Effective Energy Consumer Advice Models

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Australian Energy Foundation

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Contents

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1. Executive Summary

1.1. Project Overview

The Australian Energy Foundation (AEF) conducted research on effective energy consumer advice models, funded by an Advocacy & Research grant provided by Energy Consumers Australia (ECA).

The report outlines why energy advice is essential in successfully transitioning to an equitable, net zero carbon society and in addressing the cost of living crisis. It presents a snapshot of today's energy advice services in Australia and looks at ways these can be better delivered.

The research included a review of relevant websites and literature, stakeholder interviews and workshops, consumer surveys, and AEF's eight years' experience of providing an Energy Advice Service.

1.2. The Time Is Now

The supply of energy is an essential service. Enough of it allows households to keep their homes at a habitable temperature, to use medical equipment/aids reliant on electricity, to prepare hot meals and to free up mental bandwidth. Insufficient supply takes a toll on a person's physical and mental health.

But the energy market is complex and constantly evolving, making it difficult to navigate. Decarbonisation, decentralisation, and digitisation are changing the energy landscape (Energy Consumers Australia, 2020), with 24% of Australia's total electricity generation now coming from renewable energy sources (Australian Government: Department of Climate Change, Energy, the Environment and Water, n.d.).

Increases in costs of living are putting additional pressures on households. 88% of Australians are concerned that their energy will become unaffordable within the next three years (Energy Consumers Australia, 2022).

Households are challenged to keep on top of the choices, tools and services available to serve their best interests with regard to energy and bill savings. It's difficult enough for someone working in this field, let alone for people unfamiliar with the energy market or for those who are experiencing vulnerability. Leaving people to self-navigate through a sea of content to find pertinent information and then apply it to their specific circumstances unsurprisingly leads to low or no engagement.

If Australia – and the rest of the world, is to rapidly decarbonise to address the climate emergency, we must ensure that the transition is equitable so that no Australian is left behind. And to do that, it is imperative that households engage with the energy market. Tailoring information, building trust, implementing a feedback loop, and resourcing services adequately will ultimately create the environment necessary to drive real action. Although we face tough times, this is also a period of opportunity, and we should seize upon it.

1.3. Summary of Findings

AEF's research highlights that, although information and advice is available, it is complex, confusing, delimited, and often not delivered in a way that resonates with households.

The provision of information alone does not equate to behaviour change. There is also a disconnect between common energy saving behaviours and perceived knowledge about energy efficiency. Households likely think that becoming energy efficient is more complicated or grander than it often is (Hall & Partners, 2022). Reframing what energy efficiency looks like could reduce household roadblocks to implementing energy saving changes. Recommending achievable actions based on the understanding of a household's motivation, ability and opportunity to implement those actions will

have a far greater effect than undifferentiated, potentially irrelevant messages. Tailored communications that match the needs and preferences of household members through segmentation and customisation are more likely to be understood as well as prime and elicit behaviour.

Tailoring messages can also enhance the credibility of their messenger(s) (Hawkins, Kreuter, Resnicow, Fishbein, & Dijkstra, 2008). At a time when trust, particularly of energy retailers, is at an all-time low, energy information and advice providers must make every effort to rebuild confidence in the energy market. Making energy information more digestible for everyday people through synthesis and simplification of the already-available information has the potential to break down leading barriers to engagement. To further strengthen the quality of information provided, one overarching and well-understood standard must be developed, for example a quality assurance accreditation. This is especially important when advisors, like retailers or product salespeople, have a vested interest in recommending certain products that may not be suitable for the household.

But households first need to be able to access that information and advice.

ECA's Power Shift research (Energy Consumers Australia, 2020) found that there was no 'one size fits all' solution to reach and support every household. The barriers households face in accessing relevant advice ultimately impedes changes that are in the best interest of both the household and wider society. Urgent attention must be given particularly to Aboriginal and Torres Strait Islander households who are already disproportionately affected by a lack of access to adequate energy, as this trend is likely to be exacerbated during the energy transition if not immediately addressed.

Advice, when sought, is typically triggered by financial factors, presenting an opportunity for proactive interventions that prompt households to think about energy savings. In the current context of energy price hikes, translating behaviours to financial savings is likely to be well-received.

Fragmentation of the current energy ecosystem, however, is adding unnecessary complexity in actively engaging households who could benefit from advice services. Competing organisations, departmental silos, and even divisions within teams, not only hinder holistic solutions for households, particularly those experiencing issues that are tangential to energy, they also create confusion for households attempting to access services. The customer journey is fraught with uncertainties and frustrations:

- Which organisation is best placed to solve the problem?
    - More than one may be delivering the same service and will be competing for customer engagement.
- Which team within the organisation should they approach?
    - Departmental and team divisions can appear obscure to someone external to the organisation.
- Will the advisor know whom to refer or signpost to if they themselves cannot assist?
    - A lack of coordination and collaboration due to system structure creates organisational and informational silos, halting information flow.

Advice seekers have no clear pathway to resolve their problems, particularly if these are multifaceted and complex, as they so often are.

The structural problems that lead to disjointed customer journeys also contribute to "energy 'noise' and conflicting messaging which may further discourage household engagement" (Strengers, Nicholls, Glover, Arcari, & Martin, 2019). Inconsistencies create confusion, and households don't feel confident in their energy efficiency knowledge. Trust is paramount when asking households to implement complicated or expensive transactions, such as whole house retrofit, and ensuring advice is developed by impartial actors boosts households to act. Whilst energy retailers are front of mind when households seek energy advice, there is also general distrust of the energy industry, particularly of retailers, in addition to the conflict of interest that exists in incentivising energy demand management.

The current fragmentation of advice services creates difficulties in gathering consistent and comparable data. Instead, learnings should be collected and analysed to better pinpoint new trends, gaps in service delivery and solutions to household energy issues. When fed back to decision-

makers, funders and energy advice providers, these data allow for more efficient resource distribution and continual service delivery improvement.

Australia's most common funding models for energy advice delivery do not necessarily make efficient use of resources. Funding cycles for independent community organisations who can deliver local solutions to local problems are short and often geared toward pilot projects. This creates series of incohesive projects, with lost knowledge retention when projects come to an end. The feast-and-famine cycles do no favours for the customer journey either, eroding trust when a program is paused or discontinued.

1.4. Recommendations

Energy market failures have created the need for energy advice. To ensure that all Australians have access to affordable, quality, reliable, safe and secure energy supply, advice on how to achieve that must be accessible to them. An overarching policy is needed that tailors quality energy information and advice to households, rebuilds trust in the energy market, creates a collaborative environment to collect, maintain, analyse and share consistent data, and provides adequate resourcing of advice services.

1. Advice providers must tailor information and advice
    a. Audience segmentation and customisation are necessary to generate the reach and elicit the behaviour necessary to provide an inclusive service.
    b. Messages must be suited to household preferences and circumstances and should be delivered via appropriate channels.
2. Government, industry and advice providers must build trusted sources of advice
    a. Information provision must focus on quality, not quantity. Available information should be synthesised and simplified.
    b. Information should ideally come from a trusted source.
    c. Accredited training must become a prerequisite to providing energy advice.
3. Advice providers must gather, analyse and share consistent and comparable data through a government-supplied national database.
    a. Data collection and reporting is essential to evidence-based decision-making.
    b. Feedback to funders and decision-makers will highlight emerging issues and gaps to better direct resources to where they are most needed.
    c. Feedback to service providers will improve service delivery.
    d. Good data hygiene practices must be followed, with transparency about who and how household data is handled.
4. Government must adequately resource energy advice services, including information, tools and other infrastructure.
    a. An overarching policy is needed, providing a clear framework and purpose for delivering energy advice.
    b. The structure must include strategic partnerships, integrating already-established services, with a focus on collaboration.
    c. Investment must be stable and long-term.

One-Stop-Shops are best placed to meet these service delivery needs.

2. Setting the Scene

2.1. Why Advice is Necessary

Energy is an essential service and a commodity that households generally cannot go without. Australians are facing increased cost of living pressures, including energy price hikes, coupled with an imminent need to decarbonise homes and businesses. And whilst energy information is available to make rational choices about energy products and services, the complexity of the energy market, everchanging technologies and general mistrust of the energy sector make advice services necessary for households to participate in the market with confidence. Within the current market structure, an equitable energy transition – where no Australian is left behind, requires successful engagement. Empowering households to access affordable and reliable electricity through targeted and personalised advice enables that engagement.

