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About NECA

NECA is the peak industry body for Australia's electrical and communications contracting industry, which employs more than 145,000 workers and delivers an annual turnover in excess of \$23 billion.

We now represent over 5,000 electrical contracting businesses across Australia, with around 1,600 of these domiciled in NSW.

NECA represents the electrical and communications contracting industry across all states and territories. As a result of NECA's bi-annual industry survey, we are aware that NSW is the chosen headquartered state for many of the larger electrical contractors, making NSW issues critical for our members and the industry at large.

NECA aims to help our members and the wider industry to operate and manage their business more effectively and efficiently. To this end, NECA NSW owns and operates a Group Training Organisation, Registered Training Organisation, Trade Services (which specialises in industrial workwear and safety) and its own Law Firm which all provide valued and industry-focussed services to our members.

NECA represents members' interests to Federal and State Governments, regulators and principal industry bodies such as the Australian Chamber of Commerce and Industry (ACCI) and Standards Australia.



Foreword

This submission outlines the main initiatives that NECA considers that the NSW Government should implement in the 2018/19 Budget.

The NSW Budget is currently in surplus, bolstered by the recent partial long-term leases of Ausgrid, Endeavour Energy and Transgrid, which combined are expected to contribute more than \$20 billion to the NSW Budget.

In such an environment, it is appropriate that the NSW government re-invests in skills development and improving the general business environment for the electricity sector.

We therefore advocate that in the forthcoming Budget, the NSW Government should take concrete action with respect to:

- The establishment of a new centre for the training of electrical apprentices in Western Sydney;
- Support for NECA's "Wiring Rules Roadshow";
- Conducting the delayed comprehensive review of ASP Scheme Rules in 2018;
- Addressing the significant dangers posed by non-conforming products;
- Attracting more women to the electrical and communications trades;
- Smart meters;
- Encouraging the hiring of mature age apprentices;
- Vocational education and training;
- Taxation;
- Workplace health & safety;
- Solar and renewables;
- Home Safety Electrical Audits and Home Energy Audits;
- Additional resourcing for the enforcement of Security of Payment laws; and
- Solar and renewables.

These measures will greatly assist in the delivery of the NSW government's infrastructure program, particularly with regards to skills development.

NSW is currently experiencing a welcome period of robust growth, bolstered by a healthy building and construction sector. However, the State's continued economic good fortune relies on having a workforce with the necessary skills.

Over the last decade Ausgrid, Endeavour, Essential, Sydney Trains, Telstra and QANTAS have all ceased or dramatically reduced their provision of training and apprenticeships in NSW.

Failure to plan now for the State's future requirements for electro-technology workers may have significant negative ramifications in future years, including worsening of skills shortages

leading to increased construction costs, thus reducing NSW's competitiveness and attractiveness for major projects.

We thank the NSW Government for the opportunity to participate in this consultation as part of the 2018/19 Budget process. Should you wish to discuss further, I can be contacted on ph: 02 9439 8523 or email: suresh.manickam@neca.asn.au

Yours faithfully



Suresh Manickam

Chief Executive Officer

National Electrical and Communications Association (NECA)

Establishment of a new centre for the training of electro-technology apprentices in Western Sydney

NECA advocates that in the 2018/19 Budget the NSW Government should support and incentivise the establishment of a new centre for the training of electro-technology apprentices in Western Sydney.

NECA believes that we need to start planning now for the training of more electrical apprentices in NSW, in order to meet the future requirements of industry.

NSW is currently experiencing a welcome period of robust growth, bolstered by a healthy building and construction sector. However, the State's continued economic good fortune relies on having a workforce with the necessary skills.

There is a pressing need to commence preparations for the training of more electrical apprentices in NSW, in order to meet the future requirements of industry.

Over the last decade Ausgrid, Endeavour, Essential, Sydney Trains, Telstra and QANTAS have all ceased or dramatically reduced their provision of training and apprenticeships in NSW.

Ausgrid and Endeavour Energy have now ceased training new apprentices for the electricity supply industry, with no further enrolments since 2014.

The Ausgrid Learning Centre, located at Silverwater, possibly the most outstanding vocational training facility in Australia, is now hardly used at all for training, the purpose it was originally designed for. Indeed, some of the Ausgrid Learning Centre's specialist training facilities have already been re-modelled to make way for storage and functions from other parts of the business are slated to move in to the purpose-built classrooms.

The Ausgrid Learning Centre – 48-50 Holker Street, Silverwater



Exterior



Lecture theatre

Prior to 2014, the Ausgrid Learning Centre was used to train all of Ausgrid and Endeavour Energy's electrical supply industry apprentices, covering the Sydney, Newcastle and Wollongong areas.

Irrespective of the future ownership of the distribution network, there is an ongoing need to train and re-train new and current workers in the electricity supply industry.

NECA has the capability and desire to train these workers. We already currently employ and train over 400 electrical apprentices in NSW.

Unfortunately, NECA's ability to provide further quality training to additional apprentices is currently hamstrung, as a result of lack of access to appropriate training and network facilities.

The establishment of a new centre for the training of electrical apprentices in Western Sydney is also ideally aligned with the government's objectives in respect of improving apprentice completion rates, infrastructure provision and the economic development of Western Sydney.

Potential for skills shortages to worsen

Failure to plan now for the State's future requirements for electro-technology workers may have significant negative ramifications in future years, including worsening of skills shortages leading to increased construction costs, thus reducing NSW's competitiveness and attractiveness for major projects.

After the current adjustment driven by the regulatory determination, NECA estimates that there will be, on average, 200 new workers needing to be trained each year to maintain the workforce required in the electricity supply industry alone.

