

**Submission
No 237**

INQUIRY INTO ELECTRICITY SUPPLY, DEMAND AND PRICES IN NEW SOUTH WALES

Organisation: Australian Taxpayers' Alliance

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Select Committee Inquiry into Electricity Supply, Demand and Prices in NSW

SUBMISSION OF THE AUSTRALIAN TAXPAYERS' ALLIANCE (ATA)

INTRODUCTION

1. The ATA thanks the committee for the opportunity to provide comments on the supply, demand and prices of electricity in NSW, an issue of great importance for our 50,000+ members.
2. The ATA is an independent, grassroots political advocacy group representing the interests of Australian taxpayers. We stand for the principles of individual freedom, economic prosperity, efficient taxes and the roll-back of the nanny state.
3. Our concerns about electricity prices in NSW stem from the heavy burden these prices have placed on our individual members whose standards of living have been impacted and whose businesses are damaged through lost productivity due to higher cost inputs. We therefore provide the following policy proposals which will create a more competitive, efficient and thriving energy market in NSW in order to lower costs for the families and businesses of our state.

SUMMARY

4. **Causes of power price hikes;** Power prices have risen significantly across the country and the National electricity market (NEM) in the last 10 years. Evidence indicates that rising network costs (due in part to increased regulatory burdens and overinvestment in assets), increasing green tape and regulation as well as increased retailer costs are the primary drivers of the cost surge. In the last 2 years however, rising wholesale costs due to the decommissioning of fossil fuel-fired power stations have been a primary driving factor. The ATA therefore calls upon the committee and the NSW government to meaningfully address these factors.
5. **Burdensome regulations and environmental schemes contribute to the problem and punish both consumers and taxpayers while discouraging private investment:** The policies of successive state and federal governments have been detrimental to the state's future energy security by limiting the range of energy sources available and deterring private investment in cheap, reliable sources such as nuclear reactors and new coal-fired power stations. Private investment, research and development of proven cheap, reliable and clean energy (nuclear and low emissions coal) is discouraged due to uncertainty about current and future political factors as well as competition from intermittent wind and solar energy which is artificially

propped up through substantial taxpayer and consumer-funded subsidy. These subsidies constitute corporate welfare which benefits middle and upper class investors at the expense of lower and middle-income Australians who struggle with higher power bills and taxes.

6. **Heavily subsidised renewable energy remains reliant on non-renewable backup:** Wind and solar power remain dependent on back-up generators powered by coal and/or natural gas, with the latter accounting for an increasing proportion of our energy as old coal-fired power stations are decommissioned with no plans or approvals for new stations or upgraded stations to replace them. However, natural gas is significantly more expensive than coal or nuclear energy. Although recent innovations in battery storage technology as a back-up for wind and solar energy are currently underway, the technology falls far short of the capacity necessary to replace fossil fuel power and remains heavily reliant on subsidy.
7. **Embracing innovations in clean nuclear power and low-emissions coal as well as removing distortionary subsidies will connote cheap, reliable power and low carbon emissions as well:** Australian coal is amongst the ‘cleanest’ (low in carbon emissions for the same amount of power generated) in the world, with substantial reserves in NSW. Brown coal is a cleaner variant of conventional black coal and Australia possesses sufficient reserves of brown coal to provide over 1,000 years of electricity. Failing to invest in (or encourage private investment in) clean coal generation is contrary to international trends whereby Germany, Thailand and other nations are currently upgrading their generators – producing cheap and reliable electricity with lesser emissions. Nuclear energy is even cleaner and potentially cheaper, with a quarter of the carbon footprint of even solar and wind power and Australia holding over 30% of the world’s uranium reserves. **1 kg of uranium contains 2-3 million times the amount of energy contained in 1 kg of coal.** South Korea, China, the UK and many other nations continue to invest and develop nuclear technology, including innovations such as molten salt reactors and compact, smaller-scale generators that produce little waste and waste storage/disposal technology which ameliorates perceived risks. However, despite Australia’s comparative advantage in nuclear energy due to the abundance of uranium and thorium reserves as well as our geological stability, investment in new nuclear reactors is impossible due to the existing moratorium which punishes future generations by denying them cheap, clean and reliable energy. Furthermore, the current subsidies and green schemes which favour wind/solar energy, yet exclude low emissions coal and nuclear power, create needless distortions in the energy market which discourage private investment in the development of clean coal and nuclear technology.

In an ideal, competitive market – different energy sources can compete on equal footing in order to deliver the most appropriate energy mix possible. It is submitted that this will likely include a broad range of energy sources, thereby reducing overreliance on individual sources as the market is better able to respond to short and long-term trends and predictions. Innovations across a broad range of renewable and non-renewable sources will ensure that emissions are reduced with minimal adverse

impact upon consumers and taxpayers. This is a more desirable approach than the distortionary and regulation-focused approach of following arbitrary 'Renewable Energy Targets.' The latter approach has had a significant impact on driving the rise in power prices nationwide.

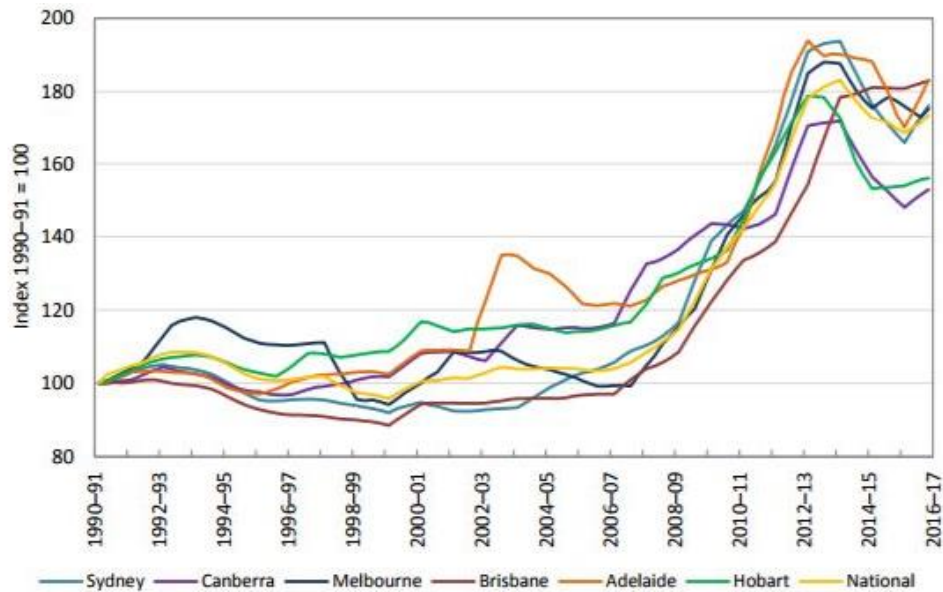
8. **Deregulation of electricity prices is not to blame for increases in NSW electricity bills, deregulation is a positive development:** Evidence from the Independent Pricing And Regulatory Tribunal indicates that the average NSW resident's power bill is 5% lesser than 5 years ago (pre-deregulation). However, there is substantial price dispersion and many retailers are obtaining greater-than-average profit margins. Evidence from the ACCC indicates that significant factors behind this outcome include a lack of consumer awareness and information about available offers in the market and regulatory barriers to entry which limit the extent of competition in the energy retail sector. Retail costs have also been driven up by increasing customer service costs. It is submitted that lowering barriers to entry and empowering consumers through public advisories and a database of available offers will address the problem.
9. **Full privatisation of NSW's distribution and transmission networks is likely to lower prices:** Evidence from the Australian Energy Regulator (AER) indicates that the ACT which relies on a fully privatised network, pays lower prices than any other state or territory. Victoria's network has been fully privatised since the 1990s and the state continues to enjoy lower electricity prices than NSW, Queensland and Tasmania which possess fully or partly public-owned networks. Although South Australia, where the power network has been privatised since the 1990s, reports higher energy prices – this is primarily due to the state's unique regulatory environment and heavy-handed green schemes and regulations. The Queensland Independent Review Panel found that privately owned state and territory networks are more efficient than the publicly-owned networks and Deloitte Access Economics found that private networks also incur lower labour costs. Privatising NSW's electricity networks is therefore likely to lower prices for consumers.
10. **Reducing regulatory burdens will discourage over-investment in assets and lower prices – NSW will benefit from adopting the Victorian model:** The ACCC found that the influence of regulatory burdens on power prices varied substantially between states due to differing methodologies for regulation development between states. The private network of Victoria imposes less regulatory cost than NSW's public network partly because Victorian standards place greater value on reliability outcomes and the value customers place on reliability, whereas NSW and Queensland's standards have placed greater value on capital investment, resulting in an over-investment in assets which customers continue to pay for despite no material improvement in utility or long-term price decrease/supply reliability. The ACCC therefore singles out over-investment in assets as a significant factor in driving up power bills in NSW.

