



National Irrigators' Council

***Submission to Independent
Review into the Future Security
of the National Electricity Market***

Supporting industry and jobs through accessible and affordable energy

February 2017

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The National Irrigators' Council (NIC) is the national peak body representing irrigators in Australia. The Council supports twenty-nine (29) member organisations covering the Murray Darling Basin states, irrigation regions and the major agricultural commodity groups. Council members collectively hold approximately 7,000,000 mega litres of water entitlements.

The Council represents the voice of those involved in irrigated agriculture who produce food and fibre for Australia and significant export income. The total gross value of irrigated agricultural production in Australia in 2014-15 was over \$15 billion (ABS). The sector produces essential food such as milk, fruit, vegetables, rice, grains, sugar, nuts, meat and other commodities such as cotton and wine.

The Council aims to develop projects and policies to ensure the efficiency, viability and sustainability of Australian irrigated agriculture and the security and reliability of water entitlements. The NIC advocates to governments, statutory authorities and other relevant organisations for their adoption.

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Executive Summary

It is difficult to imagine that in 2017 in an energy rich country like Australia, the impact of weak energy policy and unsustainable costs are undermining the viability of businesses and industries which produce food and fibre for the domestic and export markets. It is unacceptable that energy policy failure is undermining our highly productive and efficient agricultural sector, and destroying our capacity to be a competitive global food producer and even to put fresh food on the tables of Australian households.

National Irrigators' Council (NIC) seeks, through this review of future security of the National Electricity Market, to highlight the impact of the high cost of electricity on the irrigated agriculture sector and call for urgent action to reform the market, provide reasonable prices and policy stability.

We specifically recommend:

- A 30% reduction in the regulated electricity prices based on the 2014-15 financial year
- A price for electrons averaging 8 cents/Kw hour.
- A rule change via the Australian Energy Market Commission (AEMC) to change the way electricity networks' regulated asset base (RAB) is calculated.
- A national food and fibre tariff model.
- A water energy productivity program designed to fund and accelerate the adoption of energy solutions
- Fundamental reform of the NEM to address the lack of genuine competition, the operation of the bidding process and a market where consumers' interests are fairly represented.
- Stability and certainty in national energy policy to allow investment.

Urgent and fundamental reform is needed in Australia's National Electricity Market (NEM). The independent review into the future security of the National Electricity Market is welcome, though arguably not sufficiently broad in its remit. While it highlights the critical nature of energy market governance, it lacks reference to opportunities to improve the regulatory oversight framework within the NEM. A rebalance is necessary to ensure that the long-term interests of consumers attracts greater focus, with a cultural shift away from the entrenched relationship between the regulators and the networks.

It is hoped the review will provide an opportunity for an examination of these matters and the first steps towards a reconfiguration or rebalancing of these arrangements, and provide the appropriate mechanisms to deliver necessary change. NIC has little confidence that incremental changes to the current arrangements will address the concerns of the irrigated agriculture sector. Independent and credible advice must be sought from those that do not have a vested interest in protecting the current institutions or arrangements. There is a need for fresh ideas, candour and imagination.

The market lacks genuine competition and appears dominated by maximising returns to generators and infrastructure owners. The absence of competition in the South Australian market must be examined; this includes the gaming that occurs on the spot market which is struggling to cope with the transition to renewables. The growth in non-scheduled intermittent supply and the exit of thermal generation is decreasing liquidity in the market and competition, which in turn impacts the future market and results in a surge in prices for energy. It is unacceptable that consumers should be forced onto the spot market due to an inability to secure quotes from retailers for fixed term contracts.

NIC seeks a comprehensive assessment of the economy-wide costs and benefits of revising the electricity network and transmission businesses' regulated asset bases to efficient levels. Excessive returns on networks' regulated asset base (RAB) are inflating networks' revenues with the result that

excessive network prices are shifted back to the consumer. In addition to inflating costs these artificially inflated asset bases are distorting efficient investment decisions.

Why is it that Australian consumers are paying around twice as much for network charges as those in the United Kingdom and around 2.5 times as much as those in the United States.

The 'propose-respond' model as part of the AER pricing determinations process must be reviewed. This model creates a significant advantage for network businesses relative to the regulator, placing the onus of proof on the regulator to challenge the proposals submitted by the networks, rather than the regulator setting the agenda at the beginning of the pricing process.

The closure of coal fired power is causing significant negative impacts on the electricity industry, with gas increasingly on the agenda as a transition fuel to a lower carbon economy. And yet at the same time there are moratoriums in Victoria, New South Wales and the Northern Territory on unconventional gas exploration and the expansion of LNG export. Improved planning and coordination between the Commonwealth and the states in this space is critical to ensure energy affordability and reliability as the generation mix continues to change into the future.

