

DER IMPLEMENTATION PLAN CUSTOMER INSIGHTS COLLABORATION RELEASE 1

Knowledge Share Report
June 2022



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Foreword from Chair of Energy Security Board

On behalf of the Energy Security Board (ESB), I am pleased to release the Knowledge Share Report for Release One of the Customer Insights Collaboration. The Collaboration is helping the ESB design and deliver the DER Implementation Plan in an open and iterative way reflecting consumers' evolving experience with new energy products and services, and their expectations for the future, in a transforming market.

The Post 2025 reforms are about getting the best overall outcomes for customers, and we see their perspective on the changes which relate to their assets - assets that sit on their roofs, are parked in their garages, and indeed are managing their heating, cooling and lighting - as fundamental to our design and implementation work.

The clear message from Release One of the Collaboration is that to unlock the benefits of flexible DER and energy use and achieve the ambitions of the reforms for markets for DER, we need to meet consumers 'where they are'.

While the reforms are built on the huge potential for flexible management of these assets and energy use, to create value for customers, and underpin the efficiency and reliability of a decentralised, largely renewable energy system, we cannot take customer participation for granted.

The events of recent months, with households and businesses under pressure from rising energy bills triggered by the war in Ukraine, after two years of bushfires, floods and of course COVID-19, are a reminder of energy's role as an enabler, and an essential underpinning for Australia's social and economic health and wellbeing.

Insights from research and trials indicates that consumers who have already invested in DER are not necessarily motivated to change the way they use their assets for the rewards that are currently on offer, and access, understanding and trust are material barriers for consumers who are yet to engage with new products and services.

We need to be clear about the benefits and aim high for excellent experience at every step in the customer journey, from making a choice, to installing and learning about the equipment, to using and living with it, and getting help, and being protected when things go wrong.

The Knowledge Share Report, and the supporting rapid evidence review, provide a resource to help the market bodies engage with the issues in a systematic, and meaningful way that helps us design inclusively for systems and markets that overcome these barriers.

To make sure this report is one we act on, the Board agrees with the Stakeholder Steering Group's recommendations that Release Two of the Collaboration should lead by example by working with the DER Implementation Plan project teams to help them apply the insights. The diverse regulatory, technical and market nature of the projects means this work will need to be done in different ways suited to the process and the issues.

The other clear message in the report is that unlocking the potential of flexibility and ensuring the benefits are shared by all energy consumers in a fair and equitable way will require a collective and coordinated effort by energy companies, governments, regulators, research institutions and the civil sector.

We need to work together to inform and engage with consumers about 'flexibility' and new products and services in the context of our journey to Net Zero, and we need to work together to earn households, businesses and communities' trust to help them manage their energy flexibly. I would like to thank the stakeholders from across the energy sector who devoted significant time to the work over the last six months in a new process, by participating in the workshops and responding to the call for evidence. I would also like to acknowledge the members of the Stakeholder Steering Group, who have driven the Collaboration by refining the scope, supporting wider engagement, reviewing and synthesising the insights, and making recommendations.

It is important to note that the core group work of the Collaboration was conducted virtually which as a format has its strengths, but no doubt makes the kind of open, exploratory working on complex, nuanced issues more challenging. This Knowledge Share Report reflects the patience and flexibility of everyone who participated to have quality conversations and make progress on the issues that matter for consumers.

The Board is invested in making sure we build on and apply what we have learned about in Release One, and welcome and appreciate ongoing stakeholder participation and support.

Anna Collyer
Chair
Energy Security Board



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EXECUTIVE SUMMARY

It is clear from the Customer Insights Collaboration Release One that we need to meet customers where they are, recognising all their diverse motivations, abilities and opportunities, if we are to unlock the value of flexible Distributed Energy Resources (DER) and energy use for all consumers and achieve the objectives of the Post 2025 DER Implementation Plan.



In the Australian Energy Market Operator's 2022 Integrated System Plan* (ISP)'s Step Change Scenario, it is predicted that almost 65% of homes in the National Electricity Market (NEM) will have solar PV by 2050, contributing a massive 69 GW in capacity, and meeting one fifth of the NEM's total underlying demand. These figures are stunning and sitting behind them is an extraordinary transformation that is unfolding in Australian homes, businesses and communities, where people are installing the equipment, engaging with new products and services, and redefining their relationships with energy.

At the same time, our work in Release One reminded us that millions of Australians continue to buy and use energy from a retailer in the traditional way, and have not, or cannot engage with new energy products and services. Energy remains an essential service and we need to make sure that no one is left behind in the transition, and indeed, that the transition is harnessed as a system transformation that improves outcomes for all.

The insights we have gathered in Release One on barriers and enablers to customer reward for flexible DER and energy use indicate that there are a set of strategic priorities to unlock the great potential of flexibility:

1. *Make flexibility inclusive to unlock opportunities for all consumers*
2. *Create incentives and nudges that make flexibility easy and attractive for consumers*
3. *Communicate about flexibility to engage and empower consumers*
4. *Earn energy consumers' trust to engage with flexibility products and services*

* Page 39, ISP 2022 <https://aemo.com.au/-/media/files/major-publications/isp/2022/2022-documents/2022-integrated-system-plan-isp.pdf?la=en>



The detailed insights in these four areas in this report, draw on the input from the energy sector stakeholders who participated in the workshops, as well as from a review of the latest research and trials undertaken by ACIL Allen commissioned for Release One.

While this report does not, and cannot, seek to provide detailed answers to the context specific questions relevant to all the different aspects of the reforms, it does seek to provide a resource and a guide to help the project teams begin to immerse themselves in the perspective of the households, businesses and communities they are designing for.

Importantly, in drawing out key barriers and enablers, the report also highlights wider insights from the Collaboration about how we can better work together as a sector to frame DER and flexibility issues, fill the insights gap ACIL Allen identifies and refine the process for Release Two.

The recommendations in this Knowledge Sharing Report reflect the iterative nature of the reform task in a transforming and inherently uncertain context, and include immediate and ongoing ways to act on the insights:

1. Adopting more consumer-friendly language and terminology to help frame thinking, as well as inform and communicate benefits
2. Reviewing each DER Implementation Plan project, and the program overall, to identify barriers and how to overcome them
3. Building a strong feedback loop between trials, research and DER Implementation Plan design and implementation, with a particular focus on learning what works for consumers who haven't yet engaged with flexible DER and energy use.

The uncertain nature of the transformation also means we do not yet have the answers to many questions, and research, and learning-by-doing through trials, will need to be at the core of the reform effort.

Overview

To support the Post-2025 market reforms, the Energy Security Board (ESB) established the Customer Insights Collaboration to draw on diverse stakeholder perspectives, and the latest market research, to shed light on practical customer issues that need to be addressed to achieve the objectives of the reform, such as: improving access to DER; maximising control and convenience; and ensuring protections are there for when things go wrong.

To inform this work, the ESB issued a call for evidence in December 2021 to customer groups, industry stakeholders, research institutions and interested parties, alongside an expression of interest for membership to the Stakeholder Steering Group – to help guide the collaboration and work through the insights.

Release One of the Customer Insights Collaboration, which began in Q1 2022, called on stakeholder and interested parties to attend three workshops to explore flexibility from a customer perspective – including how rewards for responding to market conditions can be structured. The process has identified the most important barriers to households and businesses benefiting from new opportunities.

- Workshop 1 - Defining the problem – 23 March 2022
- Workshop 2 - Exploring the issues – 13 April 2022
- Workshop 3 - Synthesising the insights and opportunities – 24 May 2022

This release sets an important foundation for the Customer Insights Collaboration, by working through the most pressing customer issues that are emerging in Horizon 1 and exploring ways in which the latest insights from Australian and international trials and research can shape design.

The role of flexible DER and energy use

The critical role of flexible DER was highlighted in AEMO's 2022 Integrated System Plan, which stated

“The most pressing need in the next decade isto manage daily variations in fast growing wind and solar output.....modelling forecasts that VPPs, vehicle-to-grid (V2G services and other emerging technologies will provide approximately 31GW of dispatchable storage capacity, and utility-scale battery and pumped hydro storage 16GW”

That is:

- Flexible DER will provide double the dispatchable capability of grid scale solutions
- Energy consumers are a critical part of the efficient operation of the future grid
- Greater urgency is required to addressing the existing barriers to maximise the benefits of flexible DER for all stakeholders
- All energy consumers should benefit from the use of flexible DER by increasing the amount of lower cost Variable Renewable Energy that can be reliably accommodated in the grid.

About this report

This Knowledge Share Report outlines the approach taken as part of Release One and the insights that have been developed that will continue to shape the work of ESB, and others, towards the Post-2025 reforms. This is a record of the engagement undertaken, feedback collated and recommendations that have been proposed as a result of this process.

