

**DRAFT**

**SMART METERING**

# **CONSUMER JOURNEY DESIGN**

## **CUSTOMER JOURNEY AND INSIGHTS WORKSHOP REPORT**

PREPARED FOR ENERGY SECURITY BOARD  
AND AUSTRALIAN ENERGY MARKET  
COMMISSION

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# Overview

The Australian Energy Market Commission (AEMC) has developed a set of draft recommendations to reform the regulatory framework for metering services to expedite the deployment of smart meters to reach universal uptake by 2030. Smart meters are a key part of the AEMC's goal of a low-cost and efficient energy system. Though the existing regulatory framework does provide a pathway to 100% uptake of smart meters in Australia, recently the AEMC has determined that the pathway's timeframe is too long. Under the current rate, universal uptake of smart meters in Australia won't be achieved until 2040, 10 years after the AEMC's goal under the draft recommendations. The recommended reforms will introduce processes to the framework so that smart meters can be deployed faster.

## **Workshop objectives:**

- Integrate Customer Insights from ESB into the smart metering reform design and progress
- Develop a future focused customer journey for how smart metering will support the future of energy for customers
- Consider how to deliver customer outcomes and an experience that will support the objectives of the smart metering reform
- Enhance customer insights generated from ESB Customer Insights Collaboration Release 1

This report documents the workshop outcomes and discussion, as well as provides insights to be considered by the smart metering reform project team to inform ongoing development.

It also provide initial advice regarding customer experience and journey to support the ongoing development of the smart meter accelerated roll out, including:

- The role of customers in the roll out
- Customer experience principles and considerations
- Initial customer journey map for communication and engagement



# About the reform

## Unlocking benefits to customers through universal smart meter deployment

Deploying smart meters is a necessary part of evolving the Australian energy system. They are the foundation of a more connected and efficient energy system. They will support future energy innovations to improve efficiency and/or sustainability.

The AEMC has committed to a system of 100% smart meters by 2030, but the current framework has proved to be unable to deliver this goal on time. The reform is focused on changing the framework to deploy smart meters more quickly. The many customer benefits mean that prioritising the rollout of smart meters is a worthwhile commitment.

Reasons for the current framework's ineffectiveness include:

- A lack of industry cooperation due to a complex framework and misaligned incentives between stakeholders.
- Implementation issues, including delays.
- Higher costs for customer metering units due to inefficient deployment processes.
- Consumer requests for smart meters (due to wanting to install solar PV systems, for example) has been the main driver for their installation, but many customers do not perceive high enough direct benefits to justify requesting one.
- Retailer-initiated smart meter installations have been minimal.

# Why is this a problem worth solving?

## Objective

To enable the roll out of smart meters - a key enabler in the transition to net zero. Smart meters are foundational to a more connected, modern and efficient energy system that supports future technologies, services and innovations.

