Developing the workforce for our future

- Develop the **workforce pipeline** for the engineering team
- Enhance our engineering team’s **diversity + inclusiveness**
- Strengthen tertiary sector **education** for the power sector
- Build capacity for **Transformation & Innovation** in current and future workforce
- **Strategic Workforce Development**
Our goal:
Tomorrow’s technical leaders equipped to deliver Australia’s energy future
1. Expertise: specialized technical skills will be essential to support the power needs of Australian communities – the supply must be as secure as possible, including our understanding of our needs and confidence in our supply pipeline.

2. Scarcity: challenges with the future availability of sufficient numbers of appropriately skilled technical professionals and engineers to contribute to the power sector, so increasing the pipeline is needed.

3. Innovation + Change: increasingly varied and evolving needs for skills, thinking and solutions in the power sector, requiring dynamic connections between industry and tertiary education and research sector, and the recruitment of a broader portfolio of professionals than traditional pathways.

4. Diversity: we must increase the diversity of people studying and pursuing careers in the power sector in order to achieve more innovative, community aligned and effective solutions for our communities.

5. Competition for our people: other sectors and disciplines are seeking similar people to those the power sector needs, requiring promotion of the merits of careers in powers to potential students.

6. Productivity: future power sector professionals need to be as engaged, job-ready, innovative and collaborative as possible.
Our main activities

• **Build STEM skills and promote careers in the power sector** to primary + high school students + teachers

• **Inspire + support undergraduate students** to study power engineering subjects (focus on attracting more diversity in students)

• **Maintain deep relationships with 90+ undergraduate bursary students** each year (inc indigenous interns) and connecting them to our API member organisations

• **Support and lead gender, indigenous and other diversity + inclusion initiatives** across the sector

• **Lead collaborations + connections between API member organisations** on common interests (eg bursary, innovation, diversity, indigenous)

• ‘**Future Leader**’ development programs and mentoring (eg webinars, TJ Effeney Scholarship)

• Organise the **API Summer School**, conferences and other CPD

• **Connect power engineering academics to industry-related knowledge and challenges + teaching resources**

• Be a **catalyst for innovation projects + drive knowledge sharing** and capacity building outcomes from projects

• **Coordinate sector-wide reviews and studies** (workforce planning, university capability etc)
Member value + benefits

Community + sector benefit:
Be part of a collective investment with other leaders in the power sector to maintain an active and strategic program of work that ensures the development of the future workforce for our sector, from inspiring girls in school to explore technical careers in the power sector to supporting our emerging leaders to develop the knowledge, skills and connections they will need.

Direct benefits for our members:
✓ Engagement with the API’s community of highly engaged, high-calibre undergraduate student community (~100 API bursary students + broader community) and support for hosting Bursary students in work placements
✓ Exclusive opportunities for collaboration projects with other API member organisations eg indigenous and gender diversity initiatives
✓ Exclusive access to API member events and networking opportunities
✓ Opportunities to profile your staff and projects in the API’s programs and resources to support school student engagement and diversity
✓ Contribute to and shape the annual API Summer School and other professional development initiatives (and access substantial discounts)
✓ Direct input on the activities and future direction of the API (including Board representation for Governor members)
The **business case**

1. The sector’s workforce challenges are complex and a shared approach to the strategic elements provides benefits for all (particularly our members).

2. Gain a national reach on engaging and developing your future workforce, from inspiring primary and high school students to engagement with 100+ undergraduate students at universities across Australia.

3. Efficiently connect your staff to colleagues in peer organisations across Australia to share insights and expertise on workforce-related matters.

4. Investment in the API has enabled the sector to access to millions of dollars in additional government funding for research projects and education initiatives over the API’s life, including the largest ever CRC (RACE for 2030 CRC in 2020)

5. Collective resourcing enables the API to efficiently achieve impacts on a scale that no individual organisation can achieve on its own (eg to promote careers in the power sector to high school and undergraduate students on a national scale)

6. Gain opportunities for your staff to contribute to programs and activities that impact critical issues such as diversity, and also build their profile, skills and experience in engaging with stakeholders (eg connecting with undergraduate students to understand different roles in the sector)

7. Strengthen your student placement and graduate recruitment actions through use of the API’s programs and resources

8. Develop the expertise of your emerging leaders (eg contribute to the Summer School program, gain formal Board experience on the API Board)
The API was established in 2004 by leading organisations in the Australian power sector to address strategic workforce challenges for the sector, with a focus on practical actions and enabling collaborations and contributions from our organisation members. We continue our mission in 2021 as an agile and lean, for-purpose registered Australian not for profit organisation, with an annual turnover of ~$1M. We are governed by our members through the API Board.
Opportunities to get involved in 2021 + 2022

