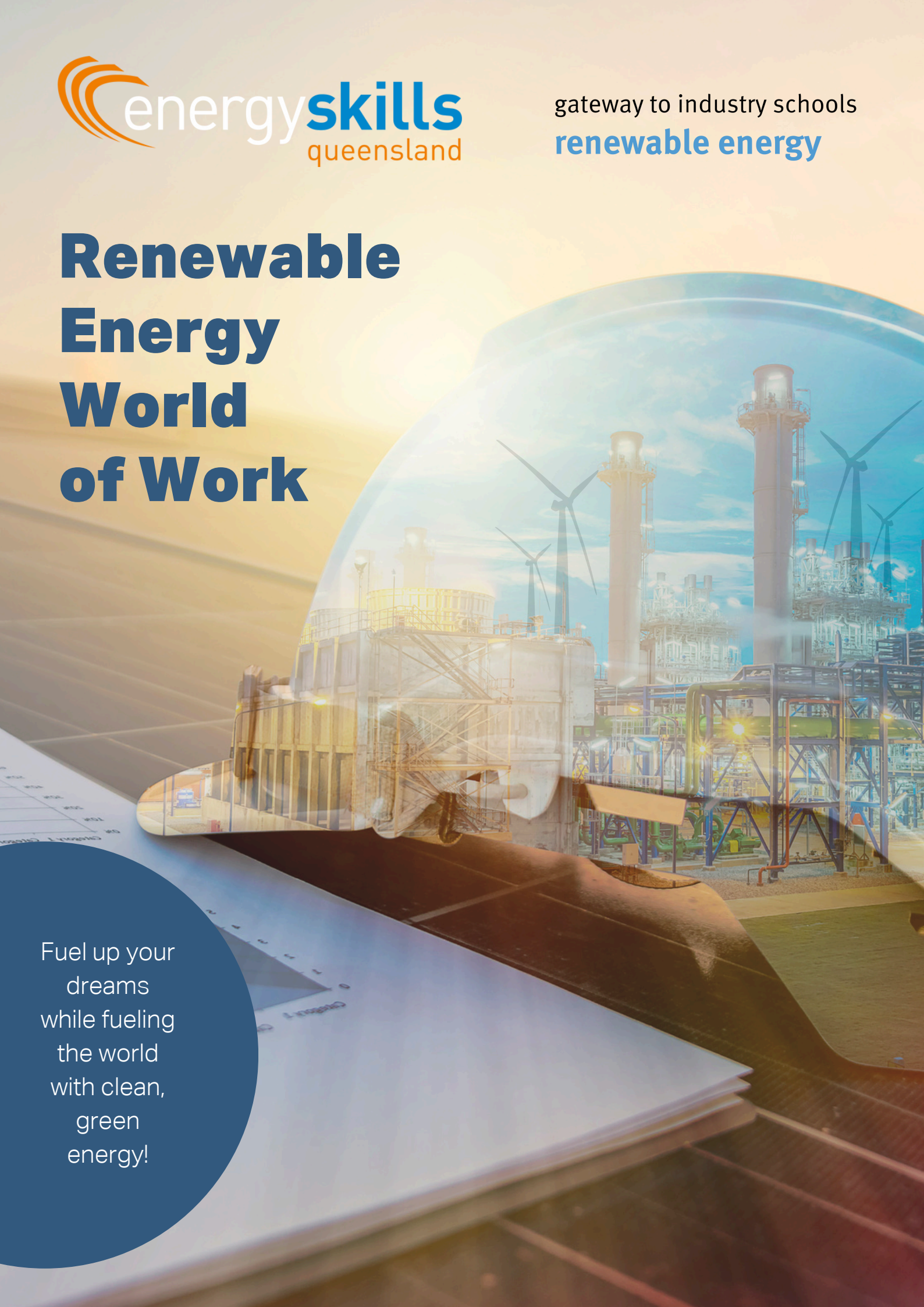


Renewable Energy World of Work



Fuel up your
dreams
while fueling
the world
with clean,
green
energy!



