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## A word from the CEO

Since the last issue of *Electrical Connection* we now have a new Prime Minister, and a new Cabinet. So a few new people for us to meet to keep the NECA position in front of all the right people. And I have to say that I do wonder whether that old adage: a week is a long time in politics, ought to be brought up-to-date, in Australia at least, to now read: a day in politics is a long time!

But all joking aside, we hope the new ministers will be able to respond to industry's cries to get the economy back on track. It's also time to hear more from the opposition as to their policies as we head into an election year. We have a lot of work there too if we want to be sure the decision makers from both sides of politics understand and appreciate our issues.

Attracting and retaining smart apprentices into our industry, and ensuring the quality of their training is not in any way eroded following the conclusion of the MAPS program, remains a major issue for us at NECA. And as government works that out, I am sure you will be as interested as us to see what unfolds. We will report back on this



in the next issue. In this NECA supplement you will also find an interview with Stuart Diepeveen – who heads up our GTO in WA (Electrical Group Training). We talk to Stuart about the challenges and the rewards of running one of the largest group training organisations in Australia.

I am also very pleased to let you know that the South Africa industry conference

program is now truly taking shape. Our keynote speaker will once again be Glenn Platt from the CSIRO. Glenn has written a very interesting and thought-provoking piece for us in this supplement. Glenn has a great understanding of the industry and will be taking us through his vision for the next five years. It seems we are in for some pretty major changes and he thinks there is huge potential for contractors who embrace the change, and look for the ensuing opportunities. We are also in the final stages of confirming a small business success-story speaker from Cape Town and a men's health expert to help keep us all fit and healthy – African style.

So given the fabulous program of networking opportunities, dining out extravaganzas and exciting excursions this event has to be a must for any successful electrical contractor in Australia. Please see the program below.

So hope to see you there!

Best regards,  
Suresh Manickam



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## South Africa 2016

Sunday 17 April to Thursday 21 April



## The program is really taking shape...

Our keynote speaker from the CSIRO is confirmed, the lady behind a small business success-story is almost ready to sign and our men's health expert is already pumped up and raring to go!

So when you add this to the fabulous program of networking opportunities, dining out extravaganzas and exciting excursions it's a must for any successful electrical contractor in Australia.

**See you there!**

**Checkout the NECA website for more information**  
[www.neca.asn.au](http://www.neca.asn.au)



## Changing times ahead

The world of electricity is just embarking on an incredible new journey. And there's going to be a once-in-a-lifetime degree of upheaval associated with the changes we will experience. We're not there yet though – if Thomas Edison – great-great-grandfather of today's AC electricity system, was alive today, he'd probably still recognise most of the components in today's electricity system. And that tells you just how slowly things have developed over the past century. But this is all about to change, this change is going to be huge, and it's going to start happening very soon. Within five years from today poor old Thomas probably won't recognise many of the technologies that will be commonplace in our system. But the good news is that with these hugely significant changes, come enormous opportunities for electrical and communications contractors.

Perhaps the most significant change we're already seeing in the electricity system is the rise of distributed generation. Today's large, centralised gas or coal fired power stations will soon be replaced by much smaller electricity generators – located much closer to where we use that electricity. Perhaps the most familiar of these generators is the solar electricity generator, which we now see on roofs all over Australia. The amazing thing is that we're only just starting on the solar revolution. Australia today has around 1.4 million solar installations covering around 12% of our homes. "Even the most conservative commentators expect this to dramatically increase in the years to come." In fact many leading organisations, including CSIRO, are expecting distributed generation, like solar, to make up around 50% of our generation in the decades to come. That's around another 3 million installations to be done!

### Green v's economics?

There are many benefits to generating electricity from solar. But the key drivers for its incredible uptake in years to come won't be "green", or related to saving the world or combatting climate change. It's just going to be simple economics. Today, in



**Glenn Platt heads up CSIRO's Energy flagship and will be the keynote speaker at the NECA conference in South Africa, next April.**

many parts of Australia, electricity from solar panels is cheaper than the price of retail electricity from the grid. And the price of solar will continue to drop. In fact it has been decreasing by around 20% every two years, for decades now. Incredibly, in many parts of the world, the biggest cost when purchasing a solar system today isn't the price of the solar panels, or the installation labour, or the inverter. It is actually the finance – or more to the point, the interest being charged to fund the system. And whilst this seems incredible, it is in fact a cost that can easily be reduced. As banks and the broader industry get more familiar with the technology, interest rates for funding solar could easily drop. So when homes and business realise that electricity from solar is simply cheaper than their alternatives, imagine what that will do to the uptake of these systems?

