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Submission

Standing Committee on Environment and Communications

Inquiry into Electricity Network Companies

141121

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Introduction

The NSW Irrigators' Council (NSWIC) represents more than 12,000 water access licence holders across NSW. These licence holders access regulated, unregulated and groundwater systems. Its Members include valley water user associations, food and fibre producers, irrigation infrastructure operators and commodity group from the rice, cotton, dairy and horticultural industries.

This submissions represents the views of the Members of NSWIC with respect to the *Senate Inquiry into Electricity Network Companies*. However, each Member reserves its right to independent policy on issues that directly relate to their areas of operation, or expertise, or any other issues that they may deem relevant.

General Comments

The NSW Irrigators' Council (NSWIC) appreciates the opportunity to provide comments to the *Senate Inquiry into Electricity Network Companies*. NSWIC will only comment on those Terms of References (ToR) that directly relate to its Members.

Electricity has become a major input factor in irrigated agriculture as more irrigators have upgraded their on-farm equipment to conserve water and remain competitive. These structural adjustments have led to productivity gains and water savings however they have also caused irrigators' electricity use to increase. Greater use of electricity and a rise in associated charges have significantly impacted irrigators' profitability and have led to financial hardship in some cases.

The trade-off between water efficiency and energy intensity is extremely difficult to reconcile in irrigation and as a consequence of the escalating electricity costs many irrigators have taken drastic measures (including locking off their pumps or converting back to diesel energy) and reverted back to low energy but water-intensive production methods. The impacts in terms of efficiency and productivity are immense and continuously increasing.

Some irrigators have experienced electricity cost increases of up to 300 per cent over the last five years and the main drivers have been the continuously escalating network charges. These charges make up between 55 and 65 per cent of an irrigator's electricity bill and are unavoidable in the use of electrical irrigation equipment on-farm or via irrigation scheme pumping costs passed on through scheme water supply charges. The Council believes there needs to be an urgent reform in the way distribution network service providers (DNSP) are regulated, receive their revenue and determine their tariff structure.

As the last NSW Financial Audit Office report has highlighted, NSW's distribution network service provider Essential Energy, achieved a net profit after tax of \$295 million in 2013-14 (\$118 million higher than its target)¹. Such excessive profits have contributed to the escalating electricity cost burden for irrigators.

NSWIC will provide detailed comments to the specific Terms of References (ToR) in the sections below.

¹ <http://www.audit.nsw.gov.au/publications/financial-audit-reports/2014-reports/volume-five-2014/volume-five-2014-focusing-on-electricity-and-water>

Responses to Terms of References

NSWIC would like to make the following specific comments to the Senate Inquiry's Terms of References:

ToR(a)

"the manner in which electricity network companies have presented information to the Australian Energy Regulator (AER), and whether they have misled the AER in relation to:

- (i) their weighted average costs of capital*
- (ii) the necessity for the infrastructure proposed,*
- (iii) their regulated asset valuations, and*
- (iv) actual interests rates claimed against actual borrowing costs."*

NSWIC believes that the electricity network companies have inundated the Australian Energy Regulator (AER) with documents on their revenue requirement for the next regulatory control period. NSW distribution network business Essential Energy, has submitted more than 20,000 pages to the AER in more than 80 separate attachments. The information is vastly dispersed and varied significantly in quality. NSWIC believes that the way in which this information was provided prevents effective and efficient stakeholder consultation.

Despite the vast amount of information, NSWIC did assess some of Essential Energy's documents and was aghast by one particular comment that highlighted Essential Energy's attitude to customer engagement:

"customer's do not fully understand why charges are rising but accept it is inevitable and out of their control."²

Given the complexity of NSW's electricity pricing structure and the wide dispersion of information, it is not surprising that customers disengage from the current process and do not fully understand why their prices are rising. However, it is simply not correct that customers accept recent price rises and see them as inevitable. Irrigators, in particular are acutely aware of their electricity charges and are taking drastic measures to reduce their costs.

In addition, NSWIC is yet to be convinced that a solid business case has been made by Essential Energy that would justify a further increase in their allowed revenue (i.e. an additional \$1 billion requested by Essential Energy). This is particularly the case since the NSW Audit Office found that the capital expenditure by the Distribution and Transmission networks for the 2009-14 regulatory period was \$3.7 billion dollar less than the AER's allowed capital expenditure.

