

Meeting Snapshot

Future Networks + Tariffs & Pricing Panel | Costed Options Deep Dive on 1) enabling electrification of gas and transport, 2) CER enablement and 3) smart metering.

Wednesday 5 June 2024

Participants

EDPR 2026-31 Panel members

Dean Lombard
Kate Hansen
Jeff Nottle
Nick Mason-Smith

Observers

David Prins, AER Consumer Challenge Panel

Apologies

Gavin Duffy
Prof. Luis (Nando) Ochoa
Chris Harvey
Darren McCubbin
Gus Mandigora, AER

AusNet staff

Charlotte Eddy, General Manager Regulation (Distribution)
Sonja Lekovic, Regulatory Policy Manager
Lucy Holder, Manager, Customer Engagement
Chirag Desai, Manager, Network Planning
Gaurav Sharma, Principal Engineer Network Planning
Justin Bettleheim, Senior Regulatory Advisor
Angella Nhan, Senior Economist
Rodney Bray, AusNet adviser

Purpose of the meeting: To collaborate with the Future Networks and Tariffs & Pricing Panel on the approach taken in AusNet's proposal to 1) enabling electrification of gas and transport, 2) CER enablement and 3) smart metering.

Additional context: This deep-dive was held jointly with the Tariffs & Pricing and Future Networks panels, given the common interest. In addition to the conversations in the meeting, extensive comments were provided beforehand as panel members were completing their pre-reading via a Padlet board. These comments are included at the end of this document.

Key discussion points

Agenda item	Key discussion points
1. Enabling Electrification	<i>There was agreement that Option 3 was the Panels' preferred way to approach electrification of gas and transport, with the option of a re-opener given the uncertainty in how customers' responses and the demand management industry will change. The panel were interested to see AER guidance before further considering Option 4.</i> Discussion covered: • The Victorian Government's interest in tariffs and what's been shared (and how) with networks. Panel members asked AusNet to let them know if/when the Victorian Government publishes its positions publicly, as they are keen to talk about them. • There was support for using QCV results for the VCR. However, the AER's view on QCVs vs their VCR needs to be considered, noting the AER hasn't given formal guidance on whether they will accept AusNet's calculated VCR despite it being more accurate. • Clarifying AusNet is looking at some direct control in the future, as it has for controlled hot water load, however there needs to be consideration of what is practically achievable based on customer expectations of rewards and willingness to participate. There's also need to explore how load control might work in the future, for, say, hot water heat pumps. • There is tension between demand response and investment planning. Confirming AusNet would always look for efficiencies through non-network solutions even if a more traditional approach to investment is planned. Customers' engagement with tariffs and demand management, and demand response are fast-moving spaces so hard to predict ... could happen more organically in future if left to the market ... could be an opportunity for a re-opener ... ideally "a cautious but flexible approach". • Question on whether the new ToU tariff structure will trigger a new tariff code. AusNet took this on notice. • On emissions reduction: • Uncertainty about the value of emissions reduction and how the AER will approach it. • AER's deliberations will be around ensuring emissions are not double-counted and how emissions reductions related to the consumer export curtailment value (CECV).
2. Enabling CER and two-way flows	<i>There was agreement that a low incentive optional CER tariff available to all is the preferred approach. This is consistent with the feedback received at the joint networks tariffs forum. This is in combination with Option 2: Flexible exports with operational CER tariff available to all</i> Discussion covered: • Confirming that AusNet's network planners are making sure expenditure doesn't overlap across streams (e.g. voltage performance and electrification). • Confirming the introduction of the solar backstop mechanism in 2024, and the benefits of this program are being reflected in the network planning activities. • Noting customers value not wasting solar exports, but we need to be clear on what they're really valuing, which is somewhat captured through the QCV study and in workshops. AusNet confirmed while customers value all exports, expenditure forecasts are based on efficient levels of export only.

- General agreement that Option 1 (low incentive CER tariff available to all) on slide 30 is the best. Option 2 (high incentive CER tariff available in constrained areas only) would be too complex to deliver (and likely not reward for effort) and we could leave the option for scaling up to Option 3 open, noting it is probably a bit early for this.
- General agreement for Option 2 on slide 32 is the best on balance, giving customers flexibility while capturing the benefits of network-aiding usage shifting.