Background information

Over a long period, NIC has directed considerable effort towards achieving a fairer deal on energy for our sector, consistently highlighting the impact of high electricity costs on food and fibre producers. NIC has participated in Government related inquiries and the Australian Energy Regulator (AER) pricing determinations, appeared before the Australian Competition Tribunal consultations, participated in numerous workshops, consultative groups, the Electricity Transformation Roadmap forums and the Consumer Challenge Panel, and provided input through initiatives conducted by Energy Consumers Australia (ECA). NIC leadership has met with the AER Chair and we led the formation of the Agriculture Industries Energy Taskforce in 2014, incorporating membership from Australia's key agricultural peak bodies.

Rural industries impacted by the high cost of electricity play a key role as economic drivers in local economies and nationally. They include the cotton, rice, sugar, wine, almond, horticultural and dairy industries, all major producers of Australian agricultural product much of which is exported. These industries provide employment and flow on benefits for regional communities and the nation. In producing their products, energy is used in a variety of ways such as pumping irrigation water, pasteurisation, cool rooms, processing plants and moving products.

Frustration due to the complexity and bureaucracy of the electricity industry results in extreme cynicism and frustration by our members. The myriad of regulation appears out of touch and unaccountable, built on abstract theoretical ideas that are beyond the reality of the industry and its consumers.

During NIC's endeavours to engage various responsible bodies regarding these challenges, we have been exposed to the entrenched culture of institutional and blame shifting with governance and regulation of the industry split between many bodies, where prescriptive rules and processes prevent any positive change. In recent weeks the blame game has been well and truly alive following the February 2017 failure in the South Australian energy market.

Industry governance and regulation appears to be split between many bodies, with prescriptive rules and processes impeding any change. While the institutions, governments and industry claim they have the long-term interests of consumers at heart, this is not visible in practice. In fact the evidence

of industry profit and prices supports our own observations that shareholders are doing extraordinarily well out of this industry, at the expense of electricity consumers.

NIC has gained the strong impression that the owners of the electricity generation, distribution and transmission assets have a significant, if not dominant, voice in driving the policies adopted by the regulatory bodies.

Typically, government regulated network charges and other costs represent around 50% to 56% of farmers' electricity bills; the actual electricity charges make up less than 26% although this is also changing rapidly. Network charges continue to have a highly distorting effect on the electricity market. From our perspective, network companies' shareholders are benefiting at the considerable expense of electricity consumers.

An international comparison of Australia's key agricultural trading partners conducted in 2012 showed that Australia's average electricity prices had grown by 40% since 2007. Cost increases for Australian irrigated agriculture have been in excess of 100% for most, and in some cases as high as 300%, over the same period.

The major objective of the National Electricity Market (NEM) should be to provide affordable, reliable power in the best interest of consumers. Under current market governance arrangements, existing loopholes are enabling price gouging by network businesses and preventing a fair and effective pricing structure for consumers.

AER pricing determinations process

NIC acknowledges the work of the AER through the draft pricing determinations where price reductions were reflected in 2015 in Queensland, New South Wales and South Australia. However, due to the electricity networks vigorously challenging the AER determinations (supported by their unlimited capacity to do so), combined with the constraints within the Australian Energy Markets Commission (AEMC) rules that govern the regulatory process, our sector stakeholders find themselves returning to the status quo, with exorbitant and growing costs.

It is an interesting observation that the AEMC has not once approved a rule change put forward by consumers. And despite it being within the remit of the regulator, the AER has not shown an inclination to propose rule changes, even while its own Consumer Challenge Panel has provided advice in relation to the negative impacts of existing rules and customer feedback regarding the impact on the international competitiveness of business as a result of the electricity price spiral.

Propose-respond model: NIC has long advocated for an examination of the way network companies present information in their submissions to the AER and the volume of material involved. The arrangement adopted in the NEM known as the 'propose-respond' model reflects the imbalance currently in the system, where network businesses propose their business case and the regulator is required to respond. This model was advocated by the network businesses and was adopted by the AEMC and formalised in the National Electricity Rules.

Prior to these rules, in the economic regulation performed by the ACCC (for transmission networks) and state regulators (for distribution networks), the regulators determined the information requirements and businesses responded to the regulator's requests. While the networks also submitted their intentions and proposals, there was no obligation on the regulators to respond to these proposals. This arrangement mirrored that in Britain where there is not, and never has been, a formal obligation on the regulator to respond to network businesses' proposals.

