



2019



OUTCOMES REPORT

Millmerran Power

“It was a very enjoyable interactive event and the three representatives from industry were COOL.”

- Student at STEM for Schoolkids/Toolkit for Schoolkids event

“I think the hands on opportunities for our students are excellent.”

- Teacher at STEM for Schoolkids/Toolkit for Schoolkids event

TABLE OF CONTENTS

3	Background
3	Millmerran Power event outcomes
4	Quantitative results
6	What they said
8	In the media
11	Media releases
14	Thank you
16	Outcomes against engagement plan

MILLMERRAN POWER/QMEA PROGRAM

Background

The Millmerran Power/QMEA program aims to excite teachers and their students in the learning and teaching of STEM, and VET subjects, and placing this in the context of resources sector and other related careers.

The program, which represents an investment of \$35,000 complements Millmerran Power's social license to operate objectives, including contributing positively to the quality of life in the communities, societies and cultures where it operates.

The QMEA appreciates Millmerran Power's support for this important program.

2019 Outcomes

During 2019, Millmerran Power was engaged in six Millmerran Power branded QMEA events, involving six Millmerran Power representatives, 102 students and 56 teachers.

Millmerran Power was quoted in two bespoke Millmerran Power QMEA media releases resulting in one mainstream media item. In social media, the best rating Facebook post reaching 402 people.



“An industry initiative well worth the effort to develop the next generation”

- Millmerran Power representative at STEM for Schoolkids/Toolkit for Schoolkids event



QMEA/Millmerran Power 2019 outcomes at a glance



6

MILLMERRAN POWER
BRANDED
EVENTS



102

STUDENTS ENGAGED



94%

of teachers said the event
raised their awareness of
the resources sector, or
improved their teaching



97%

of students learned
something new



100%

of Millmerran Power
representatives were positive
about
the QMEA events they
attended



402

Reach for best Facebook
post



QUANTITATIVE RESULTS

STUDENTS*	
<i>Statement</i>	<i>% yes</i>
The event was enjoyable	95
The event helped me learn something new	97
The industry representatives at this event were engaging and helpful	98
This event has shown me how school subjects apply to the real world	90
This event has increased my awareness of the importance of problem solving and teamwork skills within the resources sector	97
TEACHERS**	
<i>Statement</i>	<i>% yes</i>
Did this event meet your expectations?	99
Did the event raise your awareness of the minerals and energy sector	92
Did this activity improve your teaching of minerals and energy-related topics within your subject areas?	94
INDUSTRY**	
<i>Statement</i>	<i>% yes</i>
Was this event worthwhile?	100
Did this event meet your expectations?	100
Would your company support this event in the future?	100

* from surveys of students at Millmerran-sponsored events. ** Overall results of surveys from QMEA 2019 program

“The program offered students a good exposure to fundamental electrical and mechanical principles used in industry.” Millmerran Power representative



WHAT THEY SAID

STUDENTS

- *I liked the range of activities, which were fun and challenging.*
- *I enjoyed the practical side of this program and the activities were interesting.*
- *It was a very enjoyable interactive event and the three representatives from industry were COOL.*
- *The best part was working with other students and see how they do the tasks.*
- *I liked the building one at the end of the day. We didn't win, but our team had heaps of good ideas and we didn't need any expert help.*
- *This is a good way to learn.*
- *Today was very fun and made me think a lot.*

TEACHERS

- *I think the hands-on opportunities for our students are excellent.*

COMPANY REPRESENTATIVES

- *The program offered students a good exposure to fundamental electrical and mechanical principles used in industry.*
- *An industry initiative well worth the effort to develop the next generation.*
- *I really enjoyed being able to work with the year 9 and 10 students and the hands on activities.*
- *The students were engaged and having fun while learning.*
- *Robots were great!*



IN THE MEDIA

Millmerran State P-10 School
Live honestly

Curriculum Facilities Calendar and news Our community Support and


News

QMEA Visit

31/07/2019

On 31st July 2019 representatives from QMEA (Queensland Minerals and Energy Academy) visited Millmerran State School. Students from Years 9 and 10 took part in two sessions throughout the day where they were exposed to a number of hands-on STEM challenges.