Electricity supply industry workers are not being trained by any of NSW's three distributors. Vital skills are therefore being eroded over time in this sub-sector of the industry. NECA is willing and able to train these workers and currently employs and train a number of apprentices within this field.

Our apprentices hold the key to NSW's ability to build and maintain crucial infrastructure. With further skills shortages in trade areas anticipated, including in the electrical contracting sector, we need to act now to recruit the future trade workforce and train them in the skills we know will be needed.

According to the Commonwealth Department of Employment's *Skills Shortage List 2015*, NSW in relation to Electro-technology and Telecommunications Trades Workers:

*"Shortages are evident in Sydney in a number of sectors including commercial fit-outs and industrial maintenance."*¹

¹ Skill Shortage List, New South Wales, Department of Employment. List reflects research undertaken to 31 December 2015

(https://docs.employment.gov.au/system/files/doc/other/skillshortagelistnsw_4.pdf)

According to the *Greater Western Sydney Skills Audit*, a survey of businesses in Western Sydney conducted in mid-2015, technical skills are in short supply in the Greater Western Sydney area, with almost half of businesses (48 per cent) experiencing a technical shortage of skills.

This shortage is anticipated to rise to 68 per cent of businesses in the future.

Electro-technology is among those sectors listed by the skills audit as currently experiencing the most severe shortages.²

Ultimately the beneficiaries of additional training of electrical apprentices would be the consumers of New South Wales.

The fact that the NSW Budget is currently in surplus is a positive.

Similarly, the record \$73.3 billion for critical infrastructure provided over the next four years will significantly benefit both NSW and the electrical contracting sector, given the boost to construction involved.

The long-term lease of TransGrid, resulting in net proceeds of \$6.6 billion, has contributed to these outcomes.

The partial long-term lease of Ausgrid and Endeavour will further enhance NSW's budgetary position and provide scope for future investment opportunities. The sale of these three assets in total is expected to contribute more than \$20 billion to the NSW Budget.

In this context, NECA believes that the NSW government should, going forward, re-invest some of these proceeds back into the electricity supply industry in the form of providing support to industry for apprenticeship training.

Reduced capability of TAFE to train electrical apprentices

Significant changes are also underway for TAFE NSW, including property consolidation, a growing need for new investment in facilities and a reduction in funding translating to fewer teaching hours and a reduction in quality.

NSW's future workers need to be recruited and trained and in the absence of other options, the burden will continue to fall on the NSW Government.

Greater industry responsibility for training

² TAFE Western Sydney and the Western Sydney Business Connection, *Greater Western Sydney Skills Audit*, p.17 (<http://wsi.tafensw.edu.au/resource/file/17432/1509002-tafe-barometer-booklet-20151005-web.pdf>)

NECA believes that a commitment from the NSW government to support the private training provider expansion of the training of apprentices would adjust the balance towards greater industry responsibility for current and future training, reduce recurrent spending and improve the responsiveness and capability of the vocational training sector.

This further demonstrates the need for skills formation in the Western Sydney region given the demands of the construction sector.

Over the next 20 years, the population of Western Sydney is expected to reach three million people, comprising half of Sydney's total population of an anticipated six million by 2036. Western Sydney is already Australia's third-largest economy. Planning for the skills of the future must commence now.

NECA now trains over half of electrical apprentices in WA

NECA's West Australia training operation now provides electrical training to meet over 50 per cent of the state's demand. As with NSW, this is a not-for-profit operation run by the industry association. An important impact of this is a reduction in recurrent funding the WA Government would otherwise have to pay for the development and maintenance of government-owned training facilities.



NECA's Joondalup campus, Western Australia

We consider that this represents an excellent opportunity to secure the future of electrical trades in NSW.

NECA advocates that in the 2018/19 Budget the NSW Government should:

- **Support and incentivise the establishment of a new centre for the training of electro-technology apprentices in Western Sydney.**

Support for NECA's "Wiring Rules Roadshow"

NECA advocates that in the 2018/19 Budget the NSW government provide financial support to NECA to assist us in holding a "Wiring Rules Roadshow", comprising a series of free seminars to be held across NSW, to disseminate information to electricians on the forthcoming revised AS/NZS 3000 Wiring Rules Standard.

The AS/NZS 3000 Wiring Rules Standard

The AS/NZS 3000 Wiring Rules Standard sets out requirements for the design, construction and verification of all electrical installations across Australia. Its rationale is to protect persons, livestock, and property from electric shock, fire and physical injury hazards.

In NSW, compliance with the Standard is mandated by the Electricity (Consumer Safety) Regulation 2015, which is made under the Electricity (Consumer Safety) Act 2004.

It is thus vital that electricians in NSW are aware of their obligations in relation to the revised AS/NZS 3000 Wiring Rules Standard.

A revised AS/NZS 3000 Wiring Rules Standard will be released in early-to-mid 2018.

With NECA's links to industry and large membership base (over 1,600 members in NSW) we are ideally placed to provide information to electricians in relation to the revised AS/NZS 3000 Wiring Rules Standard.

Wiring Rules Roadshow 2008

In 2008, NECA held a similar series of seminars across the State in relation to the current iteration of the Wiring Rules Standard, which was then being introduced. NSW Fair Trading provided funding of \$20,000 to NECA for this purpose.

NECA's Wiring Rules Roadshow 2008 was well attended with positive feedback received from attendees.

Photos of sessions from NECA's Wiring Rules Roadshow 2008



We would like to be able to achieve a similar geographic coverage for the 2017 Wiring Rules Roadshow, in order to ensure that electricians across the State are aware of the changes incorporated in the revised Wiring Rules Standard and their resulting obligations.

Financial assistance requested

NECA therefore advocates that the NSW government provide financial support of \$30,000 to NECA for this purpose in the 2018/19 Budget.

