

Agenda & Minutes

Innovation Advisory Committee | Meeting #2

Thursday 9 June

10.30am - 12.30pm

AusNet Services, Southbank / Microsoft Teams

Attendees:

Dean Lombard, *Renew*

Heather Smith, *Coalition for Community Energy*

Greg Camm, *Customer Forum*

Scott McKenry, *EAGA*

Emma Chessell, *Climate Works*

David Bryant, *BSL*

Beth Rosenberg, *Clean Energy Council*

Prof. Luis (Nando) Ochoa Pizzali, *University of Melbourne*

Tom Bakker, *Aurecon*

Greg Hannan, *Citipower, Powercor & United Energy*

Andy Dickinson, *Jemena*

Charlotte Eddy, *AusNet (Chair)*

John Theunissen, *AusNet*

Fran Duiker, *AusNet*

Ana Erceg, *AusNet*

Edwin Chan, *AusNet*

Gaurav Sharma, *AusNet*

Lucy Holder, *AusNet*

Sacha Albert, *AusNet (Secretary)*

Item	Time	Topic	For	Presenter
1	10.30am	Welcome, Background Customer Moment	Context Information	Charlotte Eddy
2	10.40am	Project pipeline update	Information & Discussion	Ana Erceg
3	10.50am	Brainstorming Innovation needs and gaps	Information & Discussion	Charlotte Eddy
4	11.10am	Project Proposal Tariff trials	Information & Discussion	Edwin Chan
5	11.45am	Project Proposal Location based opportunity assessment for neighbourhood batteries	Information & Discussion	Scott McKenry
6	12.05pm	Update Key developments in current AusNet innovation projects	Information & Discussion	John Theunissen
7	12.25pm	Any other business & Close	Context	Charlotte Eddy

Item 1 | Customer Moment, Introduction & Agenda

Charlotte Eddy, IAC Chair, opened the meeting with an acknowledgement to country and overview of the agenda for the meeting. Charlotte made special mention of incoming members David Bryant from BSL (following the departure of Emma Chessell) and Tom Bakker from Aurecon (who replaces outgoing Heidi Sick). Charlotte also noted that AusNet is pleased to retain Emma Chessell on the committee, now in her new role at ClimateWorks, and that Beth Rosenberg of the CEC is stepping in for Darren Gladman today.

Charlotte presented a customer moment on the current cost of living pressures and the factors that have gone into creating the current market situation.

Item 2 | Project pipeline update

Ana Erceg provided an update on the proposed pipeline of projects under the innovation scheme (and, for visibility, under the DMIA scheme), including the projects that have been noted as de-prioritised or as being funded separately to the program.

Discussion

Members raised the following topics, which were discussed during the session:

- A member asked if the incoming Rosetta platform will enable timely access to consumption data at the postcode level? AusNet responded to say that they are currently partnered with C4NET and are looking at what others have already done, leveraging what is already available, to access as much data on the platform as possible but this is yet to be fully scoped out.
- A member asked AusNet how its DER management plans interact with its network opportunity map data? AusNet said that the data is not as granular and doesn't provide the detailed information that universities and others would require for feasibility studies etc. The current data is fairly high level and static.
- A member, who has been working with AusNet teams, added that the AusNet network planning team is about to improve its Rosetta portal and allow licence arrangements so that you can download your own data from the network portal. They also added that the C4NET system appears to be targeting only aggregate smart meter data. AusNet responded to say that this is correct, they are going to provide load data per zone sub and per feeder in the near term. You will be able to access information for areas, not so much postcodes but you will be able to get a general view of which feeder supplies which area, giving you half an hour SCADA data. Through C4NET it is aggregate data at the distribution sub level. AusNet are not allowed to provide individual customer data so AusNet will provide aggregated data so that you can work out what the local distribution sub looks like in terms of a load profile and you can in turn look for opportunities on network solutions. Average low voltage data per feeder / distribution substation is also currently available.
- A member commented to say that the open network data platform project is a fantastic initiative. The question the member had is, why is it being pushed so far into the future (2026). In Europe the EV numbers are staggering. Pushing it out this far might see AusNet miss a lot of opportunities. AusNet said that when they originally put the DER roadmap together they took into consideration the company strategy and priorities and at the time it was felt that 2026 was reasonable. AusNet added that they are happy to investigate the possibility of shifting the priority on this item.
- A member asked if the de-prioritisation of some of the projects means that there is more money to direct to other projects? AusNet said that the Flexible exports has gone from \$1m to \$2m and the tariff trials is an additional (new) project which means that the overall total spend is still the same.
- A member asked about whether AusNet will be providing data down to the zone substation level. AusNet advised that it will be providing this and feeder data. AusNet have maps that show where the feeders are going which means the public will have good visibility of what areas are being supplied by what feeder. The portal is being updated with the last set of data and should be ready in the next month or so.