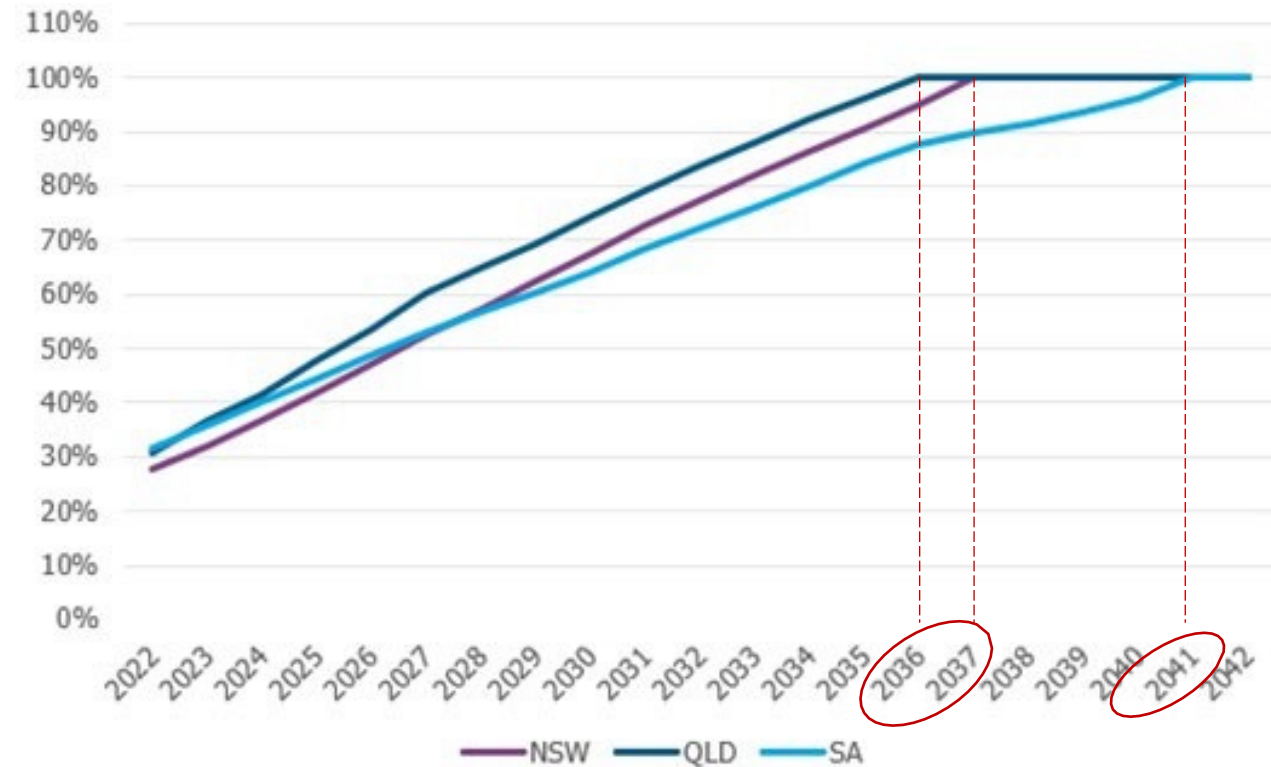
## Problem statement

The current metering arrangements are not efficiently and effectively realising the key potential benefits that metering technology can enable for all consumers.

## Recommendations

We've made 20 recommendations to achieve 100% smart meter uptake by 2030 that aim to:

- Create a new pathway achieve this uptake.
- Enhance existing metering arrangements.
- Support customers through the transition.
- Unlock new customer benefits



Oakley Greenwood's counterfactual rollout, p. 11-12. See [their Report here](#).



# Key customer insights

The workshop generated the following key insights:

- **Customer trust and building social license** to support the roll out needs to be prioritised. This will be supported by:
  - Creating trust in the body in charge and the body delivering information.
  - Increasing knowledge of the benefits and necessity of the roll out.
  - Clear communication of the details of the change and how customers can prepare for it.
- **Customers' data security** is an important factor – their data should not be sold on without their permission.
- There should be clear communication on **who is responsible** when things go wrong.
- The **future role of current meter readers** needs to be considered.
- **Installers will be key to success** of the roll out and should be engaged early to design the program and refine the customer journey.
- **Meters must be fit for purpose** – that is, digital meters or smart meters depending on what is needed.



## Workshop participants - Stakeholder Steering Group (SSG)

The Stakeholder Steering Group (SSG) was established to support and oversee the Customer Insights Collaboration and participated in this workshop and subsequent discussions to support the metering review. Representatives from the Australian Energy Market Commission, and Energy Consumers Australia also participated in the workshop. The SSG for Release Two was made up of stakeholders that represented a range of perspectives from technology, networks, retailers, market bodies, consumer organisations, clean energy providers and academic institutions.

### Principles the SSG adopted to guide its work

- Be disciplined about keeping a *customer focus*, work hard not to duplicate the technical and other work being done elsewhere.
- See the *need and opportunity* to unlock the value of flexible CER and energy use for all customers.
- Embrace *inclusive design* and the value in immersing ourselves in the needs, expectations, values and circumstances of customers while recognising our own limitations and biases.
- Develop insights that our *audience* can apply, such as the project teams and the customer questions they are grappling with, to ensure the Collaboration delivers insights that are relevant and applicable.
- *Refine and adapt* the Customer Insights Collaboration process as we learn what works and how best to add value to the ongoing development of the CER Implementation Plan.

