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nationalgrid

Electricity Distribution

Power cut experiences and expectations: Research amongst vulnerable customers

Final report

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THREEHANDS INSIGHT

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INTRODUCTION

National Grid Electricity Distribution (NGED) asked Three Hands Insight to explore customers' experiences of storm-related power cuts lasting 24-48 hours or longer. The research focused on how Distribution Network Operators (DNOs) can improve communications and support for customers before, during and after an outage, with particular consideration given to vulnerable customers registered on the Priority Services Register (PSR).

NGED also wanted to share the findings with other DNOs across the UK. To support this, the insight sessions included representatives from **UK Power Networks, SP Energy Networks, Electricity North West, Northern Powergrid and Scottish and Southern Electricity Networks**.

A total of **four insight sessions** were conducted. The first two sessions, held on 8 and 10 September, **explored lived experts' experiences of prolonged power cuts**, including the challenges they faced and the impact on their day-to-day lives.

The third and fourth sessions, held on 16 and 18 September, focused on **identifying potential solutions to the challenges raised in the earlier sessions**. Lived experts explored how DNOs could improve their approach to communication and provide more effective support to customers before, during and after prolonged power outages.

CONTRIBUTING DISTRIBUTION NETWORK OPERATORS

These are the Distribution Network Operators that were involved in this research.

METHOD

25 lived experts participated in the group sessions.

14 DNO representatives attended as active observers across sessions.

Four 2-hour online group sessions

The lived experts were split into two groups. Each participant took part in two sessions - one on experiences, one on solutions.

Sessions 1 and 2 - Explored experiences of prolonged power cuts.

Sessions 3 and 4 - Focused on developing and testing potential solutions to the challenges identified in the earlier sessions.

Each group session followed a semi-structured format, organised into three parts.

80-minute semi-structured discussion

Held in small breakout groups, allowing participants to steer the conversation towards the topics most important to them.

15-minute joint reflection session

With lived experts and DNO representatives, to bring together collective insights.

15-minute DNO reflection session

To discuss **emerging insights** and identify **key takeaways.**

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INCLUSIVE RECRUITMENT AND REPRESENTATION

When recruiting lived experts for this project, we sought to include people with a range of experiences of storms, different levels of support and communication from their DNO, and varied challenges in staying safe during prolonged power outages.

We took an inclusive approach to recruitment, aiming to reflect a broad range of backgrounds, circumstances and lived experiences. Given the project's focus on people in vulnerable circumstances during power cuts, we considered factors such as age, disability, health conditions, caring responsibilities, financial insecurity, and living in rural or isolated areas. We also sought demographic diversity across characteristics including gender and ethnicity, with a particular focus on including perspectives that are often under-represented in emergency planning and response.

This approach helped bring together a group with varied experiences and perspectives, supporting a more rounded understanding of the different challenges people may face during prolonged power outages.

KEY SUGGESTED IMPROVEMENTS AND SOLUTIONS

1. **Pre-outage education and readiness:** Consider ways to increase awareness of DNOs and available support, alongside accessible offline preparedness information and practical emergency supplies ahead of periods of severe weather.

2. **Scheduled, accessible communication:** Consider providing scheduled and regular status updates during outages, including realistic information about expected restoration times, through multiple communication channels and with a clear empathetic approach to customer support.

3. **Priority Services Register:** Consider whether the PSR could better reflect different levels of vulnerability, including the needs of people with life-critical medical requirements, and whether appropriate information-sharing between relevant public bodies could help identify and support eligible households.

KEY SUGGESTED IMPROVEMENTS AND SOLUTIONS

5. **Targeted medical and healthcare backup:** Explore options for providing additional backup power and storage solutions to households that rely on electricity-dependent medical or accessibility equipment, such as portable generators, battery units and refrigeration for temperature-sensitive medication.

6. **Community support, welfare and essential services:** Consider working with local venues, community organisations and local networks to provide accessible spaces with backup power during prolonged outages, offering basic facilities such as warmth, hot water, sanitation, food and water, alongside welfare checks and other support for people who may need additional assistance.

7. **Financial and practical support:** Consider whether compensation processes could be made simpler and more accessible, including automatic payments where eligibility is clear, and whether existing eligibility criteria adequately reflect the costs associated with intermittent or repeated power cuts.

SUMMARY OF INSIGHTS

SUMMARY OF INSIGHTS

1. Preparedness for a power outage

1.1 There was a general unawareness of what DNOs are.

1.2 There was also confusion among lived experts about the role of DNOs and how they differ from energy suppliers.

1.3 Lived experts lacked clarity on what to do or who to contact during a power outage.

1.4 Most lived experts felt unprepared for a prolonged power outage.

1.5 Those who felt more prepared largely drew on previous experiences of storms and prolonged power cuts, making their own preparations and investing in backup equipment themselves.

SUMMARY OF INSIGHTS

2. Communications and support during power cuts

2.1 The level and type of support available varies across regions and DNOs.

2.2 Most lived experts had not received warnings from their DNO about impending storms or potential power cuts.

2.3 Many lived experts did not receive the updates or support they expected during a power outage, and some received no communication or support at all.

2.4 Lived experts who received DNO communications often found messages vague and generic, increasing anxiety and frustration.

2.5 As power outages disrupted broadband, landlines and mobile connectivity, lived experts were often unable to access any updates or support.

SUMMARY OF INSIGHTS

2. Communications and support during power cuts (cont.)

2.6 Fear of mobile phone battery depletion caused significant anxiety among lived experts about losing access to communication and support.

2.7 When official DNO communications failed, local community groups, social media and neighbours served as primary information channels.

2.8 Lived experts reported a lack of post-outage check-ins or ongoing aftercare from DNOs.

SUMMARY OF INSIGHTS

3. Priority Services Register

3.1 The PSR failed to deliver expected proactive communication, welfare checks or emergency assistance to lived experts during major outages.

3.2 Lived experts felt the PSR does not adequately distinguish between different levels of vulnerability, particularly where power loss presents a life-critical risk.

3.3 Address-based PSR registration meant that some lived experts were left without support when travelling, staying with friends or family, or living in temporary accommodation.

SUMMARY OF INSIGHTS

4. Health, medical equipment and physical impact

4.1 Loss of electricity put some lived experts at serious, and in some cases life-threatening, risk due to their dependence on medical equipment.

