E1: Opportunity Assessment

Trust-building for collaborative win-win solutions

Final report October 2021

Rebekah Russell-Bennet

Chris Riedy

Declan Kuch

John Gardner

John Chong

Sarah Niklas

Adam Clements

Terry Flew

Frank Mathmann

Ryan McAndrew

Kate Letheren

Roberto Minunno

Ruhul Amin

Bengamin Goulding

Alexandra Zimbatu

Lucas Whittaker

RACE for 2030
RELIABLE
AFFORDABLE
CLEAN
ENERGY

CSIRO

Curtin University

MONASH University

UNSW AUSTRALIA

BEST CENTRE
Behavioural Economics . Society . Technology

QUT

Table of Contents

List of Figures

List of Tables

RACE for 2030 E1 Theme

The E1 Research Theme draws together three crucial and related but inadequately understood elements for building trust in the Australian energy sector through win-win collaboration:

Understanding customer aspirations and expectations for the energy sector

Measuring trust in the energy sector

Building trust through tools and practices between customers and service providers in the energy sector.

Building on existing work, this theme explores customer priorities, perceived performance (qualitative and quantitative) relative to these priorities and options for better aligning industry performance to priorities and building trust between stakeholders.

Project Overview

- This roadmap for trust-building in the Australian energy sector is based on an **extensive review** of white and grey literature, datasets and case-studies which identified a series of knowledge gaps and opportunities for research.
- The aim of this roadmap is to identify research themes and future potential projects that **address priority opportunities** and guide future RACE for 2030 E1 research in customer-centric trust building in the energy sector.
- This roadmap **leverages customers strengths**, knowledge, and practices to cultivate trust using a shared value approach. The conceptual centrepiece of this report is the **'ecosystem of shared value'** – an industry-wide approach to valuing consumers' contributions to the creation of value.
- Preparing this roadmap involved **extensive consultation** with RACEfor2030 partners, the Industry Reference Group (IRG), policymakers and consumer advocates at each phase of the project.
- In particular, there are significant opportunities to create new data and to build on existing datasets but doing so likely requires **dynamic consent** processes. Furthermore, simply 'providing data' to consumers is insufficient to remedy the structural issues in the sector and may in fact worsen trust issues if poorly implemented.
- Providing **customer education alone is not consistent** with best practice. Deficits in public knowledge are not the problem; therefore, educating energy users about the energy system is not the solution.
- Following **best practice in the evidence-base**, we identify that the customer's role is using electricity responsibly and paying their bills on time; *not* to be an expert in energy system engineering and processes.
- Our roadmap is thus designed to **identify priority opportunities** that build on the extensive existing processes designed to **build trust in the energy sector**.
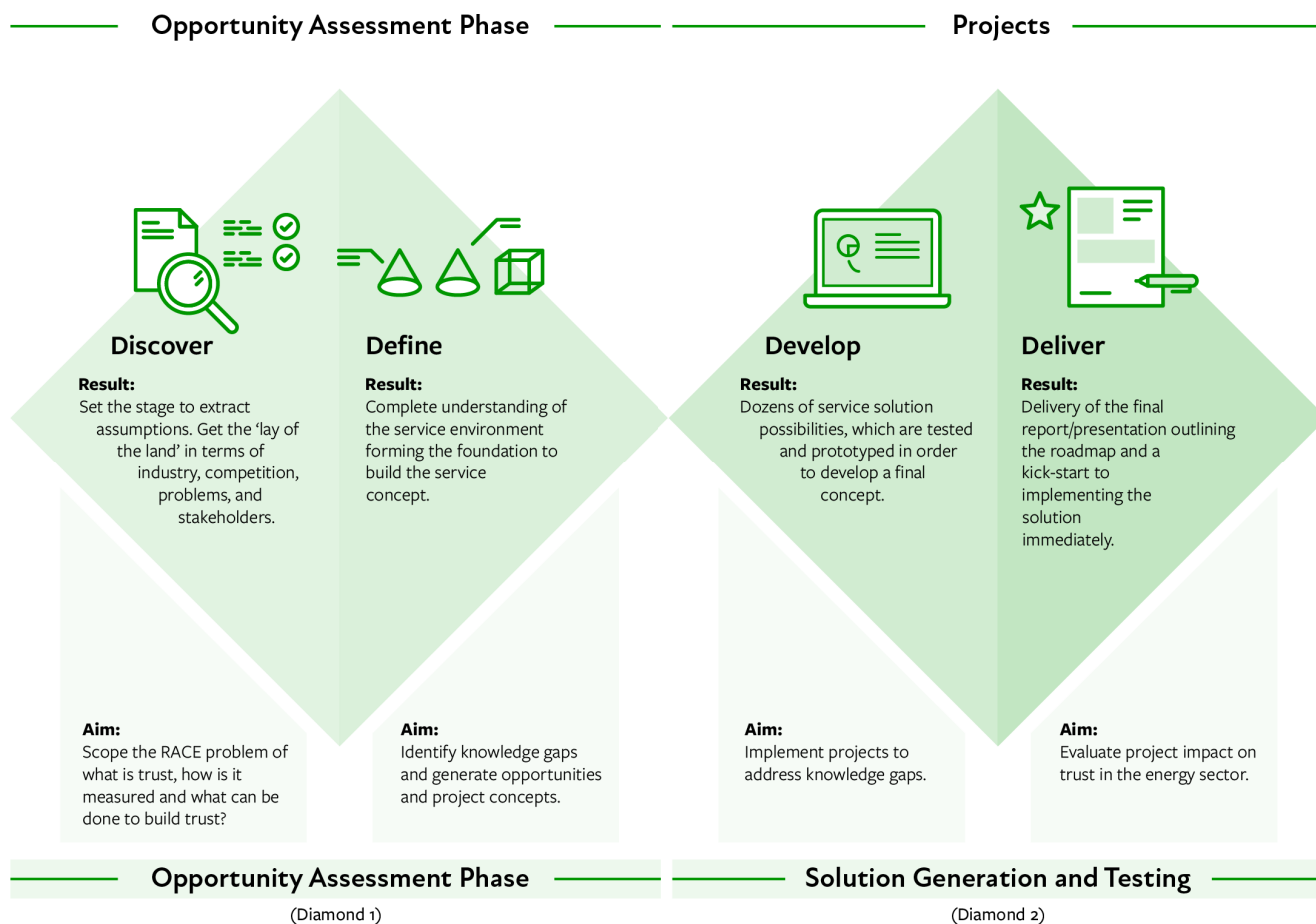
Roadmap Approach

Our approach to identifying opportunities for creating win-win collaborative customer solutions used human-centred design through service design techniques. The benefits of human-centred design are:

- The focus is on the person experiencing the problem
- The 'real problem' emerges clearly in the process
- Solutions are created that resonate deeply with customers
- The solution is feasible, viable and desirable
- The likelihood of effectiveness of solutions is increased.

