public interest ADVOCACY CENTRE LTD

Necessity and complexity:

Submission to the Senate Environment and Communications References Committee Inquiry into the performance and management of electricity network businesses

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1. Introduction

1.1 The Public Interest Advocacy Centre

The Public Interest Advocacy Centre (PIAC) is an independent, non-profit law and policy organisation that works for a fair, just and democratic society, empowering citizens, consumers and communities by taking strategic action on public interest issues.

PIAC identifies public interest issues and, where possible and appropriate, works co-operatively with other organisations to advocate for individuals and groups affected. PIAC seeks to:

- expose and redress unjust or unsafe practices, deficient laws or policies;
- promote accountable, transparent and responsive government;
- encourage, influence and inform public debate on issues affecting legal and democratic rights;
- promote the development of law that reflects the public interest;
- develop and assist community organisations with a public interest focus to pursue the interests of the communities they represent;
- develop models to respond to unmet legal need; and
- maintain an effective and sustainable organisation.

Established in July 1982 as an initiative of the (then) Law Foundation of New South Wales, with support from the NSW Legal Aid Commission, PIAC was the first, and remains the only broadly based public interest legal centre in Australia. Financial support for PIAC comes primarily from the NSW Public Purpose Fund and the Commonwealth and State Community Legal Services Program. PIAC also receives funding from NSW Trade and Investment for its work on energy and water, and from Allens for its Indigenous Justice Program. PIAC also generates income from project and case grants, seminars, consultancy fees, donations and recovery of costs in legal actions.

1.2 Energy + Water Consumers' Advocacy Program

This program was established at PIAC as the Utilities Consumers' Advocacy Program in 1998 with NSW Government funding. The aim of the program is to develop policy and advocate in the interests of low-income and other residential consumers in the NSW energy and water markets. PIAC receives policy input to the program from a community-based reference group whose members include:

- Council of Social Service of NSW (NCOSS);
- Combined Pensioners and Superannuants Association of NSW;
- St Vincent de Paul (NSW);
- Ethnic Communities Council NSW;
- Tenants' Union of NSW;
- Salvation Army;
- Retirement Villages Residents Association; and
- Physical Disability Council NSW.

2. The current review

PIAC thanks the Senate Standing Committees on Environment and Communications Reference Committee (the Committee) for the opportunity to provide a submission to its Inquiry into the performance and management of electricity network companies (the Inquiry).

The circumstances of electricity network regulation have developed significantly since the Committee began this inquiry. On 27 November 2014, the Australian Energy Regulator (AER) released Draft Determinations for network businesses in NSW and Tasmania. The AER's Draft Determinations represented a strong rejection of many aspects of the proposals of those energy networks. This action has given PIAC hope that recent efforts to reform the regulation of networks to produce better outcomes for consumers have been successful.

Nonetheless, there remains significant scope to further improve the economic regulation of energy networks. This Inquiry, therefore, remains timely. PIAC would welcome the opportunity to provide evidence to the Committee at any public hearing.

3. Context

3.1 Transition and failure of the regulatory regime

This Inquiry is the second inquiry undertaken by the Senate in three years in relation to electricity. The Senate Select Committee Inquiry, conducted in 2012, was one of many processes undertaken in response to significant and repeated increases in electricity prices. The issue was also examined by the NSW Parliament,[1] the Productivity Commission (PC),[2] the Grattan Institute[3] and others. All reviews have recommended extensive changes to the National Electricity Law (NEL), National Electricity Rules (NER), National Gas Law (NGL) and National Gas Rules (NGR).[4]

The Australian Energy Market Commission (AEMC) also made reforms through rule changes. In proposing amendments to the NER, the AEMC received many submissions from the public and industry stakeholders that identified a range of difficulties with the operation of the NER.[5] One rule change lead to the development of the Better Regulation Guidelines (the Guidelines) by the Australian Energy Regulator (AER), with the aim of more effectively regulating electricity network prices.[6] The AER consulted widely with stakeholders as part of the development of the

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1. NSW Legislative Assembly Public Accounts Committee, 2012, *Inquiry into the Economics of Energy Generation,* available at: www.parliament.nsw.gov.au/Prod/parlment/committee.nsf/0/89C00DF09237A998CA257951000A7C66?open&refnavid=LA5_2, as at 17 December 2014.
2. Productivity Commission, 2013, *Inquiry Report: Electricity Network Regulation*, available at: www.pc.gov.au/inquiries/completed/electricity/report, as at 17 December 2014.
3. Wood, T, 2012, *Putting the consumer back in front: How to make electricity prices cheaper*. Available at: http://grattan.edu.au/report/putting-the-customer-back-in-front-how-to-make-electricity-prices-cheaper/, as at 17 December 2014.
4. Senate Select Committee on Electricity Prices, 2012, *Reducing energy bills and improving efficiency*, available at: www.aph.gov.au/~/link.aspx?_id=D3162996DBB04099B6835FD018B4CE16&_z=z, as at 17 December 2014.
5. See, for example, www.aemc.gov.au/Rule-Changes/Economic-Regulation-of-Network-Service-Providers, as at 17 December 2014.
6. AER, 2014, *Better Regulation reform program* (webpage), available at: www.aer.gov.au/Better-regulation-reform-program, as at 17 December 2014.

Guidelines, including with energy networks. The AER also undertook considerable research into developing better analytical and benchmarking tools to enhance its ability to critically review expenditure proposals.

Similarly, there were extensive consultations with stakeholders during the Yarrow review of the Limited Merits Review process conducted by the Australian Competition Tribunal.[7] That review has led to changes in the NEL that relate (amongst other things) to the criteria to be used by the Tribunal to accept an appeal and to assess the claims in the appeal.

The significant electricity price increases have also seen consumer groups invest increasing resources in engaging with policy and regulatory debates within the National Energy Market (NEM). PIAC has participated in the Development of the AER's Rate of Return[8] and Expenditure Incentive Guidelines,[9] as well as the AER's network price determination for NSW networks – the first determination to implement many of the above reforms.[10] Other experts, such as Bruce Mountain, have issued a number of important reports that compare the financial and operational performance of various networks.[11]

3.2 The National Electricity Rules and the AER's first network price determination

The key driver of recent electricity price increases in recent years has been increases in network charges. In NSW, these increases were contained in the AER's 2009-14 price determination. Similar increases were contained in decisions in other jurisdictions made around that time.

3.2.1 Prelude to the determination

From the 1990s to 2006, the responsibility for economic regulation, standard setting and performance monitoring sat with the relevant jurisdictional regulators. While state regulators were subject to the requirements of the National Electricity Code (NEC) from 1998, bodies such as the NSW Independent Pricing and Regulatory Tribunal (IPART) and the Essential Services Commission of South Australia (ESCOSA) determined revenues for electricity networks, as well as monitoring performance. Licence conditions were generally set or approved by jurisdictional Energy Ministers and were monitored by the regulatory agencies.

