

## Minutes

### Customer Advisory Panel

**When:** 2:00pm – 4:00pm, Thursday, 20 September 2018

**Where:** Boardroom meeting room - Orion - 565 Wairakei Road

**Attendees:** **Leeann Watson**, CEO, Canterbury Employers' Chamber of Commerce; **Caroline Shone**, CEO Community Energy Action; **Simon Templeton**, CEO Age Concern; **Tim Baker**, Coastal/Burwood Community Board; **Pat McEvedy**, Selwyn District Councillor and farmer; **Harry Gates**, Orion Master's Energy Scholarship recipient; **Danny Wilson**, Head of Operations & Commercial Meridian; **Michelle Sharp**, CEO Kilmarnock

*Orion:* **Rob Jamieson**, CEO; **David Freeman-Greene**, GM Commercial; **Steve Macdonald**, GM Infrastructure; **Linda McGregor**, Communications and Engagement Manager; **Stephen Godfrey**, Opportunities and Developments Manager; **Dayle Parris**, Regulatory Manager; **Jessalee MacLean** (*Minutes*)

**Apologies:** **Tania Wati**, CEO of Mahaanui Kurataiao

Item	Item overview
Welcome and Introduction	Orion Communications and Engagement Manager Linda McGregor welcomed everyone to the meeting including a new member, Michelle Sharp Kilmarnock CEO, and thanked them for their attendance.
Recap on last meeting and cover off actions	Questions that were asked at the last Customer Advisory Panel in June, were covered off in the meeting under 'We listened and we're taking action' section.
We listened and we're taking action	Orion thanked the Panel members for their feedback in the last meeting and provided an update in the 'Questions and actions raised' document from Thursday 7 June meeting.
Preparing for the future, emerging options for customers	<p>Orion Opportunities and Developments Manager Stephen Godfrey spoke about the emerging technology options for customers connected to the Orion network. The below points were made on each topic:</p> <p><b>Solar panels</b></p> <ul style="list-style-type: none"> <li>• People generally purchase solar panels for four reasons - economics, environment, back up generation, or going off the grid.</li> <li>• Around 1% of customers on the Orion network have solar panels.</li> <li>• The uptake on solar is not huge in New Zealand.</li> <li>• For most households, Solar PV is not economical yet and is still likely not to be economic for a number of years. Generally households need to be using electricity in their homes during times the sun is shining – daytime, and in summer – for it to be economic. Solar water heating may be an exception for some homes.</li> <li>• Solar PV may be economic for some businesses as they use power during the day.</li> <li>• Solar panels only make up around 40% of the installed cost of solar. So while solar panel prices are falling, other parts of the installed cost also need to decline significantly. It's hard to see this happening any time soon.</li> </ul>

- Environmentally solar is not a great option for NZ, as NZ already has a high % of renewable generation (so solar just displaces another renewable) and we have winter peaking electricity. This makes us quite different to most other countries.

#### **Batteries**

- Batteries, including EV batteries, have the potential to change the timing of energy demand. Charge up when prices are low, discharge when prices are high. Or if solar is in use, use batteries to store solar generation rather than put it back into the grid.
- Batteries enable the storage of electricity for later use.
- Battery prices have decreased drastically over the last few years but they are still some way from being economic. Most likely it won't be until around 2030 before they become economic for NZ homes. Recent study by University of Canterbury found the payback period for installing batteries and solar in the home was over 20 years. Battery life is less than that.
- Alternative technologies to Lithium Ion batteries are being explored.