Specifically, we followed the double diamond approach from human-centred design for identifying gaps and opportunities (see Figure 1). The first diamond is the opportunity assessment phase, starting with the overall RACE program problem and ending with a set of specific opportunities (the joining point of the two diamonds). The second diamond is the next phase where the opportunities lead to implementation of projects and solutions that build trust in the energy sector. These include understanding customers, measuring trust and testing the effectiveness of tools and practices that build trust.

Figure 1: Double Diamond Approach to E1 Opportunity Assessment

Opportunity Assessment Phase ─── ─── Projects ───

Discover

Result:
Set the stage to extract assumptions. Get the 'lay of the land' in terms of industry, competition, problems, and stakeholders.

Aim:
Scope the RACE problem of what is trust, how is it measured and what can be done to build trust?

Define

Result:
Complete understanding of the service environment forming the foundation to build the service concept.

Aim:
Identify knowledge gaps and generate opportunities and project concepts.

Develop

Result:
Dozens of service solution possibilities, which are tested and prototyped in order to develop a final concept.

Aim:
Implement projects to address knowledge gaps.

Deliver

Result:
Delivery of the final report/presentation outlining the roadmap and a kick-start to implementing the solution immediately.

Aim:
Evaluate project impact on trust in the energy sector.
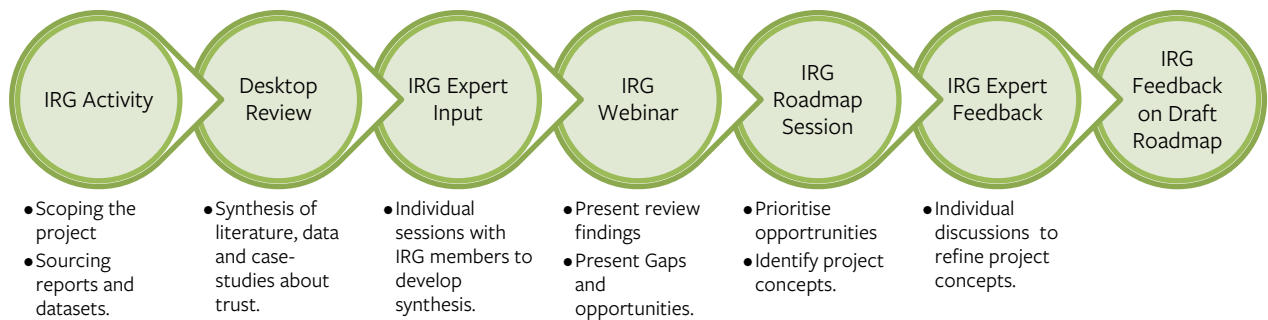
Opportunity Assessment Phase
(Diamond 1)

The Discover phase scoped the organisational problem and established an IRG. We then conducted a literature review, data review and case review. The Define phase then converged our thinking through synthesis of the data in the review process to generate insights about the energy market and stakeholders. This phase ended with a set of gaps that were translated into a series of prioritised opportunities for the E1 roadmap. The roadmap is not prescriptive but offers 5 project themes to underpin the next stage of RACE - generating and testing solutions to build trust.

Solution Generation and Testing
(Diamond 2)

This diamond consists of two phases, Develop, and Deliver. In the Develop phase there is divergence to create ideas, concepts, and options for trust building. This is followed by the Deliver phase where choices are made, and these options are stress-tested for desirability to users, viability and feasibility for organisations in the sector. The result will be a set of solutions for trust-building that work.

The roadmap was the final output of the opportunity assessment project that involved significant input from the IRG and was built on a foundation of evidence from both the literature and practice (see Figure 2).

Figure 2: Opportunity Assessment Process

| IRG Activity	Desktop Review	IRG Expert Input	IRG Webinar	IRG Roadmap Session	IRG Expert Feedback	IRG Feedback on Draft Roadmap
● Scoping the project ● Sourcing reports and datasets.	● Synthesis of literature, data and case-studies about trust.	● Individual sessions with IRG members to develop synthesis.	● Present review findings ● Present Gaps and opportunities.	● Prioritise opportunities ● Identify project concepts.	● Individual discussions to refine project concepts.	

What is Trust?

Further, drawing on this literature and existing academic definitions of trust (Mezger et al., 2020; Robbins, 2016; Chen, 2010), we developed a new definition of trust for the energy sector. The four components of trust in the energy sector that align with this definition are outlined in Figure 3.

RACE 2030 Definition of Energy Sector Trust

"Trust is the confidence that energy organisations, actors and system will meet positive expectations for a specific task under conditions of unknown outcomes. In the energy sector, key expectations are that organisations, actors and the system will act with competence, responsibility, openness and authenticity*"

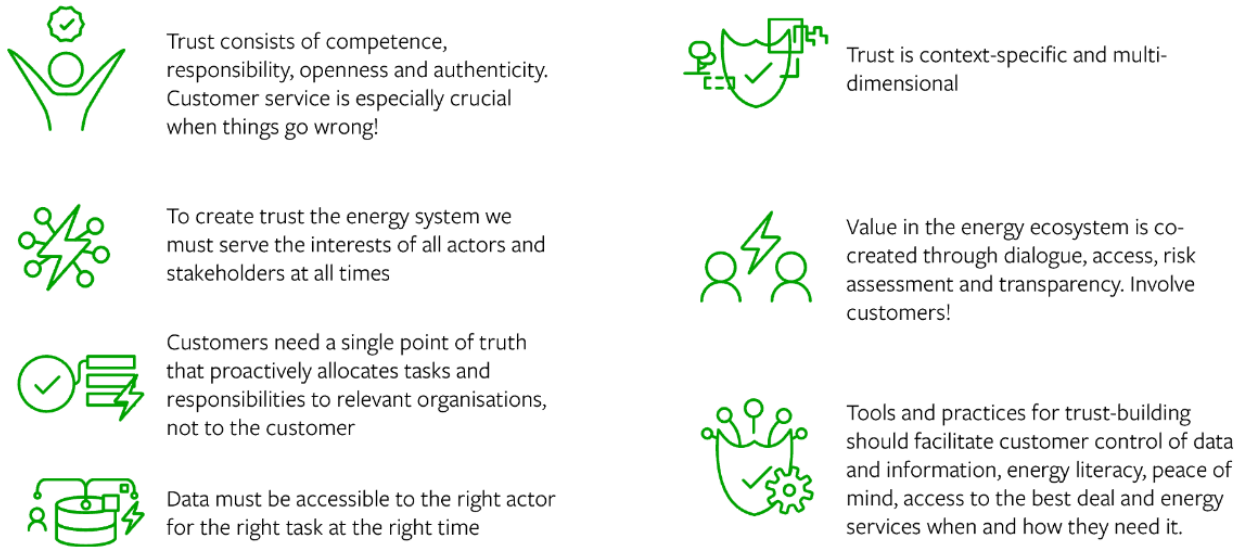**This definition includes actors/organisations in both supply AND demand side (customers).*