Legislation to transfer responsibility for network regulation to the AER was completed in 2006. While the establishment of the national rules for distribution businesses was intended to harmonise decision-making within one independent national regulator, the process itself appears to have led to outcomes that are not in the best interests of consumers. In particular, in the lead up to the AER's first determinations, the requirements under the NER and the transitional rules appeared to influence the conduct of a number of networks in the years before the AER's

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7 See submissions at COAG Energy Council, 2014, *Review of the Limited Merits Review Regime* (webpage), www.scer.gov.au/workstreams/energy-market-reform/limited-merits-review/lmr-review/, as at 17 December 2014.

8 PIAC, 2013, *Better returns for consumers*, available at: www.piac.asn.au/publication/2013/03/better-returns-consumers, as at 17 December 2014.

9 PIAC, 2014, *Better incentives, better outcomes*, available at: www.piac.asn.au/publication/2013/05/better-incentives-better-outcomes, as at 17 December 2014.

10 PIAC, 2014, *Moving to a new paradigm*, available at: www.piac.asn.au/publication/2014/08/newparadigm, as at 17 December 2014.

11 Mountain, B, 2014, *Down, right?*, available at: www.piac.asn.au/publication/2014/12/down-right, as at 17 December 2014.

determination. In particular, NSW businesses exceeded their allowed capital expenditure (capex) set under IPART's final determination.

In part this was a reflection of the fact that in designing the new rules, the great concern of governments and regulators was in ensuring that there was sufficient incentive for investment in the networks to meet the expected growth in demand.

However, as part of the negotiation process, the rules also excluded the ability of the AER to review the efficiency and prudency of any capital over-spend in the regulatory period of the time, to the disadvantage of consumers. The NSW Electricity Network and Prices Inquiry conducted by the Industry and Investment Department of NSW in 2010, found: [12]

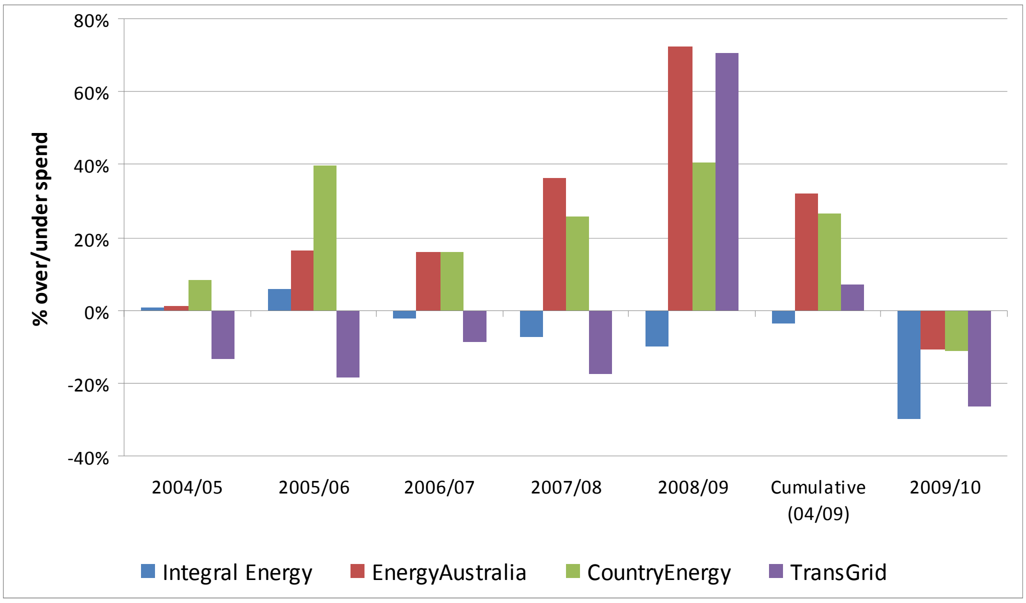
> The agreed transitional rules meant that the overspend [relative to the regulatory allowance by IPART] of each of the businesses was not subject to an examination for efficiency or prudency as part of the new determination, as had occurred under the state-based regulatory regime. This agreement meant that there was no clear incentive for the businesses to constrain expenditure in the lead up to the new pricing period [2009/10 – 2013/14].

In addition, it appears that the AEMC's position (as rule maker) was that ex post reviews were 'intrusive and undermined regulatory certainty'.[13] As a result, even before the AER made its first round of determinations, at least some networks appear to have taken the opportunity of transitional arrangements to overspend on their capital expenditure allowances. A similar result can be seen for operating expenses.

Where this occurred, such as in NSW, the AER was already facing the build up of cost pressures before its first determination in 2009. The NSW electricity network's regulated asset base (RAB) had been expanded through excess capital expenditure (capex), while the 'base' operating costs (the reference point for future operating expenditure (opex) allowances) was also excessive compared to the IPART determinations. The capex and opex overspends prior to the AER's 2009 determination are illustrated in Figures 1 and 2, below.

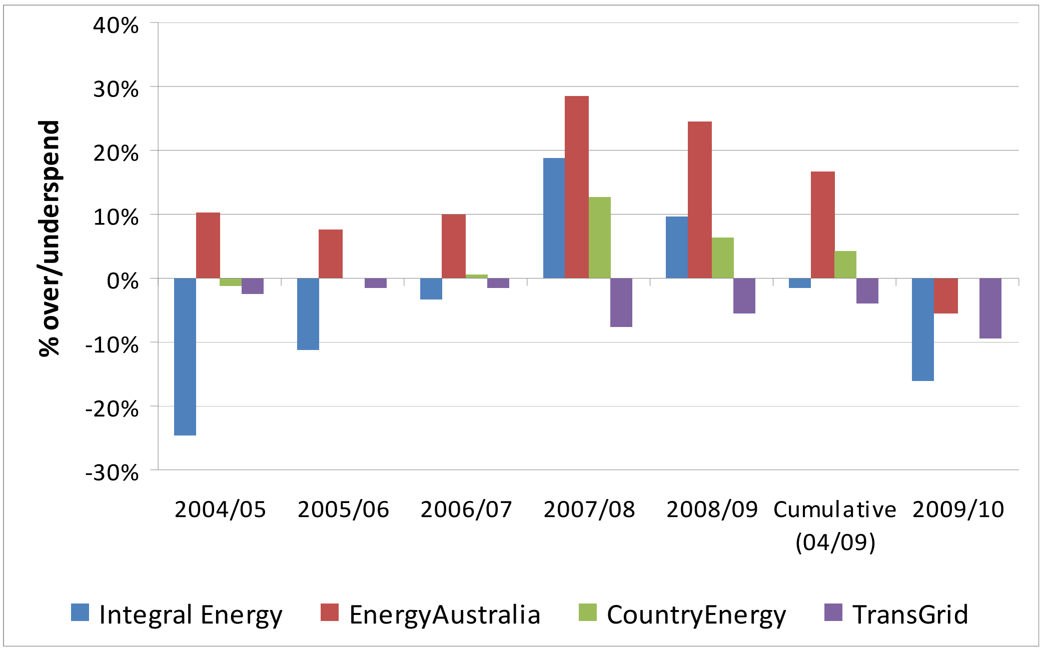
12 NSW Industry & Investment, 2010, *NSW Electricity Network and Prices Inquiry – Final Report*, 34.
13 AER, 2012, *Answer to written questions on notice from the Senate Inquiry*, 3-4.

