

# **NTCOSS Submission**

## **To the Committee on the Northern Territory's Energy Future Inquiry into Electricity Pricing Options**

**(LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY 12<sup>th</sup> Assembly)**

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# NTCOSS Submission to the Committee on the Northern Territory's Energy Future, Inquiry into Electricity Pricing Options

## October 2014

### INTRODUCTION

NTCOSS is a peak body for the community sector in the NT and is a voice for people affected by social and economic disadvantage and inequality. The community sector in the NT is made up of community managed, non-government, not for profit organisations who work in social and community service delivery, sector development and advocacy. The community sector plays a vital role in creating social wellbeing for all Territorians and in building safe and healthy communities by providing services that enable people to access and participate in health services, education, employment, economic development, and family and community life.

Access to affordable utilities services for Territorians is an issue which NTCOSS has highlighted in the past six years, since the significant electricity and water price rises were announced in early 2009 by the then Labor Government, and subsequently, in late 2012, when the current Government announced the most significant price rises in the Territory's recent history.

More recently, NTCOSS released a Cost of Living (CoL) Report: ***"Tracking changes in the cost of living, particularly for vulnerable and disadvantaged Northern Territorians", (Issue No. 1, October 2013)***, which highlighted a range of issues in relation to:

- The movement of utilities prices over the last 15 years in the Northern Territory
- The rapid increase in the consumer price index for utilities prices in the NT, when compared with the general CPI rate<sup>i</sup>
- The average household expenditure for NT households on electricity, water & sewerage, and household gas
- The disproportionate impact that utilities price rises have on low income households in the NT

### NTCOSS Cost of Living Report Finding (note some figures updated to reflect 2014 figures):

The overwhelming conclusions from the data contained in the recent CoL report include that:

- Households in the NT have consistently had the highest expenditure on electricity in the country (last 15 yrs)<sup>1</sup>
- Electricity prices in Darwin and the NT have been rising much faster than the general inflation rate - with electricity rising 47.2% since December 2009, and the general inflation rate only being 13.8% in the same period
- NT households are now spending an average \$203 per quarter more on electricity, than they were four years ago
- Utilities prices hit lowest income households the hardest – those who have the least ability to pay; and
- Poorer households spend proportionately more of their incomes on utilities than richer households (see Figure 1)

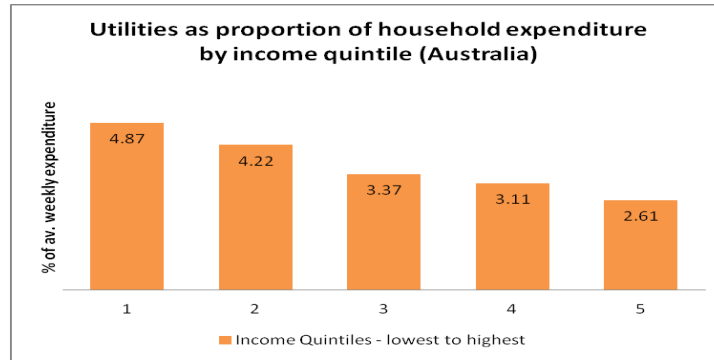
The result of these expenditure patterns is that utilities price rises impact disproportionately on low income households both because utilities constitute a greater proportion of their overall expenditure and they have less room to move in their weekly budgets. Therefore, any measures to alleviate cost of living pressures arising from utilities should be directed primarily at low income households.

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<sup>1</sup> In 1998 Darwin had the highest average weekly expenditure on electricity, and gas the lowest, among Australian States and Territories (ABS, 2001, Household Expenditure Survey Figures (HES)). In the 2003/04 HES figures, ABS (2006), Darwin's electricity expenditure remained the highest in the country, and gas expenditure remained the lowest; In the last HES (ABS, 2009-10), ABS (2011a), Darwin average household electricity expenditure remained highest; and gas expenditure the lowest in the country. Figure ? shows the comparative capital city expenditures indexed to the June 2014 quarter using the relevant CPI rises.

**Figure 1: Utility expenditure by household income – Australia 2009-10**

For this chart, utilities includes water, sewerage, electricity, gas (mains and bottled) & other household fuels



Derived from ABS 2011a (Table 3A)

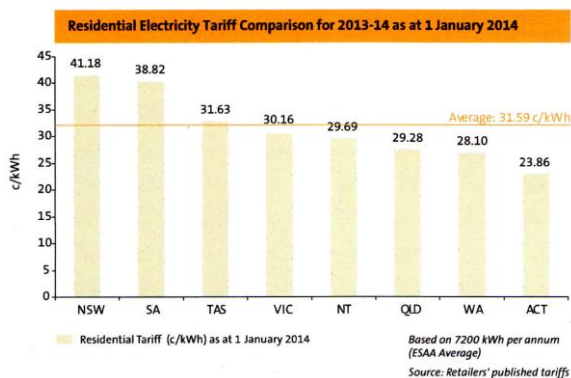
While the removal of the carbon tax, effective from 1 July, 2014 means that households electricity costs will go down slightly in the short term (the kw/h charge went down from \$0.2713 to \$0.2560), electricity prices will continue to increase, with a further 5% increase in 2015 (which was part of the announcement on electricity price rises by the current Government in 2012), with the potential increase in the electricity network charge (possibly from 2016).

### The price of Electricity vs Household Expenditure in the NT and nationally

The Northern Territory Government publicly highlighted, earlier in 2014<sup>ii</sup>, the fact that the price Territorians pay for electricity is lower than the national average, as per the graph here below (Figure 1) and that our electricity prices are the fifth highest in the country. (Power and Water Corporation data published in the Centralian Advocate April, 2014)

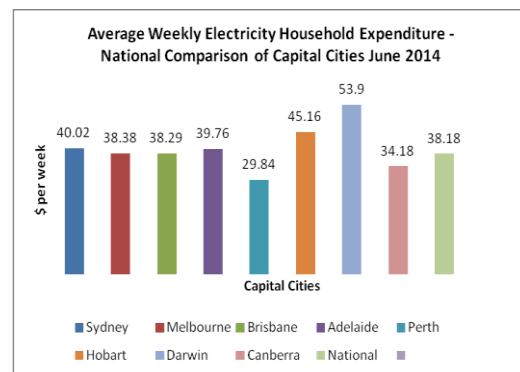
#### Australian Utility Tariffs - Comparison

**Figure 2 Price – Electricity**



#### Australian Household Utilities Expenditure - Comparison

**Figure 3 Expenditure –Electricity**



Graph published in Centralian (25 March, Figures derived

Advocate 2014) from ABS (2011a, Table23A); and ABS (2014d)

The accurate assertion by the NT Government (earlier in 2014)<sup>iii</sup> that the price of electricity is less than the national average must be balanced by the fact that expenditure by Darwin and Territorian households is significantly greater than the national average. In addition, the NT has the highest use of electricity per household in the country – which can be in part attributed to climatic factors; however, there are many other factors at play including lack of consumer knowledge in relation to how they are using electricity, building design and maintenance issues – contributing to poor thermal efficiency (especially in older dwellings).

**Table1: Electricity Expenditure increases over the last 4 years, Northern Territory**

(\$33.15 NT 2009/10 base figure \$)	NT Estimated Average Weekly Expend \$ June 2010	CPI Increase Darwin for each utility % (Dec 2009 - June 2014)	NT Estimated Current Average Weekly Expend \$ June 2014	Increased expenditure per week \$ in past 4 years	Average Increased expenditure for a quarter* (13 weeks) \$	Actual (average) expenditure for a whole quarter (13 weeks) \$
Electricity	\$33.15	47.2%	\$48.8	\$15.65	\$203.45	\$634.40

Derived from (ABS 2011a Table 27A; ABS 2014d Table 13, Data 4) NOTE: Darwin CPI used, as Territory/State CPI figures not available in ABS data. However, given that electricity retail prices are consistent across the whole of the NT, this provides an accurate picture of expenditure increases.

See Technical note 4 re use of Darwin CPI with NT figures (NOTE: Not all households use gas)

- Comparing June 2010 with June 2014 figures

### Impact of price increases on household budgets and cost of living pressures

Residents of the Northern Territory face well documented high costs of living, in terms of housing, food, and transport, and these index increases have real impacts on weekly budgets (Table 1 above). It should be noted that these are *not* cumulative increases for each quarter. NT households are spending \$15.65 more on electricity per week, than they were four years ago. The figures show, based on previous expenditure patterns, ***the average household expenditure on electricity at June 2014 is approximately \$203 more for the June 2014 quarter, than they would have been for the June 2010 quarter.*** The average quarterly bill for a Territory Household is now \$634.40. The ability to access affordable electricity services is critical to the health and wellbeing of all in the Territory and NTCOSS is particularly concerned about low income and disadvantaged Territorians in this context.