Energy-as-a-Service models (also known as Comfort-as-a-Service, Heat-as-a-Service and Resilience-as-a-Service) were initially considered as potential alternatives to advice provision but were soon understood to require more energy advice, not less, due to the complexities of conceptualising the service, balancing household behaviours, property characteristics and performance outcomes, and developing appropriate protection measures for households, for example if circumstances changed. Furthermore, the delivery of agreed outcomes (as opposed to outputs) is still in its infancy and, as the Victorian Council of Social Service (VCOSS) put it, “the time for trials is over” (VCOSS, 2022).

2.2. AEF experience

The Australian Energy Foundation (AEF) is an independent not-for-profit organisation that has been providing simple, tailored and accessible energy advice and practical support for communities for 21 years. Our vision is that all Australians have access to the affordable and clean energy they need to be healthy, have meaningful work, maintain financial stability, connect with their community, prosper though continuous learning, and live in a thriving natural environment. To achieve our vision, we work in partnership with all levels of society, including government, business, academia and community-based organisations.

In the past eight years, our Energy Advice Service:

- Spoke to nearly 70,000 residents, including over 5,000 home energy assessments
- Referred more than 34,500 people to suppliers/vendors
- Facilitated the installation of 5,215 solar & energy efficiency measures
- Reduced the domestic sector’s impact by 480kT CO_2e emissions

We are practical visionaries; a national for-purpose organisation whose work benefits all Australians.

2.3. What Advice is Being Delivered

The energy industry increasingly recognises that the market must be inclusive of all participants, and is working towards this, whilst being aware that more needs to be done (CPRC, 2020).

An online scan of energy information and advice showed the following services are provided to households (Australian Government: Department of Climate Change, Energy, the Environment and Water, n.d.):

- Energy guides & toolkits
- Factsheets

- Phone consultations and online support
- Incentives: financial and non-financial assistance
- Online calculators (SA.gov.au, 2022)
- Links to service providers and energy product installers

The table below reveals the 'magic' and 'shadows' of the available energy information and advice in Australia.

Table 1: Magic and Shadows of Available Energy Advice

	Tailoring	**Trust**	**Data**	**Resourcing**
Magic	Incorporation of smart devices in homes, including smart meters and other home product monitors, provides instant, measurable data at a household level.	A lot of energy information is available, particularly about market/ retail options and/or ways to shift and save energy (Strengers, Nicholls, Glover, Arcari, & Martin, 2019).	Under National Electricity Rules, AEMO operates the Market Settlement and Transfer Solutions (MSATS) portal that houses consumer data, and publishes information and analysis (e.g., of unaccounted for energy).	Grant funding is available to drive innovation in the energy sector through pilot projects.
Shadows	The typically one-directional engagement tends to inform rather than converse with households. Some households prefer to minimise introduction of new digital technologies or cannot install them and so have less opportunity to participate (Nicholls, Strengers, Dahlgren, Pink, & Martin, 2021). Engagement is often not provided in accessible formats (e.g., braille, TTY relay, languages other than English).	Providing "more information – regardless of its quality, placement or relevance – can result in negative outcomes" (Solomon & Martin-Hobbs, 2021). Engagement activities often occur in isolation, with little coordination, contributing to energy 'noise' and conflicting messaging (Strengers, Nicholls, Glover, Arcari, & Martin, 2019). There is currently no assurance of advice quality. Accredited energy advice training is	No national framework exists to provide a clear vision and enduring policy to ensure energy sector stakeholders, including vendors, retailers, community organisations, etc., work together using a single, collaborative platform. "Distributors and retailers are focused on their individual issues and customer bases, but are reluctant to talk/ collaborate to each other, and are operating in an environment with little support from other parts of the sector" (Strengers,	Funding cycles are generally no more than one year and often do not fund existing programs or large-scale projects. Although a useful source of innovation, pilots don't often lead to larger-scale delivery. Households may experience a 'postcode lottery', where advice is offered only if a specific set of conditions are met. Competitive grants and/or tendering processes can create anti-collaborative environments, potentially leading to duplication of

		not available to frontline workers. Household trust in the energy sector is eroding.	Nicholls, Glover, Arcari, & Martin, 2019). Data collection without subsequent sharing, monitoring and evaluation cannot improve services.	efforts and/or lack of support for issues identified outside the scope of agreed work.

Historically, “early adopters, people with a particular level of technological understanding, time and money” have benefitted from available energy information and advice (Energy_Advisor, 2022). Many energy advice providers and other professionals in the energy industry have suggested that households with low digital literacy or connection, those with complex needs and/or part of Culturally and Linguistically Diverse (CALD) communities are most likely to be missing out[1]. This sentiment likely stems from the prevalence of traditional engagement, such as energy guides and factsheets, that typically requires:

- Digital access and literacy
- Energy literacy and numeracy
- English language proficiency
- Able-bodiedness (i.e., no physical/mental barriers, such as visual/hearing impairments, dyslexia, motor disabilities, anxiety, autism, etc.)
- Household willingness, awareness and drive to engage

The industry has multiple stakeholders but no singular, definitive framework as to what energy advice should look like, how it should be delivered and who should deliver it. Informal advice, provided by peer-to-peer relationships (e.g., family or community groups), sits alongside formal advice (e.g., government or energy retailers) (Warren, 2020). Households may receive confusing and conflicting messages, particularly as there is no assurance of the quality of advice given, which are likely conveyed in a piecemeal fashion. This further exacerbates energy inequity.

Suitable funding models to support continued advice delivery and service improvements, including appropriate audience segmentation and targeting, will be required to “meet people where they are” (Energy Consumers Australia, 2020).

2.4. Why It Is Unsatisfactory

There are clear signals that the market is not working for all consumers. Almost three-quarters of Australians surveyed either do not engage or have low engagement with energy efficiency information, and only 28% do not face any barriers to seeking this information (Hall & Partners, 2022). Perhaps unsurprisingly, respondents who stated that nothing prevents them from seeking information are more likely to engage with information they encounter. Households are challenged to keep up to date with the choices, tools and services available to manage energy bills, but without support to navigate this rapidly shifting energy market, many are missing out. If the market was designed for ease of engagement, more people would engage with it. This market failure, however, generates the need for accessible energy advice as part of the engagement solution.

> “We can discuss how to be autonomous in the market, but fair, equitable access will only be possible once significant inequities forcing household participation are addressed” (Consumer-Interest_Group, 2022).

[1] Anecdotal evidence from a significant number of interviews conducted by AEF in the course of its work

Though traditional forms of engagement, for example letters, factsheets, bills and informational websites, provide information about the market, it is “usually conducted on industry terms, timelines and areas of interest” (Strengers, Nicholls, Glover, Arcari, & Martin, 2019), and a common sentiment among stakeholders is that, overall, engagement isn’t done well.

And that’s no wonder when:

- 44% of Australians have low literacy and numeracy skills (CPRC, 2020)
- 1 in 5 Australians speak a language other than English at home (CPRC, 2020)
- 13% of Australians do not have access to the internet (ABS, Household use of information technology, 2016)
- 1 in 5 Australians have a disability, which may impact their ability to assess information or reduce energy use without impacting their health (Australian Energy Regulator, 2021)
- 40-45% of energy consumers cannot identify the cheapest offer when presented with 3 options (The Behavioural Insights Team, 2020)

Households seeking energy information primarily feel overwhelmed by the amount of information available. One interpretation of this statement is that there is no single source of truth, and households may not know who or where to turn to for unbiased advice and information. Another interpretation is that information, when presented, is too visually busy, for example on an energy bill. Providing more information can, in fact, detract from comprehension (The Behavioural Insights Team, 2020). Likely, it’s a combination of both.

The information households seek is also perceived to be overly technical or complicated (Hall & Partners, 2022; Temby & Ransan-Cooper, 2021). Jargon (e.g., kWh, NMI) and use of digital services (e.g., smart controls, apps) appear part and parcel of the energy landscape.

And so household engagement becomes reactive, typically triggered by financial factors, instead of proactive (Hall & Partners, 2022). It should thus come as no shock that more than 150,000 Australians are in debt to their electricity or gas retailers (Whitson, 2021).