Finally, NSWIC is doubtful whether the AER will have sufficient resources to adequately assess and scrutinize all of the electricity network business' revenue proposals. NSWIC believes it is important that the AER is provided with adequate resources and time to fully

² Essential Energy Regulatory Proposal p.16 available under: <https://www.aer.gov.au/sites/default/files/Essential%20Energy%20-202014-19%20Regulatory%20Proposal.pdf>

analyse the information and make a decision on all the factors claimed by the network operators as grounds for further increases in expenditure.

ToR(b)

"how electricity companies, including state government owned electricity companies such as Energex, have calculated the weighted average cost of capital and how this measure has changed over time;"

It is NSWIC's understanding that the electricity network businesses have utilised the AER's Rate of Return guidelines to calculate their weighted average cost of capital. While NSWIC does not, in principle, object to the formulaic methodology (i.e. the return on debt, equity and imputation credits), the Council has disagreed with Essential Energy on the values that were used for the calculations.

As an example, NSWIC does not believe that Essential Energy's proposal for an equity beta of 0.82 is justified³. As Essential Energy has pointed out in its pricing proposal to the AER, the AER's own empirical report gives an equity beta range of between 0.3 to 0.8. Essential Energy's proposal of 0.82 falls outside this range and enables Essential Energy to ask for a higher required rate of return than NSWIC believes is necessary.

NSWIC would like to point out that the recent determination of State Water Corporation - the bulk water service provider in NSW - determined a weighted average cost of capital of 6.92 per cent and an equity beta of 0.7⁴. It could be argued that the 'risk level' of State Water Corporation (whilst minimized through their current tariff structure) is equivalent or higher than that of Essential Energy. As such, NSWIC has strongly urged for the AER in its submission to Essential Energy's pricing proposal to review Essential Energy's weighted average cost of capital calculation and consider a lower equity beta value (inter alia putting downward pressure on electricity prices).

NSWIC did also not concur with Essential Energy on the use of a ten year trailing average approach to determine the cost of debt. NSWIC believes this is a blatant attempt to benefit from the volatility in financial markets during the Global Financial Crisis. While NSWIC understands that this was a very turbulent time and led to financial hardship for many businesses (including irrigators), NSWIC does not believe that such an approach will accurately represent the accurate cost of debt for Essential Energy. Again, we have asked for revision by the AER.

The last NSW Financial Audit Report highlighted also that NSW's distribution networks (Essential Energy, Endeavour and Ausgrid) together achieved a return on equity of 21.2% in 2013 and 15.1% in 2014. In addition, the combined entities achieved a return on asset of 10.9% in 2013 and 8.5% in 2014. These values are completely outside the range of returns that other businesses or irrigators were able to achieve over this time period.

³ Essential Energy's Regulatory Proposal p.107 , available under <https://www.aer.gov.au/sites/default/files/Essential%20Energy%20-20202014-19%20Regulatory%20Proposal.pdf>

⁴ ACCC Final Decision on State Water Pricing Application: 2014-15 -2016-17 p.17 available under: <https://www.accc.gov.au/system/files/ACCC%20Final%20Decision%20on%20State%20Water%202014-17%20pricing%20application%20%282%20July%202014%29.pdf>

ToR(c)

"where anomalies are identified in relation to price structuring or allegations of price rorting by electricity companies, such as Energex, are raised, the possibility of these matters being investigated by a national independent body created by the Federal Government with the required powers and reach to investigate and prosecute, where necessary;"

While the AER has the power to determine the electricity network businesses' overall revenue, it currently has no jurisdiction to determine their tariff structure. This means there is no guarantee that the overall revenue determination will lead to a sensible and equitable tariff setting.

NSWIC has voiced its concern in this regard and pointed out that Essential Energy's claim of 'network costs to remain at or below CPI' does not necessarily apply to each individual tariff class and as such, individual customer/classes could face price increases that are in excess of CPI (especially irrigators with an inelastic demand).

The current network tariffs that are most applicable for irrigators in NSW are BLND3AO and BLNS1AO.

The **BLND3AO** tariff is available for consumers whose consumption exceeds 100,000 kWh and are connected to the Low Voltage Distribution System.