11. **Smart meters are undesirable and will not reduce prices in the long-term per the Victorian experience:** The Victorian government rolled out smart meters from 2009 onwards, with a view to lower prices by more effectively measuring energy usage, power quality and other factors. However, they have since determined that smart meters are a net cost to consumers even in the long-term as the costs imposed on consumers by their mandatory rollout far outweigh any estimate of the long-term benefit in reduced costs. The government's audit estimated that a net cost of \$319 million total will be imposed upon that state's taxpayers. NSW should therefore learn from this experience.
12. **The energy rebate available to all recipients of family tax benefit A and B should be abolished or means tested. Savings incurred through the abolition of this scheme should be used to offset increases to rebates awarded on the basis of financial or medical hardship.** The aforementioned rebate is currently available to individuals on incomes up to \$150,000 per annum. Examples of schemes which genuinely account for financial and/or medical hardship include the low income household rebate, the medical energy rebate, the life support rebate and the EAPA voucher scheme, amongst others.
13. **Clean energy finance corporation grants should be available to low emissions coal and nuclear energy projects.** Although the ATA favours private investment and market-driven solutions, the utility of the Clean Energy Scheme can be increased through neutral treatment of low-emissions energy technology which will create a competitive market with reduced distortions.
14. **Ideally, NSW should leave the NEM and cater to its own electricity market:** Consumers in NSW pay higher prices partly because of the interdependent nature of the NEM whose regions include Victoria, the ACT, Tasmania, South Australia and Queensland. As a result, NSW and/or Victoria-based generators are called upon to address electricity shortages in South Australia which are partly exacerbated by the regulatory policies of South Australia which have damaged its own energy security. The ACCC finds that while Victorians and the people of the ACT pay the lowest average electricity prices in the NEM, prices are lower in Western Australia and the Northern Territory which are not connected to the NEM and generate energy independently.

TERMS OF REFERENCE

(a) the reasons for recent large increases in the price of electricity

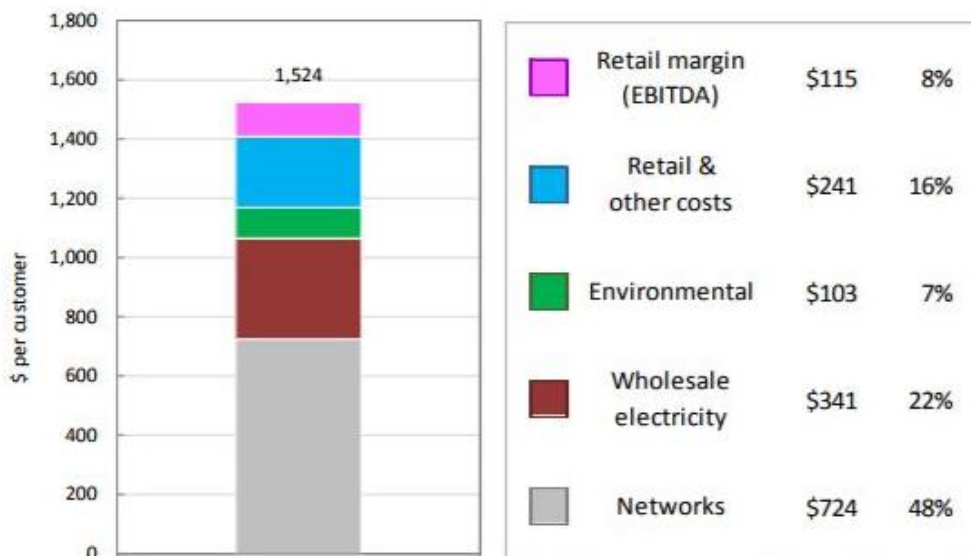
15. Average household power prices in Australia have risen by a whopping 63% over the last decade, according to a recent ACCC report, with Sydney prices higher than the national average.¹



ACCC

This graph shows the relative rise of power prices as an index (not in real dollar terms).

16.



Source: ACCC analysis based on retailers' data. This figure does not include data for Tasmania.

¹ <https://www.accc.gov.au/publications/accc-retail-electricity-pricing-inquiry-preliminary-report>

17. The ACCC report found that the profit margin of retailers accounted for 8% or \$115 of the average annual household power bill of \$1524, retail and other costs accounted for 16% or \$241, environmental ‘green’ tape accounted for 7% or \$103,² wholesale electricity costs accounted for 22% or \$341 and network costs accounted for 48% or \$724.
18. According to the ACCC, the main factors contributing to the **exponential rise in power prices between 2007-08 and 2015-16** are **higher network costs (primary factor)** as well as (to a lesser extent) **increasing environmental scheme and retailer costs**.³

Wholesale costs

19. Wholesale costs remained relatively flat between 2007-08 and 2015. However, the ACCC also notes that **higher wholesale costs** have been a **significant driver of price hikes since 2016** and attribute relatively flat wholesale costs between 2007-08 and 2015 (in part) to decreased electricity usage.⁴ The report further notes that wholesale prices have risen sharply since then and these have not been taken into account in the data shown above. It is noted that “*the ACCC analysis of retailers’ data does not include 2016–17, which saw significant increases in wholesale prices. This increase was primarily due to a tighter demand-supply balance from several generation units coming offline as well as higher gas prices affecting some generators.*”⁵
20. Wholesale costs are comprised of ‘spot costs’ for electricity generation as well as an additional cost required to cover ‘risk management’ in spot price hedging contracts. However, it is noted that the latter component has not been material to fluctuations and volatility in wholesale prices outlined above, whereby spot price is and has been the primary driving factor. As the ACCC report notes, “*Between 2015–16 and 2016–17, NEM spot prices increased by 60 per cent in Queensland and NSW, by 40 per cent in Victoria and by over 80 per cent in South Australia. Average prices for 2017–18 are so far tracking higher again in most states.*”⁶
21. The effect of **rising network and wholesale costs** in driving up overall power bills have been especially **severe for businesses** as their greater use of electricity are more exposed to fluctuations in these factors given that they make up a bigger proportion of the total electricity bill of these users.⁷
22. It is submitted that the issue of demand-supply balance connoted by the decommission of generators and reliance on gas highlights the imperative for the

² In the ACCC report, this refers to the costs of complying with the RET, state-based certificate and efficiency schemes, and state-based premium feed-in tariff schemes.

³ <https://www.accc.gov.au/publications/accc-retail-electricity-pricing-inquiry-preliminary-report> p. 31.

⁴ Ibid.

⁵ Ibid, p. 57.

⁶ Ibid, p. 77.

⁷ Ibid, p. 57.

NSW government to build or allow new generators which can efficiently and reliably provide energy in order to mitigate the impact of rising wholesale prices. It is further submitted that the effect of decommissioning generators and over-relying on natural gas connotes an imperative to broaden the range of available energy sources to include nuclear power based on thorium and/or uranium in order to lower these costs in the long-term.

Network Costs

23. Network costs were proportionally higher in NSW relative to other states and territories.⁸
24. **Private vs Publicly owned networks:** The Queensland Independent Review Panel notes that **privately owned networks in Victoria and South Australia have been consistently more efficient than the state-owned networks in Queensland and NSW.**⁹ In a review of NSW and Queensland labour for AER determinations, Deloitte Access Economics found that distribution networks in these states had inefficient labour costs.¹⁰ An Australian Energy Regulator report also refutes the claim that privatised networks result in higher prices, finding that whilst South Australia (privatised network since the 1990s) had the highest average electricity prices, the ACT (privatised) had the lowest and Victoria (also privatised since the 1990s) had lower power bills than NSW, Queensland and Tasmania – all of which possess publicly owned networks.^{11 12} The relatively high power bills in South Australia are instead attributable to other, unrelated factors, indicating that the privatised network may have mitigated the extent of South Australia's power bills given the correlation between privatised networks and lower power bills seen in Victoria and the ACT. [see section (a)]
25. It is submitted that privatising the NSW electricity network will help lower costs for consumers by connoting more efficient outcomes.
26. **Regulatory obligations:** These include costs passed on to the consumer to meet safety standards and jurisdictional regulations to meet license conditions. These obligations are intended to ensure that worker and community safety expectations are met as well as reliable supply i.e. with minimal disruption. Although these are important objectives, evidence from multiple reviews indicates that **regulatory costs in NSW exceed the value needed to meet these requirements and can be reduced in order to lower prices paid by the consumer.**

⁸ Ibid, p. 39

⁹ Queensland Government, Independent Review Panel on Network Costs, Electricity Network Costs Review, Final Report, June 2014, p. 102.