**NOTE:** There was also a 21.0% increase in the price of electricity in September 2009, but this was prior to the most recent HES expenditure figures. While the price rises have been dramatic in recent years, prices have been rising over the 15 years at a rate twice that of the general Darwin inflation rate – see Table 2.

**Table 2: CPI increases for Electricity vs CPI All Groups, over the last 15 years, Darwin<sup>2</sup>**

	% Increase June 1999-June 2014
Electricity	118.2
CPI – All Groups	56.1

Source: ABS (2014d Table 13, Data 4)

Former and current NT Governments have, in some ways, recognized cost of living pressures on low income households brought about by utilities price increases. In 2009, the former NT Government altered the Northern Territory Pensioner and Carer Concession scheme to protect pensioners and carers from the then price rises. And more recently, the current Government reduced the severity of the initial price rise introduced in January 2013. But despite such measures, expenditure on utilities by Territorian households continues to rise. Clearly there is a challenge and opportunity for Territorians to reduce their electricity consumption and a need for more renewable energy resources to be utilised, but whatever pricing model(s) is/are developed for the NT, they must take into consideration the needs of low income and disadvantaged Territorians and their households, to ensure households already struggling under a range of cost of living pressures do not face further financial or social hardship (interruptions to their electricity supply due to disconnection for non-payment).

<sup>2</sup> Ibid (Table 5)

## Submission to the Committee on the Northern Territory's Energy Future, Inquiry into Electricity Pricing

NTCOSS therefore welcomes the opportunity to provide some input into this consultation process in relation Electricity Pricing Options with specific reference to:

- a) The advantages and disadvantages of different electricity tariff designs;
- b) Factors to be taken into consideration in the design and implementation of electricity tariffs; and
- c) Options for Feed-in-Tariffs for renewable electricity generation.

### Addressing Electricity Pricing Options

#### a) The advantages and disadvantages of different electricity tariff designs (cont...)

##### Pricing Reform in the NT (and National level)

NTCOSS appreciates the complex nature of the development of appropriate electricity pricing options, and the range of stakeholder input requiring consideration. We also appreciate the need to adopt, where possible, the approach used by the Australian Energy Regulator and the application of relevant parts of the National Electricity Rules that are consistent with the NT specific legislation, as well as various constraints which impinge on the NT.

There is also significant interest in pricing reform at the moment nationally, in particular the Distribution Network Pricing Arrangements Rule Change currently being processed by the AEMC.<sup>3</sup> This includes the implementation of long run marginal cost pricing<sup>iv</sup>, which leads in to capacity pricing for networks.

NTCOSS also recognises that the Northern Territory is entering a new era in terms of the energy industry.

Technology has changed significantly since a lot of the current electricity infrastructure was established. We are in a new age of distributed generation and smart grids, where networks are enablers for people to make investment decisions and meet their own needs for energy use (Dufty, 2014)<sup>4</sup>. There are much greater expectations from the community at large in terms of people wanting to make their own decisions and meet their needs, with people being prepared to pay for their own amenities. Costs, therefore, do not have to be socialised across everyone.

The NT has an enormous opportunity not only learn from other jurisdictions who have been addressing these issues for some time, in order to avoid inefficient schemes and costly mistakes; but it also has the potential to lead the country in developing smart grids across rural and remote northern Australia. This should include making any new system adaptable for the future policy change. With the right structures, investment in a new system should be possible.

Dufty (2014) has suggested that it is crucial to recognise that tariff reform has long run benefits – as it will reduce the cost of electricity supply in years to come – however, the short term redistribution of costs will create winners and losers. The community sector in other states has tried to understand the distributional effects and engage and educate consumers before the introduction of major changes takes place. While change is inevitable, it should be seen as a long term project that needs careful management otherwise the 'losers' will inevitably include some

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<sup>3</sup> <http://www.aemc.gov.au/Rule-Changes/Distribution-Network-Pricing-Arrangements> (REF. ERC0161)

<sup>4</sup> Dufty (2014). Gavin Dufty is the Manager of the Social Policy Unit, Victoria, for St Vincent de Paul, and has worked in the community welfare sector for over around two decades, and has produced a number of reports focusing on the cost of living with a particular focus on energy. Gavin is a representative of a number of industry and government committees associated with energy policy

PO Box 1128, Nightcliff NT 0814 • 1/18 Bauhinia Street, Nightcliff, NT 0810.

Ph 08 8948 2665 • Fax 08 8948 4590 • Email: [admin@ntcoss.org.au](mailto:admin@ntcoss.org.au) • Website: [www.ntcoss.org.au](http://www.ntcoss.org.au) ABN: 19 556 236 404

## a) The advantages and disadvantages of different electricity tariff designs (cont...)

people who are already genuinely struggling. It is important the NT avoid debt and disconnection being the mechanism identifying who the vulnerable customers are. (Dufty, 2014).

The Australian Energy Market Commission (AEMC, 2012), the Productivity Commission (2013) and the Australian Government's White Paper (2012) all highlighted that reform of distribution network tariffs was required. This point was also highlighted in Power and Water's 'The Power Networks *Network Pricing Principles Statement and Pricing Proposal*, 2013, where there was an emphasis on a range of areas including "enhancing cost reflectivity...improving demand side participation and energy efficiency and rolling out smart meters and time based pricing, to reduce demand in peak periods. There was also specific mention of 'cost reflective pricing' in the context of the potential roll out of interval meters in the Northern Territory.

NTCOSS acknowledges that with the rising costs of running a modern electricity network, the NT Government will seek to price for economic efficiency, and this inevitably may lead to some form of tariff reform, and may involve cost-reflective pricing – which typically involves exposing customers to marginal cost pricing. In South Australia, for example (Nance, 2014), cost reflective really means strongly weighted to summer afternoons – which is when wholesale prices are highest and when demand on the network is more than double what it is on average. A substantial proportion of the money spent on the network is for these peak times. Marginal cost pricing<sup>5</sup> also requires some form of a smart meter - as well as capacity or demand charges for the customers.

In South Australia, the South Australian Council of Social Service (SACOSS) has been involved in a process of looking at what a change to the National Electricity Rules that seeks to ensure more *cost-reflective* network pricing (as proposed by the Standing Council on Energy and Resources (SCER) will mean. This proposal is under the consideration of the AEMC. In this light, SACOSS (2014a) has been considering what constitutes 'cost reflective' network pricing in the South Australian context.<sup>v</sup>

Deciding on what 'cost reflective' means for the NT may be a complicated question, with the different systems in place across regional and remote areas of the Territory. However understanding what 'cost reflective' is for the NT will be important in order to assess the advantages and disadvantages of different tariff designs (Nance, 2014).

The transition to any new pricing framework, however, represents a challenging process for households, particularly as many people are not aware of the how they utilise electricity throughout different periods of the day. The exercise of working out which arrangement is best for a family's circumstances is not always an easy one. The Productivity Commission contends that "The broad case for moving to cost-reflective, 'time-based', pricing for distribution network services is strong. ...with smart meters providing the technical means [for] households...[and] the pay-offs from doing so are potentially significant", however they do acknowledge the complexities and challenges in time based pricing.

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<sup>5</sup> Nance (2014) "There is some debate about what defines marginal costs but it is not fixed for all time and is different for networks than it is for generation". Andrew Nance is the Principal of St Kitts Associates, and is one of South Australia's most broadly experienced energy and greenhouse specialists. [http://www.stkittsassociates.com.au/about\\_us\\_1.html](http://www.stkittsassociates.com.au/about_us_1.html)

## a) The advantages and disadvantages of different electricity tariff designs (cont...)

The NT has the opportunity to learn from the lessons and experiences of other systems established in other areas, with Victoria and South Australia being the two jurisdictions so far to have deregulated retail prices for electricity. (Productivity Commission, 2013, p.465). Victoria's new flexible pricing model is highlighted below.

new is one of South Australia's most broadly experienced energy and greenhouse specialists

### **Victorian Model of Flexible Pricing**

If a flexible pricing framework is considered for adoption for the NT as a result of this inquiry process, NTCOSS believes that valuable lessons can be learnt from the way that Victoria went about implementing such a framework. The Victorian Council of Social Service (VCOSS, 2012) voiced their support for the model implemented by the Victorian State Government in 2013 where there were transitional arrangements which ensured an appropriate safety net was in place for those households prepared to trial a flexible tariff arrangement.

