



The Training and Skills Commission

Electricity, Gas, Water and Waste Services

South Australia's **Industry
Priority Qualifications 2018**

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As new technologies and the demands of international markets lead to rapidly **changing skills needs**, it is vital to have up-to-date information identifying which **skills** are a **priority in each industry**.



Contents

4	Foreword
4	About the IPQ
5	Key Findings
6	Industry priority qualifications
6	Summary of survey responses
6	Priority qualifications
8	Qualifications by training package
8	Qualification types
8	Qualification levels
10	Qualification use
11	Workforce development
12	Contributors

Foreword

The Training and Skills Commission is pleased to present this report on South Australia's industry priority qualifications. This report is the culmination of extensive industry consultation, which has resulted in a unique and valuable insight into industry's prioritisation of vocational qualifications.

The level of engagement has exceeded the Commission's expectations, and has, in no uncertain terms, contributed significantly to the quality and credibility of the findings of this report.

As new technologies and the demands of international markets lead to rapidly changing skills needs, it is vital to have up-to-date information identifying which skills are a priority in each industry. The Commission is committed to filling this need by providing high quality skills and workforce development advice.

The information in this report helps ensure the vocational training system is responsive to industry needs, and that government investment in skills and training is directed to where industry needs it most.

On behalf of the Commission, I extend a sincere thank you to all those who contributed to this report, from industry associations to individual businesses and to each and every respondent to our survey. Your commitment to getting this information right is commendable, and the expertise you bring is greatly appreciated.

It is the Commission's intent that this report contributes to shaping the significant government investment in skilling our state's workforce.



Michael Boyce

Chair

Training and Skills Commission

About the IPQ

The Industry Priority Qualification (IPQ) report outlines the prioritisation of vocational qualifications and skill sets for each industry. It draws on a survey conducted by the Training and Skills Commission in July 2018, as well as feedback from workshops held with each industry.

The survey aimed to collect as many responses as possible from each industry, and to achieve a representative sample of small, medium and large employers, as well as organisation types. Following the survey, feedback and moderation of the responses was collected from senior industry representatives.

This report is intended to inform the state government about industry's vocational qualification priorities, and to help guide the government's substantial investment in skills and training.

- The first IPQ survey was conducted in 2015 and received 850 responses.
- The 2018 survey collected 1,306 responses from 19 industry sectors.
- Feedback on the survey results was collected from industry representatives.
- The findings inform the Government's investment in skills and workforce development.
- The survey included all current training package qualifications and skill sets, and all current accredited courses that were available on the national register, training.gov.au in April 2018.
- The full IPQ data can be found at tasc.sa.gov.au/IPQ

Key findings

- Industry advised that qualifications rated as essential provide the vital skills needed to run the industry in South Australia.
- The highest priority qualifications are split across three training packages: Electrotechnology, National Water, and Construction, Plumbing and Services.
- Most priority qualifications for the Electricity, Gas, Water and Waste Services industry are at the certificate III and IV level.
- Certificate IV and diploma level qualifications tended to be a slightly lower priority compared to certificate IIIs.
- The biggest challenge for the waste services sector is attracting future workers to the industry.
- The ability of the training system to respond to rapidly changing skills needs was one of industry's major concerns regarding workforce development.

Industry priority qualifications

The Electricity, Gas, Water and Waste Services industry contributes around 9,000 jobs in South Australia, or 1.3 per cent of the state's workforce. It includes activities such as electricity and gas supply, water, drainage, and sewage services. It also includes the collection, treatment and disposal of waste materials, and the remediation of contaminated materials.

Nearly half of all workers in the Electricity, Gas, Water and Waste Services industry work in either water supply or electricity distribution.

Vocational qualifications play a vital role in skilling the industry's workforce, with approximately 44 per cent of the workforce having a vocational qualification as their highest level of educational attainment, compared to around 23 per cent who have a higher education qualification¹. Just under a third of the workforce do not hold a tertiary qualification.