This report represents the synthesised insights and conversations recorded as part of the engagement approach. All individual discussion items and contributions have not been included. The report is a summary and views of all participants may not be shared by all.

The focus of Release One of the Customer Insights Collaboration was to shed light on the barriers and enablers to customers engaging in flexible products and services.

This engagement sought to:

- Leverage existing evidence through publicly available research and that shared with ESB by stakeholders.
- Co-design customer insights with stakeholders through the SSG and collaboration workshops.
- Generate insights that would support the ongoing development of reforms across the DER Implementation Plan and Post-2025 reforms.

This engagement did not seek to:

- Generate new customer research.
- Engage directly with consumers.

This report should be consumed in conjunction with the ACIL Allen Report Barriers and enablers for rewarding consumers for access to DER assets and flexible demand.

Recommendations and next steps

The Release One Customer Insights Collaboration gathered a range of insights that will shape the ongoing development of the DER Implementation Plan. The following key recommendations have been identified as result of this work.

Collaboration insight		Recommendations
Adopt more consumer-friendly language and terminology	Where appropriate, the sector should adopt simpler, more inclusive and relatable language and terminology making it easier for consumers to engage with, and understand flexible energy products and services, the way the energy system is transforming, and the DER Implementation Plan reforms.	<p>This should include:</p> <ul style="list-style-type: none">• Referring to the energy assets and forms of flexibility owned or enabled by consumers as Consumer Energy Resources (CER).*• Adopting a broad and inclusive definition of flexibility which includes the full range of CER assets and sources of flexibility, from solar panels, batteries and EVs, through to hot water load control and energy use practices and behaviour.• Actively engaging with consumers to understand and test concepts, products and services.
Apply the Release One insights through DER implementation plan	The insights generated through the Customer Insights Collaboration in Release One have the potential to immediately shape the outcomes of the DER Implementation Plan reforms. Supported by the DER Implementation Plan customer outcomes, the insights should be further developed and applied in Release Two.	<p>This should include:</p> <ul style="list-style-type: none">• Work with project teams across the market bodies progressing DER Implementation Plan reforms to identify relevant barriers and enablers and influence for design and implementation to achieve the desired customer outcomes.• The ESB work iteratively with the market body teams progressing specific reform projects with cross-cutting implications for consumer experience and outcomes. These are likely to be particularly relevant to reform projects such as the retailer authorisation and exemptions, interoperability and scheduled lite workstreams to apply the insights leveraging human-centred design methodologies.• Insights about barriers and enablers inform the ESB's ongoing consideration of the overall impact and cohesiveness of the DER Implementation Plan and ongoing work plan prioritisation.

*Note this report uses the term 'DER' which was the language used as the insights we gathered in Release One. Going forward, we recommend 'CER' be adopted.

Collaboration insight		Recommendations
Support customer centric thinking through methods and tools informed by evidence for better outcomes	<p>Through the Collaboration, insights were gathered and generated about diverse consumer experiences and expectations in relation to CER - particularly consumers who are not able to, or may choose not to, engage with flexible CER and energy use and for whom insights are limited.</p> <p>Recognising the reform project teams work processes and timelines, develop tools and capabilities that help the project teams apply customer insights.</p>	<p>This should include:</p> <ul style="list-style-type: none">• Further development of key insights including the customer participation profile concept to provide a practical guide to support customer centric project development, reform design and outcomes.• Strengthening the collaboration, scoping and feedback loops between research and trials and the design and implementation of the DER Implementation Plan.• Engaging directly with representative groups of consumers through fit-for-purpose deliberative processes such as a customer panel or focus groups to further enhance the Customer Insights Collaboration.• Identify and begin to gather insights needed for future releases of the Collaboration and forthcoming DER Implementation Plan projects.

Households, business and communities in a changing energy market

During Release One energy prices in some parts of Australia rose dramatically, making it harder for households and businesses to afford their energy bills. Coming in winter 2022 when people are relying on their energy supplies to keep their homes warm to stay comfortable and healthy, these developments are a reminder of the essential nature of energy services and the challenge of managing the transformation.

The Integrated System Plan (ISP) forecasts that the size of the energy resources in consumers' homes and businesses will rival and exceed grid scale resources over time. Consumers across all energy use and technology ownership profiles are integrate partners in managing volatility and change. This is true today and will accelerate in significance as we progress through this and future decades.

Flexible DER and energy use has the potential to provide a large number of consumers with safe, reliable and cheap energy. However, to realise this potential, households, business and communities are at the centre of this transition. Their ability to access, understand and engage with flexible DER and energy use products and service that meet their needs is critical to unlocking the value for the network. As in the design of market setting, structures and protections that shape product and organisational decisions making and market outcomes.

This report shares stakeholder views that these developments should add to the urgency and focus needed to unlock the value of flexible DER and energy use which can play a vital role in maintaining the affordability of energy for all consumers.



CO-DESIGNING CUSTOMER INSIGHTS WITH STAKEHOLDERS



Iterative, evidence-based engagement

Over the course of four months the Customer Insights Collaboration sought to draw on diverse stakeholder perspectives, and the latest market research, to shed light on practical customer issues that need to be addressed to achieve the objectives of the reform, such as: improving access to DER; maximising control and convenience; and ensuring protections are there for when things go wrong.

This iterative, evidence-based approach was delivered through three key engagement activities:



The approach to engagement

- **Iterative** – using human centred design feedback, insights and knowledge collected through the Collaboration Workshops and SSG was used to explore the issue and iterate outcomes. Key ideas heard from stakeholders were iterated and tested throughout Release One to develop meaningful insights that could shape the DER Implementation Plan.
- **Evidence based** – feedback collected through Collaboration Workshops and SSG was supported with the evidence that was collected through the Call for Evidence as well as material provided by representatives of the SSG and other key contributors.

Rapid evidence review

More than 60 pieces of research and evidence was analysed by ACIL Allen.

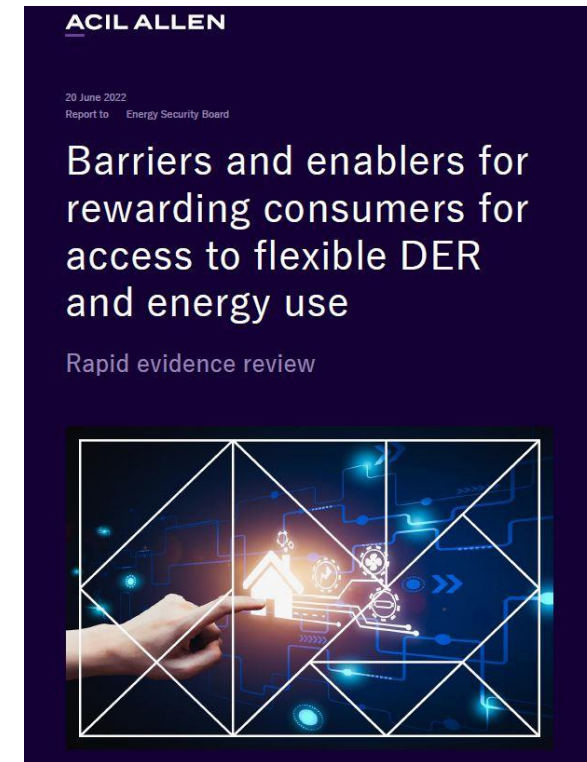
The call for evidence was intended to establish an evidence base for the Customer Insights Collaboration, including the latest insights emerging out of real world DER and demand flexibility trials, customer research and other relevant work.

ESB launched a call for evidence across the energy sector calling for any reports and insights to be shared from industry trials, customer and industry research, and other sources that would help shed light on customer barriers for flexible DER and energy use.

The review provided critical evidence that has shaped the Customer Insights Collaboration and provided support to the key insights. The review supports the critical barriers and enablers identified through the collaboration workshops and enhanced by the SSG.

The review also provides an understanding of the current DER customer journey including the barriers and enablers to rewarding customers for access to their flexible energy use. The review should be considered in conjunction with this knowledge share report.

The ACIL Allen Report is a source of more detailed insights, and a map of the literature, for policy makers and service providers.