Figure 3: Components of Trust
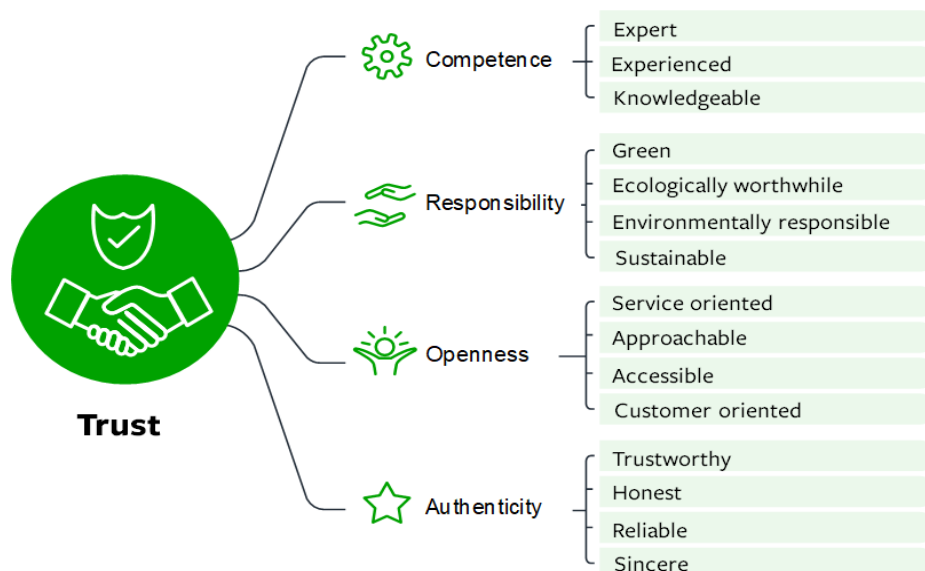
Source: Adapted from Mezger et al. 2020

The literature, data and case review stages revealed seven overarching themes about understanding, measuring and building trust for win-win customer solutions in the energy sector (see Figure 4).

Figure 4: Themes for Understanding, Measuring and Building Trust in the Energy Sector

Trust consists of competence, responsibility, openness and authenticity. Customer service is especially crucial when things go wrong!

Trust is context-specific and multi-dimensional

To create trust the energy system we must serve the interests of all actors and stakeholders at all times

Value in the energy ecosystem is co-created through dialogue, access, risk assessment and transparency. Involve customers!

Customers need a single point of truth that proactively allocates tasks and responsibilities to relevant organisations, not to the customer

Tools and practices for trust-building should facilitate customer control of data and information, energy literacy, peace of mind, access to the best deal and energy services when and how they need it.

Data must be accessible to the right actor for the right task at the right time

Moments of Truth in the Customer Journey

Using a service blueprint technique, the literature was synthesised in collaboration with IRG members to identify key moments of truth for customers in the energy journey. Seven key insights around moments of truth are presented in Figure 5, with a visual summary of a generalised customer journey provided in Figure 6. An infographic of the gaps and opportunities for trust-building in the energy sector are shown in Figure 7.

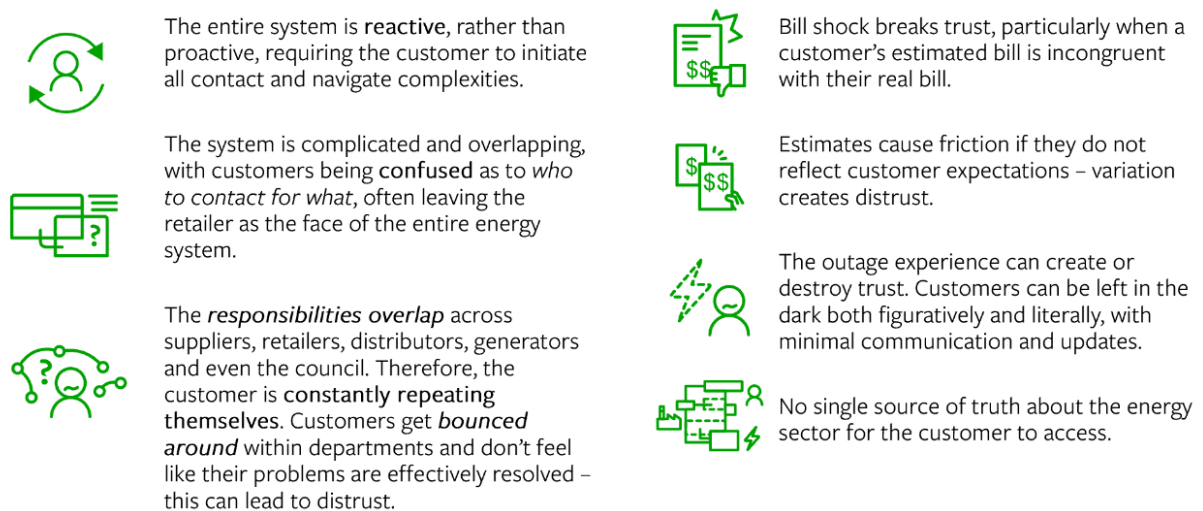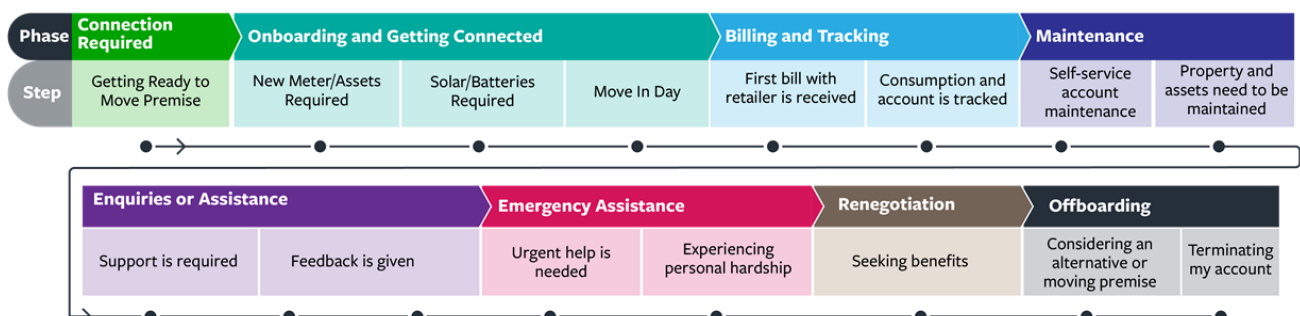*Figure 5: Moments of Truth in the Customer Journey*

The entire system is **reactive**, rather than proactive, requiring the customer to initiate all contact and navigate complexities.

Bill shock breaks trust, particularly when a customer's estimated bill is incongruent with their real bill.

The system is complicated and overlapping, with customers being **confused** as to *who to contact for what*, often leaving the retailer as the face of the entire energy system.

Estimates cause friction if they do not reflect customer expectations – variation creates distrust.

The *responsibilities overlap* across suppliers, retailers, distributors, generators and even the council. Therefore, the customer is **constantly repeating themselves**. Customers get *bounced around* within departments and don't feel like their problems are effectively resolved – this can lead to distrust.