1. **Students in Power Summit**; profiling undergraduate experiences at API member organisations in 2021/2022
2. **Summer School+ and API Dinner**; starting March 2021, live event in February 2022 (sponsorship opportunities), join as a delegate, expert speaker, project lead, site tour host;
3. **API Bursary program** – get involved in recruitment, development, host students for placements in Summer 2022
4. **API student and industry connection events** (1 in each state) and online member forums with the API Board
5. **Power sector careers online summit**; connecting API members to bursary students and undergraduate students to explore summer placement and graduate employment opportunities.
6. API’s **Industry Insights webinar series**, sharing insights with students on careers and skills in the power sector
7. **#PowerfulWomen mentoring program and scholarships** ($900K support from Australian Government)
8. **Women in Engineering University Collaboration forum** (with UQWIE), sharing insights on WIE programs
9. National Science Week **#PowerfulWomen summit** to engage female high school students and their parents
10. **NAIDOC Week workshop** to share initiatives and experiences among API members
11. Support a **Career Trackers Indigenous Internship student**, linked to the API Bursary program (additional investment and agreement with CTII program required)
12. **Innovation project workshops** (eg EV Charging project)
13. **Workforce Development Survey workshops**, in collaboration with the RACE for 2030 CRC project
14. **Mapping of STEM outreach programs** in the power sector
15. Development of the **Power Engineering Careers website** and resources, with resources from API member organisations
16. Connect with local primary schools with the **Day in the Life teacher resource kit**
17. Share input on your needs for the **API’s University Research + Teaching Capability Assessment**
18. **Contribute to ENA Innovation Projects** (additional contributions required)
19. Collaborate with the API on delivering an **industry-focused MasterClass workshop**
20. **Join us at the API PowerChem2022 conference** as an exhibitor or delegate
Membership

A collective investment to develop our future workforce, and access to direct benefits for our members

**Governor Members: $56K p.a. ex GST**
Organisations with substantial and diverse levels of technical expertise requirements with a major role in the power industry, with a long-term commitment to the broad industry and API. Governor Members each appoint a Director to the Board of the API.

**Principal Members: $28K p.a. ex GST**
Major organisations with substantial levels of reliance on technical expertise but with fewer technical staff than Governor Members. Principal Members collectively elect two directors to the Board of the API (when there are more than eight Principal Members).

**Industry Members: $11,275 p.a. ex GST**
Organisations with a high level of technical involvement in the industry. Industry Members are entitled to vote but have no rights to appoint directors.

**Individual/SME Members: please enquire**
Small organisations keen to share our mission and connect with our community of professionals and high-calibre undergraduate students.
Developing the next generation of power sector leaders with an immersive 2-week residential program, developed and delivered for industry by industry, for 15+ years.

- Live session in Adelaide, 14-29 Feb 2022
- Expecting ~55 delegates (50% female)
- 60+ expert speakers
- Projects, expert speakers, site tours, extensive networking and relationship development
- Overlap with API’s new Powerful Women Early Career leadership retreat (50 grads and undergrads)
- Future Workforce Forum (100+ participants)
NEW for 2021/2022: CEO’s + executives from the API’s Governor members to contribute to new online Executive Insights sessions

✓ Key strategic challenges and opportunities facing our sector and organisations
✓ Executive mindset and solutions
✓ online March – December
✓ Summer School + online sessions and mentoring
✓ 15+ Technically oriented female professionals
✓ Power (electricity) sector career focus
✓ 5-10 years experience

*The calibre of professionals that companies already invest in with the API Summer School*

✓ Early Career residential retreat, linked to end of Summer School
✓ 50+ Technically oriented female undergrads and graduates
✓ Power (electricity) sector
✓ 0-5 years experience

*Kleen to develop a career in the Australian power sector with aspirations to be a leader*

The API has secured ~$900K in grant support over 3 years from the Australian Government’s Women in Leadership Development program for 65 part and full scholarships each year and program support.
Your future workforce (and the workforce of your clients)

The API Bursary program attracts the top talent nationwide to the electric power sector and connects them to our industry members. Over 550+ high calibre graduates to date, with very high employment + retention rates in API member organisations.

Access our national ‘pool’ of undergrad students (~90 in 2021), 35% female, mostly electrical engineering grads, also mechanical and others and increasing diversity of double degrees, cyber, data.

