



Future Networks Sub-Panel

Meeting #3 | Summary Notes

Details	Members	AusNet Staff
10.00am-12.30pm Monday 3 July 2023 Online (MS Teams) Chair: Tom Hallam Secretariat: AusNet	Emma Chessell Gavin Duffy Luis (Nando) Ochoa Dean Lombard Linus Mayes Darren McCubbin Kate Hansen Chris Harvey	Tom Hallam Chirag Desai Morteza Moallemi Sonja Lekovic Lucy Holder Eliza Cochrane Thang Pham Emma Ferrie Observing: James Bleed

The focus of this session

Focus Question	Objective of the meeting	Key agreed positions	Next meeting objectives
FQ1: How might we best prepare for, and accommodate, the anticipated electrification of gas and transport loads (and other fuels)?	Collaborate on how electrification is captured in demand forecasts and modelling, including the rate of change and how customers will use electricity in the future	AusNet to refine Focus Questions following panel's feedback. AusNet to refine demand modelling approach to incorporate uncertainty, usage profiling and consideration of batteries.	Early 2024 Collaborate further on demand forecasts following amendments and latest inputs, including how various options to manage load are considered and impact on the community as a whole

Item	Time	Topic	Lead/s
	10:00am	Welcome, agenda and introductions	Tom Hallam
1		Standing Items	Tom Hallam & Sonja Lekovic
2	10:10am	The Future Networks Workstream: Our forward plan	Tom Hallam & Lucy Holder
3	10:30am	Deep dive: Electricity demand forecasting	Morteza Moallemi & Chirag Desai
	11:20-11:25am	Break (5 mins)	
4	11:25am	Deep dive: Forecasting customer usage profiles	Sonja Lekovic & Thang Pham
5	12:15pm	Open floor	Tom Hallam
Close	12:28pm	Close & next steps	Tom Hallam

Summary

Welcome & Introduction

Key points

- Lucy Holder provided an overview of the new structure of the engagement program, with the focus on the panels for the next 9 months.
- Dean Lombard was announced as the lead for the Future Networks Panel, who will represent the Panel on the Coordination Group. Dean will be bringing back any actions from the Coordination Group to the Future Networks panel.

Part 2: The Future Networks Workstream – Our Forward Plan

Topics	Discussion points
Developing focus questions	• AusNet gave an overview of the forward plan for the Future Networks work stream, including timeframe. AusNet acknowledged a comment that December/January is a tricky time to engage with communities and panels and stressed that the submission timeframes are set by the AER, but AusNet knows engagement at this time is not ideal! AusNet typically tries to complete engagement a couple of months before submissions are due to allow time for incorporating the outcomes of engagement activities and for writing. • AusNet provided an overview of the focus questions developed in the previous meeting. AusNet acknowledged a comment that the community energy focus question was perhaps too optimistic and highlighted that they are deliberately positive to not prematurely limit thinking at the moment. • The panel agreed to remove 'Beyond enabling exports' from the start of focus questions #5. • A panel member asked if there is still an opportunity for panel members to edit the focus questions and forward plan. AusNet agreed to give members an extension of 1 week to provide further written comments on this first draft, highlighting the importance of the "considerations" lists and that AusNet is seeking members' guidance on the information it prepares for the deep dives. • AusNet agreed to have a 'carpark' for issues not directly related to a focus question to sit, to ensure engagement is robust. • A panel member suggested engagement on focus questions be a circular process with a lot of back and forth, rather than working through the questions sequentially, but that the current sequential order makes sense. AusNet agreed that flexibility is needed and the questions interrelate, and highlighted the need to be efficient, acknowledging that customers are paying for engagement, and ensure that there is value for money for customers. AusNet also highlighted it is an expectation that Panel members contribute to the forward planning for the sessions and prepare adequately to ensure meeting objectives are met. • On Focus Question 2, a panel member asked if this included communities who are wanting to transition away from gas, to which AusNet agreed that it <i>could</i>, though transitioning a community away from gas is not a conversation AusNet could or would start (it would require VicGov leadership). • Discussion around some of the language in the focus questions is very network centric and could be ambiguous for customers. AusNet noted this and asked the members to suggest more appropriate wording, if they have it. AusNet also noted there will be opportunities to tweak the wording in future to make the questions more customer focused – this is just a best-efforts first draft. It was agreed that AusNet doesn't need to change the wording of the 5 focus questions, but to take the customer centricity going forwarding into the consultation.

