

Insights for the Australian Power Sector

API Bursary Students at the EN2022 Conference

Supported by the TJ Effeney Scholarship
for Professional Development



Reflections on taking 21 students to the EN2022 conference

This was the first time that we have brought together a group of API Bursary students from across Australia, and for many of the students it was their first time attending a professional conference. As you can read in their feedback below, it was a truly meaningful and impactful experience for them and we saw genuine excitement about their future careers in the power sector, thanks to the knowledge, exposure and connections created through the conference.

What did we do? We kept the students busy over the 2 days of the EN2022 conference, from an exclusive 'get connected and prepped' dinner for the 21 local and interstate API undergrad students to participating in the conference technical sessions (including asking questions of the speakers), touring the industry expo, joining the networking opportunities, meeting with representatives of the API Board and Energy Queensland, and connecting with our member organisations who were exhibiting, speaking and attending the conference. The students loved it!

We are grateful to Energy Networks Australia for supporting student participation at EN2022, and say a big thanks to our members who make our activities with the students possible, particularly Energex and Ergon Energy and the Effeney family who provided extra financial support for the TJ Effeney scholarship (see below for details). To our students: we are proud and impressed by your professionalism, community spirit, and your enthusiasm to make the most of this opportunity - it has gone so well that we are now looking at doing this more regularly.

Michelle Murray (Program and Operations Manager) + David Pointing (CEO)

Thank you to our Members

Governor members:



Principal members:



Industry members:



DEVELOPING THE **WORKFORCE** FOR OUR FUTURE

About the API's T.J. Effeney Award



In honour of the late Terry Effeney, one of the Australian energy industry's greatest contributors, the API created the T.J Effeney Award in collaboration with the Effeney Family, Ergon Energy & Energex (part of the Energy Queensland Group). This Award supports the Australian power next generation to undertake a project or program of study (domestic or international) in the energy sector to further their professional career development.

**Empowering the
next generation
with knowledge,
connections and
supporting others.**

The award's selection criteria are based on the values and strengths displayed by Terry Effeney during his career:

- Knowledge: how the proposal will broaden the students knowledge and skills in the energy sector
- Connections: how the proposal will increase the personal network of contacts for the student
- Supporting others: how the student plans to share the knowledge gained from the award with other students and the broader API Bursary cohort.

The TJ Effeney Award is available on a yearly basis, and only open to Australian university students who have been selected for an API Bursary Scholarship and are in their final 2 years of study of an engineering degree.

Usually this scholarship is awarded to support 1 or 2 students to undertake a substantial international trip but due to COVID-19 we adapted the award in 2021 to support 20-25 API bursary students to attend the EN2022 conference in Brisbane. This report includes the feedback on their experience attending the conference.

Find further information at: www.API.edu.au



Part of Energy Queensland

Rhett Lamperd

Bachelor of Engineering, Central Queensland University, QLD

The TJ Effeney was an amazing experience, that offered us young power professionals, excellent industry exposure and an unparalleled networking opportunity. A big highlight of mine was getting to meet other like-minded students and be able to have educational conversations that otherwise we would not be able to have.

It was also great to hear from many of the industry-leading companies and individuals, on all things pertinent in power. I especially enjoyed hearing about the evolution of EVs and the uptake of DER, and how the grid is evolving to be able to support the transition to sustainable technologies. The exhibitions on display were also fascinating and provided a comprehensive showcase of emerging technologies within the power sector, including hydrogen-powered vehicles and even a helicopter!

Looking back on the experience, I found it extremely valuable, both professionally and for meeting new people. I would like to say a big thanks to the API and all of their supporting members, as well as the TJ Effeney family for being supporters of power sector students. I'm positive that all of us students that were lucky enough to attend the event received great benefit from the experience.