Summary of survey responses

The industry priority qualifications (IPQ) survey received 33 responses from the Electricity, Gas, Water and Waste Services industry, representing 2.5 per cent of total survey responses. Twelve respondents identified as small employers (1-19 employees), six as medium (20-199 employees) and a further five as large employers (200+ employees)².

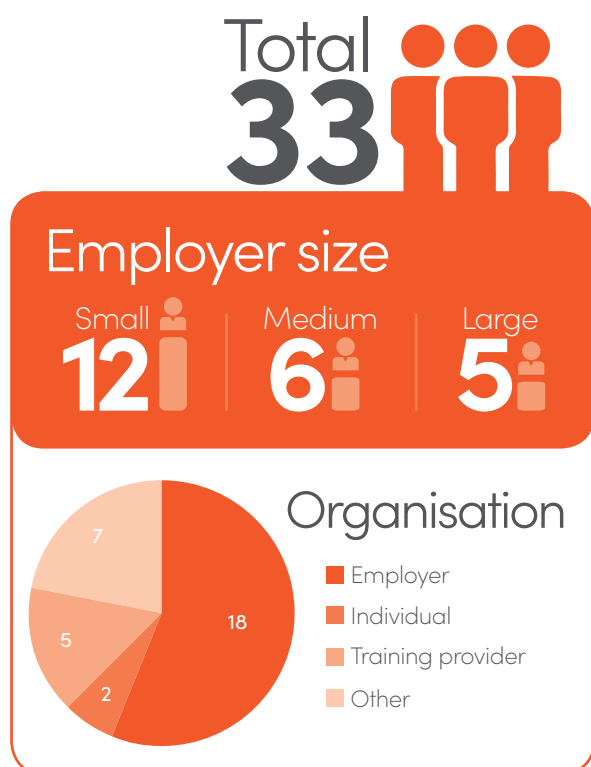
Priority qualifications

Industry priority qualifications are grouped into four levels of priority, based on the survey results and industry workshops.

- Essential
- High
- Medium
- Low

Table 1 outlines the priority qualifications for the Electricity, Gas, Water and Waste Services industry³.

Industry advised that qualifications rated as essential are the highest priority as they provide the critical skills needed to run the industry in South Australia. The Certificate III in Water Industry Operations and the Certificate III in Water Industry Treatment were singled out as crucial qualifications for operators in the Water and Waste sectors.



1 | Australian Bureau of Statistics 2018, *Census 2016*

2 | Employer size includes responses from respondents who identified as an organisation type other than employer.

3 | Low priority qualifications are not included in this report, for the full data visit tasc.sa.gov.au/IPQ

Table 1: **Qualifications by priority level**

Essential	
UEE22011	Certificate II in Electrotechnology (Career Start)
UEE30811	Certificate III in Electrotechnology Electrician
NWP30215	Certificate III in Water Industry Operations
NWP30315	Certificate III in Water Industry Treatment
10676NAT	Course in Recognising and Responding to Asbestos Risk in the Utilities Sector
CPCSS00001	Lead a building, construction or plumbing and services team
High priority	
MEM30305	Certificate III in Engineering - Fabrication Trade
MEM30205	Certificate III in Engineering - Mechanical Trade
CPC32813	Certificate III in Fire Protection
CPC32713	Certificate III in Gas Fitting
CPC32413	Certificate III in Plumbing
CPC32513	Certificate III in Plumbing (Mechanical Services)
CPC32612	Certificate III in Roof Plumbing
UEE41911	Certificate IV in Electrical - Renewable Energy
UEE40611	Certificate IV in Electrotechnology - Systems Electrician
UEP40212	Certificate IV in ESI Generation - Operations
UEP40112	Certificate IV in ESI Generation - Systems Operations
UEP40512	Certificate IV in ESI Generation Maintenance - Electrical Electronics
UEP40612	Certificate IV in Large Scale Wind Generation - Electrical
CPC40912	Certificate IV in Plumbing and Services
UEESS00052	Data Communications - Install and Modify Performance Data Communication Structured Cabling
UEESS00126	Electrical - Develop and Implement Maintenance Programs
UEPSS00004	High Voltage Operation - Development and co-ordination of H.V. Switching Programs
UEPSS00003	High Voltage Operation - H.V. Switching
CPCSS00003	Undertake trade contracting
Medium priority	
BSB20115	Certificate II in Business
NWP20115	Certificate II in Water Industry Operations
UEE32211	Certificate III in Air-conditioning and Refrigeration
UEP30212	Certificate III in ESI Generation - Operations
UEP30112	Certificate III in ESI Generation - Systems Operations
UEE40211	Certificate IV in Electrical - Data and Voice Communications
UEG40114	Certificate IV in Gas Supply Industry Operations
NWP40515	Certificate IV in Water Industry Operations
NWP40615	Certificate IV in Water Industry Treatment
UEESS00048	Data Communications - ACMA 'Open' Cabling Provider
UEESS00051	Data Communications - Install and Modify Performance Data Communication Optical Fibre Cabling
CPC50412	Diploma of Plumbing and Services
BSBSS00050	Small Business Financial Management Skill Set

