REPORT

Rural and regional energy issues in NSW and Queensland: opportunities for advocacy

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1. INTRODUCTION

1.1. BACKGROUND

Rural and regional energy supply can present challenges arising from the remoteness of some consumers and diseconomies of scale. As a critical input to economic activity, poor electricity supply in rural and regional areas could affect business activity and economic development. Rural and regional consumers may also experience poorer communication services and thus poorer contact with providers.

There has been little systematic analysis across the National Electricity Market (NEM) of rural and regional consumer issues, either by class of consumers or by region. In conjunction with Engineroom Infrastructure Consulting, Etrog Consulting proposed a desk research project to the Consumer Advocacy Panel to examine various rural and regional energy consumer issues and to outline the opportunities for advocacy on these issues. The Panel approved the proposal, subject to the desk research being focused on NSW and Queensland, and building on the findings of an earlier qualitative research project that was undertaken by Engineroom Infrastructure Consulting in conjunction with Etrog Consulting.[1]

In the previous qualitative research project, we interviewed a selection of twelve Councils from diverse rural and regional areas. We considered that Councils were likely to reflect their communities' views, including both residential and business consumers. We interviewed Councils about the main aspects of energy supply, with a particular focus on electricity supply. We asked about price and competition, reliability, quality of supply, the speed of new connections, the strength of community relationships established by electricity distribution networks, environmental concerns, local generation, access to land, visual amenity, undergrounding, tree clearing, safety, and access to distributed or bottled gas. These were also the issues that Councils indicated were relevant to them.

This report provides the output for the desk research project which has now been undertaken, following the earlier qualitative research project.

1 The findings of the previous project were published in *Rural and Regional Energy Issues – A Qualitative Survey of Rural and Regional Councils in New South Wales and Queensland*, Engineroom Infrastructure Consulting and Etrog Consulting, January 2012, available at www.etrogconsulting.com.au/consumers.html.

1.2. ISSUES COVERED IN THIS REPORT

The issues covered in this report are in regard to price, competition, reliability and quality of supply, new connections, community engagement, environmental matters, local generation, vegetation management, undergrounding of power lines, and safety.[2]

An overview of the coverage of each of these issues is as follows:

- ***Price***: We explain the processes for setting of regulated prices in NSW and Queensland, and the opportunities for advocacy in each of those processes.
- ***Competition***: We outline the reasons why electricity retail competition is weak in some areas, even though full retail competition has been implemented in both States, and provide some references to other sources of information to help customers benefit from and understand competition.
- ***Reliability and quality of supply***: We explain the processes for setting of reliability and quality of supply standards, and the opportunities for advocacy in those processes.
- ***New connections***: We discuss the issues regarding new connections in some detail. Advocacy on new connections is a key area covered in this report.
- ***Community engagement***: We explain the existing mechanisms for community engagement, the opportunities for involvement in those mechanisms, and the opportunities for advocacy to improve the mechanisms.
- ***Environmental matters***: We reference available materials that may be available to consumers, Councils and communities.
- ***Local generation***: We document the processes that distributors use to explore local generation possibilities as alternatives to network augmentation.
- ***Vegetation management***: We reference vegetation management information provided by distributors.
- ***Undergrounding of power lines***: We reference information on undergrounding provided by distributors, and previous analyses of costs.
- ***Safety***: We reference relevant safety information that may be of interest to consumers.

2 This list does not include those issues that were analysed and found in the previous project not to be of significant concern to rural and regional consumers, those being: community relationships, land access, gas distribution, and bottled gas.

The remainder of this report is structured with one section devoted to each of these issues.

1.3. CURRENT REVIEWS OF ENERGY POLICY FRAMEWORKS THAT COVER MULTIPLE ISSUES

We mention here two current reviews of energy policy, one national and one in Queensland. Though they are not at the moment open for consultation submissions and advocacy, we mention them because their outcomes may cover multiple issues that are discussed in this report.

1.3.1. National Energy White Paper

The Department of Resources, Energy and Tourism (RET) is currently developing an Energy White Paper, which aims to set durable policy directions to ensure Australia's long-term economic prosperity and energy security.[3]

The draft paper, *Draft Energy White Paper 2011 – Strengthening the Foundation for Australia's Energy Future* provides an overview of Australia's future energy needs to 2030 and defines a comprehensive strategic policy framework to guide the further development of Australia's energy sector. It was released on 13 December 2011.[4]

As part of the consultation process submissions on the Draft Energy White Paper were invited from interested parties until 16 March 2012. Consultation sessions were held nationally in early 2012. It is anticipated that the Energy White Paper will be released later in 2012.

3 See www.ret.gov.au/energy/facts/white_paper/Pages/energy_white_paper.aspx

4 See www.ret.gov.au/energy/facts/white_paper/draft-ewp-2011/Pages/Draft-Energy-White-Paper-2011.aspx

1.3.2. Queensland Interdepartmental Committee (IDC) on Electricity Sector Reform

In May 2012, the Queensland Government established an Interdepartmental Committee (IDC) on Electricity Sector Reform to review all aspects of the sector that impact on electricity costs specifically, energy supply, network costs and retail competition. The IDC is to examine the cost-effectiveness, financial sustainability, and competitiveness of the electricity sector in Queensland. It is chaired by the Director-General of the Department of Energy and Water Supply, and also includes the Director-General of the Department of the Premier and Cabinet and the Under Treasurer, Queensland Treasury and Trade.[5] The IDC has in turn set up an Independent Review Panel (IRP). The IRP is examining electricity distribution network issues, including the efficiency of the capital and operating expenditure programs for the distributors. The IDC work program will be delivered by January 2013, although individual aspects may be delivered in stages.

The outcomes of the IDC and IRP may be relevant to several issues that are discussed in this report, including price, competition, and reliability of supply in Queensland.

1.4. 2009 Victorian Bushfires Royal Commission

The 2009 Victorian Bushfires Royal Commission was established on 16 February 2009 to investigate the causes and responses to the bushfires which swept through parts of Victoria in late January and February 2009. The Commission delivered its Interim Report on 17 August 2009, and its Final Report on 31 July 2010.[6]

We mention this even though the Royal Commission focused on Victoria rather than NSW or Queensland, and the Commission has completed its work and is therefore no longer open to advocacy. This is because the Commission focused on some of the issues covered in this report, including vegetation management, undergrounding of power lines, and safety. These factors also impact on reliability of supply and on price. The Commission's findings and recommendations may therefore provide useful background when such issues are discussed in NSW, in Queensland or nationally, even outside the bushfires context.

5 See www.deedi.qld.gov.au/energy/queensland-electricity-sector-review.htm

6 Full information on the Commission is available at www.royalcommission.vic.gov.au

2. PRICE

In our previous qualitative research project, we found that price is a significant issue for consumers. Consumers were concerned about the current level of electricity prices, and the possibility of significant future price rises.

In this section, we refer to the current Senate Select Committee on Electricity Prices.

We explain the processes for setting of *regulated prices* in NSW and Queensland, and the opportunities for advocacy in each of those processes. As discussed in the next section, there is some competition in the supply of electricity in rural and regional NSW, but there is no effective retail competition in much of rural and regional Queensland.

Regulated retail prices apply to customers who do not enter into a market contract with a retailer for the supply of electricity in the competitive retail market. However, all customers are affected by regulated prices, including those on market contracts, given that market contracts are generally set based on advertised discounts from the published regulated prices.

Network pricing is a major component of retail pricing. Our earlier qualitative research project did not focus on network pricing, and this project is scoped to build on the findings of that earlier qualitative research project. Therefore, network pricing is not directly within the scope of this project. However, given its significance, and the fact that network pricing is set based on consultative processes with opportunities for consumer advocacy, we have included a sub-section on network pricing.

2.1. SENATE SELECT COMMITTEE ON ELECTRICITY PRICES

On 23 August 2012, the Senate referred electricity prices to the Senate Select Committee on Electricity Prices for inquiry and report. Submissions were to be received by 14 September 2012. The reporting date is 1 November 2012.[7]

The website of the Committee includes the following sections:[8]

- Information about the Inquiry;
- Terms of Reference;
- Committee Membership;

7 See www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=electricityprices_ctte/electricityprices/info.htm

8 See www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=electricityprices_ctte/electricityprices/index.htm

- Getting involved in Committee inquiries;
- Upload Submission Online;
- Submissions Received; and
- Public Hearings and Transcripts.

The Terms of Reference for the Select Committee were that a select committee, to be known as the Select Committee on Electricity Prices be established to inquire into and report on:[9]

- Identification of the key causes of electricity price increases over recent years and those likely in the future;
- Legislative and regulatory arrangements and drivers in relation to network transmission and distribution investment decision making and the consequent impacts on electricity bills, and on the long term interests of consumers;
- Options to reduce peak demand and improve the productivity of the national electricity system;
- Investigation of mechanisms that could assist households and business to reduce their energy costs, including:
    - The identification of practical low cost energy efficiency opportunities to assist low income earners reduce their electricity costs,
    - The opportunities for improved customer advocacy and representation arrangements bringing together current diffuse consumer representation around the country,
    - The opportunities and possible mechanisms for the wider adoption of technologies to provide consumers with greater information to assist in managing their energy use,
    - The adequacy of current consumer information, choice, and protection measures, including the benefits to consumers and industry of uniform adoption of the National Energy Customer Framework,
    - The arrangements to support and assist low income and vulnerable consumers with electricity pricing, in particular relating to the role and extent of dividend redistribution from electricity infrastructure,

9 See www.aph.gov.au/Parliamentary_Business/Committees/Senate_Committees?url=electricityprices_ctte/electricityprices/tor.htm

- The arrangements for network businesses to assist their customers to save energy and reduce peak demand as a more cost effective alternative to network infrastructure spending, and

- The improved reporting by electricity businesses of their performance in assisting customers to save energy and reduce bills; and

- Investigation of opportunities and barriers to the wider deployment of new and innovative technologies, including:

  - Direct load control and pricing incentives,

  - Storage technology,

  - Energy efficiency, and

  - Distributed clean and renewable energy generation.

- Any related matter.

We mention this Inquiry, although it is not currently open for consultation, because of the relevance its outcomes may have on electricity prices in Australia.

2.2. REGULATED RETAIL PRICES IN NSW

2.2.1. Setting of regulated electricity prices in NSW

The Industry Pricing & Regulatory Tribunal of NSW (IPART) is the independent regulator that determines the maximum prices that can be charged for certain retail energy, water and transport services in New South Wales.

