Customers in vulnerable situations and community resilience: A cross-utility study

Executive Summary

December 2023
Prepared for NGN and EIC by National Energy Action

Dr Jamie-Leigh Rosenburgh
Dr Danielle Butler
Dr Niamh Storey

Project summary and aims

Utility networks are responsible for ensuring that communities have access to safe and efficient utility (gas, electricity, water and communications) supplies. They recognise that supporting the most vulnerable members of society in times of adversity is a necessity. However, how we understand vulnerability, the range of vulnerabilities in existence, and how different vulnerabilities interact or emerge in the context of different types of utility is complex. There is an equally complex and diverse range of non-utility stakeholders that provide support services to vulnerable utility customers. As the utility networks prepare for a challenging energy systems transition, a comprehensive and consistent approach to ensuring community resilience will be required to safeguard vulnerable individuals and communities.

To respond to this challenge, National Energy Action (NEA) worked with Northern Gas Networks (NGN) to undertake a cross-utility review that considers the range of support currently being provided, who those providers are, and what good practice means for community resilience and consumer safeguarding, both in the current energy landscape and during the future energy transition.

The research:

- Identifies how we currently understand vulnerability

- Forecasts short-term and long-term risks to community and customer resilience, including the energy justice implications associated with the low carbon transition

- Identifies current network activity to support customers and communities

- Makes recommendations to ensure that networks are equipped to provide the most appropriate support for vulnerable members of society during the energy systems transition

- Looks to strengthen existing partnership work between Gas Distribution Networks (GDNs), Distribution Network Operators (DNOs) and water utilities and highlight potential cost efficiencies on the delivery of respective social obligations

- Highlights opportunities for relevant parties, and their partners to innovate, collaborate and coordinate so that assistance is better targeted to customers most in need

- Develops best or innovating practice recommendations to support customers in vulnerable situations and frontline workers in a cross-utility network

Our approach included:

1. A desk-based evidence review of over 70 resources

2. A Call for Evidence (CFE) issued to utility and non-utility stakeholders (x53 responses)

3. Two rounds of expert stakeholder workshops (x12)

4. In-depth, semi-structured expert interviews (x10)

5. NEA, NGN 'wash-up' session

6. Quantitative household postal survey (x43 responses)

7. In-depth, semi-structured household interviews (x8)

8. Stakeholder roundtable event (x24 stakeholders)

Case Study: Liam

Energy unaffordability, customer disempowerment and reluctance to engage with support

Liam is an ex-soldier who lives in a two-bedroom council flat in the North East of England. He lives alone, but shares part-time custody of his young children throughout the week. He is currently on long-term sickness leave from employment due to some serious health issues in recent years which have left him unable to work.

Generally, Liam finds that his household budget has always been tight, but he has noticed that it is even more difficult to afford essentials in recent months. Liam noticed that his energy costs doubled during the energy crisis last year, and this was despite receiving support in the form of Energy Bills Support Scheme payments directly to his account.

"Even though I wasn't using anything more or anything less, it did, my energy prices just went through the roof…. You always worry and all that, and then also, then the prices go up and stuff like that, and there's [nothing] you can do is there?"

When he is home alone, Liam prefers to only use the heating when absolutely necessary, turning it off as soon as the house becomes warm, and making do with blankets, hot water bottles, and heavier clothing instead. He prioritises keeping his home warm when his children are staying, as well as making sure there is enough money in his budget to give them what they need, including their favourite meals, even if this means going without when he is on his own.

"I would rather make sure that my kids have got what they want and what they enjoy doing, and then I'll just backtrack then I'll just struggle… There's been many times I've gone without, and do you know what, people say it doesn't bother you, but it does in a way, but end of the day we're only human, aren't we?"

Liam recently had a gas leak in his home which was diagnosed during his annual gas safety check, which meant that his gas supply had to be turned off for a week until repairs could be made. Liam felt that the communication from the supplier and the workmen carrying out the repairs was brilliant, and they explained the fault and the timeline for repairs clearly, as well as sticking to their proposed schedule. He was even offered electric heaters during this time to ensure that he could stay warm, but he turned these down as he felt that there could be somebody else who needed these more.