### **Flexible Pricing must have a strong Safety Net (The Victorian Model)**

The Victorian model has the following features:

- Flexible tariffs are optional, not mandatory, (for the foreseeable future), meaning households don't have to switch until they're ready.
- Retailers are required to continue offering traditional 'flat' tariffs to other customers, who choose not to switch
- A special 'safe try' period has been in place from the start of the scheme (July 2013) and will be in place for nearly two years (until March 2015). During this period, customers who switch to a basic flexible tariff can switch back without penalty if they find the flexible tariff is not suitable for their households needs, so people aren't permanently locked into a system that doesn't work for them
- A Flexible pricing Customer Protection Framework (with additional protections) was put in place (with appropriate information critical to this – beyond the 'safe try' period, where there is still opportunity to switch to a flexible pricing model
- In addition, "the Victorian Government consulted widely in developing this flexible pricing framework and put households' interests first". (VCOSS 2012)

This type of approach is supported by the AEMC who propose Introducing more efficient and flexible retail energy pricing offers for residential and small business consumers through the introduction of cost reflective electricity; and arrangements for residential consumers that have low to medium consumption levels to have the option to remain on their existing retail price structure (AMEC, 2012, p.ii).

At the time of implementation, VCOSS stated that "Victorian households won't all be better off under flexible electricity pricing, but all will be given the flexibility they need to try different tariffs out and see what's right for them." (VCOSS, 2012). VCOSS also noted that 'Studies have shown that even for many people who spend a lot of time at home – such as those who are aged and frail, or with caring responsibilities – flexible pricing can be beneficial even if they don't shift their usage. (VCOSS 2012)



## a) The advantages and disadvantages of different electricity tariff designs (cont...)

### **'Pricing Glide Path\*' with side constraints'**

With any new pricing structure, there will be a reallocation of costs within communities, leading to the situation where there will be winners and losers. With the introduction of smart meters in Victoria, for example, some people who were effectively previously subsidising others, are now better off; and vice versa. Dufty (2014) refers to the need for the right **'Glide Path' – the transition from historic price structures to any new structure needs to be gradual and smooth over a number of years**. To aid in getting there, it is essential to have an analysis done about the winners and losers; and how costs have been reallocated. Once this is known, supports can be more targeted.

#### **What is a 'Pricing Glide Path'? (Also referred to as a 'Tariff Glide Path')**

This is also a term used in investing, where an investor might plan a rebalancing of their portfolio over several years (e.g., gradually moving out of mining shares over a period of time instead of in one big sell off)

Some people may find the new system too expensive, and need to get off the grid (to whatever is the cheapest option – it may be renewable energy (e.g. solar) but it could be something else. And it might be a diesel generator for the first 5 years, followed by a solar array system (as one option).

However, if an area such as Palmerston, for example, suddenly gets a new subdivision with an extra 2000 households - you could bolt on a solar array (or whatever is the lowest cost) rather than expanding the existing network system, which would mean spreading increasing (social) costs to everyone.

As stated above, with any new pricing structure, there will be a need to know how quickly you can reallocate /rebalance price. With energy pricing having a fixed and variable component, if consumption is falling, there may be a need to increase the fixed price; and reduce the variable rate (with concessions in place to protect those vulnerable to price shock (Dufty, 2014). See also discussion on 'The vital role of Concessions' on p. 10 below.

### **Community Consultation and a Phased in approach**

NTCOSS believes there is a need for widespread community consultation based on clear information on what 'cost reflective' looks like – not just in terms of annual costs but peak times of the year and of the day. Nance suggests that a way forward could be for the NT to adopt an approach whereby small trials of pricing reforms are implemented to gather information on who the 'winners' and 'losers' are likely to be, before any scheme is implemented on a wide scale. (Nance, 2014).

NTCOSS also supports an opt-in model, such as what was implemented in Victoria. The critical aspect with the implementation in Victoria, was choice. It is not essential for all households to shift to a new system, for there to be benefit for the Northern Territory. Dufty (2014), asserted that a "flexible pricing model allows customers to find the best price for them, and for some households the existing arrangements may still be appropriate. However, as household needs are not static, any new system needs to be flexible to allow people to shift later on in response to changing household needs (e.g. when children leave home). The Productivity Commission has also supported the AEMC's proposal that people can opt into cost-reflective tariffs, or choose to remain on a flat tariff (that would then rise over time as non-peaky users selected cost-reflective prices). (2013, p.427). In addition,

## a) The advantages and disadvantages of different electricity tariff designs (cont...)

In relation to the 2012 Senate Inquiry into Electricity Pricing, ACOSS endorsed the Senate Committee's recommendation "that time-of-use pricing be gradually phased in with smaller consumers given the option to opt-in if it is beneficial for them". ACOSS highlighted that "Many low income consumers have a limited capacity to respond to price signals. They can be limited in their ability to exercise choice in how they use energy or invest in energy efficiency improvements". (ACOSS, 2012) ACOSS (2012) also supported the recommendation that "the introduction of cost-reflective pricing be accompanied by a comprehensive consumer information and education campaign, funded by governments", which would need to target "vulnerable consumers."

The Productivity Commission (2013) also makes the case for "specific arrangements to be employed to provide targeted assistance to vulnerable consumers adversely affected by the change in pricing approach" (p.427). The Productivity Commission in proposing the removal of retail price regulation, suggests that "To support favourable outcomes for consumers choosing between retail offers, the removal of retail price regulation should be accompanied by access to an independent national online information tool to help consumers make good choices (e.g. build on the Australian Energy Regulator's existing 'energy made easy' online comparison tool ). (2013, p.465) (See also comments on page 14, under 'Ensuring consumers understand choices')

### Complementary Measures

Any change to pricing structure, regardless of what the technology, will lead to a reallocation of costs. Therefore it then it will be essential that this be integrated with complementary measures, which would need to include concession reform and the expansion of energy efficiency - as well as demand management mechanisms to ensure that households can make the changes that the new price signals are trying to indicate (Nance, 2014).

### The vital role of Concessions

Linking concession reform and energy efficiency to any pricing reform measures would seem to be the most efficient way to proceed (Dufty 2014). Transitional concession measures will be required, to allow people to adapt to any new changes without experiencing price shock. It is also crucial that the concession needs to be able to be responsive to change so that the NT Government can adjust concessions in real time, to support the transition to a new structure.

Dufty (2014) suggests that concessions could be either in the form of a direct subsidy system or through the targeted placement of technology (such as solar panels/or other targeted technology). It is not about vulnerability per se, but it is about where the price shock is – e.g. households with lots of kids (to ensure scarce income is not diverted from essentials, such as education costs and food, due to rising electricity bills), and ensuring that for groups who are susceptible to price shock, the concession framework will compensate these households proportionately more when their usage costs go up.

It may be important for the NT Government to conduct an inquiry into the NT concessions system prior to any roll out of a new pricing regime, to assess what impact the new pricing scheme will have on existing concession eligible customer, and customers who may now be susceptible to price shock, and what type of concession mix will need to be applied to ensure protections are in place. It may be worthwhile for the NT to explore how the Victorian concession model works where there is a flat rate of a 17% concession which applies all year around. NTCOSS has

## a) The advantages and disadvantages of different electricity tariff designs (cont...)

### The vital role of Concessions (cont...)

previously highlighted that the NT along with Queensland are the only two jurisdictions which do not extend electricity concessions to health care card holders (meaning job seekers on very low payments (such as Newstart<sup>6</sup> and Youth Allowance) are ineligible for the concession.

Considerations: A lower rate of charge for the Northern Territory Pensioner and Carer Concession Scheme NTPCCS card holders currently exists in the NT - NTPCCS card holders receive a reduction in both the fixed daily charge and consumption charge. If Cost Reflective Pricing measures such as peak pricing and time of use tariffs, are introduced in the NT in the future it will be vital to acknowledge the fact that many senior Territorians will simply not be able to shift their load due to age or health related factors. Therefore appropriate mechanisms (i.e. an appropriate mix of rebates and concessions) must be put into place to ensure senior Territorians facing such factors, are not worse off.

In addition, it will be crucial for the NT to ensure that all people eligible for electricity concessions actually receive them, which is an issue that has been raised by COTA in the past (SEE REFERENCE). SACOSS (2013, p.2) has also found that an emergent theme among providers of financial assistance in South Australia is of people who are eligible for state based concessions who are not accessing the concessions available to them. Getting those people on to the available concessions is considered to be a high order priority.