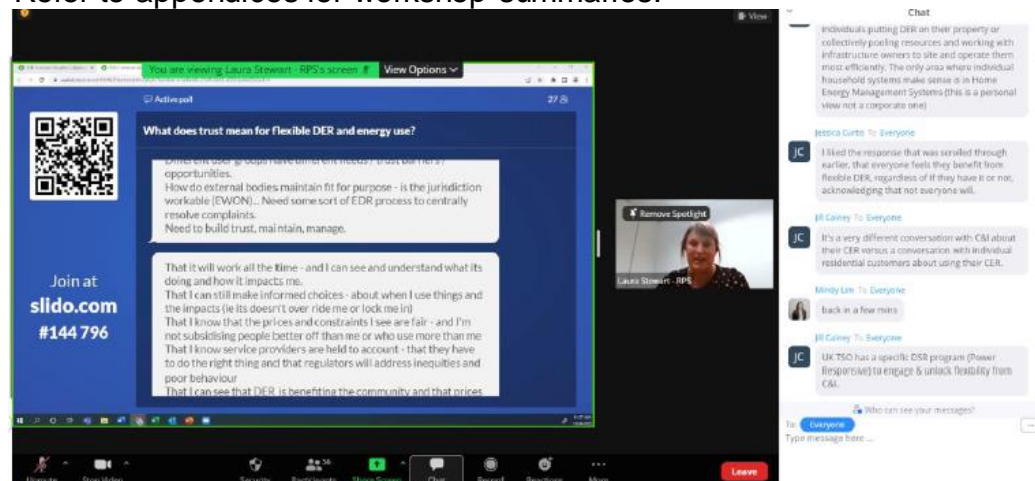
[Access the full report here](#)

Collaboration workshops

Stakeholders and interested parties were invited to participate in a series of collaboration workshops on the topic of **barriers and enablers to customer reward for flexible DER and energy use**. The workshops attracted a diverse group of customer, retailer, network, technology, market body, government, clean energy providers and academic stakeholders. Each workshop included 60-70 participants.

The workshops were designed to share, generate and test customer insights that would help to shape the DER Implementation Plan activities and inform adjacent policy or regulatory issues more broadly. All workshops, which were held virtually, and included a mix of presentations, small group discussions, and human-centred design exercises.

Refer to appendices for workshop summaries.



Participation and data

- ✓ More than 60 participants in each session
- ✓ More than 1200 pieces of feedback received across the three sessions
- ✓ 42 sources analysed with feedback collected through survey, mural boards and zoom chat across the three sessions

Customer Insights Collaboration Workshop 2: Exploring the issues (and opportunities)

INSTRUCTIONS AND DISCUSSION GUIDE

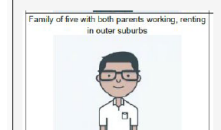
The objective of this activity is for you to provide your thoughts on shaping the focus areas and direction of the customer insights collaboration. We ask that you have a conversation and capture your feedback and ideas.

Importantly this should be customer-centric. We have provided you with a customer profile. Please use this to walk in their shoes and guide your discussion.

Remember a scribble to capture the group's feedback. You are all welcome to contribute to the mural.

Questions to consider:

- How do you define the focus areas relevant to flexible DER and energy use?
- What do you think the customer needs?
- What enablers should be leveraged to encourage this customer to participate?
- What might be the most suitable flexible DER and energy use options (refer to the shortlist provided - there will be others)?
- What other factors should we be looking for inspiration to remove the barriers and encourage participation?
- Do you have research you can share to shed some light?



Flexible DER and energy use examples

- Rooftop solar
- Battery systems
- Demand Response
- Smart meters
- Electric vehicles
- Controlled loads (ie hot water systems)
- Microturbines
- Pool pumps

There may also be others

Focus area	What are the barriers or enablers for this customer?	How can flexible DER and energy use benefit this customer? What could a good outcome look like for this customer?	Are there any examples of good practice? Any sectors we could learn from? Reliable evidence or research?
How can flexible DER and energy use be designed to work for all customers?	Be as simple and low-touch for busy people Key barrier for this customer: retrofitting, at work during the day so can't control demand Potential for set & forget products but may require investment from landlord Would rely on landlord making decisions & investment. So little control in rentals. Smart subsidies for solar for landlords or some kind of asset financing for the party unless they have a super engaged landlord Energy literacy/time to navigate complex information DER has been shown to reduce energy costs Opportunity for VPP or similar to unlock opportunity but need accessible info no loss of energy utility (particularly hot water) Automation or instruction in how to maximise benefits reduction in likely very high electricity bills (3 kids)	Govt program - some & insulation in Murrumbidgee for low EE houses - any data from that Some initiatives offer rebates for landlords and but they require big decisions that many can't navigate don't want to make the effort GLD water efficiency standards - water bills cannot be sent to customers if water efficiency isn't in place	Minimum rental standards for heating and cooling Shifted Energy in tenant hot water fees in large households Victorian Energy Upgrades Program
What incentives work for customers and support flexible DER and energy use?	Unless you're incentivising purchase of non-fixed appliances Energy efficiency is the threshold question - can't flex heating & cooling if your house leaks Making the incentive simple & set and forget Long-term lease agreements (5 yrs) to facilitate investment Affordability thing but also communicating and understanding Renting in UK people have lived, making introduced user & barriers via govt investment and might people to manage loads to max returns Lower bills with no loss of energy service Comfort while maintaining the low bills - not being worried to turn on the AC	Furnishing real estate agents with marketing material for Solar Vic Solar for renters program Moving controllable loads to daytime (in NSW)	
How do we talk to customer about flexible DER and energy use?	Helping customers work in their landlords Just as important to talk to landlord as householder Empowering customers with some kind of rights if they ask Building engagement with customers on options re DER	DELWP pilot with AEP looking at solar for renters Experience of SunTennants	
How do we build trust with customers to help them manage their flexible DER and energy use?	Reliant on others making decisions on their behalf - who's interest are we acting on and how do benefits flow Considering making the landlord pass on some of the benefit in some way Easy to understand and transparent explanation of incentive basis Enhance and add to broader community outcomes that are being achieved. Bring people on journey regardless of their ability to engage	Perceptions of trust in recycled water provision Water rates for tenants: fixed and variable tariffs	

Stakeholder Steering Group (SSG)

The Stakeholder Steering Group (SSG) was established to support and oversee the Customer Insights Collaboration. The SSG for Release One was made up of eight stakeholders that represented a range of perspectives from technology, networks, retailers, market bodies, consumer organisations, clean energy providers and academic institutions. The SSG met weekly and was the driving force behind the synthesis and iteration of evidence gathered through the call for evidence and collaboration workshops.

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 DER and energy use for all customers.
- Embrace *inclusive design* and the value in immersing ourselves in the needs, expectations, values and circumstances of customers and recognise our own limitations and biases. Necessarily iterative.
- Make *progress* ... prioritise to move forward and we should focus on the things that the Collaboration is best placed to address in this Release.
- Develop insights that our *audience* can apply i.e., 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

Customer Insights Collaboration – Stakeholder Steering Group

- **Chantelle Bramley**, Executive General Manager, Corporate Affairs, Essential Energy
- **Chris Alexander**, Energy Security Board
- **Janine Rayner**, Head of Communications and Policy, Energy and Water Ombudsman (Victoria)
- **Jordan Tasker**, Director, Consumer Projects, Australian Energy Regulator
- **Dr John Gardner**, Consumers and Resource Use, CSIRO
- **Matthew Giampiccolo**, Senior Regulatory Adviser, Simply Energy
- **Mindy Lim**, NETCC Manager, Clean Energy Council
- **Terry Daly**, Director New Energy, Rheem Australia
- **Wendy Miller**, Senior Advisor, Energy, QCOSS
- **William Edmonds**, Associate, Bloomberg New Energy Finance

Synthesising the evidence into insights

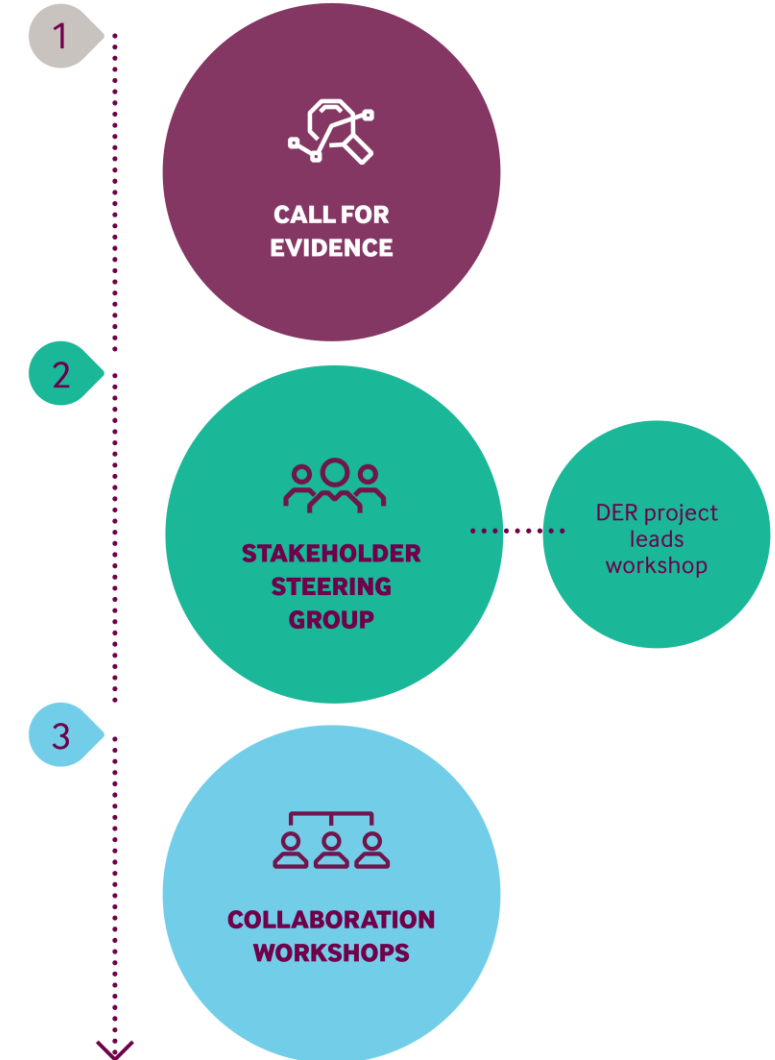
Throughout the Customer Insights Collaboration feedback and data was collected through various formats. This included workshop activities, surveys, online polls and Q&As. In order to systematically make sense of the data and create meaning from the diversity of perspective a process of syntheses was conducted. This synthesis involved:

- Thematic coding of qualitative data
- Analysis of quantitative data
- Identification of affinities, patterns, and themes
- Summarise and present findings through workshop summaries* and presentations to the SSG
- Collaboration and iteration with SSG.

The analysis of workshop outcomes were shared through three workshop summaries now available [here](#).

Evidence collected through the engagement was validated and further iterated using the Rapid evidence review.

Together the evidence gathered from all sources was combined and further synthesised through the development of this knowledge share.



CRITICAL CUSTOMER BARRIERS AND ENABLERS



A complex topic with diverse perspectives

As we explored the ACIL Allen evidence, participated in and worked through the Customer Insights Collaborations Workshop feedback and collaborated with the project teams, the following discussion points emerged.

- **Defining DER:** What do the debates about defining ‘DER’ and ‘flexibility’ tell us? How do we get to a shared understanding so we can engage with consumers in a clear and consistent way? Why are we still debating terminology?
- **Customer diversity:** How do we apply the ACIL Allen finding around customer diversity, and how the DER Implementation Plan can achieve outcomes for all consumers over time. Who is likely to participate and when? How will innovation play out for different consumer groups? Why have some trials found it difficult to recruit customers to participate?
- **Benefiting all:** How can flexible DER and energy benefit everyone – including consumers like renters and people on low incomes that face barriers to installing rooftop PV and batteries? How could these groups who may find ‘keeping up’ the hardest, access abundant, low-priced electricity in the middle of the day?
- **Frameworks:** Given ACIL Allen’s finding that understanding aspects of customer diversity is critical, what are the best and most relevant segmentation frameworks for the issues the project teams are grappling with? What are the first questions the project teams should ask? Why have policy makers found it difficult to apply the segmentation frameworks and other ways of understanding customers that have been developed?
- **Simplicity:** What do the consumer preferences for simplicity, revealed through ACIL Allen, and reiterated in workshop discussions, imply about the level of support consumers will need to manage their DER and energy use flexibly? Are there limits to the amount of flexibility consumers can deliver through behaviour change? How much of a role will ‘automation’ play and what forms will automation take?

Moving the conversation forward

This knowledge share should be read with these four key assumptions in mind.

These assumptions include:

1. Household energy flexibility is critical to the success of an optimal transition and energy future.
2. This is not a on-product market; flexible DER and energy use will span an ecosystem of products and services, enabled by reforms and system solutions.
3. All customers are market participations and therefore receive benefits and costs from flexible outcomes.
4. To-date, pricing signals are not demonstrably effective in motivating consumer actions in line with system interests.

Assumptions and principles support clear decision-making anchoring analysis of evidence and enabling identification of key insights. These have been developed through the customer insights collaboration.

Critical customer barriers and enablers

The Customers Insights Collaboration sought to shed light on the most important barriers to households and businesses benefiting from flexible DER and energy use. Informed by the perspectives gathered through the rapid review, collaboration workshops and SSG, the critical barriers identified in Release One provide a foundation for the ongoing development of the DER Implementation Plan.

The critical barriers and enablers uncovered are:

- Inclusion and equity
- Incentive and nudges
- Communication
- Trust

To provide a straightforward view of the key insights and help orientate the project teams to designing out these barriers and unlocking customer value and participation, project teams are encouraged to 'immerse' themselves in the perspective of the households, businesses and communities they are designing for using the following advice.

- Strategic challenges
- Guiding assumptions
- Key design and implementation questions



Critical barrier 1: Inclusion and equity

WHAT WE LEARNT	<p>Customers are diverse and have different motivations, abilities and opportunities to access flexible DER and energy use. However, we have accepted that all customers should have access to flexible DER and energy use based on how they choose to participate and should benefit by the sectors advancement. To respond to this diversity, policy makers, project teams and product designers must consider how they are reaching all customers. As a sector we also need to use a range of methodologies to engage with and understand customers and consider the practicalities of participation as well as traditional socio-economic segmentation approaches.</p>
STRATEGIC CHALLENGE	<p>To unlock opportunities for flexible DER and energy use to work for all consumers regardless of circumstance or accessibility.</p>
GUIDING ASSUMPTIONS	<p>There is evidence many consumers cannot access popular forms of DER and are at risk being left behind as the market evolves.</p> <p>Research and trials focused on flexible DER and energy use sheds most light on the experience of early adopters, but there is less evidence about the experience of other customers. Understanding typical barriers that prevent adoption of new products or service offerings can be used to inform the DER implementation plan while further evidence is gathered.</p> <p>More effort is needed to better understand and engage with wider groups of customers to provide insights about how to make flexibility more inclusive.</p> <p>Stakeholders identified existing and mature flexibility products and services (e.g., load control) that have the potential to work for consumers who have not yet benefited from DER.</p>
DESIGN AND IMPLEMENTATION QUESTIONS FOR FUTURE REFORM	<ul style="list-style-type: none">• How can the DER Implementation Plan reforms be as inclusive as possible to maximise benefits for all consumers?• Who will be able to access the opportunity and how will they benefit?• Who may not be able to access the opportunity and how can they be empowered?• How can benefits be shared with those who may not directly participate?

Critical barrier 2: Incentives and nudges

WHAT WE LEARNT	Customers may be inclined to stick with the status quo unless they see value in flexible DER and energy use. To overcome this, it will be critical to improve access to value streams (e.g., 'value stacking'), offer more compelling incentives which go to the range of financial and non-financial values motivating consumers, and provide transparency around how the benefits are shared. Schemes to reduce the costs of new technologies have a role to play in widening access to flexible DER and energy use.
STRATEGIC CHALLENGE	Creating incentives and nudges that make flexibility easy and attractive for consumers
GUIDING ASSUMPTIONS	<p>Consumer motivations in relation to flexible DER and energy use – how they want to be rewarded – is diverse, and include economic, community and environmental benefits.</p> <p>Saving money, optimising own energy use and self-sufficiency are strong motivators for some consumers and may act as a barrier to engaging in flexible DER and energy use for a market reward.</p> <p>The way rewards are structured, communicated and where they fit in the customer journey for a product or service can influence engagement. Transparency around how rewards are shared – particularly where they change over time – is valued by many consumers.</p> <p>Incentives work best when complemented by information, tools and support to help consumers respond to price signals. There is evidence that suggests that in relation to incentives, carrots work better than sticks.</p>
DESIGN AND IMPLEMENTATION QUESTIONS FOR FUTURE REFORM	<ul style="list-style-type: none">• Is the opportunity attractive – does it create value in the eyes of the consumer or appeal to their broader motivations?• How will customers perceive the value and characteristics of the product or service?• Can customers easily understand the proposition?

Critical barrier 3: Communication

WHAT WE LEARNT	<p>The energy sector is still learning how to communicate with consumers about flexible DER and energy use. Information needs to be tailored to the customer's particular circumstances or risks being too complex or confusing (e.g., too technical), or not compelling in terms of value and benefits. We heard feedback that communications for culturally and linguistically diverse (CALD) customers, and small businesses, was a particular issue.</p> <p>A strong message from stakeholders was that the communications challenge requires a coordinated, and consistent approach by the sector, with a recurring question being 'who' should lead efforts to inform consumers about the energy transformation. Understanding the communication needs at each step in customer journeys shaped by the reforms can inform these discussions.</p>
STRATEGIC CHALLENGE	<p>How do we talk to consumers about flexible DER and energy use?</p>
GUIDING ASSUMPTIONS	<p>Communicating with consumers about flexibility products and services, and where they fit into the bigger picture of a changing energy market, is challenging.</p> <p>Energy market stakeholders use a variety of different terminologies and framings to discuss consumer issues around DER. Clarity of vision for the desired long-term outcomes for consumers is seen as important for alignment and progress.</p> <p>Communications are generally more effective when the benefits are communicated in terms that are relevant to the way consumers live their lives, run their businesses and support their communities.</p> <p>Consumer communications which are framed around system requirements may not be as effective.</p> <p>A question raised by stakeholders is who should lead public discussions and support consumer education around DER.</p>
DESIGN AND IMPLEMENTATION QUESTIONS FOR FUTURE REFORM	<ul style="list-style-type: none">• How can flexibility opportunities be communicated to consumers in a way that fits into their lives, businesses and communities?• Is the information accessible for diverse customers?• Can the communication be targeted to meet customer needs and expectations?• What do customers need to know at each step in the customer journey and who is best placed to communicate that information?