¹⁰ Deloitte Access Economics, NSW distribution network service providers labour analysis, April 2015, p. ii; Deloitte Access Economics, Queensland distribution network service providers – opex performance analysis, 24 April 2015, p. viii.

¹¹ [State of the energy market, AER, 2014.](#)

¹² Australian Broadcasting Corporation (ABC) Fact Check, updated 3 March 2016.

<http://www.abc.net.au/news/2015-03-25/fact-check-does-privatisation-increase-electricity-prices3f/6329316>

27. The ACCC for example, found that regulatory cost increases were a significant driver of the network cost rises in NSW since 2009. Disparity in regulatory costs/obligations between jurisdictions is due to different methodologies in distribution networks, whereby the private network of Victoria imposes less regulatory cost than NSW's public network. This is because Victorian standards place greater value on reliability outcomes and the value customers place on reliability, whereas NSW and Queensland's standards have placed greater value on capital investment, resulting in an over-investment in assets which customers continue to pay for despite no material improvement in utility or long-term price decrease/supply reliability.
28. For example, the AEMC in its 2012 review of distribution reliability outcomes and standards found that NSW customers would benefit from reducing the level of reliability as the cost savings to customers would exceed the costs of poorer reliability outcomes. Equally, the Independent Review Panel on Network Costs in Queensland noted reliability requirements have resulted in excessive capital expenditure in Queensland networks.¹³
29. It is submitted that the NSW government can reduce customer costs by adopting regulatory standards modelled after Victoria, with the exception of the Victorian government's implementation/rollout of mandatory 'smart meters' (see below)
30. **Smart meters:** In 2009, the Victorian government began to roll out smart meters. Smart meters measure when and how much energy is being utilised, allow power supply to be switched on or off remotely without the need for a technician, measure power quality at the premises and notify the electricity distributor upon a power outage. Despite their intended utility, the Victorian government has since found these devices to be a significant net cost to consumers, even in the long term. Smart meters have added \$2.5 billion to costs for Victorian network owners since 2009, of which \$2.3 billion is being recovered from customers.¹⁴ This has resulted in increased network charges for a typical customer by around \$80 from 2010–12, with further increases of \$9–21 per year from 2012–15.¹⁵ A Victorian government audit further found no overall benefit to consumers. Instead of the outlay being recouped in benefits, there would be an outstanding cost to Victorians of \$319 million due to the smart meter rollout, with this figure expected to rise further. It is submitted that NSW should avoid implementing smart meters. These were found to be the primary factor behind the rise of network costs in Victoria.

Green Tape

31. The **impact of green tape** in increasing electricity prices is evident in its relative effect on the average power bills of New South Wales (which simply followed the national RET) and South Australia (which follows its own state-based RET and adopts more extensive environmental regulations). Between 2007-08 and 2016-17,

¹³ Queensland Government, *Independent Review Panel on Network Costs, Electricity Network Costs Review*, Final Report, June 2014, p. iv.

¹⁴ AER, *State of the Energy Market 2015*, 24 February 2016, p.78.

¹⁵ *Ibid.*

green tape contributed an increase of \$101 to the average residential power bill in South Australia, yet contributed \$55 (little over half that amount) to the increase in power bills for the average resident in NSW. The ACCC report also noted, in relation to wholesale prices, that “*The data demonstrates notable changes at certain times and/or in certain regions, for example, significant increases in South Australia in 2007–08, and across all regions in 2012–13 following the introduction of the carbon price.*”¹⁶

32. **Effect of reliance on renewable energy upon wholesale prices:** The ACCC report found (in reference to South Australia), that a reliance on renewables for a substantial proportion of power generation can lead to **volatility in wholesale prices**, as demonstrated by sharp increases in wholesale electricity prices in South Australia since 2015.¹⁷ This is because of issues such as intermittent supply of solar and wind energy as well as the inadequacy of reserve storage technology to address the aforementioned issue. It is submitted that whilst renewable energy sources such as solar and wind have a role to play alongside other energy sources in addressing NSW’s future energy needs and whilst the technology harnessing these sources will continue to evolve and innovate, it would nonetheless be highly detrimental to the energy needs and power prices of NSW to increase reliance on these energy sources through policy designed to favour these sources over others such as coal or nuclear which are cheaper, more reliable and are likely to remain so for a long time.
33. According to the ACCC, **the main drivers in increase in cost for green schemes are the RET scheme and Premium Solar Feed-In schemes (60% and 30% respectively.)** The latter has been abolished in NSW since 2016. Under the RET scheme, retailers are obliged to purchase large-scale generation certificates (created for electricity generated by accredited power stations) and small-scale generation certificates created from the installation of eligible solar hot water or small generation units such as solar PV panels. It is submitted that these regulatory barriers and costs should be abolished as the federal RET has been abolished. Similarly, retailers are required to fund energy efficiency projects through the purchase of certificates per the NSW energy efficiency scheme. These costs are ultimately passed on to consumers and consequently, it is submitted that this scheme should be abolished to lower costs.

Retail costs and margins

34. Retail costs and margins make up 24% of the average user’s cost stack, according to the ACCC (16% and 8% respectively), with costs remaining high throughout the NEM. Similarly, the trend of significantly higher retail costs + margins in 2015-16 relative to 2007-08 is also consistent across the NEM.
35. Retail costs are comprised of costs to compete and costs to serve. The former consists of corporate costs and the latter consists of the cost of providing customer service and

¹⁶ Footnote 3 (ACCC report), p. 53

¹⁷ Ibid p. 57.

assistance. Notably, the latter makes up over 66% of retail costs, however these costs are reducing over time.

36. **Deregulation and retail costs:** The 2015–16 gross margins are increasingly similar across states – regardless of whether prices have been deregulated, perhaps suggesting that retailers in a number of competitive markets are adding a fixed component of gross margin to all customers, and that they approach those costs as being incurred on a national basis. Contrary to claims of price gouging by retailers in markets with deregulated prices, the rise in retail costs (as opposed to margins), was found to be the significant driving force behind the increases in retailer costs + margins since 2007–08. There are no pronounced differences between states in the ACCC’s analysis, either in the overall level of costs, or the general trend of lower costs in 2007–08 and 2010–11, with higher costs in later years.
37. It is submitted that lower retail costs can be achieved by lowering the cost to compete through removal or reduction of regulatory barriers. The cost to serve can be reduced through online databases to facilitate a consumer’s ability to engage in price and service comparison across the retail market. This will reduce the burden placed on the customer service resources of retailers as customers will not need to seek this information directly from retailers.

(b) the impact of the deregulation of electricity prices in 2014,

(c) alleged collusion and price gouging by energy retailers,

(d) the effectiveness or impact of any current regulatory standards and guidelines,

(e) options for future government oversight and responsibility in the re-regulation of electricity prices

38. Deregulation of power prices in NSW from 2014 onwards has had positive outcomes. A recent 2017 draft report from the Independent Pricing Regulatory Tribunal found that the average Sydney household pays 5% less on their power bills than 5 years ago, when adjusted for inflation, despite increased power prices due to the factors highlighted in (a).¹⁸ This is because deregulation has incentivised competition in the sector, offering consumers more choice and a wider range of plans. Deregulation has also meant that electricity retailers are no longer ‘compensated’ when consumers switch plans, thereby lowering prices for consumers than under the previous regime.¹⁹

¹⁸ IPART Draft Report - Performance and competitiveness of the retail electricity market in NSW - October 2017 <https://www.ipart.nsw.gov.au/Home/Industries/Energy/Reviews/Electricity/Retail-Energy-Market-Monitoring-2017/17-Oct-2017-Draft-Report/Draft-Report-Performance-and-competitiveness-of-the-retail-electricity-market-in-NSW-October-2017>

¹⁹ James Robertson, ‘Electricity deregulation has seen prices fall over 5 years: IPART’ *Sydney Morning Herald*, October 17, 2017. <http://www.smh.com.au/nsw/electricity-deregulation-has-seen-prices-fall-over-five-years-ipart-20171017-gz2l0l.html>

