

COAG Energy Council
By email: covid19coordination@treasury.nsw.gov.au

19 October 2020

NECA's Submission - COAG Energy Council Post-2025 Market Design Consultation Paper

The National Electrical and Communications Association (NECA) is pleased to make a submission to the COAG Energy Council's *Post-2025 Market Design Consultation Paper* (the Paper). We thank the Energy Council for the opportunity.

Australia faces myriad challenges in coming decades with regard to energy security. The Paper examines technologies currently or intended to feature in our energy generation mix in the years ahead. We understand the paper outlines a comprehensive redesign of Australia's energy market with seven market development initiatives. We also understand that the Energy Security Board is changing the market and regulatory frameworks so as a nation we can better integrate large and small-scale renewables into the system to unlock the full value the renewable revolution and new technologies can offer the community.

The strategic planning of these technologies must respond to and address ongoing issues arising from the COVID-19 pandemic. The electrotechnology industry has experienced job losses, supply chain shortages, increased contractual and legal risks, industrial risks, reduced productivity (due to physical distancing and increased health requirements), and a heightened level of uncertainty and increased cautiousness amongst consumers in relation to engaging contractors for electrical work/projects. These impacts have been exacerbated by longstanding policy and systemic issues that require urgent government intervention.

To ensure a successful national economic recovery post-COVID-19, it is crucial that all levels of government ensure reliability, sovereignty and security across a diverse range of energy sources, initiatives and technologies. NECA is of the view that this work opens opportunities for nation building, which in turn may filter through to increased job opportunities, reinvigorated communities and potential gross domestic product (GDP) growth if harnessed effectively in partnership with the private sector, including electrical and communications contractors.

Should you have any questions, or wish to discuss this submission further please contact Ms Lise Sperling (NECA Head of Policy and Government Relations) on lise.sperling@neca.asn.au or (02) 9439 8523.

Yours faithfully

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About NECA

The National Electrical and Communications Association (NECA) is the peak industry body for Australia's electrical and communications contracting industry, which employs almost 170,000 workers¹ and delivers an annual turnover in excess of \$23 billion.² We represent the interests of some 5,400 electrical and communications contracting businesses across all Australian states and territories. Our contractors engage in a range of essential work including the design, maintenance, installation and repair of electrical and electronic equipment across building and construction, mining, air conditioning and refrigeration, manufacturing, communications and renewables sectors.

NECA has been advocating for, and on behalf of, the electrotechnology industry for over 100 years. We aim to help our members and the wider industry to operate and manage their business more effectively and efficiently whilst representing their interests to federal, state and territory governments, regulators, and principal industry bodies such as the Australian Chamber of Commerce and Industry (ACCI) and Standards Australia.

Our members make an essential contribution to the Australian economy – connecting homes, businesses and infrastructure – encouraging investment, improving reliability and security across the energy system and delivering greater environmentally sustainable and affordable outcomes. We view the safety and reputation of the electrotechnology industry as paramount to all tradespeople, consumers and the broader community. We are a key stakeholder at the forefront of new and emerging energy and electrical innovation and technologies.

NECA is strongly committed to supporting the next generation of electrical and communications contractors. Working with our Registered Training Organisations (RTOs) and Group Training Organisations (GTOs), NECA provides employment and ongoing skills development for approximately 4,800 apprentices across Australia. The majority of these apprentices get the opportunity to gain work experience with NECA's members either directly or via our group schemes. The success of our programs speaks for itself: we proudly boast 90 per cent completion rates across our courses, and approximately one in three electrical apprentices in Australia is a NECA apprentice.

Our approach to attracting and supporting entrants to our industry is through a holistic, progressive and high-quality range of industry relevant programs and initiatives including our long-standing scholarship program, NECA Foundation, and the Women in Electrical Trades Roadmap. We proactively seek to ensure a diverse workforce, supporting and attracting more women, indigenous and mature aged apprentices, and promoting trade career pathways for both school students and school leavers.

