

Minutes

Future Grid Reference Group workshop

Thursday, 10 June 2021

Boardroom, Endeavour Energy Huntingwood Office | 10.00 am – 2.00pm

ATTENDANCE

Member	Organisation
Albert Tong	AER (observer)
Riya Goyal	AER (observer)
Annie Kiefer	Country Women's Association
Guy Chalkley	Endeavour Energy
Francoise Merit	Endeavour Energy
Leanne Pickering	Endeavour Energy
Scott Ryan	Endeavour Energy
Colin Crisafulli	Endeavour Energy
Peter Langdon	Endeavour Energy
Jacqueline Crompton	Endeavour Energy
Kate McCue	Endeavour Energy
Dan Sze	Endeavour Energy
James Hazelton	Endeavour Energy
Peter Hanley	Endeavour Energy
Gina Pavlovic	Endeavour Energy
Albert Pors	Endeavour Energy
Kate Stariha	Endeavour Energy
Romele Constantino	Endeavour Energy
Mark Grenning	Energy Users Association of Australia
Cristina Talacko	Multicultural NSW
Sue Vercoe	Newgate Research (facilitator)
Anna Livsey	Public Interest Advocacy Centre
Mike Swanston	The Customer Advocate
Mark Byrne	The Total Environment Centre
Nic Pasternatsky	Western Sydney Regional Organisation of Councils
Apologies	
Adam Young	AER
Frank Maniere	Endeavour Energy
Jacqueline Crawshaw	Energy Consumers Australia
Melinda Liberato	Illawarra Shoalhaven Joint Organisation

WELCOME & INTRODUCTIONS

Facilitator Sue Vercoe of Newgate Research opened the meeting and acknowledged the traditional owners of country – the people of the Dharug, Wiradjuri, Dharawal and Gundungarra nations.

Guy Chalkley gave a welcome address emphasising the importance of the customer voice in the development of Endeavor Energy's future grid services, asking participants to consider how Endeavour Energy can build capability, invest for the future, as well as remain agile and responsive to emerging

technologies and customer preferences, bearing in mind the future of energy holds so many varying possibilities.

Meeting participants introduced themselves and Sue Vercoe established the agenda for the day and the purpose of the workshop to help Endeavour Energy develop its overarching Future Grid narrative, which would inform the creation of new services and investments.

PARTICIPANT EXPECTATIONS

Participants were encouraged to share their expectations for the co-design workshop. Expectations are summarised as follows:

- Understanding the customer perspective and preferences for future services
- Understanding how innovative services can reduce costs for customers
- Discussing creative and innovative ideas
- Identifying roadblocks
- Understanding how Endeavour Energy can be climate resilient
- Integrating views of customer, industry and regulators
- Understanding macro benefits of innovation

Participant	Highlight Contributions
Annie Kiefer	<ul style="list-style-type: none"> • I am very excited by plans for the future – I hope we do good work. I was very excited to see what was in the pack.
Mark Byrne	<ul style="list-style-type: none"> • Keen to look at what we do to get batteries into the system.
Leanne Pickering	<ul style="list-style-type: none"> • I want to see the boundaries and get customer perspectives on what we can do now and what we should do ahead.
Nic Pasternatsky	<ul style="list-style-type: none"> • The Blacktown community battery “generated a huge amount of interest”. • We’d like to collaborate with EE in anything creative and innovative to manage the cost of energy.
Albert Tong	<ul style="list-style-type: none"> • Want to observe how EE lets customers inform their decisions.
Scott Ryan	<ul style="list-style-type: none"> • Keen to see an integration of customer, Endeavour Energy and Reg in the development of plans.
Dan Sze	<ul style="list-style-type: none"> • Want to know what’s top of mind from the customer perspective.

BUILDING A FUTURE GRID NARRATIVE – NEED FOR TRANSFORMATION

Leanne Pickering gave an address, setting the scene for the workshop by sharing Endeavour Energy’s Future Grid story so far. The address highlighted that Endeavour Energy’s Regulatory reference group had earlier identified DER hosting and innovation among the highest-priority, single issues for Endeavour Energy. Leanne Pickering referenced the newly released NSW Intergenerational Report that identified significant growth and climate change pressures through to 2061 and discussed the role Endeavour Energy can play both in meeting these challenges and maximising opportunities for the communities we serve. The address highlighted how important it is to remain agile while considering plans for future services.