The seminars would be open to all electricians, irrespective of whether or not they are members of NECA.

Additionally, at the seminars we can inform attendees of any other information that NSW Fair Trading might wish to communicate to the sector.

Costs involved in holding the Wiring Rules Roadshow

The costs involved for NECA in staging the Wiring Rules Roadshow are relatively significant as they involve sending two NECA employees travelling around NSW for approximately two months, thereby incurring costs such as accommodation and fuel. Their usual responsibilities also have to be allocated amongst other members of staff.

Ultimately, it is the entire electrical trade and the consumers of NSW who will benefit from these seminars, given the safety implications involved.

It is also NECA's understanding that the forthcoming iteration of the AS/NZS 3000 Wiring Rules Standard will incorporate relatively significant changes, making it even more imperative that we inform and educate electricians across NSW of these changes from a safety and compliance perspective.

Our industry is undergoing rapid technological change, including with respect to solar and home battery energy storage systems and the "internet of things" – connecting devices, vehicles and buildings. It is therefore essential that the latest safety practices are quickly adopted by industry participants.

NECA advocates that in the 2018/19 Budget the NSW Government should:

- **Provide financial support of \$30,000 for NECA's holding of the Wiring Rules Roadshow 2018.**

Comprehensive review of ASP Scheme Rules

The NSW Department of Planning & Environment has confirmed that a comprehensive review of the ASP Scheme Rules, which was anticipated to commence around mid-2017, has been delayed.



The Department of Planning & Environment instead focussed on whether or not any changes need to be made to the ASP Scheme Rules in relation to metering, with 1st December 2017 the date after which all new meters installed in NSW are required to be smart meters.

NECA therefore advocates that, with the changes to the ASP Scheme Rules necessary for the roll-out of smart meters having now been addressed, the NSW government should devote sufficient resources to ensure that a comprehensive review of the ASP Scheme Rules occurs as a priority in 2018.

There are a number of issues that NECA would like to raise on behalf of our members during the comprehensive review of the ASP Scheme Rules, including:

- The possibility of bringing back a Code along the lines of the [Code of Practice for Contestable Works](#);
- Clarification with regards to the contestability of asset relocations;
- Additional areas that could be made contestable such as tiger tails;
- Reducing the costs imposed by failed outages, unnecessary delays with respect to certifications etcetera; and
- Training issues.

Addressing these issues will create a better functioning contestable works market, with the ultimate beneficiaries being the consumers of NSW.

NECA advocates that in the 2018/19 Budget the NSW Government should:

- **Provide sufficient resources to ensure that the Department of Planning and Environment undertakes a comprehensive review of the ASP Scheme Rules in 2018.**

Non-conforming products

NECA strongly calls for action to assist in the stamping out of non-compliant electrical parts and product sales that fail to meet Australian Standards. The professional reputation of our industry is compromised through the weakening of safety standards, property damage and the potential endangerment of human life when non-compliant products remain on sale.

NECA therefore calls upon the NSW Government to increase its commitment and resources to ensure a larger number of product random batch tests are carried out. This action would assist with the delivery of higher quality electrical products for consumers.

Dangers of non-conforming products

The trade in counterfeit and non-conforming products poses a clear threat to the viability of Australia's electrical contracting sector. This threat manifests itself as follows:

- The risk of electrical fire and shocks;
- The potential of death or serious injury to installers and the public;
- Property damage and rectification;
- Legal liability issues;
- Expenses relating to the provision of replacement products;
- Insufficient insurance products and resultant premium increases;
- Industry brand and / or reputational damage;
- Cost to businesses operating with the supply chain of the electrical sector; and
- Consumer confidence.

Examples of recent product failures

Recent product failures such as Infinity, Olsent Cables and E-Cables, coupled with the tragic death of a woman on the New South Wales Central Coast in 2014 following electrocution from a non-compliant USB charger, have amplified our concerns. Further, the problem has deteriorated to such an extent that the Australian Competition and Consumer Commission (ACCC) is now actively involved with and monitoring product recalls.

These product failures have not just been limited to the Infinity and Olsent incidents.

In recent times there have been a range of other examples where product failure and / or administration failure has led to regulatory intervention, these include:

- Federal Government Pink Batts Home Insulation;
- Mr Fluffy Asbestos (particularly in the ACT but also affecting NSW);
- Avanco DC Isolators; and
- Faulty USB charger causing electrocution.

Non-conforming products



Loose-fill asbestos insulation



Infinity and Olsent cables



Faulty USB charger

Costs associated with product failures

The recall of Infinity and Olsent branded electrical cables installed in houses and buildings across Australia between 2010 and 2013 was initially expected to cost businesses around \$80 million. However, more recently released estimates from the ACCC have revised this figure to approximately \$100 million. Further, approximately 20,000 properties are said to have been installed with Infinity and Olsent branded cables, according to the ACCC.³

Australian Senate Economics References Committee inquiry into non-conforming building products

Due to the dangers above, NECA has joined with a range of leading building and construction industry peak bodies to call for more government funding and enforcement in relation to non-compliant building products, as part of the current Australian Senate Economics References Committee inquiry into non-conforming building products.

This inquiry is now due to release its final report on 30 April 2018.

Does it Comply? Campaign

In 2013, NECA in conjunction with Voltimum, one of the world's leading electrical industry information portal and Standards Australia, developed and instigated the [Does it Comply?](#) Campaign. This campaign focuses on the removal of unsafe and non-compliant products across the electrical sector. As part of the campaign, NECA and Voltimum conducted an industry survey to gain an understanding of the seriousness of the issue of non-compliant product and attitudes across the industry and towards this problem. The survey results indicated that fully over 75 per cent of respondents had seen the installation or sale of non-conforming electrical product in the Australian market.

