

CrowdFlex Consumer Segment Health and Disability

Centre for Sustainable Energy

For further information about CrowdFlex customer feedback contact chloe.mclarenwebb@cse.org.uk. For general CrowdFlex enquiries contact Innovation@neso.energy.

About CrowdFlex

CrowdFlex is a two-year NESO-led innovation project investigating the potential of domestic flexibility to help operate the grid. Two types of domestic electricity flexibility service were trialled:

- **Utilisation service:** customers were paid to turn up or turn down their electricity usage during notified events.
- **Availability service:** customers were paid to make their electric vehicles available to the grid by plugging in whenever they were at home.

107,000 OVO customers took part in the utilisation trial. CSE carried out customer feedback research throughout the project, surveying over 28,000 people in the utilisation trial to explore the experiences of different consumer groups who took part.

Based on these real experiences within the trial, this series of case studies aims to showcase how different types of households – including those that may face barriers to participating in the energy transition – can benefit from demand shifting services.



Introduction

43% of the population have a physical or mental health condition or disability in England and Wales, and 24% have one in Scotland. This demographic is at greater risk of fuel poverty than the rest of the population. This is partly due to their higher energy needs – they may be reliant on electrical medical equipment such as ventilators or refrigerated medication, or simply need to keep their homes warmer to stay well. They are also likely to suffer the impacts of a cold home more severely.

They often need to keep to stricter routines, making flexing or reducing usage more challenging. Mobility issues can add to this barrier, particularly if the flexing needs to be done manually. This group may therefore face greater obstacles to shifting their energy use. However, they can still participate and benefit from demand shifting services. This is particularly the case if these services include turn up events where participants are rewarded for shifting their energy consumption to times when cleaner energy is more abundant on the grid.

Sources: [Number of disabled people in household and number of people in household with a long-term health condition but are not disabled - Office for National Statistics; Scotland's Census 2022 - UV303 - Long-term health problem or disability - All of Scotland \(S\) - UK Data Service CKAN;](#)
https://assets.publishing.service.gov.uk/media/67e3cff6dcd2d93561195bdc/2024_Detailed_3_Tables_Final.xlsx (Table 26)

27%

of the CrowdFlex research sample was made up of people with a physical or mental health condition or disability.*

69%

of people with a health condition or disability felt positive overall about taking part.

£14.65

Annual amount earned during the trial by people with a health condition or disability.**

*This includes people who aren't impacted at all, or very much, by their condition.

**Based on number of CrowdFlex events during winter 24/25 and summer 25 trials (140) and average reward per notified event during winter trial.

Participation

Though people with a health condition reported some challenges in participating in the CrowdFlex trial, they nonetheless took part just as frequently as those without a health condition or disability.

This group reported positive overall experiences just as much as other groups and were open to engaging in demand shifting schemes in the future.

- They were slightly more likely to agree that CrowdFlex helped to remove barriers to demand shifting (29% compared to 28%).
- They were more likely to build habits around flexing their energy use (30% compared to 28%).

People with a health condition were slightly more likely to report manual shifting; however, they were also more likely to be positive about future automation. Some participants reported changing their medical or care routines to take part in events, making it important to support customers to shift their energy use safely.



Customer experiences

Interviews and focus groups provided greater detail of how people with disabilities and health conditions have benefited from CrowdFlex.

Janet's story

Janet began participating in CrowdFlex when she was temporarily out of work following surgery.

She noted that it coincided well with the extra time she was spending at home, encouraging her to consider and evaluate her electricity consumption more than she did previously. Adapting her behaviour, such as shifting the times she did laundry, allowed her to make both financial and environmental savings.

"Some days [the rewards] were pennies, but it all helps [...] it was a dual thing of, well, if I can save some money, that's great and if I can save some energy, that's great."

Entertainment and empowerment

In the customer feedback survey, another participant noted the trial's entertainment value, as someone limited by their long-term health condition:

"It also gives an interesting focus for my days, as I am housebound (and bored!) by chronic illness."

Some participants with health conditions noted that the scheme provided an opportunity for participation where they are otherwise restricted in their daily lives. This suggests that these schemes can foster a sense of empowerment in both everyday life and the energy transition.

"Thank you for letting me be part of the event, I'm terminally ill and can't do much yet the event even I could help with."

The accessibility of the scheme has also been praised by disabled participants. Quinn, who is visually impaired, noted that for the most part, communications were **"spot on, fully accessible and fully inclusive."**

This included the notifications and alerts, updates, and summaries of their performance provided by email.

Conclusions and recommendations

Our evaluation has shown that people with health conditions and disabilities are able to participate effectively in CrowdFlex and benefit both financially and non-financially.

This is encouraging given the vulnerability of this demographic and their susceptibility to fuel poverty. As a significant proportion of the country fall within this group, their involvement in demand shifting schemes could contribute significantly to domestic flexibility on a national scale.

Recommendation: Some participants reported changing their medical or care routine to take part in events. Customers should be encouraged to focus on shifting non-essential, larger electricity loads to a different time of day, instead of limiting essential electricity use or putting themselves in discomfort. Tools like CSE's [How much electricity am I using?](#) and [Cheaper bills with energy flexibility](#) show what type of appliances use the most electricity and may be safe to shift.

Recommendation: As well as providing accessible communications, service providers should also provide resources for people with specific health conditions. Collecting more information about each customer's circumstances at sign-up would enable providers to identify customers who might need more support.

Recommendation: Providers could consider how to make participation easier by promoting smart technologies that might reduce physical barriers for those with limited mobility.

More information on CrowdFlex can be found at www.neso.energy/about/our-projects/crowdflex

Customer feedback and trial analysis reports can be found on the ENA portal at <https://smarter.energynetworks.org/projects/10070764/>