Figure 1: NSW networks' capex overspend (% relative to IPART determination)[14]



Source: Data provided by Integral Energy, EnergyAustralia, CountryEnergy and TransGrid.

Figure 2: NSW networks' opex overspend (% relative to IPART determination) [15]

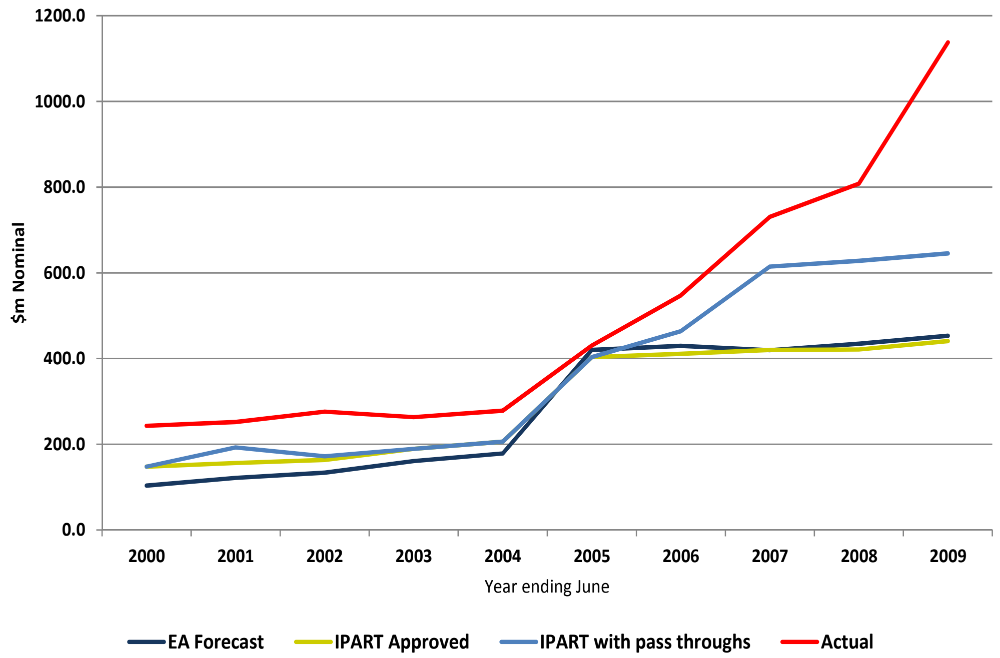


Source: Data provided by Integral Energy, EnergyAustralia, CountryEnergy and TransGrid.

14 NSW Industry & Investment, above n 12, 34.
15 Ibid 30.

In the case of NSW, IPART was already expressing concern about the propensity for the NSW networks to overspend their capital allowance in the lead up to 2009. Jim Cox, IPART's CEO, in a speech on regulation reform, illustrated the outcome with the following chart for Energy Australia networks (now Ausgrid).

Figure 3: Energy Australia's capital expenditure 2000-09 (nominal $)[16]



Data sources: IPART, *Pricing for Electricity Networks and Retail Supply - Report, Volume 1*, June 1999.
IPART, *NSW Electricity Distribution Pricing 2004/05 to 2008/09 - Draft Report*, January 2004.
IPART, *NSW Electricity Distribution Pricing 2004/05 to 2008/09 - Final Report*, June 2004.
IPART Analysis.

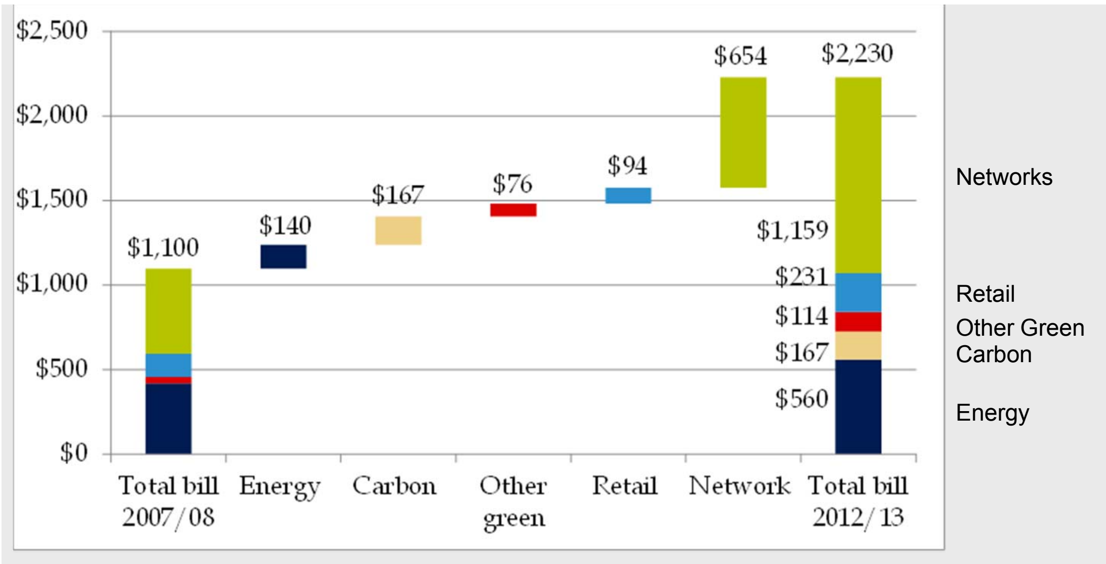
3.2.2 The aftermath to the AER's first round of determination under the NER

As noted above, even before the AER made its first determinations, the activities of at least some of the networks were causing a significant rate of growth in the regulatory asset base, as well as setting the base for higher expenditures overall.

The immediate impact of this in NSW can be seen in Figure 4, which demonstrates the average change in NSW residential customer bills from 2007/08 to 2012/13. Residential bills doubled over a five-year period. While there were a number of factors driving higher bills, some $654 dollars (or more than half the increase) was due to increases in the network charges.

[16] Cox, J, 2012, *IPART's achievements*, a speech for the conference 'Regulation and Reform: IPART after 20 years', 8.