The outage experience can create or destroy trust. Customers can be left in the dark both figuratively and literally, with minimal communication and updates.

No single source of truth about the energy sector for the customer to access.

Figure 6: The Energy Customer Journey

Phase	Connection Required	Onboarding and Getting Connected			Billing and Tracking		Maintenance	
Step	Getting Ready to Move Premise	New Meter/Assets Required	Solar/Batteries Required	Move In Day	First bill with retailer is received	Consumption and account is tracked	Self-service account maintenance	Property and assets need to be maintained

Enquiries or Assistance		Emergency Assistance		Renegotiation	Offboarding	
Support is required	Feedback is given	Urgent help is needed	Experiencing personal hardship	Seeking benefits	Considering an alternative or moving premise	Terminating my account

Gaps and Opportunities for Building Trust in the Energy Sector

E1 Opportunity Assessment Major Gaps Identified

RACE for 2030
RELIABLE
AFFORDABLE
CLEAN
ENERGY

Trust in the Energy Sector

Conceptualisation of Trust in Energy Sector

The relative importance of precursors such as competence, responsibility, openness and authenticity has not been explored for the Australian energy sector.

Trust is not well understood in the energy sector.

Practices for Trust-Building

Lack of comprehensive map of existing practices in energy sector as examples of best practice.

We don't know which practices deliver the greatest trust dividend in the Australian context.

Lack of knowledge about how practices vary for different segments and different stages of the customer journey.

Dominance of reactive practices across entire supply chain.

Impact of Trust/Distrust

Emphasis on output and outcomes rather than impact with no evidence of which outcomes have the most/least impact on trust.

There is a lack of standard metrics and sharing across energy sector to allow for impact to be measured.

No current quantification of impact of trust on key factors such as emissions, reliability, energy productivity and energy costs.

Customer experiences of trust

Customer Expectations & Aspirations of Trust

Access to research on customer expectations and aspirations not publicly available or shared.

Core capabilities of marketing and customer experience is varied across actors in the energy sector. There is a lack of common understanding across the supply chain.

It is unclear if or how supply chain actors are using existing data to inform their customer focus.

Measuring Trust & Sources of Trust Data

Reliable measures of trust and its components in the Australian energy sector are not available.

Over-reliance on self-report surveys that are cross-sectional and not publicly available/shared data.

Lack of measures for distrust.

No datasets that systematically measure trust in multiple parts of the energy supply chain at the same time to allow for direct comparison.

Lack of shared data to identify key painpoints in the customer journey.

Emerging data source of social media is underutilised.

Data blueprint indicates a lack of customer-centric data with a focus on mandatory reporting.

Tools for Trust-Building

Absence of face-to-face tools, with most tools being digitally-enabled only.

Proactive tools are yet to become widespread.

Most tools are designed for the traditional residential customer, with few tools designed for specific situations. This is a significant gap in building trust, particularly for customers experiencing hardship who have different priorities.

Limited provision of emotional and network support.

Lack of a comprehensive map of existing practices in energy sector as examples of best practice.

We don't know which practices deliver the greatest trust dividend in the Australian context.

Lack of knowledge about how practices vary for different segments and different stages of the customer journey.

Dominance of reactive tools & practices across entire supply chain.

Customer Journey

Primary data as evidence for painpoints and moments of truth required for customer journeys and blueprints for specific segments and tasks.

Understanding the timings related to each step of the process may have meaningful repercussions for trust.

There is limited visibility of the support processes/technical systems that enable each step of the customer journey.

Drivers of Trust and Distrust

Need to look at what role customers might play in creating trust.

Limited understanding of the interrelationships between different drivers of trust and distrust.

We don't know which drivers are important for specific and general interactions.

We don't know how external relationships (B2C) affect the industry internally (B2B) or other customers (C2C).

Gap in understanding the drivers behind reputation and how companies are responding to customer feedback.

Lack of knowledge regarding customer's perceptions of service providers offering additional services outside initial core remit and impacts on trust.

Alignment of Service Provision and Customer Demand

Misalignment between customer knowledge/needs and service provision at macro, meso and micro levels of the system.

Complexity of energy sector needs to be mapped to show tensions and alignment of interests of actors in the system and areas for improvement.

Lack of knowledge about which actors should and could build trust in the energy system.

Lack of single point of responsibility – forces customer to work it out for themselves and take on effort.

Benefits of Trust for Energy Sector

Trust is largely framed as benefits for supply chain and policy. We don't know the benefits of trust for different customer segments.

Limited availability of case studies with an emphasis of trust in technology. Need a broader range of case studies inclusive of non-technology approaches.

Limited studies assess benefit of trust for the entire energy sector, with nothing focussed on the commercial sector.

Customer Segments

Customer segments reflect how energy is used (tasks). Empirical evidence needed to profile the task segments.

Within each task segment, evidence is needed for the drivers of trust and distrust for customers experiencing vulnerability and safety as sub-segments.

Focus on energy tools not energy literacy: shifting responsibility back to the energy supply chain

"Energy literacy" has been repeatedly referred to as the means of improving customers' engagement with, effective use of, and trust in energy systems. This concept is defined as peoples' familiarity with and understanding of the energy system, allowing them to make informed and rational decisions about energy consumption and related issues. However, building energy literacy to improve energy system outcomes is not an effective solution for three reasons:

1. **Widespread education campaigns have low efficacy:** any broad-based mechanism to improve literacy will be expensive, slow, and limited in reach (Šćepanović 2017).

2. **Knowledge tends to be interest and issue-specific:** it is difficult, if not impossible, to force people to learn things if they are not motivated to do so. Rather, for any specific topic, there will be a small group of people who are interested enough to seek out information and gather detailed knowledge on that topic; there will be another small group of people that are completely disinterested and know absolutely nothing about that topic; and most of the population will sit somewhere between these two extremes, having some generalist knowledge but little awareness of details.

3. **Better designed interfaces with the energy sector are a more pressing need. T**he need for energy literacy only exists because the energy system is complex and confusing: if the system and processes were simplified, current levels of literacy would be sufficient. A recent report into energy literacy in Australia illustrates this point well: "...respondents also often noted that if government and the energy sector worked to improve and simplify the design of energy price structures, bills, and choices, then [people] would be less in pressing need of energy literacy." (Hogan et al, 2019, p. 26).

Based on the extensive evidence from not only the energy literature but also the wider behaviour change literature, we are recommending against using isolated education, communication, or energy literacy approaches as the key to building trust in the energy sector. Instead, we recommend shifting responsibility from consumers back to the supply chain (from generator to retailer) to simplify the system or to provide appropriate tools that do not require consumers to make the effort in becoming experts in energy.

