Operators
Electricity Transmission, Distribution and Rail Due to influences such as maintenance of the existing aging infrastructure and construction of new network expansion	342211	Transmission Lineworkers
	342211	Distribution Lineworkers (including HV Live Line workers) • Lineworkers with telecommunications competencies for NBN • 'Live Line Glove and Barrier' qualified workers • Vegetation Control workers
	342212	Cable Jointing (new work & asset improvement, in particular underground cable-jointing. Also specialist cable-jointers, eg; paper/lead)
	341112	Electrician (especially with HV switching experience) • Test & Commissioning Technicians • Substation Technicians
	No Code	Instrumentation & Control Technicians
	233311	Distribution Designers (design, drafting & construction of new assets and intelligent systems)
	No Code	Meter Technicians (next 5 years as 'SMART' metering is introduced, with peak in next 2-3 years)
	No Code	Project Managers (especially Construction Project Managers)

	No Code	Network Operations
		• System Operations (incl. Senior plant leaders, controllers)
		• Compliance Officers
		Inspections/Safety Electrical Inspectors
		Training Workplace mentors, trainers and assessors (on-job) and Industry specialist technical trainers (off-job)

Water Skill shortages are likely to exist in the areas of: Alternate water sources and treatment technologies Remote essential services operators (with skills in both water and electrical) Operators of water distribution and treatment plant Project and contract management Engineering and asset management Para professional civil and structural engineers	233211	Civil Engineers
	233311	Electrical Engineers
	233915	Chemical and Environmental Engineers
	233512	Mechanical Engineers
	234313	Environmental Scientists
	312212	Engineering Technicians
	311412	Science Technicians
	342314	Electrical/Instrumentation Trades
	712921	Waste Water or Water Plant Operator
	821112 821113	Unskilled Workers/Labourers

Gas Due to issues such as industry rationalisation, specialisation of the workforce and the trend of outsourcing and sub-contracting. Anticipated pressure on the labour force due to resource projects requiring a workforce comprised of the same skill requirements Demand expected due to population growth leading to new development distribution networks and domestic construction. Increased utilisation of gas as the energy source for electricity generation.	233512	Mechanical Engineer (Condition Monitoring and Rotating Equipment specialisations)
	233311	Electrical Engineer & Associate Engineer
	233111	Chemical Engineer
	139999	Project Director/ Managers/ Analysts
	399213	Control Room Officers
	312611	Safety Inspector
	262111	GIS and SCADA specialists
	312311	Draftspersons and Technicians Maintenance Planners & Schedulers
	341111	Field Service Technicians (Instrumentation, Electrical)
	323211	Mechanical Fitter
	322313	Welders / Pipefitters
	334114	Gas Distribution Officers/Main and Line Fitters

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Waste Due to the move to increased recycling and processing of waste being driven by emerging government policies which is influencing the adoption of new technologies and work systems.	733111	Truck Drivers (Waste Collection Truck Drivers)
	721999	Mobile Plant Operators (Landfill)
	No Code	Operators (Waste Recovery Facilities) • Recyclers / Sorters • Waste Trackers
	133512	Production Managers (Waste Manager of Waste Recovery Facility)
	234313	Environmental Scientist specializing in Waste Treatment process
	233512	Mechanical Engineer or Operations Engineer
	233211	Construction Engineer
	323211	Plant Fitter
	341111	Electrician / Instrumentation Fitter
	No Code	Waste Auditors
	No Code	Educational Officers

Current Apprenticeship and Traineeship Training Effort -Utilities

The table below depicts training supply for the utility industry sectors EUPA represents where Apprenticeships/Traineeships are available. The data presented here is available in more detail through the Training WA Apprenticentre website.

Table 10 - Utilities Training Effort October 2011

Sector	Qualification and Core Occupational Coverage	Training Package	#Apprentices CURRENTLY IN TRAINING	# Trainees/ CURRENTLY IN TRAINING
ESI TDR	Cable Jointer Lineworker (Distribution) Lineworker (Transmission)	UET	53	132
ESI Generation	Operators	UEP		22
Water	Water Operations Irrigation Drainage	NWP		106 15 16
Gas	Gas Operators	UEG		79
Waste	Waste Operations/ Management	PRM	Nil	Nil

Asset Maintenance - PRM

There is no registered delivery in Western Australia under the sub area of Waste Management. Challenger Institute of Technology dropped its delivery in early 2011 due to a lack of uptake.

Electricity Supply – Generation - UEP

Only two registered training organisations deliver the Electricity Supply Training Package in Western Australia. Alcoa of Australia based in Pinjarra and Energy Skills Solutions, based in Malaga.

There are other training providers that deliver specific Units of Competence related to Electricity Supply. These include organisations such as Verve Energy, K.V. Training, Newmont Mining, Titan Training Pty Ltd.

In addition there are a number of RTOs that deliver units of competence from the Generation Training Package for the purposes for providing training towards the attainment of Worksafe High Risk licenses but do not deliver to these units to electricity supply industry sector.

Electricity Supply – Transmission and Distribution – UETT

There are four Registered Training Organisations in this industry sector with the most prominent being Power Training Services. In recent times organisations such as Energy Skills Solutions have entered the market to deliver trade related qualifications. There is one other organisation that delivers specific Units of Competence and another that delivers a Diploma of ESI – Power Systems. All these providers are located in the metropolitan area.

Gas – UEG

Polytechnic West and Romea Consulting Pty Ltd are the only two WA registered training organisations that currently deliver the gas training package.

Water – NWP

Both Challenger Institute of Technology and the Central Institute of Technology run the Water Industry Operations Training Package through an industry-recognised partnership with the Water Corporation.

Workforce Development Issues in the Utilities sector related to *Skilling WA*

The following outlines the workforce development issues for the Utilities industry sector within the Skilling WA framework. EUPA aims to contribute to the achievement of the strategic goals of Skilling WA through the implementation strategies to address the identified issues.

Participation

Gender Balance:

This industry workforce remains predominantly male suggesting there is a significant opportunity to grow female employment in alignment to the Department's goal to increase participation in full time and part time work.

School Leavers:

School leaver awareness of career opportunities in the utilities industry sectors is considered to be limited and sectors of the industry are not seen as particularly appealing as an employment option.

Skilling WA Strategic Goal 1

Increase participation in the workforce particularly among the under-employed and disadvantaged, mature-aged, Aboriginal and Torres Strait Islander and other under-represented groups.

Ageing Workforce:

The workforce follows general patterns associated with the ageing of the population. The utilities industry has a broad spectrum of occupations, but many are labour intensive roles.

Given this, the industry will experience an exodus of skilled labour as workers age. Whilst understandable, the industry cannot afford to let these workers go without thinking innovatively about alternative working arrangements that may allow workers to perform a variety of roles in full or part time capacity.

Strategies to be implemented by EUPA to address these issues:

- Seek ways to overcome industry image issues and develop mechanisms to promote as an industry of choice (Waste)

- Produce a skills roadmap identifying occupations and qualification requirements (Waste)

- Produce a skills roadmap identifying occupations and qualification requirements (Gas)

- Promote interest in gas related industry amongst school leavers and underrepresented groups (Gas)

- Review the implementation of the Essential Services Officer Certificate III Qualification Pilot - Indigenous Workers (Horizon Power initiative) (Electricity Supply Industry)

- Assist the sector identify and implement employment strategies targeted at youth, women and minority groups for entry into the electrical sully industry trades

EUPA

Skilled Migration

ANZSCO Shortcomings:

The industry is comprised of a broad spectrum of occupations spanning administrative roles, labourers, tradespeople, technicians and professionals. Many of the occupations within the utility industry sectors do not specifically appear in the current ANZSCO. For example, some occupations across waste, gas and water sectors fall generically under 'stationary plant operator' which does not either reflect the nature of the work or the specific difficulties experienced by some industries to attract workers (e.g. the waste industry). As such occupations in these industries are lost in the wider application of the ANZSCO and are not specified in the State Priority Occupations List, affecting their consideration for skilled migration.

> *Skilling WA Strategic Goal 2*
>
> *Supplement the Western Australian workforce with skilled migrants to fill employment vacancies unable to be filled by the local workforce and address those factors which support a growing population.*

Global Skills Shortages:

Transmission and distribution lineworkers are a global skill shortage. Migration may not be an option to address potential skill shortages the state may experience due to the proposed electricity transmission and distribution expansion and maintenance projects.