IPART determines the maximum prices charged for regulated electricity services provided by TRUenergy (formerly EnergyAustralia and now again rebranding as EnergyAustralia) and Origin Energy (formerly Country Energy and Integral Energy) in New South Wales. This report section considers the role of IPART in the regulation of retail electricity prices in NSW.[10]

Determinations of regulated retail electricity tariffs which are available on the IPART website were undertaken at the request of the Minister:

- In 2003, a mid-term review for the period to 30 June 2004;

- In 2003-04, a review for the period 1 July 2004 to 30 June 2007;

10 The history of IPART's reviews of retail electricity pricing from 2003 to date can be found at www.ipart.nsw.gov.au/Home/Industries/Electricity/Reviews_All/Retail_Pricing

- In 2006-07, a review for the period 1 July 2007 to 30 June 2010;
- In 2009-10, a review for the period 1 July 2010 to 30 June 2013.

IPART has also undertaken ad hoc reviews of specific tariff related charges at the request of the Minister:

- In 2007, a review of Retailer of Last Resort fees;
- In 2011-12, reviews of solar feed-in tariffs.[11]

The determinations for 2007-10 and 2010-13 have each included annual reviews:

- In 2008 and 2009, there were annual reviews of market-based electricity price purchase cost allowances;
- In 2011 and 2012, there were reviews of the regulated electricity retail prices to take into account changes in retailer costs.

On 28 September 2012, IPART opened its review of regulated electricity retail tariffs and charges for the period from 1 July 2013 to 30 June 2016.

2.2.2. Opportunities to influence decision-makers in regard to the setting of regulated electricity prices in NSW

There are opportunities for consumer advocacy at various stages of every IPART review, through submissions to Issues Papers, Methodology Papers, Draft Reports and Draft Determinations, and through attendance and participation in public forums and workshops. Recent reviews have received submissions from the following organisations representing consumers:

- Australian Consumers' Association;
- Council of Social Service of NSW (NCOSS);
- Gwydir Valley Irrigators Association;
- NSW Irrigators Council;
- Physical Disability Council of NSW; and
- Public Interest Advocacy Centre (PIAC)

Individual private consumers have also made submissions to recent reviews.

11 See further reference in our section on feed-in tariffs for solar PV generation in section 7.3 below.

The review of regulated electricity retail tariffs and charges for the period from 1 July 2013 to 30 June 2016 is current, and IPART has published its timetable for the review.[12] This timetable includes the following opportunities for consumer advocacy:

- Invitation for submissions to an Issues Paper and Methodology Paper (November 2012);
- Attendance and participation in a public forum (December 2012);
- Invitation for submissions to a Draft Report and Draft Determination (March 2013); and
- Attendance and participation in a public forum (April 2013).

2.3. REGULATED RETAIL PRICES IN QUEENSLAND

2.3.1. The process for setting regulated retail prices in Queensland

The Queensland Competition Authority (QCA) has been given various delegations by the relevant Minister for the setting of regulated retail prices in Queensland, known as *notified prices*, since full retail competition was implemented at 1 July 2007.[13] These prices have been set annually:

- From 1 July 2007 to 30 June 2008;
- From 1 July 2008 to 30 June 2009;
- From 1 July 2009 to 30 June 2010;
- From 1 July 2010 to 30 June 2011;
- From 1 July 2011 to 30 June 2012; and
- From 1 July 2012 to 30 June 2013.

Two retailers challenged the QCA's decision on notified prices for 2008-09 in the Queensland Supreme Court, which resulted in a remade decision, and an adjustment being taken into account in setting the prices for 2009-10. One retailer is challenging the QCA's decision on notified prices for 2012-13.

12 See www.ipart.nsw.gov.au/Home/Industries/Electricity/Reviews/Retail_Pricing/Review_of_regulated_electricity_retail_tariffs_and_charges_2013_to_2016

13 Information on all the QCA's determinations and on current processes can be found at www.qca.org.au/electricity-retail/NEP.

Exceptionally, the State Government changed the process for setting the notified prices for 2012-13 after the QCA's Draft Determination was published for 2012-13. This affected the main residential tariff – Tariff 11 – which was to be set as an inclining block structure based on a new underlying inclining block network tariff. Instead, the Government set out that Tariff 11 should retain its existing flat tariff with prices set at the levels and with the structure that had applied in the previous year, plus an allowance for carbon tax that was determined by QCA.

These previous reviews have received submissions from several organisations representing consumers, as well as individual consumers – large and small. These organisations have included representatives of various agricultural customer groups, the Queensland Consumers' Association, and the Queensland Council of Social Service (QCOSS).

2.3.2. Opportunities to influence decision-makers in regard to the setting of regulated electricity prices in Queensland

The QCA has now commenced the process of setting prices for a three-year period from 1 July 2013 to 30 June 2016, and not just a further one-year period as in the past. The timetable for setting these prices will include:

- Attendance at a workshop on energy and retail costs (December 2012 / January 2013); and
- Submissions on the QCA's draft determination (to be released on 15 February 2013, with submissions due by 15 March 2013).

We would also except that the outcomes from the Queensland Government Interdepartmental Committee (IDC) on Electricity Sector Reform which we discussed in section 1.3.2 above might impact on retail pricing of electricity in Queensland.

2.4. NETWORK PRICING

As stated above, network pricing is a major component of retail pricing, because charges for network use of system comprise a substantial part of an electricity retailer's costs, and therefore network charges have a significant impact on retail costs. Network charges are charged from network operators to retailers, rather than directly to end-use customers. Large industrial customers see network charges as a separate line item on their electricity bills; smaller usage customers do not see such separate itemisation.

2.4.1. Opportunities to influence decision-makers in regard to the setting of network prices in NSW and Queensland

Network pricing is regulated by the Australian Energy Regulator (AER), based on consultative processes.[14] Of particular interest to this report are determinations and access arrangements for distribution and transmission pricing in NSW and Queensland. Reviews are undertaken periodically (to date, every five years), based on timetables set out below for AER work and for consultation and consumer advocacy input.

The AER also from time to time reviews specific aspects of its regulation of network pricing which are applicable to determinations across jurisdictions. For example, an important element in regulating network businesses is the Weighted Average Cost of Capital (WACC). The National Electricity Rules (NER) set out that the AER may review the WACC parameters to be adopted in determinations for electricity transmission and distribution businesses. Reviews are to be conducted at intervals of five years. The latest WACC review was completed in March 2009.

Reviews of network pricing generally involve large numbers of substantial documents being published for consultation, and it can be difficult for consumer representatives to find their way around the documentation to direct their advocacy in a targeted fashion. To assist with that the Consumer Action Law Centre and Consumer Utilities Advocacy Centre held a master-class on distribution pricing in August 2011, which aimed to improve the capacity of the consumer sector nationally to advocate on distribution pricing issues. The presentations from the master-class are available on the Consumer Advocacy Panel website.[15]

Distribution pricing in NSW

The current distribution pricing regime in NSW is for the five-year period from 1 July 2009 to 30 June 2014. The AER is currently undertaking distribution pricing reviews in NSW for the five-year period from 1 July 2014 to 30 June 2019. Various documents have already been posted and the timetables for further consultation are on the AER website.[16]

14 Information on all aspects of determinations and access arrangements regulated by the AER can be found at www.aer.gov.au/node/478.

15 See www.advocacypanel.com.au/fundedReportsResearch.htm - application 422

16 See www.aer.gov.au/node/11483 for Ausgrid, www.aer.gov.au/node/11484 for Endeavour Energy, and www.aer.gov.au/node/11485 for Essential Energy.

Transmission pricing in NSW

The current transmission pricing regime in NSW is for the five-year period from 1 July 2009 to 30 June 2014. The AER has not yet commenced its review for the next regulatory period. The AER's Strategic Priorities and Work Program for 2012-13[17] shows that the AER is due to commence its review for the next regulatory period in mid-2013.

Distribution pricing in Queensland

The current distribution pricing regime in Queensland is for the five-year period from 1 July 2010 to 30 June 2015. The AER's Strategic Priorities and Work Program for 2012-13[18] shows that the AER is due to commence its review for the next regulatory period in mid-2013.

Transmission pricing in Queensland

The current transmission pricing regime in Queensland is for the five-year period from 1 July 2012 to 30 June 2017. It will therefore be some years before the AER starts a consultative process for the next regulatory period.

2.4.2. Inquiry into electricity network regulation

The Productivity Commission is currently undertaking a 15-month public inquiry into aspects of national electricity network regulation, at the request of the Australian Government.

The purpose of the inquiry is to inform the Australian Government about whether there are any practical or empirical constraints on the use of benchmarking of network businesses and then provide advice on how benchmarking could deliver efficient outcomes, consistent with the National Electricity Objective (NEO).

The ***National Electricity Objective*** is to promote efficient investment in, and efficient operation and use of, electricity services for the long term interests of consumers of electricity with respect to:

- Price, quality, safety, reliability and security of supply of electricity; and
- The reliability, safety and security of the national electricity system.

17 Available at www.aer.gov.au/node/449

18 Available at www.aer.gov.au/node/449

Benchmarking may be able to provide greater insight into whether particular capital or operating expenditure programs are efficient when compared to those of other organisations. The Productivity Commission will need to consider whether benchmarking is useful when the different distribution networks being compared face significantly different conditions. For example, it may be difficult to benchmark the efficiency of expenditure programs for densely populated urban networks against sparsely populated rural networks.

The Productivity Commission has also been requested to determine whether the level of interconnector investment is efficient.

The Productivity Commission's draft report was issued for consultation on 18 October 2012, and is open for submissions until 23 November 2012. A final report is to be delivered in April 2013.[19] Previous documents and submissions, including an Issues Paper released in February 2012, are available on the Productivity Commission's website.

19 See www.pc.gov.au/projects/inquiry/electricity

3. COMPETITION

Competition among electricity retailers is perceived to be weak to moderate in rural and regional areas of New South Wales, with competition being stronger in major regional centres. In Queensland, there is no effective retail competition in rural and regional areas outside the south east and central coastal areas of the state. Network pricing and service quality are not affected by retail competition. However, the lack of retail competition means that there is less downward pressure on the retail prices that are seen by consumers, or upward pressure on retail service quality.

In this section, we outline the reasons why electricity retail competition is weak in some areas, even though full retail competition has been implemented in both States, and provide some references to other sources of information to help customers benefit from and understand competition.

3.1. NEW SOUTH WALES

Customers generally switch electricity retailer for lower prices, or at least an expectation of lower prices from their chosen retailer. In the past, the regulated prices determined by IPART for the retail supply of electricity in rural and regional areas of NSW were set at levels that did not allow for significantly lower prices to be offered by competitors. It is likely that a further factor away from regional centres is the fact that much switching occurs from personal contact from “door knockers” and the higher densities of population in urban areas and regional centres made it more cost-effective for retailers to concentrate their sales efforts in those areas. Our previous qualitative research also indicated that some of the retail brands in rural and regional areas of NSW had strong loyalty.