"Being an ex-squaddie myself, that is drilled into you, obviously pride. There's always somebody worse off than what I am, so I would rather them get the help than me. I just get on with things. I don't ask for help… because there's other people that need that service, rather than me."

Liam often receives communications from his local council in the post on available services and support schemes.

"The council send out a leaflet every winter month and advice saying, 'Try this, and try that, and try this or try that.' And you do try it, and it's like anything, it works for some people, it doesn't work for other people. That's one thing about the Council, they do give you lots and lots of [information]- it could be by leaflet, it could be by email, it could even just be by a normal council letter."

He has never heard of net zero, but does occasionally receive communications on sustainable practices or renewable technologies via email or letter. Liam is open to trying renewable technologies if it works for him, but also felt that he was 'old fashioned' and preferred to stick with things that he knew worked for him, unless he could be swayed by cost.

"If it's for me I'll give it a try. But I don't like change to be honest with you, I'm very old-fashioned, if something works for me, I'd rather stick with something that works for me…. Basically, you try to go for the cheapest one that you possibly can and all that, so obviously you can make ends meet at the end of the day."

He is also wary of scams due to the vast amounts of information he receives in emails and letters, from different sources.

"…you get stuff sent through the post anyway off loads of different people, you get emails, just random emails about this, that, and other, and I'll read them and I'll digest them… But, sometimes you've got to be careful because there's a lot of scams out there, isn't there?"

Liam prioritises paying his bills, even if it means that he has to cut back on heating or other essentials. Liam is generally too proud to seek out or accept support, as he feels that he can go without and there is always somebody who might need it more than him. He feels a sense of a lack of control around affordability of his bills even when attempting to cut back on consumption, and that the most important aspect of support would be to address the cost of living so that customers' bills were more affordable.

"My mindset, you just grit your teeth, crack on and get on with it. There's nowt you can do at end of the day."

Summary of Findings

'Vulnerability' can be conceptualised as complex, multifaceted, and situational, and as relating to individual characteristics, circumstances, and capabilities, as well as structural and market-based inequalities. There is a need to be aware of intersectionality and protected characteristics when considering vulnerability and service design.

There are common themes of detriment or harm that customers in vulnerable situations may be at risk of experiencing within the current energy/utility system. Such detriments tend to occur along the lines of (in)affordability, communications/(in)accessibility, 'missing out' on support, and risks to personal safety. Often, vulnerability 'to' and 'from' detriments within each of these themes is overlapping and intersectional. Understanding the experience of vulnerability within each of these contexts requires an approach which can account for complexity, nuance, and multiplicity.

Possible changes to future energy systems during the low-carbon transition may engender customer vulnerability and risk of detriment in different, intersectional and complex ways, often relating to affordability, accessibility and inclusivity challenges, as well as barriers associated with digitisation and implications of said challenges and barriers for personal safety. The impacts of recent crisis events upon customers (including the implications of being able/unable to access appropriate and timely support) such as Covid-19, extreme weather events and the cost-of-living and energy crisis have furthermore highlighted how understanding vulnerability and risk of detriment in any future scenario will not require simple, one-size-fits-all approaches. Rather, approaches will need to be responsive and pre-emptive, inclusive, and subject to continual review and adaptation.

Some utility stakeholders have begun to take a 'vulnerability-first' approach to strategic planning and operational delivery. A vulnerability-first approach looks to ensure the resilience of vulnerability support services by enabling them to adapt and flex to planned and unanticipated future scenarios. Examples of best practice within such an approach that were identified by the research include vulnerability gap mapping and analysis, stakeholder partnerships and networks, continual development and refinement of Priority Service Registers, the application of impact assessment tools, ongoing research, vulnerability pathway development, and providing funding, in-kind services and/or training to key specialist and local partners, as well as strong, long-term referral relationships.

