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## INSIGHT REPORT



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  Chris Tagg, Head of OS Connect

INSIGHT REPORT

Meet customer demand today – create better experiences tomorrow

An increase in digitalisation, the drive towards net zero and a step-change in other industries is pushing customer service in the utilities industry in new directions. This report examines how data on households is being utilised to anticipate and meet customer expectations first time.



The shift towards greater customer-centricity within the utilities industry is primarily being driven by three things; the move towards net zero, a push from regulators and the customer-first approach of other industries.

For each of the various sectors these drivers are pushing customer service in different directions, but all approaches will be heavily reliant on data about households in order to anticipate and meet customer expectations first time.

Energy suppliers have still to finish the smart meter rollout, which has been a challenge in itself, and must then prepare themselves to provide advice and also install low carbon technologies such as heat pumps and electric vehicles (EVs).

Meanwhile distribution network operators will be pushed into the limelight by the transition to net zero as they ensure they are not the barrier to the adoption of EVs and heat pumps.

Doing so will require more information about homes and buildings and will require many more inperson visits to local areas to complete upgrading work.

While the regulator Ofgem is giving mixed messages about how customer-focused gas distribution operators should be, what is clear is that the transition to low carbon will require them to take on a larger role in informing customers about their options around heat.

However, in the water industry there is a clearer push from the regulator Ofwat towards a more customer-centric approach.

This approach is manifesting itself in more information to customers through digital channels such as mapping tools on their websites to highlight issues on the network and service updates.

Equally it is increasingly reliant on customers informing their suppliers about issues on the network as fewer home visits are made, leading suppliers to focus on improving digital communication channels.

Despite the variations in outcomes, better quality data, which often includes a specific location, will be a key foundation in all of the approaches being taken to meet these new challenges.

Equally traditional areas of interaction with customers, such as the priority service register, would benefit from increased data sharing and collaboration between the different facets of the industry.

To explore the potential for location data in helping forearm and forewarn utility companies to enable them to deliver proactive customer service Utility Week has partnered with Ordnance Survey to produce this report which covers key topics including:

- Why utility companies are becoming more customer centric
- How customer interactions are changing
- How data and collaboration can help underpin a proactive approach

Many thanks to the varied commentators who gave their time and insights to help form the content of this report.



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Meet customer demand today – create better experiences tomorrow



Getting the lowest price per kilowatt hour on the market is not a good model anymore. We need to change the perception of energy as a service. We have the relationship with the customer and we need to help them move to net zero."

Michael Lewis, chief executive, E.ON

## Why energy companies are becoming more customer centric

The move towards greater customer-centricity in the utilities sector is due to a variety of factors, but one of the main drivers is the shift towards net zero.

Energy suppliers are rapidly looking to reposition themselves as selling energy as a service as customers look to adopt new low carbon technologies such as electric vehicles, heat pumps and in-home batteries.

"Getting the lowest price per kilowatt hour on the market is not a good model anymore. We need to change the perception of energy as a service.

"We have the relationship with the customer and we need to help them move to net zero," says E.ON chief executive Michael Lewis. Suppliers are expecting a sharp rise in the number of customer interactions they have in the future as customers look to their suppliers for advice over the best technologies to adopt and tariffs to take on.

Most of this advice will be tailored to individual customers based upon both personalised consumption data from smart meters and general consumption data trends.

In readiness for such a shift many energy suppliers are in the process of adopting new platforms which will streamline their customer service operations and free-up their operatives to spend more time talking to customers.

Another big change that is being brought about by the transition to net zero is thrusting distribution network operators (DNOs) into the limelight.

Up to one in three households in the UK will need the power supply to their homes upgraded to allow the connection of electric vehicles or heat pumps within the home. Many properties in the UK have a single-phase supply with one fuse but may need that fuse upgraded from 30 to 60amps, or 80 to 100amps.

DNOs have already pledged in their business plans for the next regulatory cycles that they must not be the blocker to the adoption of net zero technology but doing so means they must build more of a public facing persona.



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Meet customer demand today – create better experiences tomorrow While energy suppliers and tech companies may handle the process of contacting DNOs over connections, DNOs must be able to deal and process a huge number of connection requests and make far more visits to customer properties than they have made traditionally.

Duncan McCombie, chair of Western Power Distribution's (WPD) customer engagement group and former head of customer policy at Thames Water says the process of moving regulated water and network operators away from being focussed on their assets to instead think about why they have pipes and wires has been going on for twenty years.