Energy Skills Queensland (ESQ) serves as a leader and vital link in preparing for our new energy future. Fostering teamwork, ESQ equips and connects the Queensland energy workforce through core endeavours of training, skilling, and workforce planning. Advocating for investment in skills development and training, and championing the electrical, gas, renewable energy, and telecommunications industry sectors, ESQ is inspiring the next generation to consider energy as a life long and exciting career choice.

We have proudly joined forces with the Queensland Government to spearhead the Gateway to Industry Schools Program for Renewable Energy (GISP_RE). This ground breaking initiative orchestrates enduring partnerships among industry, government, and education. Together, we propel Queensland towards a sustainable future, aligning with the Clean Energy Workforce Roadmap. Join us as we cultivate the next generation of skilled workers and pave the way for a brighter, cleaner tomorrow.

David Cross, CEO
Energy Skills Queensland



Queensland has a bright future ahead — with clean energy targets of 70 per cent by 2032 and 80 per cent by 2035 — through the Miles Government's \$62 billion Queensland Energy and Jobs Plan.

This plan includes a pathway to build the new Queensland SuperGrid — the largest in the nation — connecting our solar, wind, battery, pumped hydro, and hydrogen projects across the state and unlock new capacity and storage.

We need a skilled workforce of SuperGrid Superheroes, like you, to deliver it and the Gateway to Industry Schools Program and Energy Skills Queensland are critical to getting there.

After graduating, I encourage you to take up our Free TAFE offer as your golden ticket to get the skills you need to get a good, secure, highly paid job.

I look forward to continuing our collaboration with Energy Skills Queensland as we work together to create a strong workforce and a sustainable future for Queensland.

Lance McCallum MP
Minister for Employment and Small Business and
Minister for Training and Skills Development

HOW TO

START YOUR PATH

PAGE

Know your skills - use the check boxes and select your 21st Century Capabilities.

05

Pathways to Renewable Energy - follow your pathway, Explore, be a life long learner, earn and learn, prepare, locate and apply

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What can you bring to Renewable Energy - use the checkboxes and learn how your passion can contribute to the Renewable Energy sector.

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World of Work Opportunities - Browse the various opportunities in Engineer, Electrical, Technician, Science & Technology Roles

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School Pathways - Discover STEM, Skills & Training (Cert II), Apprenticeship & Traineeship (Cert III) paths

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Tertiary Education (Diploma & University), Accredited Units of Competency

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We begin our journey in renewable energy by acknowledging and honouring the Aboriginal and Torres Strait Islander peoples, the enduring original Custodians of the Queensland nations, where our Gateway to Industry Schools are situated. We pay homage to their deep-rooted connection with the land and nature, that offer profound inspiration for our sustainable future. We express our deepest respect to past and present Elders, and extend it to other Aboriginal and Torres Strait Islander peoples. As we advance towards the exciting realm of renewable energy, we acknowledge the legacy of their guardianship and aspire to reflect it in our commitment to sustainability. May their wisdom guide our journey.

Thank you for walking with us on this path.

WHO CAN HELP

Contact the Careers or Guidance Officer at your school.
Talk to a parent, guardian, or carer.

WEBSITES

energyskillsqld.com.au/products/gisp-re
myfuture.edu.au
jobjumpstart.gov.au
yourcareer.gov.au
jobsqueensland.qld.gov.au
skillsgateway.training.qld.gov.au
qtac.edu.au
qld.gov.au/freetafe
desbt.qld.gov.au
qld.gov.au/jobs/career/energy-jobs-guide
energyandclimate.qld.gov.au

Welcome to an industry where every voice matters, where varying perspectives add colour and depth to our collective understanding. Here, diversity isn't just accepted, it's celebrated, and inclusion is our instinct. Come as you are, with your unique ideas, experiences and backgrounds. Together, we'll learn, grow and enrich each other's lives. This is a place where you belong just as you are. Let's embrace our differences and transform them into our greatest strength!