General Migration:

Predictions for population growth vary, however it is accepted that the State will experience a level of sustained population expansion and this growth will in itself be a driver for additional skilled labour to provide the necessary utilities for energy, water and waste.

Specific Shortages:

There are very few Cable Jointer trainees in the State and numbers are unlikely to meet the future demands of the industry as there is a move to have the electricity distribution network located underground, especially in the cyclone areas (see the Pilbara underground project) and the new metropolitan suburbs. It is clear that given the current training activity, migration is a strategy that must be prioritised to meet this challenge.

Strategies to be implemented by EUPA to address these issues:

EUPA shall:

- Analyse shifting labour market demand due to issues such as industry competition for labour, climate change, adoption of new technology and specific projects.
- Influence SPOL to ensure identification of Utility occupations

- Seek to collaborate with the National ISCs to influence the ABS (ANZSCO) to better define occupations in the industries EUPA represents so that they can be included on the State Priority Occupation List

- Seek to streamline processes for the recognition of overseas qualifications for employment in the Electricity Supply Industry sector; including the provision of gap training.

- Work to increase numbers of cable jointers through migration and local training opportunities

- Engage with the Department of Training and Workforce Development Industry Advisory Group on Skilled Migration.

- Establish reference group from the EUPA membership to advise industry skilled migration position and requirements for dialogue with the Department Advisory group above

- Advise the State Skilled Migration strategy - ensure attraction of skilled migrants for the Utilities sectors in sufficient numbers.

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Attraction and Retention

Employment growth:

Growth in the Utilities sector is predicted to be better than the national average in the coming years to 2013-14**.** (DEEWR)

Competition for Labour:

Rapidly emerging skills gaps are occurring, notably in technical, professional and managerial categories. Demand for skilled labour from the Utilities sector is significant for occupations such as engineers, technicians, tradespeople and operators to apply those skills in other sectors such as:

Skilling WA Strategic Goal 3

Attract workers with the right skills to the Western Australian workforce and retain them by offering access to rewarding employment and a diverse and vibrant community and environment to live in.

1. Resources, mining and mineral processing

2. Gas and Petroleum extraction and processing

3. National Broadband Network Project

Emerging Occupations:

Job roles are changing due to environmental pressures and government policy, with the likelihood that demands for new qualifications and skills sets will evolve for employees in areas not yet envisaged.

Raising Industry Profile:

The Utilities sector seeks to improve the means by which industry occupations are promoted to the community in an effort to align occupations to individual and community values.

Industry Leadership:

There are very few peak organisations able to work with industry at the enterprise or agency levels to assist in the development of attraction and retention strategies.

Strategies to be implemented by EUPA to address these issues:

- Promote alternative employment arrangements such part time, work from home and transition to retirement as possible strategies which can be implemented for increased workforce participation.(all sectors)

- Promote attraction and retention strategies to industry – flexible employment arrangements to offset the loss of skilled labour to the resources sector (All sectors but specifically Electrical Gas and Water)

- Engagement of employers in the industry training arrangements (Waste)

- Work with employers on developing strategies aimed at the retention of skilled workers including existing worker training support as a retention strategy (Waste)

- Promote interest in waste related industry amongst school leavers and underrepresented groups (Waste)

- Work with employers to address attraction and retention of regional Western Australians in employment in the Electricity Supply Industry sector

- Seek to improve the retention of apprentices in the trade and ways to address apprentice employment conditions (Electricity Supply Industry)

Skilling

Training Sector Capacity:

There are too few RTOs in WA with scope to deliver to Utilities sector qualification**s**, particularly for higher level qualifications. In this regard, there has been a call for an investigation into best practice auspice arrangements (partnership) between industry and training organisations to allow for existing worker traineeships and on-job training delivery. An additional training provider has entered the electricity supply market since the production of the 2010 Industry Workforce Development Plan though additional training capacity is still required.

> **Skilling WA Strategic Goal 4**
>
> *Provide flexible, responsive and innovative education and training which enables people to develop and utilise the skills necessary for them to realise their potential and contribute to Western Australia's prosperity.*

Further, there is very little training available to the industry sectors EUPA represents in regional WA.

The utilities sector is heavily reliant on enterprise RTOs which is severely limiting capacity. In particular, Power Training Services (Western Power) has limited extra capacity to train non Western Power employees. This means those contractor organisations retained through the Western Power preferred contractor arrangements have limited capacity to employ locally or to train West Australians seeking to become lineworkers or cable jointers.

Industry Demand for Training:

There is a lack training culture in industry sectors such as waste. This not only affects the attraction for RTOs to enter the market to cater for any small demand that remains, but also industry is not informed of current opportunities or funding support available for the provision of training services.

Emerging Occupations:

Job roles are changing due to environmental pressures and government policy, with the likelihood that demands for new qualifications and skills sets will evolve for employees in areas not yet envisaged.

The National Broadband Network (NBN):

Recent discussions with the NBN Company have indicated that it is likely that some fibre-optic cable will be attached to the electricity distribution assets (Poles) in close proximity to the live low voltage conductors. This raises many issues regarding access to the State Utility owned infrastructure and which occupations might undertake the installation work. Current indications are that lineworkers would need to gain additional skills to undertake this work.

Should the NBN rollout require Lineworker and Cable Jointer skills it will mean increased demand for workers that are already a global skill shortage.

Climate Change and Environment:

Government climate and carbon reduction policy is expected to drive demand for additional workforce capabilities in environmental and sustainability technology applications in all Utility occupations.

The challenges here are twofold – ensuring new entrants to the industry are suitably qualified for the new occupations and secondly ensuring the current workforce is able to adapt to the new technologies and systems of work.

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Strategies to be implemented by EUPA to address these issues:

EUPA will

- Identify training opportunities related to the adoption of new technologies by industry (All sectors but specifically Water)

- Encourage Training Providers to better engage with industry and to review training services and products in light of climate change, environmental pressures and government policy so that they are able to meet industry expectations and train for a future workforce.

- Engage training providers to build capacity and capability to deliver to the sector (Water)

- Promote the uptake of Para-Professional qualifications and develop linkages to the tertiary sector in Project Management, Asset Management and Building Services (Water)

- Regional training providers encouraged to deliver to the sector to create local employment opportunities (Gas)

- Identify mechanisms by which the industry can access funding assistance for access to training (Gas)

- Seek to enhance the flexibility, capability and capacity of the training system to cater to the Electricity Supply Industry sector and increase the number of RTOs servicing the sector (Electricity Supply Industry)

- Seek to increase participation in education and training related to the Electricity Supply Industry (Electricity Supply Industry)

- Identify vendor specific training relevant to the sector delivered in WA (Electricity Supply Industry)

- Implement Responsive Trade Training Pilots- alternate electrical pre-apprenticeship pathways and NBN related Telecommunications pre-apprenticeships

- Explore the establishment of a Utilities Centre of Excellence

- Encourage Training Providers to better engage with industry and to review training services and products in light of climate change, environmental pressures and government policy so that they are able to meet industry expectations and train for a future workforce.

- Seek to ensure future iterations of the States' Strategic Energy Initiative include greater reference to the skilling and workforce development needs of the sector.

- Work with training providers to ensure skilling opportunities are provided for those seeking employment related to the National Broadband Network project.

Planning

Climate Change:

Government policy and growing community awareness is emphasising the need for a clean, green, sustainable environment premised on effective management practices.

As a result job roles in the utilities sector are changing due to these pressures with the likelihood that demands

for new qualifications and skills sets will evolve for employees in areas not yet envisaged.

Competition for Labour:

Competition from other industry sectors for employees with similar skill sets. The industry is expecting to lose engineers, technicians, tradespeople and plant operators to the resources sector as was the case in the last resources boom.

Population Growth:

Population growth throughout Western Australia is predicted to be sustained over the long term and be significant over the shorter term in response to the demand for labour generated through the resources sector. The DTWDs' own forecasting is predicting some 150,000 additional workers to 2017 and beyond that the States' population is predicted to more than double to some 4.5 million people by 2050.

The growth of existing cities and towns and the establishment of new communities will continue to have a direct effect on the expansion of the States' electricity generation capacity and its transmission and distribution networks

Further, the States' Electricity Generation capability is continuing to expand through the utilisation of various technologies that now see localised, small scale generation capabilities improving.

