

TALKING HEADS

Alexis Percival

Alexis Percival is environmental and sustainability manager at Yorkshire Ambulance Service NHS Trust

A journey of discovery

Inspired by a career break **Alexis Percival** is pushing forward energy and carbon savings at Yorkshire Ambulance Service. And there is still a long road left to travel to hit the trust's ambitious targets

During an ex military ambulance across four continents for three years as a career break isn't the typical background you'd find for the typical energy manager. But for Alexis Percival, environmental and sustainability manager at Yorkshire Ambulance Service NHS Trust it was a life-changing experience. "I endured some pretty hairy experiences which make you more resilient to what life can throw at you," she told EIBL. "My penance for driving a petrol guzzling ex-ambulance round the world is to then work for the ambulance service and try to create zero-emission ambulance."

Nine years on after her worldwide odyssey Percival is making good on her penance by reducing the energy use of the trust. "I am responsible for all areas of sustainability covering buildings, fleet, communication, energy, waste management and our carbon footprint," she commented. "I look at the impact our organisation has on our water, energy, gas as well as fuel use. My role covers 120 ambulance stations, office buildings including emergency operations centres and 111 call centres including standby points located across the Yorkshire region. I also am responsible for looking at the carbon footprint of 1,300 vehicles across the region."

With such a large estate the trust's energy bill tops £1m a year for gas, water and electricity. "We are working towards reducing our carbon emissions in line with the Carbon Act requirements of 30 per cent by 2020 but are trying to work to a longer timescale of 2050," Percival stated.

"We are constantly upgrading our lighting to LED across the estate and installing occupation sensors to turn off lighting in unnecessary areas. We have put in TRVs across the estate as well as upgrading heating systems. We have solar panels on six of our ambulance stations and our headquarters generating most of our energy within the buildings. We have ensured that all of our stations have double glazing. We have rolled out insulation across the estate and our new buildings are required to reach a BREEM Excellent level and Very Good for retrofits."

Making a shift to electric vehicles

As well as the TRVs and solar panels the list of technologies that Percival has called on makes impressive reading. "We have installed various

Percival: 'we have a network of carbon champions who are very engaged in communicating with the estates team'



I'd like to see legislation changed to make carbon emission reporting a legal requirement

other technologies to increase our energy efficiency across our estate such as boiler upgrades, motion and occupation sensors, LED lighting, thin client computers, as well computers that turn off at a set time."

But with a shift to electric vehicles in the coming years the future energy requirements will start to change, believes Percival. "We are struggling to look at capacity to accommodate 1,300 vehicles that might potentially need charging at the same time across the estate, she commented. "We are looking at how we can create a smart microgrid system that can be powered by solar energy and store energy to supply our own buildings and vehicles as well as generate hydrogen for heating and hydrogen generation as fuel for our vehicles. We are also investigating how vehicle-to-grid systems can be integrated into powering buildings as well as part of a whole place energy system."

As is often the case when progress is made on implementing energy efficiency measures there is back up from senior staff. "Our management are very supportive of our carbon reduction programme, said Percival. "When we identify areas that would benefit from a sustainable solution, we propose the project and prove the savings. However, we struggle to get energy savings put back directly into further measures due to the financial constraints of the NHS but we have annual investment in upgrade programmes that enable projects to have a return on investment."

Annual awareness campaigns

Percival has also made huge strides in involving staff to reduce energy use. "We send out Carbon Copy, a monthly newsletter informing staff as to what we are doing to improve the estate and fleet. In addition, we have a network of carbon champions who are very engaged in communicating with the estates team as to problems with the buildings and vehicles."

Percival has run annual awareness campaigns and "turn it off" campaigns, empowering staff to turn off lights and turn down heating. The work has paid dividends. "We have won 16 prestigious awards for our work in reducing carbon emissions over the past few years and this enables staff to understand the work that we do."

But Percival believes that there is still a lot of work to be done to hit the ambitious targets. "Our next five years hold a rolling plan for LED replacement, boiler upgrades, voltage and boiler optimisation, she said. "We will be rolling out more solar panels on the roofs of our buildings as well as incorporate battery storage to provide building power. As our fleet is moving towards electric and hydrogen fuels we are looking to see how we can combine our estates and fleet needs to provide resilience and interlink heating, electricity and vehicle fuel requirements – all powered for renewables."

Percival believes that government could give more encouragement to promote energy efficiency. "I'd like to see legislation changed to make carbon emission reporting a legal requirement. Also, there should be more encouragement for new builds to have renewable technologies."

She may have completed her round-the-world odyssey but Alexis Percival has still got a long road to travel to fulfil her ambitions at the Yorkshire Ambulance Service. ■