Sue Vercoe asked participants to undertake a small-group exercise to obtain customer insights on why we need to transform the grid, with the objective of identifying the desired outcomes of transformation from the customer’s perspective. Each group was given a real customer profile, as follows:

- Retired couple on the pension, Parklands Dr, Shellharbour (Shellharbour City)
- Liverpool City Council
- Dry cleaners (small business), Church St, Parramatta (Parramatta City)
- Goodman Fielder (large industrial, bakery), Templar Rd, Erskine Park (Penrith City)
- Early adopter / prosumer, Old Bathurst Rd, Blaxland (Blue Mountains City)
- Celestino (developer, Aerotropolis Sydney Science Park), Luddenham Rd, Luddenham (Penrith City)

Each small group was asked to work together to respond to three questions from their customer profile's perspective:

1. *Satisfaction with current state: How do you currently engage with energy? With the current grid, what choices do you have in how you engage with energy? Is there any way in which you'd like to be able to use the grid that is not currently possible?*
2. *Future state gap analysis: How would you like to be able to engage with energy in the future? What could a future grid let you do that you can't do now?*
3. *Drivers and barriers: What benefits would access to these future grid services bring you? What barriers or issues do you think you might face in terms of accessing these benefits?*

The small groups spent 15 minutes working independently, then Sue Vercoe brought all participants back together to collate the input. The small group worksheets are attached below, Responses are summarised as follows in terms of:

- customer preferences / priorities; and,
- customer perceptions of the benefits of future grid services.

Customer profile	Customer preferences / priorities
Retired couple (pensioners), Shellharbour	<ul style="list-style-type: none"> • Low cost / affordability is the number one priority. • Being as efficient as possible to reduce bills.
Liverpool City Council	<ul style="list-style-type: none"> • Help keep costs low (for Council and customers) • Play a role managing energy initiatives • Help attract growth to the area (residential and industrial growth) due to availability of innovative grid services • Be a partner in energy initiatives to the benefit of constituents • Help us meet a sustainable future
Small business (dry cleaners) Parramatta	<ul style="list-style-type: none"> • Low cost energy • Access to solar without having access to a rooftop • Sharing energy with neighbours • Simple access, no surprises • Insights into how to manage energy consumption • Needs to make a living – wants best price options
Large industrial (Goodman Fielder), Erskine Park	<ul style="list-style-type: none"> • Wants to interact with EE prosumers • High flexibility • Tailored solutions • Engagement and partnering with EE • Want to be able to contribute energy • Time of use tariffs – moving load across the day
Early adopter / prosumer, Blaxland	<ul style="list-style-type: none"> • Accessing new products and services • Using excess energy as much as possible • Selling energy • Visibility of data to optimise efficiency
Celestino, Aerotropolis	<ul style="list-style-type: none"> • Allow for net zero operations • Using network to back up power, undertake trading • Participating in trial energy initiatives / be part of the learning / education re future grid

Customer profile	Perceived benefits of future grid services
Retired couple, Shellharbour	<ul style="list-style-type: none"> • Affordability • Security of supply • Innovations reflected in power bill
Liverpool City Council	<ul style="list-style-type: none"> • Affordability • Innovative options seen as a means to facilitate growth and sustainability agenda for constituents • Matter of cost and timing
Small business (dry cleaners) Parramatta	<ul style="list-style-type: none"> • Certainty (resilience of supply) • Quality and affordability of supply, ideally with green solutions
Large industrial (Goodman Fielder), Erskine Park	<ul style="list-style-type: none"> • Optimisation has a benefit for both business and community • Can share energy with the network • Financial benefit of sharing energy
Early adopter / prosumer, Blaxland	<ul style="list-style-type: none"> • Optimisation of the technologies we have adopted • Ability to participate further, extend prosumer behaviours
Celestino, Aerotropolis	<ul style="list-style-type: none"> • More flexibility (having options and ability to manage them themselves) • More sustainability for business and broader community • Value for all of their customers • Not relying on the network – being resilient by having the technology in-house.

BUILDING A FUTURE GRID NARRATIVE – WHAT SHOULD A FUTURE GRID ACHIEVE?

Chief Financial Officer, Françoise Merit opened this session with a look into the future, encouraging participants to prioritise these key themes from their perspective to help define our future state, bearing in mind several customer-led forces driving change in the industry: energy usage, decarbonisation and decentralisation.

Sue Vercoe then facilitated a group discussion in the collaboration room identify customers' expectations for the objectives and timeframes that Endeavour Energy should incorporate in its Future Grid strategy.