Demand for Energy:

The States *Strategic Energy Initiative* (SEI) proposes an energy vision for 2030 with a framework to deliver secure, reliable, competitive and cleaner energy to ensure a high standard of living for all Western Australians and to support continued economic growth in the state. The SEI predicts demand for energy is to grow significantly impacting upon electricity generation, gas transmission/distribution and electricity transmission/distribution network.

To illustrate this growth, it has recently been announced that Western Power is seeking some $8 billion to commence project work for the expansion and maintenance of the Transmission and Distribution network. Extra funding has also been committed by the State Government (Royalties for Regions) to upgrade some power networks in the regional areas.

Horizon Power also continues its upgrade and expansion program, on the electricity network in the State's regional areas.

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The National Broadband Network (NBN):

Recent discussions with the NBN Company have indicated that it likely that some the fibre-optic cable will be attached to the electricity distribution assets (Poles) in close proximity to the live low voltage conductors. This raises many issues regarding access to the State Utility owned infrastructure and which occupations might undertake the installation work. Current indications are that lineworkers would need to gain additional skills to undertake this work.

Should the NBN rollout require Lineworker and Cable Jointer skills it will mean increased demand for workers that are already a global skill shortage.

Industry Leadership:

Industry awareness of the imperative to adopt a coordinated approach to workforce planning is low in most utilities sectors in WA. Significant opportunities exist for EUPA to collaborate with peak bodies, central agencies and employer associations to assist planning and coordination.

Strategies to be implemented by EUPA to address these issues:

- Engage in the national water operations certification program (Water)

- Prepare local industry for the proposed introduction of national licensing in the sector (circa 2013) (Gas)

- Undertake demographic research of the Gas and Electricity Supply sectors to identify strategies to address issues such as loss of workers to other sectors; effects of the ageing workforce and building additional opportunities for skills development.

- Promote Private –Public Partnerships for the provision of training services (Gas)

- Assist local industry prepare for the proposed introduction of national licensing in the sector July 2012 (Electricity Supply Industry)

- Work with the Electrical Regulator to streamline RPL processes for migrants (Electrical)

- Explore potential for industry sector initiatives to be sponsored through the Workforce Development Fund to address issues such as the impact environmental developments and climate change will have on future job roles.

PART 3 – PUBLIC ADMINISTRATION

Public Administration

The Public Administration industry sector is made up of:

- The State Public Sector,
- Public Safety
- Corrective Services
- Local Government

State Public Sector

The Public Sector is the States' largest employer with over 150,000 people employed in 180 departments, Senior Executive Services (SES) agencies, Non-SES agencies and Schedule 1 entities. It significantly contributes to the economic development of Western Australia through direct employment of local people and through the provision of necessary support services that enable communities to function and grow. The Economic Audit Committee defines the role of the Public Service by its core function – to serve the public and it does this by:

- Supporting the Government in formulating and implementing policy
- Fostering service delivery capability, both within the public sector and indirectly in partnership with the community and private sectors
- Regulating private sector activity where doing so improves economic, social and environmental outcomes.

It is important to recognise that EUPA's occupational coverage relates those who provide public administration duties. For information about those in specialist investigative, regulatory and custodial roles please refer to the Public Safety and Corrective Services components of this plan. Further, there are many other public service workers that occupy positions such as health professionals, teachers and laboratory positions. For information regarding these workers, the appropriate Workforce Development Plan from the relevant industry area must be viewed. Please refer to the Department of Training and Workforce Development regarding the ten Training Councils Workforce Development Plans.

The following illustrates the composition of the sector as reported to the Commission (Public Sector Profile June 2009) as a component of total workforce size (HRMOIR data June 2011):

Figure 2 - Composition of the sector as reported to the Commission
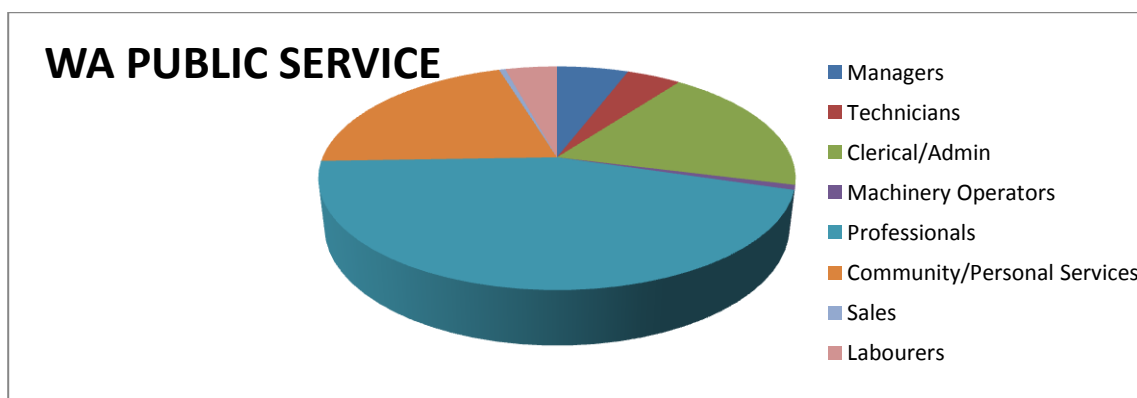
- For the year to 30 June 2011, the public sector workforce grew by 2.8% to 152859 employees. There are 4.9 public sector employees for every 100 people in WA.

  This growth was contained within State Government's FTE ceiling.

- For the same period 21098 staff left a position and 18906 people commenced in a new role.

- 24% of employees have been employed by their current employers for less than two years.

- In the WA public sector there are more than 120 public sector occupations employing over 100 staff.

- The Kimberly region has the highest number of public sector employees per 100 persons (8) and it also has one of the highest separation rates.

  State of the Sector Report 2011 – PSC website - www.psc.wa.gov.au

The Public Sector Commission

The Public Sector Commission (the Commission) is the peak agency with a whole-of-government responsibility. The Commission has carriage of a formal Public Sector Reform program that responds to the Economic Audit Committee and focuses in part on:

- Capacity Building and Development
- Contemporary Management Frameworks
- Autonomy and Flexibility in Decision Making
- Changes to Legislation

The Commission invests significant resources in the sector through its Capability and Development Division. The work conducted by the Division aligns closely with the activities that EUPA seeks to undertake and a strategic partnership has been developed.

The reader is strongly encouraged to view www.psc.wa.gov.au which provides information about government and the public sector, structures, occupations, HR data, careers and centrally managed entry/professional development pathways that are currently available.

In its the State of the Sector report 2011 the PSC indicates that workforce planning continues to be a crucial issue and specific challenges include:

- The ageing workforce remains a key challenge. 22.3% of the workforce is over 55 years.

- Agencies are encouraged to integrate workforce planning and diversity strategies to better target underutilised groups in the workforce and enhance service delivery to the diverse WA community.

- Improved identification of existing indigenous employees is assisting the public sector towards national objectives; however separations of indigenous employees outnumbered commencements in 2010-2011.

PSC Priorities

Existing workforce capability strategies/priorities that PSC is progressing include:

- Implementation of Strategic Directions for the Public Sector Workforce.
- Implementation of Aboriginal Employment Strategy.
- Development of Foundations of Government (HR) program.

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- Increased public sector workforce planning.

- Increasing youth representation and opportunities via (e.g.) graduate programs, apprenticeships and traineeships.

- Increasing policy capability skills.

- Regional expansion of the above strategies/priorities.

It should be noted that the PSC has agreed to address Skilling WA recommendation (Priority Action No. 4.1.6) which is to "*Investigate the targeted expansion of apprenticeships, traineeships, cadetships and graduate programs within the State public sector to increase the availability of skilled labour in Western Australia*".

Translators and Interpreters

EUPA has had engagement with the peak WA association responsible for these workers. Qualifications have been added to the Public Sector Training Package despite the fact that these occupations are generally not within the public sector (contractors typically supply these services). This sector is experiencing difficulties as there is limited funding and training available.

Public Safety

The Public Safety sector is comprised of the following:

- Staff appointed under statutory authority to provide the core functions of the agency.

- Volunteers and not-for-profit organisations.

- Private sector businesses that provide training related core services to industry.

Public Safety is comprised of the following sub sectors:

- State Emergency Services
- Police
- Fire

- Emergency Management
- Marine Search and Rescue
- Defence

The following are the major Public Safety agencies within Western Australia:

Department of Environment and Conservation

Responsible for administering the legislation concerning environmental regulation in Western Australia. Of particular interest to the public safety sector is the 'Environmental Enforcement Unit' and five branches grouped under 'Environmental Regulation'. The DEC reported a headcount of 2265 and FTE of 1910 (HR MOIR June 2011)

Fire and Emergency Services Authority

Prevent, prepare for, respond to and recover from emergencies in partnership with the community and other agencies. FESA responds to a wide range of emergencies including hazardous substance, land/marine search and rescue, fire and natural or man-made disasters.