Trust in the Energy Sector Requires an Ecosystem of Shared Value

The energy sector is currently operating on the principles of the value chain framework (Porter, 1985) which views customers as passive recipients of value that is produced by organisations (generators, networks and retailers) and where social power is concentrated in organisations. This 1980s approach to value is also reflected in corporate governance practices premised on the primacy of shareholder returns at the expense of other stakeholders in a business. These practices and governance frameworks have been increasingly questioned in recent years (Anon, 2019). The need to shift from a value chain perspective to an ecosystem of shared value has been highlighted by Harvard Business Review with increasing adoption of this approach in sectors such as health and education. It is now time for the energy sector to transition to a shared value mindset that involves active collaboration with customers (see Figure 8).

Figure 8: Transitioning from Value Chains to an Ecosystem of Shared Value in the Energy Sector
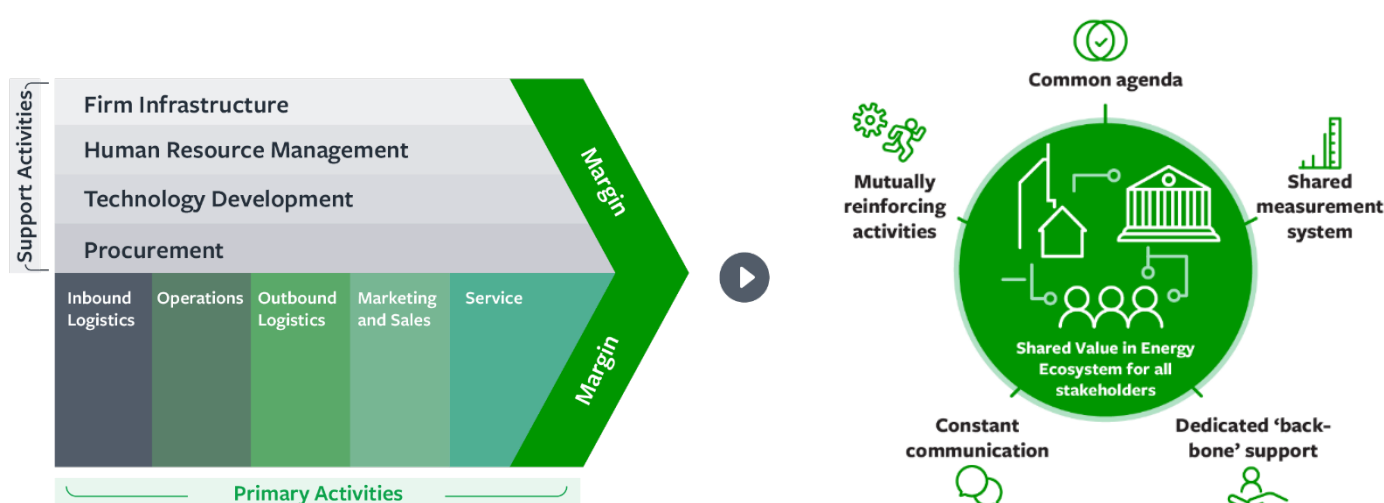
Sources: Porter, 1985 (left) and Kramer & Pfitzer 2016 (right).

The energy sector needs to transition towards a more open, collaborative and sharing system that co-creates value for all stakeholders to effectively build trust. This is consistent with company law in Australia, which accommodates stakeholder governance perspectives to corporate decision-making (Harris 2019).

The recommended framework of shared value is the Ecosystem of Shared Value by Kramer and Pfitzer 2016). To create trust using this framework there are five elements:
1. Common Agenda
2. Mutually reinforcing activities
3. Shared measurement system
4. Dedicated 'backbone' support
5. Constant communication

Conceptual Pillars for E1 program

Based on the evidence-based from the review of the literature, data and case studies, we recommend seven conceptual pillars to underpin all E1 project proposals (and be used to evaluate project proposals). Please see Figure 9.
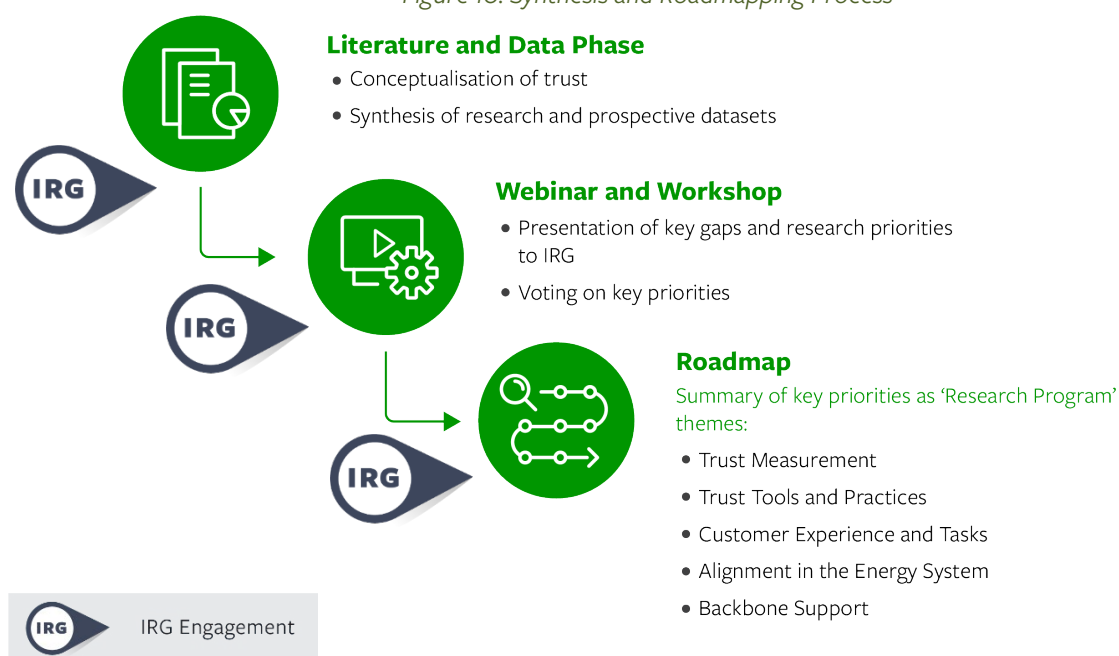
Figure 9: Conceptual Pillars for E1
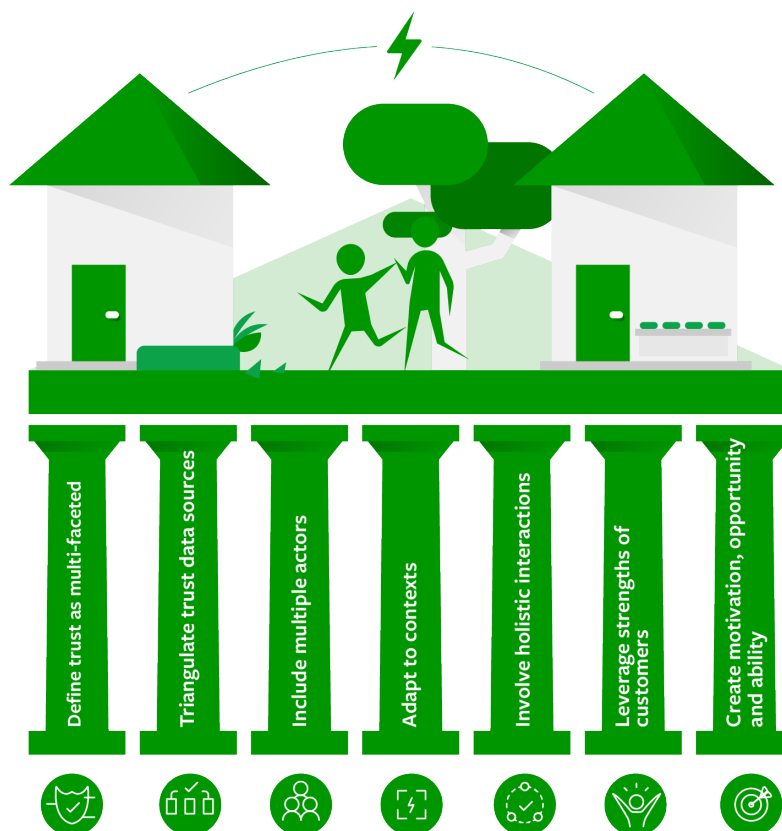
Define trust as multi-faceted: Trust is created through practices that demonstrate competence, responsibility, openness and authenticity.