3. Smart meters

Agreement that Option 1 is the preferred, with the caveat that AusNet needs to carefully consider what the capabilities in modern meters mean for customers, and how best these impacts are managed, and how to engage customers on this (noting it may be best as a business-as-usual rather than EDPR-specific engagement activity).

Discussion included:

- The challenges of the last roll-out ... and what we've learnt about / progressed on following the initial introduction of smart meters
- The risk of AusNet being locked into / being seen to favour certain vendors and being taken advantage of resulting poor choice of customer products and of tech-based coercive control
- AusNet to consider how end customers might be engaged on smart meter replacement, noting that replacement is very different to an initial roll-out
- The need to set out the options in plain English in the draft proposal, explaining clearly what smart meter replacement would mean for customers.
- AusNet's preferred option "seems like a no brainer" in terms of smoothing the impact and cost.
- Smart meters are now contentious and political given roll-out in NSW, QLD, & SA so AusNet will need to manage this ... but replacement is a much easier story to tell / likely won't concern customers like the initial roll-out did.

Next Steps

Charlotte summarised the actions and asked for any missing, noting the decisions reached today on options will be firmed up and shared at the August off-site meeting for further discussion, prior to being finalised and published in the draft proposal.

Action items

Action	Assigned to	Status	Due date
AusNet to follow up with David Prins on retail code changes and tariff impacts.	AusNet Reg Team	Closed	Complete
AusNet to consider how to best manage new complexities coming from smart meters' additional capabilities, and if/how customers need to be engaged on this.	AusNet Reg Team	Open	July

Padlet Comments

Due to high volume they have been exported for ease of reading

1. Enabling electrification
Any questions on the materials?
Also with the 295,000 elctricrified homes i assume that is current dual fuel and not including new connections
will we have the capacity in the system to meet the expected demand
would be good to modle how much extra cost and additional x subsidy will include due to the non handed TOU price (a particular issue with the large penetration of electric vehicles and who's gonna end up cross subsidising them) this information would be useful. Follow up from the letter that we've been putting together.
with the EV personal view may be a little light on But also not sure if you looked at "flow"s in and out of network and is there a large commuter and will that have impacts in some areas (may not eb material just thinking as i read the deck)
Also given that you got the second highest utilisation is there a possibility that you utilisation might drop ? and what would risk this (i am thinking not being able to mandate tariffs etc if that is the case lets mention it)
30 - 40 % of individual appliances could shift this suggest to me that some thought might be needed about how you educate people because the incentive could be just information and the incentive is the social good not sure where you need to provide them with the price incentive maybe a targeted campaign to opt into a Sun so tariff f
think these are very different. It's not like they don't have choice to go to some fast charger. Somewhere else. I think we probably need to be a little bit firmer with electric vehicles. They do have options. It's not like hot water. I can't go down to my local hot water service station and top it up unlike electric vehicles where I can drive around the corner of somewhere and jump on a fast charger there.
Gavin's second last point is a good one (well so are the others, but this one particularly stuck out to me): if we can't reassign everyone onto the ToU tariff but we can reassign many of these who we really need to (people already on ToU tariffs, new solar and EV connections, new builds), does facilitating people opting into them by selling them on the solar soak (on the basis of calculating that it will benefit or at least not detriment them) help meet a lot of the objectives of the tariff anyway?
Clarification question for slide 17: is LV augmentation for electrification augmentation to provide additional capacity for gas electrification of customers?
Slide 20 (comment): Hot water is different to everything else because with the right appliance it makes no difference when it is charged and the customer doesn't;t have to do anything different.
General comment: I feel like there's too much emphasis on changing customer behaviour when we talk about this. Sure there are some opportunities to shift non-time-critical loads around with automation or signals, and customer information about peak and off-peak periods and time-variant pricing can help them think about when to use non-time-critical appliances; but most usage happens when it needs to and the fluctuations of demand over the day is just a fact of life. Time variant pricing is not just to incentivise change but also to allocate costs fairly.
(above, cont.) and the incentive can just be the solar soak tariff and providing a timer or signal.
Slide 22: I think you've drawn the wrong conclusion on this issue from the research. There's a huge difference between no flexibility and full flexibility. the choice between laissez-faire and tightly regimented charging is a false dichotomy. The value customers give to having unrestricted charging is useful to know, but managed charging that favours non-peak periods but allows charging in peak periods for a higher price is a more realistic approach. Investing to allow a degree of peak charging will be far less expensive than allowing charging any time without consideration.

