



The future of the DSOs

A European Utility Week 2017
wrap-up

October 2017

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This is a wrap-up of the learning points I took away from attending the European Utility Week 2017 in Amsterdam from 3 to 5 October. These insights come from listening to keynotes, participating in panel discussions, chatting with several people from DSOs, and conversations we had in our “Digital Asset Management” booth at EUW17. DSOs are facing numerous new realities, among other things, aging assets, reliability issues, asset digitisation, integration of Distributed Energy Resources (DER), Electric Vehicle (EV) adoption growth, and regulatory scrutiny.

These new realities impose new challenges, but also create new opportunities for DSOs. The DSOs that will excel are those that will be able to transform themselves into flexible and agile organisations. This is not a given for a business that has been stable for very long.

New business models

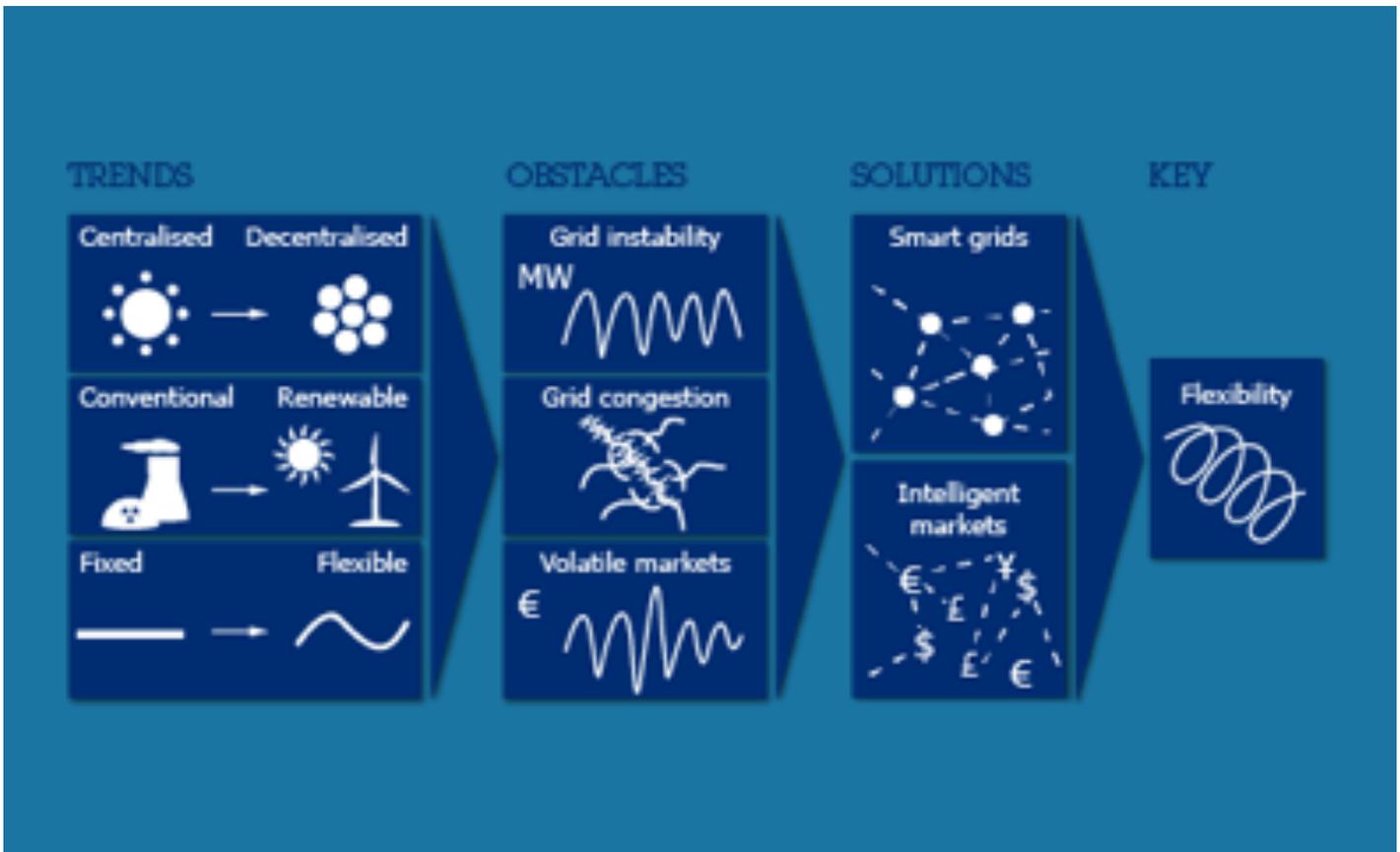
Who will be the dominant players in this new energy market? Will it be the ones who own the assets, as it is today?