Item 3 | Brainstorming on innovation needs and gaps

Using virtual whiteboard, the group had a brainstorming session with members to help AusNet define and prioritise customer needs, expectations, and benefits as well as help to define and prioritise network challenges. A screenshot of the board is attached as an appendix to these minutes.

Discussion

Members raised the following topics, which were discussed during the session:

- A member said that they were involved in the last reset process for SAPN where the whole future network strategy was put forward as fundamental to the strategic direction, however they then asked for a separate \$30m for the DER work. They suggested there is a need to create an evidence base that demonstrates investing locally is going to offset the growth capex. How do we get a decent portion of the reset money to flow into energy matching at the distribution sub level? At the moment we are seeing hosting capacity problems pop up in places and if we keep investing in solar at the levels we have been seeing you are going to go from 1% of distribution subs to 20% of distribution subs suddenly hitting capacity limits. You don't have the money to replace 20% of distribution subs so you have to be doing the work that creates affordability and if you can see that this is a valuable investment area for customers then it is only going to be valuable if money is not spent in the larger centralised system. The member feels this is AusNet's big challenge and would like to see AusNet thinking about not only the new, but how the old is fundamentally disrupted. They feel there needs to be a transformation in the attitude to investment.
- A member commented on how much conversations have changed in the past 10 years. They said they had spoken recently with some developers who want to include community and renewable assets as a differentiator for their developments, as they see these being valued by their end customers, and confidence that customers are willing to pay for it.
- A member asked if there is any way that AusNet can tell the customer, maybe annually, how much they are saving or will be saving with new technologies?
- A member commented that there was a bit of tension around the amount that distributed solar had saved in network investment a while ago, and this seems to have been forgotten with the shift of focus to the cost of augmentation. There seems to be some substations where the summer peak has reduced but there are still places where the peak has been eaten away by solar. The member suggested an attempt to quantify these savings would be a useful addition to the conversation.

Members were asked to share which of customers' needs of the energy transition they thought were most important to customers. Affordability received the most nominations though there was a wide and relatively even spread across all the needs.

Item 4 | Project proposal | Tariff trials

AusNet presented on its suggested tariff trial projects to drive the efficient use of its network and reduce network costs for our customers. Proposals were shared for 2 tariff trials – one for an electric vehicle (EV) tariff trial and another for a critical peak demand (CPD) tariff trial.

Discussion

Members raised the following topics, which were discussed during the session:

Re: the EV Tariff Trial

- A member asked how AusNet will communicate with customers during the trial, and whether customers will be alerted as to when the tariff changes. AusNet said that customer would need to be aware via a control

signal. The member also mentioned that past trials have shown that you need to be very aware that people behave differently during a trial (where they are typically "better behaved") to how they act outside the trial. The member asked if AusNet will be looking at other project trials and outcomes (overseas), whether it will be incentivising customers, and suggested that initial evidence indicates that not incentivising customers means spending an additional 25% in capex augmentation. A lot of tariff trials are being done across the world using time of use responsiveness. In the control trials they (customers) do what you ask them to do but if it is a text message or a light signal the behavioural piece comes into play in a big way and you will see varying levels depending on the customers desire to charge vs save money.