Can you please clarify the government's position as I am not fully across it, in particular whether it allows AusNet to continue to force connections that install solar onto time of use.
Slide 12 and 13 - is this network coincident maximum demand or non-coincident maximum demand? The AER reports that distribution network utilisation (in terms of non-coincident maximum demand per unit network capacity) fell to 2015 and has stayed relatively constant since, with both maximum demand and ZSS transformer capacity remaining relatively constant. Is AusNet's network utilisation broadly consistent with the trend the AER report or quite different? These slides suggest AusNet's profile is against the trend? https://www.aer.gov.au/system/files/2023-Electricity-network-performance-report.pdf (p 26) [edit: slide 16 is helpful context]
Slide 20 - the text says ~\$30 per year but the arrow say monthly incentives, which one is it? (If it is monthly \$1 per day to run your washing machine in the day is a lot! If the amounts are annual then 10c per day is probably doable if retail tariffs follow and amplify the network ToU)
Slide 22-23 - I would echo Dean's point here that there may be a false dichotomy in how managed/flexible charging is framed. Controlled loads with a boost button are an example that is both managed and flexible.
Out of interest what proportion of AusNet's SWERs and LV DSSs do 70 SWER and 1300 LV DSS augmentations represent?
p25. What are your thoughts on the electrification options presented?
With slide 25. I actually think that this might be one of the reopeners . Possibly started option one and then one of the other three options could be the trigger for a reopen to change the forecast to then change the to me it's so uncertain that it it seems ridiculous not to start smile and then fail it up / have a review period to refresh or something and I don't know how else should actually meet the AER objective, prudent and efficient
If option 3 means update the modelling used for option 1 with the QCV VCRs, I'd support that. From there, I support Gavin's suggestion of provision for reopens if electrification rates or demand response rates change. I do not support option 2, which puts cost onto everyone but gives benefits only to this table to respond (less likely to be vulnerable customers).Regarding option 4, I think we do need to start shifting toward including the VER in cost-benefit assessments – but where the impact leads to a material increase in end-user costs it may need to be brought in gradually.
Re: Option 1 - what does 'demand response programs that are self-funded (within allowance) and where efficient' mean? Is this referring to DMIA?
Re: Option 4 - Having done some 'what-if' emissions analyses I know that they can be contentious, I am keen to know more about how AusNet would propose to use the VER to value enabling customer exports.
Re: Option 2 - am I understanding the slides accurately that you could defer \$10-45m of investment and that the payments that you estimate are required to achieve that deferral are circa \$20-40m? I suspect they have not been fulfilled but from CPPALUE's non-network solutions procurement they offer maximum annual payment for deferral of ~\$1500 p.a for a LV DSS replacement that they estimate at ~\$55k. This is a much smaller opex/capex ratio than AusNet suggests here, so I'm keen to understand where those numbers come from? Surely there is significant diversity in required demand response (proportional to payments) divided by augmentation cost?
2. Enabling CER
Any questions on the materials?
Slide 29 "We consistently hear customers don't solar to be wasted and want AusNet to enable excess solar to be shared." These are two separate points and the second is about tariffs (both network and retail) which we all need to work together on. While I am sympathetic to the former, you probably also consistently hear that every regional town should have a microgrid. The VCR prevents you from doing that and the CECV as I understand it is meant to do the same. I would like to see the number for the CECV that you use (not shown on Slide 28). I also think there's a risk of double-counting if you use QCV instead of CECV and then VER on the top as well (when customers value solar exports in QCV what are they really valuing?)
Re: Options assessment on Slide 30 - Do CPD tariffs amplify cross-subsidy in revenue recovery given that they aren't restricted to customers in areas of network constraint?