More recent retail price determinations may have more potential to allow price-based retail competition to develop, and there have been changes in retail brands which may affect customer loyalty. We see new opportunities for retail competition to develop further.

The Standing Council on Energy Resources (SCER) has requested the AEMC to assess the effectiveness of retail competition in the electricity retail market in NSW. The review will be conducted in accordance with the SCER’s Request for Advice and Statement of Approach, which includes reviewing and providing advice on:

- The state of competition and the extent to which it is deemed effective for small electricity and natural gas customers;
- The availability and take up of time of use tariffs; and
- The impact of time of use tariffs on competition.

Based on its assessment, the AEMC is to provide advice on the ways in which the effectiveness of competition can be improved (where competition is found to be not effective) and possible implementation strategies for the removal of retail price regulation for small electricity and natural gas customers in NSW.

This advice is to include an option to gradually roll back retail price regulation through a reducing eligible consumption threshold.[20]

This review has not yet commenced. We expect that the review will invite consultation submissions at the AEMC website.[21]

3.2. QUEENSLAND

In Queensland, there is no effective retail competition in rural and regional areas outside the south east and central coastal areas of the state. This is because of the way that the Queensland Government funds a Community Service Obligation (CSO) as part of its Uniform Tariff Policy (UTP) which ensures that customers across the State can access the same regulated price for electricity across the state. The actual costs of supply substantially exceed the electricity tariffs in rural and regional areas outside the south east and central coastal areas of the state. This is largely because of the higher network use of system costs in those areas.

The Queensland Government subsidises the cost of supply to these customers through a subsidy to the retailing arm of Ergon Energy. Only Ergon Energy can access the CSO payments, and this precludes other retailers from being able to make competitive offers in rural and regional areas outside the south east and central coastal areas of the state.

We would also except that the outcomes from the Queensland Government Interdepartmental Committee (IDC) on Electricity Sector Reform which we discussed in section 1.3.2 above might impact on these competition issues, and address the absence of effective retail competition in the supply of electricity across much of Queensland.

3.3. REFERENCES TO OTHER SOURCES OF INFORMATION TO HELP CUSTOMERS BENEFIT FROM AND UNDERSTAND COMPETITION

3.3.1. NSW

In NSW, the state government provides information for energy customers including choice of energy retailer,[22] while IPART provides an online price comparator.[23]

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20 The request for this review was reported in the Communiqué from the SCER Meeting of Ministers in Sydney on 5 October 2012, available at www.scer.gov.au/meetings.

21 We expect that the review will appear at www.aemc.gov.au/Market-Reviews/Open.html when it opens.

22 See www.trade.nsw.gov.au/energy/customers

3.3.2. Queensland

In Queensland, the state government provides information on electricity prices and competition, including tips for choosing an electricity retailer,[24] while the QCA provides an online price comparator.[25]

3.3.3. National

The *Energy Made Easy* website[26] is a new Australian Government website maintained by the Australian Energy Regulator (AER). Under the National Energy Retail Law, which came into effect on 1 July 2012, the AER developed and must operate a price comparator website. The aim of Energy Made Easy is to help residential and small business energy consumers to navigate the often complex electricity and gas retail markets to find a suitable energy offer. The website also allows customers to understand and compare their residential electricity usage against other similar households living in their area, and to learn about energy related topics such as energy efficiency, contracts, bills, rights and obligations, and the energy market.

It is not yet possible for customers in NSW and Queensland to use the *Energy Made Easy* website to compare energy offers, because those states have not yet implemented the National Energy Customer Framework (NECF), but the ability to compare residential electricity usage against other similar households living in their area is already available.

There are many commercial "switching" sites which provide comparisons between energy offers, and they obtain commission from switches that occur through their comparison site. On 8 March 2012, CHOICE lodged a 'super complaint' with NSW Fair Trading, claiming that there were systemic issues with commercial electricity switching sites in NSW, with CHOICE finding that consumers could be going to some sites and not getting the 'best' deal, contrary to their reasonable expectations.[27] NSW Fair Trading responded on 2 July 2012.[28]

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23 See www.ipart.nsw.gov.au/Home/For_Consumers/Choosing_an_energy_supplier and www.myenergyoffers.nsw.gov.au

24 See www.deedi.qld.gov.au/energy/electricity.htm for residential consumers; and www.business.qld.gov.au/business/running/environment/energy-supply-pricing for business consumers.

25 See www.qca.org.au/electricity-retail/comparator

26 See www.energymadeeasy.gov.au

27 See www.choice.com.au/media-and-news/consumer-news/news/supercomplaint-on-electricity-switching-sites.aspx

28 The response is available at www.fairtrading.nsw.gov.au/pdfs/About_us/Super_complaint_on_electricity_switching_websites.pdf

3.4. SUMMARY OF OPPORTUNITIES TO INFLUENCE DECISION-MAKERS IN REGARD TO COMPETITION IN NSW AND QUEENSLAND

- ***NSW:*** The Standing Council on Energy Resources (SCER) has requested the AEMC to assess the effectiveness of retail competition in the electricity retail market. This review has not yet commenced. We expect that the review will invite consultation submissions at the AEMC website.[29]

- ***Queensland:*** We would except that the outcomes from the Queensland Government Interdepartmental Committee (IDC) on Electricity Sector Reform might impact on these competition issues, and address the absence of effective retail competition in the supply of electricity across much of Queensland. The IDC is not at this stage publishing papers for consultation, but the outcomes from the IDC may result in public consultation on changes that may be implemented.

29 We expect that the review will appear at www.aemc.gov.au/Market-Reviews/Open.html when it opens.

4. RELIABILITY AND QUALITY OF SUPPLY

This report section recaps our findings in regard to reliability and quality of supply from our previous report. The processes for setting of reliability and quality of supply standards, and the opportunities for advocacy in those processes are tied in with our general discussion of network access arrangements and determinations.

There have been recent reviews of distribution reliability outcomes and standards taking place in regard to NSW in particular, and nationally. The NSW review has been completed, and the national review is yet to complete. These reviews are of relevance to this report and future opportunities for advocacy, so they are also referenced in this section.

We would also except that the outcomes from the Queensland Government Interdepartmental Committee (IDC) on Electricity Sector Reform which we discussed in section 1.3.2 above, and in particular the Independent Review Panel (IRP) which the IDC has set up, might impact on the reliability of electricity in Queensland. The IRP is examining electricity distribution network issues, including the efficiency of the capital and operating expenditure programs for the distributors. As part of this remit, the IRP will be examining the trade-off between reliability levels and the cost of electricity.

4.1. FINDINGS OF OUR PREVIOUS REPORT

In our previous report we noted the following in regard to reliability and quality of supply.

4.1.1. Reliability

Regional centres are generally considered to have good reliability, though they can be more vulnerable than urban areas to extended outages, as a result of less interconnection and redundancy. In part, this perception of good reliability may have been driven by the fact that long-term rural users have received lower reliability than urban users, and have therefore formed lower and more easily met expectations. As more urban users move to rural areas for work or lifestyle reasons, dissatisfaction with existing reliability levels may increase.

Reliability is perceived to be significantly more of a problem in rural areas outside regional townships. Distributors have devoted significant resources to improving reliability in problem areas. Distributors could improve communication about the expected time to restore power after major events, particularly in Queensland.

The price and reliability of electricity supply are particularly important where there is limited choice of alternative fuels, such as gas or wood, available.

4.1.2. Quality of supply

Quality of supply is generally good in rural and regional areas, though some Councils told us about occasional spikes that cause damage to appliances, particularly outside regional centres. There are specific locations where Councils know that there are problems, particularly more remote locations.

In this section, we explain the processes for setting of reliability and quality of supply standards, and the opportunities for advocacy in those processes.

4.2. Review of Distribution Reliability Outcomes and Standards – NSW and National

In August 2011, SCER directed the AEMC to undertake a review of two separate work streams working to separate (but overlapping) timetables:

- A review of the distribution reliability standards in NSW; and
- A review of the approaches, or methodology, used to set reliability standards across jurisdictions with a view to developing a national framework across the NEM.

4.2.1. Review of the distribution reliability standards in NSW

The NSW review provides advice on the costs and benefits of alternatives for future distribution reliability standards in NSW. A draft report on the NSW work stream was published in June 2012 for public consultation and a final report published on 31 August 2012.[30] This review having been completed, the published documents are for reference only.

4.2.2. National review of approaches to reliability standards

Distribution reliability standards in the NEM are currently set separately by each jurisdiction. The objective of the national work stream is to analyse the different approaches to setting distribution reliability outcomes across the NEM.

An issues paper on the National work stream was published in June 2012 for public consultation and a draft report is expected in November 2012. This will also provide an opportunity for public submissions and advocacy. The final report for the national work stream is expected in early 2013.[31]

30 See www.aemc.gov.au/Market-Reviews/Completed/review-of-distribution-reliability-outcomes-and-standards.html

31 See www.aemc.gov.au/market-reviews/open/review-of-distribution-reliability-outcomes-and-standards-national-workstream.html

4.3. SUMMARY OF OPPORTUNITIES TO INFLUENCE DECISION-MAKERS IN REGARD TO RELIABILITY AND QUALITY OF SUPPLY

This section discussed recent and current reviews that are relevant to reliability and quality of supply, with opportunities for participation in the review processes to influence decision-makers. More opportunities will likely arise in the future when further reviews are undertaken, which are likely to beon an ad hoc rather than regular basis.

5. NEW CONNECTIONS

5.1. INTRODUCTION

Connecting electricity for the first time to new premises can be a significant process, depending on the size and location of the premises.

Connection involves initial design work, and decisions around the sizing and route of the connection and estimation of the cost. The distributor must determine whether it needs to strengthen or augment the existing network to cope with the additional load. If it is installing the connection, the distributor must decide on how to manage the risk that user charges will not cover the cost of installing the connection. The distributor must also decide how to manage subsequent users that to connect to and use some of the connection assets that an original user paid for.

5.2. FINDINGS OF OUR PREVIOUS STUDY ON NEW CONNECTIONS

Discussions with Councils during the course of our previous study revealed concerns by users in rural and regional areas about electricity connection issues. Councils were aware of many instances of significant delays across both NSW and Queensland in connecting new houses or commercial sites to the network. Distributor charges for major new works were seen to be excessive in some cases, and distributor policies for recouping charges from subsequent users using the same assets were not always perceived to work well. Competition in the provision of new connection assets was often reported to be weak, and distributors were reported not considered to be flexible in negotiations**.**

The findings of our previous study are reported in Box 1 below.