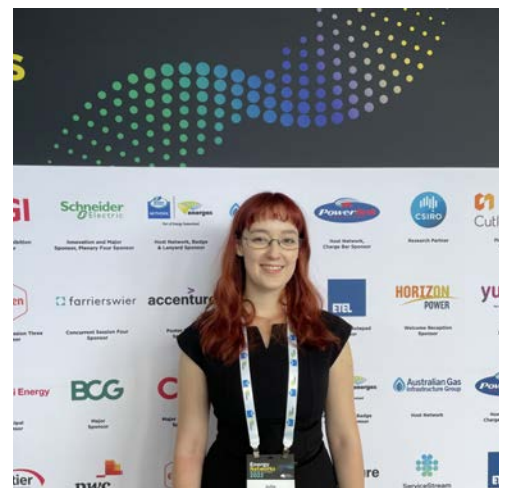


Julia Hanrahan

Bachelor of Engineering (Honours) / Bachelor of Science, Curtin University of Technology, WA

Attending the EN2022 conference as a TJ Effeney Scholarship recipient was an amazing experience that I will not soon forget! I appreciated the various opportunities such as networking with API peers and industry professionals, as well as hearing from experts about the latest trends in the Power sector.

Many of the topics tied in very nicely with my recent experience working for an API member company, hence this was an excellent learning experience too. One of the lasting impacts of participation, is the bonds formed with other students! We all continue to stay in touch and support each other to do our best in our studies.



Cassidy Chellis

Bachelor of Engineering (Honours, Masters Accelerated Pathway), Monash University, VIC

Over the last week, I and 20 other awardees of the TJ Effeney Scholarship had the honour of going to the #EN2022 conference in Brisbane. And what a conference! It was an incredible opportunity to hear in-depth and engaging discussions on industry

developments, brilliant keynotes on the history of the industry delivered by the great Dr. Alan Finkel and Prof. Genevieve Bell, and over 100 businesses represented.

Opportunities to meet so many passionate industry representatives, and the brilliant cohort of TJ Effeney Scholarship awardees don't come often. That's why I can't offer enough thanks to the The Australian Power Institute, to David Pointing and Michelle Murray, to all the delegates who were so accommodating to all our questions and inquiries, and to all the new friends we've made along the way.



Joel Bulow

Bachelor of Engineering / Bachelor of Economics University of Queensland, QLD

Attending Energy Networks 2022 conference was an invaluable experience! Not only was it an wonderful opportunity to gain insights of the current state of energy networks in Australia, it was also a chance to meet other budding young professionals who desire

to make a positive change in the sector. Meeting other API bursary holders from across Australia meant I got to hear a wide range of perspectives and goals of people my age. Additionally, it was a great chance to form friendships which I have no doubt will last far into the future and our professional working lives.

I also had the privilege of hearing from a number of renowned speakers on topics such as EVs, network connection challenges, the future of gas and and social license to name a few. I am incredibly thankful for the opportunity I have had to attend EN2022 with the support of the TJ Effeney Scholarship. I will no doubt look back and see this as having been a pivotal point in my early career within energy.



Tequile Ryan

**Bachelor of Engineering
(Honours)/ Bachelor of
Mathematics, University of
Queensland, QLD**

I have never gained more in three days than I did through the TJ Effeney experience. When I was fortunate enough to receive the TJ Effeney Scholarship, I entered the experience with a mindset

that it was purely a professional networking opportunity, but it proved to be so much more. The journey began with the API Welcome Dinner at The Charming Squire. The only thing more amazing than the food was the friendships I formed with the other scholarship recipients. It was surreal to be laughing face-to-face with them after having only interacted over Zoom through API Networking events.



**"These events
gave me
enormous
insight into
the sector"**

The next day I attended the ENA Conference—my first ever conference! And, wow, did it surpass my expectations. Over two days, I listened to some of the foremost speakers in the energy sector deliver passionate speeches and contribute to insightful panel discussions. These events gave me enormous insight into the sector, which allowed me to gain a deeper understanding of the multifaceted nature of the industry. Between these events, I spent my time in the exhibition hall networking with professionals in the industry and marvelling at the

cutting-edge technologies showcased there. It was an invaluable glimpse into the rapid pace with which renewable technology was being innovated and made me excited that it might someday be me at the forefront of the energy transition.

Thank you immensely Energex, Ergon Energy, the Effeney family, David and Michelle for this experience!