Industry Partners

Gateway to Industry Schools Program for Renewable Energy, proudly hosted by Energy Skills Queensland, would like to acknowledge the Industry Reference Group partners and their associated networks who assisted in delivering this resource. Their input has been invaluable.



Inglis
CONSULTANTS



ARK ENERGY

TRANSFERABLE #21CC (21st Century Capabilities)

**THAT
WILL
PAY YOU
FOREVER
AND ARE
HIGHLY
VALUED BY
RENEWABLE
ENERGY
INDUSTRIES**

- SELF AWARENESS** **01** **Staying calm under pressure**
- SELF MANAGEMENT** **02** **Managing your time well**
- PROBLEM SOLVING** **03** **Asking for help when you need it**
- COLLABORATION** **04** **Being easy to work with**
- ADAPTABILITY** **05** **Staying positive and optimistic**
- LEADERSHIP** **06** **Having emotional intelligence and empathy**
- CITIZENSHIP** **07** **Listening to understand, not just to reply**
- COMMUNICATION** **08** **Expressing your thoughts clearly**
- CHARACTER** **09** **Building strong relationships**
- CULTURAL AWARENESS** **10** **Resolving conflicts peacefully**
- CONFLICT MANAGEMENT** **11** **Setting boundaries with unsafe people**
- CREATIVE THINKING** **12** **Thinking on your feet**
- CRITICAL THINKING** **13** **Being decisive**
- RESPONSIBILITY** **14** **Managing your money smartly**
- ETHICS** **15** **Selling, negotiating, and persuading**
- RESILIENCE** **16** **Continuously learning and developing yourself**



EXPLORE

Discover rewarding world of work opportunities in the renewable energy sector. Learn more about both business and skilled trade positions and the dynamic opportunities the industry offers. Use AI and submit your interests and see what Renewable Energy World of Work opportunities it presents?



GO TO TERTIARY EDUCATION

Be a life long learner.
Attend TAFE/RTO, university or post-secondary program that offers the areas of study relevant to your chosen energy career path - whether that's general business or an industry specific discipline.



EARN AND LEARN

Your energy career can start with an earn and learn apprenticeship or on the job learning experience..

PATHWAYS TO



PREPARE

Create an industry friendly resume to showcase your skills and strengths, practice mock interviews and prepare.

SUBMIT

LOCATE & APPLY

Find job openings in the energy industry and apply.



FUN FACT

Did you know Renewable Energy will play a huge role in the future production of Green Hydrogen?

RENEWABLE ENERGY

21 CENTURY SKILLS

Free Spirits Welcome

Renewable energy thrives on change and so can you! Stay open, ADAPTABLE, and willing to soak up new knowledge.

Raise Your Hand

Got an idea? Go for it! Be the first to step up, be CURIOUS, INNOVATE, and help change Queensland, one wind turbine or solar panel at a time!

Change Maker

The world of renewable energy is bright, and it needs you to shine. If you're naturally DRIVEN and find PURPOSE in fighting for a cleaner Queensland, you're exactly who we're looking for!

Captain Planet

Are your MORALS your compass? Fantastic! A clean energy future is a just future, respecting Queensland and every living creature we share it with. Start local - Be the difference!

Chess Knight

Playing the long game, thinking of future moves is crucial. Think as a STRATEGIST, DESIGN the environmentally friendly community you want to live in.

Free Spirits Welcome - Are you ADAPTABLE

Raise Your Hand - Are you CURIOUS, INNOVATIVE

Change Maker - Are you DRIVEN

Captain Planet - Are your MORALS your compass

Chess Knight - Are you a STRATEGIST

TO RENEWABLE ENERGY

Master Mind Skills

Got a fascination with physics, a knack for numbers, an eye for engineering, or a taste for tech? Those STEM skills will be your secret weapon here.

Artistic Flair

Not just tech-savvy? Great! Your artistry can breathe life into old ideas, creating new, exciting pathways to harness green energy.

Heart of Gold

If you've got a soft spot for Mother Earth and her inhabitants, let that EMPATHY shine. Being kind changes our local community and we need more of that in our journey towards renewable energy.