Experiences and examples shared as part of the research indicate that, to plan for addressing vulnerability in the future, the key is to work to understand the type of detriment/risk that different customers are facing now (or are likely to face in a given scenario) and the nature of vulnerability associated with that. Next comes ensuring that appropriate mechanisms are put in place to limit and address those risks. Such processes should be clearly, comprehensively and consistently built into every aspect of planning and service delivery to customers. Recognition of risk/detriment should continue to be assessed and adapted to the situation as scenarios and effects on customers change in future. This is about future-proofing services to customers in vulnerable circumstances by ensuring that vulnerability and risk of detriment awareness and preparedness is built into every aspect of service delivery and development across the industry. Here, it is essential that monitoring, research and consultation activities are ongoing to continue to be able to identify emerging vulnerabilities, gaps in existing service provision and to take a vulnerability-inclusive approach to planning.

Insights gained through stakeholder consultation during each phase of this research revealed good practice methods for addressing existing types of detriment from which customers may be at risk. Such examples provide excellent insight as to the kind of strategies and services that utilities and their partners should take into account when identifying, empowering, and providing support to customers in vulnerable situations both now and in the future according to the themes of debt and affordability; communications and accessibility; support for all; and personal safety. Insights from identified existing good practice have been used to develop a set of best practice guidelines for utility-related companies, regulators and policymakers for understanding, identifying and supporting customers in vulnerable situations both now and in the future.

Case Study: Karolina

Unmanageable costs, cutting back, health needs and language barriers

Karolina lives in a rented property with her husband. She works part time and also provides unpaid care for her husband, who is long-term disabled and cannot work due to his ill health. Her adult children have moved out of the home. Karolina pays for her gas and electricity using a prepayment meter.

Karolina has always found her household budget to be tight due to their low income, but recently this has become even more strained due to increases in living costs. She has a current application for Universal Credit, but as this has not yet been processed, she relies on the money earned from her part-time work.

"I can't pay bills because I don't have enough money…I'm working only part time and my husband is very poorly. That's why I don't have enough money for everything."

"I've applied now for Universal Credit. I don't know what will happen because I've just applied, whether it will help me or not … because I don't know what to do."

Keeping her home warm is a priority for Karolina, as her husband's health is worsened by the cold. She also prioritises preparing healthy, home cooked meals for this reason, although she sometimes goes without meals to ensure her husband is fed.

"I'm always cooking. My husband is taking a lot of medication. That's why he needs warm cooked meals… I'm maybe sometimes eating only bread."

Karolina has debts on both prepayment meters due to the increase in energy costs, even despite receiving vouchers as part of the Energy Bills Support Scheme. She also has had to top up her prepayment meters much more frequently, and has even had to borrow money from her children and friends to enable her to top up.

"I need to always find time [to top up] every week, £20, and even then I need to borrow money to top up because I don't have enough money…I borrow money from my kids if I don't have any money, or my friend".

"I have debt… Every time I top up it's taking £5 for that".

Karolina can only afford to shop for food once every two weeks, when she gets paid. As hot meals are a priority for ensuring her husband stays well, she cuts back in other areas, not buying new clothing, using blankets or heavy clothing where possible, and only heating one room in her house.

"Now everything is very expensive. That's why it's hard to live… I'm not buying many clothes. I'm older and I don't need many clothes… only underwear and sometimes I need shoes."

"I put on a blanket if I'm cold, what can I do? … I come in, get a little bit of something to eat and sit down for TV and go to bed. I don't know, there is nothing much I can do. There's not much money, that's why I can't put on central heating. If I'm doing something, I'm okay, If I'm cooking and something warm to eat."

Karolina has no idea about what support is available to help her financially, and she has not sought any help as a result. She speaks English as a second language, so sometimes struggles to understand some terminology.

Best practice guidelines

The result of this research has been the development of six best practice guidelines for utility stakeholders for understanding, identifying and supporting customers in vulnerable situations both now and in the future. They relate to: **Understanding Vulnerability; Taking a 'vulnerability-first' approach; Debt and Affordability; Communications and Accessibility; Support for All; and Personal Safety**. Each guideline has been developed using insights gathered at each phase of this research.

Within each guideline, most recommendations are addressed to utility-related companies (including suppliers and network operators across energy, water and communications services. However, there are also recommendations which cannot be implemented without action from UK Government and respective utility regulators (Ofgem, Ofwat and Ofcom). We have summarised recommendations to policymakers and market regulators from across all six guidelines within the table below.