These are clear signals that the market is not working for all consumers. This market failure generates the need for accessible energy advice.

3. Tailoring Advice

The challenge of changing households' energy consumption, either through behaviour changes or home retrofits, is not the lack of information nor technical solutions but rather making practical use of the available information. Advice-seekers need to be able to easily find and understand information to feel empowered. Tailored communications that match the needs and preferences of household members through segmentation and customisation are more likely to be understood as well as prime and elicit behaviour. Household motivations, abilities and opportunities should be identified via two-way communication channels.

Not everyone wants to or is able to engage with the energy market, so default options should be arranged wherever possible with the aim to safeguard households with respect to price, quality, reliability, safety and security of supply. Third party automation and control, if used, must be carefully balanced with household needs and concerns, with ultimate control of energy use and technologies resting with the end user (Temby & Ransan-Cooper, 2021; Strengers, Dahlgren, Nicholls, Pink, & Martin, 2021). Households should not be required to have an intricate understanding of the energy market to gain access to affordable energy.

3.1. Learning from Consumers

AEF commissioned a third party, Hall & Partners, to conduct an online survey of 1,000 adult household energy consumers living in states serviced by the National Electricity Market (NEM). The survey's objective was to identify the best ways to engage consumers. In addition to acquiring demographic data, the survey asked 17 questions around consumer energy engagement experiences and preferences.

The probabilistically high number of respondent possibilities and the prevailing market conditions around rapidly increasing energy costs place some real limits on statistical confidence – despite 1,000 respondents to the survey work – around the identification and validity of potential clusters of customers. Whilst this may seem challenging with respect to the intended outcomes of the work, these factors similarly contribute to statistical validity around the notion that communication and engagement preferences across household types bear some broad similarities, which are subsequently identified.

Insights from survey responses were supplemented by interviews with industry stakeholders, prior AEF experience providing an Energy Advice Service and managing targeted community outreach programs, and a review of local and international research.

As the survey was conducted through digital means, a portion of the practical consumer base with digital literacy challenges is not represented in survey work. Supplemental evidence derived from engaging such households is used to inform guidance.

Further information concerning survey results are included in the attached report "Energy Communications: Energy usage, current communications and preferences" compiled by Hall & Partners for the purposes of this engagement (note: the report is confidential to ECA and not for public dissemination).

All statistical survey observations in this section concern the survey work (Hall & Partners, 2022).

3.2. Consumer Knowledge

Self-reported energy saving behaviours are common, as illustrated in Figure 1.

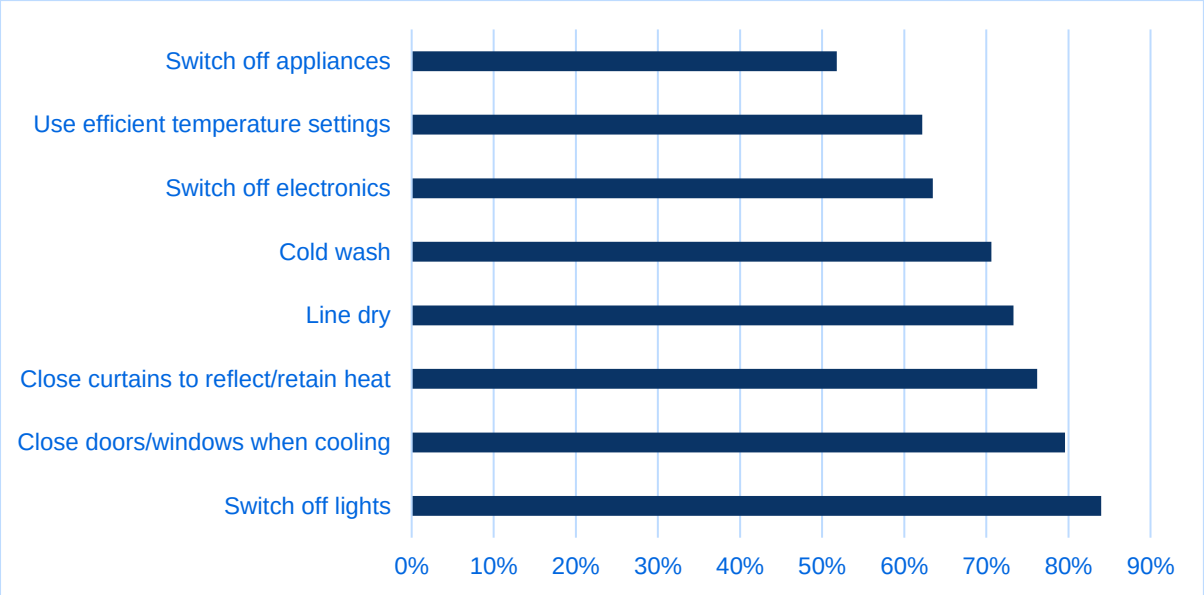


Figure 1: Percentage of respondent who perform energy saving behaviours

Despite this, half of all survey respondents told us they have low energy efficiency knowledge. The disconnect between their knowledge and behaviours suggests that the phrase 'energy efficiency' may convey grander or more complicated ideas than those that are practiced. Reframing what this looks like could offer confidence to consumers who already perform energy efficiency behaviours.

Within this dataset, differences in declared knowledge were found in age and sex.

3.2.1. Generational Divide

General trends indicated that older respondents self-identified with greater knowledge. Survey respondents aged 65+ identified with knowing 'a fair amount' on energy efficiency at approximately twice the rate of those aged 18-24.

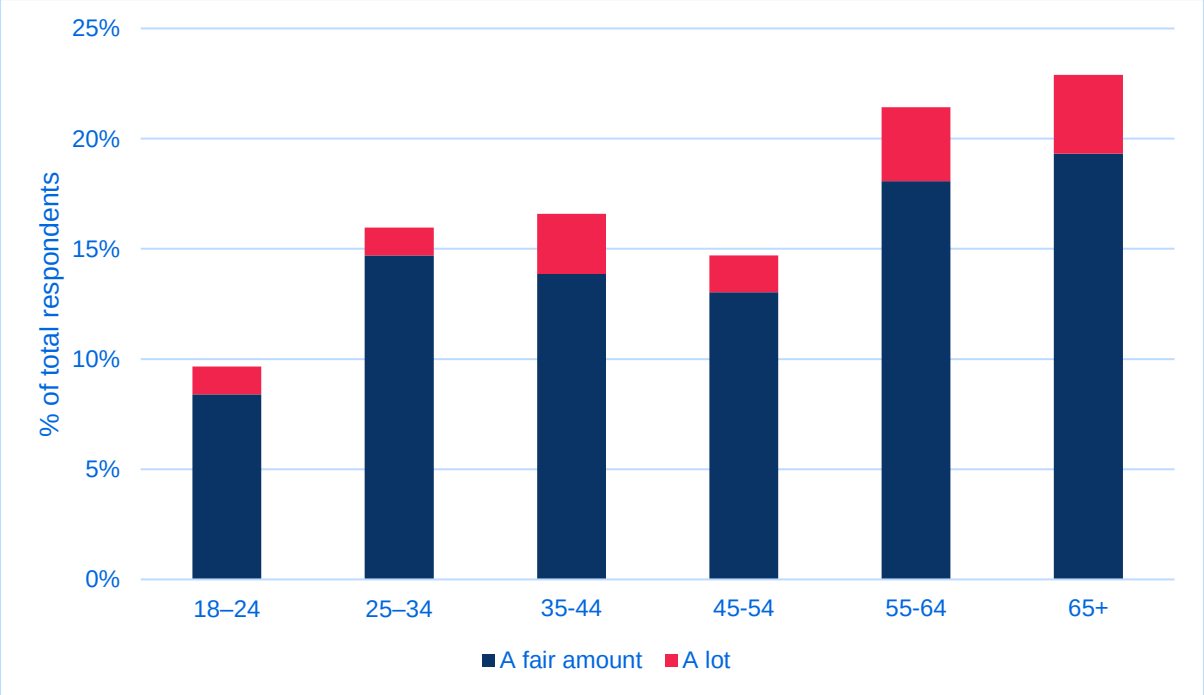


Figure 2: Self-declared energy efficiency knowledge

Greater exposure and experience with the energy market could have led to increased confidence and understanding of energy efficiency for older Australians. Energy literacy is influenced by age and bill management (Martins, Madaleno, & Ferreira Dias, 2020), suggesting that young adults, particularly those who may be encountering utility bills for the first time, may not have the same energy literacy as other Australians.