### Customer Insights Collaboration – Stakeholder Steering Group Release Two


- **Joanne Pafumi**, General Manager Corporate Affairs, CitiPower, Powercor and United Energy
- **Penelope Crossley**, Associate Professor, University of Sydney Law School
- **Lance Hoch**, Executive Director and Chairman, Oakley Greenwood Pty Ltd
- **Matthew Dewhirst**, A/Project Manager – Home Battery Scheme, Department for Energy and Mining, Government of South Australia
- **Jo De Silva**, Policy and Communications Lead, Energy & Water Ombudsman SA
- **Rory Campbell**, Manager Policy and Research, Energy & Water Ombudsman NSW
- **Tim Ryan**, Real Time Information and Transaction Specialist, Ready Energy
- **Jess Christianson**, Head of Marketing and Communications, RACV
- **Con Hristodoulidis**, Senior Manager Policy & Regulatory Strategy (Customer Markets), AGL
- **Grant Stepa**, Independent Expert, CER Deployment
- **Wendy Miller**, Customer Strategist, Powerlink
- **Jordan Tasker**, Director, Consumer Projects, Australian Energy Regulator
- **Dr John Gardner**, Consumers and Resource Use, CSIRO

# Workshop tools

## Activity Sheets


The workshop consisted of three focused activities designed to generate customer insights. Each group received the activity sheets to support discussion and capture table feedback.

**ACTIVITY 1: Understanding the opportunity**




Using your use case explore the following questions:


What is the problem being solved by the accelerated roll out for customers?




How are customers likely to benefit?






What will be the role of customers as part of the roll out?




**ACTIVITY 2: Customer journey**



	1. AWARENESS & EDUCATION 	2. INSTALLATION 	3. POST INSTALLATION 
Steps involved	All steps to raise awareness and educate customers about the reform/changes.	All stages related to the installation or implementation for customers.	All ongoing activities related to operations and any ongoing maintenance.
Customer touch points or interactions and with whom			
Pain points or barriers			

**ACTIVITY 3: Reflection and final thoughts**



Reflecting on the impacts and risks, how might they be overcome? What might need to be considered?

After considering the mitigations what are your final thoughts for the project team team?

# Understanding the opportunity for consumers

Group 1

## What is the problem being solved?

- Smart meters not being fit for purpose.

## How are customers likely to benefit?

- Customers are 'brought along for the journey' of using smart meters.
- Customers are informed of benefits and costs.
- Customers can access data in real time and then use this to lower their costs or for other benefits.
- Energy literacy.
- The location of customers (e.g., customers in regional and rural areas) could impact the access to benefits.

## Questions raised

- How will meters interact with HEMS devices?
- Who can access data (regular and technical) in real time?
- Who owns the data?
- What will happen to all the manual meter reader jobs?
- Will customers need to be home during the installation of their smart meter? This could minimise the number of times the installer has to visit the house in case there are issues with site access.



# Understanding the opportunity for consumers

Group 2

## What is the problem being solved?

- Remediation and site-specific issues.
  - For example, body corporate electricity for apartment blocks.
- Difficulty when changing over assets.
  - For example, NBN.
- Availability or location of resources.
- Coordination around streets and suburbs implementing a smart meter.

## How are customers likely to benefit?

- More certainty and clarity around when a customer will have a smart meter installed – this will increase convenience and trust.
- Preparedness to participate in the rollout.
- Technological capabilities.
  - For example, customers can monitor their usage and bills.

## What will be the role of customers as part of the roll out?

- Written remarks of market bodies.
- Actions of businesses and advocates.
- How individuals talk about the roll out.

## Questions raised

- Who is the point of call when things go wrong?

# Customer journey map feedback

1.