Kate Watson

Bachelor of Engineering (Honours) / Bachelor of Environmental Science Queensland University of Technology, QLD

Last week I was given the opportunity to attend the Energy Networks Australia 2022 conference held in Brisbane through the TJ Effenev Scholarship program run by the Australian Power Institute. Like many events, this conference had been affected by COVID-19, with this iteration being the 5th time it had been planned. Luckily this difficulty in holding the event made everyone all the more excited and enthusiastic to finally participate in person.



Delegates and companies flew in from all over Australia, and in some cases the world, to hear the latest ideas, research and innovation from across the electricity and gas industries. While the whole conference was a great experience, some key messages stuck out to me. One of these was there's no transition without transmission. This was arguably the catch phrase of the event, with everyone from TNSPs to Government ministers and battery technology companies highlighting the important of upgrades to transmission infrastructure to ensure the best utilisation of REZs and NEM wide energy storage.

"While the whole conference was a great experience, some key messages stuck out to me. One of these was there's no transition without transmission."

Another key concept was social licence. It was shown that without social licence, the energy transition can and will be halted by customer action. There was a strong focus on how necessary changes in customer behaviour can be encouraged and incentivised particularly around EV charging and rooftop solar curtailment. The lack of real-time information available to customers regarding energy usage and pricing was compared to customer experiences in the banking and GPS tracking industries where customers expect reliable and instant information with

suggestions that similar programs need to be created for the energy industry. The exhibition section of the conference was also a valuable part of the program particularly as many of the companies I had not previously interacted with being still a student. The variety and breadth of companies present was impressive and many new networks were formed through insightful conversation.

Overall, the conference was an extremely eye-opening experience filled with valuable information and insights into the energy industry of the future. I feel very fortunate that I was afforded the opportunity to attend and am sure that my expanded knowledge of the challenges facing the industry and new networks made during the conference will be greatly beneficial as I start my career in the energy industry.

Liana Lidden-Verney

Bachelor of Engineering (Honours), Queensland University of Technology, QLD

I am very grateful to have attended the long-anticipated EN2022. It was an exceptionally well organised event which was worth the wait. The line-up of presenters, the variety of panel topics, and breakout sessions were all informative and brilliantly executed.



I learned a great deal, including a lot of acronyms. It was wonderful to have the opportunity to finally connect in person with the API member organisations, API staff, other like-minded students, and of course industry representatives. Being informed about and discussing the current and future challenges and opportunities in the power industry was priceless.

I left the conference with a greater understanding of where we have come from and where we are heading. It was said numerous times, that the industry is in a time of great and dramatic change, and the way we will power the future has not yet been determined. As the next wave of recruits, this is such an exciting time for us. Knowing that your skills will be required and valued is always reassuring. It is clear to me that we will be in uncharted waters, and have an opportunity to provide innovative solutions to some of these exciting and crucial challenges. What a time to be alive! I was very inspired by the whole conference and learned a great deal.

My choice of entering the power industry on graduation has absolutely been validated and I am confident that there will be a worthwhile, challenging and rewarding career waiting for me. I can't wait to start contributing! My sincere thanks for the opportunity to attend via sponsorship from the Effeney family, the API, member organisations and Energy Networks Australia for the discounted tickets.



Matthew Ku

**Bachelor of Engineering
(Honours)
University of New South
Wales, NSW**



"I thought it was a great opportunity and I definitely got so much out of it! One of the main take aways was meeting all the industry professionals at the exhibition stalls. Even beyond just talking to them and learning about the company, which was so great in itself, was the fact that you could actually just make friends with a lot of really important people ". Hear more from Mathew in his video reflection on the conference.

<https://www.youtube.com/watch?v=qWLYj8xe39Q>

Deniz Naseri

**Bachelor of Engineering
(Honours) / Bachelor of
Commerce
Monash University, VIC**

The En2022 conference was an amazing opportunity to meet the bursary holders in person and socialise with knowledgeable people from different companies. Definitely a unique and memorable learning

experience to make new connections and talk to wonderful people especially after the Covid-19 lockdown.