Box 1: Findings regarding new connections from the Rural and Regional Study 2012

Findings regarding new connections from the Rural and Regional Study 2012

There is a strong perception among Councils in both NSW and Queensland that the lead time for new connections and augmentations is far too long. It is common for completed new developments to be without power for a considerable period. The delays are perceived to be getting longer. This is impacting significantly on new economic development

In addition, the cost of new connection and augmentation is perceived to be too high, which is also impacting on new development

Distributors are considered to be inflexible in the terms for payment and in sharing risks in relation to unallocated capacity within new transformers and other connection equipment.

Distributors determine the size of new connection assets, and customers feel that they could not influence this decision. Distributors may be over-sizing new connection assets

to cover future growth and reduce their own costs. Distributors were not considered flexible in negotiations around the size of new connections.

There is muted competition in the supply of new connection and augmentation construction services. Competition decreased the further customers were located from built-up areas.

There is dissatisfaction with the policy for sharing the costs of a new connection or augmentation with subsequent users. These policies are not seen to be working.

In relation to major new customer connections and augmentations, distributors do not always work closely with Councils and others to ensure timely provision. This can extend lead-times.

There is little information available to customers on alternatives to new connections and augmentations, such as local generation which may range from diesel powered to solar panels.

Source: Engineroom Infrastructure Consulting and Etrog Consulting 2012[32]

5.3. TERMINOLOGY

A range of terminology is used in relation to new connections.

New connections (or ***new connection assets***) refer to the assets used to connect a new customer to the existing electricity distribution network. The assets include the physical extension of the network and sometimes augmentation of the existing network to provide sufficient capacity for the new connection.

The cost of new connections can be covered through upfront charges known as ***capital contributions*** or through ***distribution use of system*** (DUOS) charges. DUOS charges are the distribution element of the electricity bill, representing the cost of using the network to transmit electricity to the user.

Shallow connection assets (or ***connection assets***) refers to new distribution lines or other assets that are constructed to connect the user to the pre-existing network. These assets are used solely by new user.

Deep connection assets or ***shared connection assets*** are assets that are used by a variety of users. In some cases, to supply a customer will require ***augmentation*** or strengthening of existing shared connection assets. These deep connection assets are used by several users, including the new user.

32 *Rural and Regional Energy Issues – A Qualitative Survey of Rural and Regional Councils in New South Wales and Queensland*, Engineroom Infrastructure Consulting and Etrog Consulting, January 2012, available at www.etrogconsulting.com.au/consumers.html

In relation to shallow and deep connection assets the main issues that arise are whether the assets are appropriate or over-sized for the needs of the new user, and whether the cost of the new connection assets should be paid through an upfront connection charge (and if so, in one lump sum or in instalments), or through distribution use of system charges. An issue in relation to both shallow and deep connection assets is the danger of stranding, which occurs when the full capital cost of the new assets is not paid upfront, and the user subsequently disconnects before the shortfall in charges can be recovered through electricity charges. Partial stranding could also occur where a substantial portion of the capacity is unused.

Sometimes, distributors will wish to over-size shallow or deep connection assets to cater to future growth in demand, including by subsequent users. This may be cheaper or more practical than incrementally adding to capacity in the shallow or deep connection assets as each new user connects. Over-sizing connection assets raises the issue of who pays for the over-sizing of the asset.

Contestability in the context of connections refers to whether parties other than the local distributor can construct connection works.

5.4. CURRENT CONNECTION ARRANGEMENTS IN NSW AND QUEENSLAND

5.4.1. NSW

Connection arrangements are largely set under State arrangements. Consequently, different arrangements have evolved in NSW and Queensland, particularly in relation to the contestability of connection works.

NSW introduced the Accredited Service Providers Scheme (ASP Scheme) in 1995.[33] Under the ASP Scheme, contractors accredited under the ASP Scheme may construct and connect contestable works, which are defined as "customer connections and the extension or increase in capacity of the distribution system".[34] The service providers are engaged directly by customers and the relevant distributor takes ownership and operational responsibility for the completed works.[35] The scheme is unique in that "no other Australian jurisdiction allows a customer to engage a service provider of their choice to complete work that the distributor will own and maintain".[36]

33 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, p. 1

34 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, p. 5

35 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, p. 5

36 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, p. 5

By 2010, around 1200 service providers were registered under the Scheme, and the value of contestable works under the ASP Scheme had grown to around $300 million.[37]

The operation of the ASP Scheme is described in greater detail in Box 2 below.

Box 2: The NSW Accredited Service Provider Scheme

The NSW Accredited Service Provider Scheme

The *Electricity Supply Act 1995* establishes a framework for electricity customers to contract directly with third party service providers to do the work that is necessary to connect them to a distribution network.

In particular, the Act establishes a process of accreditation, so that only competent service providers may do this work.

The *Electricity Supply (General) Regulation 2001* sets out the detail for the framework and the accreditation process. The *Code of Practice for Contestable Works* outlines principles that underpin contestability, the type of work that is contestable (including work that is contestable at the discretion of a distributor) and responsibilities of all parties.

The Code is binding on distributors (by direction of the Director General of Industry & Investment NSW or their delegate). While it is not binding on ASPs or electricity customers, its provisions are imposed in other ways, including in contracts between distributors and their customers and ASP Scheme documents.

The framework sets up a centralised process to check that a business entity is capable of doing work on the distribution network and also places obligations on distributors to ensure that an individual is competent to work on the network. In practice, this means three things take place before a service provider undertakes work on the network:

(a) The service provider's company is accredited by NSW Fair Trading under the ASP Scheme;

(b) The relevant distributor assesses the skills of each individual worker; and

(c) The distributor provides the individual worker with a health and safety induction.

ASPs are accredited as Level 1, Level 2 or Level 3 providers.

Level 1 work is the construction and installation of overhead and/or underground distribution systems that are owned and operated by distributors (network asset construction services).

37 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, p. 3

Level 2 work is the connection work between the point of supply or the meter and the point of connection on the distribution network. There are five categories of work: disconnection/reconnection services; underground service lines; overhead service lines; metering and energising installations; and installing contestable market metering.

Level 3 work involves the design work for Level 1 construction.

After work is completed by a service provider, it must be inspected by the distributor prior to entering into service.

Source: NSW 2010[38]

5.4.2. Queensland

In Queensland, distributors are obligated to connect new customers (section 40A, Electricity Act 2004). This is known as a ***connection obligation***.

In relation to connection services, Queensland distributors may charge customers:

- A reasonable advance payments for the connection services;
- A reasonable security; and
- A reasonable capital contribution towards the distributor's costs of extending or increasing the capacity of the supply network to provide the services (section 40D, Electricity Act 2004).

The Electricity Regulations provide that the distributor may refuse to connect where the customer does not pay the upfront capital contribution or security (clause 34, Electricity Regulations 2006).

Distributors may subcontract the new connection work to contractors, but retain overall responsibility for meeting their connection obligations.

5.5. NATIONAL GUIDELINES FOR CONNECTION CHARGE ARRANGEMENTS FOR ELECTRICITY RETAIL CUSTOMERS

These jurisdictional legislative arrangements leave considerable scope for dispute around connection issues.

38 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, pp. 5 and 10-11

The Australian Energy Regulator (the AER), as the regulator for electricity distribution services in Australia other than Western Australia, has released a guideline for connection charge arrangements for electricity retail customers under chapter 5A of the National Electricity Rules.[39]

The AER guidelines provide a framework for distributors to develop specific connection policies for customers in their distribution areas. The distributors are now expected to develop and release connection policies that comply with the guidelines. These policies will be subject to approval by the AER.

The guidelines provide flexibility for a range of possible connection policies among distributors. This recognises the different challenges facing urban and rural distributors, and differences in State regulation.

The guidelines apply a usage threshold. Users below that threshold (typically residential and small business users) only have to pay the costs of shallow connection. Users above the threshold may also be required to pay deep connection costs. Distributors are given some flexibility under the guidelines as to the setting of the threshold.

Users are only required to pay connection costs where the cost of the new connection exceeds the expected revenues from the new connection. The AER has set out guidelines for this calculation.

The AER's draft approach is summarised in Table 1 below.

Table 1: AER Guideline on Connection Charges

Issue	High-Level summary of AER Guideline
Total connection charge	The charges must be calculated on the least cost technically acceptable standard unless the customer requests a higher standard, or the connection service involves augmentation to the shared network, in which case the connection applicant should be charged no more than the cost attributable to the connection applicant's electricity demand. There is a further exception in relation to major real estate developments.
Capital contributions	The distributor can request a capital contribution where the incremental cost of the connection exceeds the net present value of future expected billings attributable to the distribution element of the total billings.

39 *Connection Charge Guidelines for Electricity Retail Customers under chapter 5A of the National Electricity Rules*, version 1.0, AER, June 2012, available at www.aer.gov.au/node/7258

Issue	High-Level summary of AER Guideline
Incremental cost	Incremental costs are the shallow connection costs. Where usage exceeds the defined threshold, they also include the attributable deep connection costs. Shallow costs are the incremental costs for provided services solely used by the connection applicant. Deep costs are based on unit rates multiplied by estimated maximum demand. Unit rates may vary by region within the distributor's distribution area.
Threshold for deep connection costs	If usage is below a threshold (set by the distributor and approved by the AER), then the customer is not required to pay deep connection costs. The threshold must be based on a measure of demand. It is expected that most residential and small business customers will not exceed this threshold.
Net present value of future billings	It is noted only part of the final electricity bill reflects distribution services. Other parts of the bill (generation, transmission, retail) are not included in the estimate of future billings. Operating and maintenance costs to maintain the connection in the future are not included in future billings. Future billings will be estimated over 15 years for businesses and 30 years for residences.
Third party connection	If the distributor is able to use contractors, the distributor should if requested by the customer, run a tender process or allow the customer to run a tender process to provide the connection service.
NSW	Customers engage and pay for their own works provider to construct new connection assets (both extensions and upgrades to the existing network) under the Accredited Service Provider Scheme.
Pioneer schemes	Distributors must have pioneer schemes. These schemes provide a rebate to the original customer of part of the upfront connection costs charged to the original customer when a subsequent customer uses the same connection assets.

Issue	High-Level summary of AER Guideline
Payments under pioneer schemes	Rebates under pioneer schemes must be calculated on the basis of relative usage of the connection assets as between the original user and subsequent users.
Security deposit	Customers may be required to pay a security fee as a deposit where they are assessed as a high risk of not paying at least the expected incremental revenue.
Embedded generation	Embedded generators connection charges will be based on total demand (not demand net of generation). They will not be exempt from deep connection charges even if total demand is less than under the threshold.
Treatment of capital contributions	Distributors may not earn a rate of return on capital contributions.
Negotiated distribution services	Costs for negotiated distribution services must comply with these principles. In broad terms, negotiated distribution services cover non-standard connections.