### Energy Tariffs and Vulnerable Consumers and the use of Inclining Block Tariffs

SACOSS (2014 a) in their report , *Energy Tariffs and Vulnerable Consumers focused on the 'reform' of the structure of electricity price, in relation to the economic efficiency potential of more 'cost-reflective' prices.*

By and large, the prices that SA households pay for electricity are comprised of a fixed component – the 'service access charge' or 'supply charge', and a 'rate' based on the volume of electricity consumed over the quarter (i.e. cents per kilowatt-hour' or c/kWh), with most households paying somewhere around 70 cents per day for the fixed component (about \$250 pa) and over 30 cents per kWh. What this report found was that the numerous offers in the market from the 12 electricity retailers selling into South Australia are variations of the above with some differences in the 'structure' of tariffs. When the residential electricity market was opened up to competition in 2003, AGL Energy, the incumbent retailer, set its tariffs to have higher prices in Summer (the January-March quarter). Eleven years later, 7 of the 12 retailers follow this same practice.<sup>vi</sup>

#### Use of Inclining Block Tariffs (where prices increase as consumption increases)

Further to this, "11 out of the 12 retailers structure their tariffs as 'inclining blocks'. The only retailer that doesn't, Powerdirect, is a wholly owned subsidiary of AGL Energy. The use of inclining block tariffs is largely due to the influence of the network tariffs set by South Australia's monopoly electricity distribution company, SA Power Networks (SAPN). When the consumer pays their retailer, the money collected includes a large component that must be paid to SAPN [4], where typically, the retailer will simply 'pass through' these costs to their customers, but there is a trend of not doing so and simplifying the prices offered to customers."<sup>vii</sup>

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<sup>6</sup> The Newstart payments lag further behind pensions and are currently \$162 lower per week.

## a) The advantages and disadvantages of different electricity tariff designs (cont...)

### Pre-payment meters

Pre-payment meters are prevalent across remote and some regional areas of the Northern Territory, and due consideration will need to be given as to the impact of any pricing reform on these households, including the role that concessions play.

### Demand Based Pricing: The need for Meters with Time of Use Function (Smart Meters)

Any move to demand-based pricing would also allow the retail component of tariffs to adopt similar pricing. However, this would require the NT to facilitate a shift from accumulation meters' (at homes and small businesses) to meters with a time-of-use function.

#### Smart Meters – the Experience in Victoria

Electricity smart meters are being installed in every household in Victoria currently (part of a process which began in 2010), and is part of the national Smart Meter Program. These meters enable new electricity pricing structures and products to be offered to customers. VCOSS has raised concerns that these products may disadvantage some low income households and is working with the government and other community organisations to make sure that the right consumer protections, regulations and concessions are in place to make sure that low income households are not worse off and can share in the benefits of new metering technologies. VCOSS (2014b).

#### Smart Meters – the Experience in Victoria (cont...)

It is important to note that the Victorian smart meter does quite a bit more than just deliver Time of Use (ToU) tariffs. In addition to this, they support load control and supply capacity control, messaging from the distributor or retailer, remote connection to other devices on a Home Area Network (HAN) for example, and In-Home Displays (IHDs) that display information from the meter. Because they record usage and load in small intervals (usually aggregated into 30 minute blocks) they make available highly detailed usage data. This can be accessed through the IHD or via a web portal if the distributor or retailer provides one and sends the data to it. Some Victorian distributors are doing so, as well as one or two retailers. The retailers are much more reticent to provide useful data than the distributors, as it is not really in their interests to give customers information that would help them switch to another retailer. (VCOSS, 2014a)

The smart meters which are being implemented in Victoria offer not only interval metering but also a communications infrastructure enabling two-way communications to and from the meter. This communications infrastructure enables the implementation of interactive devices such as web portals and in-premise displays, to give electricity customers more information on how they are using electricity. This information can help customers to compare different offers from electricity retailers, which may include flexible pricing offers. With more information, customers will also be able to gain better understanding of how their different patterns of use of electricity affect the overall price they pay, and they may be able to change their usage patterns to save money with flexible pricing.<sup>viii</sup> (VCOSS, 2014a)

*NOTE: The SA Government has also recently initiated consultation on a policy for making new and replacement meters 'smart-ready'. There may be some findings from this consultation which will be relevant for the NT.*

## **a) The advantages and disadvantages of different electricity tariff designs (cont...)**

The AEMC has suggested the introduction of competition in metering services and the development of a framework for smart meters and their services (AEMC, 2012, p.iii). In addition, the Productivity Commission (2013, p.355) stated: “The rollout of smart meters and the adoption of critical peak pricing would reduce the required level of capacity of the network and, more broadly, lower the operating costs of managing the network. In regions with impending capacity constraints, the savings per household could be around \$100–\$200 per annum...” They also cautioned that: “The rollout of metering technologies needs active community consultation and communication.” (2013, p.377).

While the need for tariff reform may be clear, it will not be possible without metering reform. There is however a considerable cost involved in rolling out metering reform across a population, and the issue of who pays will be an important consideration for the NT (Nance, 2014).

### **Some useful resources for the NT:**

There is also some useful reference material on prices in the NT and across Australia developed by the AEMC:

<http://www.aemc.gov.au/Markets-Reviews-Advice/Retail-Electricity-Price-Trends-2013>

In addition, there is also useful information in the NT Factpack, which reinforces the NT as having the fastest rising electricity prices in the country at the moment.

<http://www.aemc.gov.au/getattachment/e6ebb0b6-f095-4562-812c-52f9ce1e30e4/Northern-Territory-fact-pack.aspx>

## **b) Factors to be taken into consideration in the design and implementation of electricity tariffs**

### **Guiding Principles for Pricing Reform**

A certain set of principles needs to apply regardless to any new pricing system implemented, which could apply regardless of whether the market is privatised or not. The following issues are highlighted as key issues for examination in the development of guiding principles for pricing reform – to ensure customers needs are considered at all points.

### **Issues surrounding competition**

The residential electricity market was opened up to competition in South Australia in 2003. SACOSS (2014b), in their report on current perceptions among SACOSS member organisations and the wider community about the current state of play in the energy market, reported a level of confusion among householders in relation to the various offers from retailers; and reported that confidence in the energy market is low.

## **b) Factors to be taken into consideration in the design and implementation of electricity tariffs**

### **Ensuring consumers understand choices**

SACOSS believes that householders need to be able to make conscious and confident choices about the products on offer from energy retailers, which does not seem to be the case currently. SACOSS has developed a document ("Finding a better deal", July 2014) in order to assist those in the community sector, to give advice to households on how to navigate the market in order to secure a better deal for electricity (and gas)<sup>ix</sup>.

The inquiry committee may also find it useful to look at the Energy Made Easy website, which assists consumers in SA, by converting all of the tariff information into an estimated annual cost – with and without discounts applied – to assist customers to estimate what they will end up paying with specific deals. [www.energymadeeasy.gov.au/](http://www.energymadeeasy.gov.au/). However, use or development of such a web based tool needs to be complemented by other tools, as SACOSS (2013, p.2) has found that:

- The Energy Made Easy comparator website is considered too complex to have widespread use and there are questions about whether people are getting the information they need when they do use the website;
- Energy Made Easy also requires internet access and reasonable levels of literacy – or someone with the time and patience to utilise the service on a household's behalf. (see also 'Utilities Literacy' below, p 16 )

### **Size of the Market**

The size of the market is definitely a key factor, with the bigger market in Victoria a key factor, and South Australia and Tasmania, with their smaller (relative population) struggling. The Northern Territory with a population base less than half that of Tasmania, will clearly face enormous challenges to create a competitive market. The NT would want to avoid the risk of the development of a duopoly, if only two retailers were in the market. In Victoria – the big distributors have much the same price and it is with the smaller players where you see the aggressive discounting. The quality of customer service also varies with the smaller retailers. Even within a larger jurisdiction, such as Victoria, there are fewer options of providers in geographic areas that can't support a market.

### **Deregulation of Price – A Challenge for Consumers**

Price regulation in South Australia has presented a real challenge for consumers, particularly more vulnerable consumers who are reluctant to move. While competition can be a positive thing for consumer protection, there are barriers to many people switching contracts. These barriers include not having all of the required information; not being connected to broadband and being proficient with internet use (which is the case for a number of older senior consumers<sup>7</sup>). The Victorian experience suggests that if a customer is good at searching – you can get low price - if you can put in the time and effort and you have the nous – you can get lower prices. In Victoria more consumer information has become available which improved the situation. However, the situation in the Victoria is very different to that which exists in the NT with a diversity of Aboriginal languages, a high number of low income and disadvantaged households, and a lack of internet access in remote areas.