Team Spirit

Our mission counts on unity. COLLABORATE, connect with peers in all walks of life, and let's make this amazing change together.

Solutionist

Renewable energy offers puzzles waiting to be solved. If you love untangling complex threads and finding simple solutions, then plug into this powerful cause.

- Master Mind Skills - Are you a STEM master**
- Artistic Flair - Are you an ARTIST**
- Solutionist - Are you a puzzle SOLVER**
- Heart of Gold - Are you EMPATHY driven**
- Team Spirit - Are you a COLLABORATOR**

WORLD OF WORK



Hydrogen (gas) pathways are available through the Gateway to Industry Schools Program for Hydrogen. energyskillsqld.com.au/products/gisp

Engineer Roles

Electrical Engineer

- Transmission System Engineer
- Distribution Network Engineer
- Battery Installation Engineer
- Hydroelectric Engineer
- Commissioning Engineer
- Grid Connection Engineer
- Control System Engineer
- Renewable Energy Engineer

Civil Engineer

- Structural Engineer
- Geothermal Engineer
- Tunnelling Engineer
- Environmental Engineer
- Construction Project Manager

Mechanical Engineer

- Mechanical Design Engineer
- Manufacturing Engineer
- Composite Engineer

Chemical Engineer

- Process Engineer
- Project Development Engineer
- Materials Engineer

Software Engineer

- Software Engineer
- SCADA Engineer
- Automation Engineer

Electrical Roles

General Electrician

- Residential Electrician
- Commercial Electrician
- Industrial Electrician

Generation Trades Worker

- Commissioning Electrician
- Power Plant Electrician

Distribution Trades Worker

- Cable Joints
- Overhead Linesperson
- Grid Connection Electrician

Transmission Trades Worker

- Transmission Linesperson
- High Voltage Linesperson
- High Voltage Substation Electrician

OPPORTUNITIES

Technician Roles

Field Technician

- Instrumentation Technician
- Telecommunications Technician
- Metering Technician
- Solar Installation Technician
- Protection Technician
- Electrical Designer
- Process Plant Technician
- Battery Cell Assembly Technician
- Wind Turbine Technician
- Wind Blade technician

Control Room Operators

- Power Generation Plant Operator
- Network Operator
- Process Plant Operator

Civil Technician

- Civil Engineering Draftsperson
- Surveying Technician
- Geothermal Technician
- Civil Engineering Technician

Science Technician

- Laboratory Technical Officer
- Earth Science Technical Officer

Science & Technology Roles

Software Professional

- Data Analyst
- Systems Architect
- Network Administrator
- Cybersecurity Analyst

Surveyor

- Site Analysis Surveyor
- Construction Site Surveyor
- Hydrographic Surveyor

Environmental Science

- Ecologist
- Environmental Research Scientist
- Conservation Officer
- Environmental Consultant

Natural and Physical Scientist

- Chemist
- Meteorologist
- Geologist
- Geophysicist
- Hydrogeologist
- Fluvial Geomorphologist

STEM

- Science
- Technology
- Engineering
- Mathematics

Skills and Training Pathways (Certificate II)

- Certificate II in Sustainable Energy
- Certificate II in Electrotechnology
- Certificate II in ESI - Powerline Vegetation Control
- Certificate II in Telecommunications Technology
- Certificate II in Process Plant Operations
- Certificate II Process Manufacturing
- Certificate II in Engineering Pathways
- Certificate II in Surveying and Spatial Information Services
- Certificate II in Sampling and Measurement
- Certificate II in Conservation and Ecosystem Management

PATHWAYS

Apprenticeship and Traineeship Pathways (Certificate III – Diploma)