The rates (2013) were:

| | Network Access \$/Day | Energy Peak c/kWh | Energy Shoulder c/kWh | Energy Off-Peak c/kWh | Peak Demand \$/kVA/M | Shoulder Demand \$/kVA/M | Off-Peak Demand \$/kVA/M |
|--------|-----------------------|-------------------|-----------------------|-----------------------|----------------------|--------------------------|--------------------------|
| Charge | 13.6127 | 4.7365 | 4.7365 | 2.8168 | 14.9551 | 14.9551 | 3.4182 |

Customers on this tariff may be eligible for a Low Voltage Demand Rebate. The eligibility depends on a range of criteria and is applied on the difference between the actual network costs and the calculated cost at 35 cents per kWh. In addition, this rebate only applies if the network costs exceed an average of 35 cents per kWh.

Customers must however fulfill the following two additional criteria;

1. The rebate must exceed 5 per cent or \$50 of total network charges per account per month.
2. The customer must have a power factor of at least 0.9 as required under the NSW Service and Installation Rules⁵.

The rebate is applied automatically and is capped at 40 per cent of total network charges per account per month. All rebate tests are calculated excluding GST.

⁵ For further information on the power factor, please refer to NSWIC's Briefing Note *Power Factors and Efficiencies*

The **BLNS1AO** tariff is available to customers who have a monthly load factor greater than 60 per cent for at least 4 of the most recent 12 months coinciding with a minimum on season anytime monthly demand for 1500 kVA. Demand charges are calculated as follows:

1. The daily kVA maximum demand in each of the Peak, Shoulder and Off-Peak periods will be metered for each day of the month.
2. The metered kVA demand for each day of the Peak, Shoulder and Off-Peak periods will be summed for the month and divided by the number of days in the month when the load occurs. This means that Peak and Shoulder Demand will be divided by the number of week days. Off Peak Demand by the total number of days.
3. The average time of use Demand calculated above will be multiplied by the time of use Demand rates.
4. No adjustments to billable demand is made for pre-season 'test runs'.

The rates in 2013 were:

| | Network Access \$/Day | Energy Peak c/kWh | Energy Shoulder c/kWh | Energy Off-Peak c/kWh | Peak Demand \$/kVA/M | Shoulder Demand \$/kVA/M | Off-Peak Demand \$/kVA/M |
|--------|-----------------------|-------------------|-----------------------|-----------------------|----------------------|--------------------------|--------------------------|
| Charge | 13.6127 | 4.23650 | 4.2365 | 2.6272 | 16.0431 | 16.0431 | 3.8954 |

However, the current network irrigation tariffs do not suit the needs and requirements of irrigators in NSW. As irrigators are often using electricity sporadically, when climatic conditions dictate crop or pasture requirements, the daily access charge does not reflect the usage pattern of irrigators - over which they have limited capacity to shift the times at which they need to use pumps.

In addition the rates associated with energy consumption at 'Peak' and 'Shoulder' time periods are identical which provides irrigators with little incentive to adjust their electricity usage. The difference between 'Peak/Shoulder' and 'Off-Peak' are also significant, especially in the demand component where the difference in costs is over \$11/kVA.

The demand charge component has also been the main driver of overall electricity costs. As irrigation equipment is often highly energy intensive, a large quantity of electricity is drawn at short time periods. This triggers demand charges which are often thousands of dollars.

Furthermore, a Low Voltage Rebate⁶ is available to eligible customers but the eligibility criteria make it near impossible for irrigators to apply for it. In particular, the 35 cents per kWh hurdle has increased by 15 cents since 2010 which has made a large number of irrigators ineligible to obtain the rebate.

Finally, many irrigators achieve a low power factor. A study undertaken by NSWIC has found that irrigators often have a power factor between 0.6 and 0.85.

⁶ Please refer to NSWIC Briefing Paper "Power Factor and Efficiencies"

NSWIC believes there is further scope for the AER to assess the underlying tariff charge of the electricity network businesses in order to address these inefficiencies.

Concluding, NSWIC would like to point out that many customers have over the last regulatory control period been moved to a different tariff rate, often without adequate consultation. Such an approach is not transparent or equitable as individuals are not even made aware of their new charges and obligations. The fact that Essential Energy has the opportunity to continuously assess existing connection points and decide if customers have to be re-assigned to a new tariff class, is unacceptable. NSWIC believes more targeted and detailed consultation with consumers is needed.