"That was twenty years ago. It has fundamentally moved on to you are delivering a service, you need to know what service people want and therefore engage with those customers to find out what they want and indeed more importantly what they expect. Do with the customer, not to the customer."

While network operators have always had targets for reconnection after power cuts that they need to achieve, the recent backlash following Storm Arwen last year illustrates the pressure being placed on them from both politicians and customers themselves to deliver a reliable service.



This pressure from customers over what they expect from customer service is being felt right across the industry as a result of leading performances in other industries.

It is now possible to order everything to the door, track that service and talk directly to the delivery driver, so inevitably customers will expect the same from the utilities industry.

Andrew McMillan, former head of customer service at retailer John Lewis says 49% of customers report that it is difficult to contact their energy supplier, adding that the customer experience for both energy and water customers is not meeting up with expectations.

He says that as a general rule operational efficiency comes at the expense of customer service, but suppliers need just five pieces of information to be able to build a good experience around appointments for their customers.

These are customer name, address, contact details, job ID and operative name, and should be held on two or three systems at most.

Unlocking the power of this data would allow suppliers to meet the flexibility and level of communication customers expect over visits to the household.

The other main driver for an increased focus on the customer is coming from regulators themselves, with both water and network operators having to create customer engagement groups to help ensure customers are placed at the heart of their business plans.

While the level of customer-centricity being encouraged varies depending on the sector, with a greater focus perhaps being seen in the water sector, this shift is likely to be a permanent one.



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#### How interactions with

#### customers are changing

For the last few years energy suppliers have been focussed on completing the smart meter rollout, and attention is now switching to low carbon technology.

"For EDF, playing a part in installing charge points and heat pumps is a key part of our strategy," says Martin Aylward, head of data at energy supplier EDF.

In order to proactively target the right customers to offer installations, EDF is undertaking work to identify suitable customers and dwellings using Energy Performance Certificate data, demographic data and location data.

It is using this data to create models of the likelihood of customers taking up an offer through a push notification or email sent by the company, and is also ensuring that customer service operatives are armed with right information during conversations with the customer.

"If you live on the 20th floor of your block of flats there is little point us contacting that customer to tell them we could install an EV charge point at their house," says Aylward. Although energy suppliers will still be going into homes, the end of the smart meter rollout is set to change the dynamic around checking equipment in the home as DNOs will be forced to undertake more visits themselves in the future.

However, the smart meter rollout is a long way from completion, with around half of the 53m total meters still to be installed before the 2025 deadline.

The installation process itself has been a source of complaints by customers, with failed installations still being one of the top five complaints for smart metering years into the process.

Installations can fail for a variety of reasons but one which involves both suppliers and DNOs involves cut-outs, as this may prevent the supply being switched off to allow for the installation of the meter and requires a visit from the DNO before installation can be completed.

A cut-out contains a fuse which provides a means of disconnecting the customer's wiring in the property from the mains supply.

The industry has made significant improvements in joining-up appointments to ensure customers are inconvenienced as little as possible, but cut-outs are set to be a major area of customer intervention going forward.

To date DNOs have been able to rely on suppliers to inspect their cut-outs and help them identify and replace equipment.

"Historically the industry has made use of suppliers going to read meters and changing meters to do an inspection on the cut-out that is in people's homes, with smart meters and less people visiting properties as an industry we are going to have to do

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Martin Aylward, head of data at energy supplier, **EDF** 

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Meet customer demand today – create better experiences tomorrow more of that inspection ourselves," says Paul Jewell, system development manager at Western Power Distribution (WPD).

"There is no point in us turning up to look at people's cut-outs at the moment as suppliers are giving us loads of really good information on the quality and style of them and no customer is going to want us knocking on the door just after the smart meter installer has been."

The capacity within the fuse in a cut-out may have to be increased to allow the connection of electric vehicles and heat pumps in the future.

Identifying which ones are likely to be an issue to get ahead of the curve will be crucial to ensuring DNOs are not a barrier to the uptake of low carbon technology and can largely be done through data about the age of households.

WPD alone is expecting around 2,000 applications a day for work either to the cut-out or to a looped supply shared by multiple properties.

Older houses are more likely to have unsuitable or low-capacity cut-outs that will need changing first, so identifying these through externally available data such as the age of housing stock is a priority for the company.

You are now the telemetry service for the water companies, and the power companies as well. If there's a leak, or the waters off or its brown, the water company wouldn't know if your water is cloudy."