Probably for another time but I would like to know more about the various measures of LRMC and how large the spread is across the different metrics, as this determines the breakdown of marginal and residual costs and therefore what goes into standing (and similar) charges and what goes into consumption charges. Noting comments about cross-subsidy on Slide 31 and its inevitability (which it is to a degree because of the NER pricing principles, but you have some agency on how you estimate LRMC)
p30. What are your thoughts on the CER tariff options presented?
I'm not sure option two given its cost actually is a pathway anywhere. It could be a dead end. People might never move off or when the constraints gone, they get shitty because they're not getting as much money or other people in the network start to get shitty because they're not getting the same rewards. I just see it creates a lot of us and them. If it's really localised in generals option three would provide the same outcome for you and it's probably more the long game.
For me, I like option one as a foundation and an ultimately you want to move to option three which is a DSO DOE platform
I will offer comments in the meeting and note my conflict of interest.
Through it all, it's really important to remember that just because customers don't want to see solar spill, we shouldn't; be trying to enable solar exports that aren't needed. The future network is going to have a lot of curtailed solar in the medium term until there's enough storage and load shifting to use it, but even then there will still be some solar gen that we simply don't need. We have to slowly wean customers off the idea that all their solar generation is equally valuable.
I agree with Gav, start with option one with a view to scaling to option 3 over time when the cost-benefit is right. option 2 sounds more trouble (and cost) than it's worth.
KH: Didn't have anything to add to discussion already, but agree with Option 1.
p32. What are your thoughts on the flexible exports options presented?
Of the three flexible export options in there while the narrative is all about exports are the foundations also available for load well this is being targeted as well as exports. If what the investment is is also available to load to shift them around and give them a reduction I would support that is there any thought of that there?
I suppose I'm trying to understand when you say a CER tariff how wide is that? Is that for all consumption and production or just some sort of appliances? I'm not not sure in the material.
Option 2 seems to thread the needle about right, enabling anyone to switch to the CER tariff if it suits them and a benefit by incentivising changes to CER exports and imports that will provide a benefit. Maybe a step towards two-way tariffs that properly value imports and exports at different times of day? If I'm understanding it right. I see this as in lockstep with the ToU tariff
3. Smart meters
Any questions on the materials?
Re slide 36 - The suggestion of apps on smart meters makes me wary. Is there a meaningful framework for these meters to interoperate with DER? What proportion of customers would actually engage with these functions? How would security of third-party apps be managed? Have you considered the potential for tech-based coercive control? So many questions...
I am not in the future networks panel but time permitting I'd like to understand the vision a little more (especially since consumers aren't holding the steering wheel). I agree with Dean's comment about scattered impacts (how many hot water services will be erroneously replaced on the assumption that the unit has failed?) and Gavin's about more clearly explaining the consumer benefit. Eg slide 36 mentions islanding - is this something you are actually working towards?
p37. What are your thoughts on the smart meter replacement options presented?
also is this constant with he other DBS both in vic and else where (im thinking from a user perspective as people either travel from network to network and their electric vehicles or they move around is there going to be a seamless experience?
Also talks about the network advantages be really good to lift up the advantages that consumers or their agents could get from this seems very network centric and I understand why but I think in talking to the AER and the government about what consumer experience might be facilitated by this

Hi just a thought given challenges with last rollout - be good to understand what are the learning what you wouldn't do again and how it has shaped this next generation approach (could be good for the regulators and other not sure how much scar tissues is about from this)
Option one seems sensible certainty in the policy environment do we have a government guaranteed policy? have got a derogation that long (could be ask the Gov) - if there is some change between that period what is the impact? So for me it's about understanding a bit more about the uncertainty between option one which presents some uncertainty and option two - and what is the position of the other networks in Victoria? Is it consistent?
Option 1 seems the best approach, it smooths out the process impact and avoids scattered adverse customer impacts
Any other comments?
I think there's a general principal across a lot of these topics which is to look at the map for transition as a big picture thing, finding the balance between doing what we need to do in the shorter term in a way that positions us well for the medium and longer term needs, and leaves flexibility to up- or down-scale projects as uncertainty dissipates and we get a clearer view of how close our forecasts are to reality.
I think we need to talk about the value stacking like all these things interplay together. Do the sum of the parts. Are they more than the individual parts? And is there a story you could tell here? Conversely? Are we double paying anywhere? I'm not saying that we are I'm just saying that there seems to be interactions between these things and other things.- so it's both the value stacking and the overall Customer value you offering and that might be through third parties are directly and to ensure that there's no paying twice
A final comment that it feels like network augmentation, demand response, and tariffs for CER are presented as though these are separate questions even though they are all closely linked. There are networks at risk of overload, do we build poles and wires, or do we reduce demand and/or use embedded generation and storage? And if we use demand response/embedded generation how do we do it, through contracts or through tariff strategies (or something else)? And if through tariff strategies what would they look like and is it feasible?