ACT Energy Consumers Policy Consortium Submission regarding the Preliminary Report of the Independent Review into the Future Security of the National Electricity Market

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ACT Council of Social Service (ACTCOSS)
Care Financial Counselling Service
Conservation Council ACT Region
SEE-Change
Small Business Taskforce of the Canberra Business Chamber

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The Independent Review into the Future Security of the National Electricity Market

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Please find attached a submission from the ACT Energy Policy Consortium in response to the Preliminary Report of the Independent Review into the Future Security of the National Electricity Market. This submission provides a perspective from energy consumer representatives in the ACT. It is complementary to the more holistic submission outlining more detailed commentary on the issues and recommendations regarding low income and vulnerable customers that will be provided by the Australian Council of Social Service.

Executive Summary

The Consortium welcomes the broad based direction of the Review and considers that any change to policy relating to the future security of the National Electricity market needs to recognise that

- Electricity is an essential service, every person needs access to affordable electricity for daily life.
- new technologies should form the basis of future investment
- that while consumers may be driving change, vulnerable consumers do not have the same choices as other consumers
- price increases impact the vulnerable more severely and unaffordable electricity can result in health problems if people are avoiding heating and cooling
- Vulnerable consumers are often ill-informed of the choices available
- Hardship programs are essential for vulnerable consumers
- Low-emission solutions to counter problems with renewable technology need to be promoted over out-dated coal technology.

Introduction

The ACT Energy Policy Consortium welcomes the opportunity to provide a submission in response to the Preliminary Report of the Independent Review into the Future Security of the National Electricity Market.

The Consortium is comprised of representatives of ACT Council of Social Service (ACTCOSS), Care Financial Counselling Service, Conservation Council ACT Region, SEE-Change and the Small Business Taskforce of the Canberra Business Chamber. The consortium considers the importance of social, environmental and economic factors in the formation and implementation of energy policy and that enhancement of equity and inclusion improves outcomes across all sectors. Note that this is the first time that this consortium has come together to comment on energy related issues.

The Consortium welcomes the approach taken in the report to addressing the issue of the future security of the National Electricity Market and placing the issue within the broader context of the complex tensions between security, reliability, affordability and reduced emissions for energy services.

The ACT is uniquely placed in the energy market with lower electricity prices than other jurisdictions but high energy usage for heating and cooling, due to extremely cold winters and hot summers. The ACT also has a commitment to 100% renewable energy for electricity by 2020 with contracts already in place and with political consensus on this commitment from all parties in the Legislative Assembly of the ACT. This application of 'reverse auctions' to achieve the renewable energy supply, including a requirement for 'local jobs' as well as skills and training has been very important.

Further, the ACT Government has taken steps while acting on climate change to reduce the impact of increasing electricity prices by assisting vulnerable consumers to reduce energy usage through the Energy Efficiency Improvement Scheme and also to assist those who have difficulty meeting energy and utility costs through establishing the ACT Civil and Administrative Tribunal Energy and Water Hardship area. The role of this tribunal in assisting struggling households is unique in Australia. In December 2016 the Tribunal was assisting 622 people who were experiencing financial hardship and unable to pay their electricity accounts.

Comments

How do we ensure the NEM can take advantage of new technologies and business models?

In terms of moving to new technologies it is important that information concerning the competitive cost, viability and advantages of these technologies is relation to traditional technologies is highlighted. Their advantage over 'clean coal' both in price competitiveness and impact on emissions needs to be brought to investors' awareness. Recent responses to the Prime Minister's announcement that 'clean coal' may be subsidised emphasise that this solution would compromise reaching reduced emissions targets, with 'clean coal' being only 25 per cent cleaner than existing coal plants; that average lifetime costs of wind and solar plants are likely to be about half the cost of new coal plants by 2025; and that a better option would be to support renewable energy and storage by instigating 'pumped hydro'. Frank Jotzo – ANU Crawford School of Public Policy – (Canberra Times 7 Feb 2017) and Bloomberg New Energy Finance (Adam Morton Canberra Times 7 Feb 2017) found that even efficient coal plants were the most expensive and dirtiest source of

mainstream electricity. According to Jotzo: "An ultra-supercritical coal plant running on black coal emits about 0.7 tonnes of CO_2 per megawatt hour of electricity, or about 0.85 tonnes using brown coal. That is anything but clean." [1]