~30 new scholarships awarded each year, selected by state-based panels of API industry members based on their future needs.

~30-40 students linked to paid work placements each year

From 2021, the Bursary program includes Indigenous Interns linked to API member organisations through the Career Trackers program.
Sparking Connections

2021 Energy Industry Bursary Awards

Celebrating our scholarship students and help create the kind of sparks we want in the power sector - connections & careers with our member organisations!
Making the Most of Industry Placements: Insights & Advice from API Alumni

ABOUT THIS WEBINAR

During this webinar, we look forward to hosting API Alumni (past API Bursary Holders who have since graduated) who are now working within the industry. These special guests have kindly agreed to share insights from their experiences while transitioning from undergraduate study to securing permanent roles within the industry. They will pass on their knowledge on how to make the most of the API Bursary Program and share useful tips when it comes to securing undergraduate industry placements and seeking work post graduation.

API Chief Executive, David Pointing will conduct an interview style Q and A session where webinar attendees will also be invited to participate by asking questions!

SPEAKERS: API ALUMNI

Asanka Paramanaka
Distributed Energy Engineer
AushNet Services

Jerome De Vera
Substation & Planning Engineer
SA Power Networks

Alice Fleetwood
Graduate Engineer
Energy Queensland

TARGET AUDIENCE

This webinar is intended to inspire API Bursary Holders and undergraduate students studying power engineering related degrees.

This webinar would also be of benefit to industry professionals and University Partners who are keen to learn more about the student experience and/or gain a better understanding of vacation placement opportunities within the API Bursary Program.

Please note, this webinar is available to the public. You do not have to be a member of the API to attend.

REGISTRATION

Please submit your registration here by Tuesday 26th May 2020.

After registration, you will receive a URL and instructions on how to join Zoom webinar.

Questions: Submit to info@api.edu.au

WEDNESDAY 27 MAY 2020
12:30 - 1:30pm (AEST)

COMFORT OF YOUR OWN HOME VIA ZOOM WEBINAR

FREE TO ATTEND!
Students in Power online summit

Annual online forum featuring videos by undergraduate students on their experiences working with API member organisations over the summer.

The 2021 event included live discussion forums with students on enhancing summer placement experiences, and ‘Industry Inspiration’ sessions featuring professionals from API member organisations on career pathways.

See the winning 2021 student videos here.

The Summit enhances the understanding of Bursary students and other undergrad students of career opportunities at API member organisations. Selected student videos are also used to promote power engineering careers to high school students.

https://studentsinpowersummit.heysummit.com/
~30% female students
Driving diversity

- Forums for API member organisations and associated staff
- API scholarships and mentoring programs in development*
- Career Trackers Indigenous Internships collaboration (replacing GO Foundation)
- UQ Women in Engineering support (EQ and Powerlink key supporters)
- Engaging girls as the focus of our Day in the Life and API Solar Car sponsorship

*$1M of grant funding awarded from the Australian Government for a range of programs to support the power sector to increase the participation of women in STEM and leadership roles.
UQ Women in Engineering
Strengthening undergraduate education

- API library of university teaching resources to support power engineering educators
- Liaison with Australian Committee for Power Engineering Academics (ACPE)
- Support for AUPEC annual power engineering conference
- Audit of university research and teaching activities + capabilities
- Sponsorship of prizes and competitions for student activities eg EESA EECON annual poster competition
Building an **innovation-capable workforce**, and connecting universities with industry-led projects

Collaborations with ENA, RACE for 2030 CRC, and Transformer Innovation Centre. Impacts include:

- Mapping of power sector-aligned research capabilities of Australian universities
- 1\textsuperscript{st} API Innovation Summit in 2019
- 4x ENA projects completed in 2019/2020
- 2x online workshops (80+ participants in each) to share knowledge from projects with industry
- New EV charging project started September 2020
- API supported the largest ever CRC (RACE for 2030)
- Workforce development project with RACE
Inspiring the next generation

• API Bursary students engage with primary and high school students to promote careers in the power sector
• 14 API solar car kits released each year targeting female high school students (Year 10 classes)
• UQ Women In Engineering program attracts young women into engineering careers
• ATSE partnership and support for STELR program
• Building WOMEN in STEM career profiles
• A day in the Life teaching resource kit for primary schools, 6-part, curriculum aligned for use by teachers with a power sector STEM professional to speak with students in module 6. (API members can access to engage with their local communities)
Developing the workforce for our future