

Energy utilities across the world have traditionally focused on their assets - generation and networks - rather than their customers. The concept of 'outsourcing of production' which is prevalent in most manufacturing industries has never really taken root in the electricity sector. The marketing of energy to customers has tended to focus on price rather than the differentiated and consumer-centric approach that most other mass-market industries have adopted. Electricity, the original digital business, is rather analogue in its business model, internal organisation and its relationship with its customers. Digitalisation meanwhile opens the door to data-savvy companies able to establish a direct relationship with end consumers, enabling providers to deliver new services and earn new revenues while pushing the traditional companies upstream and away from customers.

Digitalisation is the use of digital technologies (sensors, connected devices, network equipment and infrastructure) to reduce costs or to change the underlying business model by creating new sources of revenue. Digital technologies include: new sources of data and communications, improved tools to analyse and visualise information and support decisions, and automation and control. The future digitalised system will allow decisions to be taken and executed autonomously, based on a wide range of uncontrolled data sources; and (cyber) security protocols must adapt to this new decentralised and autonomous reality. These technological advances mean parts of the value chain will be opened up to new actors, by removing natural synergies or barriers to entry. Digitalisation will provide the tools to intelligently manage demand (and supply) from electrified buildings and vehicles, leading to a proliferation of new business models. In particular, platform businesses are likely to emerge, which connect large numbers of suppliers and consumers, but do not own the underlying infrastructure.

This disruption requires existing companies to reposition themselves, either through adopting the new technologies (including acquiring the new companies if they are small enough), or ceding territory and moving out of parts of the value chain. Some of the European majors are adapting their strategies away from the conventional generation which has been their core business for many years. Transformation to a digitalised operating model requires a realignment of companies' core values, internal organisation and long term business model. Wholesale digital transformations in the energy sector are extremely rare, and digital start-ups remain bit-part players in the wider industry.

Most major transformations fail, and strong leadership and effective change management is a crucial part of the adaptation process. Competition will be fierce from organisations with a "trial fast/fail fast/learn fast" mentality, in particular forward-thinking ICT and automotive companies. The question is whether the existing energy companies are capable of making

the transition, or whether they will retreat to a (shrinking) core.

Source: energyworldmag