ToR(d)

"to ascertain whether state-owned network companies have prioritised their focus on future privatisation proceeds above the interests of energy users;"

As far as NSWIC understands, the NSW Government is currently not considering the sale of NSW regional network service provider 'Essential Energy'. However we remain concerned about the rationale underlying the Federal Government's incentive payment for the Asset Recycle initiative⁷.

NSWIC believes that the payments promised by the Federal Government creates perverse incentives for State Governments and could result in conflict of interest issues. It should be noted that the NSW Government currently receives \$1.7 billion (2013-14) in revenue from the NSW Distribution and Transmission network. If the payment from the Asset Recycle Scheme, as is suggested in the Federal Government's Energy Green Paper, is a proportion of the value of the asset, then it is an incentive for the State Government to 'inflate' the asset value of the electricity network business in order to increase the amount of payments it receives. However such an inflated asset base (and the return that the network business currently receives on this asset base) will be passed onto consumers in the form of higher network charges. For that reason, the asset base is already higher than necessary.

Furthermore, the due date for any Federal incentive payments is in 2019 (the year of the next revenue determination of NSW's network businesses). NSWIC suspects that the NSW State Government would consider postponing the privatisation until the end of the current regulatory period to ensure that the asset base is at its largest (due to the proposed growth of the asset base throughout the current determination). NSWIC believes that the incentive structure will lead to a significant and unnecessary cost burden for electricity customers.

NSWIC strongly urges the Federal Government to consider the terms of sale for electricity network businesses to ensure that customers are not disadvantaged and forced to pay for an inflated asset base.

⁷ http://www.budget.gov.au/2014-15/content/glossy/infrastructure/html/infrastructure_04.htm

ToR(e)

"whether the arrangements for the regulation of the cost of capital are delivering allowed rates of return above the actual cost of capital";

In NSWIC's submission to the AER, the Council has rejected Essential Energy's proposal of a 8.83% weighted average cost of capital (WACC)⁸. As the NSW Financial Audit Report highlighted the actual return on asset and debt was in excess of the previously determined values.

Contrary to Essential Energy's comment that such a WACC would "promote the long-term stability for customers and equity holders as well as debt financiers", NSWIC believes that such a WACC would be unjustified and only add to the significant cost burden that customers are already facing.

In addition, NSWIC was surprised that Essential Energy justified its WACC calculations through a comparison with other network businesses, while Essential Energy has been very careful to avoid such a comparison in regards to its CAPEX and OPEX figures.

In line with the previous comment, NSWIC did not concur with Essential Energy's assessment that a lower WACC would lead to an under-recovery of Essential Energy's efficient cost and hence cause an inefficient under-investment in the distribution network. To the contrary, Essential Energy is a government owned entity and achieved significant profits over the previous regulatory period. As such, we are highly doubtful that a downwards revision of Essential Energy's WACC will in any way compromise Essential Energy's ability to undertake necessary and efficient network investments.

ToR(f)

"whether the AER has actively pursued lowest-cost outcomes for energy consumers";

As the AER has not completed its review of Essential Energy's pricing proposal and has not finalised its draft determination, NSWIC cannot comment on the AER's attempt to pursue lower cost outcomes for energy consumers.

However, NSWIC has engaged with Essential Energy on multiple occasions to explore options to improve the existing network tariffs and implement demand side management mechanisms that could be mutually beneficial for irrigators and the network business. NSWIC believes that such demand side management strategies could make a real difference to the way the NSW network businesses operate and respond to future consumer behavioral changes.

NSWIC has pointed out in its submission to the AER that Essential Energy's current proposal contains little detail on the network's planned action to encourage demand side participation, however requests \$0.6 million per annum allowance for any DMIA under-

⁸ Essential Energy's Pricing Proposal ,p.88, available under <https://www.aer.gov.au/sites/default/files/Essential%20Energy%20-20202014-19%20Regulatory%20Proposal.pdf>

spending in the 2009-14 regulatory control period. NSWIC cannot understand how the network can ask for a reimbursement for an under spending during the last regulatory period without providing detailed business cases for future demand management work.

Furthermore, NSWIC has highlighted to the AER that it is extremely concerned about Essential Energy's future proposed capital expenditure. While NSWIC understands that the safety and reliability of the network must be ensured, a large part of the \$2.57 billion in proposed future CAPEX is related to 'refurbishing' existing assets⁹. Not only has NSWIC questioned the utility of Essential Energy's entire asset base, but the Council also believes that insufficient consideration has been given to alternative management approaches that achieve the same outcome but with less capital spending.