In order to ensure the guidelines are consistently and adequately implemented across utility sector by all relevant actors:

UK government	1.**UK government** should introduce and implement a 'Help to Repay' debt repayment scheme to provide debt relief and offer repayment matching to customers facing insurmountable levels of debt. 2. **UK government** should examine how deeper price protection for low-income, vulnerable, and fuel-poor households can be introduced. This could take the form of a mandatory social tariff to provide an affordable price of energy for low-income and vulnerable households. The focus of this should be to ensure that the targeting of such a scheme goes beyond just those households that receive means-tested benefits.
Utility regulators	1. **Utility regulators (Ofgem, Ofwat and Ofcom)** should use the tools available to them to ensure cross-sector consistency and compliance (by networks, service providers and service suppliers) in implementing Guidelines 1-6 and supporting vulnerable customers. 2. **Utility regulators (Ofgem, Ofwat and Ofcom)** should work together to ensure all utility-related companies have in place affordability procedures and policies that will mean current best practice is consistently and reliably implemented across all utility sectors and by all utility actors. 3. **Utility regulators (Ofgem, Ofwat and Ofcom)** should work with Information Commissioner's Office (ICO) to clearly and explicitly set out to utility-related companies and their strategic partners what customer data they are allowed to share, when, how and with whom, in order to support customers in vulnerable situations. 4. **Utility regulators (Ofgem and Ofwat)** should work with Ofcom and mobile network providers to enable customers with no phone credit to be able to access freephone numbers. 5. **Ofcom** should identify and address any gaps in how telecommunications networks and providers ensure customers in vulnerable circumstances can access suitable communication devices/ procedures during digital service outages or disruptions, particularly in light of the pending analogue-digital switchover.

Guideline 1 Understanding vulnerability

When identifying and assessing whether a customer may be in vulnerable circumstances, utility-related companies should take into account:

Individual and personal factors	1. Changing customer circumstances and situations. 2. Individual abilities for adapting or coping with changes. 3. Temporal and space-based considerations (vulnerability can be transient/temporary). 4. How different aspects of utilities (access, use, affordability) might affect and be affected by the basic capabilities of a household.
Structural factors	1. Whether policies or market mechanisms adequately reflect, understand diverse needs and potential impacts for different customers. 2. How markets and policies could create distributional inequalities which disproportionately and adversely affect certain households. 3. Whether support mechanisms are equally accessible and open to all customers.
Intersectionality	1. Whether consideration has been given to the social determinants of health and how they can intersect with other factors to engender health-based vulnerabilities 2. The ways in which vulnerability 'to' and vulnerability 'from' can interact and intersect in complex ways 3. The multiple, complex and overlaying factors which can increase the likelihood that someone will experience vulnerability and be at risk of different kinds of detriment 4. Intersectionality with protected characteristics

Guideline 2: Taking a 'vulnerability-first' approach

Identifying and understanding vulnerability	1. Ongoing research to review, identify and understand emerging or changing vulnerabilities and to track issues affecting customers and their behaviours. 2. Data mapping from multiple sources to understand vulnerability gaps in services. 3. Ongoing workshopping and research with partners to identify current and future energy systems risk and impacts on different customers in different circumstances, including assessment of where certain customers may face disproportionate risk of detriment. 4. Coordination and cooperation of multiple internal teams to gather insight and develop appropriate services (e.g., energy futures, customer protection teams). 5. Establishing/continuing to work with consumer protection advisory groups.
Strategic and practical planning	1. Applying a 'detriment lens' to strategic planning to understand how proposed changes might result in unanticipated and/or disproportionate harms for different customers. 2. Building risk of detriment mitigation into a process from the start. 3. Business planning which is focused on addressing vulnerability gaps, year-round. 4. Using Impact Assessment Tools to assess inclusivity, diversity and impact across strategic and operational activities. Incorporating recognition and understanding of protected characteristics, including cultural and behavioural awareness, into business as usual and emergency response operations. 5. Developing 'vulnerability intervention pathways' to support identified vulnerable groups in tailored and targeted ways. This requires consideration of who vulnerable groups are, the factors which make them vulnerable, the types of support they might need and who the key partners are that those groups are likely to encounter. 6. Developing diverse targeted and tailored approaches to communicating with customers in ways which recognise individual needs and place-based characteristics.
Partnership and Collaboration	1. Working with internal teams and multiple external partners to enable a joined-up approach in identifying and supporting customers in vulnerable circumstances, including establishing appropriate referral relationships. 2. Participating in local vulnerability and/or resilience forums, to allow multiple local community partners and services to come together and communicate across sectoral boundaries. 3. Engaging with individuals/organisations that are trusted intermediaries and touchpoints of everyday life (e.g., schools, healthcare professionals, faith bodies and religious leaders) to provide customers with information and guidance in accessing support. 4. Showing a duty of care by helping to increase the resilience of community and third sector referral partners to provide crucial vulnerability services to customers – this might include partnerships where in-kind services and resources are provided, data sharing, intelligence and research services, professional training and development collaborations, and sponsorship, grants or donations. Relationships and actions should reflect year-round customer need for support. 5. Ensuring community partners are enabled to take up the offer to develop their services and cement referral relationships by developing appropriate partner engagement strategies and resources.