## AWARENESS & EDUCATION

All steps to raise awareness and educate customers about the roll out

Steps involved	<ul style="list-style-type: none"> <li>Retailer notifies customers of the meter change.</li> <li>Meter readers <u>could</u> take photos for site defect processes.</li> </ul>	<ul style="list-style-type: none"> <li>Learn from Victorian communications: what was lacking?</li> <li>Utilise broader community values of decarbonisation and benefits of meters.</li> <li>Prioritise communication of benefits, both individual and community.</li> <li>Retailer information notices.</li> <li>Smart energy website which provides information on the reform. Unsure on which body would be the best choice to develop the website to maximise reach and trust.</li> <li>Local community information programs.</li> </ul>
Customer touch points/interactions	<ul style="list-style-type: none"> <li>Retailer notices.</li> <li>Social media.</li> <li>Letters and emails.</li> <li>Word of mouth.</li> <li>Distribution notices (for outages etc.) come from a trusted source.</li> <li>Create a national education campaign.</li> <li><b>Further information:</b> get in touch with Pip Watson from ANU for the pragmatic approach to customer interaction.</li> </ul>	<ul style="list-style-type: none"> <li>Geographic information system (GIS) and photo database.</li> <li>Pre-installation information including when the installers will be coming to the customer's area and what the customer needs to do next.</li> <li>Retailer and network tariffs.</li> <li>A frequently asked questions notice (informed by the current research).</li> <li>Messaging should not raise expectations regarding the benefits of smart metering. As an example, a notice on an installation could be worded as a "necessary networking upgrade".</li> </ul>
Pain points and barriers	<ul style="list-style-type: none"> <li>Inaccurate or misleading news leading to disgruntled customers.</li> <li>Notifications of meter changes from retailers getting lost before they reach the customer.</li> </ul>	<ul style="list-style-type: none"> <li>Can be difficult to build trust in the changes.</li> <li>Tariff changes and questions around this, including when, how, and why they're changing.</li> </ul>

# Customer journey map feedback

2.



## INSTALLATION

All stages related to the installation or implementation of the roll out for customers

Steps involved	<ul style="list-style-type: none"> <li>May or may not negotiate date and time the installer comes to change the meter.</li> <li>Customer is notified of any supply interruptions.</li> <li>Trade off between customer impacts and efficiency for Network Control Services (NCS).</li> <li>Flow chart on how to resolve problems and contact details for the body responsible could resolve some pain points.</li> </ul>	<ul style="list-style-type: none"> <li>Customer engagement group regarding the roll out.</li> <li>Customer engagement regarding the smart energy website: who would they trust to deliver the website?</li> <li>Progress report in annual Australian Energy Regulator (AER) retail report.</li> <li>Planned interruption notices.</li> <li>Information for customers regarding whether they need to be home for the installation, how long their power will be out, and how they will need to prepare for the installation.</li> <li>Scheduling installations outside standard business hours.</li> </ul>
Customer touch points/interactions	<ul style="list-style-type: none"> <li>Installer at site.</li> <li>Communications with customers prior to the installation.</li> </ul>	<ul style="list-style-type: none"> <li>Must have clear information for customers so they know who will be installing the meter.</li> <li>System restart services.</li> <li>Home Energy Management Systems (HEMS).</li> <li>Meter replacement should not lead to a tariff change.</li> </ul>
Pain points and barriers	<ul style="list-style-type: none"> <li>Problems with site access (such as dogs, gates etc.).</li> <li>Problems with the site (such as asbestos).</li> <li>Physical space is needed for the new meter.</li> <li>Unknown and unexpected costs and responsibilities.</li> <li>There is no set body responsible so customers do not know who to contact with problems.</li> <li>Installers don't know the physical infrastructure of the site location before arriving.</li> </ul>	<ul style="list-style-type: none"> <li>Remediation: 75% are good, 20% are bad, and 5% are terrible.</li> <li>Life support customers.</li> <li>'One-in-all-in' communication</li> <li>Ensuring clear communication to renters and occupiers.</li> </ul>

# Customer journey map feedback

3.