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<sup>7</sup> See Explanatory Notes in Appendix 'Specific issues affecting older consumers of electricity'

## b) Factors to be taken into consideration in the design and implementation of electricity tariffs

### Quality and consistency of Service and Service Outcomes

There also needs to be a focus in the NT on service outcomes as well as pricing and efficiency issues, if there are moves to open up the electricity market to competition. This is echoed by SACOSS (2014b), where they state: “The best interests of consumers are not just about lowest prices. It is critical that supports and safety nets are put in place to protect vulnerable households from debt with an energy retailer; and from being disconnected.”<sup>x</sup>

Data from Victoria estimates that there will be approximately 100,000 complaints per year to the Energy & Water Ombudsman Victoria, with the vast bulk being about energy. This equates to 1 complaint per 25 households. Similar levels of consumer dissatisfaction in Victoria did not exist before the introduction of competition. Therefore it is critical that there be discussion and planning around what pre-conditions are necessary for consumers to benefit from competition, which might include consideration of the following:

- Strong consumer protections – bans on unsolicited sales (door-to-door and the like); simple and clear information requirements around pre-contractual, contract terms and conditions, and billing; fair terms and conditions – bans on late payment fees/pay on time discounts, bans on exit fees, bans on unilateral price changes within fixed period contracts etc; strong disincentives against disconnection and/or legal debt recovery, including hardship policies; measures to encourage consumers to identify contracts that suit them etc (see also section on Consumer Advocacy p.16 below)
- Quality and reliability standards – this will be particularly important in more remote areas of Territory
- Effective dispute resolution – such as the establishment of an industry ombudsman service
- Regulator with a strong retail market compliance and enforcement culture, and prepared to use its enforcement powers
- Strong regulation of distribution networks (VCOSS 2014a)

### Late paying customers

People who are late paying customers, are generally people in a vulnerable financial situation, therefore consideration needs to be given to mechanisms that support – and not penalise them and put them in further financial pressure. SACOSS have noted that people who pay late are vulnerable to higher bills as a result<sup>xi</sup>; and that “late paying customers would be worse off on half of the market offers compared to the standard contract offer.” SACOSS (2014b, p. 5).

According to St Vincent de Paul, in its 2012 analysis of the South Australian electricity market, *“The analysis in this report demonstrates that the retail market is more competitive for customers who pay on time than for those who pay late. (St v de Paul, 2013b). The use of late payment fees combined with pay on time discounts means that customers on market offers can become severely penalised for paying late, or conversely, well rewarded if paying on time.” (St V de Paul, 2013a)*

### Hardship Programs

An effective and accessible hardship program is critical, though it is the experience from South Australia that smaller providers struggle to provide an adequate hardship program, simply due to their limited experience in dealing with the complexities of those households needing the tailored support of a hardship program.<sup>xii</sup>



## **b) Factors to be taken into consideration in the design and implementation of electricity tariffs**

### **Transparency for household bills**

It is critical with any new pricing system for there to be clear and transparent information on household bills (Dufty, 2014). A report by St Vincent de Paul (cited by ABC, 2014) raised concerns that energy retailers in Victoria were failing to adequately disclose the additional fees consumers are charged in their power bills before people sign up to contracts, and that late-payment penalties and credit card processing fees are among the common charges consumers are not told about before they decide which power company they will choose. The NT can learn from such experiences interstate and ensure that protections and safeguards are in place for customers, to avoid these kinds of situations.

### **Internet Access**

SACOSS have noted that access to comparison information relies heavily on access to the Internet. This represents significant challenges for lower income households, particularly the elderly. The Australian Bureau of Statistics (ABS) publishes data on household and personal Internet Access and Usage in 8146.0 – Household Use of Information Technology, 2012-13. According to the ABS, 17% of households do not have internet access. Further, Figure 2 relates households with and without internet access by equivalised household income quintile and shows that over 40% of households in the bottom quintile report not having home internet access. (SCOSS, 2014B,p.12) The issue seems to be more acute for older Australians (over 65), with available figures indicating that a majority of older Australians do not access the internet (particularly the case for those without tertiary education qualifications).

### **Energy Plan Promotions**

Media Releases put out by the ACCC (2013, 2014) highlighted that some interstate energy providers used misleading promotion in terms of information around discounts and savings off energy use and/or supply charges under those plans.<sup>xiii</sup>

### **Utilities Literacy**

A strategy to improve utilities literacy needs to be a component of any change to the electricity pricing structure. SACOSS concluded that there is a resource and information gap in utilities literacy, which exists despite the facility of the Energy Made Easy website. A recommendation SACOSS (2013, p. 6) has made has been for: *“the establishment of a ‘hotline’ for financial counsellors by every retailer which would serve to facilitate price checking for clients. Financial counsellors would ideally speak directly to the relevant retailer to determine the best offer a retailer would be prepared to provide for an existing client.”*

### **Consumer Advocacy**

NTCOSS is encouraged by the proposal (p.4) that “at an appropriate time, introduction of the National Energy Retail Law in the Territory will also see the regulation of the Territory’s retail energy market – apart from retail price regulation – being transferred to the AER”, [who] will then be responsible for consumer protection, retail competition and performance monitoring. NTCOSS has previously asserted that “Residents of the NT should be able to expect at least the same protections as those in other States, the majority of whom have funded consumer advocacy in place (NTCOSS 2013b). The reality is that any new entrants into the NT market are likely to already be operating subject to the National Energy Market (NEM) rules interstate (unless from WA), which can give NT consumers confidence.



## **b) Factors to be taken into consideration in the design and implementation of electricity tariffs**

### **Issues specific to Cost Reflective Pricing - Impacts on Vulnerable Groups:**

#### **National Council On The Ageing (COTA): Impact of Cost Reflective Pricing on Seniors**

In addition, the National Council On The Ageing (COTA), in their 2012 Submission to the Senate Select Committee into Electricity Prices<sup>xiv</sup>, expressed concerns about the implications of such measures as peak pricing and time of use tariffs. They believe that such measures will do little to alleviate energy poverty experienced by many older consumers. Rather, peak pricing has the potential to disproportionately affect consumers who cannot shift their load due to age or health related factors.<sup>xv</sup>

Attempts to limit peak load at the household level have the potential to cause older people to increase their focus on 'energy conserving' rather than 'energy efficient'. This response may have other undesirable consequences. For example, by choosing not to use air conditioning on hot days individuals can experience significant health problems which will, in turn, put pressure on health and emergency services during extreme weather events. "In brief, COTA believes that, to be effective for older people, energy reduction schemes need to focus on energy cost savings for households, rather than energy savings in terms of kWh."<sup>xvi</sup>

"Older people represent a unique segment of the electricity market by virtue of their patterns of usage and household budgeting habits. In brief, older consumers are more likely to display the following characteristics:

- more likely to spend considerable amount of their time in their own homes and be reliant on their residential energy supply to meet the majority of their energy needs (unlike people who spent parts of their day in a work or school environment);
- more likely to suffer from chronic conditions which may intensify their reliance on electricity (for example, to maintain life support equipment or to assist them with temperature regulation or to charge electric mobility devices);
- more likely to forgo other consumption or activities in order to pay their energy bills on time and in full;
- likely to experience significant hardship in their efforts to meet the rising cost of energy which have increased disproportionately to their fixed incomes;
- less likely to apply for available energy rebates or concessions being unaware of their entitlement or believing that others have a greater need; and
- less likely to be able to take advantage of solar generation opportunities because of the high cost of infrastructure."<sup>xvii</sup>

#### **Issues specific to Cost Reflective Pricing - Impacts on Low Income Households**

It is imperative that the Northern Territory finds creative solutions to make energy efficiency measures more accessible to low income households. In this light, NTCOSS is pleased that there are now programs nationally which are directly working with low income households to address energy efficiency issues – including the Low Income Energy Efficiency Program (LEEIP) in East Arnhem Land – and believe that further steps can be taken.

Any discussion about movement towards cost reflective pricing measures in the Northern Territory must consider the needs of low income and disadvantage groups, such as seniors (especially those in dual fuel households), and those in

## b) Factors to be taken into consideration in the design and implementation of electricity tariffs

rental accommodation. Measures addressing the barriers to improving energy efficiency for particular households must be developed. NTCOSS made some recommendations in its Cost of Living Report, in relation to these issues.

### **Recommendation 1 from NTCOSS Cost of Living Report No.1 (Oct 2014)**

**1. Provide mechanisms to enable low income households to improve energy and water efficiency.** This could take a number of forms and include initiatives such as:

- Incentives for private and public housing landlords to improve energy and water efficiency; and
- The establishment of low-interest loans and/or more rebates for solar power, solar hot water - which need to be targeted in a way to be accessible to low income households.
- Access to information, education and workshops to enable households to take control of their energy and water usage, including increasing the ability of tenants to advocate to landlords to report damage that may contribute to higher living costs. This could also include education for landlords.