The 'propose-respond' arrangement creates a significant advantage for network businesses relative to the regulator, and effectively places the onus of proof on the regulator to demonstrate that the businesses' proposals are wrong. While the AER is free to question various aspects of network submissions during the pricing determinations, and seek information, the regulator is not free to set the agenda. Our view is that the regulator is significantly constrained by this process which enables network businesses to effectively inundate the regulator through the weight of material it provides.

Regulated Asset Base (RAB): NIC seeks a comprehensive assessment of the economy-wide costs and benefits of revising the electricity network and transmission businesses' regulated asset bases to efficient levels. The assessment should include an examination of the potential reinstatement of the original (pre-2006) NEM rules that required the regulator to optimise the transmission and distribution network regulated asset bases.

The RABs of Australia's electricity networks have been artificially inflated and been allowed to grow to excessive levels. Over the past fifteen years, the networks' RABs have increased by around 400%. These growth rates now put Australian electricity networks' RAB levels significantly higher than their international counterparts; it is unacceptable that the RAB per connection levels of Australia's distribution networks are now up to nine times the levels of networks in the United Kingdom.

The excessive returns on RABs account for the majority of networks' revenues, and result in excessive network prices being shifted back to the consumer. We know that Australian consumers are paying around twice as much for network charges as those in the United Kingdom and around 2.5 times as much as those in the United States.

A rule change is necessary via the AEMC to change the way electricity networks' RAB is calculated as part of their network costs in their submissions to the AER pricing determinations. The regulatory framework for gas pipelines requires the assets to be optimised and the value of unused and redundant assets to be written down. The asset revaluation was removed from the electricity pricing rules, not surprisingly just prior to the electricity RAB valuations taking off. Why is the regulatory pricing framework that applies to gas and electricity networks not consistent? If it were, electricity networks would be entitled only to a return on their useful and used assets, a small step towards real cost reflective pricing.

Consumers should not be expected to meet the costs of an expensive 'gold plated' system that has arisen because of a perverse application of the rules where electricity networks are receiving significant returns combined with a 'gaming culture' from the providers of energy and distribution services.

Spot Market: The current spot market is struggling to cope with the transition to renewables. The growth in non-scheduled intermittent supply and the exit of thermal generation is decreasing liquidity in the market and competition. This is then impacting on the futures market and we have consequently seen a surge in prices for energy.

The market also has anomalies such as the five-minute rule and the auction system which allows the opportunity for gaming. We recommend an assessment of a rule change in relation to the five-minute settlement rule. Pricing is currently set at every five minutes, yet financial settlement is made every thirty minutes, leaving distortion in the market and scope for prices to be pushed up. The five-minute auction system is a reverse auction where the highest price wins the bid and everyone obtains this

price. This is in direct contrast to most tender processes where lowest price wins the job.

It would be beneficial to allow network credits for local generation which appear to be expanding at a rapid pace. The network must be opened up to competitors, as with the telecommunications sector. This could allow the irrigated agriculture sector to access co-gen at a reasonable price or perhaps a group of growers to invest in solar at a district level.

COAG Energy Council Limited Merits Review (LMR): NIC provided a submission to the 2015 review of the Limited Merits Review regime, supporting Option 4 that is, to remove access to the LMR. Our view is based on our experience with the AER regulatory determination process. It is apparent the LMR arrangements are not working in a way that was intended which is to serve the long-term interests of consumers. Amendments to the LMR regime in 2013, designed to ensure that regulatory decisions promote efficient investment operation and use of energy infrastructure in ways that best serve the long-term interest of consumers, are not delivering when over 50% of regulatory decisions since 2013 have been subject to review applications.

We recommend a mechanism and/or framework where the input of consumers is taken into account at the 'front end' of the process rather than the 'tail end'. Such a vehicle could be in the form of an advisory panel involvement at the beginning of the regulatory process. The current decision making process is cumbersome and the removal of the LMR would represent a first step towards removing a pillar of that process, which currently does not give equal balance to the needs of consumers vis-a-vis the objectives of the networks.

NIC cannot overstate the low level of trust by irrigated agriculture in the current system, where consumer interests are largely absent. The current appeals process does not sufficiently enable irrigated agriculture consumers to have an impact. The complexity and cost of the process leaves consumers at a disadvantage, without the technical knowledge or financial resources to engage at the same level of capacity to the network and generator owners. Service providers have the capacity to persuade the AER through a legalistic and adversarial process.

There is little evidence that representations made by NIC during the Australian Competition Tribunal community consultations have been taken into account. Tribunal hearings largely reflected a narrow focus and did not pursue the AER decision in a broad context. NIC supports accountability in the framework but does not view the LMR process as the right mechanism to provide the necessary scrutiny and accountability.