The first session, STEM For School Kids, engaged students in three problem solving challenges each targeting a different discipline of science and engineering related professions. The second session, Toolkit for School Kids, involved trying some hands-on trade activities and hearing from tradespeople and other industry experts about their roles in the minerals and energy sectors.




QMEA Visit

All students were highly engaged in each session and have benefited from further exposure to both the professional pathways and the vocational pathways available to them in the STEM fields.

QMEA Queensland Minerals and Energy Academy
Published by Caroline Morrissey (7) · 5 August 2019 ·

Thank you #MillmerranPower for a great workshop for our students
<http://bit.ly/2M1Do2M>



FUCKR.COM

Millmerran Toolkit/STEM 4 schoolkids

A trade or profession – that is the question - Millmerran Local students have

403 People reached 16 Engagements [Boost Post](#)

5 1 share

Like Comment Share

Comment as Queensland Minerals and Energy A...



SECTION: GENERAL NEWS ARTICLE TYPE: NEWS ITEM AUDIENCE: 14,016 PAGE: 17
PRINTED SIZE: 311.00cm² REGION: QLD MARKET: Australia ASR: AUD 540 WORDS: 170
ITEM ID: 1156466019



09 AUG, 2019

Look into STEM jobs

Toowoomba Chronicle, Toowoomba



Page 1 of 1



STEM JOBS: Millmerran P-10 State School student from left) Emma MacKenzie and Therese Guillermo learn about tech jobs.

Look into STEM jobs

MILLMERRAN. Students have a better understanding of their career preferences after taking part in science technology engineering and maths activities run by the Millmerran Power Station and the Queensland Resources Council.

The students were men-

tored by trades people and professionals from Millmerran Power. The students started the day in the workshop before trying their hand in the science lab in the Queensland Minerals and Energy Academy event.

Millmerran Power's plant manager Chris Seydel said

some students had a limited view of the variety of roles available in the resources sector.

"Our staff really enjoy talking to the students and helping them to imagine their futures," he said.

The aim of the QMEA workshop is to help schools

bring STEM alive in their classrooms with interactive workshops aligned to the curriculum.

The QMEA is a partnership between the Queensland Resources Council and the Queensland Government under its Gateway to Industry Schools program.



QRC Media Release

17 September 2019

Teachers learn what's watt to take ohm to students

It's often a powerplay in the classroom between students and teachers, but local teachers will be ahead of the game on the topic of electricity generation after today's tour of the Millmerran Power Station.

Teachers from Millmerran State School P-10 and Pittsworth State High School will speak to key Intergen personnel to understand the power generation process.

They'll also gain an understanding of the careers available in the sector to share this information with their students.

"We're really keen for local students to consider careers in power generation, and to be able to stay in, or return to the local community following further education by taking up careers with us," said Intergen Plant Manager Chris Seydel.

"The tour will also help the teachers understand more about energy production to take back to their classrooms," he said.

"For example, it wouldn't be widely known that Millmerran uses a supercritical once-through boiler, which produces lower greenhouse gas emissions than conventional coal-fired types.

"It's one of the most energy efficient coal-fired projects in Australia, with low nitrogen-oxide burners that cut NOx emissions by 50 to 70 percent, and our cooling tower consumes 90 percent less water than conventional coal fired-power stations."

"Our teachers really appreciate these professional development opportunities, which enable them to enhance their classroom teaching with energy supply, generation and use an important part of our curriculum," said Jenny Kent, Principal, Millmerran State School.

Meanwhile, students and teachers at Pittsworth State High School will learn how to program a LEGO EV3 robot from highly respected digital technologies educator Dr Damien. It's the first time Damien has worked with the school.

The event has been facilitated by the Queensland Minerals and Energy Academy (QMEA), a partnership between the Queensland Resources Council (QRC) and the Queensland Government under its Gateway to Industry Schools program. It has 60 schools throughout Queensland.

QRC is the peak representative body for Queensland's resource sector. The Queensland resources sector provides one in every five dollars in the Queensland economy, sustains one in eight Queensland jobs, and supports more than 15,400 businesses and community organisations across the State, all from 0.1 percent of Queensland's land mass.