Triangulate trust data sources: Measurement of trust must include multiple data sources.

Include multiple actors: Trust involves interactions with multiple actors (organisations and people).

Adapt to contexts: Trust is specific to different tasks and different situations.

Involve holistic interactions: Trust results from multiple interactions and touchpoints in the customer journey which need to interact seamlessly.

Leverage strengths of customers: Vulnerability is a state not a trait, permanent or temporary, potential or actual hardship. Customers (eg. those experiencing vulnerability) have strengths to be leveraged not deficits to be filled. They should be supported to participate in product/service design and decision-making.

Create motivation, opportunity and ability: Trust-building must go beyond information and communication to motivate, must include tools and practices to create ability (energy literacy) and opportunity.

Industry Reference Group Engagement Method

The outcomes of the literature review, desktop analysis and qualitative consultations were synthesised in a report which was then presented to IRG for feedback and comments (see Figure 10). Extensive consultation, including one-on-one discussions with stakeholders across the energy system – retailers, government agencies, consumer advocacy groups - RACE led to range of projects that addressed prioritised opportunities.

Figure 10: Synthesis and Roadmapping Process

Literature and Data Phase
- Conceptualisation of trust
- Synthesis of research and prospective datasets

Webinar and Workshop
- Presentation of key gaps and research priorities to IRG
- Voting on key priorities

Roadmap
Summary of key priorities as 'Research Program' themes:
- Trust Measurement
- Trust Tools and Practices
- Customer Experience and Tasks
- Alignment in the Energy System
- Backbone Support

IRG Engagement

Note: A industry engagement evaluation of the E1 project experience and deliverables will be administered by RACE though a survey.

Roadmap Research Themes and Project Concepts

The gaps identified in the literature review were prioritised in a workshop with the IRG (see, for example, G4 and G1 below). These priorities were classified into five themes. These themes were then prioritised through individual interviews after the IRG workshop and presented in Table 1 (* beside each gap denote number of votes from IRG members).

1. Trust Measurement
2. Trust Tools and Practices
3. Customer Experience and Tasks
4. Energy System Alignment
5. Backbone Support

Table 1: Summary of Program Themes Aligned with Priorities Identified in the Workshops

Workshop Priorities	Initial Project Concepts
🛡️ Trust Measurement	
******Gap: Primary data as evidence for painpoints and moments of truth required for customer journeys and blueprints for specific segments and tasks. *Gap: There are no datasets that consistently, longitudinally measure trust across the entire customer lifetime (i.e., across different jobs to be done/customer journeys).	• Establish a **'Trust manifesto'** to elevate the role of consumers in the energy 'ecosystem of shared value' • Collaborate with **regulatory agencies** to incentivise retailers to collect and **share data** related to trust (eg. AER, ombudsman) • Build on **Energy Charter reporting** lines to include trust activities and standards • Share a **single source of trust-relevant data** across the industry • Create a **best practice measurement handbook** for the energy sector – coordination/training. (Building on Energy Charter, and adjacent initiatives such as Thriving Communities partnership).
⚙️ Trust Tools and Practices	
*Gap: Misalignments between customer knowledge/needs and service provision at macro, meso and micro levels of the system. *Gap: Group specific or tools designed for segments outside of the traditional, residential customer are limited. This is a significant gap in building trust, particularly for the segment experiencing hardship, emergency or crisis.	• Develop a **warm Transfer toolkit**: develop customer-centred training methods for all energy staff to ensure issues are solved quickly • Design a **single Digital Point of Contact:** avoid duplication of apps across many different sites/jurisdictions and enable a single digital interface (app/website) where issues can be reported • Create a **trust measurement toolkit:** (see trust measurement) • Examine and evaluate **effectiveness of current** energy sector practices and processes. • Develop and test **new tools** to support trust-building in the energy sector.

RACE E1 Trust Opportunity Assessment Roadmap Report, July 2021 Page 13

Workshop Priorities	Initial Project Concepts
Customer Experience and Tasks	
****Gap: Customer segments reflect how energy is used (tasks). Empirical evidence needed to profile the task segments. *** Gap: We don't know which drivers are important for specific and general interactions *Gap: Need to look at what role customers might play in creating trust	• Adopt a **strengths-based assessment of vulnerability**: Identify the strengths of different types of customers experiencing vulnerability • Implement **consumer education to support trust-building tools.** Create consumer awareness and access on a core theme such as 'power quality' i.e. voltage fluctuations and consumer appliances. • Develop **customer journey maps**: identify customer journeys to see impact on trust throughout and at end of journey • Develop a **consumer panel** to consult consumers on pressing issues and research matters (eg. with ECA) • Create an **energy sector lexicon:** develop consumer-focused lexicon for the energy industry
Alignment in the Energy System	
***Gap: Complexity of energy sector needs to be mapped to show tensions and alignment of interests of actors in the system and areas for improvement. *Gap: Relationship of trust dimensions for different actors in energy ecosystem. *Gap: Lack of comprehensive map of existing practices in energy sector as examples of best practice	• Create an **energy value atlas:** Show customers where their data sit in the 'ecosystem of shared value' • Develop **value system maps** for specific issues: eg. housing value concerns on end of SWER lines
Backbone Support	
Gap: Primary data as evidence for painpoints and moments of truth required for customer journeys and blueprints for specific segments and tasks. Gap: Misalignments between customer knowledge/needs and service provision at macro, meso and micro levels of the system.	• **Trusted Automation Observatory** • Trust tick of approval • Energy consumer jury (avoiding duplication with other processes eg. Energy Charter) • **Trust-building toolkit for energy sector** • 'How to' guide for building trust in different contexts

Feedback from the IRG indicated that many different projects on trust are currently in progress across the sector. Therefore, research proposals will need to demonstrate dialogue with key RACE funding partners to ensure that duplication is avoided and unique value created through the project. This is challenging, as many existing projects have limited public exposure due to the commercially sensitive information involved (e.g., for networks). To overcome this challenge, we strongly recommend prospective research teams consult organisations such as AER, DISER (Federal), a retailer, and a network business to validate their proposals.