4.2 Refrigerated essential medication risk spoiling during power outages due to loss of cold storage.

4.3 Cold environments exacerbated existing physical health conditions for some lived experts, such as asthma and fibromyalgia.

4.4 Loss of access to an electric wheelchair and other mobility equipment was a significant source of stress.

SUMMARY OF INSIGHTS

5. Loss of essential facilities and wider financial impact

5.1 Loss of electricity affected access to many essential services.

5.2 Lived experts incurred high additional costs for food, heating and other essential supplies during prolonged outages.

5.3 Small businesses, remote workers and self-employed lived experts experienced direct financial losses, cancelled contracts and uncompensated lost income during power cuts.

5.4 One lived expert reported receiving a large and incorrect meter charge (over £40k) following the power outage, which remains unresolved and is causing significant distress.

5.5 Compensation was not proactively communicated to lived experts, meaning most were not aware of it.

SUMMARY OF INSIGHTS

6. Psychological, emotional and community dynamics

6.1 Sudden power outages had particularly negative psychological effects on lived experts with mental health conditions and neurodiversity.

6.2 Some lived experts experienced longer-term psychological distress, lingering fear and emotional triggers following power outages.

6.3 Neighbourly support and informal community solidarity provided essential practical assistance and welfare monitoring during extended power outages.

1. PREPAREDNESS FOR A POWER OUTAGE (INSIGHTS AND SUGGESTIONS)

1. PREPAREDNESS FOR A POWER OUTAGE

1.1 There was a general unawareness of what DNOs are.

- Across the different sessions, lived experts reported that there was widespread confusion about Distribution Network Operators, including who they are and what they are responsible for.
- “I didn’t even know what a DNO is to be honest or the 105 number until last week and it was only in this call I found out.”
- “I’m pretty savvy, but I had no idea about DNOs. Before this, I did not have a clue, which I suspect means lots of other people also don’t know.”
- “I didn't know who the DNO was until the storm had happened. And the only reason I knew was because I saw the vans outside with UK Power Network.”

1.2 There was also confusion among lived experts about the role of DNOs and how they differ from energy suppliers.

- There was also confusion about the different roles of energy suppliers and DNOs. Some lived experts assumed that their energy supplier was responsible for repairing power network faults and managing the distribution of electricity.
- “The very words DNO, somebody said, ‘Oh, your DNO. What’s that?’ So, for me, if there was ever a problem, it would be, ‘Oh, call EDF.’ I was really quite surprised when somebody said it was ScottishPower Energy Network.”
- “I was a bit mixed up between who my energy provider was, but then there’s this energy networks who actually manages the actual electricity that comes into your home and the power.”

1. PREPAREDNESS FOR A POWER OUTAGE (CONT.)

1.3 Lived experts lacked clarity on what to do or who to contact during a power outage.

- Lived experts reported uncertainty about who to contact during outages, with some contacting their billing supplier or local council rather than the 105 helpline.
- “I think my main thing was who is responsible for this, because clearly I can’t do anything about it. So, who am I to contact?”
- A lived expert contacted their local council during an outage but received an out-of-hours response directing them to other numbers. However, these numbers also led to voicemail, leaving them without access to assistance.
- “At the time [of the power cut], I didn’t know who to contact in the event of a power outage.”

1.4 Most lived experts felt unprepared for a prolonged power outage.

- Lived experts frequently experienced sudden, unexpected power cuts without adequate household preparations, essential emergency supplies, backup heating or clear contingency plans, causing significant disruption, cold environments and anxiety.
- “I realised how unprepared I am. It’s like I haven’t got an emergency pack. If mine’s off, I’m stuffed.” (Lived expert who has a long-term health condition)

1. PREPAREDNESS FOR A POWER OUTAGE (CONT.)

1.5 Those who felt more prepared largely drew on previous experiences of storms and prolonged power cuts, making their own preparations and investing in backup equipment themselves.

- "Living where we are, we learn to watch the weather forecasts, especially in the wintertime. Because we are so used to storm damage now, I invested in a couple of generators and keep them on standby." (Lived expert who lives in a rural part of Northern Ireland)
- "My experiences of past power cuts have led me to install batteries and specifically a gateway system. Over the years I realised I definitely needed a torch, so now I have power tool batteries and torches that last for days. I bought all that myself, nobody helped me."
- A lived expert caring for her daughter, who has a severe and complex health condition and relies on life-support equipment, described the extreme measures she had to take during a power cut to keep her daughter safe. She used a car to power essential medical equipment and manually irrigated her daughter's catheter when the usual equipment was no longer operational.
- Following this experience, she described the steps she took to prepare for future outages: "After that power cut really frightened me, I started to campaign and put secondary backups in place. I got solar panels with battery storage that goes straight to my daughter's bedroom if there is an outage, and I bought my own generator."

SUGGESTED IMPROVEMENTS AND SOLUTIONS

Ideas from lived experts

- **National DNO awareness campaign:** Launch community outreach campaigns to promote the national 105 emergency number and clarify the distinct roles of DNOs versus energy suppliers.
- **Emergency kits:** Provide starter emergency packs with basic essential home supplies.
- **Educational toolkits:** Distribute accessible offline preparedness leaflets, checklists, flowcharts, audio and video guides, and easy-read visual diagrams prior to severe weather seasons.
- **Encourage self-readiness:** Encourage households to be prepared and have personal backup equipment.
- **Community resilience workshops:** Host in-person educational sessions and workshops at local community centres and community groups to support self-readiness.

2. COMMUNICATIONS AND SUPPORT DURING POWER CUTS (INSIGHTS AND SUGGESTIONS)

2. COMMUNICATIONS AND SUPPORT DURING POWER CUTS

2.1 The level and type of support available varies across regions and DNOs.

- Lived experts reported regional variations in Distribution Network Operator support, with experiences ranging from proactive welfare visits and emergency generators in some areas to total communication breakdown in others.
- “When I called 105 during an outage, Scottish Power Energy Networks brought out a generator for me within half an hour.” (Lived expert with a visual impairment)
- One lived expert described being extremely distressed following her first power cut and contacting her energy company while in this state. Following this contact, she began receiving more regular check-ins and reassurance about her electricity supply. It was unclear whether she would have received the same level of ongoing support through PSR registration alone.
- She said: “Once I learned about the Priority Services Register and joined, it was really positive. They check in monthly to make sure I have power and reassure me that I will be prioritised to get electricity back or provided with a generator.” (Electric wheelchair user with cerebral palsy)

2. COMMUNICATIONS AND SUPPORT DURING POWER CUTS (CONT.)

2.2 Most lived experts had not received warnings from their DNO about impending storms or potential power cuts.

- "I can't recall ever having any kind of notification or warning, the electricity just goes. Very occasionally we start getting flickering lights, but I've never had any kind of notification to say be prepared, this might be about to happen."
- "There was no information from anybody to say prepare for an emergency, nothing like that. We were not alerted when we lost our power with storm Arwen."
- "When it was the storms that caused the power cuts, I suppose we were expecting that that was a possibility, but we didn't receive any information prior to the power cuts from the energy distributors."