Jim Coates

**Bachelor of Engineering
(Honours), Queensland
University of Technology, QLD**

The TJ Effeneay Scholarship allowed the API students to connect for the first time in 2 years. The time spent at EN2022 was invaluable as the student collective was able to share ideas and learn from one another whilst exploring a multitude of products and services

from organisations in the energy sector. The guest speakers' talks on future energy painted a vivid image to be captured and driven by API's future engineers.



Deanna Parkinson

Bachelor of Mathematics (Data Science), University of South Australia, SA

Attending the EN2022 conference was the best professional experience of my life so far. After two full days of attending talks, networking with industry representatives and meeting other like-minded students, I was exhausted in the best possible way.

After arriving in Brisbane on Wednesday, all the T.J Effeney scholarship students met up for the first time in person. It was great finally being able to connect names with faces!

Thursday morning, anthropologist Dr. Genevieve Bell started the conference with a bang, speaking to the importance of looking at a system as more than the sum of its parts. She drew our attention to the history of the energy industry, and focused on the innovators and customers as well as the day-to-day work. There really could not have been a better way to start the conference.

"...it was honestly awe-inspiring to be in the same room as so many experts in the field."

I attended talks and panels on data management, the integration of batteries into the grid, social licence in industry, electric vehicles, and more. We were invited to submit questions to the panels, making the sessions even more engaging. In the exhibition hall, we were welcome to explore and chat with organisations about their work and how we may fit into that after graduation. I made lots of new connections! (And started a collection of industry pens.) Throughout the conference, there was a focus on reaching net zero.

There were varying ideas on how this can be achieved, and it was honestly awe-inspiring to be in the same room as so many experts in the field, particularly as this is a special interest of mine. I was the only South Australian bursary student to undertake placement this summer, so it was super exciting for me to meet the other students in similar stages of their study. I made some great friendships, and I'm sure we'll be keeping in touch!

I am incredibly grateful to the Effeney family, Energy Queensland (Ergon Energy and Energex), and the Australian Power Institute for this opportunity. Hopefully we'll be attending again in 2024 as full delegates!



Avisa Agustina

Bachelor of Engineering (Honours), University of Queensland, QLD

It was a wonderful opportunity to visit the Energy Networks Conference as part of the TJ Effeney scholarship. Not only was I able to meet like-minded peers, but I also got to network with industry professionals and be informed of the exciting roles available in the power industry. The learnings and connections I got from attending my first conference are invaluable to my experience as an electrical engineering student.



Stuart Purcival

Bachelor of Engineering (Honours), Griffith University, QLD

One word - amazing! Why was it amazing? Because learnt and connected with the industry I want to work in next year (when I graduate). Learning: The opportunity to learn about the challenges and opportunities that energy networks face was incredible valuable. Especially because it was from the people actually working in the sector. What I learnt from this conference cannot be taught in universities. Connecting: I got to connect with people with the same interest in Energy as me!

I spoke to a number of industry professionals. I left each conversation with a new piece of knowledge. I also have follow up meetings planned with some regarding potential winter vacation work or graduate roles! I found it massively rewarding to meet other API bursary holders. After meeting the other students, I can see that the API has done so well selecting students who are passionate about power and are the best of the best. I learnt so much speaking from the other students. There was a buzz among the students. There was a contagious excitement about working in the power industry. I think this is a great format for the T.J Effeney award to take in future years.



Tejas Bhuta

**Bachelor of Engineering
(Honours) / Bachelor of Creative
Intelligence and Innovation
University of Technology Sydney,
NSW**

One thing I wanted to share is how easy it was to talk to everyone and network – I spoke to a couple of CEO's today including the CEO of Transgrid and the CEO of Hitachi (Energy). It's really insightful just to see their outlook and how they are going to face the problems in the industry and what things they think their companies can innovate ...". Hear more from Tejas in his video reflection from the conference.