Qualifications by training package

Priority qualifications for the Electricity, Gas, Water and Waste Services industry belong to seven training packages:

- Business Services (BSB)
- Construction, Plumbing and Services (CPC)
- Manufacturing and Engineering (MEM)
- National Water (NWP)
- Electricity Supply Industry - Generation Sector (UEP)
- Electrotechnology (UEE)
- Gas Industry (UEG)

Priority qualifications are drawn mostly from the Electrotechnology (UEE), Construction, Plumbing and Services (CPC), and Electricity Supply Industry – Generation Sector (UEP) training packages, with each package contributing a similar share.

Qualifications rated as essential are split across just three training packages: Electrotechnology, National Water, and Construction, Plumbing and Services.

Figure 1: **Qualifications and skill sets by priority level and training package**

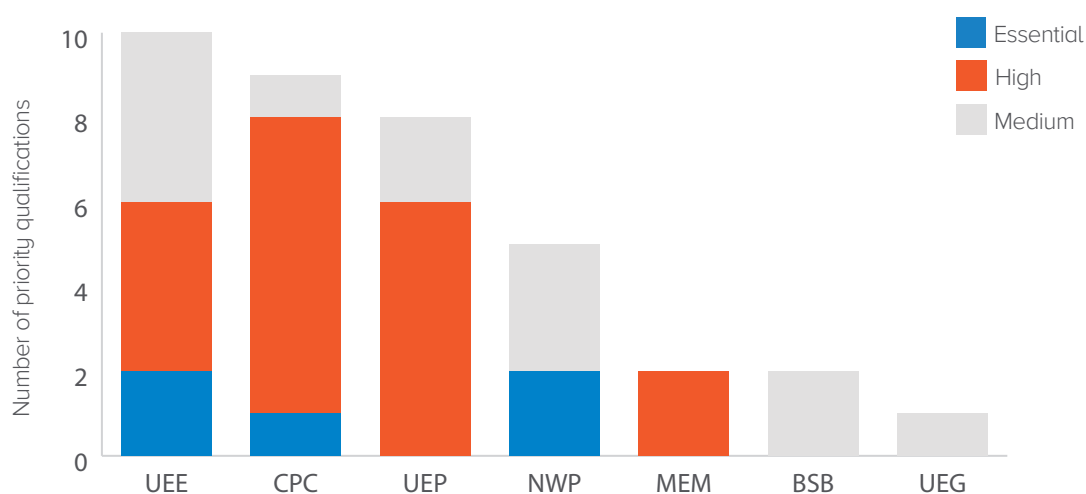
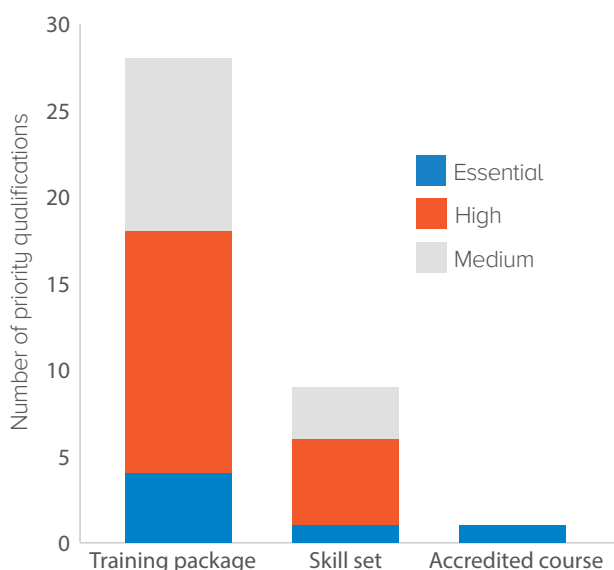