The AER has released three documents:

- A guidelines document directed at distributors;
- A document explaining the reasons behind the guidelines; and
- A three-page fact sheet summarising the major parts of its decision.[40]

5.6. DISTRIBUTOR PERFORMANCE IN CONSTRUCTING NEW CONNECTIONS

Distributors maintain and report statistics on their on-time performance in providing new connections. No data is collected on a measure of cost-effectiveness of new connections.[41] The same performance measure applies in both NSW and Queensland.

At first glance, distributors' reported performance appears reasonable. For example, Essential Energy and Ergon Energy performance statistics for residential connections show a relatively low level of late connections.

40 *Connection Charge Guidelines for Electricity Retail Customers under chapter 5A of the National Electricity Rules*, version 1.0, AER, June 2012, available at www.aer.gov.au/node/7258

41 This might be measured through a customer satisfaction survey or via comparison with a benchmark.

IPART currently reports the statistics for NSW and noted that the performance measure is based on a date for connection agreed by both the customer and the distributor.[42]

However, NSW distributors are understood to report this statistic based on the most recently negotiated date, and IPART (2011) notes that an "audit of electricity distributors' operating statistics conducted in 2008-09 found that NSW distributors re-negotiated supply connection for practical reasons such as site considerations and building issues. IPART therefore considered that the "statistic has limited value as a performance indicator as there are currently no specific target timeframes within which distributors must provide supply connections to their customers".[43]

In contrast to the reported statistics, there was strong anecdotal evidence of high levels of dissatisfaction with connection services from the Councils in our report on rural and regional energy supply issues, and from a Review of NSW Electricity Network Contestable Services by the Better Regulation Office, Industry & Investment NSW and Fair Trading NSW in 2009-10.[44] These sources suggested that new connection performance is and has been poor for a long period of time.

Sample perspectives from Councils included:[45]

> *Even a relatively small (say $14,000) job to remove poles can take three to four months.*
>
> *Council has had irrigation, water treatment plant upgrades, and other infrastructure, all ready to be commissioned, and simply waiting for connection. ... a 12 months delay is considered "quick".*
>
> *The average cost of pole replacement or movement is now $10,000 to $12,000, and up to $16,000 if the pole is attached to a substation. In addition, there can be substantial lead-times to have this work performed – six to nine months is a fair estimate of the expected lead-time.*

42 The AER will take over IPART's reporting functions in the future.

43 *Distribution businesses' performance against customer service indicators in NSW for the period 1 July 2005 to 30 June 2010*, IPART, May 2011, available at www.ipart.nsw.gov.au/Home/Industries/Electricity/Performance_Statistics, p. 5

44 See www.betterregulation.nsw.gov.au/targeted_reviews/review_of_nsw_electricity_network_contestable_services

45 *Rural and Regional Energy Issues – A Qualitative Survey of Rural and Regional Councils in New South Wales and Queensland*, Engineroom Infrastructure Consulting and Etrog Consulting, January 2012, available at www.etrogconsulting.com.au/consumers.html, pp. 35-40

> *... in 2010 one plant seeking a major new supply contract will not be able to obtain more than half of its requirement until July 2012 due to the need to upgrade a 33 kV line to the industrial estate where it is located. A second plant seeking significant new power for use for short periods has not been able to obtain supply.*
>
> *Ergon Energy has quoted twelve months lead time for infrastructure enhancement for new developments. A new building development within the Bundaberg Local Government Area was commissioned a year ago, but is still restricted to one tenant until a new transformer is installed.*
>
> *... to move a power pole or transformer can take up to two years*
>
> *It took two years to get electricity supply for a new real estate development, and it was unclear why delays occurred.*
>
> *For a recent development, it took six months to get a new connection. The builder was operating off his own generator during that period, at high cost. For a new duplex, there was enough power supplied for one side but not the other.*
>
> *The time to obtain a quote for a new connection is very significant.*

The NSW Review of Contestable Services stated that:[46]

> *Developers and distribution network contestable services customers said that there are avoidable delays connecting to the network. This is particularly the case for large projects that require a significant amount of distributor involvement, including provision of information ahead of design, certifying a proposed design, completing non-contestable work on the network required for the connection and inspecting a final connection. Stakeholders said that these delays cause significant delay to construction projects and may force a developer to find alternative energy sources during construction.*

5.7. EXTENT OF COMPETITION IN PROVISION OF NEW CONNECTION ASSETS

If the right to construct new connection assets rests solely with the distributor, it may be open to the distributor to charge a cost for a new connection that is above an efficient price. This could be because of inefficiency within the distributor or because of monopoly pricing.

Competition among providers to construct new connection assets would be one way to place downward pressure on the cost of connection.

46 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, p. 9

The NSW ASP Scheme provides an example of the feasibility of creating competition in the construction of both shallow and deep connection assets. The scheme provides for an open and competitive marketplace for construction of new connection assets.

In NSW, the extent of competition in practice depends on the number of providers that are willing to supply services in rural and regional areas.

Evidence from Councils suggested that there was little competition in practice in some country areas, with only one or two providers. Councils also indicated that Essential Energy did not tend to demonstrate significant interest in providing new connection services, preferring to see itself as the network operator rather than as a network constructor.

The lack of competition in rural and regional areas of NSW may reflect competition from other industries such as the mining industry for electrical workers, and the relatively high cost of constructing new connections against customers' willingness to pay such charges.

The NSW review in 2010 did not report in depth on the level of competition in the NSW market. It did note that the number of accredited providers and the amount of work performed by them had grown significantly since the Accredited Service Provider Scheme had started.

The review also noted the Victorian approach to contestability (set out in Box 3 below).

Box 3: Victorian approach to new connection contestability

The Victoria approach to contestability in provision of new connections

In Victoria, there is a limited approach to contestability where a distributor enters into a contract directly with a service provider on behalf of a customer. The customer is given some choice of service provider as the distributor is required to collect tenders for the work and then allow the customer to select one of the tenders. A distributor has a contractual relationship with the service provider, rather than the customer contracting the service provider.

Source: NSW 2010[47]

In Queensland, the distributors are understood to be opening up the installation of new connections to competition over time. The AER Guidelines provide for the right of users to request distributors conduct a tender process for third parties to provide connection services.

47 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, p. 5

5.8. DETERMINING SIZE OF NEW CONNECTION ASSETS AND RISK-SHARING APPROACHES TO MANAGE THE RISK OF STRANDING

The size of new connection assets is a key issue for users as it is a key driver of cost.

Connection assets come in given sizes. If maximum estimated demand from a user (generally a large user) exceeds a given sized item of equipment, then the distributor may have to install the next largest item of equipment. This can impact on costs.

Users responding to the NSW review in 2010 considered they were often required to pay for equipment sized beyond what was necessary. They complained that "it was not clear how a distributor determines what work is necessary and how much the monopoly components of the work provided by the distributor will cost".[48] They also said that there was "no way for a customer to identify whether the work the distributor requires is the least-cost option, or whether the distributor is requiring more work than is necessary, or a higher quality of work than is necessary".[49]

The risk to the distributors is that the element of spare capacity in the new connection asset become 'stranded', that is the customer ceases business or does not use the full extent of the capacity, leaving some capacity not paid for through usage charges. To guard against this possibility, the distributor can, under the AER guidelines charge an upfront security deposit where it fairly and reasonably considers there is a high risk that the connection applicant will not pay the estimated incremental revenues expected from it. The issue to be resolved is whether the distributor's commercial judgement that the applicant is a high risk is transparent and justifiable.

Anecdotally, Councils made similar complaints to the Rural and Regional report. Councils considered that where an installed asset had spare capacity, the distributors should consider assuming some of the risk associated with stranding of the spare capacity.

The NSW review recommended (recommendation 8) that "distributors should be required to justify the scope of any dedicated connection assets funded by a customer and, if the work is not contestable, any determination of cost", on the request of the customer.

The AER Guidelines deal with the issue only by providing that the distributor must install the least cost assets and requiring a pioneer scheme, under which subsequent users must reimburse the original user when they connect to the assets paid for by the original user (discussed further below).

48 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, p. 26

49 Review of Contestable Services on the New South Wales electricity network: Final Report, NSW Government, July 2010, available at www.trade.nsw.gov.au/energy/electricity/network-connections/contestable, p. 26

5.9. METHODS FOR RECOUPING NEW CONNECTION CHARGES

The issues around charging for new connections include:

- Calculating the size of the payment; and
- Whether to charge the contribution upfront or under a repayment schedule that spreads payments over time.

An argument against levying connection charges is that connecting customers will generate revenues for distributors.

The AER approach is to permit distributors to levy a charge when the expected distribution-related revenues from the connection over a 15 or 30 year timeframe are less than the costs of the connection.

Levying the charge upfront or over time will depend on the risk that the user will not make the repayments. The AER approach is to permit the distributor to recover these charges upfront if it wishes. Where the charge is levied significantly in advance of performance of the connection work, the guidelines call for staged payments of the upfront charges.

5.10. SHARING COSTS OF NEW CONNECTION ASSETS WITH SUBSEQUENTLY-CONNECTED USERS

It is quite common that a new dedicated line for a residential or commercial customer is subsequently used by another customer. This can occur when the subsequent customer connects using part of the line for the original customer or part of the excess capacity in circumstances where the original customer invested in a minimum level of capacity that can also serve a subsequent customer.

Distributors have established schemes known as ‘pioneer’ or ‘reimbursement’ schemes to reimburse the original customer when a subsequent customer connects and uses some of the same line or capacity that was paid for by the original customer.

5.10.1. Essential Energy’s reimbursement scheme

An example of a pioneer scheme is Essential Energy’s reimbursement scheme. Essential Energy’s scheme is described in Box 4 below.

Box 4: Essential Energy's reimbursement scheme

Essential Energy's reimbursement scheme

The scheme only applies to rural and large load customers (e.g. it excludes small urban customers).

The scheme only applies to shallow connection assets.

The original customer applies for connection to the Essential Energy network and funds the extension or development work required.

Essential Energy, or another Accredited Service Provider, designs and constructs the connection and assets required.

Prior to construction, the original customer, in consultation with the project designer, estimates the number of new customers likely to benefit from the works.

Essential Energy provides the original customer with an assessed value of the works to be undertaken, an agreed number of prospective new customers, the maximum amount of reimbursement payable, and the commencement date of the seven year reimbursement period.

