



LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

12th Assembly

Committee on the Northern Territory's Energy Future

Public Hearing Transcript

1.30 pm – 2.00 pm, Friday, 28 November 2014

Litchfield Room, Level 3, Parliament House

- Members:** Mr Gary Higgins, MLA, Chair, Member for Daly
Mr Gerry Wood, MLA, Deputy Chair, Member for Nelson
Mr Nathan Barrett, MLA, Member for Blain
Mr Gerry McCarthy, MLA, Member for Barkly
- Apologies:** Mr Francis Kurrupuwu, MLA, Member for Arafura
- Witnesses:** **Energy Networks Association**
Ms Lynne Gallagher: Executive Director Industry Development

Mr CHAIR: My name is Gary Higgins, I am the member for Daly and Chair of the committee. On my right is Nicole Manison, member for Wanguri and Gerry McCarthy, member for Barkly, on the left is Julia, the most important lady, then Nathan Barrett, the member for Blain and Gerry Wood, the member for Nelson.

Thank you for making your time available today. On behalf of the committee, I welcome everyone to this public hearing into electricity pricing options. I welcome to the table to give evidence to the committee from Energy Networks Association, Ms Lynne Gallagher, Executive Director, Industry Development.

Thank you for coming before the committee. We appreciate you taking the time to speak to the committee and look forward to hearing from you today. This is a formal proceeding of the committee and the protection of parliamentary privilege and the obligation not to mislead the committee apply. This is a public hearing and is being webcast through the Assembly's website. A transcript will be made for use of the committee and may be put on the committee's website. If at any time during the hearing you are concerned that what you will say should not be made public, you may ask the committee to go into a closed session and take your evidence in private.

I will ask you to state your name for the record and the capacity in which you appear. I will then ask you to make a brief opening statement before proceeding to the committee's questions.

Ms GALLAGHER: Mr Chair, I am Lynne Gallagher, the Executive Director for Industry Development at Energy Networks Association, the national industry organisation representing the 'poles and wires' companies.

Mr CHAIR: Would you like to make an opening statement?

Ms GALLAGHER: I would thank you, Mr Chair. Can you hear me okay?

Mr CHAIR: Yes, quite clear.

Ms GALLAGHER: Thank you very much Mr Chair, members of the committee and members of the Secretariat. We are pleased to appear before the committee and speak to the submission we made to the inquiry into electricity pricing options.

I note Power and Water is a member of the ENA; however, ENA's participation in this inquiry is as the national industry association representing the businesses operating Australia's electricity transmission and distribution and gas distribution networks. Member businesses provide energy to virtually every household and business in Australia.

I will make a brief statement to cover the main points raised in our submission then I will be pleased to answer any questions from the committee

In our submission ENA wished to draw to the committee's attention that the issue of electricity tariff design is currently under consideration nationally, including through the COAG Energy Council and the Australian Government's Energy White Paper. In our submission we address part A and part B of the inquiry's terms of reference and we have no comments to make on part C of the inquiry's terms of reference.

The objective of network tariff reform is to provide customers with efficient incentives to make informed choices in their use and in their generation of electricity. Reforming network tariff means charging customers based on their actual usage or network cost of service, rather than averaging these charges across all customers.

When customers are charged a flat rate based on energy usage, customers using the network at peak times do not pay the higher cost of their use, and customers with flatter loads pay more than their fair share. The options for charging customers more cost-reflective network tariffs are limited by the customer's meter. Where customers have a simple accumulation meter that only measures total energy consumed since the last reading, there is no alternative than to charge customers on the basis of their total energy consumption, and not their peak demand.

Nationally, more than 70% of customers have an accumulation meter. In the Northern Territory, we understand that Power and Water has proposed an interval meter roll-out that could, over time, increase the options of charging costs to customers on the basis of their peak demand.

Where a customer has an accumulation meter, it could be argued that traditional tariffs that charge customers on the basis of total consumption such as flat rates or inclining and declining block tariffs, are long standing, simple and they are well understood.

However, there are three main disadvantages to continuing to charge customers based on total energy consumption. The first is charging on the basis of total energy consumption is unfair. There is increasingly greater diversity between households and small business customers in their patterns of use of electricity. Charging them flat rates or inclining block tariffs entrenches cross subsidies between customers with high peak demands and customers with flat demands.

Charging on the basis of total energy consumption is not efficient. It does not signal to customers the potential of future costs of expanding the network to meet peak demand. This means higher electricity bills over time as networks need to expand investment to meet peak demand, and that peak demand only occurs on a few days per year.

Finally, charging customers based on total energy consumption is not neutral with respect to the technology choices that are now available to customers. As customers increase their energy efficiency or invest in on-site generation and, in the future, in storage, the largely sunk or fixed costs of the electricity grid have to be recovered from a smaller bank. This increases the unit price and encourages further reduction in energy consumption supplied by the electricity grid. Most of you would have heard the term 'death spiral', and that is what I am referring to.

