



One of the photos from the Renewable Blue art project, taken using a specialised infrared camera.

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## Academic works with engineers and examining community to create renewable energy art

Northumbria University academic and artist [Paul Dolan](#) is working with engineers and former mining community members to create unique artwork for an upcoming exhibition.

Under the title *Renewable Blue*, the three-part project takes its inspiration from the Viking Energy Network Jarrow (VENJ). This renewable energy scheme extracts water from the River Tyne to power local council-owned buildings,

using water source heat pump technology.

With an estimated carbon saving of 1,035 tonnes per annum, the scheme will make a significant contribution to South Tyneside Council's commitment to becoming carbon neutral by 2030. The scheme, which is set to be up and running this summer, will also save half a million pounds annually in fuel costs.

Commissioned by South Tyneside Council, in partnership with SeaScapes and University of Sunderland, *Renewable Blue* is part of the Blue Futures exhibition, which takes place at [The Word](#) in South Shields this July.

The exhibition will explore South Tyneside's relationship with the river and sea and its many connections to the world's largest renewable natural resource – water.

*Renewable Blue* is split into three separate but complementary artworks;

**A series of photographs** capture scenes from three renewable energy sites, using a specialised infrared camera that only allows infrared light to be captured. This leaves only ghostly shots which look like a permanent winter landscape. Some of the images are covered with black thermochromic paint that conceals the image until they are touched or breathed on.

**Customised circuit boards** are being made locally by Faraday Circuits in Washington. Instead of circuitry, they show local map data taken from satellites. This includes heat map data generated during the development of the VENJ project as well as a diagram of the pipe network that will carry the hot water to residents' homes.

**A moving image artwork** will use photogrammetry and Light Detection and Ranging (LiDAR) to scan objects from the energy project sites as well as domestic technology and equipment belonging to members of the mining community in South Tyneside.

The aim of Paul Dolan's artwork is to reflect how energy can be generated through sustainable and innovative means. Among Paul's creative team are engineers, environmental scientists, and members of the ex-mining community.

Speaking about the project, he said: “I hope the exhibition will allow audiences to view their local environment and technological lives in ways which simultaneously unravel and complicate the separation between nature, technology and energy.”

Paul’s commission will be joined at Blue Futures by two further community engaged projects that have been inspired by our changing relationship with water.

The creation of installation artwork, *Be the Sea*, will be led by artist and post-doctoral researcher Louise Mackenzie of Newcastle University and Hayley Jenkins, Senior Lecturer of Music and Performing Arts at Sunderland University. It will examine the relationship between humans and non-humans in coastal environments.

*Sound Dig*, delivered by independent artist Shelly Knotts and Sunderland University Professor of Radio and Participation, Caroline Mitchell, will explore Whitburn’s coastal community and heritage through sound and stories.

The Blue Futures exhibition connects with the [Year of the Coast 2023](#) and the regional [Stronger Shores](#) project. Stronger Shores involves restoring marine habitats and looking at how they can help to protect coastal communities from the impacts of climate change including flooding and erosion.

The exhibition will also examine how water shapes coastlines over time as well as its role in coastal communities’ sense of place’

Dr Suzy O’Hara, curator of Blue Futures and lead researcher for SeaScapes CoLab for University of Sunderland said: “Blue Futures will be an opportunity for visitors to engage with local communities and learn more about the role of water and the coast in shaping both South Tyneside’s history and future.”

Councillor Audrey Huntley, Deputy Leader of South Tyneside Council with responsibility for Culture, Leisure and the Visitor Economy, said: “We’re excited to be bringing this new Blue Futures exhibition to The Word over the summer. Through the different artists’ commissions, we look at new and innovative ways of exploring our connections to our local environment, the coast and marine life.

"These projects are a fantastic example of how the local community have worked alongside the artists to develop the work, exploring the innovative initiatives that are happening in South Tyneside to create a more sustainable future.

"From using water as a renewable energy source to schemes aimed at protecting our marine environment, this innovative new installation is sure to be a great talking point in our ongoing discussions around climate change."

[Blue Futures](#) will open at The Word, National Centre for the Written Word in the Market Place, South Shields from July.

Paul Dolan's previous exhibition, [Upstream Image](#), was held in October last year at Northumbria University's [Gallery North](#).

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