Critical barrier 4: Trust

WHAT WE LEARNT	<p>The evidence suggests a lack of trust in institutions and organisations as well as in flexible DER products and services. Trust is critical in public acceptance and advocacy of new technologies, as well as the transformation of the energy sector.</p> <p>Trust can be earned through simplicity, using trusted channels and voices, adopting inclusive approaches to design and transparency.</p>
STRATEGIC CHALLENGE	<p>How does the energy sector earn consumers trust to unlock the benefits of flexible DER and energy use?</p>
GUIDING ASSUMPTIONS	<p>Flexibility is a new, potentially complex proposition and consumers will need to trust service providers in a range of ways including terms of technology choice, control and agency, privacy and cyber-security and value sharing.</p> <p>A lack of trust with the service provider, the sector or institutions in general can be a barrier to consumers engaging with flexibility propositions. Surveys suggest trust in the sector is not high, and consumers may seek to retain higher levels of personal control.</p> <p>Frictions in today's customer experience (e.g., who to contact when things go wrong) is a source of frustration and undermines trust. Trust can be earned at every step in the customer journey.</p> <p>The multifaceted nature of trust means there is a role for all stakeholders in the sector to play a part in earning it.</p>
DESIGN AND IMPLEMENTATION QUESTIONS FOR FUTURE REFORM	<ul style="list-style-type: none">• What principles does this project need to embed to build trust?• How can the design and implementation of the project build trust amongst participants and brings everyone along the journey?• Does the reform, product or service meet customers where they are to enhance participation?

COLLABORATION INSIGHTS AND MOVING FORWARD



So, what does this all mean?

As well as shedding light on barriers that currently prevent customers from accessing and benefiting from flexible DER and energy use, this Collaboration has also revealed a series of insights that will shape the ongoing work by ESB and the development of the DER Implementation Plan. Along with each of these collaboration insights, specific recommendations have been identified to help realise the DER Implementation Plan customer outcomes.

Adopt more consumer-friendly language and terminology	Apply the Release One insights	Support customer centric thinking through methods and tools informed by evidence for better outcomes
Where appropriate, the sector should adopt simpler, more inclusive and relatable language and terminology making it easier for consumers to engage with, and understand flexible energy products and services, the way the energy system is transforming, and the DER Implementation Plan reforms.	The insights generated through the Customer Insights Collaboration in Release One have the potential to immediately shape the outcomes of the DER Implementation Plan reforms. Supported by the DER Implementation Plan customer outcomes, the insights should be further developed and applied in Release Two.	Through the Collaboration, insights were gathered and generated about diverse consumer experiences and expectations in relation to DER - particularly consumers who are not able to, or may choose not to, engage with flexible DER and energy use and for whom insights are limited. The Collaboration should directly engage with households, businesses and communities to complement the insights coming through the research and workshops.

DER Implementation Plan Customer Outcomes

The DER Implementation Plan aims to deliver the following customer outcomes:

- Consumers have access to secure, reliable, affordable and sustainable energy no matter how they chose to participate.
- Consumers are able to realise the value of their flexible demand and DER.
- Fit for purpose protections framework improves experience for all customers.

Collaboration insight 1: Adopt consumer-focused language and terminology

One consistent piece of feedback was the importance of the barriers and enablers of trust and communication and the need for clear, consumer-focused and consistent language. We heard from the *call for evidence* that language was a critical barrier for customers.

However, when this was explored further through the *collaboration workshops* and SSG, it was evident the issue of language was not limited to customers and in fact there is a wide-ranging diversity of perspectives around terminology and expectations that results in a lack of clarity across the industry.

It was proposed and tested through the Customer Insights Collaboration that more inclusive, customer-orientated definitions be developed and adopted.

The SSG adopted the term *flexible DER and energy use*, which highlights the fact that flexibility can be delivered in a variety of ways beyond what might be commonly considered to be 'DER' and reducing acronyms.

Energy Consumers Australia has also recently proposed that 'DER' be reframed as 'Consumer Energy Resources' or 'CER' which shifts the perspective from where the resources are located in the system, to who owns them. This reframing is consistent with the ambition for a customer-centric DER Implementation Plan we heard in Release One.

Proposed recommendations to be adopted by ESB and sector:

- Referring to the energy assets and forms of flexibility owned or enabled by consumers as **Consumer Energy Resources (CER)**.
- Adopting a definition of flexibility which includes the full range of CER assets and sources of flexibility, from solar panels, batteries and EVs, through to hot water load control and energy use practices and behaviour. As well as future innovations not yet considered.
- Actively engaging with consumers and consumer facing product developers to understand and test concepts, products and services.

“

We need to start pushing a narrative forward on DER – it will require further refinement but we need to start in order to create a consistent conversation. The narrative has to be at the forefront of every meeting and conversation.
– SSG Member

”

A more meaningful definition of flexibility

We were reminded in Release One of the Collaboration that how we talk about new energy products and services, and the way the energy system itself is transforming, can itself be a barrier to discussion and collaboration. Even among energy sector experts who work with each other regularly, a range of words and terminologies are used to describe similar issues and concepts. Sometimes, the choice of words reflect alternative or contested views of the issues.

This is understandable given the complex, technical nature of a transforming energy system, and the diverse consumer and community needs it serves. As we encounter new opportunities and challenges, and develop new products and services, language will evolve to capture and characterise what is happening and inform how the sector and the community responds.

This started with being clear about how we talked about Distributed Energy Resources, and in particular ‘flexible DER’.

Feedback from stakeholders was clear that DER was not just about solar panels and batteries, but also included the range of other assets (e.g., smart appliances, hot water load control, EV’s and behavioural measures) available to consumers to manage their energy use in a flexible way. We therefore adopted the phraseology ‘flexible DER and energy use’, to be explicit about this point.

Importantly, this broader characterisation of flexibility supports more inclusive thinking about how flexibility can benefit all consumers, because it includes opportunities which might not be available to households and businesses who can’t install solar panels, batteries and other products.

Collaboration insight 2: Apply the Release One insights

The Energy Security Board recognised the importance of making sure the reforms work for consumers by establishing the Customers Insights Collaboration. Release One has highlighted the need to place the customer at the heart of the DER Implementation Plan, and to do so in a pragmatic way that will influence project design and decision making.

The ACIL Allen rapid evidence review provides insights about the barriers and enablers across the customer journey for a range of forms of DER. Through the *collaboration workshops*, stakeholders further supported the need for the DER Implementation Plan to design with the customer at the centre – recognising that traditional 'grid or system' thinking would not achieve the ambitious and critical outcomes the DER Implementation Plan is seeking.

The big challenge from here is to apply the insights.

The SSG has distilled what it heard into what it believes are the key customer insights from Release One and organised them in an accessible form for policy-makers grappling with complex system, market and regulatory issues.

Its view is that the best way to apply the insights is working together – starting in Release Two by helping the project teams identify the relevant barriers and enablers, dig into the detailed insights in the ACIL Allen report and beyond, and shape the design.

Proposed recommendations to be adopted by ESB and sector:

- **Work with project teams across the market bodies progressing DER Implementation Plan reforms to identify relevant barriers and enablers and influence for design and implementation to achieve the desired customer outcomes.**
- **Insights about barriers and enablers inform the ESB's ongoing consideration of the overall impact and cohesiveness of the DER Implementation Plan and ongoing work plan prioritisation.**
- **Further development of key insights including the customer participation profile concept to provide a practical guide to support customer centric project development.**

“

Achieving outcomes will require DER implementation to be shaped by consumer needs, 'simple' engagement and benefit – rather than trying to shape consumers lives to benefit from DER.

- Workshop 2 participant

”

Applying the insights – case study

AER Retailer Authorisation and Exemption Review

The [consumer risk assessment tool](#) was developed by the ESB in consultation with customer advocates and key industry stakeholders and forms a key part of the DER Implementation Plan. It provides a set of consumer protection principles to help market bodies explicitly consider consumer benefits and risks as part of, and alongside, design and development of market reforms.