On the other hand, customers who have meters which measure half-hourly demand data can be offered a range of tariffs that signal the cost of peak demand. There are principally two types of tariffs. Time-of-use tariffs are energy based - in other words these tariffs charge a price based on kilowatt hours, and customers are charged higher rates for peak periods during the day or at times of the year.

Critical peak prices, or critical peak rebates, are in a sense a variation of time-of-use charging. I am happy to explain these types of tariffs.

The alternative to charging customers time-of-use is to charge them based on demand or based on capacity. These tariffs charge a price based on kilowatts used during a billing period.

In the analysis that ENA is shortly to release, we have basically provided evidence that demand charges or capacity tariffs are essentially fairer, more efficient and more technology neutral than time-of-use tariffs. This is because they signal the cost of peak demand expressed as a price of the key driver of network costs, which is peak demand.

However, in setting tariffs networks work closely with their customers and other stakeholders in developing tariffs appropriate for local circumstances. This will mean balancing the fixed cost recovery of the supply charge, the energy-based component and the size of any demand or capacity-based component in the network tariff.

Factors that need to be taken into account by networks in setting tariffs include the need for tariffs to be understood by customers and for those tariffs to also limit the potential for bill shock. These two factors are included in the new distribution pricing principles that will apply throughout the National Electricity Market from 1 December 2014. The committee may have seen the Australian Energy Market Commission (AEMC) release of those principles yesterday. If you have questions around the effect of those changes, I am happy to talk about those things as well.

I will conclude my opening remarks here and am happy to answer any questions from the committee.

Mr CHAIR: Thanks for that, Lynne. You mentioned smart meters, and in the Northern Territory they are talking about time interval type meters. You also mentioned peak demand meters. What is the difference between those two? I was under the impression that peak demand is demand on the network, or are you talking about peak demand within a building or a house?

Ms GALLAGHER: No, I am talking about peak demand for the customer - within their house or at their premise. Essentially, an accumulation meter measures total amount consumed and an interval meter, or to make it even more confusing a smart 'ready' meter or a smart meter, will measure the highest rate of energy consumption at any point and that is your household peak demand or your peak demand at the premise.

Mr CHAIR: Presumably a time interval meter measures it within the house at different times during the day to have peak or off-peak?

Ms GALLAGHER: Exactly.

Mr CHAIR: Power and Water in the Territory is looking at the time interval approach, which I presume you are saying is not the best one. It is not looking at introducing these until 2019-24 regulatory period. What is ENA's

view on that? Do you think it should be a lot faster? Should we be following the Victorian government which basically mandated their introduction?

Ms GALLAGHER: You will probably get me into trouble here.

Mr CHAIR: We can go into closed session if you like?

Ms GALLAGHER: No, it is fine. To make it clear, essentially there are two types of meters. There is the simple meter, we often call it a dumb meter, that only measures the total amount of consumption. Interval meters, smart meters, smart ready meters – the only difference between these is the two way communication capability, but essentially they measure the highest amount you use at any point during the day, during the year and during the month.

When I say time of use is not the best approach, I mean time of use tariff has some advantages and some disadvantages relative to demand tariff and we can come back to that in a minute.

I think the most important thing in the question you have asked me is unless you have a meter that measures demand during the day or year, or in peak periods, you are limited in the tariffs you can offer. In thinking about a roll-out of meters, the discussion has gone on for a number of years, as you would be aware, and initially most governments around Australia committed to the mandated Victorian approach. The concern was at the time, what Victoria chose to do was to go with the very best and the newest technology. What we have learnt in the meantime is that it is hard to exploit all the benefits of that technology until you have critical mass.

Essentially, what Power and Water has done is make a pragmatic decision that you can move to interval meters that gives you the capacity to introduce new tariffs that allow you to set prices for peak periods, but without the additional costs of going to the higher-level functions. Someone had a question?

Mr CHAIR: No, that was all right.

Ms GALLAGHER: Okay. In timing, I suspect again with a lot of these things it has to be worked through with the regulator as well; that they are happy this is part of the approach that is being taken. It may be that there are other factors that are limiting how fast Power and Water can move. Every network around Australia is confronting this challenge and is looking at ways of accelerating the roll-out of these meters.

Mr CHAIR: Okay.

Mr WOOD: Lynne, we were talking to Jacana Energy earlier, the new retail branch of what was Power and Water. When they were talking about different types of tariffs - dynamic tariffs and flat tariffs - they spoke about TOU tariffs, critical peak pricing (CPP) and real-time pricing (RTP). Are they relevant to our discussions we are having now? They reflected at a different type of meter, are they?

Ms GALLAGHER: The easiest way to start with that question is there is a tariff stack, which you know obviously. There is a network component of the total tariff that is charged to the customer. Retailers, basically, can choose to pass through the network tariffs just as it appears, or they can disregard that and average it across the whole customers.