It should be noted in this context that the ACT is moving rapidly to renewable energy and expects to have moved to 100 per cent renewable energy by 2020. It is also looking at building new suburbs which incorporate solar power to all residences and looking at trialling a micro-grid for a new suburb. The ACT Government has established a grants program to provide assistance to households and businesses interested in installing a discounted battery storage system noting "the ACT Government recognises that low-cost energy storage is the missing-link in the transition to a 100% renewable National Electricity Market."[2]

Also, Energy Networks Australia have produced the Electricity Network Transformation Roadmap which outlines a plan to move to a low emissions economy by 2050, and state that 'no choice is needed between Energy Security or Low Emissions – if we act now.' The roadmap is based on a two-year analysis by CSIRO and Energy Networks Australia and considers that reliable supply can be maintained during Australia's transition to a more decentralised, clean electricity system.

The NEM has several new technologies and business models to consider and incorporate lest it become irrelevant. These include the well-developed but still maturing forms of renewable technology such as wind and solar which do depend on the weather but can be balanced by providing for sourcing across a wide area.

How do we ensure the NEM meets the needs of all consumers, including residential, large-scale industrial and vulnerable consumers?

As acknowledged in the report, moves to 'greater choice' can disadvantage the most vulnerable. Low income consumers cannot take advantage of the installation of solar panels due to cost and currently are subsidising the richer consumer who can afford to do so. Many low income households are also renters, making use of solar PV even harder.

Many consumers have little awareness and understanding of the various tariffs currently available and how to choose the most advantageous tariff for their particular situation. One option may be to provide funding for resources to ensure vulnerable consumers can be assisted with understanding choices and their own personal energy usage.

In terms of vulnerable consumers, particularly Centrelink income recipients, it needs to be acknowledged that these consumers have no capacity to increase income, and any price increases in utilities above CPI can lead to insufficient income to apportion to all the competing areas of their lives. The staff providing services through the consortium members all say that vulnerable consumers face severe life stressors including mental and physical illnesses, unemployment or underemployment, family breakdown and the effects of trauma. Also, many of these consumers are at home all day, and need to use electricity for heating and cooling at peak hours. Choices are more limited for them and high energy prices can result in people who may be forced to choose not to use heating or cooling at the expense of their health, resulting in overall net costs to the government

[1] Frank Jotzo, 'New coal plants wouldn't be clean, and would cost billions in taxpayer subsidies' ANU College of Asia and the Pacific at: http://asiapacific.anu.edu.au/news-events/all-stories/new-coal-plants-wouldn't-be-clean-and-would-cost-billions-taxpayer-subsidies

[2] 'Next Generation Renewables' at: http://www.environment.act.gov.au/energy/cleaner-energy/next-generation-renewables

expenditure

Also, many consumers rent their accommodation and may not be in a position to take up the advantages of installing solar panels to make their accommodation more energy efficient, or to make changes to reap the benefits that smart meters can bring.

To ensure needs are met, some consumers need more access to information. Some strategies could include ensuring there is simple English information about options, and possibly funding services to assist vulnerable consumers in understanding the choice in the market and helping them optimise outcomes.

Moves to digital meters can also disadvantage vulnerable consumers. When introduced in Victoria disconnections increased markedly. If they are used it is not sufficient to put them in and walk away, there needs to be support and education about their usage. Disconnection policies need to be reviewed to ensure the most vulnerable are not at risk of disconnection.

Hardship programs are essential for vulnerable consumers. The ACT has a unique system of assisting clients at risk of disconnection. The ACT Civil and Administrative Tribunal Energy and Water Hardship area has the capacity to stop disconnections, or order reconnection and order the utility company to maintain supply of electricity, gas or water provided conditions set by the Tribunal are met. These conditions are binding and can include paying the account by instalments of a set amount, paying part or all of an account by a specified date, setting up a regular deduction from a bank account or Centrelink, and meeting with the Tribunal when required to do so to review conditions. The Tribunal can also order the utility to discharge part or all of an account.