3.2.2. Gendered Divide

Men felt they knew more about energy efficiency compared with women, with 54% identifying their current level of knowledge as ‘a lot’ or ‘a fair amount’ compared to 45% of women. Whilst the survey cannot provide insight for this observation, it may be linked to the gap in intellectual self-esteem (i.e., confidence) and potential resulting exclusion from participation in activities deemed to be energy-related.

3.3. Preferred Content

Against the backdrop of the current energy crisis and increased energy costs, surveyed households overwhelmingly sought to receive information on ways to reduce energy costs, through energy efficiency (62%) and best deals (58%).

Households who stated that they did not have access to adequate energy and had a low household income wished to receive information on how to switch energy providers and on changes to rates.

3.3.1. Generational Divide

In addition to the desire for bill-saving advice, people 55 years and older placed greater importance on receiving service disruption messages whilst younger cohorts showed more interest in energy bill support options, such as payment plans. If there were no barriers to uptake, those who are 65+ would more often choose interventions to the building shell (e.g., insulation, window treatments, draught proofing) to maintain thermal comfort versus younger individuals who were more interested in efficient heating and cooling. Disability or illness (e.g., dependency on stairlift, refrigerated medicines), energy literacy, and/or tenure type (e.g., ability to upgrade building fabric or appliances) could be factors in the above results but require further research. Middle-aged and older women, particularly those without children, believe digital technologies are not marketed to them (Strengers, Dahlgren, Nicholls, Pink, & Martin, 2021).

3.3.2. Gendered Divide

When asked about potential measures to improve the comfort and energy efficiency of their homes, men showed higher knowledge and interest in battery storage whilst draught proofing attracted more attention from women. This is supported by other research that “technology-focused and led demand response initiatives” resonate more with men, and adaptation and modification of routines appeal more to women (Nicholls, Strengers, Dahlgren, Pink, & Martin, 2021). This may be evidence of domestic power dynamics at play, where “energy saving measures that involve everyday behavioural adaptations are often considered … ‘feminine’ undertakings, whilst energy efficiency retrofits fall into the male realm of home ‘maintenance.’” (Petrova & Simcock, 2019). It could equally be a consequence of marketing: middle-aged and older women, particularly those without children, believe digital technologies are not marketed to them (Strengers, Dahlgren, Nicholls, Pink, & Martin, 2021).

Declared knowledge affected responses in surprising ways: with lesser declared knowledge, the volume of interest in battery storage decreased almost proportionate to an increase in HVAC (heating, ventilation, air conditioning) appliance efficiency.

Table 2: Self-Declared Knowledge of Home Energy Improvements

	Higher declared knowledge		Lower declared knowledge	
	Men	**Women**	**Men**	**Women**
Battery storage	26%	22%	18%	11%
Draught proofing	5%	10%	6%	7%
Insulation	12%	10%	10%	12%
More efficient heating/cooling appliance	16%	16%	26%	23%
Solar panels	30%	31%	31%	34%
Window treatments	11%	11%	9%	13%

Anecdotally, this may reveal a correlation between various state government initiatives around battery energy storage (as a proxy for energy engagement).

The pervasiveness of solar panels across Australia, thanks in part to similar government initiatives and incentives, may account for the statistically similar and relatively high enthusiasm for this technology among both men and women.

3.4. Preferred Communication Channel

Bearing in mind the digital nature of the survey, the vast majority (59%) of respondents preferred to receive energy information through email communications (Hall & Partners, 2022). Letters and energy retailer/government websites also featured in the top three preferred channels from more than 1 in 3 respondents. Social media platforms were least preferred and indeed unwanted by half of survey respondents. Respondents also suggested that whilst they were most exposed to energy information through TV news and news articles, they would like to see increased use of detailed pamphlets, statistics and videos.

To support households in identifying appropriate energy choices for their circumstances, one in four people surveyed ranked in-person home energy assessments as their preferred service. First preferences, however, were largely fragmented, which is indicative of mixed needs in the market.

AEF's experience suggests that, due to the lack of universally trusted sources of information, households begin to engage with information only after being presented with it by multiple messengers across various platforms.

Patterns again emerge through segmentation of the survey data, particularly based on age and cultural diversity.

3.4.1. Generational Divide

For instance, although social media was not favoured by many people, those who listed Instagram within their top three preferred contact methods were significantly more likely to be in favour of short videos (53%). These respondents were likely to be 18-34 years old and/or without children.

This was juxtaposed by the group that listed emails as one of their preferred contact methods, who were significantly less interested in seeing videos. Respondents aged 65+ were likely to prefer email communications, and those 55+ were less likely to identify YouTube, TikTok or Instagram in their top three preferences. YouTube was statistically less likely to appear in empty nesters' top three picks.

Data reveals that YouTube and documentary videos are also likely to land better for metro area households compared to regional households.

Whilst in-person home energy assessments were the preferred service overall, people over 65 were significantly more likely to list this option first (36% vs 24%). Empty nesters were significantly more likely to want a home visit compared to households that either had children living at home or had no children.

3.4.2. Culturally and Linguistically Diverse Communities

Interestingly, CALD households wish to see a wider variety of information styles than non-CALD. A Sydney Alliance pilot program also made clear that "verbal, in-person communication using simple language was preferred over written materials as the best way for their [CALD] communities to learn new skills and information about energy" (Sydney Alliance, n.d.). Targeting this demographic through short videos was proposed by both Hall & Partners (2022) and Sydney Alliance research (Sydney Alliance, n.d.). Aboriginal and Torres Strait Islander households may also respond well to detailed pamphlets.

3.4.3. Digitally Inactive

It is important to remember households who lack digital access and/or literacy who are not represented in the survey findings. A study by Monash found that a "minority of households feel 'forced' by society into using digital technologies they do not feel comfortable with, or which could put them at risk because they do not fully understand the privacy or security considerations". Still others wished to lead "less technology-dependent home lives…including some parents of younger children" (Nicholls, Strengers, Dahlgren, Pink, & Martin, 2021). Freephone advice lines and face-to-face contact would be critical communication channels in these instances – though 'door-knocking' and 'cold-calling' by energy retailers is consistently distrusted (Smith, 2020). Although not reflective of digitally excluded households, it is relevant to note here that single parent households on a low income listed in-home energy assessments and phone consultations as their preferred methods of support (Hall & Partners, 2022).

3.5. Consumer Activation and Engagement

ECA's Power Shift research identified the importance of "meet[ing] people where they are" (Energy Consumers Australia, 2020). Providing appropriate options for consumers to manage their home energy use is an essential pillar to effective advice.

Receipt of a high energy bill or other financial strains were the most common catalysts (81%) for reevaluating the household's energy situation, followed by place-based changes (71%) and life-changing events (20%). That the top three reasons (i.e., high bill, technology to manage energy use, financial strain) relate to financial triggers is consistent with current energy market conditions.

The survey also highlighted that, although all age groups indicated they would seek advice upon receiving a high bill first, 45+ year-olds would also look for information or advice to better understand a technology or offering to help manage energy use (e.g., consumers looking to purchase an energy efficiency product), whereas those who were younger were more apt to engage when triggered by a place-based transition, such as moving out of home.

3.6. Unmet Energy Needs

The majority (85%) of survey respondents suggested that they had access to adequate energy to support their wellbeing and to live comfortably at home. Of those who have unmet energy needs, however, some groups appear to be missing out more so than others.

3.6.1. Generational Divide

Respondents aged 65+ were significantly more likely (93%) to have access to the energy they need compared with their 18-24 year old counterparts (77%). This finding may relate to the similar gap in

energy literacy between the groups but may also point to differences in housing tenure and access to renewable energy.

3.6.2. Aboriginal and Torres Strait Islander people

The dataset had a limited number of responses from people who identified as Aboriginal and/or Torres Strait Islander (ATSI) but they were disproportionately affected by serious energy deficiencies. 40% of ATSI households suggested that they do not have access to adequate energy for their needs compared to just 15% of all people surveyed. More than one comment cited affordability as a reason for this shortfall. This is a troubling statistic and warrants immediate attention to address the inequity.