To undertake the prioritisation exercise, all outcomes and outcomes and benefits of future grid transformation were identified in the first workshop exercise (above), written on cards and arranged in order of priority in the course of a facilitated group discussion. (Benefits are prioritised top left to bottom right.)

Life support and support for vulnerable customers, as well as equity (intergenerational equity) were the highest ranked priorities, followed by low cost /affordability. EE's ability to partner with customers to add value was considered an overarching priority across all outcomes, as was security of supply / cybersecurity (personal data).

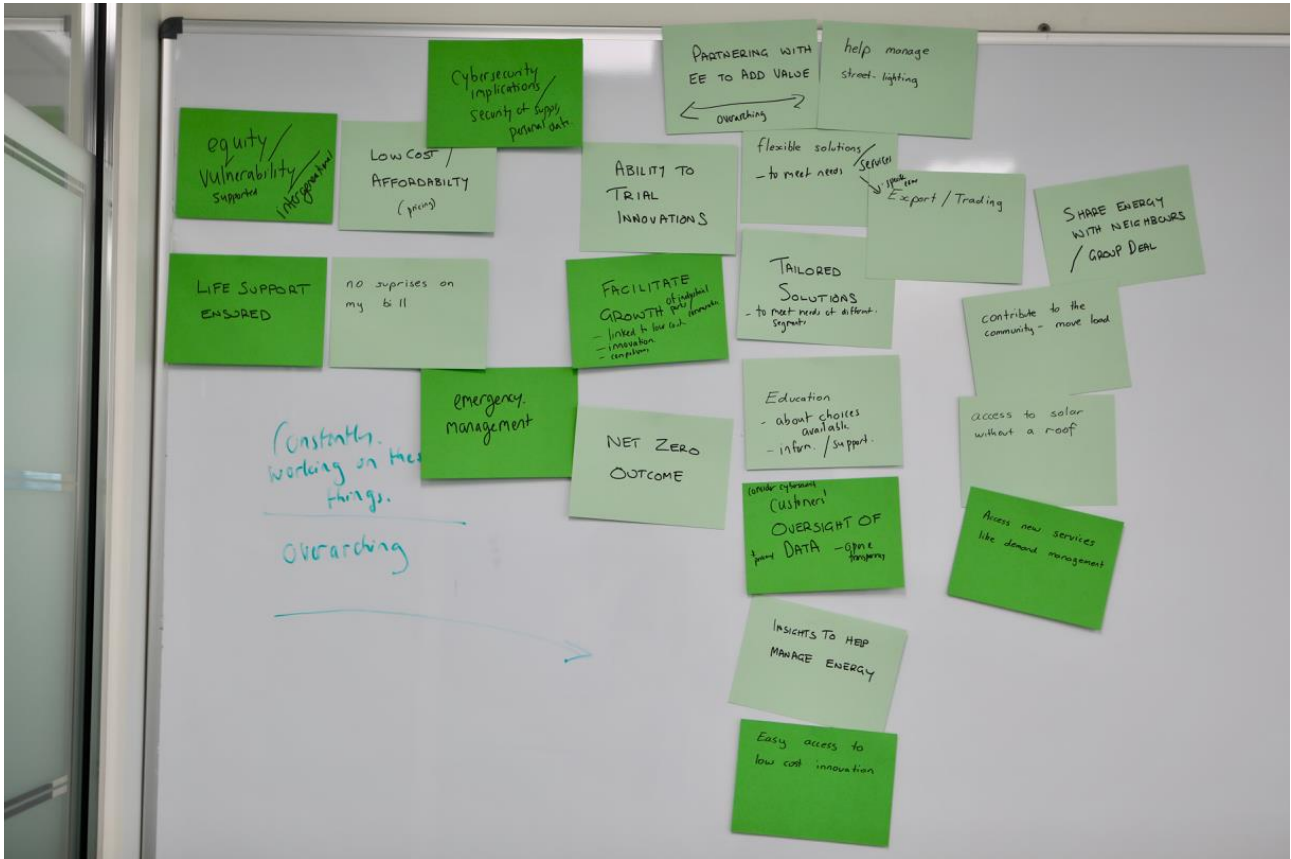
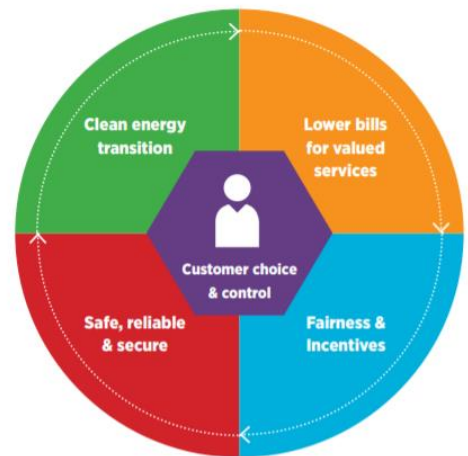