To achieve this, FESA administers numerous volunteer services including Bush Fire Brigades, State Emergency Services (SES) and the Surf Life Saving Association of WA. FESA employs approximately 1300 fulltime staff and 40 part time/casual staff. It is further supported by over 32,000 volunteers.

2011 saw a number of natural disasters and significant emergency events if the form of flooding and bushfires. These events challenged the states capacity to manage its emergency response procedures, which ultimately saw a change to ministerial responsibilities, the appointment of a new Chief Executive Officer and greater emphasis to be placed on the training of FESA personnel and its volunteers.

EUPA aims to assist FESA in whatever capacity to revise its training arrangements.

WA Police

Responsible for policing the largest single police jurisdiction in the world, an area covering 2.5 million square kilometres with a structure comprising three regions, 14 districts and 157 police stations. WA Police employ 8,551 (headcount) against an FTE of 7,551 (HR MOIR June 2011).

Surf Life Saving WA

This not-for-profit organisation provides public safety services by performing patrols the beaches of Western Australia through the assistance of approximately 17,000 volunteers

The Private Sector 'Public Safety' Industry

The public safety industry contains a significant number of training providers who supply nationally recognised training from the PUA00 Public Safety Training Package. These RTOs provide competency development in the following areas:

- Workplace Emergency Response (WER)
- Search and Rescue (SAR)
- Driving
- Emergency Management
- Fire

There are also contractors that work in the public safety space, notably Transfield who provide fire fighting services to the defence service in Australia, including the Pearce Airbase at Bullsbrook.

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Corrective Services

The Corrective Services Industry covers services that protect the community through offender management. Job roles include direct prisoner supervision, facility management, offender rehabilitation and social services. Organisations in this sector provide critical support services to offenders – diverting them from committing further crimes and assisting them to become more responsible citizens.

This complex environment requires well trained staff to ensure successful management of offenders in accordance with the regulatory requirements placed upon them.

The sector is somewhat uniquely placed as it is able to utilise its own processes and resources to generate efficiency to the point of becoming partly self-sustaining. The economic benefits to the community are enormous when consideration is given to the contribution to operations made through the use of offenders as a labour source. Benefits to the WA community include environmental conservation, charities and manufacturing.

The sector also draws upon the Vocational Education and Training (VET) Sector to provide core services to those in custody. EUPA notes the impact of higher prisoner populations on the provision of VET programs that contribute to the sector's self sustainability and offender rehabilitation programs.

In Western Australia, the sector is comprised of the following three major organisations:

Department of Corrective Services

Employs 4550 people (headcount) against 4179 FTE (HR MOIR June 2011) making it the fourth largest State government department. It manages and operates 14 prisons, 6 work camps, 2 juvenile detention centres, 14 adult community corrections centres, and 9 youth justice service centres across the state. One of its current major projects is the construction and workforce planning for the new West Kimberley Prison in Derby.

Serco Asia Pacific

A private contracted organisation which manages the operations of the Acacia medium security male prison*. Serco employs over 200 staff at Acacia.

G4S

A private contracted organisation that manages court security and custodial services for the Peth Central Law Courts and District Court Building. It is noted that G4S provides many services outside of custodial security, including general security at other WA court houses.

Detention Centres

Reference to Commonwealth detention centres are raised within this plan their expansion will impact and draw from the total labour pool available in Western Australia. Refugee detention centres are managed by Serco through a contract with the Australian Government's Department of Immigration and Citizenship. The centres currently operate at:

- Christmas Island
- Curtin (South-east of Derby)
- Leonora (north of Kalgoorlie)
- Perth (detention centre and residential housing)
- Northam (under construction)

Prisoner Numbers

The States prisoner population continues to grow. Department of Corrections data indicates that between November 2006 and July 2011, the prisoner count has approximately increased by 30% from 3,600 to 4,700. This at a time where the State's population has grown by some 10% over the same period.

Prison Officer Demographics

Demographic information is only known for the State Government Department of Corrective Services, however there is a high proportion of male workers employed in this industry. The age profile of the industry is also high, with approximately 30% of the workforce reaching the age of 55 by 2012.

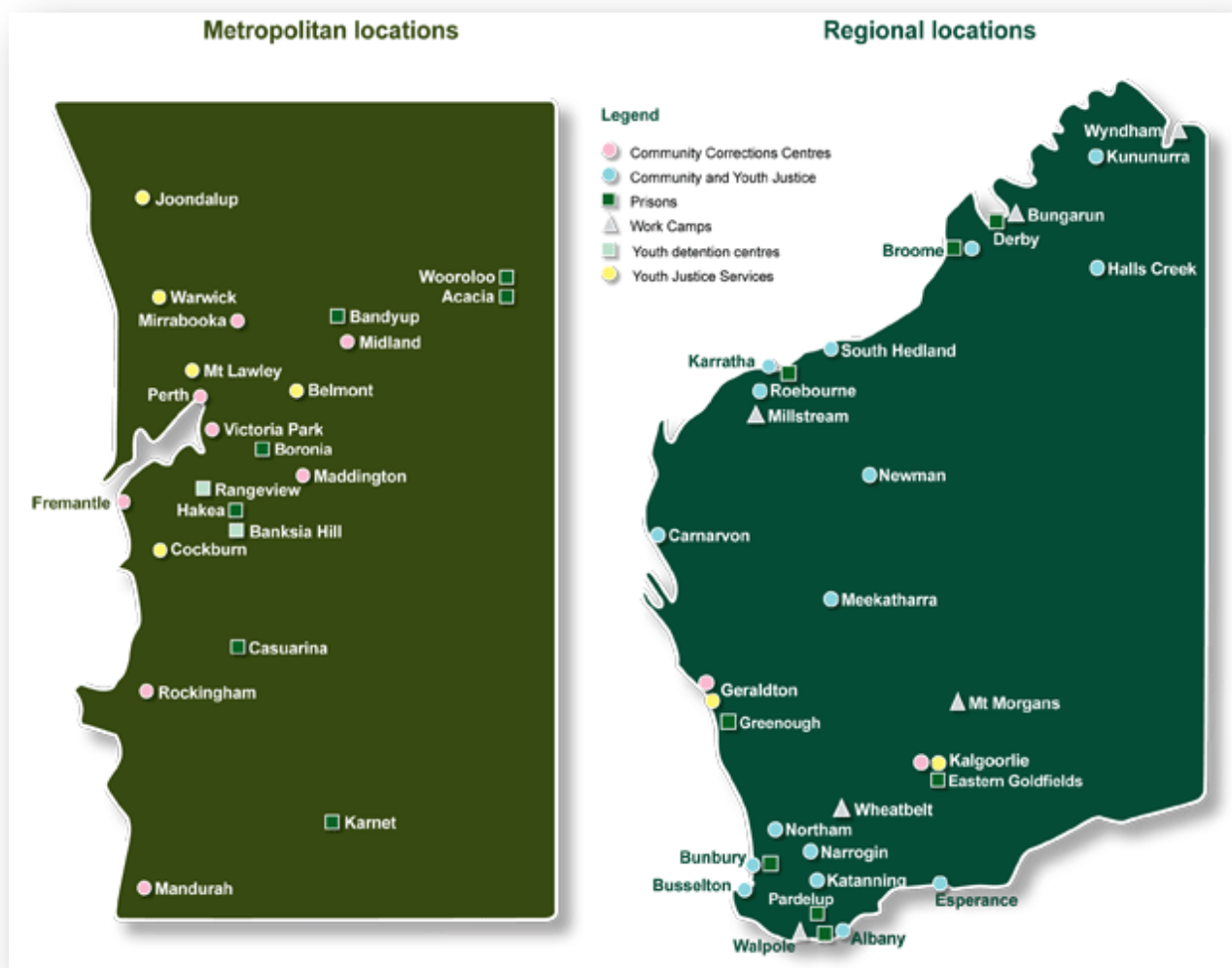Geographic locations are represented below (Source: Department of Corrective Services):

Figure 3 - Location of WA Prisons

Local Government

Local Government provides important governance, development initiatives and social and economic progress to all Western Australian communities. There are 138 local government authorities functioning throughout Western Australia. Local Governments employs a diverse workforce with responsibilities that include:

- **Infrastructure:**
  Waste management, local roads and bridges

- **Recreation:**
  Parks, stadiums, swimming pools, community centres, caravan and camping grounds

- **Facility Management:**
  Ports & marinas, cemeteries, parking (including enforcement), libraries and museums,

- **Environmental Management**
  Natural resource management and climate change

- **Health:**
  Regulatory inspection, monitoring and enforcement, immunisation and animal control

- **Building Services:**
  Planning, inspections, licensing and certification

- **Planning ***
  Land use, development, building

- **Community & Economic Development**
  Social infrastructure, community assets

- **Corporate Management Services**

* Note: Building and planning is sometimes performed as a combined function, particularly relevant in smaller/regional local governments.