3.7. Circular Communication

Providing bespoke advice benefits households by combing through cumbersome information, which individuals might otherwise by overwhelmed by, and distilling it to understandable, relevant, and meaningful actions. Recommending achievable actions based on the understanding of a household's motivation, ability and opportunity to implement those actions will have a far greater effect than undifferentiated, potentially irrelevant messages (Abrahamse, Steg, Vlek, & Rothengatter, 2005).

Whilst insights from this research (which are summarised below) create a starting point for discussions with households, the exercise must build on feedback from the target audience(s). Greyed-out cells denote that no differences were found from the overall sample.

Table 3: Energy advice delivery matrix

Messaging	Self-Reported Energy Efficiency Knowledge	Content	Channel	Triggers / Incentives
General	• Low despite high number of energy efficiency behaviours	• Save money on energy bills	• Email, letters, retailer/ government websites • TV and news articles (high impact) • More detailed pamphlets, statistics and videos	• Energy crisis and financial triggers
Young	• Lowest for 18–24-year-olds	• Billing support (e.g., payment plan offers)	• Short videos • Social media platforms	• New home guide • Unmet energy needs • Support with HVAC measures
Old	• Highest for 65+	• Service disruptions • Tech 101	• Email • No social media	• In-home assessments • Support with building shell measures
Men	• Higher	• Energy efficient technology		
Women	• Lower	• Behaviour changes		
Culturally diverse / ATSI		• Affordable energy	• Verbal, in-person comms using simple language • Short videos • Detailed pamphlets	• Unmet energy needs
Digitally inactive			• Freephone advice lines and face-to-face contact • Detailed pamphlets and statistics • TV and news articles	

Energy advice providers should test and build upon these insights, with that new knowledge captured and fed back to stakeholders as part of continued learning to improve services.

4. Building Trust

Trust is an essential component of people's decision-making, whether making small changes to their habits or large investments in new technologies. To develop a foundation of trust, ideally both the information and the information-bearer should be consumer-centric and appear credible, reliable and consistent. In practice, this involves synthesising and simplifying information for the intended audience, with a focus on quality information and advice, and communicating this through familiar, independent and/or impartial advisors.

4.1. Quality Information

Information overload and perceived complexity were identified as the leading barriers (at 23% and 22%, respectively) to engagement with energy information. CALD households especially found currently available information too technical or complicated. A Sydney Alliance study bolsters this finding by revealing "100% of [CALD] leaders cited confidence as the primary barrier to engaging in energy within their communities" (Sydney Alliance, n.d.). The maxim, "simplicity is the ultimate sophistication" should be front of mind when presenting information to households.

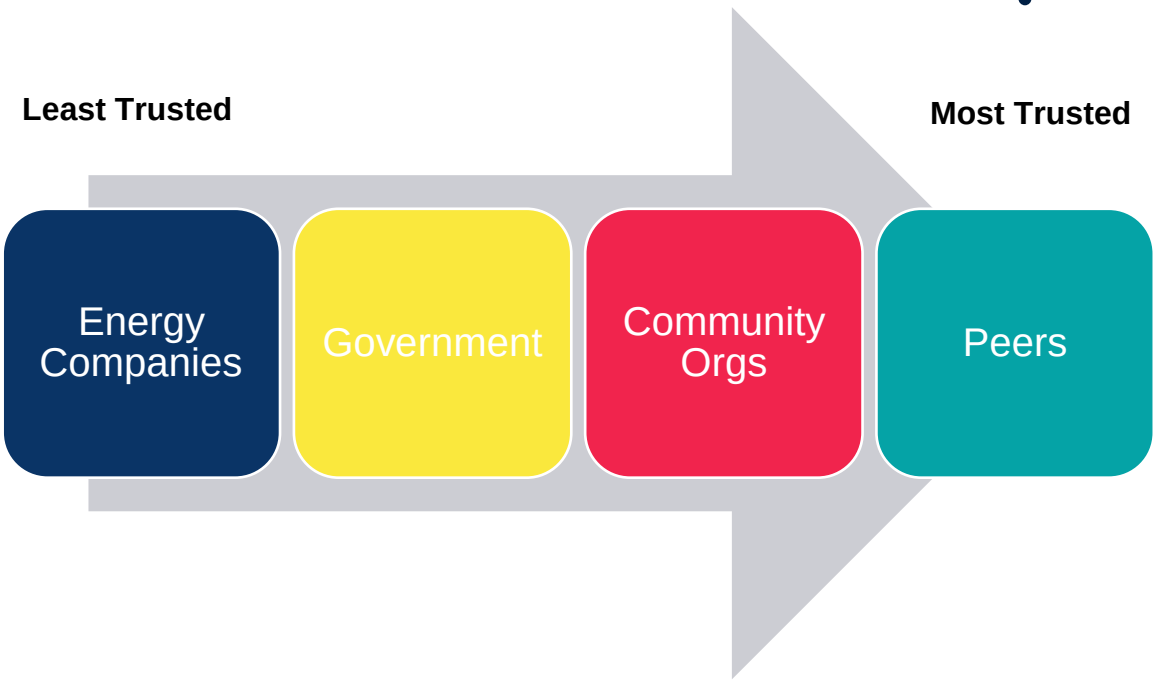
The quality of the information presented is now also the "most powerful trust builder across all institutions" (Edelman, 2022). Providing clear, concise, and consistent advice is invaluable, particularly as the energy market shifts to become increasingly decarbonised, decentralised and digitalised. The Future Grid Homes project (Strengers, Nicholls, Glover, Arcari, & Martin, 2019) found that "householders want greater transparency and honesty from the [energy] sector – including hearing more about why prices have gone up, limitations of the grid, how the Australian context compares with other countries, what the benefits of infrastructure upgrades have been and will be".

4.2. Trusted Messengers

The latest Edelman Trust Barometer (Edelman, 2022) indicates that 58% of Australians trust businesses and non-governmental organisation (NGOs) – making these the most trusted institutions despite a recent downturn across all sectors, compared with 52% who trust government. Further dissection of the business sector shows that the energy industry is trusted by only 51% of Australians.

Research commissioned by the Australian Energy Regulator (AER) also reported higher participant confidence in government and the regulator than energy companies (The Behavioural Insights Team, 2020). The report suggested a "general sense that energy companies were trying to 'trick' consumers into signing up for bad deals" (The Behavioural Insights Team, 2020).

Of the institutions and organisations providing energy information and advice across the NEM, it's reasonable to assume households would perceive them in the following manner:



While there is growing distrust of the energy industry, particularly of energy retailers (Energy Consumers Australia, 2022), households often turn to them as their first port of call when seeking energy information and advice. The Hall & Partners survey (2022) revealed 2 in 5 people would look to their energy provider for help and would want to receive information and advice from them. A poor customer service experience (e.g., disrespectful treatment, long wait times, failure to actively listen) with their retailer, however, can result in an unwillingness to engage with the retailer in future (Smith, 2020). A UK study of vulnerable adults found that "many reported feeling exhausted and even unwell after recounting their situation repeatedly [to their energy supplier] as they were transferred between departments and left frustrated over unkept promises to call them back" (Ambrose, Baker, Batty, & Hawkins, 2019).

In Europe, where one-stop-shops set up by local authorities are growing in number, these are "usually recognised by citizens and local stakeholders as a trustworthy and neutral partner" (Cicmanova, Eisermann, & Maraquin, 2020). They can offer graduated levels of service delivery dependent on household need, with the most inclusive model having vertically integrated services. This package becomes increasingly pertinent as Australians are asked to retrofit their homes – a shift from thinking about energy efficiency in terms of turning off lights and other modifications to behaviour. One-stop-shops aren't as prevalent in Australia, and Hall & Partners survey participants ranked these 5th out of 9 potential stakeholder groups.

Community groups were also proposed as preferred sources of information in the literature review (Ambrose, Baker, Batty, & Hawkins, 2019; Temby & Ransan-Cooper, 2021). However, overall, these were ranked 8th by householders surveyed (Hall & Partners, 2022). Although these organisations may not be ones people turn to in the first instance, the greater level of trust people tend to place in the voluntary and community sector offers greater scope for effective engagement. Thus, methods to raise awareness of these advice providers should be explored.