³ John Rolfe, Infinity cable recall too slow, ACCC fears only fires will stir consumers into action, *Daily Telegraph*, 26 March 2015: <http://www.dailytelegraph.com.au/news/opinion/infinity-cable-recall-too-slow-accr-fears-only-fires-will-stir-consumers-into-action/story-fnlrw4is-1227278718234>

[Does it Comply?](#) enabled the creation of the Electrical Industry Charter, an alliance of major industry partners who are committed to selling and using only genuine and compliant products.

Given the size and significance of the building and construction sector in NSW and around Australia, it is critical that safeguards are in place to ensure that damages do not flow to industry or consumers as a result of non-complaint building products.

Need for greater government enforcement

A key concern for the electrical contracting sector is the lack of government enforcement, at all levels, of those businesses importing non-compliant products. This is further compounded by the effectiveness (or otherwise) of the current product batch-testing regime that seeks to ensure that Standards are adhered to.

With respect to the above, NECA believes that the NSW Government should regularly and vigorously undertake random product auditing as well as non-compliant product enforcement.

The Building Products (Safety) Act 2017

NECA supports the measures contained in the *Building Products (Safety) Act 2017*, which provide the NSW Commissioner of Fair Trading and local councils with greater powers to stop the use of potentially dangerous products such as aluminium cladding.

In order to ensure that these powers are used optimally and effectively, it is essential that greater resources are devoted to detecting non-conforming products.

NECA therefore calls upon the NSW Government in the 2018/19 Budget to increase its commitment and resources to:

- **Ensuring a larger number of product random batch tests are carried out;**
- **Ensuring that a greater number of audits are carried out in relation to sellers of electrical products to verify their authenticity; and**
- **Ensuring that there is great enforcement surrounding the sale and distribution of non-compliant building products.**

Attracting more women to the electrical and communications trades

NECA has been proactively addressing the need to attract more women to the electrical and communications trades.



NECA is currently trialling female mentors in West Australia.

NECA has also undertaken interviews of female apprentices, which found that social media and sports clubs have an important role to play in attracting and educating females on the benefits of electrical apprenticeships.

Under the federal government's *Electrical Innovative Delivery and Pathways Project*, a range of models that have been tried by some providers and other specialist agencies to support women in the trades will be examined and trialled in different locations.

Better promotion of success stories and best practices will be undertaken including the use of previous female NECA apprentices of the year to promote success in the industry.

NECA group training organisations will be important in this program.

In order to leverage off these initiatives, NECA advocates that the NSW government allocate funding for female mentors in NSW, once the findings of the West Australian trial is known.

NECA advocates that in the 2018/19 Budget the NSW Government should:

- **Allocate funding for the provision of mentors for female electrical apprentices in NSW.**

Smart meters

NECA has concerns relating to the compliance regime for roll-out of smart meters in NSW.



Previous to the recent changes to metering in NSW, there was a comprehensive audit program in place, conducted by the Distribution Network Service Providers (DNSP), to ensure that the metering work carried out by ASP Level 2s on their networks was of a satisfactory quality.

As a result, fully one in five, or 20 per cent, of the ASP metering jobs were audited.

Where deficiencies are found in an ASP's metering work under this audit process, the DNSP's inspectors had the power to issue a rectification notice and / or suspend the ASP from working on the network. This is a proven method of ensuring not only the integrity of the Network, but also the quality of people performing work on the Network.

Despite NECA's concerns, which we have clearly articulated, to the best of our knowledge there is no similar independent audit program in place and if there is going to be one, there is no information available outlining the type of rigour that is to be imposed, once the responsibility for the installation of meters transfers to the metering coordinators.

It is the submission of NECA that any decrease in compliance activity will lead to an increase in risks related to metering in NSW, including to the general public.

NECA advocates that in the 2018/19 Budget the NSW Government should:

- **Provide sufficient resources to ensure that NSW Fair Trading has the resources to implement a comprehensive audit regime with respect to smart meters.**

Vocational Education and Training

Industry skills sets

The NSW Government in the 2018/19 Budget should allocate funds for the training of industry supported 'skill sets', particularly at post-trade levels. This responds to the overall drop-off in formal training undertaken by workers in the industry and their preference for shorter training times.

NECA's employee survey shows that many post-apprentices spend less than one hour a month on training and professional development at their own initiative. Consideration should be given to a core set of competencies that reflect environmental requirements for the industry and consumers.



The development of new business models of operation for electrical contractors is an important factor in employers taking advantage of new and emerging technologies in their work.

Electro-technology is undergoing significant change, making it essential that we ensure that apprentices are endowed with the requisite skills, and that existing workers have the opportunity to re-skill.

Already, electric car manufacturer Tesla has rolled out charging stations in Australia, including charging stations in Goulbourn and Wodonga, the first stations outside of Sydney and Melbourne.

Electric vehicles (EVs) reduce dependence on petroleum and tap into a source of electricity that is often domestic and relatively inexpensive. Equally significant, EVs have the potential to unlock innovation and create new advanced industries that spur job growth and enhance economic prosperity.

In the long-term, EVs will be important in de-carbonising the transport sector.

The uptake of EVs and the resulting need for charging stations is anticipated to rise exponentially, driven by factors such as:

- Falling battery costs;
- More efficient vehicles with greater range, for example the Tesla Model S has a range in excess of 500 km; and
- Government purchasing in respect of fleet acquisitions.