Figure 1: Prioritisation exercise re outcomes of a future grid

The identified benefits of a future grid were also considered against the Electricity Networks Australia / CSIRO *Electricity Transformation Roadmap's* Balanced Scorecard of Customer Outcomes. Workshop participants ranked the Roadmap's balanced outcomes in order of priority as follows and matched the identified benefits of a future grid from the first session to the Roadmap's balanced outcomes as follows. Participants identified **trust** as an overriding imperative to achieve all outcomes of a future grid.

Participant Ranking	ENA / CSIRO Roadmap Balanced Outcomes	Benefits of future grid identified in workshop
=1	fairness and incentives	Helps customers value add to their purpose
=1	safe, reliable & secure	Resilience to major events / disasters
2	lower bills for valued services	Financial benefit / affordability
3	customer choice and control	Flexibility / not locked into solutions
4	clean energy transition	Green outcomes: sustainability, achieving net zero, lower emissions



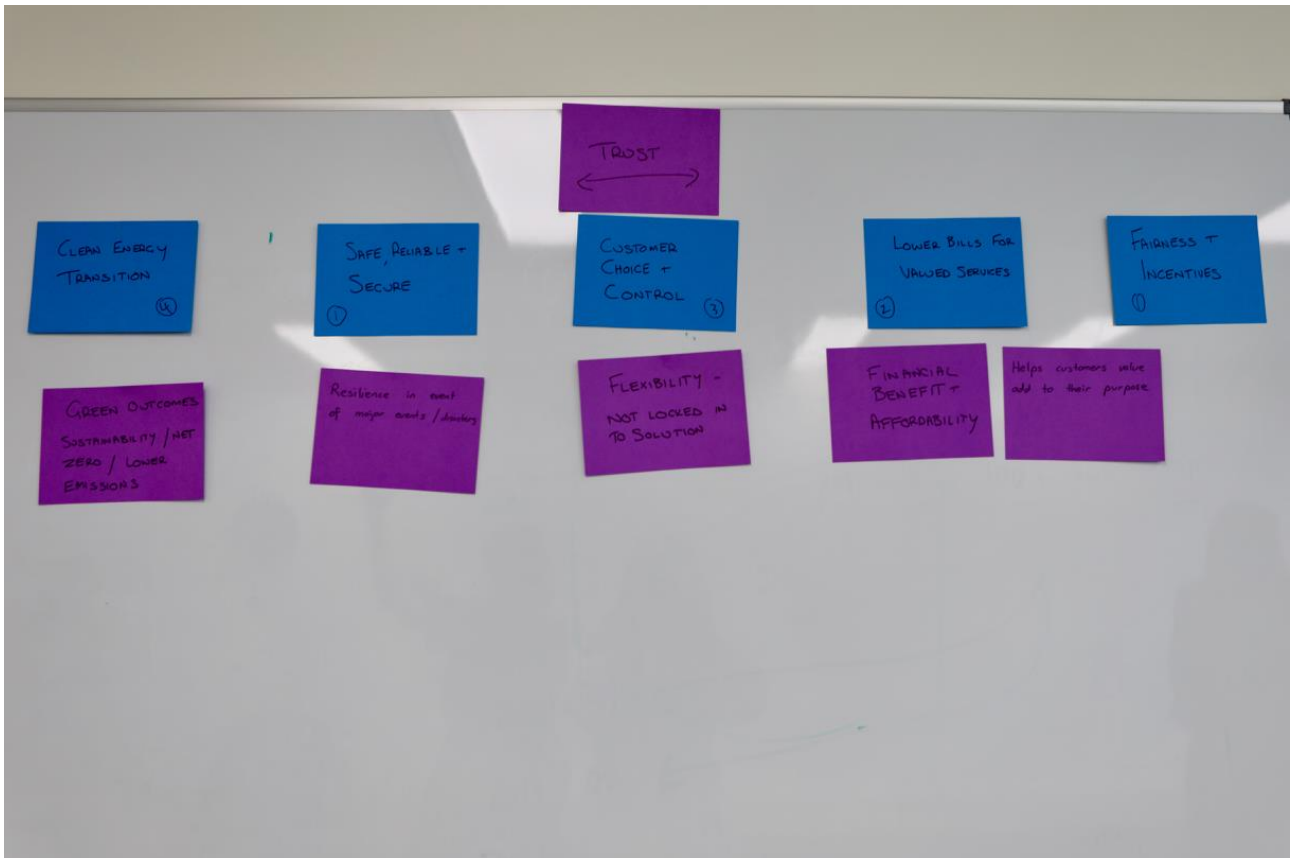


Figure 2: Future grid benefits identified in workshop matched to prioritised ENA / CSIRO balanced outcomes scorecard

