Time to ring the changes

The clock is ticking for incumbent utility firms to embrace technology and change internal culture and mindset, says Neil Pennington.

There is a revolution taking place in the utility sector, driven by advances in technology and the recognition that customers increasingly expect products and services when and where they want them, and all at a low cost. In short, the future is decentralised, digital, on demand and straight to mobile.

This is well known to utility companies; they are not stupid. The issue is not recognising the need to change, but how to change, especially when business success to date has been based on doing exactly the same thing they have always done: sell commodity cheaply and provide traditional services.

The established retail business model of the separation of 'core' supply of commodity (electricity, gas or water) from 'non-core' services, such as energy services, metering and connections, has existed for 20 years (since competition in the late 1990s). In the same way, the traditional business model for networks, across gas, electricity and water, of being centralised, based on large assets, focused on reliability and interacting with people only in extremis has also dominated for the same period.

But these models have fundamental flaws when faced with the customer of the 21st century, such as the existence of separate models of customer service and separate IT/CRM systems; often with different internal cultures. Today's customers no longer recognise the distinction between core and non-core, expecting their utility company to be responsive to all needs. If the traditional model gets in the way of this, then companies such as Amazon, Google, Facebook and Tesla will happily provide alternatives based on experience from outside the traditional sector.

As a result, utilities are facing a perfect storm that will disrupt everything: an informed and connected customer, combined with technological advances that are redefining business – from large centralised networks to autonomous connected local grids; from single utility offerings to cross-retail services. The Utility Week Live 2018 report on disruptive technologies identified ten that are reshaping utilities.

- Electric vehicles
- Energy storage
- Artificial intelligence (AI)
- Blockchain
- Internet of Things (IoT)
- Smart meters
- Data analytics
- Renewable energy advances
- Water reuse technology
- Hydrogen

It would be easy to point to those technologies, especially blockchain, IoT and AI, and ask why large incumbents are not moving quickly to change. The difficult truth is that institutional mindset and internal culture get in the way; established processes, complex and expensive IT systems, demanding shareholders all act against speed and change.

That's why a change in internal culture is needed. And now.

Large incumbents must:

Let go of industry mindset: we talk and think in terms of the 'industry' (energy, electricity, gas, water, utility) as if it exists in some homogenous form; people don't care about industry, they care about relevance and what you can do for them.

Leave constraints until last: regulation, legislation, existing processes are often brought into play far too early and stifle an idea before it can be explored.

Place customer-led innovation at the heart of your business: if not, at best you will become irrelevant and a commodity; at worst, you will slowly go out of business.

At the heart of customer-led innovation there must be an internal mindset to act fast, fail fast and use customer insight as the fundamental basis of everything.

And this isn't all off in the future at some point. Change is already occurring across the existing utility space.

In energy retail: Centrica has long been on a journey to change the retail model; the most notable poster child being its investment in and growth of Hive. But recognising the critical role of the decentralised smart grid, they are also now active in Cornwall in partnership with LO3 Energy, trialling ways blockchain technology could revolutionise the way consumers buy and sell energy.

Energy networks: Western Power Distribution, with a geographical footprint that has abundant wind and sun, has established an internal innovation unit that integrates well internally, catalyses change and engages regularly in open innovation with a wide range of external stakeholders.

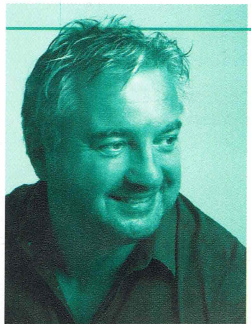
Water: Northumbrian Water is leading the innovation agenda with initiatives such as the Innovation Festival, where some of the world's leading businesses and most innovative minds gather to tackle major social and environmental challenges.

Government: with the announcement of the national Renewable Energy Scheme, RESS, the Irish government is placing community investment and benefit at the heart of the renewable low carbon energy future.

Technology start-ups such as Share & Charge, Solo Energy, Electron, Green Running and EWF in particular are pointing the way to the future. And scale-up new entrants are also at a distinct advantage. It's easy for incumbent players to point to the advantage in cost structure, absence of specific regulatory requirements, ignoring the role played by culture and mindset. However, it is perhaps the creation of a different mindset that is allowing the likes of Bulb and Ovo Energy to deliver success in embracing innovative technology to engage customers in a different model, unencumbered by history, and with an absence of the 'this is how we have always done things round here' mindset.

So, as well as embracing technology and getting closer to the customer, perhaps the biggest and most difficult challenge for existing utility companies is one of changing internal culture and mindset. And there isn't much time to change.

Failure to respond will likely mean an acceleration to commoditisation or severe business distress, with value migrating further to new entrants and household brands with wider value to customers: Tesla, Google, Apple, Amazon, John Lewis, Mercedes, to name the mere tip of the well-funded iceberg.



Dr Neil Pennington is working with a number of organisations, including Rivetz, DISC, Grid Singularity and the Energy Web Foundation, to develop blockchain and digital identity for use in micropayments, messaging and decentralised energy. He is former smart programme director and UK innovation director at RWE.