For a seven year period, or until any reimbursement amount is fully paid, Essential Energy collects all reimbursement amounts from new customers who will benefit from the works, and passes those amounts to the original customer, or current land owner.

The new customers apply for connection to the Essential Energy network and are assessed as utilising some, or all of the works funded by the original customer.

Essential Energy determines the amount of reimbursement the new customer is liable to pay and, upon receipt, passes this on to the original owner or current land owner.

Essential Energy approves the new customer's application for connection to the network.

In calculating the reimbursement amount to be paid by a new customer, factors including their expected load and utilisation of the assets, the number of other new customers and inflation adjustments are included. Reimbursement amounts are determined by the extent to which new customers utilise the works funded by the original customer.

Reimbursements are only payable for a seven year period.

Source: Essential Energy[50]

50 *Reimbursement Scheme for Rural and Large Load Customers*, Essential Energy, at www.essentialenergy.com.au/content/Electricity-Network-Pricing-And-Information (click on 'reimbursement scheme'), accessed 8 June 2012

5.10.2. Ergon Energy's reimbursement scheme

Ergon Energy's reimbursement scheme is described in Box 5 below.

Box 5: Ergon Energy's reimbursement scheme

Ergon Energy's reimbursement scheme

Payment of any cost sharing reimbursement will be paid to the current owner of the property, even if ownership of the property has changed.

The Cost Sharing Period is five (5) years from the date of connection of the initial customer the 5 year period is applicable given the greater turnover of smaller urban properties.

For larger lines (>50kVa) funded by businesses, small residential customers will not be required to make a cost sharing contribution because the contribution would be relatively insignificant.

Cost sharing does not apply in relation to subdivisions as the existing HV line assets generally cannot be utilised or because the asset contribution has been built into the price of the land.

Allocation of the individual customer share is based on the extent of the customer's use of the network system.

The project costs that would have been incurred if the subsequent customer was part of the original group are calculated.

The individual shares are calculated as if the subsequent customer was part of the original group.

The value of the reimbursement is time-adjusted from the date the original customer was connected to calculate the new customer contribution amount.

Source: Ergon Energy[51]

5.10.3. Comments on reimbursement schemes

The AER's draft connection charge guidelines (December 2011) provide that:

> *Where an original customer has paid for specific extension assets, and a subsequent customer connects to these extension assets, the distribution network service provider must provide the original customer with a rebate:*

51 Ergon Energy Policy – Capital Contributions (Associated with Network Connections), 20 April 2005, Ergon Energy, at www.ergon.com.au/about-us/the-electricity-industry/electricity-distribution-pricing-methodologies/network-tariffs#content-id-12074 under the Capital Contributions tab

a. *A distribution network service provider must charge subsequent customers the amount determined by the pioneer scheme*

b. *The distribution network service provider must pay the amount received ... to the original customer.*[52]

Distributors have a disinclination for pioneer schemes, as they can be complicated to administer, and essentially provide for payments from one customer to another without providing any incentives for the distributor.

The Essential Energy and Ergon Energy schemes are quite different, with the Essential Energy scheme lasting 7 years, and the Ergon scheme lasting only 5 years, after which the original customer receives no benefit. Under the Ergon Energy scheme, the benefit reduces each year, so that the original customer receives a lower benefit if a subsequent customer connects, say, five years after the original customer than if they connect one year after the original customer.

In contrast to Ergon Energy's scheme, Essential Energy's scheme is limited to rural and large load customers. The argument for this is understood to be that it limits the number of customers and thereby simplifies the administration of the scheme and it applies to those customers most likely to make use of the scheme.

5.11. SUMMARY OF OPPORTUNITIES TO INFLUENCE DECISION-MAKERS IN REGARD TO NEW CONNECTIONS IN NSW AND QUEENSLAND

Consumer advocates could consider a range of possible actions in this area:

- Engage with distributors to encourage them to put more resources into new connections.
- Introduce clearer performance guidelines in both NSW and Queensland on the basis that the current guidelines provide too much scope for distributor self-definition of timeframes.
- Monitor distributor performance against the new guidelines and consider supplementing the performance monitoring with qualitative customer surveys.
- Advocate for the introduction to Queensland of a scheme similar to the Accredited Service Provider scheme in NSW.
- Argue to include connection times as a measure in service quality incentive schemes.

52 *Connection Charge Guidelines for Electricity Retail Customers under chapter 5A of the National Electricity Rules*, version 1.0, AER, June 2012, available at www.aer.gov.au/node/7258, p.18

- Investigate whether the recommendations of the NSW 2010 review of the Accredited Service Provider scheme have been fully implemented and have been successful in addressing the underlying issues.

- Request the AER to periodically monitor the level of actual competition in the provision of new connection services and address any barriers to competition (e.g. lack of information, lack of skill at the customer level in procuring services, hold-ups at the distributor level).

- Seek to clarify that distributors cannot charge for anything more than the minimum set of capital costs consistent with supply. Ensure that regulation provides that any extra unused capacity cannot be charged to the customer. Agree mechanisms to measure the minimum set of capital costs such as benchmark measures.

- Where the minimum increment of capacity results in some unused capacity, advocate that this is not charged to the customer (recognising that this requires the distributor to assume the risk of stranding).

- Advocate to extend pioneer (reimbursement) schemes further than 5 or 7 years and remove limitations on their scope (e.g. that they only apply to rural and regional customers).

6. COMMUNITY ENGAGEMENT

6.1. FINDINGS ON COMMUNITY ENGAGENT FROM OUR PREVIOUS STUDY

In our previous study, we found that Councils considered there was often a one-way flow of planning information from distributors to Councils and communities, and that the distributors were generally not proactive in seeking Council or community input to distribution planning and decision making. Some Councils stated that they would like to have more interaction on planning issues with the distributors, and found that distributors were not flexible in negotiations.

6.2. FURTHER INVESTIGATION OF COMMUNITY ENGAGEMENT IN PRACTICE

We have now analysed the community engagement activities of the distributors, as documented on their websites.[53]

Our findings regarding the activities of the distributors include the following:

- ***Network management and projects***: Providing information and consultation opportunities on network management plans, major projects, demand management, energy efficiency, and other network initiatives.
- ***Customer Consultative Committees***: These committees are intended to provide effective customer and community input into policy, planning and decision making, to enhance the climate of trust between the distributors and the community, by maintaining an open approach to all energy issues.
- ***Community partnerships***: Contributing to social and business development initiatives that support the communities within the areas they serve, in conjunction with other community organisations.
- ***Financial support and grants to support local charities and community schemes and events***: Directly, and through matching employees' contributions.
- ***Energy education***: Providing educational material for adults and children, working with teachers and education authorities.

53 The relevant distributors serving rural and regional NSW and Queensland being Endeavour Energy and Essential Energy in NSW, and Ergon Energy in Queensland. The web pages we analysed include the following, and web pages sitting under those web pages: www.endeavourenergy.com.au/wps/wcm/connect/EE/NSW/NSW+Homepage/communityNav; www.essentialenergy.com.au/content/community; www.ergon.com.au/community--and--our-network

6.3. FURTHER OPPORTUNITIES IN REGARD TO COMMUNITY ENGAGEMENT

We suggest that further progress may be made by Councils and consumers in regard to community engagement through consideration of the distributors' activities and how effective they are in practice. This would include discussion with the distributors regarding whether they are adhering to their statements regarding community engagement, and whether there are activities missing that might be instituted or existing policies and procedures improved.

7. ENVIRONMENTAL MATTERS

7.1. FINDINGS ON ENVIRONMENTAL MATTERS FROM OUR PREVIOUS RESEARCH

In our previous research, we found that solar panels (otherwise known as solar photovoltaic panels or solar PV) have had high take-up in some but not all areas. Demand in NSW has fallen back as subsidies have been removed and the feed-in tariffs have become less attractive.

Some consumers may require more education to buy green products. Councils and communities are very interested in environmental matters and need more information about the full range of green generation and supply products available to them.

7.2. FURTHER ANALYSIS ON ENVIRONMENTAL MATTERS

In this section, we reference available materials that may be available to consumers, Councils and communities.

There is a very large body of available information, and the relevant available sources of information on environmental matters and on feed-in tariffs include the following:

- The distributors in NSW and Queensland.
    - Endeavour Energy has several web pages that describe and provide information on solar power installations.[54]
    - Essential Energy has several web pages in regard to the environment, including such topics as renewable energy sources and small scale generation, as well as discussing Essential Energy's own corporate responsibility for its impact on society and the environment, and its Environment Management System.[55]

54 See under www.endeavourenergy.com.au/wps/wcm/connect/EE/NSW/NSW+Homepage/forHomesNav

55 See under www.essentialenergy.com.au/content/green-energy

- Ergon Energy provides its customers with information on solar PV connections.[56] Ergon Energy's website also describes Ergon Energy's own generation activities using renewable energy sources,[57] as well as its Renewable Energy Network Benefit Statement,[58] which should be read in conjunction with Ergon Energy's Network Management Plan.[59] Together these two documents will provide renewable energy proponents with key information to inform their renewable energy investment proposals.

- State Governments:

  - The NSW Government provides several pages of information on sustainable energy on its Trade & Investment website.[60]

  - The Queensland Government Department of Energy and Water Supply has a Clean Energy website which provides information on many environmental aspects of electricity supply.[61]

- The Australian Government Department of Climate Change and Energy Efficiency has a website area on renewable energy with links to state and territory renewable energy programs.[62]

- The Clean Energy Council website contains much information on clean energy, including a consumer guide to solar PV which is updated frequently.[63]

This is by no means an exhaustive list. Energy retailers also have information on the "green products" that they market, as do those who market solar PV panels and other such generating equipment.

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56 See www.ergon.com.au/your-home/connections/renewable-energy-system-connection

57 See www.ergon.com.au/community--and--our-network/network-management-and-projects/renewable-energy-sources

58 See www.ergon.com.au/community--and--our-network/network-management-and-projects/renewable-energy-network-benefit-statement

59 See www.ergon.com.au/community--and--our-network/network-management-and-projects/network-management-plan

60 See under www.trade.nsw.gov.au/energy/sustainable

61 See www.cleanenergy.qld.gov.au

62 See www.climatechange.gov.au/en/what-you-need-to-know/renewable-energy.aspx

63 See www.cleanenergycouncil.org.au/resourcecentre/Consumer-Info/solarPV-guide.html

7.3. NATIONAL POLICIES OF RELEVANCE TO ENVIRONMENTAL MATTERS

National policies of relevance to environmental matters include the carbon tax, and schemes to meet a 20% renewable energy target by 2020.[64]

We are aware of one particular current review that provides opportunity for public comment and advocacy, as follows.