39. However, despite the fall in average power bills, some consumers are paying significantly more whilst others are paying significantly less. As noted by David Blowers, Senior Policy Fellow at the Grattan Institute, “*The bill spread between Sydney households could be as much as about \$1200 [a year].*”²⁰ The IPART report similarly found for example, that consumers on “standing offers” with power companies are paying up to 25% more for their bills.^{21 22} Importantly, this disparity and its ill impact on the affected consumers is not cause for contemplating reregulation of the energy market in NSW as it is a problem that can be remedied through alternative means which will maintain a competitive, deregulated NSW energy market.
40. “*Consumers who engage in the market can access prices that are around 7 per cent lower than they were before prices were deregulated,*” according to IPART.²³ Hence, the disparity in power prices offered to customers can be attributed, in large part, to a lack of negotiation or perusal of alternative options which may be available but which the consumer is not aware of. This problem is also evident in the post-deregulation experience of Victoria which experienced a rise in retailer’s margins (according to a Grattan Institute report),²⁴ yet where it was simultaneously noted by the Australian Energy Market Commission that consumers would save up to 30% by switching from their existing plan to the market offer.^{25 26}
41. Reversing deregulation will result in higher prices for consumers in NSW. Associate Professor Hugh Saddler of the Australian National University notes that the previous regime of IPART-regulated prices had the effect of pushing up prices as IPART had to compensate retailers whose customers switched plans. This also means reduced choice for consumers.
42. **Deregulation drives competition:** The ACCC notes in its 2017 report on energy prices nationwide, that “*We have found that there is insufficient competition in the generation and retail markets, which both raises prices and increases barriers to entry.*”²⁷ The report notes elsewhere that a number of factors unrelated to deregulation are behind the rises to electricity prices between 2007 and 2015 as well as more recent rises since. Reregulating the market will undermine and reduce existing competition

²⁰ Ibid.

²¹ Ibid.

²² IPART Draft Report - Performance and competitiveness of the retail electricity market in NSW - October 2017 <https://www.ipart.nsw.gov.au/Home/Industries/Energy/Reviews/Electricity/Retail-Energy-Market-Monitoring-2017/17-Oct-2017-Draft-Report/Draft-Report-Performance-and-competitiveness-of-the-retail-electricity-market-in-NSW-October-2017>

²³ James Robertson, ‘Electricity deregulation has seen prices fall over 5 years: IPART’ *Sydney Morning Herald*, October 17, 2017. <http://www.smh.com.au/nsw/electricity-deregulation-has-seen-prices-fall-over-five-years-ipart-20171017-gz2l0l.html>

²⁴ Grattan Institute, ‘Price Shock: Is The Retail Electricity Market Failing Consumers?’ March 2017 <https://grattan.edu.au/wp-content/uploads/2017/03/Price-shock-is-the-retail-market-failing-consumers.pdf>

²⁵ Ibid.

²⁶ Energy Retail Performance Reports. Essential Services Commission. <http://aemc.gov.au/Markets-Reviews-Advice/2016-Retail-Competition-Review>

²⁷ <https://www.accc.gov.au/publications/accc-retail-electricity-pricing-inquiry-preliminary-report> p.5

even further, whilst failing to address the many other factors which have driven up prices. Within the National electricity market, all states and territories except the ACT, Tasmania and Regional Queensland have at least 19 retailers – these are also the only states and territories within the NEM that do not have deregulated electricity prices.²⁸ The solution is to reform the status quo rather than reversing deregulation in NSW. As noted by the ACCC, *“In time, the development of a competitive industry should make price regulation redundant.”*²⁹

43. **Barriers to a competitive market:** Though the ACCC notes that the deregulated electricity price market in NSW has several features of a competitive market including multiple competitors, high rates of switching and price dispersion, the following barriers are also identified: low levels of concentration, low margins and prices, and a range of innovative tariff types and service options. It is submitted that low levels of concentration can be addressed by reducing barriers to entry in the industry including unnecessary regulations. It is further submitted that the issue of margins and innovative tariff types/service options can be addressed through consumer empowerment which will enable consumers to seek a wider range of options tailored to their needs and will also make consumers aware about options they did not know existed. For example, the ACCC notes that whilst some consumers save money by switching to another retailer that offers them a better price, their original retailer will often provide a counter ‘win back’ offer to retain their patronage by beating the competitor’s offer.³⁰ This fact may not be known to many consumers.
44. **Price dispersion and competition:** Increased price dispersion within the energy market in NSW is not necessarily a bad thing. Price dispersion can in fact, be efficient when it reflects differentiation in the market catering to different consumer preferences.³¹ Despite this, it is submitted that price dispersion will reduce as consumers are better informed and equipped with resources allowing them to seek better offers within the market and to negotiate with retailers for a better deal.

(f) The adequacy of planning to meet future electricity demand, including utilising high efficiency, low emissions coal technology as well as the use of nuclear, gas, solar and wind energies, and energy storage through batteries, pumped hydro and hydrogen, and improved transmission between regions

45. It is submitted that the government’s approach to a ‘planned’ electricity system which favours some energy sources over others, through the use of heavy subsidies funded by consumers and taxpayers, creates needless distortions in the market that discourages private investment and development of cheaper, more reliable sources. It is further submitted that the outright moratorium on developing nuclear power or

²⁸ AER, 2017 State of the energy market, p. 138.

²⁹ Ibid p. 96.

³⁰ Footnote 25, p. 122.

³¹

allowing clean nuclear energy to compete with other energy sources, is heavily detrimental to NSW's future energy needs as well as to reducing carbon emissions.

46. **Coal:** Australian coal is an abundant, inexpensive and efficient energy source. The International Energy Agency has found that coal is likely to still be the world's leading energy source in 2040 even if all Paris Accord signatory nations meet their commitments.³² A report from Greenpeace also found that ten times the amount of world coal-fired power stations were under construction as of January 2017 (a total of 273 gigawatts) than were retired over the previous 12 months (27 gigawatts) and that a total of 62 countries are currently planning or building a combined 842 gigawatts of new coal-fired power stations.³³ Bloomberg New Energy Finance has similarly found that global investment in coal power will account for over \$1.2 trillion between 2016 and 2040.³⁴ The closure of coal-fired power stations in Australia is hence contrary to international trends.
47. The average life of a coal-fired power plant is over 50 years, ensuring that start-up construction costs can be recovered.³⁵
48. GeoScience Australia estimates that Australia has 110 and 1,095 years' worth of economically recoverable black and brown coal resources respectively, connoting the significant comparative advantage that Australia has for this energy source.³⁶
49. The 40 operating mines and 20 new development proposals in NSW alone account for 15 billion tonnes of recoverable coal, with the industry currently supplying 80% of the state's energy, approximately 80% of the state's mineral production (2015-16) and accounting for 20,000 jobs state-wide as well as an additional 80,000 jobs in mine and non-mine related services.³⁷
50. A new coal-fired power station could cost \$3-4 billion (considerably less if generators at existing plants are replaced.) This figure (easily recoverable over the duration of the plant's life) should be compared to the annual \$2-3 billion cost of renewable electricity subsidies in Australia.³⁸
51. Even if Australian financial institutions cease funding coal-fired power (such as in the case of Westpac), funding can still be obtained from banks and financial institutions

³² World Energy Outlook 2016, www.worldenergyoutlook.org/weo2016/ p. 249, p. 31.

³³ Global Coal Plant Tracker, Coal Plants By Country January 2017, <http://endcoal.org/wp-content/uploads/2017/03/Jan-2017-Proposed-by-country-MW.Pdf>

³⁴ Bloomberg New Energy Finance, New Energy Outlook 2016, 12 June 2016, <https://www.bloomberg.com/company/new-energy-outlook/>

³⁵ World Energy Outlook 2016, www.worldenergyoutlook.org/weo2016/, p. 258.

³⁶ Australian Power Generation Technology Report 2016, p.iii, http://www.co2crc.com.au/wp-content/uploads/2016/04/LCOE_Report_final_web.pdf

³⁷ NSW Government Department of Energy and Investment (Accessed 1 January 2018) <https://www.industry.nsw.gov.au/invest-in-nsw/industry-opportunities/mining-and-resources/coal/coal-in-nsw>

³⁸ BAEconomics, 'Primer on Renewable Energy Subsidies in Australia,' January 2017, http://www.minerals.org.au/file_upload/files/reports/MCArenewables-subsidies-8Jan2017-2.pdf

overseas,³⁹ as well as foreign investors in Asia or elsewhere.⁴⁰ Notably, investors may be deterred by political factors such as the possibility of unfriendly future government policies, regulations and laws.