## **Renewable Energy**

NTCOSS would like to point the Committee to 'Beyond Zero Emissions', a collaboration between the University of Melbourne and the Energy Research Institute. Beyond Zero Emissions is developing a detailed, costed blueprint for the transition to a completely decarbonised Australian economy within a decade. The Zero Carbon Australia Project (ZCA2020) will consist of 6 transition plans covering the 6 sectors of energy, buildings, transport, land use, industrial processes and coal exports. (<http://bze.org.au/zero-carbon-australia-2020>)

### **Two comprehensive reports are available:**

Australian Sustainable Energy: Zero Carbon Australia Stationary Energy Plan

This report covers the following:

- Ten year roadmap for 100% renewable energy
- Baseload energy supplied by renewable sources
- Affordable at \$8 per household per week

[http://media.bze.org.au/ZCA2020\\_Stationary\\_Energy\\_Report\\_v1.pdf](http://media.bze.org.au/ZCA2020_Stationary_Energy_Report_v1.pdf)

Australian Sustainable Energy: Zero Carbon Australia Stationary Energy Plan **Synopsis:**

[http://media.bze.org.au/ZCA-Stationary\\_Energy\\_Synopsis\\_20June10.pdf](http://media.bze.org.au/ZCA-Stationary_Energy_Synopsis_20June10.pdf)

In commenting on the Stationary Energy Plan, Santiago Arias (Chief Infrastructure Officer, Torresol Energy) commented that:

*"Australia is one of the areas with better solar radiation and forms part of the international 'sun belt'. Besides, the country has excellent conditions for profiting from that solar radiation: large low-populated areas to build the plants and an industry that can support the technological development in the solar generation sector." (Stationary Energy Plan, p. li).*

The current inquiry into the Energy Future of the NT provides an enormous opportunity for new and fresh approaches to be considered. The Northern Territory is incredibly well placed to lead the country in making the most of the access to the abundance of sunlight, and develop further innovative approaches to the provision of renewable energy. We are also in a time when the cost of providing solar PV panels for roofs has decreased around 90%, over the past ten years – so opportunities to maximise solar are greater than they have ever been.

## **b) Factors to be taken into consideration in the design and implementation of electricity tariffs**

### **Energy Saving Schemes and accessibility to Low Income Households**

Because any pricing reform may see consumers faced with higher kilowatt per hour charges (especially at peak periods), energy saving schemes which assist households to access more efficient appliances (highest star rating fridges, or energy efficient washing machines and dryers) or and install solar PV panels, for example are critical to supporting implementation of Cost reflective pricing measures. While there have been energy saving schemes available in parts of the Northern Territory over the years, low income households have generally not had the financial means to take advantage of them, making it very hard for them to improve their energy efficiency. This often leads to reliance on older and inefficient appliances, (fridges/washing machines, and electric heaters) which are often subject to poor maintenance regimes.

In addition, while there has been encouraging growth in solar PV installations in recent years, predominantly at domestic and small commercial premises<sup>xviii</sup>, these installations are not occurring amongst low income households, so the efficiency gains are being made by middle and high income earners, which brings down the cost of their electricity bills. However, low income households simply do not have the financial means to make large capital purchases such as for solar PV, and therefore miss out on such opportunities to make savings on their bills. Renters, in particular, and especially those in older accommodation often face poor thermal efficiency in their homes, and there is little incentive for landlords to make energy efficiency related improvements (However there is an opportunity for the NT Government through the Department of Housing have an opportunity to take a lead role in improving thermal efficiency in rental housing.

It is critical that there is significant investment in solar energy across the NT, given value it brings back to the household, and the environmental benefits that will flow. Investing in alternative energy sources and creating mechanisms so that all households have the opportunity to access, will assist in the behaviour change required to shape consumption in the home to further increase efficient use of electricity and ensure households are getting the best deal out of their electricity pricing plan.

One of the big issues related to solar energy is how to increase the capacity for storage of solar generated electricity. Storage batteries are very expensive and out of reach of most households, thereby not enabling the NT to fully maximise the volume of electricity that can be generated from solar panels. The development, therefore, of lower cost batteries for electricity storage, in order to fully maximise the volume of electricity that can be generated from solar panels, is an area that the NT Government could consider investing in and provide a developing a leasing system, thus making solar more accessible across the NT.

### **Energy efficiency & savings schemes: Specific issues for seniors and low income Territorians**

In its submission to the Senate Select Committee into Electricity Prices (Sep 2012), National COTA expressed the following concerns around energy efficiency and savings schemes, namely :

“that current energy efficiency and energy savings schemes do not offer value for money or tangible savings for low energy use consumers. Many of these schemes provide a ‘broad’ rather than ‘deep’ application of measures. In jurisdictions where the cost of energy efficiency schemes are factored into the supply pricing model (for example, South Australia’s Residential Energy Efficiency Scheme) the cost-benefit disparity is more pronounced for older **b)**

## Factors to be taken into consideration in the design and implementation of electricity tariffs

people who live in smaller, more efficient homes. Furthermore, the industry regulator which administers REES, has recommended a review of the scheme noting that the incremental benefits are likely to be low in the future. (National COTA, 2012, p.5)

Consumers, including older people who have higher energy use for the reasons listed below, are often financially limited from realising the potential of such schemes and ironically, they are often on limited incomes as a necessity are conserving energy as much as they can.

. These consumers are unable to improve their efficiency because they:

- use old and inefficient appliances and have no access to finances to replace them;
- have poor thermal efficiency in their homes. This is particularly a problem for people in rental accommodation as there is little or no incentive for landlords to make energy efficiency related improvements;
- have medical conditions that require additional heating and/or cooling, such as Multiple Sclerosis or Parkinson's Disease or require high-energy consumption medical equipment in the home, such as dialysis machines, nebulisers and oxygen concentrators. Even with State and Territory funded concession schemes and the additional funding through the Commonwealth's Essential Medical Equipment Program these consumers are faced with high energy costs and cannot reduce their demand; and
- use mobility aids such as electric wheelchairs and mobility scooters which require recharging. (National COTA, 2012, p. 5)

COTA considers that current energy efficiency scheme and energy reduction measures have not significantly benefited older consumers, leaving governments to deploy concession and rebate schemes with mixed success in terms of improving the capacity of older consumers to meet their electricity use needs (p.6)

As highlighted in the NTCOSS Submission **to the Northern Territory Utilities Commission: Re: '2014 Network Price Determination' PWC Regulatory Proposal**, we believed it was critical, if or when, disaggregation occurred, as it now has, that resourcing of consumer advocacy be put in place to ensure the necessary consumer protections accompany any such changes. All jurisdictions – bar the NT and WA – are part of the National Energy Market (NEM), and subject to the National Energy Customer Framework (NECF). Under the NECF<sup>8</sup>, residential (and small business) energy customers are supported by a range of robust customer protections including

- *Guaranteed access* to an offer of supply for electricity and gas;
- A *customer hardship regime*, requiring retailers to develop customer hardship policies that must be approved by the AER, with certain prescribed elements to assist residential customers experiencing longer-term payment difficulties;
- *Limitations on disconnection*, including processes to follow, restrictions on when disconnections can occur, additional protections for customers experiencing hardship for financial difficulty and a prohibition on disconnecting premises where life support equipment is required;

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<sup>8</sup> <http://www.scer.gov.au/workstreams/energy-market-reform/national-energy-customer-framework/>

## b) Factors to be taken into consideration in the design and implementation of electricity tariffs

- *Mandatory minimum terms and conditions* for retail and connection contracts for residential customers
- *Energy marketing rules* that build on the requirements set out in the Australian Consumer Law to ensure customers receive full information before they enter an energy contract, and ensuring retailers are held accountable for marketing that is conducted on their behalf.

### Recommendation 5 from NTCOSS Cost of Living Report

**5. Consumer Advocacy resourced in the NT.** If disaggregation occurs as a result of Government decisions around the splitting up of the Power and Water corporation, funding for consumer advocacy must be established to ensure the necessary consumer protections are put in place to accompany such reforms. Such advocacy would include incorporating consumer perspectives on network price determinations (transmission and distribution), and consumer engagement in the power of choice recommendations relating to the introduction of smart meters, amongst other measures, to find the best solutions for the Northern Territory. The electricity industry is well resourced to provide their perspective on the myriad of issues in the energy space, but it can be easy for consumer interests to be overlooked. The consumer must have a legitimate voice.

## Innovation in Remote Australia

There are a number of initiatives across remote NT where innovative energy efficient projects and programs are taking place developed – a selection of which are highlighted here. The innovation and initiative coming out of such areas could provide blue prints for implementation elsewhere in the NT and across remote Australia. This represents another opportunity for the NT Government to partner with and support the further development of energy efficiency initiatives in remote NT.