Figure 2: **Qualification type by priority level**



Qualification types

Three-quarters of priority qualifications are from training packages, while nine skill sets are also a priority, one of which is rated as essential. Only one accredited course appears in the top three priority levels, although it, too, is rated as essential.

Qualification levels

Most priority qualifications for the Electricity, Gas, Water and Waste Services industry are at the certificate III and IV level. There were very few qualifications identified at other levels, although one of the two certificate IIs is rated as essential.

Certificate IV and diploma level qualifications tend to be a slightly lower priority compared to certificate IIIs. Qualifications rated as either an essential or high priority were narrowly focused. Qualifications rated as essential consist solely of certificate IIs and IIIs (only one certificate II), while high priority qualifications include only certificates III and IV. Lower priority levels have a broader spread, with qualifications ranging from certificate I to diploma.

Figure 3: **Qualification level: essential, high & medium priority**

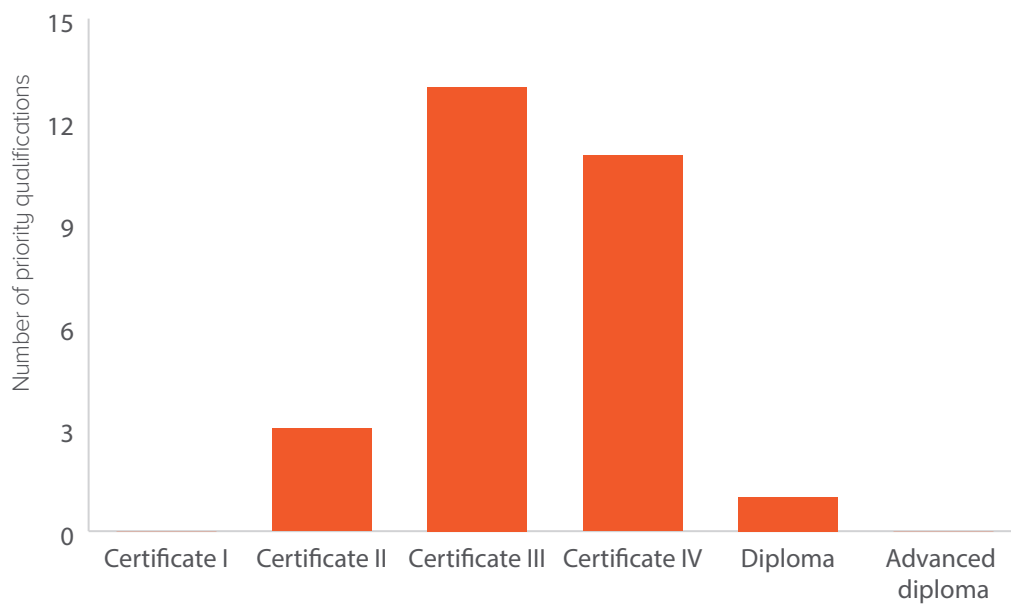
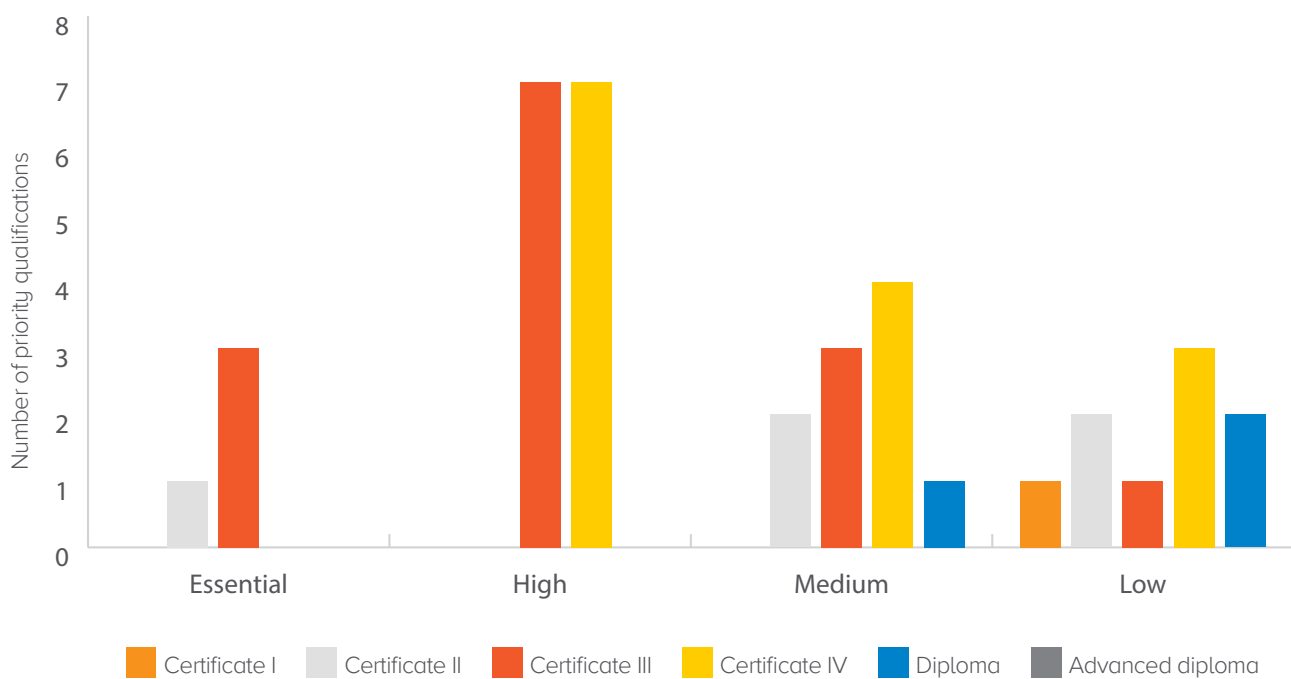


Figure 4: **Qualification level by priority ranking**



Qualification use

Qualifications can be undertaken for a variety of purposes. A student might complete a qualification to gain entry into an occupation, such as an electrician completing their Certificate III in Electrotechnology Electrician, while others may need to complete a pathway qualification such as the Certificate II in Electrotechnology (Career Start), to prepare for taking on a higher-level qualification, such as the Certificate III in Electrotechnology Electrician.

Table 2 reveals industry's views on what their priority qualifications are typically used for, out of three possible categories:

1. a pathway to an entry level qualification
2. an entry level qualification or basic requirement for a job
3. for upskilling.

Two pathway qualifications were identified by industry as a priority, with the Certificate II in Electrotechnology rated an essential priority. The majority of qualifications were identified as a basic requirement for a job, most of which relate to a trade occupation, while six qualifications were identified as being required for upskilling. All upskilling qualifications were either a certificate IV or diploma.