When they are talking about time-of-use, critical peak and real-time pricing, they are talking about charging for the peak costs of the wholesale market. In generation of electricity, when there is higher demand costs are higher, when demand is lower, generation costs are lower. There are two peaks. There is the network peak - the costs on the network and the cost in the wholesale market and they do not often match.

I am just looking at your terms of reference. Really, you need to look at the whole picture. I suppose what I focused on is thinking about the driver of the network component of the bill. The driver of that is the size of the network and how big it needs to be to meet demand on the hottest day, which is slightly different to the factors that are going on in the wholesale market.

Mr WOOD: Thank you.

Mr BARRETT: You have confused me a bit. In the way a network would price to an individual customer, are you saying that should not be based on however many kilowatts that person uses, therefore, that is how much they used the network, therefore, they should be priced on that? Or they should be charged on the peak they individually inflict on that particular network?

Ms GALLAGHER: I am not sure I heard the first alternative, but I think it is the second, and two things to say as well. Networks charge the retailer not the customer, but essentially we are setting a price based on that customer's use of the network. We say the network tariff should reflect their use of the network and the use of the network is measured in kilowatts not kilowatt hours.

Mr BARRETT: It is not how many electrons went through from the poles and wires to whatever appliance they were using. You are saying that network charge is the peak of that household or that business?

Ms GALLAGHER: Yes. There are other ways of doing it. Potentially what you are trying to match is whether the individual peak matches everybody else's use at the same time, and there is a concept called coincidence demand on the network but that is getting a little complicated. I will make this point and if it seems I am over simplifying or not assuming enough knowledge on your part - the difference is between the number of electrons going through and how much energy you consume. Network cost and peak demand are how many appliances you run at once. What is the highest amount? If you are trying to run your air conditioner, your dishwasher and your hairdryer at the same time that is your peak demand.

Mr BARRETT: You are saying it is on that metric they should charge the network component of the price?

Ms GALLAGHER: Correct. What you want them to do is - if they get that price they know to turn off an appliance, turn off the air conditioning or turn it down, or turn the air conditioning on earlier in the afternoon or early in the morning and not run it at 5 pm when everyone else does then you can give them a cheaper price for doing that. You also reduce the load of everybody trying to get electricity into their house for a large number of appliances all at the same time.

At the moment something like - as I said we have networks used at their maximum rate – they are fully loaded 1% of the year so it is a lot of expensive infrastructure. The rest of the year they are just running electrons through.

Mr BARRETT: I understand that. In relation to timing, you said there can be a timing difference between when an individual business or household hits their individual peak demand on the network as opposed to when the generation side of it hits its peak. That will make pricing really complex unless completely delineated - 'This is the generation line item on your bill and this is your network line item on your bill'. You would need a differential pricing structure for networking and for generation.

Ms GALLAGHER: Exactly.

Mr BARRETT: What kind of meter do you have to put in your house to work that out? They are two completely different systems operating at the same time. One works on the generation side and one works on the network side.

Ms GALLAGHER: Yes, it is the same meter because you know how much they consume.

Mr BARRETT: How do you price it if the generation price is higher when generation is putting out its maximum, if that is not the same time the individual household is consuming its maximum but you are charging them a high tariff because they have hit their individual peak?

Ms GALLAGHER: Again, perhaps I am not getting it, so I apologise. You are separating your generation charge and your network charge but, essentially, what you need to do if you try to put them together ...

Mr BARRETT: You create unfairness in some way or other.

Ms GALLAGHER: Correct. Also, what we say in ENA is the customer will not get the price signal corresponding to the peak demand on the network, therefore, they will not change their behaviour at that time. You do not get the benefit. That is, essentially, what we are saying is the problem now with time-of-use charging. Because it is set so broadly - maybe this is the answer to your question - the peak period is set so wide that - again peak is, essentially, just when everybody is using it at the same time, so the chances are the wider period you say is the peak, the more chances somewhere in that you are getting both the generation peak and the network peak.

Mr BARRETT: Yes.

Ms GALLAGHER: Right? But the customer does not really get a very strong sense of it. It is really these two hours or one hour that is the big issue, if they might reduce their demand at any time in that five-hour or four-hour range. That may not change the peak demand of the network.

Mr CHAIR: Okay, it is almost time, Lynne. Thank you very much for that and spending the time with us today. I am sure we will speak again. That gave us a lot of information. Is there anything else you would like to say?

Ms GALLAGHER: No, that is fine. If there is anything we can do or any information - I know this is one of those special interest subjects. Any time you want to follow up and we can provide you with factual or background information. just get the secretary to contact us, and we will provide you with what you need.

Mr CHAIR: Okay, thanks for that and thanks for making the time available today.

Ms GALLAGHER: That is all right. You are welcome. Thank you.