2.3 Many lived experts did not receive the updates or support they expected during a power outage, and some received no communication or support at all.

- "We were just gathering information from the local radio when they were up and running and getting social media updates. But no, I'm pretty sure we had no communication as individuals from distribution companies."
- "It's the lack of communication that sort of got us, nobody was letting us know what was happening. You're just basically waiting on a light to go on. There was no communication in that line at all to let you know." (Has dementia and cares for her disabled daughter)
- "We have been on the Priority Services Register for I don't know how long, but there was no contact from them during the power cut at all." (Full-time carer for her husband with dementia, elderly mother and disabled daughter)

2. COMMUNICATIONS AND SUPPORT DURING POWER CUTS (CONT.)

2.4 Lived experts who received DNO communications often found messages vague and generic, increasing anxiety and frustration.

- Lived experts felt frustrated and anxious when DNOs sent automated, generic messages stating engineers were working on faults without providing realistic restoration timeframes, practical advice or empathetic support.
- “It was more updates of ‘we are working towards’, but it was never an actual concrete ‘this is when the problem’s fixed’. Every time I received one of those messages, it made me mad because I already know that you’re working towards it. It just doesn’t sit well.”
- A lived expert explained that receiving frequent, generic messages can lead people to disregard them, saying, “We just don’t take any notice of them.”

2. COMMUNICATIONS AND SUPPORT DURING POWER CUTS (CONT.)

2.5 As power outages disrupted broadband, landlines and mobile connectivity, lived experts were often unable to access any updates or support.

- As power cuts disrupted communication, they limited digital connectivity and left some lived experts feeling isolated and anxious, leaving them unable to receive updates or contact emergency services.
- One lived expert highlighted that power cuts could leave them without reliable access to communication, particularly in areas with poor mobile phone coverage. They explained that when the power went off, both mobile and internet-based landline services could become unavailable, making it difficult to stay connected or receive important information.
- “It’s the lack of communication that sort of got us, nobody was letting us know what was happening. The internet was down, so then using the phone was much more difficult, and you felt really isolated and cut off because of lack of communication.”
- “There’s a major issue with the change from the old telephone system to now the house phone being digital and run off the internet, which is completely useless as far as electricity is concerned. When it went out, the phone had been changed over to digital so there was nobody to tell us anything. We couldn’t phone anyone up because we had no phone to ring it with.”

2. COMMUNICATIONS AND SUPPORT DURING POWER CUTS (CONT.)

2.6 Fear of mobile phone battery depletion caused significant anxiety among lived experts about losing access to communication and support.

- Lived experts reported feeling anxious as their mobile phone batteries drained during power cuts, as phones were often relied on for emergency contacts, lighting, alarms and important outage updates.
- “The darkness is when it’s more difficult because you’re having to use the flashlight on your phone, but then you are worrying about the battery for your phone and not being able to charge it, when that’s your main source of contact.”
- “We needed the mobiles to use as a light because we were suctioning my daughter, and you can’t suction somebody in the dark. But using them as lights drains the battery. If they’re running out of charge, it becomes really scary because you’re at the stage of asking, ‘What are we going to do?’” (Carer for her daughter with a severe and complex health condition)

2. COMMUNICATIONS AND SUPPORT DURING POWER CUTS (CONT.)

2.7 When official DNO communications failed, local community groups, social media and neighbours served as primary information channels.

- When official DNO communications were limited during outages, lived experts often relied on informal local networks, including neighbours, community social media groups, neighbourhood apps and local WhatsApp groups, as sources of information.
- “In situations like this, community groups are very useful because you can get quick information. I can pop onto Facebook, go onto my community group, or use the Next-door app to see what is going on.”
- “We didn’t actually find any sort of information from the distributors on when the power might come back on. It was actually through local community Facebook groups that was keeping us updated.”
- “I got most of my information from my neighbours. We talked to each other, called different numbers, gathered information and then shared it with each other.”

2. COMMUNICATIONS AND SUPPORT DURING POWER CUTS (CONT.)

2.8 Lived experts reported a lack of post-outage check-ins or ongoing aftercare from DNOs.

- Following power cuts, lived experts reported limited post-outage communication from DNOs, including few check-ins or explanations, leaving some households feeling unsupported as they managed the ongoing impacts of the outage.
- “And even after, nobody’s sort of checking in to make sure that everything was okay and if there’s anything else that you needed. There was nothing.”
- “There wasn’t anything after the power cut. We’d been through so much trauma. It seems to be assumed that everybody is fine once the power is back, but it can be a really traumatic thing that you’ve gone through and they don’t say anything to you, leaving you to pick up the pieces.” (Carer for her daughter with a severe and complex health condition)
- “We never even managed to find out why that happened. When we looked online afterwards, there was no information on it really, and we didn’t have any contact from the distributor.”

SUGGESTED IMPROVEMENTS AND SOLUTIONS

Ideas from lived experts

- **Timeframe & interval mandates:** Offer specific, realistic restoration timeframes, paired with scheduled, fixed-interval updates, and practical guidance holding messages when repair times remain unknown.
- **Multi-channel & accessible alerting:** Expand communication to include targeted text messages, automated phone calls, emails, social media alerts, local radio and printed materials.
- **Empathetic & human-centred messaging:** Train customer service teams in trauma-informed communication and use reassuring, human-centred language across all updates to help manage anxiety.
- **Local information channels:** Partner with parish councils, local volunteer groups and community social media admins to pass on verified, official DNO updates.

SUGGESTED IMPROVEMENTS AND SOLUTIONS (CONT.)