52. The Clean Energy Scheme's funding mandate can be changed to allow it to invest in new technology coal⁴¹ (such as brown coal, see below.)
53. Closure of coal-fired power plants would hence be deeply detrimental for the supply of cheap and reliable energy in New South Wales and would threaten nearly 100,000 livelihoods while damaging the regional economy and our state's economy more broadly.
54. **Brown Coal:** Though it produces less energy per unit than black coal, brown coal is especially promising due to the abundance of unutilised reserves in Australia and low cost of mining. Brown coal is also environmentally friendly. Upgrading generating units at the Neurath and Niederaussem brown coal power plants in Germany has reduced emissions to 1,031 tonnes of CO₂ per gigawatt hour (TCO₂/GWh) and 933 TCO₂/GWh.⁴² Similarly, This technology is being used to upgrade a major brown coal-fired power station in Thailand.⁴³ Building brown coal-fired power plants in NSW or replacing existing coal-fired power plants with brown coal plants could similarly lead to CO₂ emission reductions of over 670-900 tonnes per gigawatt hour,⁴⁴ and is a far preferable alternative to closing down coal-fired power entirely. Though brown coal deposits in NSW are only known to exist in the Murray basin, it is exceptionally abundant in Victoria (especially in the LaTrobe valley) and can be transported for use in brown coal-fired power stations in our own state.
55. **HELE (High Energy Low Emissions) Coal:** It is submitted that funding through the Clean Energy Scheme should be made available to HELE coal technology in order to foster technological neutrality and to allow the market to determine the best mix of clean energy sources.

³⁹ 'League Table: Coal Power Finance,' Rainforest Action Network, Sierra Club, BankTrack, The End of Coal: Coal Finance Report Card 2015, p.28,

http://www.banktrack.org/manage/ems_files/download/the_end_of_coal_2015_pdf/the_end_of_coal_2015_0.pdf

⁴⁰ The Australian, 'Libs Looking to Asia to Build New Coal-Fired Power Station in the North, 27 March 2017, http://www.theaustralian.com.au/business/mining-energy/libs-looking-to-asia-to-build-newcoalfired-power-station-in-north/news-story/3eb3b84_db35f98e8821c146e4091e575

⁴¹ The Guardian, 'Coalition Says It May Change Clean Energy Finance Corporation Rules to Fund Coal Plants, 19 February 2017, <https://www.theguardian.com/australia-news/2017/feb/19/coalition-says-itmay-change-clean-energy-finance-corporation-rulesto-fund-coal-plants>

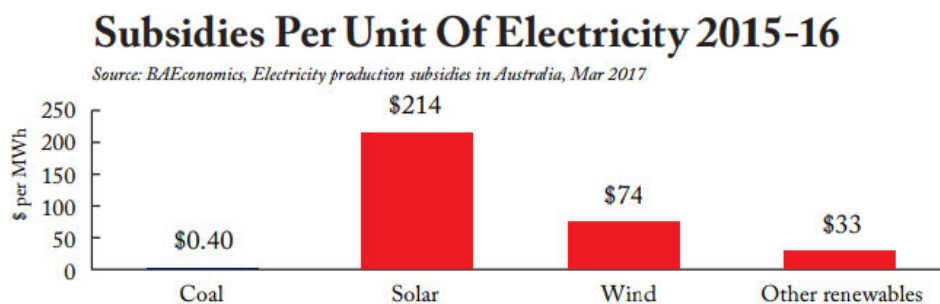
⁴² Enerpedia, Niederaussem Powerplant, http://enipedia.tudelft.nl/wiki/Niederaussem_Powerplant

⁴³ Alstom Media Release, 'Alstom to Build the First Ultra-Supercritical Lignite-Fired Power Station in Asia,' 9 March 2015, <http://www.alstom.com/press-centre/2015/3/alstom-to-build-the-first-ultrasupercritical-lignite-fired-power-plant-in-asia/>

⁴⁴ High Efficiency Low Emissions Explainer, World Coal Association, http://www.worldcoal.org/file_validate.php?file=Hele%20Factsheet.pdf

56. **Gas:** Gas is relatively less abundant than coal and this limited supply in conjunction with legislative restrictions on exploration and development of new gas supply in Australia and demand for it in the consumer, commercial and industrial sectors which compete with its demand for power generation, make it relatively expensive to coal. Increased reliance on gas as a replacement for decommissioned coal-fired power plants is hence undesirable and the continued economic viability of coal-fired power for NSW through new plants is a preferable alternative for lowering prices. This will also ensure that domestic exporters of gas do not have to suffer due to government threats to limit or ban gas exports in an effort to reduce its price for power generation. Lowering the domestic price of gas for power generation can be better achieved through the abolition or repeal of restrictions and regulations on gas development and exploration which will greatly benefit the NSW economy and create quality jobs in our regional economy as well.

57. **Solar/Wind Energy:** Solar and wind energy are renewable sources which do not generate carbon dioxide in the generation process. However, they are expensive to produce and rely heavily on taxpayer-funded subsidy to remain competitive against other energy sources such as coal and gas. Where these costs are passed on to the consumer, such as through solar tariff schemes, they drive up household electricity bills. It is submitted that solar and wind energy ought to compete against other sources in our energy mix in a free market without heavy subsidies. Given the growing private investment and innovation in the renewable energy field, it is submitted that these subsidies are corporate welfare and allow private investors to mitigate the business risks undertaken by any company in the energy sector through reliance on the consumer and taxpayer. Though these subsidies are often justified on moral grounds of furthering a ‘clean energy future’, this ignores the substantial private investment and innovation which would still exist without government interference as well as the hypocrisy that the development of other forms of clean energy, such as nuclear energy, are not only left unsubsidised, but are banned entirely. The following graph demonstrates the relative subsidies paid per unit (MWh) of solar and wind energy against other sources in Australia’s energy mix.



58. The chief operational issue of solar and wind energy is the problem of **intermittent supply**. These energy sources are currently heavily dependent on coal or gas-based generators because wind and solar energy can only be harnessed 10-30% of the time given natural periods of insufficient sunlight and/or winds. A notable case of the ill effects of this situation on consumers is that of the South Australian blackouts in 2016 whereby a weather event led to a dearth in supply, forcing South Australia to obtain

energy generated from Victorian coal generators and forcing consumers to endure supply interruptions and blackouts during the intervening period.⁴⁵ Current developments and innovations focused on resolving this issue include the development of hydroelectric power storage and the development of batteries which are able to store surplus solar and wind energy for future use. However, these technologies will still need substantial time and research in order to replace existing coal-fired generation effectively.

59. A 2016 report from Australian National University, asserted that **hydroelectric storage** could provide reliable energy at a lower cost than even coal when used in conjunction with solar and wind power, within 20 years.⁴⁶ However, this claim is premised on the assumption that subsidies for solar and wind power will continue to increase, artificially lowering the price of solar and wind power further while increasing the burden on consumers and taxpayers. Furthermore, the report makes the assumption that the technology will continue to develop and evolve at a consistent rate over 20 years rather than basing its data on the current state of the technology.
60. It is submitted that hydroelectric power and further innovations in storage technology will continue to evolve and will continue to play a role in our energy mix. However, the current level of taxpayer subsidy is not justifiable and continues to burden consumers with higher power prices while substantial and growing private investment in these technologies already exists,⁴⁷ and is significantly greater than at the time the subsidy was introduced.
61. **Nuclear power (Uranium/Thorium)**: Australia is home to 30% of the world's uranium reserves,⁴⁸ and nearly 20% of the world's Thorium reserves, presenting a viable and clean/carbon emissions-free energy source in which Australia has a comparative advantage.
62. Nuclear power is also significantly cleaner than solar or wind energy which requires fossil fuel-based power as a back-up due to the problem of intermittent supply as well as hydro-electric power which relies on coal as well.
63. However, current legislation, including the *Environment Protection and Biodiversity Conservation Act* and the *Australian Radiation Protection and Nuclear Safety Act* make nuclear fuel fabrication, power, enrichment or reprocessing facilities illegal. These prohibitions not only prevent the development of an economically lucrative sector which could provide cheap, reliable and clean energy for Australians – they also preclude innovation and investment which could develop and refine the technology to resolve any safety or waste disposal concerns.

