

# Talking climate with Amazon Web Services

Maddyness speaks to David Roldan, Head of Startup Business Development (UK and Ireland) at AWS – Amazon’s cloud computing business.

---

In the second of our set of three Q&As with Roldan, we hear about how heat recycled from Amazon data centres is being used to heat buildings in Tallaght, South Dublin and the company’s ambitious carbon-cutting pledges.

## How does AWS assist with cutting carbon emissions for businesses?

Customers are using AWS to make progress on their own sustainability goals because it’s far more energy efficient – greener in the cloud – to host compute workloads on AWS than on one’s own on-premises data centre. According to a report by [\*451 Research\*](#), moving from on-premises to AWS can reduce a company’s IT carbon emissions by 88%. AWS’s infrastructure was also found to be 3.6 times more energy efficient than the traditional alternative.

Our scale allows us to achieve much higher resource utilisation and energy efficiency than the typical on-premises data centre, and AWS’s Global Infrastructure is built on Amazon’s own custom hardware – purpose-built and optimised for workloads run by AWS customers.

*We focus on energy efficiency and continuous*

## *innovation in our data centres to reduce energy usage and increase operational excellence.*

For example we're innovating to preserve water in our Irish data centres, by using direct evaporative cooling systems, which predominately utilise outside air to cool our servers. This means that for more than 95% of the year we use no water to cool our data centres in Ireland. For the few hot days Ireland does see, we use a minimal amount of water to cool the air that removes heat from our servers – the equivalent to the yearly water usage of just eight average Irish households.

Other clean energy investments include the new Tallaght District Heating Scheme near Dublin, Ireland.

We're supporting the county council as they establish Ireland's first custom-built sustainable district heating solution, which will provide heat recycled from our data centres to public sector, residential, and commercial customers. This is expected to save 1,500 tonnes of carbon per annum during the first phase, the equivalent of a 60% reduction in carbon emissions.

## Are you working towards being a net zero cloud solution and if so how do you plan to get there? What about within your own organisation?

At Amazon, we are committed to running our business in the most environmentally friendly way possible.

In 2019, Amazon and Global Optimism co-founded The Climate Pledge, a commitment to reach the Paris Agreement 10 years early and be net-zero carbon by 2040. The pledge now has over 100 signatories, including Unilever, Verizon, Siemens, and many others.

*As part of this pledge, we've set aggressive goals*

*and we're on a path to powering our operations with 100% renewable energy by 2025, five years ahead of our initial 2030 target.*

Significant investments in renewable energy are a critical step to reduce our carbon footprint globally. With 206 renewable energy projects worldwide, Amazon is the world's largest corporate buyer of renewable energy and we recently announced our largest single site renewable energy project which will see the company purchase a total of 380 MW to power our operations in Europe.

In total, these projects have the capacity to generate over 8.5 GW and power more than two million European homes a year. They include 71 utility-scale wind and solar projects and 135 solar rooftops on fulfilment centres and sort centres around the globe.

---

Article by DAVID ROLDAN