### New battery systems

Of course electricity from solar isn't without its challenges. What happens on rainy days or at night when there's no sunshine? Traditionally, storing electricity for these times has been incredibly difficult. Battery systems have been available for

years but they are expensive and need careful maintenance, so they have almost never been used in a regular suburban house setting. Once again, this is all changing. And once again, it's being driven by simple economics. The arrival of new battery technologies such as advanced lead acid and lithium batteries has completely transformed things. Today we are seeing compact, maintenance-free battery systems appearing on the market from major vendors such as Panasonic, LG, Samsung, Tesla and Enphase. "These new batteries are specifically targeted at installation in people's homes." And again, the price of these systems has been decreasing at an amazing rate. Common lithium battery cells have been dropping in price by around 15% per year over the past several years. Again, many independent commentators predict that these batteries will be commonplace in just a few years' time.

Solar isn't without its challenges though. For example, a high-concentration of solar systems can make voltage control on the electricity grid quite difficult to manage. Whilst in the past, concerns around such issues might have limited the uptake of solar across Australia, today, once again things are changing dramatically. Now, there are new inverters and Australian Standards (AS4777) coming onto the market, that introduce new functionality for inverters to allow them to help maintain power quality- these new inverters can provide, or absorb, reactive power and actually help prop up the grid around them. Rather than large numbers of solar inverters being considered a risk, they will soon be seen as an asset for the electricity grid. ■

*Glenn Platt*

**To read this article in full, please go to "News & views" on the NECA website [www.neca.asn.au](http://www.neca.asn.au)**





**Stuart Diepeveen – General Manager of NECA WA’s highly-respected GTO Electrical Group Training (EGT), gives Barry Jackson NECA**

**National a bit of a history lesson and talks him through some of the issues GTOs in Australia face today.**

**Barry: Given that the Group Training concept is pretty much unique to Australia, how did it come about?**

**Stuart:** GTOs were originally set up as many smaller businesses wanted to employ apprentices, but couldn’t commit to take them on for the full duration of the apprenticeship. So some smart person realised that organisations like NECA, could employ the apprentices, and then ‘share’ them across the industry. It was a great initiative and it provided a huge number of school leavers with apprenticeships that wouldn’t otherwise have been possible. It sort of grew from there really. I hear the UK is doing something similar now too.

**Barry: How did EGT WA grow to be so big?**

**Stuart:** I joined EGT at the start of 2005, just a few of months after new Executive Director. He was committed to exceeding industry expectations. He encouraged us to set demanding annual targets and challenged us to improve our systems and processes to allow us to recruit, and manage, far more apprentices that we had in the past. This allowed us to get up to 500 apprentices by the end of 2005, and 100 more each year until in 2008 when we hit our first peak of 750. This was just before the GFC hit. However because we had implemented a rolling intake, we simply stopped recruiting and normal completions saw us drop to around 600 without laying off anyone. Then as things improved we started recruiting more apprentices again and hit our second peak of 850 in the middle of 2012. Again as the workload in industry has slowed down we have been able to pull back our recruiting and settle back to our current level of 630 – which by the way still requires us to recruit around 250 new apprentices each year.



**Barry: What is the advantage of inducting in small groups every three weeks, rather than say two big intakes?**

**Stuart:** It allows us to be more nimble in responding to industry demand. If the work dries up for a period we can shrink by stopping recruiting and allowing the natural completion of our 4th year apprentices to reduce our overall number, and if the opposite occurs, we can respond quickly by increasing recruiting numbers. With just a couple of big intakes you have the issue of having to find bigger numbers of applicants (and places for them to work). Plus they are all scheduled to finish at the same time. So apart from adding to the paperwork, your overall numbers then drop, again all at the same time. Spreading it out has made much more sense for us.

**Barry: How do you work out how many apprentices to take on? Do you ever find yourself with more apprentices than you need?**

**Stuart:** Generally at the start of each planning cycle we talk to our host employers, and the broader industry, about what they think their workload will be for the coming period, and then decide if we need to grow, shrink or hold steady. Then it’s just a matter of balancing expected completions with recruitment. And yes, as workloads ebb and



flow we do find ourselves on occasions with too many apprentices, but this is part of the risk and is motivation for my staff to find more work for them.

**Barry: What is the profile of your ideal apprentice?**

**Stuart:** As we become more and more active with the high schools here in Perth, we are getting a better feel for the ideal apprentice. We like to see the school leavers with ATAR (University entrance) maths to at least year 11 and if possible have already completed a pre-apprenticeship (preferably at the College of Electrical Training). It also helps if they have their driver’s licence and are motivated to work hard and try to learn something each and every day. We do take on various combinations of the above profile, i.e. some applicants straight from school, some without a driver’s licence etc. And we are definitely open to taking on more female apprentices. We currently have 18 female apprentices and are looking to grow this number each year. We also take on adult (over 21 years old) apprentices wherever possible.