Figure 4: Change in average NSW residential customer bills, 2007/08 to 2012/13 ($nominal)[17]



While consumers are most aware of final retail prices, Figure 4 shows that these were primarily driven higher by increases in network prices. In NSW, the outcomes of the AER's determinations further exacerbated the trends observed in the previous period (which were in turn influenced by perceptions about the 'gaps' in the national regulatory framework). In PIAC's view, these developments have resulted in a number of bad outcomes for residential consumers, including:

- approval of rates of return that are in excess of those required by an efficient network service provider;
- network values (the RAB) and network revenues and prices have generally escalated well above CPI;
- a continued surge in capital investment and increasing operating costs (in total, and at a per consumer level);
- a growing divide between network pricing outcomes for consumers in states serviced by privately owned and government owned networks;
- performance on network reliability measures that has been reasonably flat, with limited and patchy improvements, particularly given level of investment
- declining energy use - peak demand has flat-lined despite general growth in the economy, due to the decline in both manufacturing and usage per household;
- spare capacity has increased on the networks - a combination of expanded assets and declining demand; and
- an all pervading culture of aggressively and continuously appealing decisions by the independent regulator, creating regulatory uncertainty, price volatility and high regulatory costs that have flowed through to consumers.

The financial impacts are illustrated in the following two charts which summarise:

- trends in revenue per customer (Figure 5); and
- trends in regulated asset base per customer (Figure 6).

17 Draper, S, 2012, *IPART's Energy Pricing*, presentation at EWON Anti-Poverty Week Conference.

Figure 5: Revenue per customer[18]

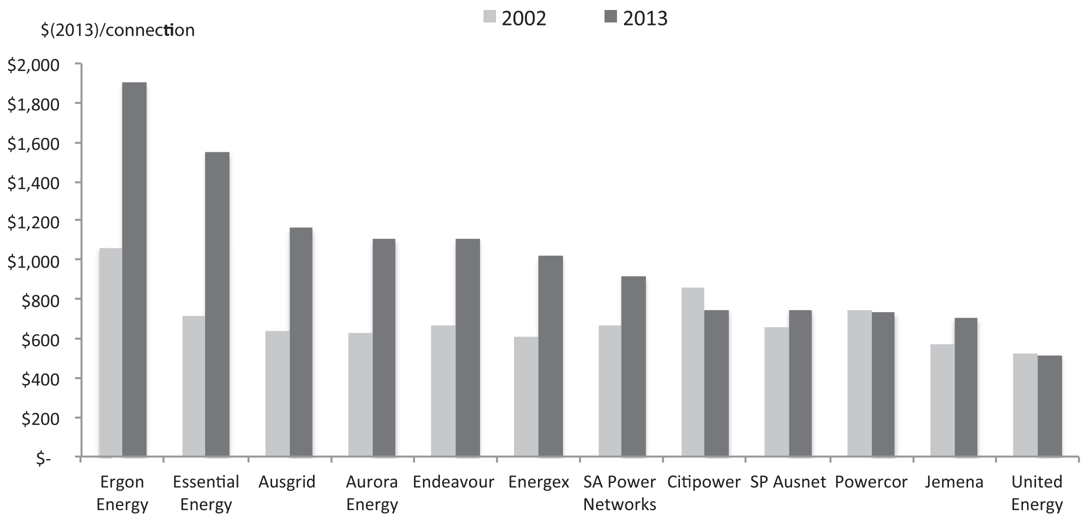
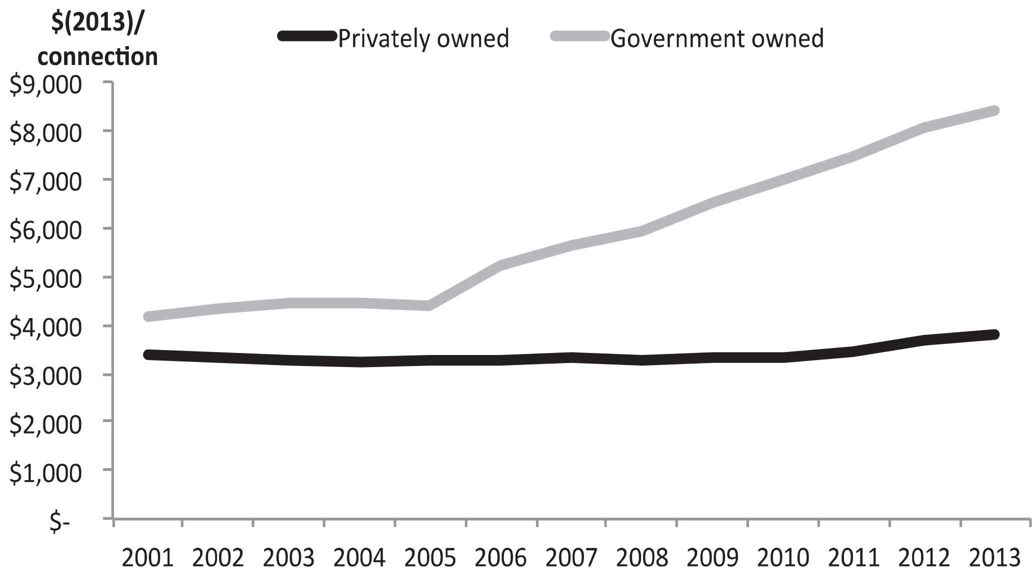


Figure 6: Regulated asset base per connection[19]



These trends raise some important questions about the economic regulation of energy distribution networks. Firstly, why was there such a surge in revenue, profits, investment and expenditure following transition to the national economic regulation framework? Secondly, what factors were at play that meant that publically owned networks were much more affected by the changes to a national regulator than privately owned networks? In theory, the regulatory outcomes should be 'blind' to ownership. These are some of the key questions that multiple inquiries into electricity network regulation have sought to answer.

18 Mountain, B, 2014, 'Independent regulation of government-owned monopolies: An oxymoron? The case of electricity distribution in Australia', *Utilities Policy* (2014), 4.

19 Ibid, 5.

4. Reforms to the system

4.1 The first Senate inquiry and reforms to regulation in the NEM

The AER's first price determination lead to significant increases in network prices across the NEM. As previously stated, a number of different bodies held inquiries in an effort to understand these price increases. One of these was the Senate's Select Committee on Electricity Prices (the Select Committee), to which PIAC gave both written and oral evidence.[20] The Select Committee was in broad agreement with other inquiries into the cause of electricity prices, including those conducted by the PC and AEMC, in recommending reforms in key areas of electricity network planning and revenue determinations.