(ends)

Media contact: Anthony Donaghy 0412 450 360
Photos available upon request

QRC Media Release

1 August 2019

A trade or profession – that is the question - Millmerran

[Click here a photo https://www.qrc.org.au/wp-content/uploads/2019/07/mmp.jpg](https://www.qrc.org.au/wp-content/uploads/2019/07/mmp.jpg)

Local students have a better understanding of their career preferences after taking part in hands-on activities based on trades and science technology engineering and maths (STEM) careers in Millmerran yesterday.

Mentored by trades people and professionals from Millmerran Power, the students started the day in the workshop before trying their hand in the science lab in the Queensland Minerals and Energy Academy (QMEA) event.

"It's often a daunting task for students to choose their subjects for senior school but having a clearer idea helps with this process," said Millmerran SS Principal Jenny Kent.

"It's really valuable for students to see what's involved in the different careers first hand, and to talk to industry people about their jobs," she said.

Millmerran Power's Plant Manager Chris Seydel said some students had a limited view of the variety of roles available in the resources sector.

"Our staff really enjoy talking to the students and helping them to imagine their futures," he said.

The aim of the QMEA workshop is to help schools bring STEM alive in their classrooms with interactive workshops aligned to the curriculum.

The QMEA is a partnership between the Queensland Resources Council (QRC) and the Queensland Government under its Gateway to Industry Schools program. It has 60 schools throughout Queensland.

QRC is the peak representative body for Queensland's resource sector. The Queensland resources sector provides one in every five dollars in the Queensland economy, sustains one in eight Queensland jobs, and supports more than 15,400 businesses and community organisations across the State, all from 0.1 percent of Queensland's land mass.

Media contact: Anthony Donaghy 0412 450 360

THANK YOU

THANK YOU TO THE FOLLOWING **MILLMERRAN POWER** STAFF FOR YOUR DIRECT PARTICIPATION IN THE QMEA ACTIVITIES IN 2019

- Neil Burtenshaw
- Letician Tolson
- Dom Brigg
- Malcolm Hands
- Adam Prust
- Ross Kohn
- Matt Brierley

The QMEA, its schools and teachers thank Millmerran Power for making these events possible and look forward to an ongoing partnership with you into the future.





OUTCOMES AGAINST ENGAGEMENT PLAN

QML EA/Millmeran Power Millmeran State P-10 School and Pittsworth State High School 2019 outcomes			
Program	Description	When	Outcomes
<p>Outcomes Resources and Energy/AME Teacher Professional Development (Inplace of Adulting PD as requested by school)</p> <p>Toolkit for Schools/kids/ STEM for School Kids</p> <p>Years 3/10 combined</p>	<p>Outcomes Resources and Energy/AME</p> <p>Normally delivered as two separate day-long activities. In this instance the day was combined with students expending on a parental visit. Born, names-on science sessions in the first half of the day and then second half a new names-on activity that would suit students seeking an opportunity in pathway particularly in the electrical field.</p> <p>In the science activity students worked in small teams to complete a series of challenges around science and engineering-related professions. In the vocational activity the focus is on electrical circuitry and components/abse mainly as an extension activity to classroom work. Students were provided with information about career pathways/options available to them early into the senior years. Industry representatives participated as mentors while students completed the design and experimental stages of the activities.</p>	<p>30 July 2019</p> <p>31 July 2019</p>	<p>This session was requested by the school and ran as part of the full school staff meeting. It was arranged by an approximately 30 staff members.</p> <p>This evening for 37 students across years 7 and 10.</p> <p>3 Industry representatives from Millmeran Power attended the day. (Michael Woods, Leitcha Isaacs and Dom Briggs)</p> <p>Special mention must go to Leitcha for bringing some amazing care samples and facts with her. Her passion for geology really rubbed off on the students and the QML staff members who ran the STEM-Schoolkids session.</p>