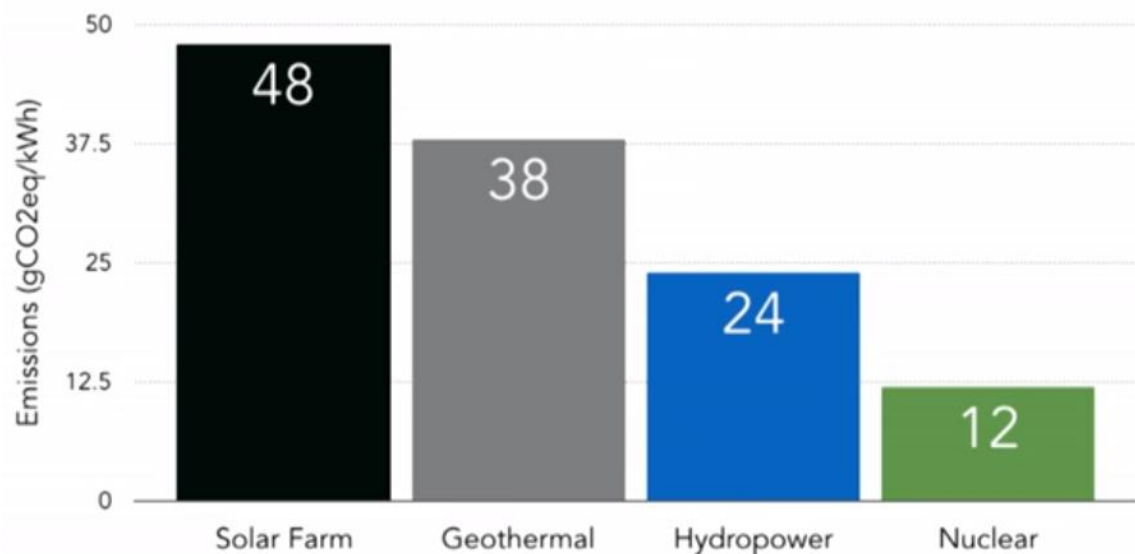
⁴⁵ <http://www.abc.net.au/news/2017-03-28/wind-farm-settings-to-blame-for-sa-blackout-aemo-says/8389920>

⁴⁶ <http://energy.anu.edu.au/files/renewable%20electricity%20in%20Australia.pdf>

⁴⁷ <http://www.abc.net.au/news/2018-01-15/renewable-energy-investment-bonanza-coming-to-australia/9328638>

⁴⁸ Geoscience Australia, <http://www.ga.gov.au/area/coal> , 2016

64. It is submitted that whilst policy makers are right in approaching nuclear technology with caution and from a risk-averse perspective – appropriate regulation must be proportionate to the current state of the art and any genuine risks involved.
65. As of 2014, nuclear energy was supplying a significant portion of the energy needs of various developed economies, including 19 percent in the United States, 29 percent in South Korea, 43 percent in Sweden and a substantial 82 percent in France.⁴⁹ Though these figures may since have declined as older generation reactors from the 1960s, 1970s and 1980s are gradually decommissioned, newer generation reactors continue to be built worldwide. China is currently building 30 reactors and has plans for dozens more; 10 are under construction in Russia, six in India.⁵⁰ **No country of Australia's economic size or larger is without nuclear power and we stand alone among the 25 top economies worldwide in excluding its use for baseload power supply.**
66. The 2006 Australian Government's Uranium, Mining, Processing and Nuclear Energy Review found that Nuclear power is a practical option for addressing Australia's energy needs, would cut our greenhouse gas emissions by 8-17% if incorporated into our energy mix and would not have negative implications for nuclear proliferation.⁵¹
67. **Nuclear energy is clean energy – it produces a quarter of the carbon pollution produced by a solar farm.**



Source: Intergovernmental Panel on Climate Change (IPCC) 2014

Annex III Table A III.2 :: Schlömer S., T. Bruckner, L. Fulton, E. Hertwich, A. McKinnon, D. Perczyk, J. Roy, R. Schaeffer, R. Sims, P. Smith, and R. Wiser, 2014. "Annex III: Technology-specific cost and performance parameters." In: *Climate Change 2014: Mitigation of Climate Change. Contribution of Working Group III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change* [Edenhofer, O., R. Pichs-Madruga, Y. Sokona, E. Farahani, S. Kadner, K. Seyboth, A. Adler, I. Baum, S. Brunner, P. Eickemeier, B. Kriemann, J. Savolainen, S. Schlömer, C. von Stechow, T. Zwirckel and J.C. Minx (eds.)]. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA.

⁴⁹ Nordhaus, Ted, Jessica Lovering, and Michael Shellenberger. "How to make nuclear cheap: Safety, readiness, modularity, and efficiency." *Breakthrough Institute Rep* (2014)

https://thebreakthrough.org/images/pdfs/Breakthrough_Institute_How_to_Make_Nuclear_Cheap.pdf pg. 6.

⁵⁰ Ibid.

⁵¹ http://www.ansto.gov.au/_data/assets/pdf_file/0005/38975/Umpner_report_2006.pdf

*“Nuclear power is a low-emission technology. Life cycle greenhouse gas emissions from nuclear power are more than ten times lower than emissions from fossil fuels and are similar to emissions from many renewables.”*⁵² France relies on Nuclear energy for a substantial proportion of its energy needs and pollutes at substantially lower rate than Australia, with Australians producing, on average, 15.8 Tonnes of Carbon per capita as opposed to France’s 4.32 Tonnes per capita.⁵³

68. Although no technology is risk-free, *“Nuclear power has fewer health and safety impacts than current technology fossil fuel-based generation and hydro power.”*⁵⁴ Notably, innovations already exist which dramatically reduce and virtually eliminate both the risks of producing nuclear energy as well as the waste products generated. **Molten salt reactors**, for example, can be built on a smaller scale, can run on uranium or thorium and produce a small fraction of the radioactive waste generated by conventional nuclear reactors such as that which is currently deployed at Lucas Heights near Sydney, NSW and have a decay time of only 300 years. This technology is already under development in many leading economies including China, USA, Canada and the UK. Notably, the USA, Canada and UK are developing the technology substantially through private investment due to market interest.⁵⁵ This can be contrasted with wind and solar energy which are currently heavily reliant on government subsidy paid for by consumers through higher electricity bills or through taxpayers who pay higher taxes.
69. Development of clean nuclear technology is impossible in Australia due to the moratorium on nuclear energy which acts as a blanket barrier to investment. It is submitting that lifting the moratorium will allow NSW to develop this technology which will provide cheap and clean energy to millions of Australians. This is consistent with the federal government’s current ‘innovation’ mandate and will not require further taxpayer subsidy.
70. **Comparison to coal:** With a complete combustion or fission, approximately 8 kWh of heat can be generated from 1 kg of coal, approximately 12 kWh from 1 kg of mineral oil and **around 24,000,000 kWh from 1 kg of uranium-235. Uranium-235 contains two to three million times the energy equivalent of oil or coal.**⁵⁶
71. **Economic Implications of a Domestic Nuclear Power Industry:** Although nuclear energy generation is characterised by high start-up costs and constructing and rendering a reactor operational will take between 10-15 years, it is a cost-effective and cheap option in the long-term and will pay for itself, generating revenue in the

⁵² Ibid, Chapter 7.

⁵³ <http://www.theage.com.au/business/the-economy/australia-has-missed-the-boat-on-nuclear-power-20180111-p4yyeg.html>

⁵⁴ Footnote 39, Chapter 6.