#### **Electric vehicles**

- Electric vehicles (EV) are more economical to run than petrol vehicles. The worldwide forecast expects around a third of the vehicles on the road will be electric by 2040. China is leading the way with electric vehicle adoption. Shenzhen became the first city to electrify 100 percent of its public buses—16,359.
- NZ should hopefully become a world leader in EV adoption given our advantages – an already high renewable electricity supply (making EVs a great way for NZ to decarbonise), low travel distances and generally high levels of off-street parking.
- Other countries in the world already have targets for no new petrol cars to be sold or made by 2030.
- The Nissan Leaf is the most popular EV in the New Zealand market - most are second hand imports from Japan.
- The biggest barriers for people to buy an electric vehicle is price and range of the battery not being long enough.
- EVs are predicted to be purchase price neutral with petrol cars by mid-late 2020s. Given a saving of around \$2000 per annum in running costs is possible, and the range of EVs will be over 400km by then, Orion expect EV take-up to really pick up in the mid-2020s.
- Orion was asked if it monitors the electric vehicle chargers at supermarkets. Yes they are monitored, they are used but not extensively yet - however usage is going up in line with EV uptake. About 80 percent charging occurs at home.
- Orion's supermarket standard chargers are free at present, while their fast chargers carry a small fee. Orion has installed these chargers as they see EVs as being great for the community long term – good for the environment and customers' pockets.

#### **Household of the future: home energy management systems**

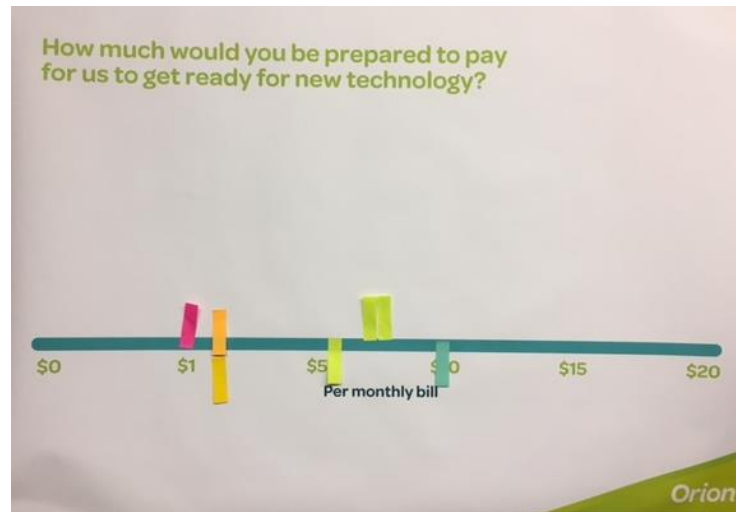
- It's expected that in the future, beyond 2030 for most customers, Orion customers could have multiple electric vehicles, solar on roof, battery storage in their garage. A home energy management system would automate usage/on site generation/grid supply and storage, to lower customer bills.

#### **Businesses**

- More businesses are moving from coal to electric systems. The panel noted there was the opportunity for Orion to provide independent advice on making this switch, or facilitate Energy Efficiency and Conservation Authority (EECA) advice.