Guideline 3: Debt and affordability

For companies with direct billing and charging relationships with customers	
Debt	1. Follow ability to pay principles when discussing and agreeing payments and debt-repayments with customers 2. Take customer vulnerability into account when considering use of High Court Enforcement Officers for debt recovery 3. UK Government should introduce and implement a 'Help to Repay' debt repayment scheme to provide debt relief and offer repayment matching to customers facing insurmountable levels of debt. Until such a scheme is in place, suppliers should demonstrate compliance with best practice by putting in place their own debt matching/repayment schemes. 4. Build 'breathing space' into debt repayment policies
Affordability	1. UK government should examine how deeper price protection for low-income, vulnerable, and fuel-poor households can be introduced. This could take the form of a mandatory social tariff to provide an affordable price of energy for low-income and vulnerable households. The focus of this should be to ensure that the targeting of such a scheme goes beyond just those households that receive means-tested benefits. Until such mandatory protections are in place, suppliers should demonstrate compliance with best practice by ensuring customers are offered appropriate social tariffs, not limited only to customers in the social security system. 2. Implement mechanisms to limit disproportionately detrimental impacts of standing charges for customers with PPMs. 3. Ofgem, Ofwat and Ofcom to work together to ensure all utility companies and networks have in place affordability procedures and policies that will mean current best practice is consistently and reliably implemented across all utility sectors and by all utility actors.
Customer service	1. Never knowingly disconnect a vulnerable customer from supply at any time of year. 2. Offer packages of support to customers who are switched to a PPM for debt reasons. 3. Issue alerts for PPM customers at risk of standing charge build-up. 4. As far as possible provide customers (and/or their support intermediaries) with a designated relevant customer service contact for their case (who has received appropriate vulnerability training).

For all utility-related organisations (with billing and/or non-billing relationships with customers)	
Debt	1. Enable customers to access professional debt advice and support via signposting, referrals and, where possible, provide funding or in-kind support to partners who are able to provide such services. 2. Proactively identify/contact customers in or at risk of debt/arrears through the use of appropriate data sharing with external partners, internal data-matching, monitoring and mapping activities. 3. Expedite meter installations where possible and ensure they are appropriate to customer circumstances.
Affordability	1. Enable customers to access professional income maximisation support via signposting, referrals and, where possible, provide funding or in-kind support to partners who are able to provide such services. 2. Ofgem, Ofwat and Ofcom to work with Information Commissioner's Office (ICO) to clearly and explicitly set out to utility-related companies and their strategic partners what customer data they are allowed to share, when how and with whom in order to support customers in vulnerable situations. 3. GDPR teams and professionals within utility-related companies to work with relevant internal teams and external partners to put in place and develop long-term data-sharing relationships which are demonstrably GDPR compliant, and which can ensure customers in vulnerable circumstances can be identified and supported 4. Make crisis/trust funds available to customers.
Customer service	1. Take a holistic, whole-person approach to debt and affordability support by signposting/ referring customers to wider forms of support such as mental health-related services, local wellbeing initiatives including links to social prescribing, food and fuel banks. 2. Offer vulnerable customers a bespoke/tailored service package at no extra cost. 3. Consider applicability of new tools currently being used in other sectors (e.g., the Morgan Ash Resilience System Tool, developed for the financial sector) to assess customer characteristics, potential vulnerabilities/harms and identify steps to mitigate detriment. 4. Develop long-term data-sharing relationships with partners to ensure consistent recognition and awareness of customer vulnerability across organisations and sectors.