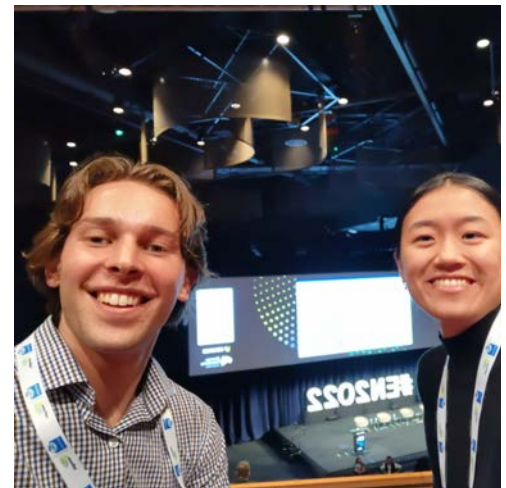
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Linus Mayes

**Bachelor of Engineering
(Honours), Monash University,
VIC**

My TJ Effeney experience was fantastic. It was amazing to meet the other API students and learn more about the challenges of the energy industry. Personally, I think this format for the TJ Effeney scholarship (although I say this with zero experience of the previous format) is far more valuable. In my opinion, affording a larger group of students the opportunity to engage with industry as well as with each other is a far more productive use of APIs resources



Lilian Xu

Bachelor of Engineering (Honours) / Bachelor of Commerce, Monash University, VIC

The TJ Effeney experience has given me a rare opportunity to connect with like-minded individuals that are passionate about making change in the energy industry. From listening to the speakers talk about thought-provoking energy topics to networking with different company members, this trip has expanded my knowledge of energy solutions and has further developed me from a professional standpoint.



Esandi Kalugalage

Bachelor of Engineering (Honours), University of Queensland, QLD

I had the amazing opportunity to spend two days at the Energy Networks Australia Conference as a recipient of the TJ Effeney Scholarship from the Australian Power Institute. It was invaluable to hear from the experts in the industry on the transformations our grid will face in order to accommodate renewable energy. A highlight was the panel discussion about the integration of electric vehicles into the grid. I also loved connecting and learning from both the other TJ Effeney recipients and industry professionals.



Ashutosh Kumar

Masters in Electrical Engineering, University of New South Wales, NSW

The TJ Effeney experience was awesome, it was a great experience to meet both my fellow API bursary students and also industry members from across the energy sector. Also learning about the new innovation and the knicks and knacks of the industry that I had not heard of or had any prior knowledge

of was great. This included the safety tools which are used to protect homes and buildings, detection and monitoring devices to predict and inform all the way to building models and simulations to view the development of the energy sector and its usage over time. All this new emerging and existing technology were very fascinating to learn about and know that they do exist out there and also understand how they are used in conjunction with the energy network. It was a great place to learn about how different companies can come together to work on specific components in order to help improve the overall health of the network system.

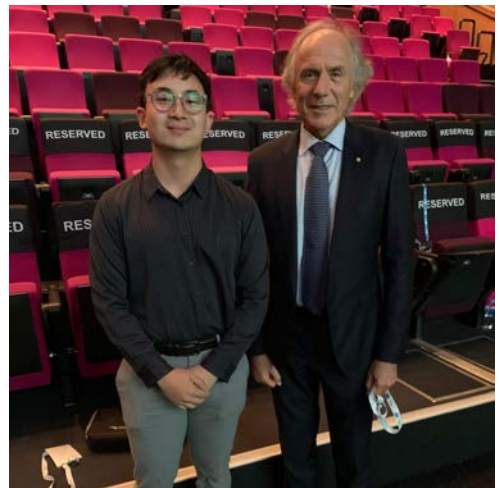
Overall, I think I had a great impact from the experiences and the talks, and the people I have encountered through the conference, and I would like to thank both the API and ENA team for organising and allowing us to experience this opportunity.



Stanley Tanudjaja

Bachelor of Engineering (Honours), University of New South Wales, NSW

The TJ Effeney Scholarship was an amazing 3 days of engaging with industry, exploring a new city and having fun with the other scholars! The highlight was having a chat with former Chief Scientist of Australia, Alan Finkel AO, about the future of the grid and the exciting opportunities for power systems engineers which weren't present during his time at uni.