The AER is using the tool as part of its review of the [retailer authorisation and exemptions framework](#).

Importantly, using the tool to identify risks and protect consumers, is only as good as the insights we have about the diverse needs and expectations consumers have in relation to new energy products and services. Relevant findings from Release One include:

- *Service providers will need to be attuned to consumer diversity and tailor their products, services and support accordingly.*
 - Consumers ability, opportunity and motivation to engage with new products and services is diverse, depending on their specific circumstances and the nature of the product or service e.g., complexity, up-front costs etc. (ACIL Allen page 32).
- *Consumers will need a level of ongoing support to get the most out of the products and services.*
 - There are potential barriers and enablers in each step in the customer journey for energy products and services, ranging from how effectively service providers work together to support customers through the installation process, challenges understanding the app interface once installed, loss of connection during to summer storms and internet outages, and clear contact channels and complaints processes (ACIL Allen page 63-67).
- *Wider issues around communications and trust in the energy sector (and institutions more generally) will inform consumer engagement with products and services.*
 - Legacy trust issues associated with factors such as privatisation, increasing energy bills and perceived gaps in long-term planning compound the challenges of explaining and motivating consumers to engage – particularly in relation to more sophisticated/complex services (ACIL Allen page 38).

In Release Two of the Collaboration, participants will help explore these issues in detail, to help provide a factbase for the risk assessment, and insights about how to support customer experience and outcomes.



To read about the review, [click here](#)

Collaboration insight 3: Support customer centric thinking for better outcomes

We know from the *Collaboration Workshops, call for evidence and SSG*, that many different methodologies for engaging with and understanding consumers have been developed. These include personas, archetypes, socio-demographic profiles which categorise and organise customers into different segments (ACIL Allen pages 14-21). The feedback from stakeholders was that it can be challenging for stakeholders to use these frameworks as design tools.

Often in the workshops, the discussions defaulted to a binary classification of those with DER and those without DER. Release One insights have identified high level-questions that the DER implementation project teams should be asking during design as a gateway into the more detailed customer insights that are explored in the ACIL Allen report.

How customers participate with energy is a thread that runs through the barriers and enablers we have identified. In response, the SSG has developed a lens to help project teams consider how customers participate in flexible DER and energy use.

This participation lens was tested with stakeholders, including the ESB project teams and sector stakeholders to advance the conversation.

There was also a view from some participants that there were limits to the insights that energy market stakeholders could provide through human-centred design exercises which have them adopt a customer persona. Engaging directly with households, businesses and communities about the issues was seen as a critical missing aspect of the Collaboration.

Proposed recommendations to be adopted by ESB and sector:

- Further development of key insights including the customer participation profile concept to provide a practical guide to support customer centric project development.
- Strengthening the collaboration and feedback loops between research and trials and the design and implementation of the DER Implementation Plan.
- Engaging directly with representative groups of consumers through a fit-for-purpose deliberative processes.
- Identify and begin to gather insights needed for future releases of the Collaboration and forthcoming DER Implementation Plan projects.

“

Make sure the customer remains the beating heart of the electricity system & that the need for any reforms are tested on the basis of what the customer needs.

– Workshop 3 participant

”

Thinking differently about customers – participation lens

As the SSG grappled with consumer diversity and the extent of the barriers and enablers, the discussions kept coming back to a basic question: how and will consumers 'participate' in the market for flexible DER and energy use?

The insights from the research review and feedback from stakeholders indicates that flexible DER and energy use is not necessarily aligned with the way people live their lives and run their businesses.

For consumers who do not have a particular interest in actively managing their energy use, and take on additional 'mental load' to do so, how might they be motivated and supported to participate?

And what about the substantial group of consumers who - in the view of many of the stakeholders we engaged with - either 'cannot or will not participate' even under the most optimistic flexibility scenarios?

The research and trials indicate that there are (reasonably) four distinct ways in which consumers participation in the energy system, and flexible energy use, is possible:

- *Behaviour change* i.e., can change their behaviour around when they use their appliances in response to a price or other signal;
- *Self-manage* i.e., they can self-manage their DER and energy use to meet their own needs, with any flexibility that is provided to the market being incidental to their primary purposes;
- *Enabled* i.e., they can delegate the task to a third-party service provider who can manage their DER or energy use in a flexible way on their behalf, including through automation; and
- *Indirect* i.e., they can provide flexibility indirectly through default tariff, technology and other settings without actively seeking to be flexible.

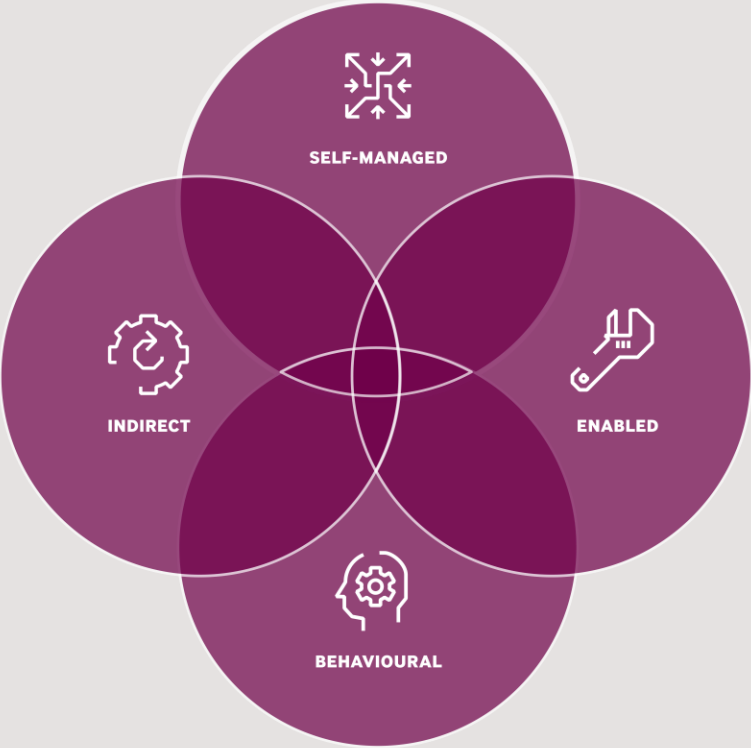
Importantly, we have insights about the experience of consumers with these different modes of flexibility and the relevant barriers and enablers. For example:

- The research and trials indicate that consumers who have invested in solar and batteries to manage their bills and energy independence - who may fit into the 'self-managed' category - may not be motivated to provide flexibility to the market because of perceptions about a loss of autonomy and control (ACIL Allen page xiv).
- Similarly, while third party support, and automation, potentially provides a way for consumers to delegate the complexity and work of actively managing their DER and energy use in a more flexible way, the insights indicate trust in the energy sector and service providers is a material barrier (ACIL Allen page x).
- And while behaviour change may not require expensive equipment, it can be difficult, for example, for households with families to agree and change when they use electricity (ACIL Allen page 16).

To harness key insights into a concise and actionable framework, a participation profiles concept was originated within the SSG.

Flexible energy customer participation profiles

Indirect	Indirect flexible energy use through system settings and design e.g., service boundaries/limits, or by coincidence or chance.
Behavioural	Conscious flexible energy use behaviours, including when and how customer uses appliances.
Self-managed	Customers preference to self-manage some or all of their DER and energy use to meet their needs
Enabled	Customers delegate the task of optimising their energy use (e.g., third-party service provider or embedded product-functionality).



The SSG sees potential for the project teams to use this tool to engage with the insights about the barriers and enablers and ask the critical questions, including: How will customers participate in the flexibility opportunities supported by the reform?

- Which of the four categories of flexibility does the opportunity (i.e., product or service) fit into?
- What practices and capabilities will consumers need to have to engage with the opportunity? How many consumers can adopt the practices or have the capabilities to participate? What is the strategy for expanding opportunities for diverse consumer groups to participate over time?
- Does the opportunity assume households and businesses need to engage with a new category of flexibility or what is involved in motivating and supporting them to do so?
- What is the longer-term vision for how consumers will participate in flexibility? How much can be unlocked via behavioural, enabled, self-managed and indirect modes?

Importantly, the participation lens seeks to convey a new, more inclusive way of thinking about DER. The SSG's view is that every person with an electricity connection and who uses electricity is participating and receiving different levels of value through their participation and must be considered within the design of reforms (not residually) to succeed in achieving the required DER Implementation Plan outcomes. It seeks to move the discussion beyond the binary of 'participant' and 'non-participant', 'active' and 'passive' to reflect the more nuanced, practical realities of households and businesses.

This concept attempts to better reflect the more dynamic ways that households and businesses manage their energy – and participate in the market for flexibility – takes a variety of forms as their family, health, financial and other circumstances change over time.