Tariffs: Network service providers are seeking to increase the proportion of their bills that are recovered through fixed charges. Some have argued for this on the basis that 'fixed costs should be recovered through fixed charges'. We believe there has been confusion between sunk (historic) costs and (current) fixed charges. There is no basis in the theory of electricity pricing for sunk costs to be recovered through fixed charges. Raising fixed charges reduces the ability of our members to reduce their electricity bills by consuming less. It also negatively impacts the economics of distributed generation relative to grid-supplied electricity (which is exactly why the networks are raising fixed charges).

We understand that the AEMC intends to make changes to the National Electricity Rules to mandate that tariffs should be 'cost reflective'. We do not know what this will mean in practice, but we are concerned that networks will use 'tariff reform' as an opportunity to undermine the prospects for energy efficiency and distributed generation, both of which are competitive threats to their business. We encourage this review to examine the anomalies within network tariffs. Network tariffs should be designed to ensure that irrigators and other businesses in non-congested parts of the network are not

forced to meet the costs of network investments made to overcome congestion in other parts of the network.

AER Consumer Challenge Panel (CCP): The AER engaged a consultant to review the effectiveness of the CCP initiative, the results of which were very poor, with comments reflected in the following review feedback:

- *The impact that the CCP has had on the decision-making process of the AER is difficult to measure.*
- *The AER has expressed the opinion that the advice provided by the CCP did not substantially alter the matters or issues considered in their regulatory decision making. Some business stakeholders expressed concern that the advice of the CCP did not appear to make an impact on AER decisions. The lack of evidence of a relationship between the engagement of the CCP and the responses of the AER to the business proposals made them question the value of the CCP input.*
- *Many CCP members were also uncertain as to when their advice was being heeded. Some CCP members had the perception that the process driven and risk averse nature of the AER limited the impact and uptake of their advice.*
- *Other CCP members indicated that resource constraints on the AER limited its capacity to listen and respond to the CCP's advice.*

NIC valued the information and support from the CCP members and found the panel very useful.

Transition to renewables

The irrigated agriculture sector would embrace renewable technology providing the right mix of solutions was available at an affordable price. This applies to the network as well as to the installation by individual companies and producers of their own generating and/or storage capacity.

We are however concerned that, particularly in South Australia, there has been a failure to build sufficient synchronous generation and storage into the system. The Independent Review's preliminary report notes that the '*shift from coal-fired generators to wind and solar PV generators has implications for security and reliability*'. NIC members' businesses are experiencing first-hand the impacts of this shift where the drive to renewables is moving ahead, without the appropriate policy and governance framework (Commonwealth and state) in place and compromising reliability and security.

If Governments are looking to Australian companies, both at a national large scale level and at a regional level, to drive jobs and opportunity, reliable and affordable power on demand is a fundamental component of that endeavour.

It is critical that this review and associated policy levers produce a framework that will commence a process towards stability and coordination during Australia's transition to renewables. This would help to mitigate the trajectory which is leaving irrigated agriculture and associated agribusiness stranded, when renewable technologies most suitable to the sector, are not yet available nor reliable enough to support peak demand.

Currently there is no viable storage capacity that would provide a renewable mix. Our sector urgently needs that technology. A focus on grid transformation and the application of new technologies could open the way for the development of smarter grid solutions. The Electricity Network Transformation Roadmap key concepts report released in December 2016 identifies that *the next decade to 2027 is likely to see a step change in the rapid adoption of new energy technologies, driven by falling costs and global carbon abatement measures*. The report notes that by 2027 customers will have choice

and control of their use of onsite resources including solar and batteries. The irrigated agriculture sector does not currently have that choice and needs access to appropriate technology now, including smarter grid solutions.

South Australian situation: What is occurring in South Australia could well be described as an indictment on our political leaders. The catastrophic energy failure which occurred in September 2016 was indeed the event that highlighted the weaknesses in the national electricity market and put the issue in the public spotlight. Yet businesses and major industries in South Australia have been exposed to a poorly functioning energy market for some time prior to the September event.

This is largely as a consequence of the governments' renewables policy and against the backdrop of the closure of Alinta Energy's Port Augusta power station in May 2016. Governments' policies and unachievable renewable targets are producing a disjointed and unsustainable energy system. We are asking the system to adjust faster than the technologies will allow. It is extraordinary that the most efficient gas station at Pelican Point is mothballed while less efficient power sources take priority. Without gas supplies, or a commercially viable storage system, wind and solar cannot produce the daily power requirements as evidenced during February 2017.