While the roadmap offers specific projects for trust-building, it does so within the current structural context of energy. As one IRG member put it, 'people pay their energy bills with the same part of the brain as they pay tax'. The impact of this deeply embedded mindset may include 'trust-building fatigue'. From a social science perspective, this mindset reflects wider structural issues with the energy sector beyond the scope of the CRC, including billing, regulation, ownership and separation between supply, transmission, distribution and retail. Nevertheless, there are opportunities to build cross-cutting capacities across projects in the E1 theme that may address some of these structural issues. For example, providing relevant and timely data to consumers could – as in the telecommunications sector –help to minimise effort customers and make it easier for them to be involved (where they want to be involved).

The Roadmap to Building Trust in the Energy Sector

The initial project concepts generated via the workshop in Table 1 were further developed through IRG interviews into twelve final project concepts (see Figure 11 and Table 2). The roadmap contains project concepts identified in interviews with IRG and RACE partners. The purpose of the Opportunity Assessment was to scope the field and identify gaps in knowledge and opportunities to address these gaps, rather than identify specific projects to address the opportunities. The aim is to allow for researchers and RACE partners not involved in the opportunity assessment to develop project proposals around these opportunities. The need for divergence to expand project proposals and partners is a key principle of the first half of the second diamond in the human-centred design approach to E1 we have recommended. Thus, the project concepts in the roadmap are illustrative rather than exhaustive to enable an inclusive process for project proposals that engage the broader RACE community and align with the budgets and specific needs of the funding partners. The next stage of the E1 process should be to co-design specific project proposals for each of the five research themes in Table 2.

A flowchart presented in Figure 11 illustrates the relationships between the five program themes and indicative projects, and the sequence of projects. All projects contribute towards an overarching output for E1 of a trust-building toolkit for the energy sector. The aim of these projects is to align the interests of the stakeholders in the energy sector and create the necessary value at different leverage points in the system for an optimal trust-building context.

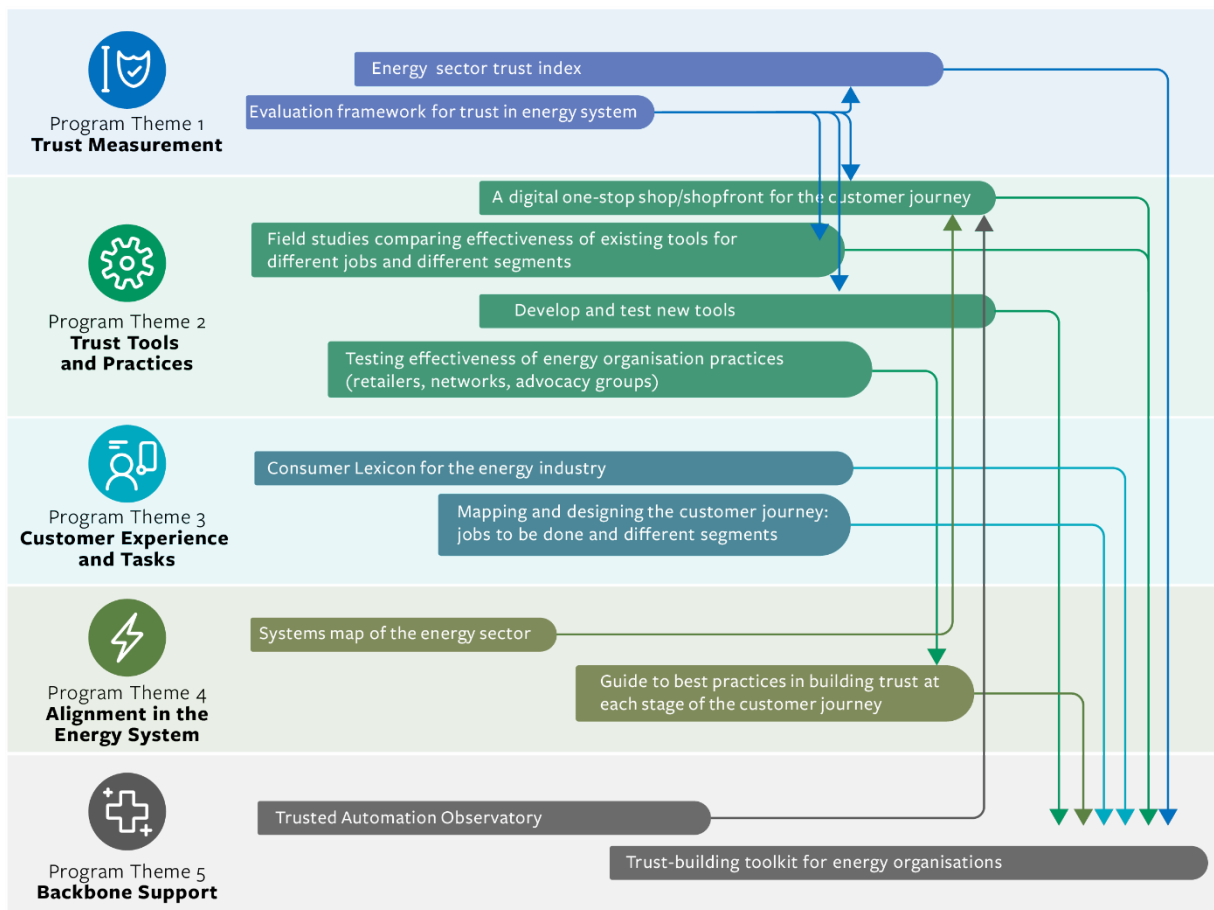*Figure 11: Strategic Order and Relationship of Projects*