The Australian Government Climate Change Authority[65] was established on 1 July 2012, and provides independent advice on the operation of Australia's carbon price, emissions reduction targets, caps and trajectories, and other Australian Government climate change initiatives. The Authority is to review and make recommendations on the Renewable Energy Target in the second half of 2012 and every two years thereafter. Its first Renewable Energy Target review Issues Paper was released on 20 August 2012. Submissions were invited in response to the Issues Paper by 14 September 2012. A discussion paper will be released in October 2012 and will provide an opportunity for public comment and advocacy, followed by the completion of the final report by 31 December 2012. [66]

7.4. STATE POLICIES OF RELEVANCE TO ENVIRONMENTAL MATTERS IN NSW AND QUEENSLAND

There have been various policies implemented at state and territorial level to promote environmental matters in regard to the generation and use of electricity. These have been subject to changes since they were first introduced. Examples are given below, rather than full details, because these schemes are not open to current consumer advocacy opportunities.

An example of a scheme that is no longer in place in ***NSW*** is the NSW Greenhouse Gas Abatement Scheme (GGAS)[67] which commenced on 1 January 2003. It was one of the first mandatory greenhouse gas emissions trading schemes in the world. GGAS aimed to reduce greenhouse gas emissions associated with the production and use of electricity. It achieved this by using project-based activities to offset the production of greenhouse gas emissions. The GGAS legislation required the scheme to be wound down upon the implementation of a national carbon pricing mechanism. The scheme therefore closed on 1 July 2012 with the introduction of the national carbon tax scheme.

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64 Details of all the Australian Government Department of Climate Change and Efficiency activities and schemes can be found at www.climatechange.gov.au. Information on the Renewable Energy Target is available at http://ret.cleanenergyregulator.gov.au.

65 See www.climatechangeauthority.gov.au

66 See www.climatechangeauthority.gov.au/ret

67 Full information on the scheme including its history and development can be found at www.greenhousegas.nsw.gov.au

An example of a current scheme in ***Queensland*** is the Queensland Gas Scheme, which began in 2005 and was established to boost the state's gas industry and reduce greenhouse gas emissions. Under the scheme, Queensland electricity retailers and other liable parties are required to source a prescribed percentage (currently 15%) of their electricity from gas-fired generation.[68]

7.5. STATE POLICIES ON FEED-IN TARIFFS FOR SOLAR PV GENERATION

This section considers feed-in tariffs in particular, given that they have recently been reviewed in NSW and are currently being reviewed in Queensland. Of relevance to this report, we note that:

- In NSW, as mentioned in section 2.2.1 above, in 2011-12, IPART undertook two reviews of solar feed-in tariffs at the request of the Minister.[69] There is no current review of solar feed-in tariffs open for consultation in NSW.

- In Queensland, on 7 August 2012, the Minister for Energy and Water Supply directed the Queensland Competition Authority (QCA) to report on a fair and reasonable feed-in tariff for small scale solar generation in Queensland.[70] As part of its review, the QCA is to examine approaches to estimating a fair and reasonable feed-in tariff rate and appropriate means of implementation. As a first step, the QCA released an Issues Paper inviting submissions from interested parties on a range of matters relevant to this review.[71] The closing date for submissions on the Issues Paper was 17 September 2012. The QCA will consider submissions on the Issues Paper before producing a Draft Report for release in late November 2012. The Draft Report will provide further opportunity for submissions and advocacy. The Authority's Final Report will be provided to the Minister on 22 March 2013.

7.6. SUMMARY OF OPPORTUNITIES TO INFLUENCE DECISION-MAKERS IN REGARD TO ENVIRONMENTAL MATTERS

This report section has highlighted that there are a range of jurisdictional and national policies in regard to environmental matters, and current consultations. Over time, we would expect further jurisdictional and national policy development, with opportunities to influence the decisions that are made in each case.

68 Extensive information on this Scheme is available at www.business.qld.gov.au/industry/energy/gas/queensland-gas-scheme

69 See www.ipart.nsw.gov.au/Home/Industries/Electricity/Reviews

70 See www.qca.org.au/electricity-retail/Review_Of_Solar_Feed

71 See www.qca.org.au/electricity-retail/Review_Of_Solar_Feed/IssuesPaper.php

8. LOCAL GENERATION

Local generation possibilities (other than solar panels) are not being considered in most rural and regional areas. In the Rural and Regional Study, only four of the twelve Councils interviewed could identify that they had been involved in consideration of local generation opportunities (apart from installation of solar panels).

In this chapter, we document the processes that distributors use to explore local generation possibilities as alternatives to network augmentation.

8.1. OVERVIEW OF LOCAL GENERATION

Local generation can be considered as any form of generation that is located close to the site of demand. Most local generation is small scale and embedded within the distribution network (sometimes known as embedded generation). In Australia, local generation makes up only a small part of the total generation portfolio.

Local generation provides opportunities to save on transmission and distribution costs by reducing the investment in transmission and distribution to transport electricity from remote generators and by reducing transmission and distribution losses.[72]

Local generation can also promote security of supply by providing additional sources of supply. This can be important where transmission or distribution lines transmitting power from remote generators fail or are down-rated for some reason. Transmission and distribution service providers, which have responsibility for maintaining power system security of supply, sometimes enter network support agreements with local generators under which the local generators agree to generate as directed to maintain security of supply if there are disruptions to transmission lines or bulk transformers.

A report for the COAG Energy Market Review 2002 identified impediments to the connection of local generation. The impediments included:

- Unclear processes for connection of local generators within distribution grids; and
- Unclear processes for transmission and distribution service providers to consider local generation options as an alternative to investing in additional transmission and distribution lines.[73]

72 As electricity is transmitted, some of the energy is lost due to resistance in the lines.

73 *Distribution Network Barriers to Embedded Generation, Report to COAG Energy Market Review*, CRA, 2002. See *Towards A Truly National and Efficient Energy Market*, COAG Energy Market Review (Parer Review), 2002, pp. 72-73, available at www.ret.gov.au/Documents/mce/_documents/FinalReport20December200220050602124631.pdf

In 2004, the Ministerial Council on Energy (MCE) commissioned work to develop a Code of Practice for embedded generation. A draft Code of Practice was developed in 2006.[74] This work was not finalised before it was folded into the MCE's demand side participation program of work.

The MCE then progressed the work under three headings:

- ***Connection arrangements*** for embedded generators;
- ***Revenue and pricing rules***: This work considers the impact on the revenues of distributors and TNSPs of considering or adopting embedded generation in preference to distribution or transmission augmentation; and
- ***Augmentation of the network***: This work considers the extent to which embedded generation is considered as an alternative to transmission or distribution augmentation.

The work programs are being progressed through proposals to change the National Electricity Rules. The rule changes must be considered and approved by the Australian Energy Market Commission, the AEMC.

8.1.1. Connection arrangements

The work on connection arrangements for local generators is currently subject to a rule change proposal to the AEMC lodged in April 2012.[75]

Connection agreements are made between connecting generators and distributors (or sometimes transmission service providers). Connection agreements set out the technical and cost requirements for connection of the generators to the distribution (or transmission) system.

The rule change request complains that the current connection arrangements for local generation suffer from the following faults:

- Inconsistent national and jurisdictional regulation differences in approach between State requirements and requirements under the National Electricity Rules;

74 *National Code of Practice for Embedded Generation (Draft)*, PB Associates, February 2006, available at www.ret.gov.au/Documents/mce/_documents/DraftCoPEGforWeb20060221154032.pdf; and *A National Code of Practice for Embedded Generation Consultation paper*, PB Associates, February 2006, available at www.ret.gov.au/Documents/mce/_documents/CoPEGConsultPaperforWebFeb2006_NEW20060228083422.pdf

75 *Proposal to amend the National Electricity Rules for connecting embedded generators*, April 2012, ClimateWorks, Seed Advisory, and Property Council of Australia, available at www.aemc.gov.au/electricity/rule-changes/open/connecting-embedded-generators.html

- Inefficient, case by case connection processes – insufficient prescription of the processes under chapter 5A of the National Electricity Rules for connection of generation;
- No clear and binding timelines – slow and inconsistent treatment of connection applications;
- No standard information requirements – little and sometimes no guidance on the information that connecting generators must provide;
- Diverse technical requirements – distributors have discretion regarding the technical requirements that they might impose on embedded generation proponents. The requirements imposed may impose significant costs or even undermine the viability of projects. Distributors' views about the appropriate technical solutions are binding;
- Significant connection and network augmentation costs – costs are typically uncertain in advance. Distributors can impose prohibitive costs and charge augmentation costs beyond those necessary for the connection. There is a lack of transparency around the distributor's decision; and
- Different connection terms among distributors – The terms and conditions for connection may vary significantly from distributor to distributor. This makes it is difficult for generation proponents to anticipate the requirements and costs associated with connection. The terms of connection agreements may be onerous and not subject to negotiation.

The proposed rule change calls for changes to:[76]

- Provide an automatic right to connection to the grid.
- Entitle export of electricity to the grid.
- Provide an improved connection process for embedded generators that are ineligible for automatic access and a right to export electricity to the grid.
- Allow distributors to charge an optional fee-for-service. This is to encourage them to work collaboratively with proponents during the connection process.
- Require distributors to publish an annual report identifying where network capacity may be limited.

76 *Proposal to amend the National Electricity Rules for connecting embedded generators*, April 2012, ClimateWorks, Seed Advisory, and Property Council of Australia, p.14, available at www.aemc.gov.au/electricity/rule-changes/open/connecting-embedded-generators.html

8.1.2. Revenue and pricing rules

Three rule changes were made in December 2011 by the AEMC to address aspects of these impacts. The impacts arise from the fact that transmission providers may lose revenue where they adopt non-network investments or solutions over network investments. The revenue losses can result from decreases in the regulated asset base and in the number of units of electricity transported on the network.

The first rule is aimed at the AER, which is responsible for setting the revenues of transmission providers and designing the incentive regimes. Where distributors enter agreements with generators in relation to non-network solutions, the resulting expenditures on demand-side related solutions are largely in the form of on-going operating expenditure (while the network solution would have been largely in the form of capital expenditure). As a result, the distributor may spend more operating expenditure than anticipated, resulting in reduced financial rewards or even penalties under Efficiency Benefit Sharing Schemes (EBSSs). The rule required the AER, when designing and implementing the EBSS for transmission providers, to consider the possible effects of the EBSS on a transmission provider's incentive to implement non-network alternatives.[77]

The second rule change was designed to promote payments to embedded generators that efficiently reflect the extent to which their services defer investment in the transmission network.[78] As noted earlier, embedded generators have the potential to reduce the long term need for investment in transmission infrastructure. As such they can receive network support payments (payments from distributors for providing local support for the network or ensuring supply when remote generators are cut off by transmission faults) or the saved transmission charges (known as avoided TUOS). The rule change sought to ensure generators are not double-paid in receiving payments for network support an avoided TUOS.