Ideas from lived experts

- **Post-outage aftercare & feedback:** Initiate post-outage check-ins and feedback channels to confirm full restoration, explain root causes and evaluate customer wellbeing.
- **Telecom infrastructure resilience:** Collaborate with telecommunications and mobile operators to explore emergency battery backups for cellular masts, digital landlines, and home broadband routers.
- **Power banks, chargers & battery guidance:** Provide pre-charged external power banks, wind-up chargers and instructions on conserving phone battery power during cuts.

3. PRIORITY SERVICES REGISTER (INSIGHTS AND SUGGESTIONS)

3. PRIORITY SERVICES REGISTER

3.1 The PSR failed to deliver expected proactive communication, welfare checks or emergency assistance to lived experts during major outages.

- Lived experts on the PSR reported limited direct contact or support during major power outages, with some vulnerable households feeling isolated and left without the assistance they expected.
- “I’m registered on the priority register for the power boards. They are supposed to text me or ask me if I need support, and they didn’t.” (Has glaucoma requiring refrigerated medication)
- “My relatives who are on the register didn’t get any contact whatsoever because they don’t use mobile phones. I don’t really see the point in the register to be honest in this part of the country.” (Lives in a semi-rural part of North West England)
- “Even though we are on priority, there was no extra support that we were given to support us through that situation. We just had to deal with it as best we could in our own way.”

3. PRIORITY SERVICES REGISTER (CONT.)

3.2 Lived experts felt the PSR does not adequately distinguish between different levels of vulnerability, particularly where power loss presents a life-critical risk.

- Lived experts highlighted the need for a more targeted approach to PSR support, where the level and urgency of assistance reflects the potential consequences of losing power, particularly for those reliant on life-support equipment.
- "If you've not got power for two or three hours and you're powering medical equipment, it's life-saving equipment. There are so many different medical needs that it should be a bit more streamlined into people's personal needs rather than generic messages." (Carer for her daughter with a severe and complex health condition)
- "The criteria for the priority list is quite big, which means there are a lot of people on it. There should be a tiered system where anything life-threatening is top of the list, rather than chucking everybody into the same bucket."
- "Don't just chuck everybody into a priority services bucket. There needs to be individualised profiles because losing power is not just life-critical in the moment, but critical to long-term health management."

3. PRIORITY SERVICES REGISTER (CONT.)

3.3 Address-based PSR registration meant that some lived experts were left without support when travelling, staying with friends or family, or living in temporary accommodation.

- Lived experts highlighted that static address registration leaves vulnerable individuals completely without support when travelling, visiting friends or residing in temporary accommodation, calling for portable status that follows the person.
- “I was visiting a friend in Kent and my child usually has medication that’s put in the fridge. She wasn’t on the priority register because they don’t have anyone that has a disability or anyone who’s vulnerable. But we were there and we didn’t have any priority even though my child has a breathing disability, because we didn’t live in that household.”
- “How would the DNO in Kent know that someone in that property has additional support needs? Could we have a portable PSR, where customers can temporarily link their support needs to the address where they’re staying? Vulnerability follows the person, not necessarily the property.”
- “I currently actually live in London, but the power cut happened when I was in Cavin, which is in Mid Wales, and it was part of a big storm that lasted about 48 hours. I use an electric wheelchair because I’ve got cerebral palsy, so one of the things I couldn’t do was charge my electric wheelchair.”

SUGGESTED IMPROVEMENTS AND SOLUTIONS

Ideas from lived experts

- **Tiered & triaged PSR framework:** Restructure the PSR into a tiered system that prioritises individuals dependent on life-critical medical equipment above general vulnerability.
- **Portable individual PSR status:** Establish a mobile PSR registration attached directly to the individual rather than restricted strictly to a static home address.
- **Proactive data-sharing & enrolment:** Explore automatic enrolment of eligible vulnerable customers through secure data-sharing partnerships with the NHS, care providers, DWP, local authorities and fire services.
- **Dedicated PSR fast-track line:** Provide a dedicated direct telephone number for PSR customers that bypasses automated call menus and interactive voice responses.
- **Jargon-free PSR rebranding:** Rebrand or rename the Priority Services Register using plain-English, accessible terminology so eligible customers understand its purpose.

4. HEALTH, MEDICAL EQUIPMENT AND PHYSICAL IMPACT
(INSIGHTS AND SUGGESTIONS)

4. HEALTH, MEDICAL EQUIPMENT AND PHYSICAL IMPACT

4.1 Loss of electricity put some lived experts at serious, and in some cases life-threatening, risk due to their dependence on medical equipment.

- Lived experts dependent on life-sustaining medical equipment, including oxygen concentrators, suction machines and brain implant chargers, faced serious and, in some cases, life-threatening health risks when power outages disrupted access to their essential medical devices.
- “My daughter is on oxygen, so we had to think quickly. We used lights from our mobile phones while providing her with intensive respiratory care. At one point her suction machine had to be charged in the car. It was risking my daughter’s life.”
- “I have got a device I need to charge an implant in my head. Most of the time that device is charged, but now and again I forget to juice it up. If the thing in my head stops working, it is quite inconvenient to say the least.”
- “My husband’s medication is in a unit which is powered by electricity and it dispenses medication to him at certain times. If the power goes off, that does not work. Controlled drugs you are not allowed to keep spares of, so he ends up going without critical medication.”
- “When my wife was ill, she was on an oxygen machine run by electricity. The battery only lasts a couple of hours, and if power went off, that would have been a critical issue where we would have had to load her breathing equipment into the car and drive somewhere.”
- “My son uses a nebuliser for breathing. If there is no electric, it is not going to be used unless I have a power bank where I can charge it.”

4. HEALTH, MEDICAL EQUIPMENT AND PHYSICAL IMPACT (CONT.)

4.2 Refrigerated essential medication risk spoiling during power outages due to loss of cold storage.

- Lived experts described distress and disruption when power cuts threatened the storage of essential refrigerated medications, with some having to quickly arrange alternative refrigeration through family, friends or local pharmacies.
- “I have glaucoma and another eye issue, so the medication has to be refrigerated. If there is no power, there is no refrigeration, so it gets spoiled.”
- “I’ve got my medication in the fridge, and when the fridge went off I panicked about what to do. I had to contact my aunt early in the morning and store my medication in her fridge, but not knowing how long I would be without medication in my own fridge was daunting and very scary.”
- “My dog is diabetic, so whilst I myself didn’t have medication in the fridge, my dog’s diabetes medication was in the fridge and at risk.”