⁵⁵ World Nuclear Association – Molten Salt Reactors (updated: August 2017) <http://www.world-nuclear.org/information-library/current-and-future-generation/molten-salt-reactors.aspx>

⁵⁶ <https://www.euronuclear.org/info/encyclopedia/f/fuelcomparison.htm>

process.⁵⁷ Furthermore, although there are typically high capital costs for building the first several plants, costs tend to fall for each additional plant built as the supply chains develop and the regulatory processes improve. Ongoing costs such as fuel, operational, and maintenance costs are relatively small components of the total cost. The long service life and high productivity of nuclear power plants allow sufficient funds for ultimate plant decommissioning and waste storage and management to be accumulated, with little impact on the per unit price of electricity generated. Moreover, lifting the moratorium on nuclear power will allow private parties and investors to conduct research necessary to validate the commercial viability of a privately financed venture. Current developments in nuclear technology and newer generators/plants connote a move towards smaller, more efficient and cheaper plants which will offset the expected costs. For example, Terra Power is a venture partly funded by Bill Gates which has been in operation since 2012 and aims to downscale nuclear power production.⁵⁸ Importantly, the economic benefits would also transcend the production of cheap, clean energy. Nuclear waste management itself is a prosperous industry that would attract foreign investment. In 2006, the Australian Government's report found that "*Downstream steps of uranium conversion, enrichment and fuel fabrication could add a further \$1.8 billion of value annually if all Australian uranium was processed domestically.*"⁵⁹ These economic benefits will overwhelmingly flow to regional communities, revitalising the regional economy and providing high-quality, well-paid jobs.

72. **Estimated construction cost:** The start-up capital and construction cost of new nuclear reactors vary significantly between countries. This is because of significantly different material factors, including (to a large extent) regulatory burdens which vary substantially between jurisdictions. For example, the cost of constructing a new reactor in the USA varies from \$6 billion to \$10 billion USD,⁶⁰ this is primarily due to significant expansion in America's regulatory regime pertaining to nuclear reactors over time. By contrast, the costs of building reactors in South Korea have significantly decreased over time and continue to do so.⁶¹ It is submitted that the appropriate regulatory framework for nuclear power, should the moratorium in Australia be lifted, ought to be cogent of the impacts on construction and energy prices. However, it is further submitted that even a reactor constructed at a relatively expensive price is likely to overcome these costs over time due to its long service life (bolstered by ongoing innovation and upgrades in output efficiency and waste management), ultimately generating significantly more income than it requires in input costs long-term. Analysts including Steve Thomas, Professor of Energy Studies at the University of Greenwich in the UK, note that the cost of equity, that is companies using their own money to pay for new plants, is usually higher than the cost of debt.⁶² Another advantage of borrowing may be that "*once large loans have*

⁵⁷ <http://www.renewable-energysources.com>

⁵⁸ <http://www.theaustralian.com.au/news/inquirer/nuclear-the-energy-alternative-for-australia-none-dare-name/news-story/34bb25412a576fbb343ae02d4365b0c2>

⁵⁹ Footnote 39, Chapter 2.

⁶⁰ <https://www.ucsusa.org/nuclear-power/cost-nuclear-power#.WlgJT6iWblU>

⁶¹

⁶² The Doomsday Machine, Cohen and McKillop (Palgrave 2012) page 199.

been arranged at low interest rates ... the money can then be lent out at higher rates of return."⁶³ Policy-makers should also consider that lifting the moratorium on nuclear power and allowing private entities to mount a business case, will yield immense intangible benefits to future generations due to the availability of cheap, clean energy and the potential for an innovative, growing and job-creating industry.

73. **Waste management and Risk:** The two main concerns associated with nuclear power are the safe disposal of nuclear waste and managing the risk of accidents. Australia is geologically stable and most of the continent is not prone to seismic activity or exposed to potential tsunami activity. The 2006 Australian government review found that several sites in Australia were suitable for the disposal of moderate and high-level radioactive waste,⁶⁴ and that even then-current technology allowed for safe disposal.⁶⁵ South Australia alone, can take over 13% of the world's nuclear waste with no material risk to communities.⁶⁶ France, Germany and the USA have all approved nuclear generators even in areas near population centres after thorough environmental assessments.
74. **Cons:** The disadvantages of nuclear power are high start-up costs (\$6-9 billion USD, according to estimates from the USA – albeit markedly lower under other regulatory regimes such as South Korea),⁶⁷ the time taken to install and render a new plant operational, the fact that it is viable for baseload power in a large area but will require the support of other energy sources to power entire grids such as the NEM, the necessity for appropriate regulatory oversight to manage safety and waste management issues and possible political difficulties in potential waste disposal areas. However, these concerns can be mitigated and do not justify the current moratorium on this form of energy. The material factors are Australia's abundance of uranium reserves, multiple regions where waste disposal is viable and can be done safely, Australia's geological stability and the ultimate cost efficiency of this energy form which will drastically lower power prices for the people of NSW in the long-term. Nuclear power is a viable, clean source which will greatly benefit NSW should its inclusion in our future energy mix be allowed. In the process, it will invigorate the state economy by lowering the cost of business relative to other states and will especially invigorate regional communities. Community concerns should be managed through negotiations with the appropriate stakeholders and not through a blanket moratorium.
75. **Availability in NSW:** Australia has the world's largest resources of uranium with an estimated 1174 kilotons recoverable at costs of less than US\$130/kg, according to Australian government data.⁶⁸ Most of these reserves are however, located in SA (80%) as well as the NT (10%), WA (6%) and Queensland (4%). Although some

⁶³ The Doomsday Machine, Cohen and McKillop (Palgrave 2012) page 199.

⁶⁴ Footnote 39, Chapter 5.

⁶⁵ Ibid.

⁶⁶ <http://www.smh.com.au/federal-politics/political-news/julie-bishop-reopens-nuclear-debate-as-route-to-cut-carbon-dioxide-emissions-20141128-11w17k>

⁶⁷ <https://www.ucsusa.org/nuclear-power/cost-nuclear-power#.WlgJT6iWblU>

⁶⁸ <http://www.ga.gov.au/scientific-topics/minerals/mineral-resources/uranium>

deposits are inaccessible due to regulatory barriers or a lack of approval from native title holders, Queensland has relatively few barriers to uranium mining and extraction and offers a viable source for NSW's needs should the moratorium on nuclear power be lifted. Australian Thorium is mostly found in heavy mineral sand deposits. Many of these deposits are located in western NSW according to the Australian government.⁶⁹ However, reliable data on the economic viability of thorium as an energy source is unavailable as the current regulatory environment makes it impossible to utilise and makes it impossible to attract investment needed to develop Thorium power generation technology.

(g) the adequacy of programs to assist low income earners, pensioners and senior card holders to afford electricity as well as the impact of additional fees, such as late payment fees, included in energy bills,

76. The ATA commends the NSW government for the following rebates and schemes which are based upon criteria of genuine financial or medical hardship: Life support rebate, low income household rebate, gas rebate and the medical energy rebate. We also commend the government's EAPA voucher scheme for those who cannot afford to pay their energy bills due to hardship. Programs which lessen the burden of expensive energy prices on those who struggle with hardship provide important protections that increase the ability of these individuals to achieve the best standard of living that is practical and provide a vital safety net for their families, including dependents.
77. However, the ATA strongly opposes concessions and schemes which amount to middle-class or upper class welfare, rather than assisting those in need. These schemes effectively burden those on lower incomes who are more severely impacted by rising power bills, in favour of those who are better equipped to pay those bills. An example of such a scheme is the NSW government energy rebate available to all recipients of family tax benefit A and B. These recipients include individuals on incomes up to \$150,000 per annum who suffer no financial hardship or difficulty in paying residential electricity bills. It is submitted that this rebate should be scrapped entirely or means tested to an upper limit of \$40,000 per annum for an individual in order to ensure that recipients are those in need of assistance. It is further submitted that the savings incurred by the NSW government through the abolition of the family tax benefit rebate should be utilised to offset an increase in the rebates provided under financial and medical hardship-based rebate schemes outlined in point 76.
78. The ATA commends the NSW government for its move to abolish exit fees on switching energy plans. However, the ATA notes that whilst this ban currently applies to exit fees charged to customers on the EAPA scheme or one of the hardship-based rebate schemes, it does not currently apply as a blanket ban on the fees for all customers. These fees hinder competition within the retail sector and discourage

⁶⁹ <http://www.australianminesatlas.gov.au/aimr/commodity/thorium.html>

consumers from seeking better offers from competitor companies while maintaining the market share of those retailers who already enjoy significant market concentration. It is submitted that the NSW government should expedite the process of implementing the ban on exit fees for all NSW electricity customers.