77 *Efficiency Benefit Sharing Scheme and Demand Management Expenditure by Transmission Businesses*, AEMC, December 2011, available at www.aemc.gov.au/Electricity/Rule-changes/Completed/efficiency-benefit-sharing-scheme-and-demand-management-expenditure-by-transmission-businesses.html

78 *Network Support Payments and Avoided TUoS for Embedded Generators*, AEMC, December 2011, available at www.aemc.gov.au/Electricity/Rule-changes/Completed/network-support-payments-and-avoided-tuos-for-embedded-generators.html

The third rule change sought to provide positive incentives for distributors to consider embedded generation options.[79] It "expands the existing Demand Management Incentive Scheme [which applies to distributors] to include projects that explore innovation in the efficient connection of embedded generators".[80] As such, it encourages distributors to consider more innovative and cost effective ways of connecting embedded generators to distribution networks. Following finalisation of the rule change, it is now open to distributors to seek to modify their incentive arrangements to take account of embedded generation at the time of their next access arrangement.

8.1.3. Augmentation of the network

The rules around augmentation of the network are currently the subject of a rule change proposal lodged by the Ministerial Council on Energy.[81] AEMC has released a draft rule that aims to establish a national framework for distribution network planning and expansion, including new demand side obligations on distribution businesses, within the National Electricity Rules. The information sheet for the draft rule states that:[82]

> The draft rule consists of an annual planning and reporting process, and a distribution project assessment process. The key components of the draft rule are as follows:
>
> - A distribution annual planning review;
> - A distribution annual planning report;
> - Demand side engagement obligations on distribution businesses;
> - Joint planning arrangements;
> - The regulatory investment test for distribution (RIT-D); and
> - A dispute resolution process for the RIT-D.

79 *Inclusion of Embedded Generation Research into Demand Management Incentive Scheme*, AEMC, December 2011, available at www.aemc.gov.au/Electricity/Rule-changes/Completed/inclusion-of-embedded-generation-research-into-demand-management-incentive-scheme.html

80 *Inclusion of Embedded Generation Research into DMIS*, AEMC, December 2011, available at www.aemc.gov.au/Electricity/Rule-changes/Completed/inclusion-of-embedded-generation-research-into-demand-management-incentive-scheme.html

81 *Distribution Network Planning and Expansion Framework rule change proposal*, MCE, September 2011, available at www.aemc.gov.au/electricity/rule-changes/open/distribution-network-planning-and-expansion-framework.html

82 *Distribution Network Planning and Expansion Framework*, AEMC, June 2012, available at www.aemc.gov.au/electricity/rule-changes/open/distribution-network-planning-and-expansion-framework.html

8.2. DISTRIBUTOR PROCESSES TO CONSIDER LOCAL GENERATION

The rule changes (and the rule change proposal if accepted) will remove some of the cost and process impediments to local generation.

In relation to the development of incentive arrangements for distributors to consider embedded generation, distributors will have to develop a proposal for a distribution determination how the distributor proposes to implement demand management and embedded generator connection incentive schemes (DMEGCIS) for the subsequent regulatory control period. The distributor will have to consider the framework and approach and justify any variations from it in its proposal. The AER is already considering DMEGCIS submitted by distributors in NSW and the ACT.[83]

The AER is also proposing to release a framework and approach for consideration of DMEGCIS schemes. The AER proposes:

- A demand management innovation allowance (DMIA), which is an ex-ante allowance in addition to the annual revenue requirement. The DMIA is provided to the distributor as a fixed amount of additional revenue at the commencement of each regulatory year of the regulatory control period; and

- A foregone revenue component which allows a distributor to recover forgone revenues that is directly attributable to a non-tariff demand management project or program approved under the DMIA. This allows "a distributor to recover any forgone revenue resulting from a reduction in the quantity of energy sold that is directly attributable to the implementation of a non-tariff demand management program approved under … the DMEGCIS".[84]

For the NSW and ACT distributors, the AER proposes that the total amount available under the DMIA is scaled to the relative size of each distributor's average annual revenue allowance in the previous regulatory control period and specifically proposes amounts between $100,000 and $1m for the four NSW and ACT distributors.[85]

83 *Proposed Demand Management and Embedded Generation Connection Incentive Scheme: ACT and NSW distribution determinations 2014-19*, AER, May 2012, available at www.aer.gov.au/node/15042

84 *Proposed Demand Management and Embedded Generation Connection Incentive Scheme: ACT and NSW distribution determinations 2014-19*, AER, May 2012, p. 11, available at www.aer.gov.au/node/15042

85 *Proposed Demand Management and Embedded Generation Connection Incentive Scheme: ACT and NSW distribution determinations 2014-19*, AER, May 2012, p. 11, available at www.aer.gov.au/node/15042

The AER notes that, prior to the rule change, the NER already required distributors to demonstrate that efficient non-network alternatives to capital expenditure and operating expenditure have been satisfactorily considered in the development of the distributor's expenditure proposals for the regulatory control period. These assessments occur under the regulatory test. The regulatory test for distributors is subject to enhancement under the Distribution Network Planning and Expansion rule change to become known as the RIT-D.

Under the draft rule change in relation to the RIT-D:[86]

- Distributors will be required to prepare and publish a non-network options report ahead of carrying out the RIT-D project assessment. The recommended period for consultation is four months; and
- To determine the preferred investment option, distributors will be required to quantify all applicable costs for each investment option, but will have the option of quantifying applicable market benefits.

In addition, parties will be able to dispute a distributor's RIT-D decision to the AER.

8.3. SUMMARY OF OPPORTUNITIES TO INFLUENCE DECISION-MAKERS IN REGARD TO LOCAL GENERATION

There are opportunities to promote local generation where it can be expected, over time, to reduce transmission and distribution costs (or contribute to improved environmental outcomes through reduced transmission and distribution losses).

There are opportunities for advocacy to influence decision-makers through the current AEMC rule changes and in the design of the DMEGCIS schemes to be implemented for different distributors.

86 *Distribution Network Planning and Expansion Framework*, AEMC, June 2012, p. iii, available at www.aemc.gov.au/electricity/rule-changes/open/distribution-network-planning-and-expansion-framework.html

9. VEGETATION MANAGEMENT

9.1. FINDINGS OF OUR PREVIOUS RESEARCH

Our previous research found that there have been historical community concerns regarding what was considered to be excessive lopping of trees for vegetation management. Generally, these concerns have been addressed through improved communications with the distributor and distributor clarification of requirements. Distributors are now generally seen to be doing a good job with vegetation management.

9.2. VEGETATION MANAGEMENT INFORMATION PROVIDED BY DISTRIBUTORS

The following vegetation management information is provided by distributors.

- Endeavour Energy provides information on its Vegetation Management program on its website.[87]
- Essential Energy provides guidance on vegetation management on its website, including a comprehensive *Plan before You Plant* guide.[88]
- Ergon Energy provides on its website information on:
  - Remote Observation Automated Modelling Economic Simulation (ROAMES) – a tool that uses light aircraft to fly above Ergon Energy's powerlines to monitor vegetation close to powerlines and assist with maintenance and future planning.
  - Ergon Energy's vegetation management standards, plans and processes guide its maintenance program to preserve public safety and the reliability of electricity supply.
  - Plant Smart: an educational program about planting the right trees near power lines, which provides guidance on what, where and how to plant.[89]

87 See www.endeavourenergy.com.au/wps/wcm/connect/EE/NSW/NSW+Homepage/ourNetworkNav/Our+network+area/Vegetation+management

88 See www.essentialenergy.com.au/content/vegetation-management

89 See www.ergon.com.au/community--and--our-network/trees-and-powerlines

9.3. OPPORTUNITIES TO INFLUENCE DECISION-MAKERS IN REGARD TO VEGETATION MANAGEMENT

Policy and operations on vegetation management seems at the moment to be quite stable, with no proposed changes to our knowledge. When changes are proposed, we would expect those changes to be proposed through consultation processes with opportunities to influence what decisions are made.

10. UNDERGROUNDING OF POWER LINES

Undergrounding of power lines increases visual amenity and reliability, but is more costly to install and augment. Councils often require undergrounding of power lines for new developments. Due to the cost, undergrounding is otherwise not generally provided.

IPART undertook an enquiry into undergrounding of electricity in NSW in 2002.[90]

In 2009, the Crawford School of Economics at the Australian National University noted that it had become common for low-voltage electricity distribution networks to be installed underground in new housing developments due to advantages over overhead networks including improved appearance, reliability of supply and safety. A study investigated the value of these benefits to households by estimating the relationship between the type of network service provided, and house prices in three selected suburbs in the Australian Capital Territory. The presence of underground networks was found to increase house price by 2.9%. This was seen to be a step towards quantifying the benefits of replacing existing overhead network infrastructure with underground networks in residential areas.[91]

We are not aware of any current review on undergrounding of power lines. When reviews are undertaken or changes are proposed, we would expect them to be proposed through consultation processes with opportunities to influence what decisions are made.

90 See www.ipart.nsw.gov.au/Home/Industries/Other/Reviews_All/Undergrounding_Electricity/Inquiry_into_the_Undergrounding_of_Electricity_in_NSW

91 See https://digitalcollections.anu.edu.au/handle/10440/1118

11. SAFETY

Very few safety issues were raised in our previous study, suggesting that safety was not a significant concern among Councils.

In this section, we reference relevant safety information that may be of interest to consumers.

- Endeavour Energy has an energy safety section on its website.[92]
- Essential Energy has a *Switch on to Safety* section on its website,[93] and also provides information on its website regarding Safe Work Practices Training Courses.[94]
- Ergon Energy has safety information in various places on its website, including information on safety in the home, solar power safety, health and safety in Ergon Energy's work practices, and storm and cyclone safety.[95]

When any changes are proposed to safety regulations and practices, we would expect those changes to be proposed through consultation processes with opportunities to influence what decisions are made. If a significant safety incident occurs, it may result in a public enquiry to which public submissions may be sought in order to improve future safety to try to prevent recurrence of the incident.

92 See www.endeavourenergy.com.au/wps/wcm/connect/ee/nsw/nsw+homepage/communitynav/energy+safety/energy+safety

93 See www.essentialenergy.com.au/content/switch-on-to-safety

94 See www.essentialenergy.com.au/content/safe-work-practices-training-courses

95 See www.ergon.com.au/site-tools/search?mode=results&queries_all_query=safety