The South Australian situation is proving to be test case, with challenges now flowing into other states and associated price rises; the imminent closure of Hazelwood Power Station in Victoria adds a further sense of urgency. Job-creating industries and businesses are left exposed to the market with the removal of thermal power, replaced by intermittent generation.

Contract prices for electricity in South Australia have increased 140% over a twelve-month period. This scenario will be replicated in Victoria as that state implements its aggressive renewable energy policy in pursuit of its targets. The electricity spot price is having the effect of spooking the market where customers find it difficult to secure quotes from retailers for fixed term contracts. Some companies provide quotes only to existing customers and it appears that gaming is occurring on the spot market.

There is also a lack of liquidity in the market which is impacting negatively on the availability of caps to purchase and when they are available, it is at a massively increased price. The appearance of gentailers competition in the market for scheduled supply is reducing much of that supply and is in the hands of a few companies. In September 2016, one retailer only was prepared to quote on energy contracts of companies using more than 5GW annually, placing the consumer in a very difficult position.

We commend the AER who challenged the distributor's Regulatory Proposals. After working through the pricing determinations process, the AER reduced their revenue proposals in South Australia (2015-16). This outcome is currently under challenge through the Australian Competition Tribunal and not yet resolved, creating further frustrations for our members and other consumers.

The events in South Australia during the winter of 2016 demonstrated that gas supplies and gas infrastructure are struggling to cope at peak times. This situation will be exacerbated as more coal power generators close, and when gas is seen as the alternative fuel. In addition, with the moratoriums in Victoria and NSW on unconventional gas exploration and the expansion of LNG export contracts, many of us wonder if gas really is a viable alternative.

Interaction with the market for Gas

NIC has made clear its concerns about the failure of the electricity market. These concerns are exacerbated by the potential interaction with the international market for gas.

Gas was consistently flagged in planning for the transition to a lower carbon emitting energy sector as a key transition fuel. At the same time the planning for this transition should have been occurring, we saw instead some state governments responding to community concern by seriously restricting or banning exploration and development of gas supplies, while Queensland built major gas export facilities with contracted volumes.

This is leading to the potential for gas shortage in some states and it appears to have contributed to the bizarre decisions made recently regarding the Pelican Point power station in South Australia.

Gas is clearly strongly on the agenda of this review; it is therefore critical that negative impacts on the electricity industry of interaction with the gas market are explored. These negative impacts may need to be countered by increased regulation whether that is of gas fired power assets or of gas production in Australia.

About the National Irrigators' Council

The National Irrigators' Council (NIC) is the national peak body representing irrigators in Australia. The Council supports twenty-nine (29) member organisations covering the Murray Darling Basin states, irrigation regions and the major agricultural commodity groups. Council members collectively hold approximately 7,000,000 mega litres of water entitlements.

The national body is the policy and political voice of those who use water for commercial agricultural purposes, producing food and fibre for local consumption as well as making a significant contribution to Australia's export income.

NIC is funded by irrigators, for the benefit of irrigated agriculture which provides jobs in rural and regional communities. Members are not individual irrigators but members of their respective representative organisations. An irrigator is defined as *'a person or body with irrigation entitlement for commercial agricultural production'*.

Member organisations are located in irrigation regions across Australia within the Murray-Darling Basin and beyond. They represent a diversity of organisations from irrigation infrastructure operators, individual irrigators, processors through to agricultural commodity groups who produce and value add food and fibre for domestic consumption and significant export income.

NIC advocates on behalf of irrigated agriculture and aims to develop projects and policies to ensure the efficiency, viability and sustainability of Australian irrigated agriculture and the security and reliability of water entitlements. The NIC advocates to governments, statutory authorities and other relevant organisations for their adoption.

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NIC Guiding Principles

The National Irrigators' Council (NIC) objectives are to:

To protect or enhance water as a property right and to champion a vibrant sustainable irrigation industry.

NIC is the voice of irrigators and believes in the following principles to guide future policy decisions:

- A healthy environment is paramount
 - Sustainable communities and industries depend on it
- Protect or enhance water property rights.
 - Characteristics of water entitlements should not be altered by ownership
- No negative third party impacts on reliability or availability
 - Potential negative impacts must be compensated or mitigated through negotiation with affected parties.
- Irrigators must be fully and effectively engaged in the development of relevant policy.
- Irrigators expect an efficient, open, fair and transparent water market.
- Irrigators require a consistent national approach to water management subject to relevant geographical and hydrological characteristics.
- Irrigators expect Government policy to deliver triple bottom line outcomes.
- Regulatory and cost burdens of reform must be minimised and apportioned equitably.