Amongst a wide range of findings, the Select Committee drew a clear link to the reforms of the NEM and the significant increases in network prices. The Select Committee's report noted evidence from Professor Ross Garnaut, which stressed that:

> The big increases in Australian electricity prices began in 2006 with the establishment of a new price regulatory system. This new regulatory system was the culmination of a structural change in the Australian electricity market in which generation, high-voltage transmission, distribution to users and retail sales to small users were placed under separate ownership and institutional arrangements. [21]

The Select Committee also highlighted the difficulty that the AER had experienced in effectively regulating energy networks in the years after 2009. In its evidence to the Select Committee, the AER noted that weaknesses in regulatory framework (the NEL, NER, NGL and NGR) had constrained the AER's ability to regulate networks. As a result, network prices had 'increase[d] beyond what has been necessary for a safe and reliable supply'.[22] The Select Committee's report also stated that stakeholders had identified the resourcing of the AER and incentives for over-investment as key concerns during the inquiry process.[23]

Finally, the Senate Select Committee highlighted the need for the rate of return for networks to be 'estimated using a robust process'.[24] The Select Committee agreed with the specific approach proposed by the AEMC, and recommended that the rate of return be calculated in a manner that is 'based on guidelines developed and reviewed every three years in consultation with stakeholders'.[25]

4.2 Reforms to the regulatory framework 2012-13

As previously stated, the significant price increases, which were driven largely by increases in network prices, focused attention on the need for reform of the regulatory system. As well as reviews by the PC and the Senate, the AEMC examined the issue and made amendments to the NER/NGR. The AEMC also made recommendations to the Council of Australian Governments (COAG) Energy Council (then the Standing Council on Energy and Resources or SCER) about

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20 PIAC, 2012, *Equitable access to the essential*, available at: www.piac.asn.au/publication/2012/10/equitable-access-essential, as at 17 December 2014.
21 Senate Select Committee on Electricity Prices, above n 4, 64.
22 Ibid, 40.
23 Ibid.
24 Ibid, 42.
25 Ibid.

amendments to the NEL/NGL. These amendments were agreed by the COAG Energy Council and COAG, demonstrating a shared intention amongst jurisdictions to change the dynamics of network regulation.

4.2.1 The Better Regulation Guidelines

A key aspect of the reforms was the AER's development of the Guidelines. The suite of six Guidelines was developed over a 12-month period, with all stakeholders given extensive opportunity to contribute to the process.[26] The Guidelines are intended to give networks and consumers an indication of how the AER interprets and expects to apply the new rules.

The new rules also give the AER the power to take a more holistic view of its decision, focusing on the reasonableness of the outcome ahead of arguments of single parameters in setting a particular allowance. Additional reforms mean the AER can now:

- **Set capex and opex at efficient levels,** rather than being limited to amending the proposals to the minimum extent necessary. As part of this process, the AER has developed benchmarks for various categories of expenditure, against which regulatory proposal are assessed;
- **Implement an overall Rate of Return objective**, with more discretion about how that objective is best achieved. The AER can also do so using the material it considers reasonable and which will contribute to achieving this objective. Prior to the reforms, the Australian Competition Tribunal (ACT) has awarded networks higher rates of return based on expert material that the AER had not considered reasonable (see section 4.2.2 below);[27]
- **Provide incentives and penalties** for networks to reduce expenditure below their allowance or for overspending. These measures include the expansion of the Efficiency Benefit Sharing Scheme to all networks and the introduction of a Capital Expenditure Benefit Sharing Scheme; and
- **Promote greater consumer engagement in regulatory processes**, through requirements for networks to engage with consumers in preparing their regulatory proposals. Where networks chose not to follow the AER Guidelines, they are required to demonstrate they have engaged with consumers about the decision to do so and why that decision is in the long-term interest of consumers.

4.2.2 Reform to the appeals process

As well as forms to the regulatory process, the process and parameters for networks to appeal the AER's decisions has also been reformed. PIAC welcomes these reforms, as appeals to the ACT by networks following the AER's first price determinations added more than $2 billion to the overall network costs paid by electricity consumers.[28]

Those decisions by the ACT were based on a ruling that there was no valid reason why one consultant's report about the rate or return was more valid than another. As a result, the networks had won increases based on expert evidence that the AER has considered overstated the true

[26] See, for example, submissions listed under the Initiation and Draft decision Milestones of each Guideline. Available at: www.aer.gov.au/Better-regulation-reform-program, as at 17 December 2014.
[27] Hill, J, 2014, 'Power Corrupts', *The Monthly*, available at: www.themonthly.com.au/issue/2014/july/1404136800/jess-hill/power-corrupts, as at 17 December 2014
[28] Ibid.

cost of borrowing.[29] Amendments to the NEL have placed a requirement on the ACT to consider the overall outcome of its decision and the long-term interests of consumers.

In addition, the changes have limited the basis for appeal by networks. Networks must now demonstrate that their appeal would result in an outcome that is more in the long-term interest of consumers than the AER's decision. Consumers are encouraged to participate in the appeals process, through being protected from being sued for costs, while the ACT must seek ways to engage consumers on issues. Finally, networks are not able to pass through the costs of appeals to consumers through the regulatory process.

These are all welcome developments, but the reforms are yet to be tested. While PIAC is hopeful that networks will accept the AER's future regulatory decisions, there remains an avenue for appeal and potential price increases. This issue is discussed further below in section 6.8.

5. The AER's 2014 Draft determinations

On 27 November 2014, the AER made its first Draft Determinations under the new NER. The decisions covered the three NSW distribution businesses (Ausgrid, Endeavour Energy and Essential Energy), Transgrid, Direct Link, TasNetworks, ActewAGL and Jemena Gas Network. The Committee extended the date for submissions in order to allow stakeholders to take account of the AER's decisions.

In its Draft Determination, the AER largely rejected the proposals from many of the NSW network businesses. In particular, the Draft Determination for the three NSW networks grants those businesses a much lower level of revenue than the businesses had proposed. Key aspects of the AER's decision are summarised in Tables 1 to 4, below.

Table 1: NSW distribution network revenues – proposals and Draft Determination[30]

	Proposal ($m)	Draft Determination ($m)	Difference
Ausgrid	10,092.5	6,565.2	35%
Endeavour Energy	4,337.5	3,056.8	29.5%
Essential Energy	5,561.6	3,678.6	33.9%

Table 2: NSW distribution network capex – proposals and Draft Determination [31]

	Proposal ($m)	Draft Determination ($m)	Difference
Ausgrid	4,400	2,500	43.2%
Endeavour Energy	1,700	1,000	41.2%
Essential Energy	2,600	1,900	27%

29 Ibid.

30 AER, 2014, *Draft decision: Ausgrid (distribution) 2015-19: Fact Sheet*, 1, available at: www.aer.gov.au/node/11483; AER, 2014, *Draft decision: Endeavour Energy (distribution) 2015-19: Fact Sheet,* 1, available at: www.aer.gov.au/node/11484; AER, 2014, *Draft decision: Essential Energy (distribution) 2015-19: Fact Sheet,* 1, available at: www.aer.gov.au/node/11485, all as at 17 December 2014.