Duncan McCombie, chair of customer engagement group, Western Power Distribution's (WPD)

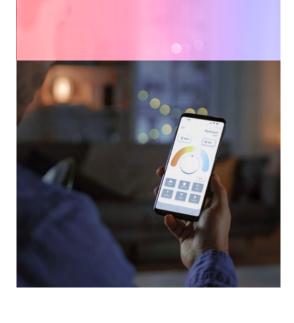
"If a customer has a service which is good enough for 80amps, they can stick with what they have and that is likely to be the case for newer services that were probably installed after the late 80s, but in my records I don't know how old houses are."

While DNOs are likely to see an increase in the number of visits they make to customer homes the water sector is more closely following the energy supply sector in becoming more virtual with its customer service.

Currently water companies must still visit homes once every six months or more to conduct meter readings, but this will change if smart metering is also brought into the water sector.

McCombie says this means water companies will come out to targeted fails but will spend less time out in the field actively inspecting their assets and will increasingly rely on customers to inform them of problems on the network.

He says this is the right approach as it will help keep costs down.



"You are now the telemetry service for the water companies, and the power companies as well. If there's a leak, or the waters off or its brown, the water company wouldn't know if your water is cloudy," he says.

Aware of this important source of information and also the need to keep customers informed despite becoming more physically distant, water companies have made reporting leaks and other problems easy via maps hosted on their websites.

This allows customers to pinpoint the exact location of an issue and upload photographs, with the map then able to visually inform other customers of any issues within their areas.

Sandra Palmer, head of Digdat says these kinds of digital communication channels are becoming more important as customers are becoming more demanding and expect to see live updates of the situation after faults are reported.

"When customers go to their water company they want to see a map and a context – it's important to see that visual."



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# How data and collaboration can help underpin a

proactive approach

Smart meter data is set to have a fundamental role in underpinning customer service right across the energy sector – with suppliers reliant on it to be able to provide energy as a service and DNOs using it to plan investment in the networks to handle increased electricity demand.

But beyond this, McCombie believes smart meter data will be critical to helping DNOs, in particular, understand the expectations of their customers.

The expectation within the UK is a regulated business will provide a continual service, but McCombie says this expectation has moved on in the last two years and DNOs will have to arm themselves with the right information to be able to meet those expectations.

"It's not about keeping the lights on anymore its about keeping the Wi-Fi on.

"It's becoming even more critical as more people work from home that we have stable and secure networks and the expectations of customers are built into what the companies are trying to do in the future. Gas Electricity

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"I'm not sure within this round of the price reviews that they have quite got their heads around this yet; they are hearing it but they are not quite sure what it means," says McCombie.

While WPD reduced its acceptable outage time to 12-hour standard a few years ago, 12-hours without Wi-Fi will still be unacceptable to most customers.

McCombie says that to meet this expectation DNOs will need to understand the personas of customers on their wires, and while they have a good handle on where their vulnerable customers are, they have no idea what proportion of their customers work from home.

"It's a balance of GDPR - knowing enough about the customer without knowing everything about the customer."

While GDPR rules should allow DNOs to access the data that they need, one area that it has had an effect is the priority service register (PSR).

PSRs rely on customers informing their DNOs and water companies if they require extra assistance during service interruptions for reasons such as health or communication issues.

However, not all vulnerable customers are aware of their vulnerable status to inform their suppliers, and vulnerability can also be transient.

"If you look at any PSRs they are still short of identifying all of the people who are vulnerable because people don't know the service is there," says McCombie. During the Covid crisis, financial vulnerability, which can be very transient, became particularly pertinent.



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Meet customer demand today – create better experiences tomorrow Aylward says a lot of work has been put into assisting vulnerable customers and helping to identify those that are unaware of their status.

"We don't just wait for a customer to say I'm vulnerable help me, if an operative can spot signs of vulnerability they will help get them on the PSR and additional help if that is appropriate," he says.

In the past energy suppliers would sign up customers if they were made aware that they were over 65 years in age, but there was not a lot of sharing of the data and agreement over whose data is most up to date, and some types of vulnerability such as financial or communication issues may be more pertinent to suppliers than DNOs.

However, DNOs are currently going through a process of updating their data by contacting customers and adding new names in through partner organisations such as Citizens Advice.

"It goes without saying that a more accurate register is a better register. However, that does not necessarily translate into more or better data resulting in making the maintenance of the register easier.