4. HEALTH, MEDICAL EQUIPMENT AND PHYSICAL IMPACT (CONT.)

4.3 Cold environments exacerbated existing physical health conditions for some lived experts, such as asthma and fibromyalgia.

- "Myself and my children have asthma, and we are triggered by cold. When we had our power cut, which lasted around 32 hours in the winter, we had no heating or hot water at all."
- "Being left without heating, either by gas or electricity going off, is not very pleasant. Because I am immunocompromised with an autoimmune disease, my body needs to be kept warm."
- "Because I have a lung condition, I ended up with a chest infection. The antibiotics and steroids were not working because I was not getting any heat, so it was preventing me from getting better. When the electricity went back on, I ended up in hospital."

4. HEALTH, MEDICAL EQUIPMENT AND PHYSICAL IMPACT (CONT.)

4.4 Loss of access to an electric wheelchair and other mobility equipment was a significant source of stress.

- Power cuts disrupted access to essential mobility and accessibility equipment, making everyday activities more difficult and, for some lived experts, limiting their ability to move safely around or leave their homes without additional support.
- “My daughter has an electric wheelchair and a three-floor lift up into the bedroom which works by electric. If a power cut happens suddenly when she is upstairs, she has to use a commode in the dark. The hospital bed does not work either and cannot be tilted or raised.”
- “I use an electric wheelchair because I’ve got cerebral palsy, so one of the things I couldn’t do was obviously charge my electric wheelchair. That made it really difficult.”
- “For me, the power cut lasted about 30 hours, but at first I didn’t know how long it was going to last, so I was anxious about when I was next going to be able to charge the electric wheelchair. As the battery drops, so did my confidence because it’s what I rely on to get around, so I ended up having to use the manual chair.”
- The same lived expert added: “The thing with the manual chair is I use one hand to carry stuff, like a saucepan, so that’s only doable in the electric chair. There were a lot of daily things that I couldn’t do because I had to use both hands to manoeuvre the manual chair.”

SUGGESTED IMPROVEMENTS AND SOLUTIONS

Ideas from lived experts

- **Life-critical power deployment:** Deploy mobile generators, temporary battery backup units, and mobility-specific power supplies directly to households reliant on critical medical equipment, wheelchairs, stairlifts and home lifts.
- **Personalised medical power plans:** Formulate individualised emergency power cut plans and medical passports for health-dependent customers upon PSR onboarding.
- **Cold-chain preservation schemes:** Distribute mini battery-operated fridges, cool bags and insulated ice packs for home medication storage, and establish backup cold-storage schemes with local pharmacies.

5. LOSS OF ESSENTIAL FACILITIES AND FINANCIAL IMPACT
(INSIGHTS AND SUGGESTIONS)

5. LOSS OF ESSENTIAL FACILITIES AND WIDER FINANCIAL IMPACT

5.1 Loss of electricity affected access to many essential services.

- Power cuts disrupted lived experts' sense of independence, security and control over everyday life. The loss of heating, hot water, cooking facilities and access to essential supplies left some feeling trapped and unable to meet basic needs, while difficulties accessing fuel, making payments and moving around safely added anxiety and uncertainty during an already stressful situation.
- "I have gas central heating, and once the power goes off the pump doesn't run, and if the pump doesn't run the boiler doesn't run and that goes off as well. So I have no heating at all."
- "Because I had no electric, I had no gas because it was all connected. So I had no cooking facilities either because I had an electric cooker, and there was no hot water so you couldn't even get a shower or a bath."
- "I had electric roller shutter doors fitted to my garage, where my freezers and spare supplies are kept. But when there's a power cut, I can't open them to get hold of anything."
- "Only cash could be used, but cash machines weren't working and card machines didn't work either. So shops were just giving food out because they couldn't keep it."
- "Our local petrol station doesn't have a generator, so when the power goes off, they can't dispense petrol. So if I haven't managed to keep the car full of petrol, then we are completely stuck."
- "The heating and water run with electricity at my place. So if the electricity is gone, I am going to struggle with water, heating and drinking water. You can't even flush the toilet without water."

5. LOSS OF ESSENTIAL FACILITIES AND WIDER FINANCIAL IMPACT (CONT.)

5.2 Lived experts incurred high additional costs for food, heating and other essential supplies during prolonged outages.

- Lived experts experienced financial strain during prolonged power cuts, including costs associated with replacing spoiled food, purchasing takeaway meals and emergency supplies such as candles and heaters.
- “It cost us a fortune to be honest. It was a freezer and a fridge full of food, plus I had a freezer out the back full of food. I had to run along to the fish shop in three coats, buy credit for my phone, and buy candles. I had to change the whole food situation, empty all my freezers, throw the food away and refill them.”
- “People on a low income can’t always get blackout packs together. I’ve put mine together slowly over the last couple of years and it has cost significantly, probably about £100 for everything we need, and I still can’t afford a power pack because they’re too expensive.”
- “Supermarkets didn’t open for the first 24 to 48 hours, and food in freezers deteriorated over the seven days we were without power, causing significant financial loss.”
- “I lost a lot of food. I had been shopping the day before and filled up my fridge and freezer, and everything was spoiled.”

5. LOSS OF ESSENTIAL FACILITIES AND WIDER FINANCIAL IMPACT (CONT.)

5.3 Small businesses, remote workers and self-employed lived experts experienced direct financial losses, cancelled contracts and uncompensated lost income during power cuts.

- Small business owners, self-employed workers and those working remotely experienced financial impacts during power cuts, including refunded client fees, lost working hours, spoiled stock and business disruption that was not covered by existing compensation schemes.
- “I’m a trainer and I was having to cancel workshops so you know I lost income. And again, we didn’t know what would happen, if we could rearrange or what. So, it’s just having to give people their money back. And there was no compensation for any of that.”
- “Because I ran a business, I was speaking to lots of small business owners about the damage done to them. I was a member of the Federation of Small Businesses, and the FSB thought everyone had been compensated. But in the village I live in, the government decided there weren’t enough businesses to bother compensating them. They didn’t know that businesses in rural communities, those of us who work from home, hadn’t been looked after.”
- “I was working at that time with a company based in London. Of course, London wasn’t affected by it, so I was trying to maintain communication with my employer, who wasn’t particularly understanding of the circumstances.”
- “At that time, there weren’t that many people working remotely like myself - it was a fairly new thing. But since COVID, should that happen again, there will be an awful lot of people affected by it. So again, I think there’s a process of education and planning to be done there.”