31 Ibid.

Table 3: NSW distribution network opex – proposals and Draft Determination [32]

	Proposal ($m)	Draft Determination ($m)	Difference
Ausgrid	2,900	1,800	37.9%
Endeavour Energy	1,400	1,000	28.6%
Essential Energy	2,300	1,400	39.1%

Table 4: NSW distribution network rates of return – proposals and Draft Determination[33]

	Proposal	Draft Determination	Difference
Ausgrid	8.83%	7.15%	19%
Endeavour Energy	8.83%	7.15%	19%
Essential Energy	8.83%	7.15%	19%

PIAC takes the view that these decisions represent a significant win for electricity consumers. If the AER's Final Determination is in line with its Draft Determination, average residential consumers will see bill decreases in 2015/16 of $159 for Endeavour Energy, $189 for Ausgrid and $346 for Essential Energy.[34] This would provide welcome relief for people who have been struggling to afford essential energy services. For example, recent figures from the AER showed that 32,940 residential account holders were disconnected for non-payment of bills in 2013/14, an increase of 108% since 2009-10.[35]

However, PIAC also acknowledges that such large cuts, especially to opex, will necessarily be extremely disruptive to the operation of the three NSW electricity distributors. The reason the change is so profound is because of the AER's use of benchmarking. The three NSW DNSPs are not facing a specified cut in their revenue but are being held to external benchmarks of efficient operation, expenditure and, in particular, funding. The benchmark efficient approach is a crucial regulatory tool to hold monopoly businesses to standards of operation, rather than seek to eek out incremental improvement from an inefficient starting point. However, under such an approach the staring point, known as the base year, is crucial in delivering an efficient outcome and fair prices in the long-term interests of consumers.

5.1 The benchmark efficient entity and the relevance of actual costs

The Australian energy regulation framework is an incentive based framework, at the centre of which is the concept of the 'Benchmark efficient entity'. An important reason policy makers have adopted this approach is because it means that the AER is, in large part, not locked into investigating actual costs. Rather, the AER assess what the cost of capital and levels of opex and capex would be for a benchmark efficient entity that is operating in a similar environment and facing similar risks to the business in question. Significantly, the AER is free to decide how it will determine what the benchmark is. The AER sets out its approach to setting the benchmark efficient level in its Expenditure Forecast Assessment Guideline[36] and Rate of Return Guideline.[37] In giving the AER the power to determine its own methodology, the AEMC was seeking to

32 Ibid.
33 Ibid.
34 Ibid.
35 AER, 2014, *Annual Report on the Performance of the Retail Energy Market*, 36.
36 AER, 2013, *Expenditure forecast assessment guideline*, available at: www.aer.gov.au/node/18864, as at 16 December 2014.
37 AER, 2013, *Rate of return guideline*, available at: www.aer.gov.au/node/18859, as at 16 December 2014.

provide the regulator with more discretion in how it determined the rate of return, in a way that better balances the interests of consumers and investors/networks.

6. The future of network regulation

As previously stated, PIAC believes the AER's Draft Determination for NSW DNSPs represents a good result for consumers. The significant cuts to the revenue of the three businesses suggests that the Better Regulation program reforms have gone some way in empowering the AER to reduce prices for consumers. However, PIAC takes the view that the reform process is far from complete. PIAC believes that there are further areas for reform that could further improve outcomes for consumers.

The electricity network has, historically, been a monopoly service. While the rise of distributed generation (especially rooftop solar) and household battery storage may pose a challenge to this monopoly, PIAC believes that an efficient and effective electricity network will be crucial for Australian society for many decades to come. While the recent reforms to network regulation appear to have had positive results, it is worth considering what consumers want from their grid in the future. To that end, PIAC believes that the following issues are particularly worthy of consideration by the Committee.

6.1 Historical over-investment

As outlined in section 3.2.1 above, serious questions must be asked about whether all of the capex that NSW DNSPs have undertaken in the past was prudent and efficient. This is especially true of the expenditure undertaken at the end of IPART's last price determination period in NSW. Significant overspend by the networks contributed to an inflated RAB when responsibility was handed to the AER. The size of the RAB has a significant impact on final bills, with around 65% of final network prices linked to it.[38] Electricity consumers in NSW have been repaying that expenditure ever since.

In addition, PIAC believes the owners of network businesses—in the case of the three NSW DNSPs, the NSW Government—should examine the extent of over-investment in networks during the last regulatory period. This over-investment was caused by factors including errors in demand forecasts, with infrastructure being build to meet demand that never eventuated. This over-investment has led some commentators to describe the NSW networks as having been 'gold plated'.

This question becomes more significant where State Governments have signalled their intention to sell or partially lease their network assets, as has occurred in NSW and Queensland. PIAC believes there is a question about whether the citizens of either state, which own the networks through their government, are better off with higher or lower network values. Higher-valued networks will yield greater proceeds from privatisation, but consumers will, in effect, be funding those proceeds through their electricity bills (as they repay the investment in the RAB through network charges). On the other hand, if network values are written down then electricity bills will be lower, but less funds may be available to governments to fund infrastructure or other programs that benefit the community.

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[38] Mountain, above n 11, 7.

As a contribution to the debate about whether the NSW networks are overvalued, PIAC commission a report that discusses evidence of the issue and proposes areas for further examination. The report calculates that if the RAB of NSW networks had grown at the same rate as that of the privatised Victorian networks over recent years, the RAB in NSW would be $13 billion, instead of $22 billion.[39] If the RAB of NSW networks was written down by $9 billion, average households would see their bills decrease by $230 per year.[40] The report suggests that writing down stranded assets may provide the best outcome for all parties, because a more accurately priced asset would attract more attention from investors. This may lead to 'more vigorous competition by future buyers' of network assets.[41]

PIAC does not have a definitive answer to the question of whether NSW DNSPs are over-valued, and if so by how much, or if a write down would be good or bad for the people of NSW. Rather, PIAC submits that it is important that the issue be fully examined by the governments that own DNSPs. In NSW, people will have an opportunity to consider this trade off when they are deciding if and how the proposed partial lease of the NSW networks will influence their vote at the 2015 NSW election. PIAC, therefore, recommends that the Committee express its support for such actions.

Recommendation 1

PIAC recommends that governments who are seeking to privatise their electricity network assets should examine whether those assets are overvalued and should be written down prior to privatisation.

6.2 The propose-respond model of economic regulation

While PIAC has welcomed the Draft Determination by the AER, PIAC believes that there remains a fundamental problem with the propose-respond model of network regulation. PIAC believes that such an arrangement provides an incentive for monopoly businesses to seek to 'get one over' the regulator by making ambit claims about their revenue requirements.