For the last exercise in this workshop session, Sue Vercoe asked participants to consider the timelines against which Endeavour Energy should seek to deliver the outcomes and benefits of future grid services. Participants were asked to contemplate timeframes up to 2030, 2040 and 2050.

Participants identified **2030** as the target for delivery of **all** identified future grid outcomes except achieving a net zero target. Sustainability Manager, Gina Pavlovic advised that Endeavour Energy’s net zero target is 40% reduction by 2045, identifying line losses in the network as the biggest contributor to emissions.

Participants called out the role of data, and network access to metering data as a key factor in the achievement of future grid services.

Participant	Highlight Contributions
Nic Pasternatsky	<ul style="list-style-type: none"> How does the data question play out? Data sits with the retailers – you’ve got to get data from retailers. All the identified outcomes belong to 2030 deadline, except net zero.
Cristina Talacko	<ul style="list-style-type: none"> Trading and export services are viable for 2030
Anna Livsey	<ul style="list-style-type: none"> Life support, equity and affordability are standard bearer principles that exist now and should not be considered targets for the future. Demand response, access to new services, energy sharing should be available by 2030.
Mark Byrne	<ul style="list-style-type: none"> We must consider the long-term transition from gas.

Participant	Highlight Contributions
Mark Grenning	<ul style="list-style-type: none"> Anticipated NSW policy banning gas connections is a big issue for consumers – it's a real crunch issue in 5-years' time.
Annie Kiefer	<ul style="list-style-type: none"> The ability to trial new innovations must be accessible now.

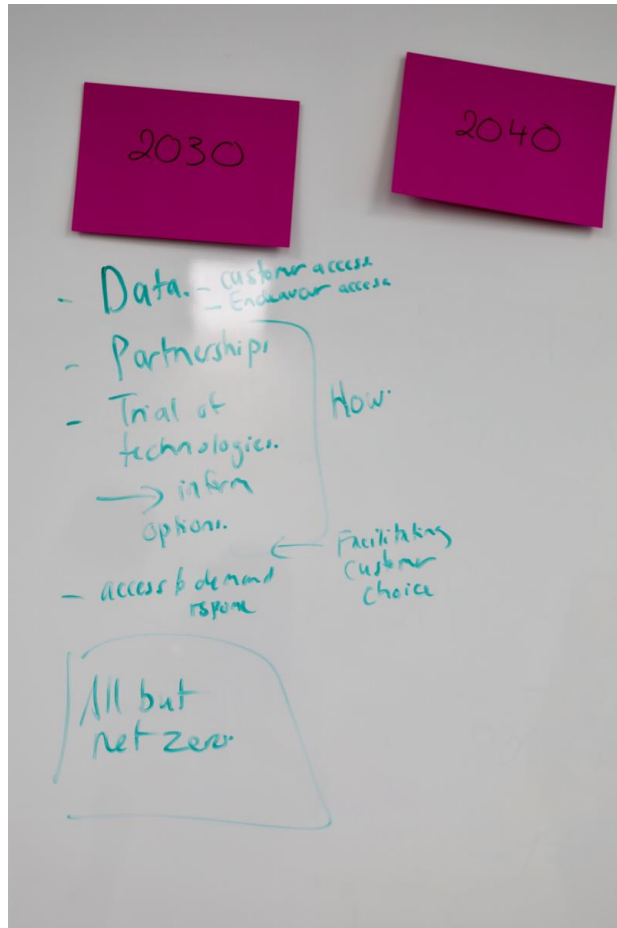


Figure 3: Timeframe identified by workshop participants

BUILDING A FUTURE GRID NARRATIVE: HOW SHOULD CUSTOMERS ACCESS THE FUTURE GRID?

Chief Asset and Operating Officer, Scott Ryan introduced the last session of the workshop, with a more explicit focus on the technologies that Endeavour Energy can invest in to deliver future grid services, including ICT systems and platforms and network infrastructure. In many instances, Endeavour Energy is engaging with strategic partners to provide and / or access these future grid services. Calibrating investments in these innovations is important to deliver the best value and choice for our customers.