According to Navigant Research, the global light duty EV market is expected to grow significantly, from 2.7 million vehicle sales in 2014 to 6.4 million in 2023, or 2.4 per cent of total worldwide light-duty vehicle sales by 2023, under a base scenario.⁴

Plug-in versions of Audi (A4), Mercedes (C-class) and BMW (3 series) models are being developed by these manufacturers for release over the next few years.⁵

Similarly, electrical workers must develop skills and keep abreast of developments in respect of:

- Smart meters – the roll-out of smart meters has now occurred in NSW;

⁴ Navigant Research, *Electric Vehicle Market Forecasts, Global Forecasts for Light Duty Hybrid, Plug-In Hybrid, and Battery Electric Vehicle Sales and Vehicles in Use: 2014-2023*, 2014

⁵ Michael Taylor, Car & Driver, *2016 BMW 328e Plug-In Hybrid*, January 2015

- Solar rooftop and battery systems for household use; and
- Anticipated future advances in relation to smart grids, enabling consumers' devices to trade electricity based on their preferences with other devices connected to a network.

The emergence of energy saving issues across the work of the industry thus includes energy management; lighting, pumps, fans and motors; solar generation systems; heating and cooling.

There has also been recent developments in standalone batteries and the Ethernet which require urgent attention and incorporation into nationally recognised training arrangements. It is evident that apprentices know little of these important emerging business opportunities.

A course therefore needs to be mapped and expanded to the 'Develop Strategies to Address Sustainability for Electrical Installations' Skills Set with appropriate support materials developed targeting apprentices and immediate graduating apprentices.

To this end, NECA is leading *Program 4: Developing training pathways, resources and trialling training under Energy Efficient Technologies* as part of the *Electrical Innovative Delivery and Pathways Project*.

The course will be delivered in a variety of ways as standalone units that will involve a national trial across a range of sites with a comprehensive examination of materials, course structure and requirements.

NECA advocates that in the 2018/19 Budget the NSW Government should:

- **Allocate funds for the training of industry supported 'skill sets', particularly at post-trade levels.**

Mentoring of apprentices

NECA Training's high completion rates at over 80 per cent (against an industry level of 50 to 60 per cent) demonstrate the merits of the mentoring of apprentices.

Mentoring allows the proactive management of the individual apprentice's development, including in respect of:

- OH&S awareness and compliance;
- Profiling monitoring;
- Managing personal issues and discipline where necessary;
- Work exposure;
- Review PPE (personal protective equipment);
- Review toolkits; and
- Monitor and discuss trade school work.

According to a Deloitte study commissioned by the NSW Board of Vocational Education and Training, the cost of non-completions in NSW for 2010 alone was \$348 million. The Deloitte

study also estimated that the cost to the NSW government of non-completion amounted to \$4,100 per apprentice per annum. This did not include costs to the Commonwealth government, to employers and to the broader economy in terms of lost productivity and other multiplier effects⁶.

This implies that there is significant scope to save the NSW government valuable training funds by raising overall completion rates through measures including the mentoring of apprentices.

NECA advocates that in the 2018/19 Budget the NSW Government should:

- **Allocate funds for the mentoring of electro-technology apprentices in order to help ensure high quality completion rates of apprentices.**



⁶ Deloitte Access Economics, commissioned by the NSW Board of Vocational Education and Training, *The cost of apprenticeship non-completion in NSW*, 25 August 2011

School and entry requirements

School-based apprenticeships are important pathways for students and are a good source of apprenticeship applications for the industry and provide a way to screen potential applicants.



Some of these courses, however, are too institutionally-based and do not always lead to good vocational outcomes. This issue will become increasingly important as employment opportunities within the industry slow.

NECA therefore considers that there is a need to reform the approach to pre-apprenticeships.

They should be encouraged where they meet employer and student needs, particularly where there is flexible timetabling. In some cases, it may be sufficient to use this option for Year 11 students to bridge the gap in academic learning required in off-the-job training. Employers have only limited understanding of this option and its ability to supplement labour when off-the-job training is being undertaken by full-time apprentices. Attainment of acceptable minimum mathematics skills (at least to sound Year 10 level) is an on-going problem with young applicants.

NECA is currently examining the development of a national approach for pre-apprenticeships under the *Electrical Innovative Delivery and Pathways Project*, including how the provision of short, targeted upfront pre-apprenticeship training can be used to ensure apprentices are more work ready, understand the basics of the industry and have hand skill familiarity.

We would be happy to share the findings of this project with the NSW government.

In the 2018/19 Budget, the NSW Government should therefore allocate funding for:

- **Flexible timetabling for pre-apprenticeships; and**
- **The development of practical maths lessons in schools for trade-training aspirants, with involvement of relevant partners in the education systems (including the Australian Association of Maths Teachers).**

Taxation

Payroll tax is essentially a tax on the employing of Australians and a disincentive to grow small and medium enterprises. Each state and territory maintains separate tax and threshold limits creating further confusion and complexity for national businesses.



