GeoPura®

NWG living water

Sustainable Power Now

SECTORS: Utilities, Events, Off-Grid Power

Northumbrian Water Innovation Festival 2025 Case Study

Newcastle Racecourse



Each year, Northumbrian Water Group brings together thousands of engineers, scientists, tech developers and policymakers to reimagine the future of water. For the 2025 edition, sustainability wasn't just on the agenda it was embedded into the infrastructure.

GeoPura supported the festival's clean energy ambitions by deploying four Hydrogen Power Units (HPUs) to provide reliable, zero-emission power throughout the week-long event. Hosted at Newcastle Racecourse, the project demonstrated how large-scale, off-grid events can transition away from diesel, cutting emissions, improving air quality, and proving what's possible today with green hydrogen.

Location:	Newcastle upon Tyne
Dates:	7th July 2025 – 11th July 2025
Equipment Deployed:	4 × HPU 1

KEY METRICS

CO_2 saved:	3,060 kg
NOx saved:	29.9 kg
PM saved:	1.2 kg

APPLICATIONS

- Off-Grid Power
- Grid Augmentation
- Utility Demonstrations
- Event Sustainability

Challenges

- Off-grid power requirement across a multi-day, high-footfall event.
- Commitment to reduce environmental impact and lead by example.
- Maintain reliable performance without compromising sustainability goals.

Solutions

- **Off-grid hydrogen power** deployed in place of diesel generators.
- **Seamless integration** with event infrastructure.
- **Powering core elements of the week-long festival** including the main stage, catering, lighting and EV charging facilities.

ZERO EMISSION FUEL

GREEN POWER GENERATION

About the project



Attracting thousands of delegates each year, the Northumbrian Water Innovation Festival serves as a national platform for sustainable transformation in utilities and infrastructure. For 2025, the organisers set a bold target: power key areas of the festival (catering, main stage and EV charging) with zero-emission energy showcasing real solutions to pressing climate and pollution challenges.

GeoPura's Hydrogen Power Units (HPUs) were deployed to replace diesel generators, delivering quiet, clean, off-grid energy across the Newcastle Racecourse site throughout the festival. Over the course of the event, GeoPura enabled the replacement of over 3 tonnes of CO_2, along with significant reductions in NOx, CO, and particulate matter.

This deployment marked a step-change in how utility providers approach sustainability at live events, making a compelling statement that large-scale innovation gatherings can be powered cleanly today.

What Our Partner Says

"The Innovation Festival is all about bold ideas and practical action. By using green hydrogen to power the event, GeoPura helped us prove what's possible when sustainability is prioritised. It wasn't just cleaner it was reliable and effortless. That's the kind of innovation we need to see everywhere."

Angela MacOscar
Head of Innovation, Northumbrian Water Group

Find out more

Watch our video case study here.