	<ul style="list-style-type: none"> <li>• Businesses are now making decisions about their energy management not just based on price. They are now also considering other factors such as sustainability and environmental benefits.</li> <li>• Future employees are seeking businesses that have a sense of social purpose.</li> </ul> <p><b>Panel feedback</b> The Panel noted that solar and electric vehicles were cost prohibitive for many of the people they represented and better management of energy use remained their current priority.</p> <p>The Panel noted that education on all of these topics is key for customers when making a decision about their energy use. The Panel encouraged Orion to consider providing impartial advice on these topics for customers through various channels.</p> <p><b>Action:</b> Orion to look at showcasing the benefits of electric vehicles and educating businesses and other customers on energy matters.</p>
Preparing for the future, our thinking	<p>Orion General Manager of Infrastructure Steve Macdonald talked about the recent re-structure of Orion’s operational team and how Orion is preparing for the future.</p> <p>Orion has established a new role of Strategy and Transformation Manager to better understand and plan for Orion customer needs now and into the future as they seek to adopt new technologies. It’s important that Orion plans for many different possible futures, as it’s impossible to say exactly what things will look like in say 20 years, and implements ‘no regrets’ actions now that position Orion well for a range of possibilities.</p> <p>In line with our ‘no regrets’ approach, Steve outlined how Orion is proposing to establish monitoring on its low voltage network, on transformers. Alongside transformer monitoring, Orion is also seeking access to smart meter information that is already available. Orion is also looking to develop additional back office systems and tools to utilise the LV data gained to better manage the network and be able to make better investment decisions – thereby saving Orion customers money.</p> <p><b>Panel feedback</b> The Panel noted there could be privacy concerns around access to customer’s smart meter data. General consensus from the Panel was customers shouldn’t have an issue if they know the reasons why. Orion is working through this process with the retailers.</p> <p>The Panel asked if Orion has thought about electric vehicles and distributed generation charging all at once, and the potential for electric vehicles to connect to the grid in peak times. Orion acknowledge this could put a strain on current network resources if large numbers of electric vehicles started charging at the same time. Orion is looking at pricing options to encourage smoothed night time charging, when the Orion network is lightly loaded.</p>
Preparing for the future, your thoughts	<p><b>Sticky notes on the board exercise</b> Each member of the panel was given a sticky note to place on a board on behalf of the groups they represent. The focus of the question at this meeting was on willingness to pay for Orion to invest in its infrastructure to prepare for the impact of new technologies.</p> <p><b>Question:</b> How much would you be prepared to pay for us to get ready for new technology?</p>

Note: the average monthly power bill was indicated at around \$200 per month and the average paid to Orion was around \$60 per month.



### Panel feedback

There was a lot of discussion around whose responsibility it was at a national level, to get the industry ready to enable new technologies, the need for a co-ordinated approach across the industry, and encouragement to make sure New Zealand learned from other countries that have taken steps down the path ahead of us.

One Panel member raised the view that Orion should be spending money to prepare for the future anyway as part of its usual capital expenditure.

Ultimately the panel told Orion they wanted to see Orion ready itself for customers to take advantage of new technologies, and were prepared to see an additional, modest cost on their monthly power bill to cover this. They told Orion this was particularly acceptable if it meant avoiding increased infrastructure development costs down the track. And even better if customer's adoption of these new technologies resulted in eventual savings on their total energy bill.

The sticky note exercise showed a range from \$1 to \$10 per monthly power bill and a consensus was an average of \$5 per month would be acceptable as an additional amount to pay for Orion to get ready for new technology.

There was some discussion around the amount being levied as a percentage of people's power bills but the discussion didn't have time to explore how this could be equitably done so it didn't adversely affect lower income people with higher power bills.

### Panel survey wrap up

Overall, 100% of panellists who responded to the survey rated their experience of the Customer Advisory Panel as excellent or very good.

Being able to contribute the perspective of the people the Panel members represent, was rated the most valuable part of their participation. Learning more about what Orion does and a chance to hear the views of others were also highly rated.

Meeting for two hours every three months suited the Panel members.

It was suggested Orion invite a representative of the disability and health sectors, and a heavy industrial sector to join the Panel.

	<p><b>Topics members told Orion they would like to discuss:</b></p> <ul style="list-style-type: none"> <li>• Affordable Solar Panel initiatives</li> <li>• Looking ahead to a more electrified future</li> <li>• Orion’s future strategic direction - especially new services</li> <li>• Future technologies</li> </ul> <p><b>Actioned:</b> Orion invited Michelle Sharp CEO Kilmarnock to join the Panel.</p>
Any other questions from you	No further questions were raised.
Wrap-up and close	<p>Everyone was thanked for making the commitment to be there for the afternoon and contributing the views of those they represented.</p> <p>A new General Manager of Customer and Stakeholder will start with Orion in October and will review the future direction of the Panel in consultation with members. The next meeting is expected to be held in early 2019.</p> <p><b>ACTION:</b> Orion to establish the agenda and timing for the next meeting in 2019.</p>