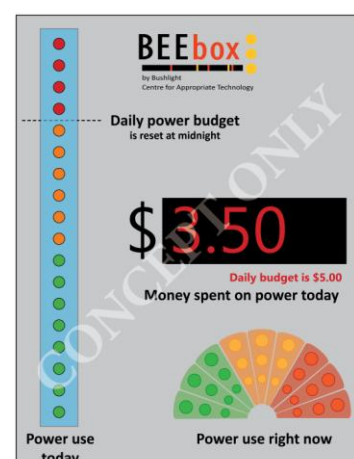
## Bushlight Program – Overview

Bushlight is the energy division of the Centre for Appropriate Technology [Centre for Appropriate Technology](#) (CAT), a national Indigenous science and technology non-profit organisation who provide technical advice and services to Indigenous communities throughout regional and remote Australia. Bushlight works closely with Indigenous people and their support agencies to deliver:

- reliable and sustainable energy supplies by designing, installing and maintaining renewable energy systems; and
- training and education in household energy efficiency to reduce power costs.

Bushlight's objective is to work with Indigenous communities to access energy services, manage them sustainably, and use them to contribute to their long-term livelihood. Bushlight was established in 2002 and has since delivered community energy planning and renewable energy systems to over 130 small communities. Bushlight's energy efficiency program seeks to address energy poverty through partnering with utilities and other stakeholders to design and implement community engagement and education at the household level. Using a train-the-trainer approach

PO Box 1128, Nightcliff NT 0814 • 1/18 Bauhinia Street, Nightcliff, NT 0810.  
Ph 08 8948 2665 • Fax 08 8948 4590 • Email: [admin@ntcross.org.au](mailto:admin@ntcross.org.au) • Website: [www.ntcross.org.au](http://www.ntcross.org.au) ABN: 1



## **b) Factors to be taken into consideration in the design and implementation of electricity tariffs**

and employing local people to carry out the engagement, the model provides residents with information to make informed decisions regarding energy use.

To support the engagement and training, Bushlight has designed an in-home energy display (Beebox) which provides residents - regardless of literacy and numeracy levels - with real time feedback on energy consumption and cost.

The Beebox is currently being used in the across the Utopia Homelands, and will be rolled out in East Arnhem as part of the Low Income Energy Efficiency Program (LEEIP) initiative – see further information on this program below.

See <http://www.bushlight.org.au/>

See also: <http://www.icat.org.au/wp-content/uploads/2013/02/Bushlight-Report-PPM-Energy-Efficiency-Feb131.pdf>

### **Town camp energy efficiency project (an Alice Solar City initiative)**

The ‘Town camp energy efficiency project’ , implemented between 2008 -2010, saw the installation of energy efficient measures in 61 Alice Springs Town Camp homes Alice Solar City contributed \$760,000 towards the \$2.4M energy efficiency upgrade program at the Town Camps, which included the installation of low energy lighting, canvas curtains, insulation, door seals, timer controls for solar hot water systems and stoves, and the installation of evaporative air-conditioners and radiant heaters with timers.

The project saw the installation of targeted measures to make the homes warmer in winter, cooler in summer and cheaper to run. Temperatures inside the homes were measured before and after the project and were found to decrease by an average of 4 degrees in summer and increase by 2-4 degrees in winter... a particularly important outcome for the health of the old and young generations who reside in the Town Camps.” A survey of the residents found good acceptance of the changes, but that energy savings were difficult to measure given that many of the houses did not have electric air conditioning or heating prior to the upgrades.

The project has had broader social and economic impacts than just saving energy. Employment opportunities and improved health have been an added benefit of the partnership between Tangentyere Council and Alice Solar City.

<http://www.alicesolarcity.com.au/town-camp-energy-efficiency-project-has-broader-impact-residents>

### **Low Income Energy Efficiency Program (LEEIP) in East Arnhem Land**

Nearly \$40 million in funding has been allocated to 11 successful recipients of round one of the Federal Government grants program - Low Income Energy Efficiency Program (LIEEP). The program is designed to help Low income Australians to make their homes more energy efficient. This funding will be used to trial initiatives to help low income households get the most out of their energy use and create new local job opportunities in areas of the community that need it most. Activities will include retrofitting low income houses with energy efficient appliances, installing in-home displays to show energy consumption, providing financial training and brokerage assistance, and engaging specific target groups such as workers on low incomes or Indigenous communities in their own language through peer training. Each project aims to address the barriers to energy efficiency uptake – such as access to information, upfront capital costs and existing behaviours – through trials that will collect data to inform future

## **b) Factors to be taken into consideration in the design and implementation of electricity tariffs**

energy efficiency programs and policies. The projects will target often hard to reach parts of low income Australia, such as those living in long stay arrangements in caravan parks and within remote Indigenous communities.

The East Arnhem LIEEP project is designed to enable low income households in 5 participating East Arnhem communities to achieve measurable gains in energy efficiency for social, economic and environmental benefit. It is a \$12.53M initiative funded through the Australian Government's LIEEP initiative with in-kind contributions from a Consortium of project partners. Project partners are Power and Water Corporation (including its wholly owned subsidiary Indigenous Essential Services), Bushlight, CDU, NT Department of Housing and East Arnhem Shire Council. The primary Project tools are: a 'two-way' knowledge exchange between local people and the project team; household efficiency education; energy efficiency retrofits; and an innovative in-house display for energy use monitoring.

To find out more information about the LIEEP, see <http://ee.ret.gov.au/energy-efficiency/grants/low-income-energy-efficiency-program>

## **c) Options for Feed-in-Tariffs for renewable electricity generation.**

In relation to options for the feed-in tariffs for renewable electricity generation, NTCOSS supports the retention of the one-to-one feed in tariff that is currently in place in the NT.

This issue of the feed in tariff has been a difficult one in SA because of the issue of who pays for the feed in tariff. The SA scheme (as with most other schemes) are paid for by consumers at large instead of being paid out of consolidated revenue. The feed in scheme, which is now closed but some of the payments continue until 2028, is adding around \$100 per annum to everyone's bills. (Nance, 2014). The safeguards intended to keep a lid on costs were not pursued quickly, which is why establishing payment to come out of consolidated revenue should be a serious consideration.

Nance (2014) described that the area of feed in tariffs is a difficult one in terms of the capacity for low income and disadvantaged households to participate, as there are severe financial barriers for low income households to install solar on their roof. In light of this, NTCOSS supports the promotion of financial incentives for the use of renewable energy, (refer to section above on Energy Saving Schemes and accessibility to Low Income Households).



### 3. Conclusion

NTCOSS values the opportunity to provide some input into this submission and looks forward to the outcomes of the Committee's Inquiry process. Some of the issues highlighted may be outside of the capacity of the current inquiry but we highlight these issues here in the hope that they can be brought to the attention of other decision makers, and inform the discussion and debate around these significant issues.

### 4. Further Resources

[http://acoss.org.au/images/uploads/Senate\\_Inquiry\\_Electricity\\_Prices\\_Sept\\_2012\\_formatted\\_final.pdf](http://acoss.org.au/images/uploads/Senate_Inquiry_Electricity_Prices_Sept_2012_formatted_final.pdf)

[http://acoss.org.au/images/uploads/ACOSS\\_Paper\\_195\\_supplementary\\_submission\\_electricity\\_prices.pdf](http://acoss.org.au/images/uploads/ACOSS_Paper_195_supplementary_submission_electricity_prices.pdf)

[http://www.acoss.org.au/images/uploads/Thwaites\\_addressing\\_rising\\_energy\\_prices\\_sem\\_14Nov2012.pdf](http://www.acoss.org.au/images/uploads/Thwaites_addressing_rising_energy_prices_sem_14Nov2012.pdf)

[http://www.acoss.org.au/images/uploads/Hoch\\_Whats\\_causing\\_rise\\_in\\_energy\\_prices\\_and\\_what\\_can\\_we\\_do\\_sem\\_14Nov\\_2012.pdf](http://www.acoss.org.au/images/uploads/Hoch_Whats_causing_rise_in_energy_prices_and_what_can_we_do_sem_14Nov_2012.pdf)

For more on VCOSS' position on smart meters, [download a fact sheet](http://vcoss.org.au/social-justice/energy-and-water/) - <http://vcoss.org.au/social-justice/energy-and-water/>

NTCOSS, October 2014



## 5. Appendices:

### Appendix 1 ACOSS\_Paper\_195\_supplementary\_submission\_electricity\_prices.pdf

#### 3.8 Addressing split-incentives for private landlords

The Committee asked for policy advice on the issue of improving energy efficiency of private rental properties tenanted to low income households. The split-incentive issue is universal for renters, but an added burden for low income households is the high probability of only having access to the worst performing homes. ACOSS does not have a set policy recommendation on the private landlord energy efficiency issue at this time, however this and other tenancy issues is on the agenda for our National Policy Forum on November 16. In the interim we can provide a number of options that could be considered:

**Minimum Standards for rental properties:** The Victorian Council of Social Services (VCOSS) produced a 'Future Focused Housing Standard' (**Annex C**) which specifies minimum obligations that landlords could be obliged to take in order to assist tenants in maintaining affordable energy and water costs, as well as ensuring health and safety of tenants. Options for national implementation of a standard could be explored by the Affordability Taskforce (see Section 3.9) and implemented via the National Agreement on Housing Affordability.