The Department of Local Government is the responsible government agency that oversees the sector. All Local Governments are currently members of the Western Australia Local Government Association (WALGA). Many senior staff within local government authorities are also members of the Local Government Manager's Association (LGMA). Councils are able to collaborate through Regional Organisations of Councils (ROCs) to achieve shared objectives.

Due to the breadth of occupations in this sector, other associations that are integral to the operations Local Government include:

- Australia Centre of Excellence for Local Government
- Australian Institute of Building Surveyors
- Australian Institute of Environment Health
- Australian Library and Information Association
- Australian Local Government Association (Parent of WALGA)
- Australian Local Government Women's Association and WA Branch
- Environmental Health Australia
- Institute of Public Works Engineering Australia
- Local Government Community Services Association of Australia
- Local Government Finance Professionals

- Local Government Human Resource Managers
- Local Government Librarians Association of WA
- Local Government Planners Association
- Local Government Records Management Group
- Local Government Supervisors Association of WA
- Local Health Authorities Analytical Committee
- Parks and Leisure Australia
- Planning Institute of Australia
- Sister Cities Australia
- The WA Rates Officers' Association
- WA Rangers Association

According WALGA there are approximately 1350 elected members and the sector employs approximately 14,520 (FTE) West Australians in total. This is estimated to be 1.8 percent of the general population working in Local Government in Western Australia.

Key statistics for the period 2008-09 (latest available figures) are:

- Total Operating Revenue: $3.1 billion
- Grants as % of operating revenue: 21.59%
- Rates as % of operating revenue: 39.32%
- Employees: 14,520
- Smallest LG by area: Peppermint Grove - 1.5sq km
- Smallest LG by employee: Shire of Murchison - 9 employees
- Largest LG by area: East Pilbara - 371,696sq km
- Largest LG by employee: City of Wanneroo – 906 employees

(Source: Local Government Directory 2011)

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Public Administration – Workforce Development Needs

The following occupations as those that have been identified by industry working groups and industry consultations undertaken by EUPA and are considered those that require training effort or recruitment solutions to ensure the Public Administration sub-sector maintains a sustainable workforce:

Table 11- Public Administration Occupations likely to require skilling/workforce development solutions

Public Administration Sub-Sector	ANZSCO	Occupations
Public Sector Please refer to the Public Sector Commission for further details about occupational demand relevant to this sector.	132211	Finance Manager
	132311	Human Resource Manager
	132411	Policy and Planning Manager
	135199	ICT Manager nec
	221111	Accountant (general)
	223111	Human Resource Advisor
	223311	Training and Development Professional
	272412	Interpreter
	272413	Translator
	511111	Contract, Program and Project Administrator
	512111	Office Manager
	531111	General Clerk
	551111	Accounts Clerk
	551311	Payroll Clerk
	591113	Purchasing Officer
	599411	Human Resources Clerk
	599599	Inspectors and Regulatory Officers nec
Public Safety	139112	Commissioned Officers Fire
	139913	Commissioned Officer Police
	223311	Training & Development Officer
	441211	Fire and Emergency Workers Including Career and Volunteer workers
	441312	Police Officer Including Uniformed Police, specialist forensic and investigators and Auxiliary Officers
	599599	Inspectors and Regulatory Officers

Corrective Services	139999	Other Specialist Managers Including Snr Management and Facility Managers
	223311	Training & Development Officer.
	242211	Vocational Education and Training Teacher (Aus)
	253411	Psychiatrist
	272311	Psychologists
	272511	Social Workers
	442111	Prison Officer Including Senior Prison Officers; Adult and Youth Corrections Officers
Local Government	132211	Finance Manager
	132311	Human Resource Manager
	132411	Policy and Planning Manager
	135199	ICT Managers
	139912	Environmental Manager
	139999	Specialist Manager nec Asset Manager
	221111	Accountants
	223111	Human Resource Advisor (Professional)
	223311	Training and Development Professionals
	224214	Records Manager
	224611	Librarian
	232212	Surveyor
	232611	Urban and Regional Planners
	233211	Civil Engineer
	234399	Environmental Scientist
	251311	Environmental Health Professionals
	272612	Recreation Officer (Recreation Officer)
	312113	Building Inspector
	312116	Surveying or cartographic Technician
	312211	Civil Engineering Draftsperson
	313112	ICT Support Technicians
	341111	Electricians
	362213	Gardeners (Horticulturalists/Parks & Gardens)
	411711	Welfare Support Worker (Youth Worker, Community Worker)
	421111	Child Carer Worker
	423111	Aged Carer

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	442217	Security Officer
	431999	Hospitality Worker nec (Caterer)
	521111	Personal Assistants
	531111	General Clerks
	551111	Accounts Clerk
	551311	Payroll Clerks
	561311	Filing or Registry Clerk
	561611	Switchboard Operators
	599599	Inspectors and Regulatory Officers
	599999	Rates Officer
	721211	Earthmoving Plant Operators
	721999	Other Mobile Plant Operators

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Current Apprenticeship and Traineeship Training Effort – Public Administration

The table below depicts training supply for the Public Administration industry sectors EUPA represents where Apprenticeships/Traineeships are available. The data presented here is available in more detail through the Training WA Apprenticentre website.

Table 12 - Public Administration Training Effort October 2011

Sector	Qualification and Core Occupational Coverage	Training Package	#Apprentices CURRENTLY IN TRAINING	# Trainees/ CURRENTLY IN TRAINING
Public Administration	Administration Fraud Control Investigator CII Government CIII Government	PSP	0	 32 2 1
Public Safety	Police Officer Career Fire Fighter Investigator (DEC)	PUA	0	Police have ceased traineeships 117 FESA 50
Corrective Services	Prison Officer	CSC	0	70
Local Government	CIII Local Govt Local Govt Administration Regulatory Services (Ranger) Local Govt Planning	LGA		5 5 1

Public Sector - PSP

There are ten registered training organisations throughout WA scoped to deliver this training package. The Public Sector Commission has a preference for the utilisation of traineeships that provide for an outcome from the Public Sector Training Package. Coordination of Government Traineeships using the Public Sector Training Package will commence with Cert III/IV qualifications offered commencing February 2012.

Correctional Services - CSC

The Department of Correctional Services in Bentley deliver the Certificate III in Correctional Practice and Correctional Practice (Custodial). Serco Australia based in Wooroloo, a town situated on the outer edge of Perth metropolitan area, deliver various Certificate III and IV outcomes.

Local Government – LGA

Local Government has seven Registered Training Organisations – two of these situated in regional Western Australia.

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Public Safety - PUA

There are 14 registered training organisations throughout WA scoped to deliver this training package. It is noted that the Police have ceased to offer traineeships for officers using the Public Safety Training Package as it is claimed that there is no benefit to the organisation or the employee in utilising these arrangements.

Workforce Development Issues related to *Skilling WA*

The following outlines the workforce development issues for the Public Administration industry sector within the Skilling WA framework. It is recognised however that each sector has workforce development issues that are unique and that each sector develops and implements its own workforce development strategies to which EUPA provides support and advice. EUPA aims to contribute to the achievement of the strategic goals of Skilling WA through the implementation strategies to address the identified issues.

Participation

Gender Balance:

When considering both levels of government (state and local) there is a higher proportion of women than men in almost every age bracket, but they occupy less permanent positions and have a lower salary profile than men. Government has worked hard in recent years to address barriers that stand in the way for women to access leadership positions. These gender equity issues continue to be addressed by government through coordinated efforts of the Public Sector Commission (state government) and associations in local government (e.g. WALGA, LGMA).

