How IT can underpin a transition to renewable energy in light of COP26

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How IT can underpin a transition to renewable energy in light of COP26

Much has been written since the COP26 summit, but one thing is pretty certain, we are the first generation that has actively pledged a real commitment to the future – and probably the last that will get the chance to do so.

The transition to renewables, or 'clean energy', is high on the agenda. The promises made at the Paris summit in 2015 have, with widespread agreement, not even begun to be met. And so, a unanimous call for a faster phasing out of the use of coal to deliver our energy has been agreed.

But any change or transition must be underpinned by technology, and the infrastructures that are the highways for data. As such, there are lessons that can be learnt, both from the advancements the energy sector as a whole has brought to the table, and improvements in how we share and access data, while also ensuring energy efficiency is met with security.

Lessons from COP26

With leaders, intellectuals, and activists stepping away from the negotiations table, the questions on everyone's mind is 'what happens next?'. COP26 has laid out a pathway for how governments and businesses can put climate concerns into tangible actions. One key takeaway from the event was the predicted growth of green technology and its role in transforming markets.

Decarbonisation, when combined with digitalisation, is influencing political leaders to explore more development opportunities in green tech. We have already started to see green initiatives such as the Science-Based Targets Initiative (SBTi) create a standard for delivering net-zero goals in business and to date, has more than 2,000 corporate members. Moreover, the development of the International Sustainability Standards Board (ISSB) will help establish a baseline for sustainability disclosures.

The challenges of renewable energy

Green development is well underway, and COP26 only emphasised the need for immediate acceleration.

But what does this mean in practical terms? Investing in renewable forms of energy will be what drives the transition and will be fundamental in reaching our ambitious goals.

Many of the challenges facing renewable energy are similar to those that have been faced by the oil and gas industry. Through our heritage of partnering with oil and gas and exploration companies, we understand that facilitating a secure and reliable connection of operational systems, sensors and business networks is a priority for the energy transition to be successful.

The need to digitalise renewable energy operations is imperative in our data-driven world. It can improve company collaboration, risk assessment and asset management whilst aiding real-time decision making. Being able to maximise productivity and efficiency, whilst limiting downtime, will be crucial in meeting energy demands and environmental commitments set at board level.

However, digitalisation can create vulnerabilities to company networks, which can be exploited by hackers. Cyber security measures are vital for protecting business assets as well as wider energy security. In order to transition effectively to meet our climate goals, renewable energy companies must protect their

means of production to ensure that we can transition seamlessly into a greener future.

The importance of digitalisation and its associated threats is nothing new. It is equally as important for renewables as it was for oil and gas. From our experience, assisting energy companies at a strategic level to implement a reliable IT and communications infrastructure can underpin successful collaboration and digital transformation, while ensuring that all aspects of the company network are secure and protected.

The role of innovation in IT

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Looking to the future

We are now at the tipping point for our planet, where words and promises need to be supported by tangible measures. A plan of action is needed, where we transition away from energy forms with high carbon outputs to more renewable forms of energy. However, this is a delicate process that needs to be handled carefully to ensure that we can scale global green energy capabilities. Green energy businesses must have the foundations in place to ensure efficient operations and energy security. To make the most of digital capabilities, businesses must ensure they have the infrastructures in place to unlock the innovation and technology that will underpin a greener future.

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