An alterative approach to the AER making a ruling on the allowed network revenue is for the AER to facilitate negotiation and arbitrate between networks and consumers on total revenue. This is sometimes referred to as a negotiated settlement. The benefits of such an arrangement were discussed by the PC, in its 2013 report, *Electricity Network Regulatory Frameworks*. The PC noted that in theory, such an approach should maximise community welfare, as 'the only contract that two parties with equal bargaining power would mutually agree to would be one involving no removable inefficiencies'.[42] The PC also noted that if the AER was acting as an arbitrator rather than a consumer advocate pitted against the regulated businesses, its decisions would not be subject to merits review. This would be the case 'because, as an arbiter, the regulator would already have fairly addressed both parties concerns'.[43]

PIAC believes that such a model of network regulation is worthy of future consideration. PIAC has concerns about the resourcing that would be necessary to ensure both consumers and networks 'had equal bargaining power', however these concerns could be overcome. As a first

39 Ibid 26.
40 Ibid.
41 Ibid 29.
42 Productivity Commission, above n 2, 142.
43 Ibid 140.

step in any such effort, PIAC recommends that the Committee should express its support for transitioning the Australian regulatory system to a negotiated settlements model.

Recommendation 2

PIAC recommends that the Committee publicly support transitioning the approach to energy network regulation within the NEM to a negotiated settlements approach.

6.3 Calculating the WACC

As previously stated, around 65% of network revenue is related to the RAB (the physical distribution infrastructure that a network builds). Because networks borrow money (raise capital) to fund their investments, their funding cost, or weighted average cost of capital (WACC) also has a significant impact on network costs. In fact, funding costs make up around 50% of a typical network's costs.[44] (WACC costs and RAB costs are related and are not mutually exclusive.)

As a result, the method of calculating the WACC is crucial to producing fair network price determinations that are in the long-term interests of consumers. While PIAC acknowledges that the AER's recent Draft Determinations represent progress in relation to calculating the WACC, PIAC believes that there is room for significant further progress.

Firstly, PIAC submits that it is critical that outcomes under the AER's Rate of Return Guideline are compared with the reality of financing low-risk businesses such as regulated monopolies with guaranteed revenues. PIAC believes that the Rate of Return Guideline leads the AER to build conservative assumptions about constituent components upon one another. This leads to a final WACC that is higher than what is likely to be the actual cost faced by the networks. This was certainly the conclusion of the AER Consumer Challenge Panel (the so called group of 'critical friends' who provide the AER with expert analysis of regulatory proposals and advice on matters) in a recent paper on the issue.[45]

Secondly, PIAC believes that the trade-off between flexibility and uncertainty in the WACC should be further examined. Where interest rates fall, networks are able to refinance their borrowing to a lower-cost option. However, consumers have, historically, been unable to capture the benefit in the form of lower prices. This effect was seen most strikingly in the last NSW regulatory control period, when the Global Financial Crisis of 2007-08 influenced the setting of a high WACC for the 2009 determination. While the reforms of 2012-13 have seen the introduction of annual updating of the WACC, it will be crucial that the effect of annual updating on both price and price stability is monitored.

PIAC notes that the AER is scheduled to review its Rate of Return Guideline in 2016. PIAC, therefore, recommends that the issues raised in this submission and the CCP's paper are appropriately considered in the lead up to that review. PIAC recommends that the Australian Senate call for such an examination.

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44 See for example Jemena Gas Network, 2014, *Jemena's 5-year plan: Customer Overview*, 11.

45 AER Consumer Challenge Panel, 2014, *Smelling the roses and escaping the rabbit holes: the value of looking at actual outcomes in deciding WACC,* 9. Available at: https://www.aer.gov.au/node/23067, as at 17 December 2014.

Recommendation 3

PIAC recommends that the Committee call for a comprehensive examination of whether the AER's methodology of calculating the WACC leads to a value that is in the long-term interests of consumers.

6.4 Allocation of risks

PIAC believes that the allocation of risk between consumers and networks is in need of rebalancing in relation to other areas as well as the WACC. In particular, PIAC considers that networks do not bear enough of the risk of their capex being prudent or efficient. This is because the AER is limited to assessing ex post the efficiency and prudency of capex above the allowed level in a price determination. Any capex that is rolled into the RAB increases the prices paid by consumers. Accordingly, limiting the growth in the RAB is crucial for ensuring the NEM operates in the long-term interests of consumers.

To overcome this problem, PIAC supports a proposal by IPART to allow the AER to conduct an ex post assessment of all capex by networks to ensure that it is prudent and efficient.[46] Such a provision would strengthen the incentive on networks to invest efficiently. Such discipline is especially important in an environment of continuing falls in electricity demand.

Further, PIAC submits that there should be a presumption in the regulatory framework that excess capex (above the AER's allowance) is not prudent or efficient. Networks should be required to show why this expenditure was in the long-term interests of consumers, rather than the burden being on the AER to 'disprove' the need for that expenditure.

Recommendation 4

PIAC recommends that the Committee support giving the AER the power to conduct an ex post review of all network capex and only include in the RAB expenditure that was prudent and efficient.

6.5 Actual consumer engagement

Recent reforms have placed increased requirements on networks to engage with their consumers on a variety of topics. The AEMC also continues to strengthen these requirements, having included a number of such provisions in its recent Final Rule Determination for Network Pricing Arrangements.[47] That rule introduces requirements for networks to consult with consumers in designing their network tariffs to give effect to the AER's network price determinations.

In its submission to the AER's determination for the NSW networks, PIAC was critical of the efforts of NSW networks to engage with their consumers.[48] This view was shared by the AER in it's Draft Determination, which asserted that 'Ausgrid has significant work to do to give consumers

46 IPART, 2012, *Draft Rule Determination–Proposed Changes to the National Electricity and Gas Rules: Submission to the AEMC*, 3.

47 AEMC, 2014, *Rule determination: National Electricity Amendment (Distribution Pricing Arrangements) Rule 2014,* x. Available at: http://www.aemc.gov.au/Rule-Changes/Distribution-Network-Pricing-Arrangements/Final/AEMC-Documents/Final-determination.aspx, as at 17 December 2014.

48 PIAC, 2014, *Moving to a new paradigm,* 28. Available at: www.piac.asn.au/publication/2014/08/newparadigm, as at 17 December 2014.

more say in the services it provides'.[49] Nonetheless, PIAC acknowledges that there has been a significant increase of the amount of consumer engagement being undertaken by networks across the NEM.

Significant resources are being invested in such consultation, by both networks (which, therefore, is funded by consumers) and consumer advocates (many of whom face significant resource pressures, especially those representing low-income and vulnerable residential consumers). PIAC, therefore, submits that it is appropriate for the effectiveness of consumer engagement, and the extent to which that engagement has influenced the final outcome, to be evaluated.

PIAC also believes there would be value in all stakeholders considering what the aim of consumer engagement is. If the ultimate outcome is for negotiated settlements to occur, then it may be necessary for a plan to be developed about how the NEM and its participants can achieve that outcome. For its part, PIAC believes that when consumers are equipped to make a genuine contribution to network planning and running, and their views are considered and heeded by networks, better outcomes for all consumers will be the result.