> *Skilling WA Strategic Goal 1*
>
> *Increase participation in the workforce particularly among the under-employed and disadvantaged, mature-aged, Aboriginal and Torres Strait Islander and other under-represented groups.*

For the public safety and corrections industries, the core employment roles are more male dominated. In many cases work to attract women into these occupations is aligned to the priorities of the state government; however there is also an underpinning recognition that the workplace culture of many workplaces in these industry sectors is unjustifiably unfavorable to women.

Ageing Workforce:

The Public Sector workforce has a high proportion of older workers (some 26,000 employees will soon be reaching retirement age). Future difficulties to recruit will be intensified by the wider skills shortages expected to be experienced in WA.

For the public safety industry, the reasons for the loss of mature age workers align to those in the trade – i.e. that work is physically (and often mentally) demanding. However, for public administration roles in state and local governments, the same does not necessarily apply. The loss of corporate knowledge is likely to impact on provision of services if not managed in an effective manner.

Indigenous Employment Opportunity:

Public administration sectors are ideally placed to offer exceptional employment opportunities to indigenous persons. Examples are:

- The public sector compares its workforce composition to that of the community, expecting its workforce to be representative of those who it serves. The Public Sector Commission through its Capability and Development Division seeks to facilitate specific opportunities for aboriginal people in the State Public Sector as part of its commitment to the achievement of COAG indigenous employment outcomes.

- Local governments are geographically dispersed and offer an enormous variety of job roles suitable to indigenous workers.

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Specifically, the Department of Corrective Services is currently engaged in a workforce planning exercise to staff its new West Kimberley Prison (Derby) with a high proportion of indigenous workers.

Strategies to be implemented by EUPA to address these issues:

- EUPA to continue to engage with the Public Sector Commission to assist in the development of new VET initiatives, including but not limited to Cadetships and Apprenticeships.

- EUPA assist the Public Sector Commission to develop and implement strategies to access funding for the training of existing workers and the delivery of high level Public Administration qualifications.

- EUPA to continue its engagement with the Department of Corrective Services to establish indigenous training initiatives in the Kimberley related to the construction of the Derby Prison.

- EUPA to engage directly with Local Governments to identify and implement employment opportunities targeted at youth, women and minority groups

- EUPA to seek the establishment of Local Government Traineeships for new entrants and specific initiatives for indigenous people.

Skilled Migration

ANZSCO Shortcomings:

Most occupations across the public sector fall generically under ANZSCO codes that describe corporate managerial and administrative roles (private sector). This does not reflect the specific difficulties experienced by the public sector to attract workers. As such occupations in these industries are lost in the wider application of the ANZSCO and are not specified in the State Priority Occupations List, affecting their consideration for skilled migration.

> *Skilling WA Strategic Goal 2*
>
> *Supplement the Western Australian workforce with skilled migrants to fill employment vacancies unable to be filled by the local workforce and address those factors which support a growing population.*

General Migration:

Predictions for population growth vary, however it is accepted that the State will experience a level of sustained population expansion and this growth will in itself be a driver for additional skilled labour to provide government services, community infrastructure, policing and correctional services.

The peak Public Sector, Public Safety, Corrective Services and Local Government agencies/organisations EUPA engages with are themselves endeavouring to substantiate labour needs, expansion to infrastructure and the resource demands likely to be created through population growth. Some of these sectors have made specific recruitment drives internationally to meet current and predicted demands.

Strategies to be implemented by EUPA to address these issues:

- EUPA will continue to influence the SPOL and to work with the Department to ensure that future iterations of the SPOL identify Public Sector occupations not currently recognised.

- EUPA will engage and collaborate with the National ISCs (EE-Oz and GSA) to influence the ABS (ANZSCO) to better define occupations in the industries EUPA represents so that they can be included on the State Priority Occupation List.

- EUPA will continue to engage with the Department of Training and Workforce Development Industry Advisory Group on Skilled Migration.

- EUPA will establish a reference group from the EUPA membership to advise industry skilled migration position and requirements for dialogue with the Department Advisory group and to influence the State Skilled Migration strategy to ensure attraction of skilled migrants in sufficient numbers.

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Attraction and Retention

Improving Industry Profile:

The Public Administration industry sectors seek to improve the means by which industry occupations are promoted to the community, school leavers and would be job seekers.

It considered that information about the range of careers and employment opportunity across all the Public Administration sectors is limited.

It is the industry's view that promotion of the Public Sector and Local Government across the community will need to highlight the breadth of work, stability and the flexible employment conditions available as well as the wide range of employment opportunities in customer service, technical, para-professional and professional roles.

Skilling WA Strategic Goal 3

Attract workers with the right skills to the Western Australian workforce and retain them by offering access to rewarding employment and a diverse and vibrant community and environment to live in.

Competition for skilled labour:

Resource projects demand for skilled labour from the Public Administration sector is significant, including occupations such as engineers, technicians, fixed and mobile plant operators, project managers, planners, human resources workers and managers, administrators, inspectors and OHS specialists.

Industry Leadership:

There are very few organisations able to work with industry at the enterprise or agency levels to assist in the development of attraction and retention strategies. Where available, peak agencies/associations are assisting individual organisations. To illustrate this, the Public Sector Commission employs five consultants to provide advice to agencies in relation to workforce planning and equity and diversity issues.

Strategies to be implemented by EUPA to address these issues:

- EUPA will promote alternative employment arrangements such part time, work from home and transition to retirement as possible strategies which can be implemented for increased workforce participation.

- EUPA will promote attraction and retention strategies to industry – flexible employment arrangements to offset the loss of skilled labour to the resources sector.

- EUPA will continue its promotion of Public Sector employment to school leavers, migrants, etc with the Workforce Development Centres.

- EUPA will seek to increase the utilisation of the Local Government Training Package as a means to train to retain staff.

- EUPA will seek to increase the utilisation of the Public Administration Training Package as a means to train to retain staff in the State public sector.

- EUPA will work with WALGA , LGMA and the Department of Local Government to identify training related productivity opportunities and demand for training in the Local Government sector.

- EUPA will promote the uptake of Para Professional Qualifications relative to the professional occupations of the Local Government sector.

Skilling

Training Capacity:

There are too few training providers with the capacity to meet the Public Administration industry sectors skilling needs. The issue is magnified in regional areas.

The sectors are also constrained by government policy in relation to the funding of training for core functions. That is:

- Public sector agencies cannot access funded training for professional development of their staff. Entry level training for government qualifications is limited to traineeships only (no funded institutional delivery).

- Local Government – Due to the large number and geographic distribution of local governments the training sector has ignored the specific needs of this sector until recent times. Significant focus has been provided to Local Government by training providers in metropolitan and regional areas.

- Public Safety and Corrections – Typically enterprise RTOs, these organisations also largely fund their own entry level and professional development training.

Training Demand:

There is a fairly strong training culture in the public administration industry sector, however investment in training generally falls into short courses and unaccredited professional development activities.

Whilst there is a strong training culture in the public sector, the Public Sector Commission is implementing strategies that seek to move away from ad-hoc short course delivery and generic qualifications. In this regard, the PSC will be implementing coordinated traineeships in government (PSP04) as of February 2012.

Climate Change and Environment:

Government climate change and carbon reduction policy is driving demand for additional workforce capabilities in environmental and sustainability policy, regulation and technology applications.

Disaster response:

2011 saw a number of natural disasters and significant emergency events if the form of flooding and bushfires. These events challenged the states capacity to manage its emergency response procedures, which ultimately saw a change to ministerial responsibilities, the appointment of a new Chief Executive Officer and greater emphasis to be placed on the training of FESA personnel and its volunteers.

Strategies to be implemented by EUPA to address these issues:

- EUPA will promote the Public Administration Training Package to the Public Sector

- EUPA will seek the establishment of a school base traineeship (Career pathway) utilising a Public Administration qualification

- Seek to secure funding for the delivery Public Administration Training Package qualifications

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- EUPA will engage training providers to build capacity and capability to deliver to the Local Government sector

- EUPA will promote Workplace Trainer Qualifications (TAE) to Local Governments to offset lack of RTO delivery to the sector

- EUPA will identify training opportunities related to the adoption of new technologies by industry

- EUPA will engage training providers to build capacity and capability to deliver to the Local Government sector

- EUPA to assist FESA in whatever capacity to revise its training arrangements

- EUPA will encourage regional training providers to deliver to the Public Sector and Local Government sector to create local employment opportunities

- EUPA will identify mechanisms by which each of the Public Administration industry sectors can access funding assistance for access to training

Public Sector Commission Activity:

In addition to the above EUPA will continue to advise and assist the Public Sector Commission through the operations of the Public Administration Industry Working Group implement the following initiatives:

- Government Traineeship Program

- Graduate Development Program

- Foundations of Human Resources - Participants will receive a Certificate IV in Government

- Establishment of New Qualifications and Skill Sets – through GSA

- Supervising Talent Program

- Funding for Government Qualifications

- School-Based Traineeship Program - converting its School-Based Traineeship Program from a Business qualification to a Government qualification.