Anna's household is on a tariff where at least the network tariff component is cost-reflective (e.g., a cost-reflective tariff as this is what all consumers are moving towards), such as a time-of-use tariff. She has signed up to a solar-sponge app-based reward system that prompts her to use energy when the sun is out and rewards her for doing so. She uses it occasionally when the stars align and she is at home during the day and still has unwashed laundry and dishes. Her household makes some energy use choices based on the tariff energy manager and makes some behavioural changes. These are enabled by a home energy management system that tells the household about their energy use. Anna's husband organised to have their pool pump connected to a controlled load tariff. Anna's daughter has increasingly been reacting to allergies and Anna has been researching air purifiers, she is thinking of purchasing one that comes with a concierge service that allows the purifier to maintain air quality at all the times she needs it, for minimum energy cost.

The SSG sees the potential for DER and flexibility to be re-framed to open-up new transformation pathways, particularly one which unlock access to cheap, abundant renewable electricity when it's available for renters, people on low incomes, people living in apartments, and others who cannot currently access popular forms of DER.

This participation lens is exploratory, initial thinking and one which the SSG believes has potential to be applied and adapted in Release Two by the Project Teams, with support by the refreshed SSG.

CONCLUSION



Conclusion

The Customer Insights Collaboration successfully drew on diverse stakeholder perspectives and the latest research, to shed light on practical customer barriers to flexible DER and energy use in order to shape future reform.

Through this process a better understanding of the diversity of customers and the barriers they face to access and engage with flexible DER and energy use has been revealed. And while some of these were known, this process has highlighted the value that customer insights can provide in shaping projects and reform to deliver the DER Implementation Plan.

The customer insights outlined in this Knowledge Share provide inspiration and evidence to support greater consumer engagement and the recommendations provide tangible actions that can be implemented by the ESB and market bodies. The insights have highlighted the important role, and potential that flexible DER and energy use can play in providing safe, reliable and cheap energy if the barriers can be turned into enablers.

Finally, this process has reinforced the complexity of the energy transformation and role that each issue or reform plays in our future, and the importance of engaging with stakeholders and building capacity to collaborate on transformative issues while striving for simplicity and the best possible consumer outcomes.





APPENDICES



Appendix A: Collaboration workshop outputs

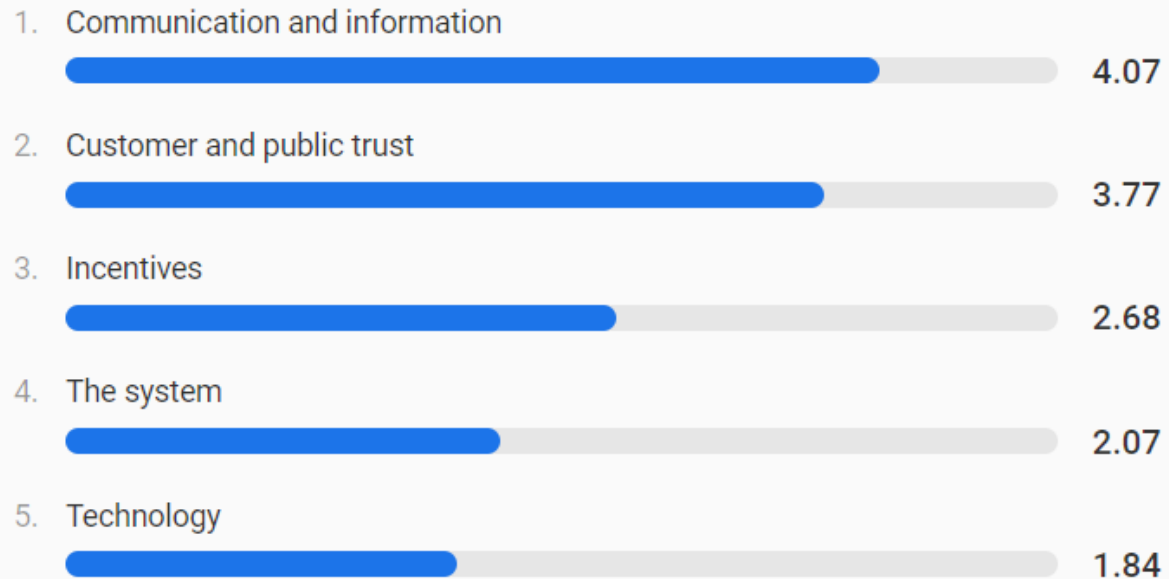
- Workshop 1 - Defining the problem – 23 March 2022
- Workshop 2 - Exploring the issues – 13 April 2022
- Workshop 3 - Synthesising the insights and opportunities – 24 May 2022

Workshop 1 - Defining the problem – 23 March 2022

Workshop	Objective	Summary of outcomes
Workshop 1 Defining the problem 23 March 2022	<p>This first workshop introduced the Customer Insights Collaboration and its role in the DER Implementation Plan.</p> <p>The focus for this session was to understand from the more than 70 stakeholders who attending:</p> <ul style="list-style-type: none">• Their views on the DER implementation customer outcomes and what they meant.• Their expectations of the role of the customer in the DER Implementation Plan.• Gather perspectives on the opportunities and barriers that DER presents for customers.	<p>Key outcomes included:</p> <ul style="list-style-type: none">• Supporting definitions and tangible meaningful of the DER customer outcomes.• Understanding the critical barriers and enablers were:<ul style="list-style-type: none">• Building trust for all customers• Communication including shaping narratives for customer conversations• Fairness, justice and equity including sharing the benefits of improvements across all customer groups• Incentives and motivators for customers to encourage behaviour change

Workshop 1 outcomes

Following your conversation about immediate barriers and opportunities, which barriers are most relevant to achieving flexibility for customers? Please rank in order of importance.



Activity 1 (1/5)

How optimistic are you about unlocking significant value from flexible energy use for all customers in the next 3 years?

Very optimistic



Mildly hopeful



Not confident



Activity 1 (2/5)

How much do we know about customers' needs, expectations and values in regard to flexible energy use?

A great deal



Enough to move forward with confidence



Not much at all



Workshop 2 - Exploring the issues – 13 April 2022

Workshop	Objective	Summary of outcomes
Workshop 2 Exploring the issues 13 April 2022	<p>This workshop built on key outcomes from the previous workshop that had been further developed by the SSG. It focused on:</p> <ul style="list-style-type: none">• Further exploring the critical barriers uncovered in Workshop 1• Build understanding and challenging assumptions of the specific and immediate barriers and enablers for each focus area• Seeking input into shaping the definition of flexible energy use	<p>Key outcomes</p> <ul style="list-style-type: none">• Inclusive: key to a flexible energy future are subsidies or help for landlords and those in embedded networks to make the switch, focus on electric vehicles and associated infrastructure, and make it low maintenance.• Incentives: three top enablers include appliance specific applications, helping others for the greater good and financial payback period accurate and taking advantage of tariffs.• Communications: engage and empower the enablers to flexible energy needs to excite and empower customers and use trusted channels and consistent messaging.• Trust: build ambassadors, clear and transparent systems, and ensure these systems work as expected.• Focus on communities, not just customers. Another overarching theme of your feedback is that flexible energy needs to focus on communities, not just customers and doing things for the 'greater good'.• Examples of good practise range from examples in the United States, United Kingdom, Victoria and South Australia...so many learnings can be taken from across these case studies.

Workshop 2 outcomes - Communication

The need for clear, consistent, easy and accessible communication was a strong insight through all workshops.

There was a desire to further define flexible DER and energy use and ensure consistency across the industry.

Barriers identified included lack of awareness, whilst enablers suggested were engagement, consistent messaging and trusted channels.

Examples of good practice might be pilots and early adapters, communications and technology.

Workshop participants said:

“Much more complex than telco and water.”

“Clear, simple, consumer-oriented and focused.”

“We need to make it simple and transparent for the customer to clearly understand how they are going to benefit.”

“Communication needs to be received and understood by all demographics”

“Making information accessible for all different levels of energy knowledge and consumer needs.”

“Clear understanding of how the customer will be impacted and the benefits they will gain. This includes clear data.”

“It's not just communication, but education.”

“..make incentives as simple and easy to understand as possible. Transparency and simplicity at its heart– tools to make right decision for your circumstances.”

“Information that is meaningful and accessible to consumers, from a trusted source – bringing consumers along the journey.”

“Ease of engagement...regardless of personality type or skillset.”

“...all service providers are explaining things in the same way...”

Workshop 2 outcomes – Trust

Trust emerged as a key barrier for the acceptance of flexible DER and energy use.

Key barriers were access to data and limited customer decision-making and enablers were trusted sources and community owned. Enablers identified included trusted sources, community-owned and shared stories.