Sue Vercoe facilitated two prioritisation exercises in which participants prioritised both the ICT systems / platforms and separately, infrastructure innovations. The top-rated infrastructure innovations were **community batteries** and **low voltage (LV) Network monitoring and control**. The top-rated ICT innovations / investments were **Advanced Distribution Management System (ADMS)**, and **Distributed Energy Resource Management Systems (DERMs)**.

There was less support expressed for EV charging infrastructure, and Chief Customer and Strategy Officer, Leanne Pickering, suggested this was as a result of misaligned terminology – that customers interpreted this as charging stations, whereas Endeavour Energy intended this to mean capacity building to accommodate an influx of EV charging.

Chief Asset and Operating Officer, Scott Ryan advised that Stand Alone Power Systems (SAPs) have a place in the Endeavour network but may not be the best value / most effective innovation if applied broadly.



Figure 4: Key stakeholder priorities for future grid innovations (ICT and infrastructure)

Participant	Highlight Contributions
Nic Pasternatsky	<ul style="list-style-type: none"> EV infrastructure is facilitated by commercial rollouts of chargers. (*See note above re terminology impacting preferences here.)
Cristina Talacko	<ul style="list-style-type: none"> Efficiency is most important.
Mark Byrne	<ul style="list-style-type: none"> Should tariff reforms be up there as well? It needs to facilitate these innovations.
Mark Grenning	<ul style="list-style-type: none"> Community batteries are a much more efficient way of meeting needs in terms of capital cost impacts.
Colin Crisafulli	<ul style="list-style-type: none"> Microgrids are a reflection of how we transform in the face of decentralisation and decarbonisation.

SUMMARY

On behalf Endeavour Energy, Chief Customer & Strategy Officer, Leanne Pickering, offered thanks to participants for a highly constructive workshop, and made the following observations. Key issues consistently identified in the workshop were:

- The importance of partnering
- Trust is an overriding principle in the delivery of innovation
- Innovation should enhance affordability and be experienced equitably
- Oversight of data will be key to enabling innovation.
- Affordability continues to be the top priority
- Tariff reform is essential to other innovation delivery.
- Sometimes we talk in a language that is not always understood by our customers (e.g. EV charging infrastructure) and we will work to avoid that.

PARTICIPANT REFLECTIONS

Sue Vercoe asked participants to return to the expectations that they shared at the beginning of the meeting and asked for their reflections on the day.

Participant	Highlight Contributions
Anna Livsey	<ul style="list-style-type: none"> ● Interesting to see other customer advocates' and Endeavour Energy's understanding of the big picture.
Nic Pasternatsky	<ul style="list-style-type: none"> ● ADMS is an organisational issue, you should put a priority on that – it's essential from your point of view. ● The initiatives are great and should be in the next Determination. All should be worked on now.
Annie Kiefer	<ul style="list-style-type: none"> ● I'm thrilled with the way you're heading – you're a team that really knows what you are doing. I look forward to the next workshop. It's very exciting.
Cristina Talacko	<ul style="list-style-type: none"> ● I'm a big fan of what's happening, where you are headed. ● At the next workshop I would like to see a roadmap showing how these initiatives help us get to net zero.
Mark Grenning	<ul style="list-style-type: none"> ● Great thoughts here – and good to see a lot of commonality at Endeavour Energy looking at all of these challenges. Really exciting.
Mark Byrne	<ul style="list-style-type: none"> ● Congratulations on a well-run event. This is the first one I have attended that started with a consumer-facing perspective, which is very refreshing. ● We need to ground truth this is a roadmap for the next workshop.
Albert Tong	<ul style="list-style-type: none"> ● I really look forward to Endeavour Energy engaging with a wider audience. Looking forward to seeing the detail.
Riya Goyal	<ul style="list-style-type: none"> ● Thanks for a great workshop. It will be good to see these ideas develop in detailed plans.
Francoise Merit	<ul style="list-style-type: none"> ● At the next workshop, let's try to look at a larger horizon past 2030.
Leanne Pickering	<ul style="list-style-type: none"> ● With everything in the 2030 bucket, we need to dig further into the future to ensure we support the long-term interests of our customers.

NEXT WORKSHOP

10.00am – 2.00pm, Monday 8 November 2021 (venue TBA)

MEETING CLOSE

Sue Vercoe brought the workshop to a close at 2.00pm