- VET Information for Training Providers

- Aboriginal Employment Strategy

- Government Training including Certificate III, IV and Diploma in Government

- Policy Skills - development of a Policy Skills Development Program, is being considered.

- Common Use Arrangement – Registered Training Organisations

- Skilling WA – Public Sector activity contributing to achieving the strategic goals of Skilling WA

- Trainee Supervisor Development Program

Planning

Industry Leadership

State Public Sector Workforce Planning:

The Public Sector has made significant investment in workforce planning and development through the Public Sector Commission. For this reason, the reader is directed to the following key papers that form the basis for the suggested workforce development initiatives for this sector:

Skilling WA Strategic Goal 5

Plan and coordinate a strategic State Government response to workforce development issues

Public Sector Commission Documents

- **Strategic Directions for the Public Sector Workforce 2009-2014**

- **Forward Thinking – Workforce Challenges for the Public Sector**

- **Public Sector Workforce 2009**
  Including a demographic profile, workforce projections to 2018 and a range of practical workforce solutions

- **Western Australian Public Sector Workforce Report (June 2011)**

EUPA is engaged with state and national peak employer associations, organisations and agencies including the Public Sector Commission, government departments responsible for Local Government, corrections and public safety and national peak bodies such as the Australian & New Zealand Police Advisory Agency (ANZPAA).

Local Government Workforce Planning and Reform:

The Local Government sector has seen significant effort made in workforce planning founded on the National Local Government Skills Shortage Steering Committee and includes initiatives regarding the election of females to CEO roles, Local Government Reform (a State initiative), establishment of a training culture and improvement of training supply through increased provision of LGA04 Training Package qualifications by training providers.

Population Growth:

Western Australia has recorded the highest population growth of all states in Australia and it has been predicted that by 2050 it will be in the order of 4.5 million. The States' workforce has been predicted to grow significantly by various commentators over the coming years and it is regularly being reported that Western Australia will be require some 150,000 additional workers by 2017.

Some of the impacts population growth will have on the Public Administration sector include:

- Increased demand for Public Services and governance (State and Local Government)

- Increased expectations of Public Safety (Police, Emergency Services (Fire & SES) Environment & Conservation)

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Climate Change and Environment

Government climate change and carbon reduction policy is driving demand for additional workforce capabilities in environmental and sustainability policy, regulation and technology applications. In particular, the drying climate and increase in extreme weather events is affecting Environmental Management and Public Safety (Emergency Services Fire and SES).

Strategies to be implemented by EUPA to address these issues:

- EUPA will facilitate Public Sector Commission and DTWD collaboration on workforce development issues relevant to the Public Sector

- EUPA to provides advice as is required to the Public Sector Commission and its advisory groups

- EUPA will continue its consultation and provision of advice to the respective Training Academies-Police, FESA, Corrective Services. (Public Safety)

- EUPA will promote employer/training provider relationships for the provision of training services

- EUPA will explore potential for industry sector initiatives to be sponsored through the Workforce Development Fund

Attachment 1

Critical Occupations

The critical occupations identified within each industry review is provided to assist the Department of Training and Workforce Development make informed judgements about investment in workforce development and training interventions at a state level. For the purposes of this Workforce Development Plan critical occupations
are considered to be those that meet any of the following criteria:

- Forecast strong demand

- Licensing / regulatory requirement

- Lag time for training

- Demographics

- New / emerging technology / occupations

- Difficult to fill (vacancy rates)

- Barriers to participation / entering occupations / retention

- Excessive hours of work

- Regional challenges

- Decline in training effort

- Competition between industries (i.e. same occupation)

- Other forces / events (e.g. 2011 Commonwealth Heads of Government Meeting)

Please refer to to following list of occupations and justification for inclusion on the State Priority Occupations List (SPOL) as defined by the Department's criteria above.

The list provides an overview of occupations in demand relevant to the industry sectors EUPA represents.

Alternatively, each industry overview lists the critical occupations relevant to that industry.

Please note that some ANZSCO occupation codes relate to more than one industry sector.

The list shown here is not in any priority order.

Attachment 1 - Summary of Critical Occupations

ANZSCO	Occupation	Justification
132211	Finance Manager	• Lag time for training and experience– High specialisation • Demographics – Ageing of existing workforce & under represented community sectors • Retention of workers, including regional workers • Competition between industries
132311	Human Resource Manager	• Forecast strong demand • Lag time for training and experience – High specialisation • Demographics – Ageing workforce and under-represented community sectors • Retention of workers including regional areas • New training effort demand – Transition to PSP04 • Competition between industries
132411	Policy and Planning Manager	• Forecast strong demand • Lag time for training and experience – High specialisation • Demographics – Ageing workforce and under-represented community groups • Recognised deficiency in policy development • New training effort demand – Transition to PSP04
133512	Production Manager (Waste Manager)	• Lag time for experience • Emerging Technology
135199	ICT Manager nec	• Forecast strong demand due to emerging tech. • Lag time for training and experience – High specialisation • Competition between industries
139112 **139113**	Commissioned Officer Fire Police	• Lag time for experience and appropriate training • Demographics – Ageing workforce • Demographics – New communities, population growth • Regional challenges –Expanding populations
139912	Environmental Manager	• Forecast strong demand – increasing community/government expectations • Lag time for training and experience – Higher Education pathway required • Demographics – Ageing workforce in Local Government • Emerging occupation • Regional challenges – particularly resource related projects and community growth • Competition between industries
139999	Other specialist Manager	• Forecast strong demand • Demographics – Ageing workforce, • New / emerging technology / occupations • New infrastructure, particularly regional areas
221111	Accountant (General)	• Forecast strong demand • Lag time for training – High specialisation • Demographics – Ageing workforce • Retention of workers and competition between industries
223311	Training and Development Professional	• Emerging compulsory/voluntary development frameworks • Demographics – Ageing workforce • Retention of workers and competition between industries
223111	Human Resource Advisor (Professional)	• Forecast strong demand • Demographics – Ageing workforce • Lag time for training and experience • Retention of workers including regional areas • Competition between industries

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224214	Records Manager	• Demographics – Ageing workforce • Attraction and retention of workers, including regional areas • Competition between industries
224611	Librarian	• Demographics – Ageing workforce • Attraction of workers, including regional areas
232212	Surveyor	• Forecast strong demand • Demographics – Ageing workforce • Lag time for training and experience • Retention of workers including regional areas • Competition between industries
232611	Urban and Regional Planners	• Forecast strong demand to cope with population growth • Lag time for training and experience • Little LGA04 delivery • Demographics – Ageing workforce • Regional challenges – community growth and attraction to occupation
233111	Chemical Engineer	• Forecast strong demand • Lag time for training • Emerging technologies • Competition between industry sectors
233211	Civil Engineer	• Forecast strong demand to cope with population growth • Lag time for training and experience • Redefining professional/para-professional roles • Demographics – Ageing workforce • Regional challenges – Community growth
233311	Electrical Engineers	• Competition between industry sectors
233511 **233512** **233513**	Industrial Engineers Mechanical Engineer Production/Plant Eng	• Forecast strong demand - Across all the utilities sectors • Competition between industries
233915	Chemical and Environmental Engineer	• Forecast strong demand • Lag time for training • Emerging technologies • Competition between industry sectors
242211	Vocational Education & Training Teacher	• Forecast strong demand to cope with increased prison populations • Demographic – Ageing Workforce
234313	Environmental Scientists	• Forecast strong demand • Lag time for training • Emerging technologies • Competition between industry sectors
234399	Environmental Scientist	• Forecast strong demand – increasing community/government expectations • Lag time for training and experience – Higher Education qualifications preferred • Emerging occupation • Regional challenges – particularly resource related projects and community growth • Competition between industries
251311	Environmental Health Professionals	• Forecast strong demand – increasing community/government expectations • Little LGA04 delivery and attraction to occupation • Regulation of other industries • Demographics – Ageing workforce in local government • Regional challenges – community growth
253411	Psychiatrist	• Forecast strong demand – increasing mental health/drug issues • Lag time for training – high specialisation