- A member asked, in relation to the dynamic side of the EV trial, what is the difference between a high energy draining device (eg clothes dryer) and an EV. AusNet responded to the say that the differentiation is in the synchronicity of the loads. Not everyone will be turning their dryers on at the same time but it is likely that you will see a lot of people turning on their EVs for charging at the same time – e.g. when they get home from work. There is a difference here in the need to manage this a bit more actively so as to not overload the network. AusNet said it expects a lot of the benefits from the trial will be found in the interactions with the customers and understanding their perceptions of tariffs, as well the behavioural and economic elements.
- A member asked if AusNet are talking about an actual signal that talks to the EV charger and is therefore automatic and not dependant on the customer. AusNet said that this is correct and that it is looking to leverage existing infrastructure and customers who are currently part of a dynamic EV charging project which signals the charging limits at any given time. It would be an automated environment and the use of existing infrastructure and customer base also helps to keep the budget of the project down.
- A member commented on the importance of these EV trials. They said that as a load, EV charging is not that different to a water heater. But there is a potential for the occurrence of a second peak, people going for time of use charging, and creating another peak. This could be even bigger than the normal peak and brings with it more challenges. Another member added that research suggests if you don't stagger EV charging, you get a second peak at around 11.00pm.
- A member commented on the language being used in EV tariff conversations, and that when people have raised the issue of tariffs in the past they have spoken about a cost reflective distribution tariff (flat costs/low volume charges/high peak charges), but it sounds like AusNet are talking about a rebate which is different to tariffs. The member also asked if this is a separate tariff just for the car. AusNet replied no – the tariff would be applied to both the EV and the house, as putting the household on 2 tariffs would require setting up 2 connections at each house which is not very practical and would likely deter customers from participating in the trial. AusNet explained that this is part of the reason for the time of use tariff inserted with the rebate component, as it picks up the household load as well as the EV load that comes in over the top.
- A member asked if AusNet will be exploring the level of reward people need in order to participate in the trial. The member was also interested in whether people are happy to participate, with some level of reward, in part due to their understanding that it will have a long-term beneficial effect on prices for everyone. The member feels that the level of reward may be lower than AusNet thinks with this knowledge in mind. AusNet responded to say that this is a good point and something that they could engage with customers on. One thing that AusNet are conscious of is that given they are planning to run this trial from next year and that at this stage the kind of customers that are purchasing EVs in Australia are in the higher income brackets and will not necessarily be as motivated by these sorts of price signals compared to customer who will have EVs in 5-10 years' time. AusNet will seek to understand whether the financial incentives help achieve the desired outcomes. Another member added that early adopters might be engaged in a way that they won't be in 5-10 years' time, and that their behaviour may skew the data, acknowledging that this is not a reason not to do EV trials.
- A member commented to say that they were in a community battery meeting recently and the comments were that tariff trials were too short. People making an investment based on a tariff trial aren't getting the length of signal that they want. They also highlighted challenges in getting people to change tariffs, and the barriers in adjusting household loads to new tariffs. They emphasises that there is a big piece to understand social issues and household decision-making and to educate customers as they transform their energy practices.

Re: the CPD Tariff Trial

- A member commented that they last time Victorian distributors looked at a solar sponge tariff, they thought the networks did not need it yet. They asked whether this trial is being done now because AusNet is ready for a sponge tariff in the part of the network the trial will be undertaken in? And will the trial be whole-of-network

or specific locations? AusNet responded to say that it would target specific locations, and the tariff wouldn't be offered to all customers at this time. AusNet added the C&I load is quite large so they need to hand pick customers in order to satisfy the regulatory and compliance rules to allow this trial to move forward.

- A member added that while Australia doesn't have a lot of EV's at the moment, they would encourage AusNet to consider targeting any C&I that has multiple charging stations to see how customers would react to peak/non-peak charging etc. It would be a good way to see how easily they adopt this and how much they could potentially help in the future. AusNet said that one of the loads that they felt would be good for this trial is electrolyzers, which could create a quick win.
- A member asked if AusNet are targeting places in their network where there are issues at peak times? And that given CPD tariffs are only for large industries, that this would be a smaller trial? And if so, why wouldn't AusNet work with the big industries to see who has the demand flexibility and do a deal with each one? AusNet responded to say that they will look at other loads from that perspective as they are working through implementation and agreed that another way they could do demand management is by contracting with each customer. However, currently the CPD tariffs for large customers is for a peak window from 7am to 11.00pm, and AusNet didn't roll through the time of use signal that was put through the residential tariffs, being reliant on that CPD signal. AusNet said it is an opportunity for quite a small change for customers who would prefer a more cost-reflective time-of-use signal to build in that solar sponge. A tariff is more resource-efficient than entering into individual contracts (which can also be done if needed). AusNet also highlighted that the AER has indicated that it would like to see more tariff choices for C&I customers. They understand that the AusNet CPD tariff is the most cost reflective at this point in time, but they want to see what AusNet can offer to these customers to find other ways to reduce their costs.