The needs of small business also need to be taken into account given that continuing increases in electricity can threaten the viability of the business. Assistance with energy efficiency measures may ameliorate the impact of price increases but possibly a mechanism could be established to provide assistance to small business to assist them to deal with price shocks.

What role should the electricity sector play in meeting Australia's emissions reduction targets?

As identified in the report the electricity sector is the largest source of emissions, accounting for around 35 per cent of all emissions and therefore has to play a major role in emissions reduction. Again, as recognised, it also has the potential to contribute to emission reductions in other sectors by switching from existing transport, heating and industrial fuels. If Australia is to meet its emission reduction targets committed to under the 'Paris Agreement' then technology solutions which focus on zero or limited emissions will be critical.

The electricity sector should be at the core of meeting Australia's emissions reduction targets and move to having at least zero emissions in operations given that there are emission-free generation technologies available and in development. Given that fossil fuel-powered generators will have to be replaced at some time there is an available transition path for the electricity sector.

Australia has substantial capacity for additional renewable energy through solar, wind and tidal. Some of this potential electricity generation should be harnessed to allow for a smoothing of intermittent delivery in local areas and also to make a contribution to the emission-free electrification of other fossil-fuel using sectors such as transport. This capacity would be enhanced if

the market included both WA and the Northern Territory and went from what could be called SEEM (South Eastern Energy Market) to NEM a truly National Energy Market.

What are the barriers to investment in the electricity sector?

Uncertainty of future policy directions regarding climate change policy have been identified as a key factor influencing investment decision.

Fossil fuel powered generators should be concerned that even if they are able to maintain their facilities until they wear out, it will be very difficult to obtain support for building and licensing future facilities. This is because of the need to address climate change through reducing greenhouse gas emissions and because there will eventually be market mechanisms that push up the price for fossil-fuelled electricity. Given the lack of clear direction in Australia it is difficult for investors to calculate a rate of return on investment for an unknown quantity of unknown-priced electricity.

The need for proximity to the grid for connection is a limitation on some potential energy supplies such as tidal power and geothermal which are limited to specific geographical areas.

What immediate actions can we take to reduce risks to grid security and reliability?

As outlined in the report, steps have already been taken in South Australia to address the issues that caused the major outage and there can be learnings from overseas developments with renewable technology that can reduce the risks from the lack of inertia in solar and wind generation.

It would seem that the grid would work best if it is better interconnected and there are secure or multiple paths for energy transmission. Taking computers and the internet as a model we can use our computers as standalone devices or link to a local network (intranet or workgroup) or go further to the internet. The internet itself is designed to withstand storms and has different or parallel paths to locations. It should also be noted that many computers (laptops) have battery storage in case the electricity grid becomes unavailable.

Decentralising the grid through additional battery storage as well as improved and more reliable interconnectors at state borders would seem to be priorities to improve overall grid security and reliability.

Is there a role for technologies at consumers' premises in improving energy security and reliability?

Increasing use of solar installations will continue, and there may be a role they can play, in conjunction with emerging battery storage technology, in contributing to energy security and reliability. There may be potential for community batteries to form micro-grids. Also, there may be potential for digital meters to be controlled to reduce load at peak times eg the possibility of limiting air conditioning during times of overload to avoid full outages.

There could also be a role, with appropriately configured smart meters for payments and rebates, for electric vehicles to be linked to the grid providing an energy source at 'peak' times and being restored later when electricity loads are reduced. This arrangement might work better with electrified public transport utilities.

All use of technologies at consumers premises would need some contractual arrangements and an over-ride arrangement for when the technology is being used (eg electric vehicle is unexpectedly needed after being plugged in for an extended period).

How can we ensure that competitive retail markets are effective and consumers are paying no more than necessary for electricity?

There needs to be more transparency in pricing and better information as to what is driving increases in prices – how much is paid for transmission, wholesale, distribution, retail and government schemes such as feed-in tariffs – so that consumers are better informed. These prices should be clearly stacked and available in a comparison table with other providers across all states and territories.