Guideline 4: Communications and accessibility

Meeting diverse needs	1. Provide specialist communications platforms, services and resources for those with sensory impairments. 2. Ensure services, communication platforms and resources are autism and neurodivergency friendly. 3. Ensure services, communication platforms and resources are disability friendly. 4. Ensure services, communication platforms and resources are suitable for those for whom English is not a primary language. 5. Work with specialist partners and community organisations to ensure services and resources are accessible and inclusive and that they can be appropriately tailored to target groups where required.
Being accessible to all	1. Provide a freephone number for customers, including from mobile phones. 2. Work with Ofcom and mobile network providers to enable customers with no phone credit to be able to access freephone numbers. 3. Consider the use of free encrypted messaging services where appropriate. 4. Provide a specialist phone line for intermediaries from the third and VCSE sectors. 5. Continue to provide in-person, telephone, written and community-based types of support alongside web-based platforms.
Customer Service	1. Make information and resources available for those with limited or no English literacy skills. 2. Ensure plain number adaptations are available for customers with limited numeracy skills. 3. Allow customers to state and update communication preferences. 4. Maintain multiple channels of communication that are flexible and responsive to needs, at no extra cost to the customer.

Guideline 5: Support for all

Priority Services Register (PSR)	1. Use innovative, accessible and targeted strategies to proactively raise awareness of the PSR directly with customers and via specialist and/or local partners, and support them in signing up (where appropriate, doing this directly on behalf of the customer). 2. Use innovative, accessible and targeted strategies to better enable and encourage customers to update their PSR status and notify about changes in personal circumstances. 3. Repeatedly review and update PSR vulnerability codes in line with work on emerging and changing vulnerabilities. 4. Incorporate extra care flags or resilience scores into PSR services which can take into account level or severity of customer vulnerability and which can help utility companies to segment customers by priority need depending on the stakeholder/situation in question. Companies would need to map vulnerability needs and capabilities against likely PSR-relevant interactions with them to enable suitable and appropriate filters and categorisations to be incorporated. 5. Ofcom to require telecommunications networks and providers to develop and maintain a PSR to ensure customers in vulnerable circumstances can be best supported during service outages or disruptions and to enable inclusive, accessible and vulnerability-appropriate methods of communication and billing with customers. 6. Companies should continue to work towards a centralised UK PSR and UK PSR website to improve PSR visibility, accessibility and consistency for customers as well as facilitating data-sharing to identify vulnerability, mitigate risk of detriment and provide support between relevant companies and partners.
Beyond the PSR	1. Better support, or support for the first time, regularly overlooked and/or less well understood demographic groups (including: those that may be classified as newly vulnerable; those with cognitive and sensory impairments; those who are digitally excluded; those with physical and mental health conditions; those reliant on medical equipment; carers; refugees; Gypsy, Roma, Traveller and Nomadic communities, those with no or limited English language skills, older people; off-gas households; private rented sector households; future/recent bill payers; and children and young people. 2. Engage in strategic, long-term, GDPR-compliant data-sharing relationships with internal teams and external partners to coordinate and target support and information provision to customers. 3. Use PSR data together with other internal data sources and external data provided by partners through data-sharing relationships to identify early indications of affordability problems for customers. 4. Enable customers to self-identify as requiring support (and self-refer) through education and awareness raising campaigns and strategies (including multiple methods of communication and relevant specialist and/or place-based partnerships to reach target groups) 5. Provide comprehensive and regular vulnerability training to customer service professionals and call centre staff to enable them to better understand vulnerability, identify vulnerability flags and potential support requirements when conversing with customers. Ensure staff simultaneously have access to appropriate mental health and wellbeing support. 6. Make use of British Standards Institute ISO standards and accompanying Kitemark for inclusive service provisions to encourage consistency

7. Conduct regular stakeholder mapping and engage in long-term key strategic and place-based partnerships to enable identification and support of customers in vulnerable circumstances. Including with organisations such as local authorities, universities and research institutions, local and national policymakers, customer and consumer groups, housing associations, community groups, third sector organisations, fire and rescue services, health and social care, schools and educational institutions, policing services, landlord associations.