**Barry: Do you only provide apprentices to smaller contracting businesses or do the big players use EGT apprentices too?**

**Stuart:** Our customers range from the small mum-and-dad businesses right up to

the big public companies and multinationals. The appeal is the same for all sizes of host employers. We look after the hard stuff, they get an apprentice when they want them for the duration they want them. We look after recruiting, insurance, superannuation, training contracts, college paperwork, profiling, induction, uniform, PPE, drug testing, injury management, mentoring and performance management. Our host employers only pay for the time the apprentice is at their workplace, we pay for college time, leave, RDOs etc. So for a small company there is no need to commit to the long term, if work runs out you can simply hand the apprentice back. For the larger companies working from contract-to-contract, they can man-up and man-down according to what they need to get the job done without having to recruit additional people (or lay anyone off).

**Barry: How quickly can you generally tell when someone is not suitable to the trade?**

**Stuart:** We have five long-serving and highly-committed field officers who guide, support and mentor our apprentices to achieve a completion rate over 80%. Basically if we take a person on we do everything we can to help them successfully complete their apprenticeship. So generally speaking we make this assessment during the recruitment process and don't start anyone we don't think can finish. Nobody wants to be set up to fail. So I guess I'm really saying that based on the earlier attributes I mentioned – like good maths, if someone gets through our assessment process we believe they can make it.

**Barry: What are the issues around mature age apprentices?**

**Stuart:** Essentially the modern award has increased a number of times in the past couple of years as a result of decisions made by Fair Work Commission. Don't get me wrong, I don't begrudge apprentices being paid more, but they have to stay affordable to small businesses. The increase in wages – along with the employer having to pay the cost of training and the reduction in funding for adults (and by that I mean I mean over-21 not over-25, 30 or 40!), has meant that

some small businesses simply can't afford to take apprentices over 21 years old. The cost of training apprentices is an issue across all apprentices, it's just magnified when the person is over 21.

**Barry: Are you seeing more female applicants?**

**Stuart:** As I said previously we are looking to grow our number of female apprentices from the current 18 we have today. The state government's incentive "Expanding Career Options for Women Scholarships Program" is certainly helping. We have filled three of the five potential scholarships we have been allocated and we have applied for five more. EGT has also recently become a sponsor of TradeUP Australia – an organisation focused on encouraging more women to see a skilled trade as a viable career option. We are optimistic that this will lead to us attracting more female apprentices to EGT.

**Barry: What is your completion rate?**

**Stuart:** Our completion rate (cohort) is just over 80% and has been as high as 87%. So we are very proud of our performance to date. It's critical to our mission of providing skilled tradespeople to our industry. This is well ahead of the industry average which usually sits around 60%.

**Barry: How do you interact with your RTO (CET)?**

**Stuart:** We enjoy a close working relationship with the College of Electrical Training (CET) where the majority of our apprentices attend to their off-the-job training. We promote our services together, recruit heavily from their pre-apprenticeship and school based courses and they provide almost all of our additional training such as custom safety, checking and testing, PLC, instrumentation etc.. It's definitely more like a partnership than a supplier relationship with CET.

**Barry: How has funding evolved over the years? (What model would you like to see in place?)**

**Stuart:** GTO-specific funding, via the Joint Group Training Policy (JGTP) Funding

Program, was always the point of difference for GTOs. But this ended as at July 2015. In WA the state has maintained its 50% share of JGTP via the WA Group Training Program (WAGTP). But as this funding has been halved, it had to become more targeted. As a result it is no longer applicable to us at EGT. We still rely on funding from the Federal Government and the Construction Training Fund (CTF) – which are both open to all employers. Both of these programs work well. Personally I believe it's essential that government continues to fund both GTOs and direct employment of apprentices, in an effort to keep the cost of employing apprentices manageable. More funding for adult apprentices is also essential if we want to avoid another skills shortage in future.

**Barry: Do you think apprentices need to contribute to the cost in the way that students do? (Is there any other option that keeps the cost down for employers?)**

**Stuart:** I do believe that the Trade Support Loan should be targeted to the cost of training, at least for the 20% that the apprentice doesn't have to pay back upon successful completion.

**Barry: What's your message to parents encouraging their children to go to university over doing an apprenticeship?**

**Stuart:** It makes good sense to have a trade. This can either be the corner stone to a great career, or something to fall back on should your career path not pan out quite as expected. We also know that engineers, project managers etc. with trade backgrounds are highly sought after. So why not get a trade first? That way a world of opportunities will open up that doesn't take university off the table. Some of the happiest, highest paid and most successful people I know took the apprenticeship route rather than the university one. ■

*NECA has apprentice programs in all states and territories - except the Northern Territory, managed through our four main GTOs in SA, VIC, NSW and WA.*

*See our website [www.neca.asn.au](http://www.neca.asn.au) for contact details.*