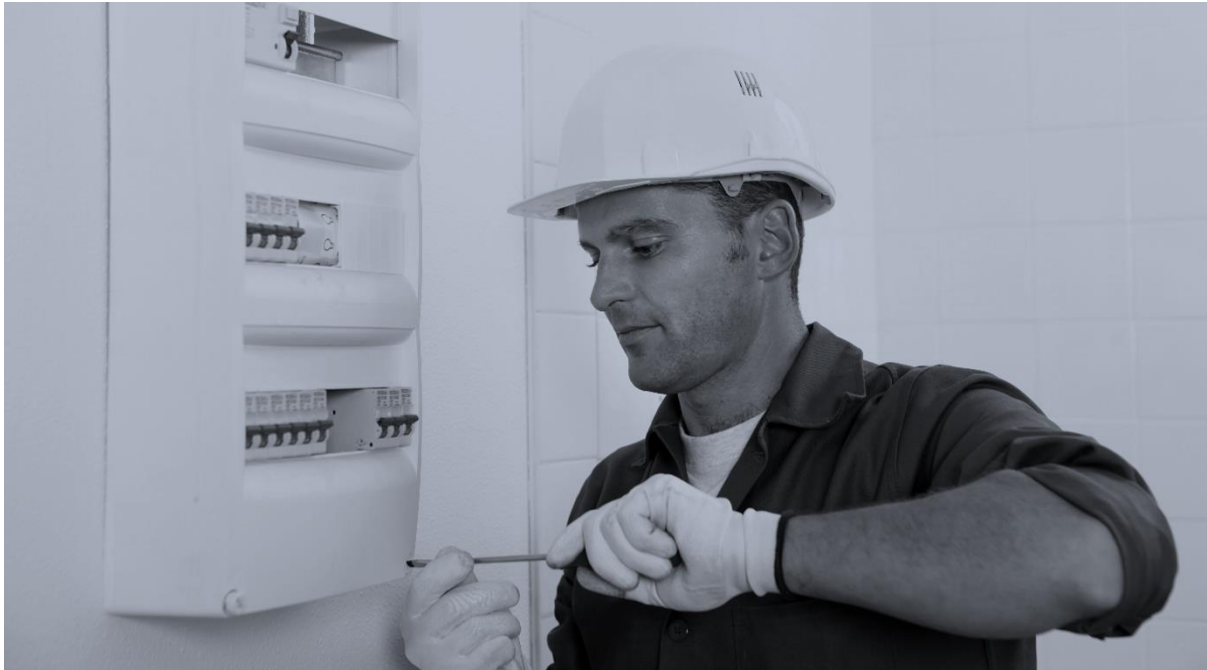
Reducing the rate of payroll tax would make NSW more attractive as a destination for investment.

In the 2018/19 Budget, the NSW Government should:

- **Reduce payroll tax.**

Mature age apprentices

A major issue raised by employers is the decline of the adult apprenticeship pathway due to the uncompetitive nature of the increased costs associated with older apprentices pay and other conditions. This has been exacerbated by recent Fair Work Commission decisions.



Mature age apprentices are very productive within the workforce and bring enhanced knowledge, maturity, wisdom and experience to businesses within the electrical sector.

However from an employer perspective, mature age apprentices are often priced out of the marketplace given the cost of hire.

NECA therefore advocates that the NSW Government provides an employer wage subsidy to employers who choose to employ mature age/adult apprentices. This subsidy should match the differential between the hourly rate of a junior apprentice and adult apprentice across each stage year of the apprenticeship, helping to promote reskilling and cross skilling to take greater advantage of the benefits that mature workers can offer industry.

In the 2018/19 Budget, the NSW Government should:

- **Provide an employer wage subsidy to employers who choose to employ mature age/adult apprentices.**

Occupational health & safety

NECA advocates that the NSW government should devote increased resources to enhancing compliance with the current OH&S regime.



NECA regards this as a far superior option to the adoption of industrial manslaughter legislation.

Industrial manslaughter legislation may be viewed as more of an emotional response to workplace deaths, and hence a political device, rather than as a direct means of reducing industrial deaths through greater OH&S compliance.

The principal motivations for industrial manslaughter prosecutions may be moral, symbolic and retributive, and designed to express society's intolerance for organisational behaviour causing workplace deaths.

The idea that the legislation increases the awareness of employers in relation to the need to create a safe workplace is a matter that is also open to argument. In one sense a diversion of resources into defending criminal proceedings or expending resources on essentially defensive means to protect themselves from the criminal law is an opportunity lost to expend those funds on OH&S improvements.

Calls are periodically made for the introduction of industrial manslaughter legislation, typically in response to industrial accidents.

Around the early 2000s there were developments in a number of states and territories on industrial manslaughter legislation, most notable the ACT.

Currently, the main push for industrial manslaughter legislation is occurring in Queensland.

Interstate employers are sure to be keen observers also, given a possible flow on effect to other state jurisdictions that may seek to mirror the Queensland legislation.

In the 2018/19 Budget, the NSW Government should:

- **Provide greater resources to enforce compliance with NSW's Occupational Health & Safety regime.**

Home safety and energy efficiency

Wiring safety audits

NECA proposes that a mandatory Safety Audit should occur at the point of sale or any new rental arrangement. The transfer of title would not occur until a proof of Audit was produced to Access Canberra. This would be a quick and inexpensive proposition that provides the consumer with a list of safety issues, remedies and costs, thereby enabling budgeting for the cost of repairs in an appropriate manner.



Following each inspection, a report would be provided to the installation owner that categories the risks into predetermined categories that would allow for the risks to be managed on a priority basis. Additionally, an inspector who becomes aware of situations that pose an immediate risk would need to take appropriate action to mitigate such risk prior to formal notification.

Technical Scope

The scope of the audit is intended to include an assessment of the installation as follows.

Visual Inspection

A visual inspection would be conducted on the entire electrical installation including:

- Accessible roof spaces,
- Accessible underfloor areas
- All rooms and spaces serviced by the same electricity supply.