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		• Demographics – Ageing workforce • Difficult to fill, including regional challenges
2621	GIS and SCADA specialists	• Forecast strong demand • Lag time for training • Emerging technologies
272311	Psychologist	• Forecast strong demand – increasing mental health issues • Lag time for training – high specialisation • Demographics – Ageing workforce • Difficult to fill, including regional challenges
272412	Interpreter	• Licensing / regulatory requirement • New / emerging technology / occupations • Decline in training effort
272413	Translator	• Licensing / regulatory requirement • New / emerging technology / occupations • Decline in training effort
272511	Social Worker	• Forecast strong demand – increasing mental health and drug issues • High community expectations • Demographics – Ageing workforce • Difficult to fill, including regional challenges
272612	Recreation Officer	• Demographics – Ageing workforce • Retention of workers including regional areas
311412	Science Technician	• Forecast strong demand • Lag time for training • Emerging technologies • Competition between industry sectors
312211	Civil Engineering Draftsperson	• Forecast strong demand • Demographics – Ageing workforce and growing population • Lag time for training and experience • Retention of workers including regional areas
312113	Building Inspector	• Forecast strong demand – population growth • Regulation requirements • Demographics – Ageing workforce
312116	Surveying or cartographic Technician	• Forecast strong demand • Demographics – Ageing workforce • Retention of workers including regional areas • Competition between industries (resources)
312212	Civil Engineering Technician	• Forecast strong demand • Demographics - Population growth • Lag time for training • Emerging technologies • Competition between industry sectors
312311	Electrical Engineering Draftspersons and Technicians	• Competition between industry sectors
323211	Mechanical Fitter	• Forecast strong demand - national and state skills shortage • Demographics - Population growth and ageing workforce • Competition between industries
312611	Safety Inspector	• Forecast strong demand - national and state skills shortage • Demographics - Population growth and ageing workforce • Competition between industries
313112	ICT Support Technicians	• Forecast strong demand due to emerging tech. • Competition between industries
322313	Welder	• Forecast strong demand - national and state skills shortage • Demographics - Population growth and ageing workforce • Competition between industries

No ANZSCO	Gas Distribution Officer/ Main and Line Fitter	• Forecast strong demand - national and state skills shortage • Demographics – Population growth and construction of dwellings • Licensing/Regulatory requirement
341111	Electrician (General) including Railway signal electrician	• Forecast strong demand - national and state skills shortage • Demographics - Population growth and ageing workforce • Competition between industries • Licensing/Regulatory requirement
341112	Electrician (Special Class) Instrumentation Hazardous area	• Emerging occupation/skills – For resources sector • Competition between industries • Occupation is a pre-requisite for employment in some resources sector organisations • Licensing/Regulatory requirement
342111	Air Conditioning and Refrigeration Mechanic	• Forecast strong demand - national and state skills shortage • Demographics – Population growth and construction of dwellings • Licensing/Regulatory requirement
342211	Electrical Linesworker: Transmission Distribution Rail Traction	• Difficult to fill- Global shortage • Forecast strong demand - Large transmission and distribution projects in pipeline • Emerging technology - National Broadband Network • Limited training opportunities locally in WA • Demographics - ageing infrastructure and need for expansion due to population growth
342212	Technical Cable Jointer	• Difficult to fill - Global shortage & extensive overseas recruitment • Limited training opportunities and very few trainees. • Forecast strong demand - Large underground projects and ageing infrastructure • Demographics - Ageing workforce • Competition for labour between states
342313	Electronic Equipment Trades Worker	• Forecast strong demand - Electronics goods production • Emerging technology - Electronic systems in Building and Construction projects
342314	Electronic Instrument Trades Worker (General)	• Forecast strong demand - Electronics goods production • Emerging technology - Electronic systems in Building and Construction projects
342315	Electronic Instrument Trades Worker (Special Class)	• Forecast strong demand - Electronics goods production • Emerging technology - Electronic systems in Building and Construction projects
342412	Telecommunications Cable Jointer	• Forecast strong demand - Large national projects
342413	Telecommunications Lineworker	• Forecast strong demand - Large national projects
342414	Telecommunications Technician	• Forecast strong demand - National projects • Difficult to fill – National Skills Shortage
362213	Gardeners (Horticulturalists/Parks & Gardens)	• Demographics – Ageing workforce • Difficult to fill, including low wages and lack of attraction to occupation
No ANZSCO	Waste Recovery Facility Operator	• Demographics – Ageing workforce • Difficult to fill, including low wages and lack of attraction to occupation
399213	Electrical Generation, Gas Operator	• Demographics – Ageing workforce • Difficult to fill, including low wages and lack of attraction to occupation

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411711	Welfare Support Worker (Youth Worker, Community Worker)	• Forecast strong demand – increasing mental health and drug issues • High community expectations • Demographics – Ageing workforce • Difficult to fill, including regional challenges
421111	Child Care Worker	• Forecast strong demand – increasing demand for employment of women with children • Demographics – Ageing workforce and population growth
423111	Aged Carer	• Forecast strong demand – change in population demographic (ageing) • Demographics – Ageing workforce and population
442217	Security Officer	• Demographics – Ageing workforce • Attraction and retention of workers • Competition between industries
431999	Hospitality Worker nec (Caterer)	• Retention of workers including regional areas • Competition between industries
441211	Fire and Emergency Workers	• Regulatory requirement for qualified workers • High cost of training effort • Demographics – Ageing workforce • Demographics – New communities, population growth • Working requirements – shift workers • Regional challenges – environmental conditions and expanding populations
441312	Uniformed Police	• Regulatory requirement for qualified workers • High cost of training effort • Demographics – Ageing workforce, new communities, population growth • Emerging community and government expectations • Regional challenges – global warming and expanding populations • High attrition – retention of workers through competition for expertise
442111	Prison Officer Custodial	• Regulatory requirement for qualified workers • High cost of training effort • Demographics – Ageing workforce & population growth • Regional challenges – expanding populations • New Derby Prison to open 2012
511111	Contract, Program and Project Administration	• Forecast strong demand • Demographics – Ageing workforce • Retention of workers, including regional areas • Competition between industries
512111	Office Manager	• Lag time for experience required • Demographics – Ageing workforce and under-represented community groups • Attraction and retention in regional areas
521111	Personal Assistants	• Demographics – Ageing workforce • Retention of workers including regional areas • Competition between industries
531111	General Clerk	• Forecast strong demand • Demographics – Ageing workforce • Retention of workers, including regional areas
551111	Accounts Clerk	• Demographics – Ageing workforce • Competition between industries including regional areas
551311	Payroll Clerk	• Retention of workers including regional areas • Competition between industries
561311	Filing or Registry Clerk	• Demographics – Ageing workforce • Retention of workers including regional areas • Competition between industries
561611	Switchboard Operators	• Demographics – Ageing workforce • Attraction and retention of workers

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591113	Purchasing Officer	• Demographics – Ageing workforce • Retention of workers, including regional areas • Competition between industries
599411	Human Resources Clerk	• Forecast strong demand • Demographics – Ageing workforce • Retention of workers including regional areas • New training effort - Transition to PSP • Competition between industries
599599	Inspectors and Regulatory Officers	• Forecast strong demand – environmental and increasing legislative demands • Licensing / regulatory requirements • Demographics – Ageing workforce • Regional challenges – Retention of workers • Competition between industries
599999	Rates Officer	• Demographics – Ageing workforce • Attraction and retention of workers
7129	Stationary Plant Operator	• Forecast strong demand • Demographics – ageing workforce and population growth • Attraction and retention due to low wages in local government (compared to resource sector) • Competition between industries
721211	Earthmoving Plant Operators	• Forecast strong demand • Demographics – ageing workforce and population growth • Attraction and retention due to low wages in local government (compared to resource sector) • Regional challenges • Competition between industries
721999	Other Mobile Plant Operators	• Forecast strong demand • Demographics – ageing workforce and population growth • Attraction and retention due to low wages in local government (compared to resource sector) • Regional challenges • Competition between industries
733111	Truck Driver (Waste collection)	• Attraction and retention due to low wages • Regional challenges • Competition between industries
821112 **821113**	Unskilled/Labourers	• Competition between industries

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