Whilst there appears to be an inverse relationship between where people generally seek energy advice and the trust they place in those entities, there are exceptions that buck that trend.

18-24-year-olds, for example, are significantly less likely to turn to their energy provider and significantly more likely to reach out to friends, family or colleagues compared to all other age groups.

Nearly 1 in 4 ATSI respondents wanted community organisations, such as sporting, cultural and educational groups, to deliver energy advice (this preference made up only 3% of all survey responses).

Additionally, of note, although CALD households were equally likely to turn to their energy retailer for energy advice as the broader population, they were significantly more likely (10% vs 4%) to reach out to their local council for energy advice.

4.2.1. Collaboration

Partnership working is important for a seamless customer journey. These relationships can ensure that households receive support for:

- Energy issues that are not perceived as such (e.g., energy debt, concessions, etc.),
- Concerns that are tangential to energy (e.g., sustainable transport including EVs, management of chronic conditions (Ambrose, Baker, Batty, & Hawkins, 2019), etc.)

The current structure of the energy ecosystem creates fragmentation and siloed mentalities, leading to a lack of coordination and collaboration. This, in turn, can halt information flow to households and create uncertainties and frustrations for them: households may not know whom to approach for help nor be proffered clear pathways to resolve their potentially complex and multifaceted problems.

Connections with trusted intermediaries and referrals between established networks create opportunities for No Wrong Door policies as a result of joined up working. Direct contact with households can also enhance learning and knowledge transfer.

An example of good practice in the Australian energy context is Victoria's Power Saving Bonus (PSB) scheme. The program has built on its previous successes (2018-2020 $50 PSB for households and 2021-22 $250 PSB for concession recipients), and the recently expanded delivery commenced just as the previous program ended, ensuring continuity of service. AEF experience in delivering Phase 1 to CALD communities noted that residents weighed up the effort and potential reward of submitting successful applications. Phases 2 and 3 increased the reward fivefold to encourage engagement.

Whilst applications must be submitted online, in-person and Freephone support is available to those who require it. The phone support services are delivered through a consortium of community organisations, led by the Brotherhood of St Laurence, with calls to a single Freephone number diverted based on available resources. Residents who speak a language other than English can access an interpreter when applying for the bonus. Feedback from frontline staff is shared to create a culture of improvement and to build a better customer experience.

Further opportunities to support collaborative efforts are discussed in subsequent sections of the report as part of continuous service improvement.

4.3. Quality Assurance

An advice provider may have the best of intentions but still fall short of delivering excellent customer service without appropriate support and training. And, currently, there is no quality assurance framework for providing energy advice in Australia.

Consider this…

A supplier of hot water immersion cylinders suggests that a household runs their unit intermittently on a timer. This contradicts advice the household received from a plumber who advised them to heat the water continuously. The logic sounds plausible from both advisors (e.g., argument 1: the tank continually loses heat since it cannot be perfectly insulated so only enough water for your needs should be heated; argument 2: it takes a lot more energy to heat a tank of water from cold than a tank of lukewarm water). But they cannot both be right, so who is to be believed?

Designing minimum standards for energy advice and delivery as well as formalising skills development, for example through a nationally recognised accreditation scheme, would reinforce household trust in the advice they receive, particularly if developed by a trusted source. Creating

guidance, monitoring compliance and providing feedback for not only the advice *content* but also *how* it is conveyed will be in important aspect of quality assurance. As the market evolves and becomes more complex, a bounded distinction between generalist and specialist advice will likely emerge.

5. Continuous Improvement

Data collected in relation to providing energy advice – if it's collected at all – is inconsistent, difficult to compare among advice providers and often is not circulated beyond internal stakeholders and project funders. The lack of a national framework and collaborative environment risks duplication of effort, missed opportunities to identify and address pressing household energy needs, and failure to improve product and service designs. Prioritising delivery of particular advice needs without adequate data can also widen other advice gaps that may have a more detrimental effect on engagement with the energy market. A coordinated effort to collect, maintain, analyse and share comparable data is thus crucial to support households who are least engaged but stand to benefit the most from advice services.

5.1. Data collection

You can't manage what you don't measure. Fortunately, in the age of digitalisation, data is often available at the click of a button. Harnessing technology, for example smart meters, smart homes, sensors and controls, and smart grids, which already generate data, is one aspect of the data-gathering process. The other is to capture relevant data – both quantitative and qualitative, through a methodical and uniform approach, which would support efforts to analyse the data and report on it. But, when faced with time pressures, particularly if data collection is not a core function of the organisation or program or frontline staff do not understand the need to collect particular data, the type and quality of data gathered may not be sufficient for comprehensive analyses.

In consultation with advice providers, including discussions about common data collection barriers, funders could create a standardised template and/or database for data input and make funding available on the provision of such data.

5.2. Data access and maintenance

Timely advice is recognised as a preventative measure. Small issues that are recognised and addressed early are less likely to escalate, which can lead to savings in costs and resources as well as better outcomes for those affected. Access to data, however, can be convoluted and can lead to delays in advice provision. Advisors and households alike are often made to jump through burdensome administrative hoops to gain access to privately held data, such as smart meter data, historical energy bills or home energy assessment reports. From experience, this has been the case if households are otherwise digitally disconnected, are unable to contact their retailer (e.g., long call queues to phone numbers which are not free and/or stakeholders not accepting household consent over 3-way calls) or cannot physically access their energy meter, nearest post office or other relevant location.

Household data that would prove useful in the energy advice context could include, but are not limited to:

- Real-time smart meter data
- Tariff and utility billing information (e.g., name of retailer(s)/distributor(s), tariff rates, discounts, arrears, NMI, etc.)
- Home energy assessment reports
- Property information (particularly if energy assessments are not available), including age, type, ownership, heritage status (if applicable), approximate size, existing energy infrastructure (e.g., rooftop solar, home battery, hot water tank, etc.)
- Existing large appliances and their efficiencies, e.g., heating/cooling appliances
- Life support registration status, receipt of concession/health cards

A UK-based energy advisor explained how she used several publicly available* resources to build a picture of a household's energy situation in preparation for an in-depth discussion with the household. These included:

1. The property's Energy Performance Certificate (EPC) (Find an energy certificate, n.d.)
2. The household's energy and water retailers (Who is my supplier, 2022; Xoserve, n.d.; Water UK, 2022)
3. If the heating appliance listed in the EPC was a gas boiler, the date of installation on the Gas Safe Register to indicate if it was condensing (efficient) or non-condensing (inefficient) (Health and Safety Executive, 2022)
4. The likelihood of walls being insulated (i.e., identification of filled drill holes and/or brick patterns) and/or glazing efficiencies by looking at images of the property using Google Maps (Google, 2022)
5. The number of bedrooms and other living spaces, if available, to understand approximate property size, on real estate sites like Zoopla (Zoopla Limited, 2022)
6. The statistical probability that the household would be experiencing poverty using an IMD map (the Environment Centre (tEC), 2019)

If proof of homeownership was necessary, for instance to access government funding, the advisor would also frequently purchase the land registry's title register (HM Land Registry, n.d.).

If/when further information was obtained about large measures, she was also able to look up boiler efficiencies (bre, n.d.) and cost/carbon savings (ofgem, 2021) associated with home energy efficiency improvements.

*Privacy policies have recently changed on some platforms to include a checkbox confirming that only the owner/occupier of the property is accessing the information.

Referring to third party support services can also be complex and confusing, with households waiting in limbo for their cases to be picked up, having to repeat details of their concerns and circumstances, or being told that their issues cannot be resolved by the referral party. For advisors, staying on top of continuously changing products, services and incentives to ensure advice is most relevant to advice-seekers can be a full-time job. A shared up-to-date database, with integrated services that support referrals between established networks – including those that provide support for issues tangential to energy, would support crucial collaboration and partnership working.

Whilst data sharing and collaboration can bring a myriad of benefits, good data hygiene practices must be followed, with transparency about how household data is handled and by whom, to create a foundation of trust. Australians expect government to play a significant role in protecting them from "risks posed by the collection, sharing and use of their personal information" (Consumer Policy Research Centre, 2020). The Consumer Policy Research Centre (CPRC) has written extensively about data sharing processes and consumer protections and should be consulted when implementing consumer-centric data sharing agreements.