With the rise of DER, new storage technologies, IoT/analytics, blockchain, etc. the entire energy system is undergoing a paradigm shift. Production is shifting from a central point to multiple decentral points, customers are becoming prosumers, customers are going off-grid, micro grids are being installed, energy is traded on a local level (e.g. facilitated by blockchain), non-grid assets (such as EV batteries) not owned by the DSOs are becoming part of the energy system, etc.

Who will be the dominant players in this new energy market? Will it be the ones who own the assets, as it is today? Or will it be the ones who own the platform that contains the data of the assets, enables market facilitation, connects producers and consumers, balances demand and supply,... Many utility companies still strongly believe that the power is where the assets are. However, industries like the hotel (Airbnb) and taxi (Uber) industry are faced with a complete shift of this paradigm. Rather than trying to predict how it will evolve, utilities should build the ability to cope with the uncertainty of this paradigm. The most important capability a utility should embrace is thinking in terms of new business models. Business models where a utility can be the keystone of an ecosystem.

The intelligent market

Smart grids are hot these days. However, the value of a smart grid is negligible without an intelligent market and vice versa. There should be a very strong interaction between both systems. It is still not completely clear how smart grids and intelligent markets should interact with each other, but the awareness is there and actions on different levels are being taken. Nevertheless, both concepts rely on flexibility: flexible generation, flexible loads and storage.



Source: European Commission, Directorate General for Energy

Innovation in a risk-averse environment

With the paradigm shift, changes are happening on the grid side in particular. Where the grid may previously have been perceived as the “boring” part of the business, it is now the place where innovation is happening and modernisation is required.

But how capable are DSOs of innovating or even disrupt their current ways of working and business models? DSOs are traditionally very risk averse by nature, because the business has been stable for a long time (why touch a running machine?), but also due to the fact that the regulatory environment does not really incentivise innovation. Grid reliability must be guaranteed at all times. The grid is not

really a place where you have room to “play”.

However, innovating is not equivalent to taking more risk. In the context of innovation, risk management is about managing the uncertainty. Too often we tend to only focus on the certainties. It is essential to also discuss the uncertainties, even at board level. This can lead to better insights, and as a result to better risk-informed decision making. Digitisation and the increasing amount of available data can play a significant role in this process. There is also the need to create a transparent system to discuss risk across departments, and even with your regulator. This will enable DSOs to innovate in a controlled way, without putting reliability at stake, and in a trusted relationship with their stakeholders.

Analytics capability building is a must

Today, existing data at DSOs is already underexploited. With smart metres and modern assets being equipped with sensors, new big data flows tend to flood the DSOs. Investing in capabilities to transform data into information, insights, decisions and actions is a must. Without these capabilities (process, organisation, ICT, information) the overload of the inevitable data flow is a big threat or will not bring the value it potentially can.

Digital – a strategic decision

Becoming a digital utility requires a strategic decision. Sometimes, it is hard to make a full-fledged business case around that. Why? Because traditional business case approaches tend to focus on the short term. In particular, on short term certainties you can put figures on, losing sight of the long term uncertainties. And if something is overestimated, it is most often the short term, whereas the long term tends to always be underestimated. Going digital can protect you against the future challenges you are not yet aware of. By increasing your digital capabilities, you create an agile organisation that is better prepared for these challenges, offering additional relevant information to support the operational decision-making processes.

New ways of working

Introducing new technologies that increase the efficiency of the current ways of working is warmly welcomed by the workforce. However, when these technologies involve doing things differently, or even doing different things, resistance pops up. When a strategic choice is made to become more digital, one needs to accept that it will definitely introduce new ways of working, or starting to do new things. For this reason, as of day one, attention needs to be paid to the change management and related transformation processes.. More than ever, this will be the key factor for success. Not the new technologies that you are implementing.

Introducing new capabilities, a new leadership style and diversity in the workforce

Going digital requires building new capabilities in your organisation (e.g. data engineering, data analytics, data visualisation). Employees will need to adapt, and become more data savvy. From the field worker to the asset manager, even up to the board.

A new leadership style is also needed. Traditional career tracks promoted domain experts to management roles, which unfortunately resulted more than

wanted in “losing a good expert, winning a bad manager”. This may have worked in a “keep it running” environment, but in an environment where uncertainty is the norm, a new leadership style is required. DSOs are characterised by having many employees that stay with them their entire career. DSOs will need to make sure that they are also able to attract talent from outside the industry (e.g. telecommunications, technology) that can help introduce new capabilities and perspectives. They will also need to accept higher employee rotation as employees no longer stay in one place their entire career. Last but not least, DSOs can benefit from a higher diversity. Characterised as being a male-dominated business, introducing more women into the workforce can only enrich the organisation, and be to the benefit of all.

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