In reality a less is more approach is better – focusing effort on what data is of most valuable in providing the level of insight necessary to provide the level of service the customer would benefit from. The more up-to-date customer information we have the better we can serve their needs."

Matt Webb, head of enterprise data management, UKPN

"In reality a less is more approach is better – focusing effort on what data is of most valuable in providing the level of insight necessary to provide the level of service the customer would benefit from.

The more up-to-date customer information we have the better we can serve their needs," says UKPN's Matt Webb, head of enterprise data management.

While PSRs are being improved individually, sharing between companies has continued to be an issue. During the Covid crisis it became apparent that GDPR rules were preventing energy and water companies from sharing data with each other.

"The information commissioner said that's not what the GDPR legislation was put in to do and it doesn't restrict you if that it is to support the customer," says McCombie.

While he believes there will be test cases in the future, energy and water companies are currently running trials where they share data to improve their registers.

Having up to date PSRs will only become more pertinent from 2025 as BT is switching from analogue to digital which means DNOs will not be able to contact customers via landlines during a power cut.

"That's going to be really difficult, how do you contact older people who tend to only put on their mobiles when they want to make a call?" says McCombie.

For all facets of the utilities sector, customer service has become an increasingly important area for focus over the last few years and this will only increase in the future as other sectors continue to improve.

This is pushing companies in different directions, with those that were used to visiting customers focused instead on ensuring their IT and digital platforms are up scratch with databases that can help the rollout of low carbon technology, while DNOs prepare for an increase in customer visits and higher expectations in times of emergency.

For all these challenges, increased data and collaboration within the sector and outside will be invaluable.



#### VIEWPOINT

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'Customer service.' An everyday phrase, a vital factor in the reputation and competitiveness of most organisations; and yet, a blanket term. 'Customer service' relates to how organisations interact with their customers and users, and ultimately resolve their queries and concerns. But it does not come with a one-size-fits-all approach; it works best on a proactive, rather than reactive basis; meeting needs and resolving issues before they escalate.

Organisations are making advances to improve customers services; both in proactiveness, and in customer understanding. One of initiatives the sector is looking at comes in the form of 'Priority Service Registers' (PSR) and numerous projects are looking at ways to centralise these. In the recent, second round of the Water Breakthrough Challenge, Catalyst Stream competition ran by its regulator Ofwat and innovation foundation Nesta, a project received

funding to do just that. The "Support for All" project envisions a single, unified PSR, created by combining the datasets of already existing PSRs and is run by Northumbrian Water, and its consortium.

"Support for All" would create a consolidated view of the same customer; a unified point of truth. This means investing in understanding how different socio-economic factors manifest, at the individual level; how these may place their customers in vulnerable situations; and then putting appropriate interventions in place to maintain fair, consistent, and inclusive access to services. The unified PSR would be a valuable asset in terms of implementing these measures, and planning for emergencies.

Elsewhere in the utilities sector, efforts are being made to take a more proactive approach. Water providers face escalating problems in terms of grey/ wastewater, and sewer blockages caused by nonflushable items and build-up of fats, oils, and greases (FOGs). While processes are in place to improve customer behaviours against FOGs – i.e., installation of grease traps – work remains to be done. An expected increase in the number of pop-up kitchens supporting delivery services (which without retail presences are difficult to pin-point); potentially makes the issue of blockages and network failures, a much higher risk.

By combining different datasets, such as points of interest, addressing and other business and property registries to identify food serving

establishments, water network operators could use location with overlay data to build risk profiles, and design measures to reduce blockages for trouble hot spots. "Location data helps add value through data analytics and visualisations; to help water providers understand, track, and ultimately manage trends and patterns, taking a proactive approach to mitigating, perhaps even avoiding, future complications."

Both examples demonstrate that service providers need to become confident in better understanding the specific situation(s) of their customers. To be successful however, we need utility organisations and data experts to collaborate on solutions; and industry and government to work together.

It is that kind of cohesive force that leads to truly holistic solutions for multiple organisations, both private and public sectors, which can benefit everyone – including the customer. Accessing and combining precise customer records will enable utilities to increase efficiencies, better respond in emergencies, remain proactive to avoid escalating situations, and overall, provide a better, much richer customer experience.





Ordnance Survey provides national mapping services for Great Britain and is a world-leading geospatial organisation.

We empower businesses with data insight that drives efficiency and progress in a fast-moving world.

Our location data solutions and services provide a complete view of infrastructure assets above and below ground.

Our commitment to geospatial innovation helps energy, water and telecom network operators in Great Britain see a better place.

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