Table 2: Program Roadmap and Indicative Final Project Concepts

Research Program Themes	Project Concept	Project activities 3, 5 and 10 year (To June 2023, to June 2025, to June 2030)	Outputs 3, 5 and 10 year (To June 2023, to June 2025, to June 2030)	Project type	Indicative Industry partners [ideal partners]	Researchers
Trust Measurement	Energy Trust Index	PhD thesis, empirical work commencing 2022	Trust measurement index	PhD stipend	AGL [project is already funded]	Rebekah Russell-Bennett, Terry Flew, John Gardner
	Evaluation framework for trust in energy system	Application of logic model to industry trust. Development of evaluation framework to guide data sources, management processes for monitoring, evaluating and learning across projects and programs in the industry.	Evaluation framework: definitions and principles for evaluation of projects and processes. Measures handbook, guidelines for embedding into policy and retailer/network management processes	Standard track	AGL [regulator, retailer and network]	John Gardner, Frank Mathmann, Adam Clements
Trust Tools and Practices	A digital one-stop shop/shopfront for the customer journey	Development and evaluation of an app that triages customer jobs to be done and links to different stakeholders in the system to reduce effort for customers.	Digital interface (app/website) for all customers regardless of geography, retailer, council etc. Proactively 'passes' customer to relevant organization. Could be an iteration of *Energy Made Easy*	Standard Track	[Aggregators/ digital device and monitoring companies; network business; consumer advocacy bodies]	Rebekah-Russell-Bennett, Chris Reidy, Ryan McAndrew, Lucas Whittaker.
	Develop and test new tools	A series of pilot projects that designs and tests new tools or redesigned current tools that address the limitations of current tools tested in the field studies.	A report identifying the current relative performance of different tools.	Standard track	[Aggregators/ digital device and monitoring companies; network business; consumer advocacy bodies]	RACE Researchers
	Testing effectiveness of energy organisation practices (retailers, networks, advocacy groups)	A study/studies identifying different energy sector and determining effectiveness (using an agreed definition of effectiveness). May include field, observational, qualitative or	A report identifying the current relative performance of different practices, alongside policy guidelines and design principles for practices in the energy sector.	Standard track	[Aggregators/ digital device and monitoring companies; network business; consumer advocacy bodies]	RACE Researchers

Table 2: Program Roadmap and Indicative Final Project Concepts

Research Program Themes	Project Concept	Project activities 3, 5 and 10 year (To June 2023, to June 2025, to June 2030)	Outputs 3, 5 and 10 year (To June 2023, to June 2025, to June 2030)	Project type	Indicative Industry partners [ideal partners]	Researchers
Trust Tools and Practices		quantitative studies, and benchmarking.				
	Field studies comparing effectiveness of existing tools for different jobs and different segments	A set of studies that measure the effectiveness of current tools, which segments use them, and for which customer jobs. This will involve mapping these tools against the customer journey for different segments and evaluating effectiveness for helping the customer achieve *their* goals.	A detailed report on the field studies noting: What effectiveness means for customers (their goals); How and when the customers currently use the tools; Which tools are effective and why; Comparison of tools using common metrics; Opportunity for design of new/ updated tools	Standard track	[Aggregators/ digital device and monitoring companies; network business; consumer advocacy bodies]	RACE Researchers
Customer Experience and Tasks	Consumer Lexicon for the energy industry	A critical literature review of customer-facing artefacts (bills, websites, communications), co-design workshops with key stakeholders including customers, confirmatory survey.	Dictionary or translator for language that is customer friendly. Lexicon to be used in reports, policy and communication in the sector	Standard track	AGL [Customer advocacy groups and network]	Rebekah Russell-Bennett, Chris Riedy and a linguistics researcher
	Mapping and designing the customer journey: jobs to be done and different segments	A service design study which determines the customer journey for different customer sub/segments and different customers tasks/goals. Identify points of desired interaction (i.e., when the customers want/need an energy provider to do something), key moments for determining trust, and identification of where transparency might be beneficial.	A set of customer journey maps which vary by customer sub/segment and task/goal, showing key points of interaction and trust creation or destruction. The accompanying reporting material will provide insights into customer differences and trust needs along the customer journey. This will result in guidelines for the energy sector.	Standard track	AGL [Aggregators/digital device and monitoring companies; network business; consumer advocacy bodies]	RACE Researchers

Table 2: Program Roadmap and Indicative Final Project Concepts

Research Program Themes	Project Concept	Project activities 3, 5 and 10 year (To June 2023, to June 2025, to June 2030)	Outputs 3, 5 and 10 year (To June 2023, to June 2025, to June 2030)	Project type	Indicative Industry partners [ideal partners]	Researchers
Alignment in the Energy System	Guide to best practices in building trust at each stage of the customer journey	Stock take of customer-facing energy sector practices along the customer journey (surveys, interviews); evaluation of effectiveness for building trust.	Best practice guide	Standard track	[retailer; network business; consumer advocacy body]	Chris Riedy, Sarah Niklas, Alexandra Zimbatu
Alignment in the Energy System	Systems map of the energy sector	Develop a map of the actors, influences, causes and effects of trust in the energy sector in Australia. Identify key leverage points for systems change	Report that synthesizes the evidence on trust in the energy systems causes and effects. Visual maps that identify actors, flows and leverage points leverage points for building trust, that can be strategically linked to policy, programs, and future research that leads to positive societal outcomes.	Fast Track	DISER (Federal Dept) [retailer; network business; consumer advocacy body]	Rebekah Russell-Bennett, Ryan McAndrew, Ross Gordon, Rowan Bedggood (GEER)
Backbone Support	Trusted Automation Observatory	Consumer panel, ethnographic research to test determinants of trust in situ	Prototype devices, trust development tools, policy briefings	Standard track	Redgrid [retailer; network business; consumer advocacy body]	Declan Kuch
Backbone Support	Trust-building toolkit for energy organisations	The creation of a trust-building toolkit will draw together and build on all prior stages and result in a set of materials, guides and collateral in digital format for the energy sector.	A set of 'How to…' guides for different stakeholders. Best practice trust measurement metrics and evaluation framework and principles; Exemplar social media and communication templates; Risk mitigation framework and principles for ethics and governance.	Standard track	[Aggregators /digital device and monitoring companies; network business; consumer advocacy bodies]	Rebekah Russell-Bennett, Chris Reidy, Declan Kuch, Rowan Bedggood (GEER), Kate Letheren

References

Anon (2019) Where to now for Shareholder Primacy? *Australian Institute of Company Directors blog* Available at: https://aicd.companydirectors.com.au/membership/membership-update/where-to-now-for-shareholder-primacy

Chen, Y. S. (2010). The drivers of green brand equity: Green brand image, green satisfaction, and green trust. *Journal of Business Ethics*, *93*(2), 307-319.

Harris, J., (2019) Risk management: Revisiting the legal basis of shareholder primacy. *Governance Directions*, *71*(2),76.

Hogan, Pascale, Cetois & Ashworth, 2019. Building Australia's energy literacy. Report prepared for National Energy Resources Australia (NERA). University of Queensland, School of Chemical Engineering. Available at: https://energy.uq.edu.au/files/4663/NERA%20Energy%20Literacy%20Report%20Final.pdf

Kramer, M. R., & Pfitzer, M. W. (2016). The ecosystem of shared value. *Harvard Business Review*, *94*(10), 80-89.

Mezger, A., Cabanelas, P., Cabiddu, F., & Rüdiger, K. (2020). What does it matter for trust of green consumers? An application to German electricity market. *Journal of Cleaner Production*, *242*, 118484.

Porter, M.E. (1985). Competitive Advantage: Creating and Sustaining Superior Performance. Ch. 1, pp 11-15. The Free Press. New York.

Robbins, B. G. (2016). What is trust? A multidisciplinary review, critique, and synthesis. *Sociology compass*, *10*(10), 972-986.

Šćepanović, S., Warnier, M. and Nurminen, J.K., (2017). The role of context in residential energy interventions: A meta review. *Renewable and Sustainable Energy Reviews*, 77, 1146-1168.