(h) any other related matter

79. Failure of greenhouse gas emission reduction policies

It is submitted that policies intended to combat climate change by reducing greenhouse gas emissions can only be justified if their impact in reducing global temperatures is sufficient to warrant their resultant effects in damaging living standards and driving up costs of living for Australians. This principle is especially pertinent for the policymakers of NSW in light of a 2016 report from international consulting firm CME which found that the people of New South Wales, Victoria and South Australia are paying amongst the highest energy prices in the world.⁷⁰ High energy prices connoted by such policies result in reduced disposable household incomes, discouragement of business creation and a reduction in foreign investment due to the high costs of doing business. Multiple submissions to the ACCC from business and industry groups note that high and rising energy prices have damaged the international competitiveness of our businesses, have forced businesses to pass costs on to consumers who pay more for goods and services and even force businesses to reduce wages or cut jobs to afford their continued operations.⁷¹

80. Australia accounts for barely 1.8% of world greenhouse gas emissions, according to the Commonwealth Department of Environment,⁷² with the Garnaut Review on Climate Change estimating that this contribution will decline to 1% by 2100.⁷³ Under the national Renewable Energy Target (2002-2017), global emissions reduced by a miniscule 0.005%.⁷⁴ Even if Australia now complies with and exceeds its obligations under the Paris Accord, there will be no noticeable decline in global temperatures and no significant impact on climate change.

⁷⁰ CME Australia, International Comparison of Australia's Electricity Prices July 2016, pg. 10, based on market exchange rates (i.e., prior to factoring in taxes)

⁷¹ See for example, Queensland Chamber of Commerce and Industry *Submission to ACCC Issues Paper*, July 2017, p. 1; Major Energy Users Inc, *Submission to ACCC Issues Paper*, July 2017, p. 6; South Australian Wine Industry Association, *Submission to ACCC Issues Paper*, July 2017, p. 4.

⁷² Commonwealth Department of Environment, "Australia's 2030 Climate Change Target", (2015), available at <http://www.environment.gov.au/climate-change/publications/factsheet-australias-2030-climate-change-target>

⁷³ Garnaut, Ross, "The Garnaut Climate Change Review", Canberra, Australia, (November 2010), Available at http://www.garnautreview.org.au/chp3.htm#3_5

⁷⁴ The International Energy Agency found that approximately 400 billion tonnes of carbon were emitted worldwide due to fuel combustion from 2001- 2014: The International Energy Agency, *CO2 Emissions from Fuel Combustion*, 2016. Over the same period, the Climate Council of Australia, a renewable energy lobby group, found that the RET had caused emissions to decline by an estimated 22.5 million tonnes: Peter Stock, *Giga-what? Explaining Australia's Renewable Energy Target*, the Climate Council of Australia, 2015.

81. Furthermore, policy intended to reduce greenhouse gas emissions in Australia has actually contributed to its increase in multiple instances. For example, Australian coal is amongst the cleanest coal in the world.⁷⁵ The failure to mine coal or to develop Australian clean coal technology does not result in fewer coal mines, it simply means that more mines are set up in nations which produce less clean coal in order to meet global demand. More coal must be burnt in these countries in order to produce the same amount of electricity which in turn results in increased greenhouse gas emissions while driving up prices. A 2016 Queensland Supreme Court ruling concerning a proposed mine near Alpha, Queensland found that closing the mine would not impact greenhouse gas emissions or climate change as coal would instead be obtained from other places/countries with less clean coal to make up the shortfall, simply resulting in higher prices without lowering emissions.⁷⁶
82. **Paris Accord:** Although the national RET has been abolished, Australia remains a signatory of the Paris Accord emissions reduction agreement and individual Australian states including South Australia, maintain their own RETs and emissions reduction policies. The Paris Accord imposes significant obligations and burdens upon some countries such as Australia and Germany, whilst imposing little to no obligation to tangibly reduce emissions on other nations such as China and India. Independent studies have found that even assuming that all original Paris Accord signatories including the USA (which rescinded the accord in 2017), met their obligations – there would not be a decrease in global temperatures.⁷⁷ The study also found that the greenhouse gas concentrations which would hypothetically be avoided by global meeting of Paris Accord obligations by 2100 will be reached shortly thereafter even if Paris Accord obligations are met.
83. In the process, the resultant depletion of global incomes, discouragement of business and investment due to higher power prices, will make it harder for countries to adapt and innovate to address climate change's effects. In other words, the Paris Accord makes the problem of dealing with climate change worse.
84. Furthermore, the accord's own stated aim of keeping the "global average temperature to 2°C above pre-industrial levels" is defined in arbitrary and unclear terms as the accord fails to note how this 'global average' will be measured and remains silent on whether this figure will be adjusted for the degree of temperature increase caused by natural (non-greenhouse gas emissions related) factors such as solar events.
85. The Paris Accord also encompasses stipulations pertaining to extraneous themes defined in vague, politically and ideologically loaded terms. These include gender equity, biodiversity, poverty eradication, a "just transition of the workforce," "creation of decent work" etc. These terms are subject to different interpretations and

⁷⁵ Australian Broadcasting Corporation, Fact check: Does Australia export cleaner coal than many other countries? 27 November, 2015. Available at <http://mobile.abc.net.au/news/2015-11-27/fact-check-is-australias-export-coal-cleaner/6952190>

⁷⁶ *Coast and Country Association of Queensland Inc v Smith & Ors* [2016] QCA 24.

⁷⁷ Lomborg, Bjorn. "Impact of current climate proposals." *Global Policy* 7.1 (2016): 109-118.

can be used by future governments to justify significant and damaging regulations on individuals and businesses which far exceed the accord's purported mandate of tackling climate change and greenhouse gas emissions. Even if these stipulations are considered 'optional', the political uncertainty connoted by their inclusion is likely to factor into future domestic and international investment decisions in Australia.

86. It is in the interest of Australia that our nation withdraws from the Paris Accord.

POLICY RECOMMENDATIONS

87. That the NSW government lobby the federal government (through COAG) to lift the moratorium on nuclear power by repealing Section 10 of the *Australian Radiation Protection and Nuclear Safety Act* and Section 140A of the *Environmental Protection and Biodiversity Conservation Act*. NOTE: In the event that the moratorium is lifted, the ATA recommends that a federal government inquiry be undertaken to formulate appropriate national regulatory standards for the nuclear energy industry which are cogent with international best practice, safety and community concerns as well as the need to ensure that the technology remains commercially viable without excessive regulatory burden. It is submitted that the UK model is an example of one which Australia/NSW can use to model its regulatory framework.
88. That the NSW government seek private investment for the construction of new coal-fired power stations (including brown coal generators) which will continue to deliver cheap, reliable energy and can act as back-ups for renewable energy generators.
89. That the NSW government reduce or repeal regulations preventing further exploration and development of natural gas resources.
90. That the NSW government extend the Clean Energy Scheme to include finance to low emissions coal and nuclear energy projects, thereby ensuring neutral treatment.
91. That the NSW government cuts green tape and incentivises private investment in the energy generation sector by reducing the large subsidies afforded to solar and wind energy in recognition of the need for a competitive energy mix as well as the increase in private investment in the solar and wind energy industries which has reduced the necessity for subsidy.
92. That the NSW government maintains the deregulated state of electricity prices in the state.
93. That the NSW government boosts competition in energy prices through an online database and advisory designed to inform and empower consumers through information about available offers and tips on negotiating better offers from retailers.
94. That the NSW government boosts competition in energy prices by encouraging more players to enter the retail electricity space, such as by reducing regulatory burdens that act as barriers to entry.
95. That the NSW government adopts a regulatory methodology for energy which is modelled on the best practice of Victoria in order to reduce over-investment in assets.
96. That the NSW government fully privatises electricity distribution and transmission networks which have led to Victorians and the people of the ACT paying lower electricity prices than states with publicly-owned networks in the NEM.

97. That the NSW government does not consider implementing 'smart meters'.
98. That the NSW government abolishes the energy rebate available to all recipients of the family tax benefit A or B and instead institutes a means test that applies the rebate only to those individuals who earn \$40,000 per annum or less.
99. That the NSW government utilise the savings incurred through the implementation of the point above to offset increases to the following financial or medical hardship-based rebates: low income household rebate, medical energy rebate, life support rebate, gas rebate, EAPA scheme.
100. That the NSW government extend the ban on charging exit fees to all customers in NSW who switch plans.
101. That the NSW government abolishes the state-level Renewable Energy Target and lobbies the federal government (through COAG) to withdraw Australia from the Paris Accord.
102. That the NSW government abolishes environmental schemes which distort the energy market and drive up prices for consumers.
103. That NSW exits the National Electricity Market and caters exclusively to its own electricity market, consistent with the approach of Western Australia and the Northern Territory.

Samuel Marz
Director of Policy – Australian Taxpayers' Alliance

Tim Andrews
Executive Director – Australian Taxpayers' Alliance