5. LOSS OF ESSENTIAL FACILITIES AND WIDER FINANCIAL IMPACT (CONT.)

5.4 One lived expert reported receiving a large and incorrect meter charge (over £40k) following the power outage, which remains unresolved and is causing significant distress.

- Following a power outage, one lived expert reported that a malfunctioning meter resulted in an erroneous £44,000 bill accumulating over three years. Despite the bill appearing inconsistent with the energy use expected for their home, their energy provider initially maintained that the charge was accurate. The issue remains unresolved and has caused significant emotional distress, involved prolonged disputes with the Ombudsman, and raised concerns about the potential financial consequences, including bankruptcy.
- “Ever since then something happened to my meter and over three years it is showing £44,000 on my electric.”
- She added: “It’s sort of mathematically impossible for a three bed to have that but they insisted that it was that. So I’ve been trying to deal with this for the last few years now.”
- “I was looking at bankruptcy to be honest in January and obviously then the last resort they said to send it to ombudsman. So that’s where it is now and that’s from a few years ago when this happened.”

5. LOSS OF ESSENTIAL FACILITIES AND WIDER FINANCIAL IMPACT (CONT.)

5.5 Compensation was not proactively communicated to lived experts, meaning most were not aware of it.

- Lived experts highlighted a lack of proactive communication regarding outage compensation, noting that eligibility criteria was rarely explained, information was not freely provided and lived experts were often only informed of compensation after making an explicit complaint.
- “I complained about the fact that I’d lost so much food and I was told you can claim compensation. That part of it was actually really simple and easy and I was refunded, but I had to sort of complain about it beforehand. The information wasn’t freely given.”
- A lived expert spoke about not receiving compensation for a prolonged power cut as the power intermittently came back on. “When we had a prolonged power cut, five days for some of us, the power company put the power on for something like half an hour or an hour a day and therefore no one was eligible for compensation. They didn’t have to pay anyone compensation.”
- “Getting compensation is designed to be as difficult as it can be rather than as easy and as accessible as it can be.”
- One lived expert received £100 in compensation following a power cut, but felt this did not cover the wider costs she incurred, including spoiled food, replacement food, phone credit, candles and other essentials.

SUGGESTED IMPROVEMENTS AND SOLUTIONS

Ideas from lived experts

- **Emergency warm hubs:** Establish local emergency warm hubs and community shelters in village halls, schools or leisure centres equipped with backup generators, space heating, hot water and washing/sanitation facilities.
- **Emergency catering & mobile food units**: Deploy mobile catering vans and community food services to affected neighbourhoods to provide free hot meals and hot drinks.
- **Domestic water supply delivery:** Supply emergency bottled water and purification tablets when power outages disrupt domestic water pumping.
- **Thermal emergency packs:** Distribute thermal blankets, cold-weather clothing supplies and non-electric heating items directly to cold-affected homes.

SUGGESTED IMPROVEMENTS AND SOLUTIONS (CONT.)

Ideas from lived experts

- **Automated compensation:** Automate compensation payments and simplify claims using a transparent, proactive reimbursement model that eliminates manual applications.
- **Eligibility rule reform:** Reform compensation rules to cover brief or intermittent power restorations and proactively publish clear claim steps across all media.
- **Direct emergency meal allowances:** Issue immediate emergency takeaway food vouchers or allowances to households unable to store or prepare food.
- **Business & freelancer loss claims:** Establish streamlined financial loss support and compensation mechanisms tailored specifically for small businesses, gig workers and remote workers.

6. PSYCHOLOGICAL, EMOTIONAL AND COMMUNITY DYNAMICS
(INSIGHTS AND SUGGESTIONS)

6. PSYCHOLOGICAL, EMOTIONAL AND COMMUNITY DYNAMICS

6.1 Sudden power outages had particularly negative psychological effects on lived experts with mental health conditions and neurodiversity.

- Sudden power cuts caused distress and anxiety for some lived experts, particularly neurodivergent people and those with mental health conditions, as the unexpected disruption, loss of routine and darkness could intensify existing sensitivities or difficulties.
- “I got really grumpy... I now know that kind of my autism, the change and not knowing what was going on really impacted my ability to function… By day two I was really stressed... going to bed cold, going to bed with candles, all that was very disturbing for my nervous system.”
- “I have ADHD, autism and PTSD and I find any outage very distressing... I can go quite loony if it’s for 48 hours, that was too much for me.”
- “I have chronic claustrophobia and chronic PTSD, and I do struggle in complete darkness.”

6. PSYCHOLOGICAL, EMOTIONAL AND COMMUNITY DYNAMICS (CONT.)

6.2 Some lived experts experienced longer-term psychological distress, lingering fear and emotional triggers following power outages.

- Lived experts described longer-term psychological impacts following power cuts, including ongoing anxiety, heightened fear during storm forecasts or minor power flickers, and increased vigilance around preparing and maintaining emergency supplies.
- “The trauma of it all and the actual impact on people’s mental health... it can be quite triggering for me. It is also triggering when you hear that there’s going to be a storm, you think ‘oh no, how’s this going to impact?’” (Carer for her daughter with a severe and complex health condition)
- The same lived expert also described the impact of a power cut, when she was unable to operate her daughter’s life-saving medical equipment. She said: “It was very, very difficult for us because that gave us PTSD really. We were traumatised by it because we didn’t have the resources that we needed to be able to get through that and we thought we were going to lose our daughter”

6. PSYCHOLOGICAL, EMOTIONAL AND COMMUNITY DYNAMICS (CONT.)

6.3 Neighbourly support and informal community solidarity provided essential practical assistance and welfare monitoring during extended power outages.

- "One of our neighbours is a builder and they had a generator and they took that to the frailest of our neighbours."
- "There were certainly no welfare checks or anything like that. If we weren't looking after our neighbours, no one else would have, and that was worrying that there were no welfare checks."
- "Some of my neighbours were lucky because they had gas cookers and some of my neighbours had generators where I didn't. So, I was running in there... getting them to fill us a flask of water."
- "I got the majority of my information from my neighbours to be fair... I was talking to my neighbours, I was like, 'Okay, cool. What are we going to do?' One was I'm going to call them... We're going to get together and then we're going to share the information with each other."
- "What is helpful with my block of flats in London is we have got a WhatsApp group... so we get updated through other people in our block."
- "The only way of getting information was from a very close community, your neighbours basically."