- Certificate III in Electrotechnology
- Certificate III In ESI Distribution Underground
- Certificate III In ESI Distribution Overhead
- Certificate III in ESI Transmission Overhead
- Certificate IV in ESI – Network Systems
- Certificate IV in ESI Substations
- Certificate III in Instrumentation and Control
- Certificate IV in Instrumentation and Control
- Certificate III in Telecommunications Technology
- Certificate III in Process Plant Operation
- Certificate IV in Process Plant Technology
- Certificate III in Process Manufacturing
- Certificate IV in Process Manufacturing
- Certificate III in ESI Generation
- Certificate IV in Wind Power Generation
- Certificate III in Engineering
- Certificate IV in Engineering Drafting
- Certificate III in Surveying and Spatial Information Services
- Certificate III in Laboratory Skills
- Certificate IV in Laboratory Techniques
- Certificate III in Conservation and Ecosystem Management

TERTIARY

Tertiary Education (Diploma and University)

- Advanced Diploma of ESI Power Systems
- Diploma of Renewable Energy Engineering
- Advanced Diploma of ESI Power Systems
- Power Systems or a Bachelor's
- Bachelor of Engineering
- Diploma of Electrical Engineering
- Advanced Diploma of Engineering Technology – Electrical
- Advanced Diploma in Process Plant Technology
- Diploma of Production Management
- Diploma in Civil Engineering
- Advanced Diploma in Civil Engineering
- A Diploma in Civil Construction Management
- Advanced Diploma of Civil Construction
- Diploma of Laboratory Technology
- Diploma of Environmental Monitoring and Technology
- Bachelor of Science
- Bachelor of Science (Atmospheric Science)
- Bachelor of Science (Chemistry)
- Bachelor of Science (Geology)
- Bachelor of Science (Geophysics or Geoscience)
- Bachelor of Electrical Engineering
- Bachelor of Civil Engineering
- Bachelor of Mechanical Engineering
- Bachelor of Chemical Engineering
- Bachelor of Software Engineering
- Bachelor of Computer Science
- Bachelor of Information and technology
- Diploma in Network Engineering
- Bachelor of Surveying
- Bachelor of Spatial Science
- Bachelor of Environmental Science
- Diploma in Conservation and Ecosystem Management
- Bachelor of Urban and Regional Planning

PATHWAYS

Accredited Units of Competency

- UEES00191 Grid-connected Battery Storage Systems Designer-Installer Skill Set
- UEES00192 Grid-connected Battery Storage Systems Installer Skill Set
- UEES00196 Grid-connected Renewable Energy System Site Surveyor Skill Set
- UEES00197 Grid-connected Renewable Energy Systems Inspector Skill Set
- UEES00198 Hybrid Photovoltaic, Wind and Battery Storage Systems Installer Skill Set
- UEES00199 Micro-hydro Systems Designer Installer Skill Set
- UEES00200 Micro-hydro Systems Designer Skill Set
- UEES00201 Micro hydro systems Installer Skill Set
- UEES00202 Micro-grid Renewable Energy Systems Inspector Skill Set
- UEES00203 Micro-grid Systems Design Coordinator Skill Set
- UEES00204 Micro-grid Systems Installation and Maintenance Coordinator Skill Set
- UEES00205 Off-grid Photovoltaic/Generating Set Systems Designer-Installer Skill Set
- UEES00206 Off-grid Photovoltaic/Generating Set Systems Installer Skill Set
- UEES00207 Off-grid Photovoltaic Generating Set Systems Designer Skill Set
- UEES00208 Off-grid Renewable Energy System Site Surveyor Skill Set
- UEES00209 Off-grid Renewable Energy Systems Inspector Skill Set
- UEES00217 Wind Energy Systems Designer-Installer Skill Set
- UEES00218 Wind Energy Systems Designer Skill Set
- UEES00219 Wind Energy Systems Installer Skill Set



energyskills
queensland



gateway to industry schools
renewable energy

**FOR MORE
INFORMATION**



gisp@energyskillsqld.com.au
(07) 3721 8800

***information relevant at time of production and may change rapidly like the industry**

Gateway to Industry Schools Program (GISP) is powered by the Queensland Government's Good people. Good jobs: Queensland Workforce Strategy 2022-2032. GISP_RE & GISPH2 is proudly hosted by Energy Skills Queensland.



**Queensland
Government**