Table 2: **Qualification use**

Pathway to entry level	
BSB20115	Certificate II in Business
UEE22011	Certificate II in Electrotechnology (Career Start)
Entry level or basic requirement for a job	
UEE32211	Certificate III in Air-conditioning and Refrigeration
UEE30811	Certificate III in Electrotechnology Electrician
UEP30212	Certificate III in ESI Generation - Operations
UEP30112	Certificate III in ESI Generation - Systems Operations
CPC32813	Certificate III in Fire Protection
CPC32713	Certificate III in Gas Fitting
CPC32413	Certificate III in Plumbing
CPC32513	Certificate III in Plumbing (Mechanical Services)
CPC32612	Certificate III in Roof Plumbing
UEE40211	Certificate IV in Electrical - Data and Voice Communications
UEP40212	Certificate IV in ESI Generation - Operations
UEP40112	Certificate IV in ESI Generation - Systems Operations
UEP40512	Certificate IV in ESI Generation Maintenance - Electrical Electronics
10676NAT	Course in Recognising and Responding to Asbestos Risk in the Utilities Sector
Upskilling	
UEE41911	Certificate IV in Electrical - Renewable Energy
UEE40611	Certificate IV in Electrotechnology - Systems Electrician
UEG40114	Certificate IV in Gas Supply Industry Operations
UEP40612	Certificate IV in Large Scale Wind Generation - Electrical
CPC40912	Certificate IV in Plumbing and Services
CPC50412	Diploma of Plumbing and Services

Workforce development

The industry workshops conducted by the Training and Skills Commission provided an opportunity to capture high level workforce development information from industry. This section summarises the feedback that was collected.

Industry reported that the biggest challenge for the waste services sector lies in attracting future workers to the industry. Unfortunately, waste services is not viewed as an attractive industry, which makes it difficult to find skilled workers.

Industry feedback also raised concern that the national training system is far too slow to adapt to industry needs, where the skills required are changing rapidly.



Contributors

Thank you to all stakeholders that contributed to shaping the Industry Priority Qualifications report.

Adelaide Community Health Alliance
AFL SportsReady
Aged Care Industry Association
Agribusiness SA
AI Group
Air Conditioning Mechanical Contractors Association
Arts Industry Council of SA
ATEC Group Training
Australian Childcare Alliance SA
Australian Council for Private Education and Training
Australian Education Union (SA)
Australian Funeral Directors Association
Australian Hotels Association SA
Australian Manufacturing Workers' Union
Australian Nursing and Midwifery Federation
Australian Steel Institute
Australian Veterinary Association
Australian Workers Union
Business SA
Communications Electrical Plumbing Union
Community Accommodation and Respite Agency
Community Centres SA
Construction Industry Training Board
Defence Teaming Centre
Department for Correctional Services
Energy Skills SA
Engineers Australia
Food and Beverage Fund SA
Grain Producers SA
Health Services Union
Helping Hand Aged Care
Housing Industry Association
Independent Education Union of South Australia
Livestock SA
Master Builders SA
Master Plumbers Association
Maxima
Minda
Motor Trades Association
Murraylands Training and Employment Association

National Disability Services
National Electrical & Communications Association
Northern Adelaide State Secondary Schools Alliance
PEER
Primary Industry Skills Council SA
Property Council of Australia (SA)
Public Service Association of SA
Real Estate Employers Federation SA
Real Estate Institute of South Australia
Resources and Engineering Skills Alliance
Restaurant & Catering SA
SA Aquaculture Council
SA Country Fire Service
SA Dairy Farmers Association
SA Health
SA Road Transport Association
SA Wine Industry Association
SAPOL
Service Skills SA
Shelter SA
Shop Distributive and Allied Employees
South Australian Chamber of Mines and Energy
South Australian Independent Retailers
Sport SA
Statewide Group Training
Taxi Council
Trainee and Apprentice Placement Service
Transport Distribution Training SA
Transport Workers Union
United Voice
Volunteering SA and NT
Waste Management Association
Wildcats Fisheries SA
Youth Affairs Council of SA

For further information about industry employment, skills and workforce development please visit the Commission's website tasc.sa.gov.au to find the following resources:

- Economic Outlook
- Industry Profiles
- Regional Profiles