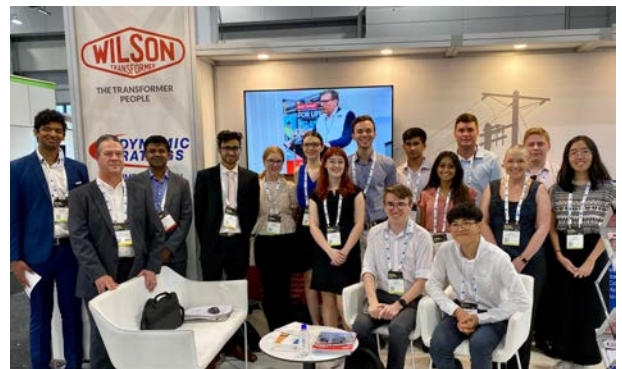
Kaaviyan Pathmasiri

Bachelor of Engineering (Honours, Masters Accelerated Pathway), Monash University, VIC

What a trip this has been! I am so grateful to the API for giving me the privilege to travel to Brisbane to attend the EN2022 Conference, where we got to meet the organisations doing some great work in the energy sector, and more importantly, supporting API students like myself to learn more about the industry. Having not travelled for years now and having done much of my first year of university from behind a screen, the opportunity to see people; more so those whom I hope to emulate in my career has been an unforgettable one.

Though we had two jam-packed days at the conference, one of my favourite conversations was with Patrick Matweew, the CEO of Redback Technologies, an industry member of the API. Over dinner, he imparted some advice on how we can develop our careers in the power sector and gave us some invaluable insight into the developments in this industry as someone who witnesses and contributes to it first-hand.

I'd like to thank all of API's partners, and most importantly, Michelle Murray and David Pointing who made this an experience that I can't forget. Lastly, a great thank you to the other TJ Effeney Scholarship Recipients whom I can now call my friends!



Simon Shahin

Bachelor of Engineering University of Technology Sydney, NSW

An amazing experience that can't be described in a short LinkedIn post, I'm utterly grateful for this splendid opportunity in attending my first industry conference, the EN2022 (March 16th-18th, Brisbane, QLD. Thank you to the Premier of Queensland Ms. Anastacia, for the warm opening welcome as well.



"I'm utterly grateful for this splendid opportunity in attending my first industry conference"

Through it, I had the privilege of meeting dozens of senior energy engineers, technicians, and experts from around the nation (and beyond)—the wealth of knowledge that was exchanged there, whether in the conference rooms or networking sessions, was unfathomable and frankly critical, nationally and globally. In fact, I had the unique opportunities of meeting my employer's, Transgrid, CEO Mr. Brett and EGM Delivery Mr. Craig (and learnt about the great work of Infravision). I also had the honour of meeting Former Chief Scientist of Australia (2016-2020), Prof. Alan Finkel. In addition,

I enjoyed the wonderful opportunity of connecting with many colleagues in the sector, especially of the different Transmission Network Service Providers of the National Electricity Market (Powerlink Queensland, AusNet Services, ElectraNet Pty Ltd, etc.) and various regulators, retailers, and manufacturers (Wilson Transformer Company, TAIHEN Network, etc.); and I connected with several marvellous peers from the University of Melbourne and QUT (Queensland University of Technology). I further got to ride the popular e-scooters of Brisbane (like Neuron Mobility's) and commute in this sustainable and futuristic city (in preparation to the Olympics 2032). Big cheers to my peers in the API (Ash, Avisa, Cassidy, Deanna, Deniz, Esandi, Jim, Joel, Julia, Kate, Kaaviyan, Liana, Lilian, Linus, Matthew, Rhett, Stuart, Tejas, and Tequile)—in a few years (or at least months), we'd be looking back at those resplendent moments with appreciation, and I'm glad that we've cherished them well!

I wish to sincerely thank the The Australian Power Institute (API) (David, Michelle, and Stephanie) for their remarkable facilitation with the industry placements of the Student Bursary Recipients and the pertaining professional activities that have been enriching. I also wish to thank Energex and Ergon Energy for their generous sponsorship of the API's TJ Effeney Scholarship and which covered our participation in this extraordinary conference that I've had the pleasure of attending. I equally send a special thanks to the convener, Energy Networks Australia (ENA) and CEO Mr. Andrew, for providing a lower participation cost to the API Delegates.