## POST INSTALLATION

All ongoing activities related to operations and any ongoing maintenance

Steps involved	<ul style="list-style-type: none"><li>If customers want to install an electric vehicle (EV) or distributed energy resource (DER) in the future, do they need a new or different meter?</li></ul>	<ul style="list-style-type: none"><li>Tapping into the local community's needs and values.</li><li>Customer involvement in the future grid via meters.</li><li>Include MCs in National Energy Customer Framework (NECF) like transparency, compliance, and obligations.</li><li>Short-term pain for long-term gains.</li></ul>
Customer touch points/interactions	<ul style="list-style-type: none"><li>Who is responsible for the ongoing operation and maintenance of meters?</li></ul>	<ul style="list-style-type: none"><li>Retailers explain the best offer for the customer based on the current research.</li><li>Information for the customer on what the new meter can do for them.</li></ul>
Pain points and barriers	<ul style="list-style-type: none"><li>Customers moved from capacity to ToU (time of use) tariffs post-installation which may not benefit the customers.</li><li>No post-installation communication on benefits, use etc. for customers.</li><li>How do customers know if their meter is working?</li></ul>	<ul style="list-style-type: none"><li>Tariff changes.</li><li>Lack of customer trust in the change.</li><li>Unclear who should be contacted if there are any problems with the meter.</li></ul>

# Additional insights from ESB Stakeholder Steering Group

## Insights from across the SSG

Value of selling the benefits	<p>To achieve customer support, it is important to communicate the benefits of the smart meters, which may include:</p> <ul style="list-style-type: none"><li>• more timely connections</li><li>• more efficient and accurate billing services</li><li>• lower long term costs for customers due to more efficient services and network planning</li></ul>
Be aware of the customers who oppose	<p>Based on the experience of similar contentious projects, there will be some customers who will oppose the roll out regardless of communication or engagement efforts. Those who are opposed may attract attention by writing to Ministers, approaching the media about fairness and health allegations. They may also influence others who are sceptical, cynical or have low trust of authority.</p>
Customers will have a range of concerns that need to be considered	<p>Customers will raise a range of concerns regarding the roll out. These concerns may include:</p> <ul style="list-style-type: none"><li>• Health and safety including Electric Magnetic Fields (EMF)</li><li>• Technology</li><li>• Privacy</li><li>• Disruption to home or business</li></ul> <p>Comprehensive FAQs should be developed to support customer self help along with customer assistance through website, phone and email.</p>



## Insights from across the SSG

### Property access issues

There may be a range of physical constraints when the installers arrive at a property. These may include:

- Home security impeding access
- Savage dogs, hornets nests
- Asbestos risks associated with old installations
- Can't physically locate the existing meter
- Overgrown access
- Internal versus external location at the premises
- Physical barriers to accessing the meter e.g., cages and locked boxes

Consideration should be given as part of the installation planning and proactive communication with customers to help them plan for their install.

### Neutral safety test outcomes

It has been reported from the Victorian roll out that when a smart meter is installed, the technician is also required to perform a safety test to make sure the customer's connection is safe. If the connection fails the test, then the customer will be disconnecting until such time as they get a registered electrical contractor to fix it.

This is a key issue of liability and risk. However, customers will not be happy about it. Installers should be equipped with a response to this scenario and additional customer support provided.

# The role of the customer

The success of the roll out will rely on customers being empowered to play their part.

Customers will need to play a role to support the accelerated roll out. Participants discussed that customers need to:

- Be compliant - they will have the responsibility to have a safe and compliant arrangement (switch board etc.)
- Be informed – read the material provided and engage with the roll out plan in their area
- Trust – have trust in the roll out, the why and the benefits
- Be prepared – as needed plan for installation to provide safe access for install
- Engage with changes and benefits – this is likely to include changes in tariffs and retail arrangements



# Customer needs and expectations

Designing a customer journey means meeting the needs and expectations of a diverse range of customers

Considerations	Expectations
<p>There is a strong recognition that customers are diverse, and many will have unique needs. These must be considered and explored in detail as part of the implementation planning.</p> <p>The following are just some of the considerations:</p> <ul style="list-style-type: none"><li>• Ownership status – owner vs. renter vs. body corporate</li><li>• Location – city, regional, rural</li><li>• Type – home or business</li><li>• Physical – house, apartment, complex, estate</li><li>• Cost to customers – potential for costs to customers</li><li>• Electricity needs – life support customer, small business</li></ul>	<p>Across Australia, customers have experienced the roll out of infrastructure and national campaigns that could be leveraged to manage expectations.</p> <p>Customers will also have expectations of the roll out and how it will be designed to be easy for them. Some of their expectations are likely to include:</p> <ul style="list-style-type: none"><li>• Minimal impact and minimal disruption on the customer</li><li>• Clear information and transparency</li><li>• No cost to the customer</li><li>• Timely, accurate roll out that delivers as it promises</li><li>• Understanding why the change is necessary</li><li>• Support if they need more assistance</li><li>• Accessible information for all customers</li></ul>