With the intention of determining the status of the following:

1. Basic protection, protection against direct contact with live parts.
2. Fault protection, protection against indirect contact with exposed conductive parts.
3. Protection against hazardous parts, e.g. enclosure, guarding or screening of flammable materials, hot surfaces and parts that may cause physical injury.
4. Protection against spread of fire, e.g. penetration of fire barriers and resealing of penetrations in switchboards.
5. General condition of the electrical equipment, e.g. signs of damage that could impair safe operation.
6. Consumer mains:
 - a. Current-carrying capacity.
 - b. Protection against external influences.
7. Switchboards:
 - a. Location, e.g. access and egress.
 - b. Protective devices
 - c. Isolating devices, e.g. main switches.
 - d. Connecting devices, e.g. neutral bars, earth bars and active links.
 - e. Connection and fixing of wiring and switchgear.
 - f. Identification and labelling of electrical equipment.
 - g. Protection against external influences.
8. Wiring systems:
 - a. Conductor size, e.g. current-carrying capacity and voltage drop.
 - b. Adequate support and fixing.
 - c. Connections and enclosures.
 - d. Particular installation conditions,
 - e. Segregation from other services and electrical installations.
 - f. Protection against external influences, e.g. enclosure.
9. Electrical equipment:
 - a. Isolation and switching devices for protection against injury from mechanical movement devices and motors.
 - b. Isolation and switching devices for protection against thermal effects, e.g. motors, room heaters, water heaters.
 - c. Switching devices for particular electrical equipment, water heaters etc.
 - d. Connection, support and fixing.
 - e. Protection against external influences including ingress of moisture where required by any clause.
 - f. Suitability for intended voltage, current and frequency.
10. Earthing:
 - a. MEN connection.
 - b. Earth electrode.
 - c. Earthing conductors, e.g. size, identification.
 - d. Equipotential bonding conductors, e.g. size, identification.
 - e. Connections, joints and terminations.
 - f. Protection against external influences.

Testing

1. Continuity of the earthing system,
 - a. Earth resistance of the main earthing conductor,
 - b. Protective earthing conductors,
 - c. PEN conductors, and
 - d. Bonding conductors
2. Polarity,
 - a. Socket Outlets
 - b. Consumer Mains
3. Verification of impedance required for automatic disconnection of supply, and
4. Correct operation of RCDs.

Smoke Alarms

1. Location,
2. Type,
3. Interconnection,
4. Expiry date,
5. Recalls.

In the 2018/19 Budget, the ACT Government should:

- **Introduce mandatory Safety Audits.**



Home energy audits

NECA proposes that the NSW Government encourage property owners to undertake voluntary Home Energy Audits. Home Energy Audits should occur at the point of sale or any new rental arrangement. Given the current landscape in respect of energy costs, such a proposition would be both quick and inexpensive and would provide the consumer with options as to how best a consumer may plan to reduce their energy bill and carbon footprint.

In the 2018/19 Budget, the NSW Government should:

- **Encourage property owners to undertake voluntary Home Energy Audits.**

Security of payment

Security of payment for electrical contractors is a key issue for NECA members.



Electrical contractors are often the last in the line of credit to receive payment for work completed, in the event of a construction firm facing financial difficulties. Moreover, in cases where the company falls into receivership, electrical contractors often do not receive payment at all.

Electrical contractors arguably provide the highest value inputs of all subcontractors by way of fixtures, fittings and labour. They are therefore the most vulnerable with respect to payments in the event of receivership. In other words, electrical contractors are at a greater potential disadvantage than any other sub-contractor.

Of critical concern to NECA is that the majority of electrical contractors are small-to medium-enterprises (SMEs) – small family owned and run businesses – who are particularly susceptible to cash flow issues.

In the 2018/19 budget, it is therefore essential that NSW Fair Trading receives additional resources for the proactive monitoring, investigation and, where necessary, prosecution of unlawful behaviour in respect of security of payment laws.

Additionally, NECA's key priorities in relation to the current review of the *Building and Construction Industry Security of Payment Act 1999* include:

- The default payment date of 10 business days should be re-instated, with a maximum date of 30 days;
- The time limit for making claims in respect of claims for the return of retention monies, bank guarantees and performance bonds should be extended to beyond the 12 month limitation period;
- NECA strongly advocates that payment claims should not be able to be made both up and down the contracting chain;
- The requirement for a payment claims to state that it is made under the Act should be reinstated;
- Mediation should not be introduced for disputes under the Act;
- The deadline for providing payment schedules for more complex claims should not be extended;
- The retention trust account requirements should be extended to cover the entire contract chain, including those contracts valued below the current \$20 million threshold, alternatively and preferably legislation for the use of deemed trusts for retention monies should be introduced; and
- NECA does not support the introduction of different processes for different sized claims.

