

Conversation with ZUoS on locational pricing

Who is ZUoS?

ZUoS Ltd provides intelligent control over customers' power and heating, with an energy control platform allowing for optimisation of energy use at the local level. Through its intelligent control of individual devices in a building, it allows for optimisation at the level of the building, within communities, and at the network level.

ZUoS learns how you use energy across different devices, and then applies smart controls to reduce your overall energy consumption, and adjusts your usage up and down throughout the day to respond to energy pricing, renewable energy generation, grid carbon intensity and network congestion. This can help allow more renewables and more low-carbon technologies to be installed in each neighbourhood, and makes the most efficient use of existing infrastructure to keep costs down for everyone.

We spoke with Alex Schlicke, Chief Executive Officer, to find out more about why greater locational pricing is so important.

What are the major difficulties for your proposition under the current market framework?

The revenues from providing flexibility services through the current avenues are so small, meaning there is currently limited value that can be unlocked from consumer flexibility.

The current approach for providing demand-side response (DSR) services is too clunky and not efficient enough. There are multiple different markets and auctions across different geographies with different requirements and limited value to be tapped into, particularly for smaller scale assets such as from domestic consumers. But if you had something embedded in the wholesale pricing structure to begin with, flexibility potential would become more of a 'default' that everyone can contribute to.

DSR will remain a negligible part of our innovation proposition under current market conditions so long as the value received from consumer flexibility remain so small.

Why is locational pricing important to your innovation? What about alternatives?

Our business model is based on optimising energy use at the local level...so it'd clearly benefit from stronger wholesale locational signals which can best reveal the value of energy at the very local level. Nodal pricing is the granularity that ZUoS is best aligned with.

The scale of low carbon technology assets coming online in the coming years means you need to be embedding locational wholesale pricing from the start so that tariff structures can be designed to reflect the physics of a net zero energy system.

This will require bigger reform than just tweaks to the Balancing Mechanism or multiple new constraint markets as these won't work when low carbon technology is in every home.

You have to get the market signals right, so that consumers get used to their devices operating flexibly from the start, allowing innovators to optimise and receive value for this flexibility. If you don't, you'll either have to change consumer behaviour just after they have got used to one way of operating their new technology - or you'll have to massively oversize the transmission system which will be visually disruptive and end up costing much more to build and to operate.

Where can people find out more about ZUoS?

<https://www.zuos.co.uk/get-in-touch>