Part 3: Deep dive: Electricity demand forecasting and draft 2023 forecasts

Topics	Discussion points
AusNet's demand forecasting methodology	• Robust discussion around the timeframe AusNet is using in its forecasting modelling. A panel member asked if AusNet was only including the EDPR time frame of 2026 – 2031 in its forecast modelling. AusNet confirmed that the forecasts are out to a 15 year horizon, however, in planning for the EDPR, the focus will be on growth during 2026-2031. • Panel members asked how AusNet deals with so much uncertainty about the future. AusNet responded that it models multiple possible outcomes, takes into account how it has been traditionally operating, uses AEMO forecast, and looks at different scenarios (incl. international experience) to produce its forecasts. In response to the question around how uncertainty should be captured in the modelling, the panel expressed a desire for scenario-based demand forecasting, which AusNet agreed to do. • It was agreed that there is value in AusNet doing its own forecasts and not relying wholly on third parties (e.g. AEMO's forecasts and sources). AusNet noted there are other benefits to developing own forecasts such as ability to use smart meter data, using S-curves to model different inflection points for difference scenarios and speed of take-up (in a similar way that was done for the Gas Access Arrangement), but still sense checking against AEMO and other independent forecasts. • A panel member suggested growing acceptance that the 5-year regulatory cycle is not well-suited to planning network infrastructure at times of high uncertainty. The panel member asked if there is any possibility for revisiting investment and spending midway through the regulatory period—by using triggers or reset openers. AusNet said triggers could be proposed in the regulatory proposal, and took an action to discuss these with the group. AusNet also highlighted there are opportunities to propose that new tariffs are able to be introduced through the Tariff Structure Statement (TSS) during the regulatory period. • Discussion around the need for the forecast model to identify certain demand trends that might be out of the box, such as EV vehicle charging in some holiday locations. AusNet mentioned as the demand forecasts are highly locational, this can be considered in the model. • Robust discussion around how AusNet frames batteries – needs to be decided whether they are a generator or a load, and their impact on maximum and minimum demand. • A panel member asked about the relationship between minimum demand and investments on the distribution network and transmission network. AusNet responded by saying that it does create an investment requirement where some of the larger generators want to connect. At the medium voltage level, AusNet needs to be mindful around the terminal capacity when it is projected that the power flow will be reversed again. • Discussion around what are costs and options are in terms of constraining old and new domestic rooftop PV. A panel member noted that it would be good for this group to talk about inverter compliance at a later session.

Part 4: Deep dive: Forecasting customer usage profiles

Topics	Discussion points
How usage profiles impact demand forecasts and hosting capacity model	- Sonja Lekovic and Thang Pham gave an overview of the demand forecasting using customer usage profiles. AusNet is also building a model on export hosting capacity in the low voltage network, which it has not done in the past. - The Panel asked about customers' propensity to shift their behaviour (and consumption). AusNet confirmed the segmentation study looked at this. - In addition, members asked AusNet to look into producing a chart of available network capacity (utilisation) if possible, so the Panel can consider how utilisation can be maximised. - Discussion on the potential for EVs to change consumer behaviour and that this won't necessarily replicate how people are using their cars at the moment, which could result in less impact on the network than expected. Similarly, there was discussion around the need to better understand usage patterns of all electric and 7-star homes, as it's unlikely gas heat load will automatically translate to the same electricity load (e.g. people may use their reverse cycle heating differently). - Discussion around what AusNet plans to do with the information gathered through the segmentation research, and its plans to dig more into how segments evolve and change over time and seasonality (incl. peak demand days vs average peak). AusNet to share more details of how segmentation data is evolved to include future usage profiles, and how it's used in demand forecasting. - A panel member asked if AusNet has thought about asking the 16-24yr customers of what they are thinking their future households will look like, as the AER often look to target this age group. AusNet responded that this was explored somewhat through the Digital Energy Futures partnership with Monash, and that it is a good idea that will be taken to the Research & Engagement Panel for consideration.

Close & Next Steps

- Panel members noted and agreed that this meeting allowed for more discussion time and was structured very well.

Action items			
Action	Assigned to	Status	Due date
AusNet to update the focus questions with minor amendments and send around after Meeting #3	Research & Engagement team	Complete	Monday 3 July
Panel members to contribute additional feedback on the forward plan for the Future Networks panel, particularly focussing on the <i>considerations</i> section	Panel Members	Complete	Monday 10 July 2023
AusNet to undertake with scenario-based forecasting and looking at what different scenarios mean for network investment	Network Management & Digital	Not yet started	Meeting #7 (2024)

AusNet to explore options for regulatory and forecasting triggers to include in the regulatory proposal	Regulation	Not yet started	Meeting #7 (2024)
AusNet to provide list of assumptions that AEMO uses in their ISP	Network Management & Digital	https://aemo.com.au/en/consultations/current-and-closed-consultations/2023-inputs-assumptions-and-scenarios-consultation	
AusNet to progress modelling and consider how best to model all-electric homes and EV load	Network Management & Digital	Not yet started	Meeting #7 (2024)
AusNet to share more details of how segmentation data is evolved to include future usage profiles, and how it's used in demand forecasting.	Network Management & Digital	Not yet started	Meeting #7 (2024)
AusNet to look at available capacity on the network and look at options for encouraging use of it	Network Management & Digital, Regulation	Not yet started	Meeting #7 (2024)
AusNet to progress modelling of flows between customer load profile segments over time, and peak demand days vs average peak	Network Management & Digital	Not yet started	Meeting #7 (2024)
AusNet to take research with younger customers (16-24) to the R&E Panel and discuss how we might engage this group	Research & Engagement Team	Not yet started	July

Padlet Board

Panel members were encouraged to add comments, challenge and questions to the Padlet online whiteboard ahead of and following the meeting, which can be accessed [here](#) or via the QR code at right.