# Customer principles

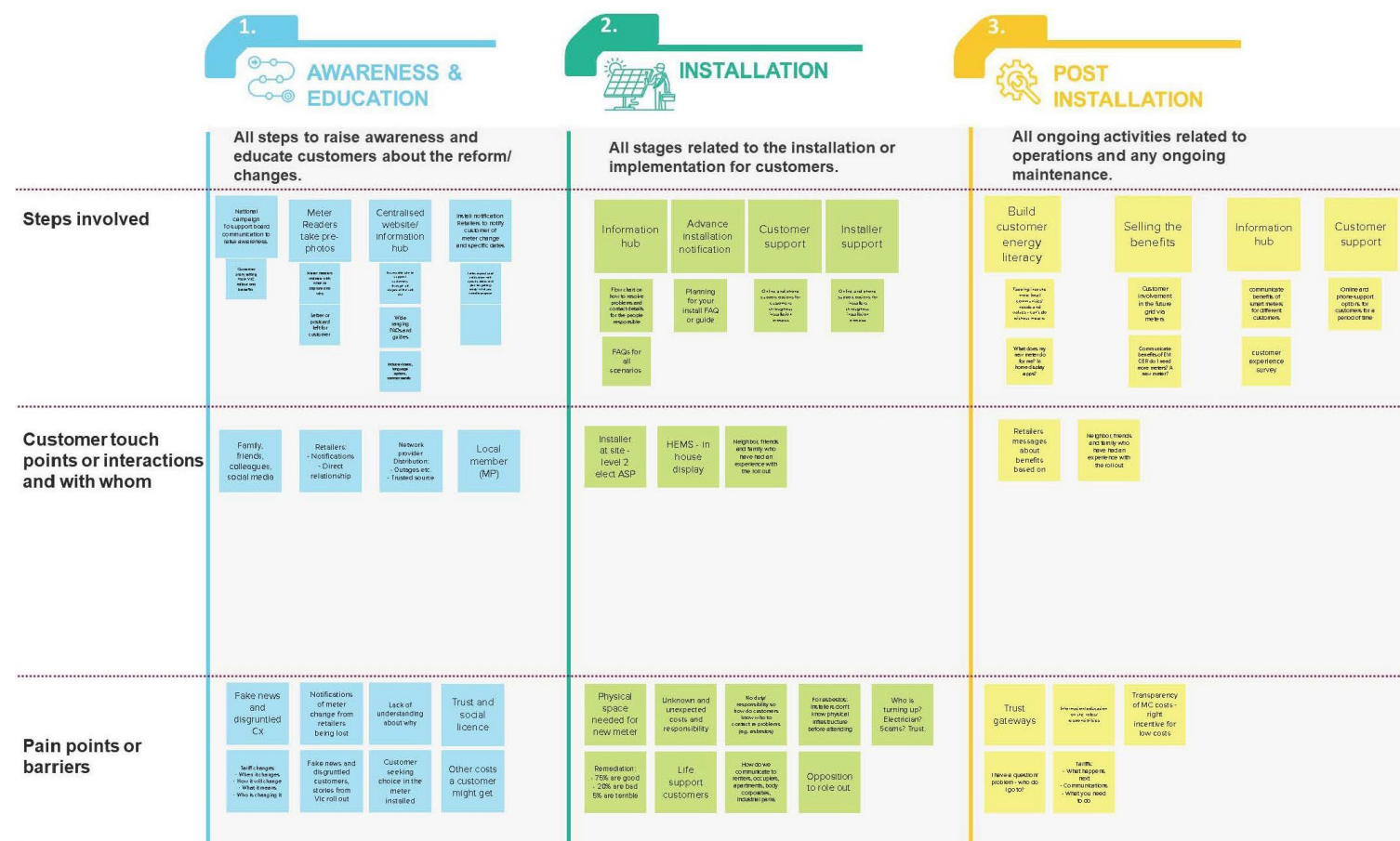
Informed by the stakeholder workshop and supported by additional insights generated by the ESB SSG, the following customer principles are proposed to guide the ongoing development of a customer journey.