Item 5 | Project proposal | Location based opportunity assessment for neighbourhood batteries

Scott McKenry from EAGA presented on the location-based opportunities assessment for neighbourhood batteries work being undertaken by CitiPower, Powercor and UE, suggesting that AusNet may like to undertake a similar project on its network.

Discussion

Members raised the following topics, which were discussed during the session:

- AusNet thanked Scott for the presentation adding that it has been working on non-network solutions and has done a lot of feasibility studies, identifying key areas for improvement programs, so would be interested in understanding how community batteries could assist with SAPs, microgrids and some of the hosting capacity issues. They also added that it is about network resilience for communities more broadly.
- A member commented to say that it would be good to see a sweeping assessment of available data (e.g. size of distribution subs, voltage, capacity etc) across all the distribution subs so that customers and other stakeholders can get visibility of and access to the information. Another member added that there are restrictions on what regulated networks can invest in which is a challenge, and that even when there is interest in things like community batteries, networks can't automatically invest in them. Trials and grants can help networks explore these types of activities.
- A member commented that UE/CitiPower/Powercor's analysis shows locations where it is financially feasible to do a project. What it doesn't pick up is where there is value created for other stakeholders who aren't a network. On one of the other demand related opportunity items that didn't get approval is that there was value being generating by reducing risks at community facilities. This is not picked up on the network side but when you start valuing some of the externalities, that's when the economics of some of these project changes and opens up the opportunities for co-investment with other stakeholders. Willingness to pay for things that have traditionally been recognised by the regulatory framework is a big topic at the moment.
- A member flagged that community batteries don't help with voltage issues as they located near transformers, not homes. The voltage issues will remain as they physics haven't changed, with the electrons flowing back up to the transformer. There might be some opportunities, technically speaking, in terms of the voltages but not significant. And if there are too many electrons flowing from all these houses back to the transformer, batteries will help the transformer but you will still see the conductor suffering congestion.

Item 6 | Update | key developments in current AusNet innovation projects

AusNet presented an update on three of the innovation projects currently in flight – Project EDGE, designing and piloting a DER marketplace, the dynamic EV charging trial and the University of Melbourne electrical model-free operating envelopes.

Discussion

- There were no discussion points for this agenda item.

Item 7 | Close & Next Steps

IAC members were thanked for their time and input in the session.

AusNet flagged that the next Innovation Advisory Committee Meeting will be held on 11 October 2022, with the agenda to be:

- An in-depth look at operationalising the flexible exports trial
- A deep-dive into Project Edge
- Re-visiting tariff trials
- Revisiting the feasibility of the location-based opportunity assessment for neighbourhood batteries project.

The meeting was then closed.

Action	Assigned to	Status	Due
AusNet to send Jemena's report on efficient network balancing to committee members (also shared during the meeting) – https://arena.gov.au/assets/2021/09/jemena-der-hosting-capacity-project-rinal-report.pdf	AusNet	Open	Completed
AusNet to consider bringing forward the open network data platform project, from current timeline of 2026.	AusNet	Open	Oct 2022
AusNet to present on non-network solutions and how network benefits are assessed in a future meeting.	AusNet	Open	Oct 2022
AusNet to consider the value of undertaking a location-based opportunity assessment for neighbourhood batteries, in line with the work Citipower/Powercor/United Energy is undertaking	AusNet	Open	Oct 2022

APPENDIX

Image: Virtual whiteboard from Item 3 on customers' needs of the energy transition.