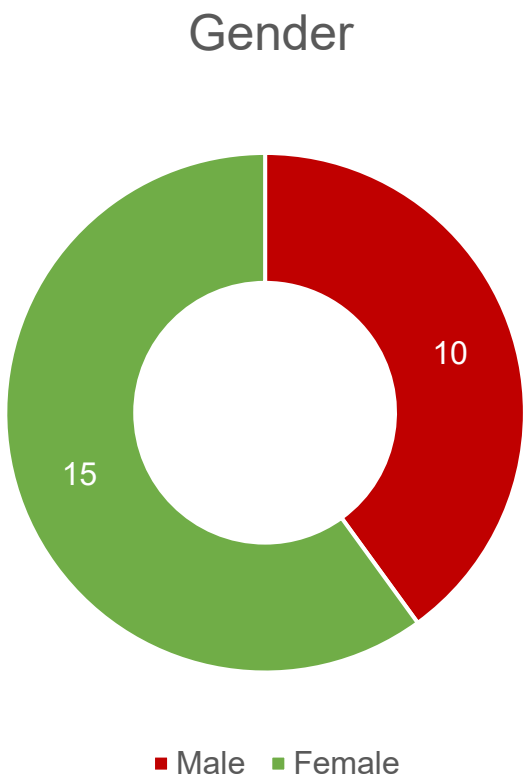
SUGGESTED IMPROVEMENTS AND SOLUTIONS

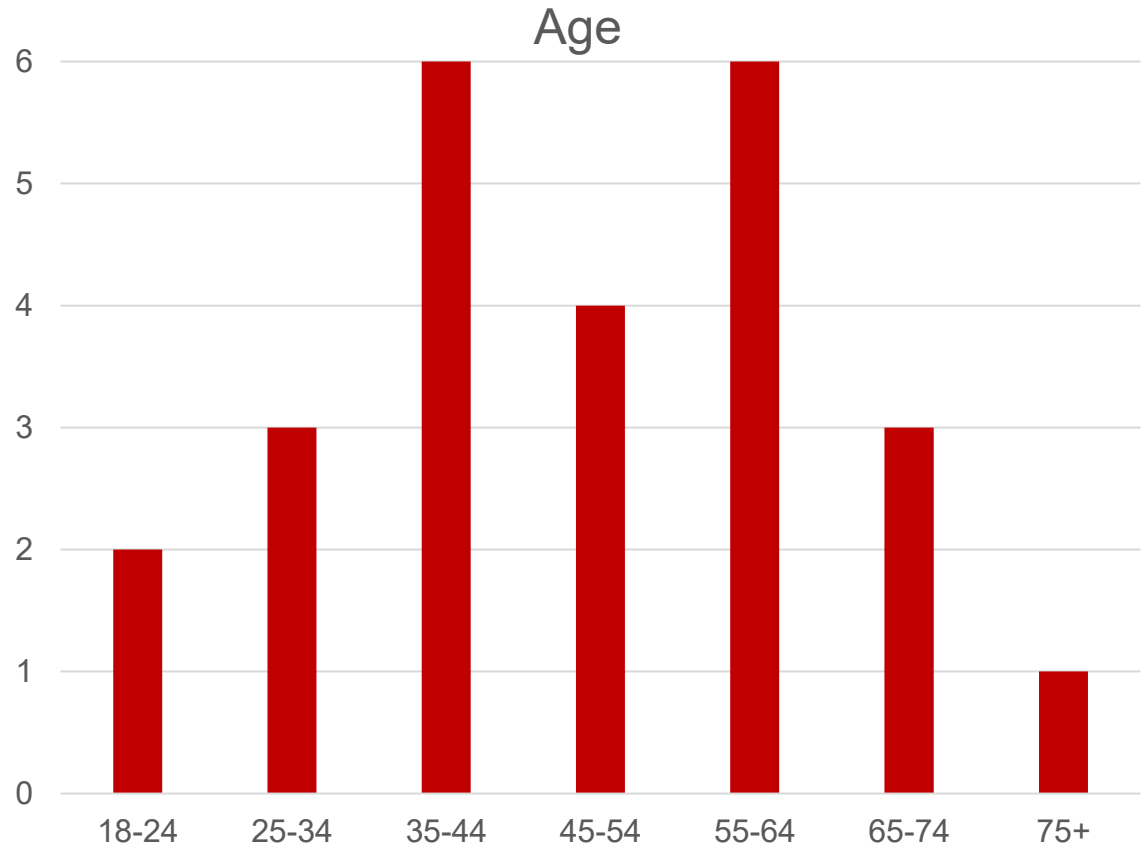
Ideas from lived experts

- **Community "Powerhood Wwatch" frameworks:** Facilitate street-level buddy systems, local social media networks and hyper-local messaging groups (e.g., WhatsApp, Nextdoor) to coordinate welfare checks and community support.
- **Specialised mental health signposting:** Provide direct, proactive signposting to text-based wellbeing helplines, counselling charities and psychological support services during and after a blackout.
- **Dedicated outage safe spaces:** Designate quiet, safe sensory spaces with backup power within local community centres for neurodivergent residents and individuals experiencing acute anxiety.
- **Emergency hotel displacement:** Offer temporary emergency accommodation or hotel stays for individuals experiencing severe mental health crises or unsafe domestic situations during multi-day blackouts.