5.3. Data analysis

Evaluating available data is necessary for evidence-based decision-making, trend identification and sector improvements. It can determine whether household engagement with the energy market is succeeding, call attention to effective programs and proven treatments, and help focus limited resources.

The task is straightforward when datasets are complete and consistent, which begins with good data collection practices. The absence of a coordinated effort between government, service providers and other stakeholders, however, can result in variations in how information is collected and recorded and thus create complexities in comparing data.

Insights from data analysis can potentially identify services, programs and/or treatments that elicit desired changes – individually and at scale, as well as those that have been unsuccessful during pilot testing.

Tools and calculators, like the UK's ECO deemed scores that provide estimates of cost and carbon savings for numerous energy efficiency upgrades, can further extend consistency in analysis of data.

5.4. Data reporting

Although some organisations, like ECA, publish energy advice research publicly, it is the exception and not the norm. However, reports that are circulated on public forums not only show a commitment to transparency, and hence trust-building, shared learnings can also provide valuable feedback to service providers and to decision-makers. These reports may highlight areas of bad advice, emerging issues, or gaps in knowledge and services, creating opportunities to refocus distribution of resources and improve services.

5.5. Implementation of service improvements

Shared learnings must be fed back to relevant stakeholders with a mechanism to implement sector-wide service improvements. This would reduce the chance of effort duplication, for instance by building on interventions that worked and sidestepping those that did not, and facilitate better targeted, tailored advice to households.

Evidence-based feedback cannot be left to fall on deaf ears.

6. Resourcing

To deliver quality advice services, these must be collaborative and adequately resourced. Numerous stakeholders – from peers to product promoters – provide energy information and advice to households. But without national coordination for strategic oversight, the advice may not be tailored, trusted or achieve desired outcomes. Integrating already-established services and providing stable, long-term investments in these services is key to ensuring efficient, sustained and ubiquitous delivery of energy advice.

6.1. Infrastructure

Building holistic energy advice services begins with appropriate infrastructure, including a trusted and recognisable brand, collaborative and easy-to-use technologies, and accessible physical advice hubs. Ideally, advice providers would share access to the following:

1. Brand assets and templates
2. Up-to-date database
3. Clear and easy referral pathways to specialised and/or tangential services
4. ICT, including a freephone line, collaboration software, website, etc.
5. Physical hubs, for example space within a library for drop-in clinics

National recognition, although not the only way to increase service referrals, certainly helps raise awareness of available services and salience of energy issues. It also lends itself to building trust in a reputable service and broadening its reach. This can, to a lesser extent, also be achieved through partnerships with local authorities.

Creating a framework for written and oral communications, which establishes core messages whilst maintaining flexibility of delivery to suit household preferences and needs, addresses the commitment to a single source of truth, even in providing bespoke advice.

Shared ICT can improve efficiencies and cut costs by reducing duplication of effort and enabling greater economies of scale. It also creates a better customer journey by streamlining and centralising services so that advice seekers are offered coordinated multi-agency support in a timely manner. A No Wrong Door approach breaks down silo working, improving collaboration internally among advice providers and externally with households.

Providing accessible channels for interaction, like a single freephone line and physical access to advisors – through home visiting services and drop-in centres, further ensures that anyone who wishes to engage with advice can do so.

Citizens Advice UK is a network of independent charities operating under a single national banner, which offer information and advice to people across a range of topics, including energy advice. Local organisations can apply to become part of the Citizens Advice brand, creating opportunities for offices to be set up where need is greatest.

Membership provides access to training, a shared knowledge base that is routinely updated by the national body, specialist advice support, support with marketing and promotion of services, quality assurance measures, ICT support services and other overheads.

Reporting requirements ensure that metrics are consistent and comparable, and these data feed into the evidence base to demonstrate impact of services, responsible investment of resources and service improvements. The centralised case management system captures outcomes for clients seeking advice.

The strengths of this model, however, also pose challenges for the organisation. Local branches are reflective of their locations and local demographics, making them best placed to provide local solutions to local problems. But their differences also mean that no two offices offer the same services or levels of support. This becomes problematic when the organisation is viewed as a

single entity but, for example, someone might only be able to get support with energy debt in City A and not the neighbouring City B. The quality assurance processes (e.g., specialist training) and funding partnerships for local branches can often create deserts of certain types of advice.

Reporting requirements, which provide valuable insights into how the advice landscape is changing as well as ways that services could be improved, are also onerous for the local branches. The rigorous audit (called the leadership self-assessment exercise) could find a better balance between ensuring quality practices are in place whilst minimising administration tasks in favour of focusing on advice delivery.

6.2. Access to Information

As the energy market becomes more complex, access to timely, accurate and reliable information becomes essential, both for advice seekers and advice providers. Frontline workers can feel out of their depths if proper training isn't provided, which can lead to inappropriate advice delivery. Advisors may also feel like they're jumping through hoops to access a single piece of critical information, which could unlock the mystery of a particular query or play a role in preventing escalation of issues, when the information could easily be made available on a shared platform.

To address these gaps in information and service provision, energy advisors should be given:

1. Accredited energy advisor training
2. Access to a general knowledge base
3. Access to household data

Advisor training must establish basic home energy concepts and applications but also provide tools to support interactions with households, particularly those experiencing vulnerability. The UK's City & Guilds Energy Awareness training, administered by National Energy Action (NEA), is often a prerequisite for the delivery of government-funded fuel poverty projects. Developing healthy conversation skills, for example through Making Every Contact Count training, can further discussions between advisors and advisees and empower households to manage and improve their energy circumstances. "It's about 'what matters to Sarah' instead of 'what is the matter with Sarah'" (Having Healthy Conversations, 2020)

Building on that training, advisors need access to up-to-date information about the energy market, including products, policies and programs. This database must be well-structured and consistent, with a clear understanding of who manages and maintains the information. Energy advisors are likely best placed to identify new information as it emerges based on their direct access to household enquiries and should thus be involved in content creation. The knowledge base should also make explicit where generalist advice ends and specialist/expert advice begins, including options to refer to services outside of an advisor's remit.

Whilst disclosure of household data can support advisors to provide timely, tailored advice, it must be done carefully to protect consumers. When done well, 'Data for Good' can:

- Detect and combat early stages of household vulnerability
- Establish and address the source(s) of energy concerns
- Present affordable, beneficial and appropriate choices when evaluated against product data
- Create better targeting of audiences, thereby increasing reach whilst minimising marketing needs
- Improve services through trendspotting

To safeguard consumers, transparency about collection, sharing and use of their data is imperative. Household data, open only to 'Trusted Advisors' (relevant professionals/accredited data recipients) "through platforms that are secure, interoperable with familiar tools and software", can "deliver benefit on both supply and demand side" (Lewis, 2021).

6.3. Funding

Within the scope of this engagement, AEF conducted interviews, workshops and research into existing funding models that could be used to sustain the delivery of effective energy advice services in Australia. Stakeholders to this process included industry experts, government agencies, community groups, local councils and others; a complete list is provided in Appendices 9.1 and 9.2.

Professional advice providers can be broadly classed as businesses, government and community organisations. Each of these three institutions typically use distinct funding models to deliver activities, although deviation undoubtedly occurs between individual entities within those sectors. The scope of this research did not extend to business or finance models since not-for-profit organisations and government entities cannot turn value created for their audiences into revenue streams in the same way that businesses can. All three sectors, however, require a methodical and institutionalised approach to support core advice services as provided through funding models.

With this understanding, including the benefits and drawbacks of each, the research efforts converged on an alternative concept that is being deployed internationally, which was ultimately determined to be a best fit for the purpose of this engagement.

6.3.1. Businesses

Businesses, for instance energy retailers and renewable energy vendors, use retained earnings to deliver advice to customers. This income stream is, in many ways, predictable, and the typical longevity of this funding profile allows businesses to take a whole-of-systems approach to advice delivery. Advisories can be operationalised with executable solutions, leading to rapid outcomes. They may be domain specialists, which would enable the understanding of complex matters, including technical and procedural issues (e.g., faulty part identification/replacement, energy rules and regulations). Businesses may also serve broad geographic regions, presenting an opportunity to extend reach to customers across a wide area. Additionally, some may offer enabling services, such as household finance.