Examples of good practice include flexible contracts, learnings from healthcare and using purified recycled water.

Workshop participants said:

“Trust between consumers and those who they engage with in their DER will be key to achieving outcomes.”

“Need to build trust, maintain and manage.”

“That there are benefits for customer, community and society.”

“Customer expectations are clearly communicated and met. No surprises!”

“Issues around third parties taking control or automating resources.”

“Gaining and maintaining social license - the permission provided by consumers to government or institutions to control their CER. “

“Reliability is also key to trust - concept of 'grid sensitivity' crucially shapes uptake of DER. This means exposure to outages shapes investment decisions by households.”

“Trust is a threshold question for handing over control.”

“Getting the building blocks right – set the foundation with fit for purpose consumer protection, open communication standards and appropriate governance arrangements. Getting this right will allow consumers to actively and confidently participate.”

“Customers need to be able to trust that even when being flexible they can use what they need when they want it, and they won’t be taken advantage of to get the benefits.”

“Trust means all customers seeing benefits firsthand, without only a small cohort of customers benefiting.”

Workshop 2 outcomes – Inclusion & Equity

Sentiment throughout the workshops was centred around ensuring DER does not increase inequality and that ultimately all consumers benefit from flexible DER and energy use – even if they can't participate in it.

Barriers identified included lack of timing flexibility, renters that can't make changes and building issues. Enablers included subsidies for landlords, low maintenance, EVs and charging infrastructure.

Good practice examples include shared local assets such as community batteries.

Workshop participants said:

"Important that flexible DER does not increase inequality."

"All consumers, whether they have the capability or opportunity to participate in flexible CER are afforded cheap, abundant and clean energy."

"Ensure vulnerable customers aren't left behind – tariff arrangements."

"That all consumers feel they benefit from DER – regardless of whether they have it or not."

"It does not mean that everyone has it – many people will never want the hassle or face serious constraints in their home environment. The important point is that they don't feel disadvantaged by this, because of how prices are set etc."

"Equity is an important perspective and needs collaboration and leadership from governments."

"Customers who do not have the opportunity to apply DER should not be subsidising those that do benefit from DER."

"Everyone is time poor ... must be easy for everyone."

"Access for people with low incomes and people who are renting."

"Being inclusive is about providing an opportunity for all people to participate in a way that works for them."

"ability to take the flexible solution with you,... Also move HEMs between providers (interoperable)."

Workshop 2 outcomes - incentives & nudges

The majority of workshop participants favoured incentive as a motivator.

Community benefit – the greater good – was identified as an enabler along with smart appliances. While barriers are those who can't or won't change, or where incentives have no effect.

Suggestions for good outcomes include simplifying with technology and examples of good practice include interventions for building owners or bodies corporate.

Workshop participants said:

"Customers need certainty in participation - clear and transparent benefit."

"A reward (mostly financial) to the customer for allowing control of their appliances or DER."

"Financial and non-financial motivators need to be focused on how what does it mean for the customer. If customers do not understand what it means for them, and why it's better for them, there's no point of trying to use the carrot instead of the more punitive stick approach such as cost-reflective tariffs."

"In terms of a nudge, you are likely to be looking at bundling and packaging."

"Incentives to get customers to change behaviours as well as to invest in automation."

"Incentives are the value a consumer gets from DER and energy use."

"Signals that encourage beneficial behaviour."

"A clearer understanding from consumers that the grid is a shared constrained resource where what we do impacts each other - ie we are all in this together - as with road rules, water supply in droughts etc."

"Need to ensure incentives (and nudges) do not come at an unreasonable cost to other consumers who can't participate and lead to increase and energy inequality."

"People are not only influenced by money and money can't substitute for other values and outcomes people value."

Workshop 3 - Synthesising the insights and opportunities – 24 May 2022

Workshop	Objective	Summary of outcomes
Workshop 3 Synthesising the insights and opportunities 24 May 2022	<p>This workshop was the final in the Release 1 series and aimed to report back and test key ideas that had been developed. The workshop focused on:</p> <ul style="list-style-type: none">• Reporting back to stakeholders the progress of the customer insights collaboration release 1• Sharing key insights from the call for evidence• Testing key concepts developed through the customer insights collaboration	<p>Key outcomes</p> <ul style="list-style-type: none">• ACIL Allen research: Most participants were interested in the issue of trust and diversity of customers highlighted in the call for evidence.• Definitions and narratives: The need to refine definitions around flexibility, inclusion, automation and refine the narrative for the customer participation profiles.• Participation profiles: Clarity around when the customer framework should be used – does it meet the needs of all in the industry and should it?• Automation: A range of opinions on the role of automation and what its role should be as the ultimate solution. Should we build trust to move customers to automation but allow options for customers to override this?• Customer perspectives: The importance of grounding the framework with direct feedback from customers.• Next steps: what to do next with the insights focused around keeping the customer at the centre of the process and further defining role, responsibilities and working towards a shared understanding.

Workshop 3 outcomes

Survey question: What was most interesting to you about the call for evidence summary?

“FINALLY, recognition that the customer needs to be the beating heart of the electricity system & reforms.”

“The largest barrier wasn't regulatory or technological, but it was around trust and education.”

“The deep-dive into trust - how it is multi-dimensional, the ways to build and deepen trust, etc.”

“Acknowledging the diversity of customers.”

Survey question: what should we do with these insights moving forward?

Customers

- *“Prioritise further robust research, most likely social research, to test the most important assumptions.”*
- *“Make sure that the rules don't impose a one size fits all solution on customers. Allow room for flexibility to all for different circumstances and solutions.”*
- *“Make sure the customer remains the beating heart of the electricity system & that the need for any reforms are tested on the basis of what the customer needs.”*
- *“Be honest with customers about why reform is needed (if it is).”*
- *“Strong focus on equity and inclusion needed to ensure they are prioritised over the “easy wins”...”*
- *“Understanding the difference in consumers and how they can be met.”*

Roles, responsibilities and integration

- *“Start to divide up who can do what - in overcoming these barriers, what can governments/regulators do? What can industry do? What can other participants in the industry do?”*
- *“There needs to be a tight review on the implications of this work for the DER workstreams.”*
- *“Provide understanding of how this is valuable to the overall reform process. i.e. how does this change the DER or roles and responsibilities work? What policy outcome does this drive?”*
- *“Achieve consensus amongst industry so we can all start singing from the same song sheet.”*
- *“The ESB work needs to look at regulatory overall both in terms of the NER and the NERR but also in terms of number of regulators at a State and Federal level, there is considerable overlap leading to inefficient outcomes and it would be sensible to have a holistic look at this to ensure the NEM can move forward and support the future grid.”*

Workshop 3 outcomes

Summary of insights

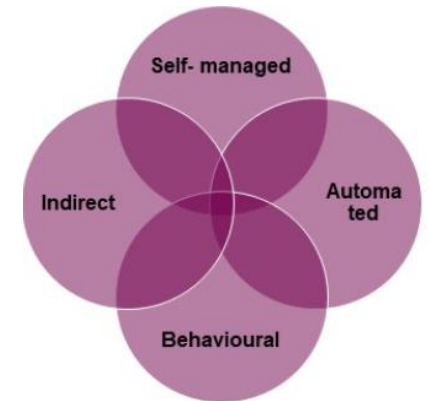
Participation profile

- Overall considered a good starting point
- Need to consider that customers are not always in one category
- Concerns around relying too heavily on 'automation'
- Lack of clarity around what 'automation' is and its level of acceptance
- Descriptions of profile categories need further refining – eg how does behavioural differ from self-managed, are disinterested customers always indirect?
- Recommendations that it be applied and tested further

Customer participation profiles

Questions:

- does this make sense?
- do you think it can support project design and planning?
- is there anything missing?
- how might you use this tool/thinking?



Important to remember that customers will shift between these categories - depending on the service provider, the technology, personal circumstances...

Indirect is problematic - need to reflect non-DER cohort but this cohort does not participate so somewhat misleading - value is to whole market

Recognise this is just a starting point and can change as we improve the body of knowledge

Is automation socially acceptable? If not, can we make it so

It's unclear how I might use this one

But I like how it shifts the perspective onto how people might participate, and this would be very worthwhile taking into the field for some customer research interviews and/or focus groups to see where people are at, so we can meet them there

Risk of relying too much on automation/robots solving all problems/complexity

Useful for analysing benefits across different types of customers. Could be useful for applying the existing Customer Risk Assessment Framework, would it be better to update that to take these insights into account as the 'different types of customers' you're supposed to consider? Definitely easier to apply and more universal than the idea of multiple archetypes that still risk missing specific groups of people.

The self-managed is not a meaningful category in reality. Are we actually talking about 'third-party control' (e.g. OEM, aggregator). The difference is about whether they are optimising for or against their retail tariff.





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Disclaimer

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