8. Facilitate and enhance cross-sector working by participating in arenas such as social issues expert groups, future fairness panels, local vulnerability forums, local resilience forums, customer engagement challenge groups.

9. Take a 'making every contact count' approach to foster effective partnership working and link customers with key services.

Guideline 6: Personal safety

Personal safety during a service outage	1. Engage in long-term, strategic and GDPR-compliant data-sharing relationships with all relevant internal teams and external partners to identify vulnerable customers and coordinate appropriate support provision.
	2. Ensure effective vulnerability data-sharing and service update relationships are in place with telecommunications networks and providers, particularly important in light of the UK transition from analogue to digital landlines from 2025.
	3. Work with telecommunications companies to ensure customers on the PSR are aware of and have access to the alternative emergency communication method that should be provided to them by their telecommunications provider in case of a digital service outage.
	4. Provide regular service updates communications in multiple formats to customers (directly by utility companies and via relevant trusted partners) before, during and after the service outage/ disruption.
	5. Provide welfare and support communications in multiple formats to customers (directly by utility companies and via relevant trusted partners) before, during and after the service outage/disruption.
	6. Offer alternative goods/equipment/accommodation, including emergency survival/care packages, as appropriate to the customer/community in question (directly and via relevant trusted partners).
	7. Have automatic and voluntary enhanced financial compensation procedures in place.
	8. Offer home welfare and support visits where appropriate to the customer (directly or through relevant partners) before, during and after the service outage/disruption.
	9. Provide support for customers to quickly access emergency repairs/replacements.
	10. Ensure all steps are taken to identify customers who face disproportionate risk of detriment as a result of a service outage prior to and during an event and have in place procedures to ensure they do not go without the support they require.
	11. Ensure that during an outage, support and communications are targeted towards vulnerable customers at risk of suffering disproportionate detriment or harm due to their personal circumstances, for example, where there is a risk to health or dependency on medical equipment.
	12. Undertake further research to understand why some forms of support are not taken up during an emergency and identify partnership pathways for strengthening, supporting and reinforcing existing informal community support mechanisms.
	13. Severe weather and service outage events should see support provided which is varied, wide-ranging, adaptable to individuals' and community needs on a case-by-case basis.

A safe and just transition to net zero	1. Take a 'fabric first' approach to energy efficiency improvements. 2. Take steps to identify and address practical and cost-related barriers to households in vulnerable circumstances being able to equally and safely access, install and use alternative heating and renewable technologies. 3. Take household situation, circumstances and capabilities into account when identifying low-carbon technologies/solutions for a property. 4. Take steps to understand how different customers facing different kinds of vulnerability might encounter safety issues and develop tailored plans and approaches to help them. 5. Training contractors, installers and engineers to identify and respond to customer vulnerability (and make appropriate referrals for onward support). 6. Training contractors, installers and engineers in low-carbon technologies and appropriate installation requirements and methods. 7. Monitoring and enforcement of approved low-carbon technology installation standards 8. Provide or partner with services that can encourage and enable customer safety via the provision of appropriate personal and/or financial support and/or new physical measures as well as repairs/replacements. 9. Include customers in service/technology design and development to improve accessibility and appropriateness to different characteristics and circumstances. 10. Work to ensure new technologies and services fall within the remit of independent and approved regulators with enforcement and monitoring powers. 11. Provide training and education to partners around decarbonisation to enable them to support vulnerable households during the transition. 12. Link with partners who can help raise awareness, educate and enable safety e.g. fire and rescue services. 13. Commit funding to repair/replace unsafe appliances for customers or work with and fund the services that can do so. 14. Design communications strategies and resources and engage in partnerships that can help raise awareness and build customer and support intermediary knowledge around net zero, low-carbon transition and future energy systems in a meaningful and accessible way, to enable them to engage and make informed decisions appropriate to them, their individual needs and their circumstances.

End of executive summary. For more information about this report, please contact jamie.rosenburgh@nea.org.uk