**Tax incentives for energy efficiency upgrades:** Accelerated depreciation could be explored for energy efficiency upgrades by landlords of low income tenants. Risks may include a lack of ability to target tax incentives at landlords of vulnerable tenants, or at properties most in need of upgrading. Alternatively, tax allowances could be explored as a similar model to the UK's Landlord's Energy Savings Allowance (LESA). A tax allowance (as opposed to a cash payment) enables landlords to claim up to £1,500 against tax every year for buying and installing certain energy savings products (such as cavity wall and loft insulation, draught proofing, hot water system insulation and floor insulation). Landlords can claim LESA up to 1 April 2015, when the availability of the allowance will end.

**Vouchers or rebates for specific upgrades:** The Commonwealth could offer rebates to private landlords of low income households for energy efficiency upgrades on specific items, such as hot water heaters, insulation, awnings and draft proofing. The rebates could be offered via existing household energy efficiency programs (such as the Home Energy Savers Scheme, or state-based schemes such as the NSW Home Power Savings Program). These programs are already targeting vulnerable households, and they are also placing an energy expert in the home that could verify the need for the upgrades. By leveraging existing in-home programs to offer rebates to landlords, there is the potential for a high degree of targeting, reduce the potential for fraud, and an ability to accurately forecast and control rebate allocations.

[http://acoss.org.au/images/uploads/ACOSS\\_Paper\\_195\\_supplementary\\_submission\\_electricity\\_prices.pdf](http://acoss.org.au/images/uploads/ACOSS_Paper_195_supplementary_submission_electricity_prices.pdf)

## Appendix 2 VCOSS Customer Impact Study regarding Time of Use Tariffs

In Victoria VCOSS was been involved in a Customer Impact Study with regard to Time of Use (ToU) tariffs. NTCOSS has received verbal and written feedback from VCOSS (2013)<sup>xix</sup> in relation to the following:

### VCOSS Feedback on the Customer Impact Study

The analyses in the Customer Impact Study were based on a number of hypothetical ToU tariffs. The study also shows that small variations in the relative unit costs for the different time periods, and the times they apply for, can have a significant impact on final bills. So while generalisations can be made based on typical tariffs, they are not necessarily applicable in all cases. Providing customers with tools to help them understand how the actual ToU tariffs apply(ied) to their actual usage patterns, will end up costing them, is critical.

**Stage 1 of the Customer Impact Study** Identified vulnerable groups and assessed impacts of a range of different types of ToU tariffs compared to a baseline flat tariff.<sup>xx</sup>

**Stage 2** used a ToU tariff more similar to the ones expected to be offered, did the range analysis, and also reported on focus group interviews.<sup>xxi</sup> Significantly: “Stage 2 also refined the findings of stage 1 on the impacts on customers’ bills and found that **the average impacts on bills across customer groups for the scenarios studied would range between a reduction of 6.1% (assuming a response to the price signals) and an increase of 1.8% across customer groups (assuming no response to the price signals)**. The study also found that, for a small number of customers, there was the potential for a significant increase in bills. This finding supports the decision to make flexible pricing optional with customers having the right to stay on their existing plans if that makes most sense for them.”

With regard to the impact on older people of flexible pricing, this was one group that was singled out in the customer impact study as a potentially vulnerable group.

#### Dual Fuel Seniors Households:

- The study found that typical senior(s) dual-fuel households would be very slightly worse off (around 1% bill increase) if they did not respond to price and better off (by about 2%) if they did respond to price (*Those with off-peak controlled loads (typically hot water and slab heating) already have a load profile biased toward off-peak times.*).
- The range analysis shows that 25% may be more than 20% worse off, and 5% more than 30% worse off. There were similar numbers for the same amounts better off. (So 30% of households were significantly worse off)

#### Single Fuel (all electric) Seniors Households:

- Single fuel (all electric) senior(s) households were much more likely to come out neutral or better off. The average single fuel (all electric) senior(s) household was better off by about 2%, even without responding to the price signal.
- All said, the bill impacts on seniors households across the range of different ToU tariffs modelled mirror the impacts on all residential households, though potential bill increases are lower (while the potential bill savings are similar).

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<sup>i</sup> Use of Darwin CPI with NT figures: State CPI figures are not available through the ABS, Darwin CPI figures are used to calculate current expenditure figures from the 2009-10 HES Expenditure Data. Given the relatively similar expenditure figures for Darwin and the NT as a whole, use of the Darwin CPI provides a fairly accurate basis for deriving the figures.

<sup>ii</sup> Northern Territory Government, advertisement in the Centralian Advocate 'Some Facts about Power and Water' (25/3/14)

<sup>iii</sup> Northern Territory Government, advertisement in the Centralian Advocate 'Some Facts about Power and Water' (25/3/14)

<sup>iv</sup> AMEC Power of Choice, p.183

<sup>v</sup> The following quote from SA Power Networks makes it clear<sup>1</sup> (P.10):

*"... to a greater extent than any other Australian distributor, SA Power Networks' summer demand is sensitive to the effect of air conditioning demand. High summer peak demands occur during heat wave conditions, which correspond with periods when the elements of the system have least capacity and the power factor of loads is poor." Extremely 'peaky' conditions such as these heatwaves require network assets and capacity that is under-utilised during much of the year, driving distribution costs higher on a per unit of energy served basis than comparable interstate networks" As a consequence, the management of summer demand has a high priority in SA Power Networks' tariff reform strategies. This leads to an emphasis on providing network price signals that will encourage both residential and business customers to manage their demand by the following means:*

*☐ The price levels of existing tariff structures;*

*☐ The development of more cost reflective tariff structures; and*

*☐ The development of innovative new tariff structures."*

<sup>vi</sup> SACOSS (2014a)

<sup>vii</sup> SACOSS (2014a)

<sup>viii</sup> <http://www.dpi.vic.gov.au/smart-meters/resources/reports-and-consultations/flexible-pricing-of-electricity>

<sup>ix</sup> The report describes eight steps to follow when trying to get a better deal:

1. Don't Panic
2. Know what deal you're getting now
3. Are you able to pay in full and on time?
4. Check the discount claims - beware the marketing spin
5. Do you need a fixed term contract or one with no exit fees?
6. Get the best deal from your current retailer
7. How does your usage compare against what others are using?
8. Shop around. Compare offers from retailers

<sup>x</sup> SACOSS (2014b), p.11

<sup>xi</sup> "...the difference in annual bills between those paid on time and those paid late has increased since last year.

<sup>xii</sup> SACOSS 'Finding a Better Deal? A SACOSS Energy Market Report', July 2014 p.5

<sup>xiii</sup> ACCC

<sup>xiv</sup> COTA 2012, Submission to Senate Select Committee into Electricity Prices, September 2012

<sup>xv</sup> Ibid, p.6

<sup>xvi</sup> Ibid, p. 6

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<sup>xvii</sup> bid, p.3

<sup>xviii</sup> The PWC 2014 Network Price Determination, Initial Regulatory Proposal (1 July 2014 to 30 June 2019, p.48)

<sup>xix</sup> Email and phone correspondence between NTCOSS and VCOSS, 2013

<sup>xx</sup> Stage 1 Customer Impact Study Vol 1 [http://www.smartmeters.vic.gov.au/\\_data/assets/pdf\\_file/0003/154794/CIS-Final-report-18-Oct-Volume-1.pdf](http://www.smartmeters.vic.gov.au/_data/assets/pdf_file/0003/154794/CIS-Final-report-18-Oct-Volume-1.pdf) ; Stage 1: Customer Impact Study Vol 2 [http://www.smartmeters.vic.gov.au/\\_data/assets/pdf\\_file/0006/154797/CIS-Final-report-18-Oct-Volume-2.pdf](http://www.smartmeters.vic.gov.au/_data/assets/pdf_file/0006/154797/CIS-Final-report-18-Oct-Volume-2.pdf) *Note Volume 2 contains the more detailed calculations etc*

<sup>xxi</sup> Stage 2: Customer Impact Study2: [http://www.smartmeters.vic.gov.au/\\_data/assets/pdf\\_file/0010/163855/AMI-Customer-Impact-Stage-2.pdf](http://www.smartmeters.vic.gov.au/_data/assets/pdf_file/0010/163855/AMI-Customer-Impact-Stage-2.pdf)