Customer principles	
Early and timely communication	Communication will be critical throughout the roll out program and should commence early with clear messaging to raise awareness and continue throughout the program.
Accessible for all customers	Customers are increasingly diverse, and accessibility will need to be considered to ensure all customers are provided with accurate and timely information to play their part.
Bigger picture narrative (the why)	While the change for most customers will be minimal, they will be playing their role in the nation's energy transitions. There is an opportunity to harness a single strategic narrative that is then supported by specific messaging for specific groups.
Establish social license and trust	Communication and trust go hand in hand. Early, engaging and meaningful communication will support building trust, however consideration will need to be given to which agency is doing the communications and how they can establish trust.
Holistic to tell the whole story	Customers will need support throughout their journey and information needs to be complete and holistic. Customers will need details about their role in the program to remain active and feel ready.

# Initial customer journey map

The customer journey map includes ideas and conversation from the workshop and further input from the ESB. The journey map is intended as a starting point for further development and to support the future roll out of the accelerated smart meter program.

Develop refined infographic





# Reflections for the AEMC team

After some discussion, participants reflected on the conversation and provided these final reflections for the reform team to consider.

Reflecting on the impacts and risks, how might they be overcome? What might need to be considered?	After considering the mitigations, what are your final thoughts for the project team?
<ul style="list-style-type: none"><li>• Utilising Distribution Network Service Providers (DNSP) as they are generally more trusted than retailers.</li><li>• Learn from the experience in Victoria and allow customers some social licence to avoid hostility towards the plan.</li><li>• Address complaints in the vein of “automation is killing jobs”.</li><li>• Create a flow chart on how customers can deal with problems with their meters which includes the responsible body they can get in contact with.</li><li>• Partner with local councils regarding site defects such as asbestos.</li></ul>	<ul style="list-style-type: none"><li>• Need to address the claims that Amazon will sell on smart meter data. This was made common knowledge through an <a href="#">ABC article from 2020</a> and many customers will not trust smart meters because of it.</li><li>• Data should not be sold on to any body without customer approval.</li><li>• Customers should be moved to cost-reflective tariffs post-installation.</li><li>• Local access to metering for customers or their appointed agent.</li><li>• Fit for purpose meters – digital or smart, depending on the location.</li></ul>

# Recommendations

Following the workshop, further synthesis was conducted to consider what was heard from participants and how the AEMC could build on these customer insights as part of its review.

- **The importance of communications** – the significance of the roll out warrants consideration of communications campaigns to raise awareness and provide the customer buy in needed to activate the change..
- **Learn lessons from similar programs** – there are many lessons that could be learned from similar program such as NBN, smart meter roll out in Victoria and even the COVID-19 vaccination roll out. It is highly recommended that time is taken to learn from these examples.
- **Further customer research and testing** – to ensure effective messaging and communication channels, robust customer testing is recommended with a diversity of customers. This is encouraged to support the strategy development as well as collateral development.
- **Building trust** – building customer and stakeholder trust will be vital. It is recognised that trust is low across the sector, meaning specific actions will be required to build trust and social license for the program. Learning lessons from other similar programs, and testing messaging and early communication will all play a part in establishing trust.
- **Undertake more detailed customer journey mapping** – it has been identified throughout the Customer Insights Collaboration that installers and other parties will play a critical role in delivering a positive customer experiences with CER. More detailed journey mapping to further explore potential customer pain points and enablers identified in this workshop, with input from the metering and other service providers who play a critical role working with customers as part of the rollout, would be valuable.
- **Sector wide collaboration for the benefit of customers** – while customers are the target audience for the accelerated roll out, stakeholders from across the energy sector will need to be engaged and collaboration encouraged to work towards a successful roll out. This could be achieved through collaboration forums or implementation of a task force.