OUTCOMES AGAINST ENGAGEMENT PLAN

<p>Careers Expo Pittsworth</p>	<p>Working with the Vocational Education Co-ordinator (Maree Homes) at Pittsworth SHS, QMEA brokered the involvement of Millmerran Power in the Careers Expo event held at Pittsworth</p>	<p>5 August</p>	<p>The representatives from Millmerran Power that attended: Kevin Gill – engineer Chris Jensen – Boilermaker/Fitter</p>
<p>Teacher Professional Development Millmerran Power Station Tour</p>	<p>QMEA worked with both schools to organise a teacher professional development tour of Millmerran Power Station.</p>	<p>17 September 2019</p>	<p>3 teachers from Pittsworth SHS 5 teachers from Millmerran SS Tour ran towards the end of Term 3 2019 for teachers from Pittsworth SHS and Millmerran SS P-10. Feedback from the schools suggested the activity was very worthwhile</p>
<p>Beakers.Bots.Build Year 9</p>	<p>Beakers.Bots.Build combines a number of challenge-based activities centred on the discipline of science, technology, engineering and mathematics. The practical tasks are designed for Year 9 students who work in teams to problem solve, plan, diagnose, analyse and construct. Each task is designed to encourage students to pursue further studies in STEM in preparation for a university pathway. Challenges are based on chemical processing, geology, environmental practices and robotics and automation. All challenges have been designed in conjunction with industry representatives. The activities enhance problem solving, diagnostic and analytical skills within the context of real work-</p>	<p>30 October 2019</p>	<p>52 students from Pittsworth and Millmerran attended BBB. Great event with fantastic industry support (three reps)</p> <ul style="list-style-type: none"> x Adam Prust x Ross Kohm x Matt Brierley <p>Students excelled in robotics activity. The school was hosting the Presentation Night that night, so some students were rotated through the program differently to allow for presentation commitments. The school managed around this very well.</p>

OUTCOMES AGAINST ENGAGEMENT PLAN

	related programs and provide opportunities for students to work with industry professionals to gain a real insight to the various pathways within the resources sector.		
STEM Pumps (Disruptive Technologies)	DMTA's co-ordinator 'STEM Pumps' focuses on STEM education for girls from years one to 12 offering activities in coding, robotics and 3D printing with a novel focus on Innovation and Enterprise capability.	Term 4	The school selected to go with DMTA Innovation Partner Dr Damien Lee as the focus for the schools on 1 EOD EVD robotics. Dr Lee took an expert in his field and a day long session with students was held in term 4. Dr Lee also spent time with teachers working through questions they had regarding the digital and design curriculum.
Make it How in Engineering Camp	The MINE Challenge Camp targets DMTA students in years 11 and 12 understanding chemistry, physics and engineering technology and earth science. Students work with engineers and associated professionals on a 'mine challenge' with a completed report presented to senior mine management. Camps are delivered in Mount Isa and Moranbah. Travel costs to the camp are not provided. All other costs relating to the six-day experience are covered by DMTA.		No students from Pitswater SMS applied for a position on the MINE Camp. Pitswater SMS will be encouraged to select and nominate students for these opportunities in 2020.
Ambassador Program	The Ambassador Program is designed for high achieving grade 10 and professional year 12 students nominated by their schools or the school at the previous calendar year when students are in year 11. Successful applicants are invited to take part in a nine-day Misbah-based camp where they participate		No students from Pitswater SMS were successful in gaining a place as an Ambassador. Pitswater SMS will be encouraged to select and nominate students for these opportunities in 2020.

OUTCOMES AGAINST ENGAGEMENT PLAN

	<p>In a range of experiences at the University of Queensland Safety In Witness Learning and Research Grant (SMAWG) and Corporate Head offices. They are acknowledged for their achievement at the GWFA end of year award. Through their following 12 months the ambassadors are invited to participate in a range of events and strongly encouraged to participate in signature events such as the camps. In turn the ambassadors engage with their local school community and impart knowledge about their experiences with the GWFA and the resources sector.</p>		
<p>Female Student of the Year Award & GWFA Indigenous Student of the Year Award Open to Year 12</p>	<p>These awards are offered in conjunction with the Queensland Resources Council (QRC) Women in Mining and Resources Queensland Initiative and associated award ceremony and the QRC Indigenous Awards ceremony.</p>		<p>No applications received for either award in 2019. Applicants will be encouraged to select a local nominee student for these opportunities in 2020.</p>



Prepared for
Millmerran Power

Contact:
Caroline Morrissey
M: 0417 770 893
T: 07 3316 2507
E: carolinem@qrc.org.au
Level 13, 133 Mary Street
Brisbane 4000