Given the significant capital investment that was made during the previous regulatory control period, the existing network is built to satisfy a demand that has not materialised. As such, spending additional capital to refurbish a network that might or might not be efficient is not sensible or prudent and cannot be justified on efficiency grounds. NSWIC would like to highlight that Essential Energy's own regulatory proposal admits that Essential Energy is facing a pool of excess resources and other stranded costs¹⁰. If this is the case, NSWIC has requested that a comprehensive review of the efficiency and usefulness of Essential Energy's current asset base must be conducted. Should some assets be identified as "inefficient" or "idle" then NSWIC has requested that the AER must amend Essential Energy's proposed future capital investment. In addition, should network assets have reached their maximum physical life and require replacement, NSWIC has requested that the AER must thoroughly assess whether the assets are 'used and useful' to ensure that network assets are not being replaced for the sake of replacement. In cases where assets need to be replaced and are under-utilised, it is NSWIC's view that these assets should be retired and removed from the regulated asset base (RAB).

Should future (inefficient) capital investments be granted by the AER, customers across Essential Energy's network will be unlikely see an end to continuous price rises. The asset base that Essential Energy currently holds (\$6.1 billion) already attracts significant costs which customers pay for. Further growth in the asset base will only increase future network costs. If the reliability and safety of the network can be achieved through other means (including demand management), NSWIC believes this is a prudent measure to ensure that cost pressures on customers are minimised.

ToR(g)

"whether network monopolies should have the right to recover historic overspending that has delivered unwanted and unused infrastructure";

Please see NSWIC's response to ToR(f).

⁹ Essential Energy's pricing proposal, p.39, available under: <https://www.aer.gov.au/sites/default/files/Essential%20Energy%20-20202014-19%20Regulatory%20Proposal.pdf>

¹⁰ Essential Energy's pricing proposal, p.78, <https://www.aer.gov.au/sites/default/files/Essential%20Energy%20-%20202014-19%20Regulatory%20Proposal.pdf>

ToR(h)

"how the regulatory structure and system could be improved";

According to NSWIC's Energy Policy, the Council strongly supports a simpler and more transparent electricity pricing framework. Future electricity regulation must have a clearly defined objective, address all aspects of the current electricity supply and allow one regulator to assess the efficiency and effectiveness of any proposed charges and tariffs that are levied on customers.

NSWIC believes that the current regulatory framework is too complex and prevents customers from engaging with the network businesses and effectively responding to the reviews and determinations. NSWIC would welcome the assistance from the Federal Government (through the Energy White Paper) to create a framework that is more transparent, competitive and clearly delineates the functions and responsibilities of the various players in electricity supply in NSW.

ToR(i)

"whether the arrangements for the connection and pricing of network services is discriminating against households and businesses that are involved in their own electricity production";

NSWIC believes that this is not the case.

As the large uptake of solar PV units has shown, the Federal Government's demand estimates were too low and the feed-in tariffs too high. This created an excess demand for solar PV units. In addition to the unexpected demand and the generous incentive payments, the AEMC has pointed out that the cross-subsidies from consumers without solar PV to consumers with solar PV is substantial¹¹. Furthermore, the cost of feeding solar generated energy back into the system is also only partially paid by those who have installed solar PV units. These arguments show that a well intended policy initiative has created significant distortions in the market and led to unintended cost implications for third parties.

NSWIC urges caution to 'champion' any particular energy source (including renewables) unless it is fully aware of the consequences for power costs for all consumers of electricity. NSWIC emphasises this point due to the Green Paper's comment on the importance of 'renewable energy sources' in regional and remote areas. While the Council understands that such renewable energy sources could be beneficial for some, it is important to consider the impact on other customers who remain 'on the grid'.

ToR(j)

"whether the current system provides adequate oversight of electricity network companies; and"

As we have outlined in our response to ToR(c) the AER has the power to determine the electricity network companies' overall revenue requirement, but it currently has no

¹¹AEMC Draft Determination on distribution network pricing arrangement, page iii, available under:
<http://www.aemc.gov.au/getattachment/e8ed16d5-011c-4bac-8076-eee575a5141c/Draft-determination.aspx>

jurisdiction to determine the tariff structures. NSWIC believes this is a regulatory oversight and should be corrected by ceding this regulatory power to the AER.

ENDS.