Recommendation 5

PIAC recommends the consumer engagement efforts of networks be examined and plans developed to increase the effectiveness of those efforts in delivering network planning outcomes that are in the long-term interests of consumers.

6.6 Resourcing of the regulator

PIAC believes that a well-resourced and effective regulator is the single most important factor in efforts to ensure consumers pay a fair and efficient price for essential services that are delivered by monopoly businesses. This submission has discussed fundamental changes to the role of the AER. PIAC wishes to publicly commend the AER on its efforts to improve the regulatory framework that it seeks to enforce and to deliver lower prices for consumers.

PIAC believes that the AER's recent determinations are in the long-term interests of consumers. However, PIAC also accepts that the size of the cuts in the projected revenue of the NSW networks from their regulatory proposals to the AER's Draft Determination cannot be implemented without disruption to those businesses (because businesses will have no choice but to become significantly more efficient). Under these circumstances, PIAC believes the AER should be supported in the face of any scaremongering about the safety or reliability of supply if the Draft Determination becomes final. PIAC, therefore, recommends that the Committee offer that support, if the members consider it appropriate to do so.

Recommendation 6

PIAC recommends that the Committee express support for the AER's efforts to more effectively scrutinise network spending proposals, in light of its decisions in recent Draft Determinations in NSW and Tasmania.

Further, PIAC believes that the job of the regulator could be made more efficient if a statutory limit was placed on the amount of material that networks can submit to the AER as part of their

[49] AER, 2014, *Ausgrid – Plain English overview – May* 2014, 68. Available at: www.aer.gov.au/node/11483, as at 17 December 2014.

regulatory proposals. For the current determination process, the three NSW DNSPs submitted 44,389 pages of information. Of this Ausgrid submitted around half (22,600 pages), Endeavour Energy around 15% (6,580 pages) and Essential Energy around 34% (15,209 pages).[50] Included in the material provided by Ausgrid were a number of reports from consultants that were commission by Ausgrid during the development of the Rate of Return Guideline.[51] These reports were provided despite the fact they were fully considered (and in some cases rejected) as part of the development of the Rate of Return Guideline, less than 12 months ago.

PIAC does not consider that planning and running the Ausgrid network could require three times as much explanation to regulators as running the Endeavour Energy network, as the amount of information provided suggests. PIAC, like all residential consumer advocates, was not in a position to examine all the material. Nonetheless, PIAC believes there is merit in exploring placing a limit on the amount of material that is provided by networks, thereby reducing the regulatory burden on the AER.

This could be achieved in a variety of ways. Firstly the AER could produce a template, which networks would populate with the necessary information in the specified detail. Secondly, a simple page limit could be imposed on the number of pages networks can use to provide all the information required under the NER. Finally, a limit could be placed on the total cost of preparing a regulatory proposal, including consultants' reports, that can be passed through to consumers. PIAC favours the last option, as networks would retain a significant degree of control over how they deployed the available resources. Networks could also choose to exceed the cap by investing further from their profits.

Recommendation 7

PIAC recommends that a limit be placed on the cost of developing a regulatory proposal that networks can pass through to consumers.

6.7 Responding to the challenges of tomorrow

Electricity networks have historically been considered to be monopolies. However, rooftop solar and other forms of distributed generation are increasingly providing a genuine alternative for consumers. This opportunity will strengthen when battery storage options become increasingly cost effective.

PIAC does not believe that residential consumers are on the verge of 'leaving the grid' in large numbers. Nonetheless, there can be no question that this is a time of transition for energy networks, whose power lines are now not simply required to flow from large-scale generator to consumers. Instead the network is being called on to both bring power to households and to allow them to export the power that they produce.

Efforts to reduce network spending also represent a significant change the traditional network models. This change is taking two key forms – demand management and a move to more cost-reflective tariffs.

50 AER, 2014, *Confidentiality Claim by NSW distributors (Ausgrid, Endeavour Energy and Essential Energy)*, http://www.aer.gov.au/node/11483, as at 30 July 2014.

51 See www.aer.gov.au/node/18859, as at 17 December 2014.

Demand management refers to arrangements that allow consumers to commit to reducing their consumption during a critical peak demand event on the network, and receive compensation for doing so. These events generally occur on hot days, when household air conditioner use is at its highest. If demand can ben reduced through such arrangements, there is a potential to significantly reduce peak demand. Because network capacity to meet peak demand is the key driver of network expenditure, such efforts often represent an economically viable option.

Secondly, a recent rule change decision by the AEMC has sought to create the framework that leads to networks developing more cost-reflective prices.[52] The rationale for such an approach is to send consumers a price signal about avoidable network costs, particularly in relation to peak demand (by, for example, basing a component of tariffs on a consumer's maximum demand).

Such initiatives are important for delivering a network that operates effectively in the long-term interests of consumers. Accordingly, it is critical that the regulatory framework is capable of facilitating such an outcome and that networks are effectively incentivised to pursue these initiatives.

PIAC notes that in its submissions to the Australian Government's Energy Green Paper, the AER stated that 'the current regulatory framework can accommodate changes in technology and market developments'.[53] However, PIAC believes that consideration of the issue of whether the regulatory framework can facilitate the necessary transition, or is in need of updating, would be valuable. PIAC submits that the AEMC would be the appropriate body to conduct such a review.

Recommendation 8

PIAC recommends that the Committee support AEMC being tasked with examining whether the NEL, NER, NGL and NGR are effectively facilitating the development and evolution of the NEM and are capable of responding to the challenges of further changes in the market.

6.8 The ACT's next review of an AER decision

As discussed above, decisions by the ACT have previously added significantly to network revenue determinations. Further, these decisions prompted attempts to reform the tribunal process and strengthen the legal foundation for the AER's decisions.

The results of that reform have not yet been tested by any network appealing an AER decision. However, given the AER's recent Draft Determinations, PIAC takes the view that such an appeal may not be too far away. When such an appeal occurs (and if such appeals continue to occur thereafter), it will crucial that the outcomes of the ACT decisions for consumers are monitored and scrutinised. Does the appeals process serve the long-term interests of consumers? Or is the ACT's decision still focused on constituent parts of a determination, rather than the overall effect that overruling the AER has on consumers and electricity prices? Finally, did other stakeholders have the opportunity to participate in the appeal and what was their experience of doing so?

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52 AEMC, 2014, *Rule Determination: National Electricity Amendment (Distribution Network pricing Arrangements),* available at: www.aemc.gov.au/Rule-Changes/Distribution-Network-Pricing-Arrangements, as at 17 December 2014.

53 AER, 2014, *AER submission to Energy White paper – Green Paper*, 3. Available at: www.aer.gov.au/node/28505, as at 17 December 2014.

Depending on the conduct and outcomes of future appeals to the ACT, it may be necessary for further reforms to the process to make it work more in the long-term interests of consumers. While efforts have been made to achieve that outcome, it is not yet possible to say whether those efforts have been effective.