The benefits of businesses delivering advice, however, are tinged with potential conflicts of interest. Businesses are commercially incentivised so, whilst the sale of a particular product might benefit the company, it may not be in the best interests of the customer. As product complexity grows, the potential for expertise misalignment also increases. Distributed energy resources (DER) and services, for instance, are a specialist knowledge domain not yet commoditised though having adjacencies with business activities. Furthermore, businesses are not impervious to underlying market volatility and their revenue – and thus funding for advice services, can be affected if not adequately considered.

6.3.2. Government

South Australia's Energy Advisory Service is one example of government-provided energy advice. Consolidated revenue is typically used to support these services. Again, this funding model ensures longevity of programs, creating the opportunity for a holistic advice delivery, including examining and addressing the causes of advice requirements. Governments, too, provide regional coverage and therefore reach. And whilst trust has been eroding across all sectors in Australia, governments are typically regarded as a source of credibility. Initiatives may reflect policy and regulatory changes, further enhancing legitimacy and scale.

Establishing and maintaining government programs and services, however, requires political buy-in and may be subject to volatility as governments change. This can be especially difficult if tensions exist between local, state and federal interests. It can also take a long time for governments to consolidate knowledge towards deliverable projects, often at high cost. They have correspondingly low agility in responding to changes (e.g., new technologies, emerging needs) and can be slow to adapt to changing requirements.

6.3.3. Community Organisations

Many community organisations, such as AEF, community energy groups, Renew and others, rely on their ability to identify and successfully bid for grants to fund contracted services. These grants are

often insufficient to maintain services on their own and so require supplemental funds, which may be commercial in nature (e.g., fee-for-service, product sales) and/or membership-driven.

Community organisations are well placed to use localised knowledge to provide specific, tailored advice to their target audience and may offer graduated levels of service delivery, dependent on household need. They typically have strong reach within both empowered and marginalised cohorts and are best able to reflect the 'voice of the consumer' at the coalface. These organisations can be highly agile and can be used by businesses and governments alike as local, dynamic consumer engagement resources.

Smaller and more regional communities, where some homogeneity typically exists in consumer interests and issues and where affected communities are small in nature, may find some success in delivering advice funded through community funds. This funding model, however, is widely regarded as unwieldy for mass market initiatives, where issues and interests are typically diverse, and the number of consumers is large.

Grant-funded contracted services delivered by community organisations are susceptible to additional weaknesses with induced, undesirable stresses placed on project continuity, retained knowledge and administrative burden. Projects and services are typically time-bound, limiting the depth and endurance of consumer relationships. Short-term and output-driven contracting is also "detrimental to partnership working due to insecurity of their organisation and staff, and focus on meeting targets" (Welshgov, 2013). In delivering contracted outputs, community organisations may be limited in their potential to address underlying or otherwise structural issues. Moreover, when projects are paused or come to an end, the knowledge gained through those projects may be lost as "unpredictable and unstable funding sources […] inhibit a service's ability to secure and retain a workforce and invest appropriately in its development" (Sylvan, 2019). The competition among like organisations for the same grant funding is considerable, further compounding the uncertainty of unstable/unpredictable funding that, in many cases cannot even be used for administrative expenses. Community funds are not typically deemed efficient investments to address the growing demand for energy advice (Citizens Advice, 2022). Community organisations face additional pressures as some knowledge domains traditionally maintained by them are now also being increasingly commoditised, limiting appeal, opportunity and financial liquidity of this sector.

The above observations should not be taken to infer that there are intrinsically better or worse custodians among these categories for consumer engagement or relevant funding. When leveraged appropriately, these stakeholders can occupy complementary roles in articulating and helping solve consumer concerns at macroscopic and individual levels alike, in addition to stimulating industry growth.

6.4. One-Stop-Shops

The service delivery must-haves (tailored and trusted advice, data collection to maintain continuous service improvement and sufficient resourcing) point to a national approach to delivering energy advice, implemented by a single independent body through connected local branches. This is akin to the recommendations made for Australia's financial counselling services, which is government-funded, with recent requests made to supplement that funding with industry contributions (Sylvan, 2019). This is also how the UK's Citizens Advice is perceived to operate, although the reality is much more complicated and involves multiple small charities, partnerships and a "mishmash" of funding (A consumer interest group, 2022). The national body and local branches are mostly funded by government, at those respective levels, although partnerships with energy retailers to deliver energy advice are also common. What Citizens Advice does particularly well is brand recognition and trust, knowledge-sharing and training, and standardised monitoring and evaluation of outcomes.

Like these models, one-stop-shops for integrated home energy retrofits are becoming increasingly prevalent across Europe and offer a combination of "light touch" advice and "hands on" upgrade coordination (Cicmanova, Eisermann, & Maraquin, 2020). "Since households' willingness to pay for advice in advance of retrofits is very low and the implementation of one-stop shops involves the

coordination of many skills and requires significant resources, most one-stop-shops projects are characterized by an intervention by the public sector" (Réfabert, 2020). Whilst commercial business models could have some influence on the delivery of the service, these alone likely could not deliver the service in its entirety.

Case Study: A successful energy transition

A remarkable shift in UK gas supply occurred over a 10-year period in the 1960s and 70s, where the country transitioned from Town (or coal) gas to natural gas. Millions of pieces of equipment were updated (either through modifications or replacements) and new gas infrastructure was built. The exercise was made possible through national oversight, bringing together manufacturers, skilled workers, the gas board, local and national media, households and other key stakeholders. A coordinated information campaign – which included appliance showrooms, facilitated bi-directional engagement between consumers and other stakeholders. The showrooms acted as one-stop-shops for comprehensive advice and information to support people in making the switch from Town gas to natural gas.

The one-stop-shop is considered the most favourable of the funding methods evaluated. A guide to setting up one-stop-shops, specific to home retrofits, is provided by Cicmanova et al (2020).

7. Recommendations

Energy market failures have created the need for energy advice. To ensure that all Australians have access to affordable, quality, reliable, safe and secure energy supply, advice on how to achieve that must be accessible to them. An overarching policy is needed that tailors quality energy information and advice to households, rebuilds trust in the energy market, creates a collaborative environment to collect, maintain, analyse and share consistent data, and provides adequate resourcing of advice services.

1. Advice providers must tailor information and advice.
    a. Audience segmentation and customisation are necessary to reach and effectively engage with all advice-seekers.
    b. Messages must suit household preferences and circumstances and be delivered via appropriate platforms.
2. Government, industry and advice providers must build trusted sources of advice.
    a. Quality information and advice must be clear, concise and consistent.
    b. Information should ideally be provided by trusted source(s).
    c. Quality assurance through accredited training and assessments that feed back to advice providers for continuous improvements to services.
3. Advice providers must gather, analyse and share consistent and comparable data through a government-supplied national database.
    a. Quality data must be captured – in part by harnessing available technologies, with adequate resources available to overcome barriers to data collection.
    b. Access to data must be streamlined and shared with a defined sub-group of advice providers.
    c. Good data hygiene practices must be followed, with transparency about who and how household data is handled.
    d. Analysis of the data must be fed back to funders and decision-makers (e.g., to make efficient use of resources) as well as service providers (e.g., for sector improvements), with a clear approach to how evidence-based feedback will be implemented.
    e. Reports should be made publicly available.
4. Government must adequately resource energy advice services, including information, tools and other infrastructure.
    a. An overarching policy is needed, providing a clear framework and purpose for delivering energy advice.
    b. The structure must include strategic partnerships, integrating already-established services, with a focus on collaboration.
    c. Investment must be stable and long-term.

One-Stop-Shops are best placed to meet these service delivery needs.

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9. Appendix

9.1. List of Interviewed Stakeholders

- Industry expert (QUT)
- The Energy Charter
- Public Interest Advocacy Centre (PIAC)
- DISER
- ACTCOSS
- Solar Victoria
- Energy Security Board
- Renew
- City of Casey
- City of Ryde
- VCOSS
- Citizens Advice UK
- ActewAGL
- Brotherhood of St Laurence
- Uniting
- Rinnai

9.2. Additional Workshop Attendees

- Industry experts (from UNSW, UQ and UTAS)
- DELWP
- St Vincent de Paul
- AER
- Aurora Energy
- Water Services Association
- City of Moreland
- Energy & Water Ombudsman NSW
- ACT government
- DPIE
- EnergyAustralia