

## Using our sites to measure greenhouse gases

### IC Internal Comms

Did you know that some of our sites around the UK are being used to measure greenhouse gases?

Climate change is a hot topic at the moment and will be for many years to come. In built up urban areas, there's generally an abundance of opportunities to host equipment on top of tall building to measure greenhouse gas emissions and their impact. However, this becomes more of a challenge in rural locations – and that's where some of our sites come in.

The University of Bristol's Atmospheric Chemistry Research Group (ACRG) have been using some of our rural infrastructure to measure the greenhouse gases in our atmosphere. The altitude of the locations and height of our structures makes it possible to take measurements that reflect the UK as a whole – which wouldn't be as accurate at lower levels.

The project originally started in 2012 and includes Ridge Hill in Herefordshire, Tacolneston in Norfolk, Heathfield in West Sussex, and Bilsdale in North Yorkshire. High precision instruments are positioned at the base of these towers, with sample inlet lines rigged to various heights on the towers themselves.

The data collected is being used by the Government to help the UK comply with the commitment to report emissions to the United Nations, known as the Paris Agreement. These measurements provide a more accurate picture of the issue, compared to previous estimates that relied on data gathered from power stations (quantity of coal burned, which emits carbon dioxide) and farm populations (cows particularly are a major source of methane).

Dr Daniel Say, from the University of Bristol's ACRG, commented:

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*"This method has proven so effective that the UK Government now uses this approach directly to inform its reporting process. None of this would be possible without Arqiva's telecommunication towers, and the science that they support."*

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