There needs to be more and better information and assistance to vulnerable consumers to assist in energy choice. Information is available for superannuation returns and bank interest rates to provider for consumer choice on the basis of price or perception of security or type of investment. It would seem that better information and genuine choice would provide for a better market.

What are the optimal governance structures to support system security, the integration of energy and emissions reduction policy and affordable electricity.

Optimal governance structures would need to be based clearly on the mission as put in the question, with a few necessary additions, namely: "The mission of the NEM [or whatever] is to support system security, the integration of energy and emissions reduction policy and affordable electricity while providing the best environmental outcomes, social equity and inclusion and a reasonable return on investment".

Decisions by the NEM should take account of political circumstances but not be driven by them. NEM should be directed by a body made up of consumers (both residential and commercial), generators, retailers, community sector (ie social services), environmental interests and others. Specialist advisory bodies would be required for advice and detailed analysis. COAG energy ministers should be required to respond to recommendations from the body and references could be made back from COAG.

Governance structures should also have clearly delineated areas of responsibility and clarity around these responsibilities, especially when something goes wrong.

Data transparency should be enhanced and there should be a wide-ranging energy and 'data literacy' program to inform the general community in turn assisting the overall assist the overall governance of the grid through increased scrutiny and accountability.

Governance changes should be further discussed as part of a broad discussion of a range of proposals.

There is also an important role for community and consumer based organisations to be able to contribute to policy debates and regulatory processes. The complexity of these industries means that staff take a while to 'get up to speed' on enough detail to engage in these processes. The funding for the consortium to be able to pay a part time project officer is a new development for the

ACT, but funding remains short term and uncertain. Just as energy companies want great policy and regulatory certainty. A little certainty and continuity for community based energy expertise would also be very helpful.

The report also poses some other questions and responses are provided to those of interest.

How can innovation improve services and reduce costs: -

It is critical to look at not just question of reduced costs – but who benefits and who loses from any cost changes.

The ACT Government's steps to recognise that energy costs can fall unfairly and that compensatory measures are needed is a useful approach. It would seem that innovation should be tested through a social filter to assess the impact especially on vulnerable consumers and that measures be put in place to ameliorate or compensate for these impacts.

It is also important that environmental impacts of innovation are considered throughout planning, design and implementation stages.

Innovation in terms of local area grids and battery storage should lead to increased security of supply and reduced transmission costs. It would be interesting if the reduced transmission costs could be monetized and returned to communities investing in local solutions or whether the money that would have been spent on transmission costs could now be invested in micro-grids and battery storage.

What other electricity innovations are you aware of that may impact the market in the future?

There has been discussion of the merits of pumped hydro-power in commentary around how to support renewables. This option needs careful examination for its potential in the future market.

The reducing costs of solar panels and battery storage might result in more consumers going off-grid even if the grid is available. This might not only reduce the size of the market but might also leave some large assets under-utilised.

How can price structures be made more equitable when consumers are making different demands on the grid according to electricity use and their investments behind the meter.

There is a need to minimise the impact of subsidies for investments being paid for by the most vulnerable. Also vulnerable consumers can have higher demand for heating and cooling due to being at home all day. It may be that concessions can be a way to adjust for this.

It might also be useful to provide transparent and well-publicised information around the pricing of electricity so that people know when their prices are highest and lowest. In broad terms it is better to charge people more for the more electricity that they use (for example so that bulk users do not get a cheaper rate). All changes to pricing structures should be subject to scrutiny from a range of consumers and the changes should be designed with consideration for a transitional phase.

How do we ensure data sharing benefits and privacy are appropriately balanced.

Consumers have a right to know risks associated with data they are saying they are prepared to disclose.

Principles for de-identifying data should be developed and implemented if they are not already in place as they are for health data, census data etc.

Data should be widely and freely available and the default position should be that it is public data. In this way it is useable by analyst in a range of fields such as social agencies, environmental advocates, businesses, energy consumers, apps developers and the media. The more we know about ourselves and can act on it the better will be our future.