THE LIVED EXPERTS

THE PANEL – LIVED EXPERTS

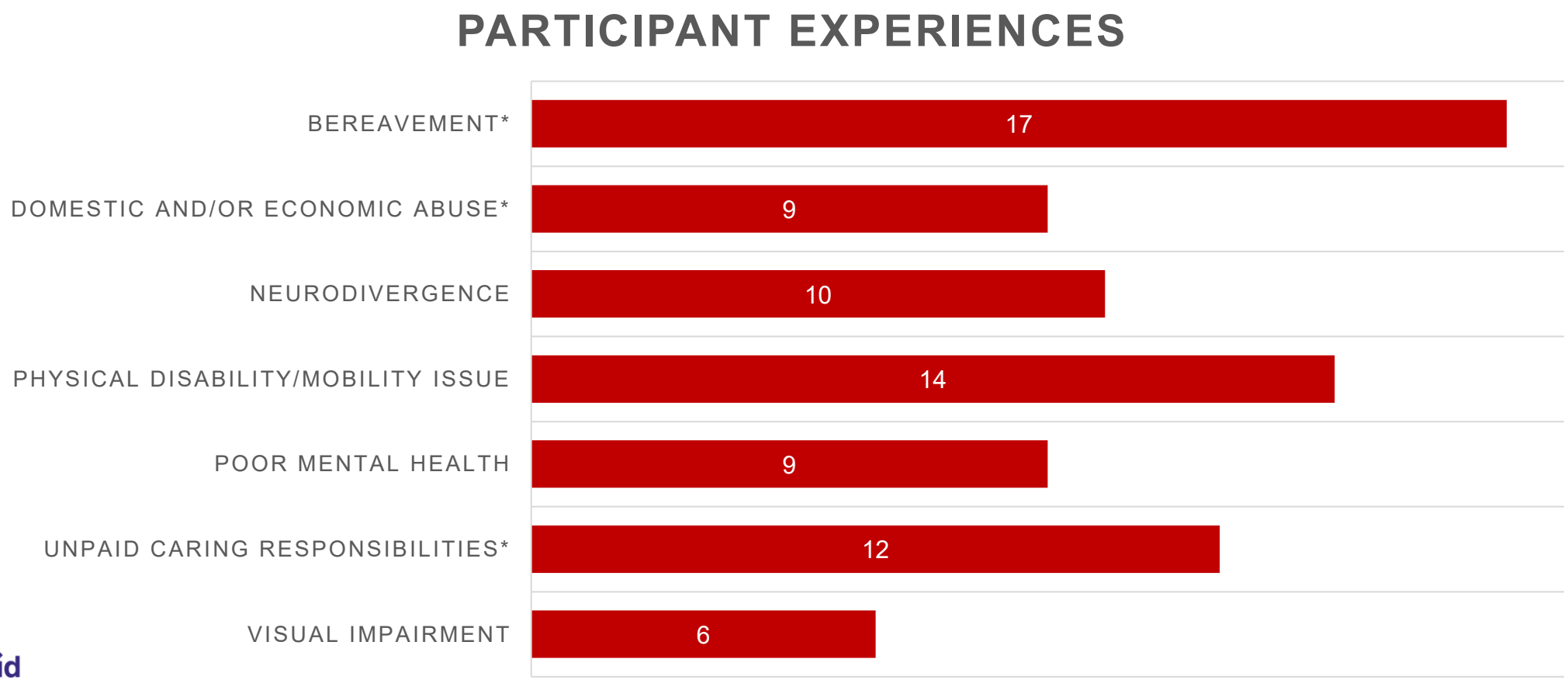




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THE PANEL – LIVED EXPERTS

Please note that this graph reflects a broad range of lived experience, which vary in both severity and recency.



*Denotes this experience as now or in the past

PANELLISTS – THE LIVED EXPERTS



1. Length of power outage: 48+ hours.

Lives in a rural area on a low income with a physical disability.

Neurodivergent.

Chronic pain.

An unpaid carer and in recovery from addiction.



2. Length of power outage: 15 hours.

Military veteran living with PTSD.

Physical disability.

Mental health challenges.

Visual and hearing impairments.
Financial hardship.



3. Length of power outage: 15+ hour.

Lives in a rural location.

Primary carer for a daughter with complex medical needs who relies on 24/7 oxygen.



4. Length of power outage: 24+ hours.

A refugee is facing mental health challenges.

Dyslexia.

Financial exclusion.

Council housing issues.



5. Length of power outage: 48+ hours.

Neurodivergent.

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PANELLISTS – THE LIVED EXPERTS



6. Length of power outage: 12+ hours.

Neurodivergent.

Mental health.

Financial hardship.



7. Length of power outage: 24+ hours.

Neurodivergent.

Mental health challenges.

Relies on power to store temperature-sensitive medication.



8. Length of power outage: 48+ hours.

Retired living in a rural area.

Low income.

Physical disability.

Neurodivergent.

Chronic pain.

Persistent debt.

Unpaid carer.



9. Length of power outage: 24 hours.

Lives in temporary accommodation.

Experienced homelessness domestic violence and the care system.

PTSD.

Depression.



10. Length of power outage: 9 days.

Lives in a very rural and isolated area.

Dementia

Visual impairment.

Physical disability.

Financial hardship.

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PANELLISTS – THE LIVED EXPERTS



11. Length of power outage: 7 days.

Lives in a rural area.

Recently bereaved.

Rrelationship breakdown.



12. Length of power outage: 18 hours.

Visual impairment due to macular degeneration.



13. Length of power outage: 24+ hours.

Experiences multiple physical health conditions.

Financial difficulties.

History of poor mental health.



14. Length of power outage: 48+ hours.

Dementia.

Primary carer for disabled daughter who uses a wheelchair.



15. Length of power outage: 48+ hours.

Mental health.

Dyslexia.

Financial hardship.

Social isolation

Unpaid carer.

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PANELLISTS – THE LIVED EXPERTS



16. Length of power outage: 24 hours.

A primary carer for three children.

Experience of domestic, economic abuse and housing insecurity.



17. Length of power outage: 24+ hours.

Visual impairment.

Epilepsy.

Mental health.

Physical disability.

Neurodivergence.

Financial hardship.



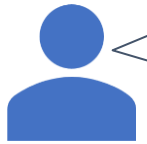
18. Length of power outage: 30 hours.

Medically dependent on power.

Cerebral palsy.

Chronic illness.

Neurodivergent.



19. Length of power outage: 48 hours.

A parent caring for children.

Physical disability.

Financial hardship.



20. Length of power outage: 12 hours.

Autistic.

Communication difficulties.

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PANELLISTS – THE LIVED EXPERTS



21. Length of power outage: 3 days.

Lives in a rural area.

Long COVID.

Anxiety.

Hearing impairment.

Digitally excluded.

Unpaid carer.

Recent life and income shock.



22. Length of power outage: 14 hours.

Medically dependent on power due to a complex neurological condition.

Chronic pain.

Brain fog.



25. Length of power outage: 1 week.

Physical disability.

Hearing impairment.
Mental health.

Financial hardship.



23. Length of power outage: 48+ hours.

Long-term illness.

Visual impairment.

Bereavement.

Relationship breakdown.

Social isolation.



24. Length of power outage: 12+ hours.

Retired.

Physical disability.

Primary carer for spouse with dementia and sight loss.

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