¹ Australian Government 'Job Outlook'. (July 2020) (Telecommunications Trades Workers) <https://joboutlook.gov.au/Occupation?search=alpha&code=3424> and (Electricians) <https://joboutlook.gov.au/Occupation?search=alpha&code=3411>

² Ibis World 'Electrical services in Australia Industry Statistics (May 2020) <https://www.ibisworld.com/au/industry/electrical-services/325/>



NECA's Response to Post-2025 Market Design Consultation Paper

Renewable energy is generally defined as energy that comes from resources which are naturally replenished on a human timescale such as sunlight, wind, water (hydro, tidal, waves), and geothermal energy. In contrast to other energy sources, renewable energy resources provide significant opportunities for energy efficiency across wide geographical areas.

In 2018-19, full-time employment in renewable energy activities in Australia was estimated at 26,850 jobs, a 27 per cent increase from the previous year. This constitutes 13,070 jobs in roof-top solar PV systems and an additional 4,470 jobs in large solar PV. Further employment opportunities exist within the renewable energy space given the employment scale and diversity of technology within the electrical and communications contracting industry.

The key factors driving opportunities within the renewable sector are:

- lower installation costs
- reduced costs for materials and products due to an increase in demand
- vast improvements in storage capability
- economic activity created by wind and solar projects under the Renewable Energy Target (RET).

Energy efficiency and lower electricity bills trade-off

Ongoing electricity price rises coupled with Australian consumers' desire to decrease their carbon footprints has created a new interest in, and landscape for, energy efficiency and sustainability. Increasingly, consumers are experiencing the trade-off between the purchase and use of energy efficient products and a reduction in the cost of energy bills. They are actively seeking new information and opportunities to make their homes and lifestyles more efficient and sustainable while looking to be good environmental citizens. Consumer interest in renewable energy remains high, and although funding for assistance programs across all levels of government exists, there is a lack of awareness about how to access these programs given the multiple layers of government and departments across the nation.

Although Australia has historically had stable electricity prices, over the past 10 years average prices have risen by up to 70 per cent. These price rises are fuelled by two factors: the cost of upgrading the poles and wires of the energy networks and a spike in demand on electricity systems from household appliances, with energy demand greatest at the hottest times of the year. It is critical that the government integrates the private sector into responding to much-needed and big changes in the national electricity market.

The growth in Australian electricity prices has mainly been fuelled by a record \$8 billion of expenditure in upgrades to the ageing electricity network (poles and wires) and demand from new homes and businesses with energy-demanding appliances such as air conditioning, flat



screen televisions, laptops, and smart phones. This will continue to grow as a result of the recent federal government's 2020-21 Budget, which seeks to recover our severely COVID-19-impacted economy.

Other factors underpinning the increase include the carbon price, retail and energy schemes such as the Renewable Energy Target (RET), and the costs of wholesale electricity generation. Some state governments have implemented energy efficiency schemes, such as the Energy Savings Scheme (ESS) in New South Wales, to help households and business reduce electricity consumption and costs. Consumers are keen to explore more efficient and effective ways to reduce their power bills and be part of a more sustainable future.

New and Emerging Technologies and Industry opportunities

Solar photovoltaic panels

As Australia is one of the world's sunniest continents, rooftop solar photovoltaic (PV) panels installed by homes and businesses use the plentiful energy from the sun to generate electricity cleanly and quietly.

Solar PV panels convert sunlight into electricity, in cells of specially fabricated semiconductor crystals, during times when sunlight is available. This timing matches the demand for power for items such as air-conditioners and pre-timed pool pumps and is generally the time when electricity prices peak. By generating electricity at the point of demand (where people live and work) these small-scale panels reduce the demand on large-scale generators.

NECA believes ongoing government support to encourage greater solar PV use is critical to the development of Australia's renewable energy capacity and to keep electricity price rises for consumers to a minimum.