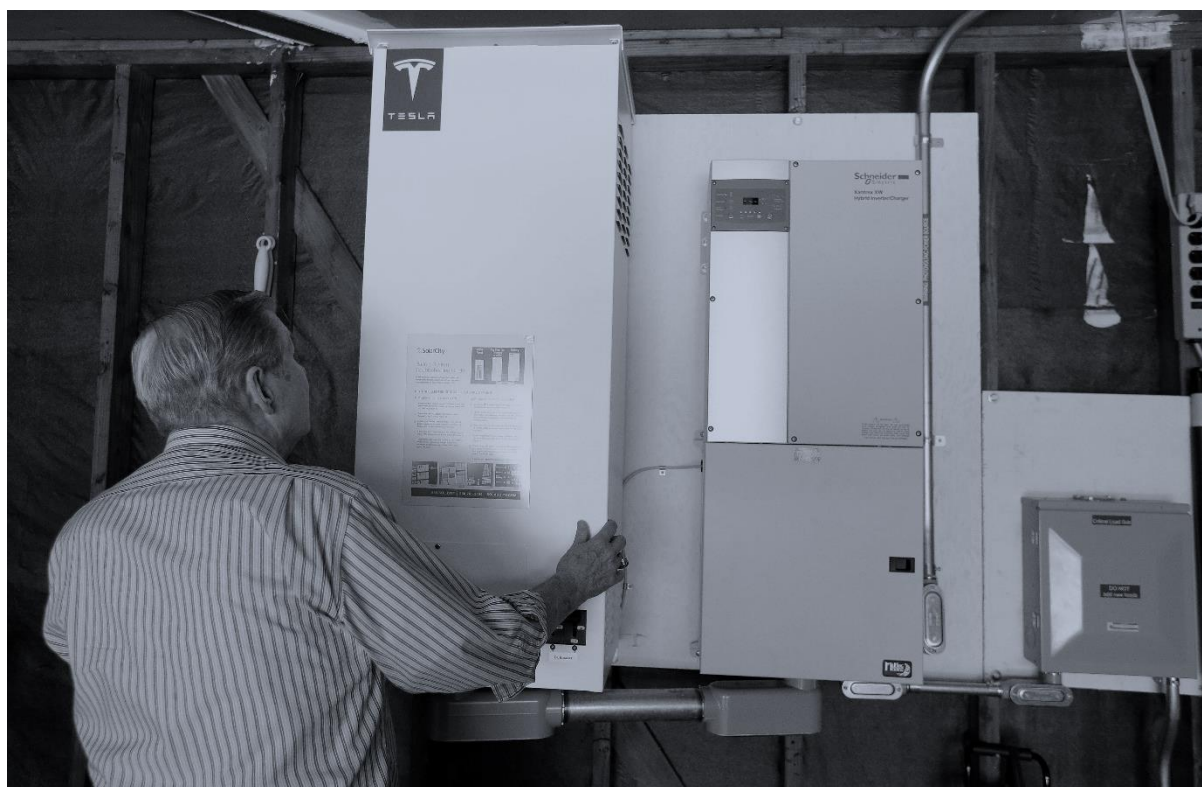
Further information on NECA's positions in relation to Security of Payment may be found in our detailed [submission](#) to the NSW Fair Trading consultation on the *Building and Construction Industry Security of Payment Act 1999*.

In the 2018/19 Budget, the NSW Government should:

- **Provide NSW Fair Trading with additional funding for the proactive monitoring, investigation and, where necessary, prosecution of unlawful behaviour in respect of security of payment laws.**

Solar and renewables

NECA advocates that the NSW government should consider providing incentives to encourage households to adopt home battery storage units, as have been provided to roof-top solar systems.



Solar subsidy schemes have had some success in Australia, which has one of the largest uptake of roof-top solar photovoltaic systems in the world.

For example, the NSW Solar Bonus Scheme was successful in adding more than 342MW of renewable energy capacity to the grid – more than three times the capacity of Australia's largest solar farm.

Not only would the provision of incentives for home battery storage units assist in taking pressure off the power grid, it would assist households in reducing their power bills and enhance overall energy efficiency.

The roll-out of smart meters in NSW also provides opportunities for synergies with home battery storage units.

In the 2018/19 Budget, the NSW Government should:

- **Consider the provision of incentives for home battery storage units.**

Summary

Establishment of a new centre for the training of electro-technology apprentices in Western Sydney

In the 2018/19 Budget, the NSW Government should:

- Support and incentivise the establishment of a new centre for the training of electro-technology apprentices in Western Sydney.

Support for NECA's "Wiring Rules Roadshow"

NECA advocates that in the 2018/19 Budget the NSW Government should:

- Provide financial support of \$30,000 for NECA's holding of the Wiring Rules Roadshow 2018.

Comprehensive review of ASP Scheme Rules

NECA advocates that in the 2018/19 Budget the NSW Government should:

- Provide sufficient resources to ensure that the Department of Planning and Environment undertakes a comprehensive review of the ASP Scheme Rules in 2018.

Non-conforming products

In the 2018/19 Budget, the NSW Government should:

- Ensure a larger number of product random batch tests are carried out;
- Ensure that a greater number of audits are carried out in relation to sellers of electrical products to verify their authenticity; and
- Ensure that there is great enforcement surrounding the sale and distribution of non-compliant building products.

Attracting more women to the electrical and communications trades

NECA advocates that in the 2018/19 Budget the NSW Government should:

- Allocate funding for the provision of mentors for female electrical apprentices in NSW.

Smart meters

NECA advocates that in the 2018/19 Budget the NSW Government should:

- Provide sufficient resources to ensure that NSW Fair Trading has the resources to implement a comprehensive audit regime with respect to smart meters.

Vocational Education and Training

In the 2018/19 Budget, the NSW Government should:

- Allocate funds for the training of industry supported 'skill sets', particularly at post-trade levels; and
- Allocate funds for the mentoring of electro-technology apprentices in order to ensure high quality completion rates of apprentices.

School and entry requirements

In the 2018/19 Budget, the NSW Government should:

- Allocate funding for flexible timetabling for pre-apprenticeships; and
- Allocate funding for the development of practical maths lessons in schools for trade-training aspirants, with involvement of relevant partners in the education systems (including the Australian Association of Maths Teachers).

Taxation

In the 2018/19 Budget, the NSW Government should:

- Reduce payroll tax.

Mature age apprentices

In the 2018/19 Budget, the NSW Government should:

- Provide an employer wage subsidy to employers who choose to employ mature age/adult apprentices.

Occupational Health & Safety

In the 2018/19 Budget, the NSW Government should:

- Provide greater resources to enforce compliance with NSW's Occupational Health & Safety regime.

Enhancing energy efficiency and safety

In the 2018/19 Budget, the NSW Government should:

- Commit to a pilot of Home Safety Electrical Audits; and
- Encourage property owners to undertake voluntary Home Energy Audits.

Security of payment

In the 2018/19 Budget, the NSW Government should:

- **Provide NSW Fair Trading with additional resources for the proactive monitoring, investigation and, where necessary, prosecution of unlawful behaviour in respect of security of payment laws.**

Solar and renewables

In the 2018/19 Budget, the NSW Government should:

- **Consider the provision of incentives for home battery storage units.**