Battery Storage

Battery storage, in addition to being a reliable and efficient energy source for consumers, can help smooth out peaks in energy use by providing control of the solar energy generated and helping to reduce the energy load drawn from the network.

Energy storage is a rapidly developing sector and is now at a similar evolutionary stage to rooftop power a decade ago. As the transformation of the energy sector accelerates, the potential and role for various forms of energy storage is growing rapidly.

With the growth of the sector, NECA acknowledges that consumer safety and awareness are essential, particularly in relation to the installation of batteries. Regardless of type, battery storage is safe provided installation is undertaken by an appropriately qualified electrician and properly maintained. Lithium-ion batteries can pose a fire hazard if they are not installed



correctly. Improvements in new battery quality has enhanced safety with designs that include an automatic seal-off in the event of fire.

Smart meters

Smart meters allow consumers to monitor their energy use and track energy consumption in real time, helping to reduce energy bills and make it easier to switch between providers.

Smart meters were first made available to electricity customers in New South Wales in 2014 through a voluntary rollout designed to ensure competition in metering services and consumer choice. In March 2016, changes were made to the rollout scheme to allow a broader range of appropriately qualified electricians to install smart meters. Smart meters also encourage the use of solar PV panels and battery storage options by allowing consumers to store electricity at off-peak prices and draw on the stored electricity at peak times.

A challenge with the rollout of smart meter technology is that some properties require extensive rewiring prior to installation. Rebates could be provided by governments to offset the costs of rewiring properties.

Contestable works and Accredited Service Provider scheme

New South Wales is unique among the states and territories in having a contestable works market, thus providing customers with choice with respect to connecting to electricity distribution networks and certain other capital works. The Accredited Service Provider (ASP) scheme, administered by the New South Wales Department of Planning and Environment, provides a pool of appropriately trained electrical contractors for customers to choose from.

NECA supports the viability and integrity of this scheme, and believes that fees and charges levied by distributors on ASPs should be reasonable, transparent, predictable and, as far as practicable, procedures and standards should be aligned across all distributors to reduce administrative and compliance burdens on providers.

NECA's Recommendations

1. NECA believes consumers and industry are genuinely interested in a more sustainable environmental future, are keen to be seen as good environmental citizens, and are prepared to participate in pilot schemes and programs that seek to make greater use of renewable energy products.
2. NECA believes further opportunities exist to educate consumers about the importance of clean energy and how they can participate in renewable energy trial programs.
3. NECA calls upon federal, state and territory governments to maintain funding and support for the development and awareness of energy efficiency programs and clean energy initiatives. This funding and support should be prioritised towards relevant peak industry bodies in order to promote industry stability and new employment opportunities.



4. Given the substantial lead time and significant capital investment required to develop clean energy generation projects, NECA asks governments to provide greater certainty to encourage long-term investment in the sector and to deliver benefits to consumers through more stable energy pricing.
5. NECA calls upon the federal government to conduct an audit of all available grant programs across the three levels of government, and to provide a list of all opportunities in a single location to make it simpler to access funding opportunities.
6. NECA calls upon federal, state and territory governments to look for new opportunities to encourage the take-up of small-scale solar PV panels by consumers and businesses through subsidies, grants or other mechanisms.
7. NECA calls upon federal, state and territory governments to look for new opportunities to encourage the take-up of electrical storage through battery systems – either through grants, subsidies or other measures – providing greater choice for consumers and businesses and to put downward pressure on electricity prices.
8. NECA supports the introduction and rollout of smart meters across all Australian households and small businesses. We argue that appropriately qualified electricians and contractors should be able to offer installation of smart meters in a competitive market environment, rather than just a small number of monopoly providers.
9. NECA believes that government should provide rebates to offset the costs of rewiring a property.
10. NECA believes the ASP scheme provides significant benefits for consumers in New South Wales, with competition facilitating greater efficiency, reduced costs and enhanced responsiveness to customers' needs. We argue all states and territories should adopt the ASP model, enabling consumer choice for the provision of connecting to a new distributor.