

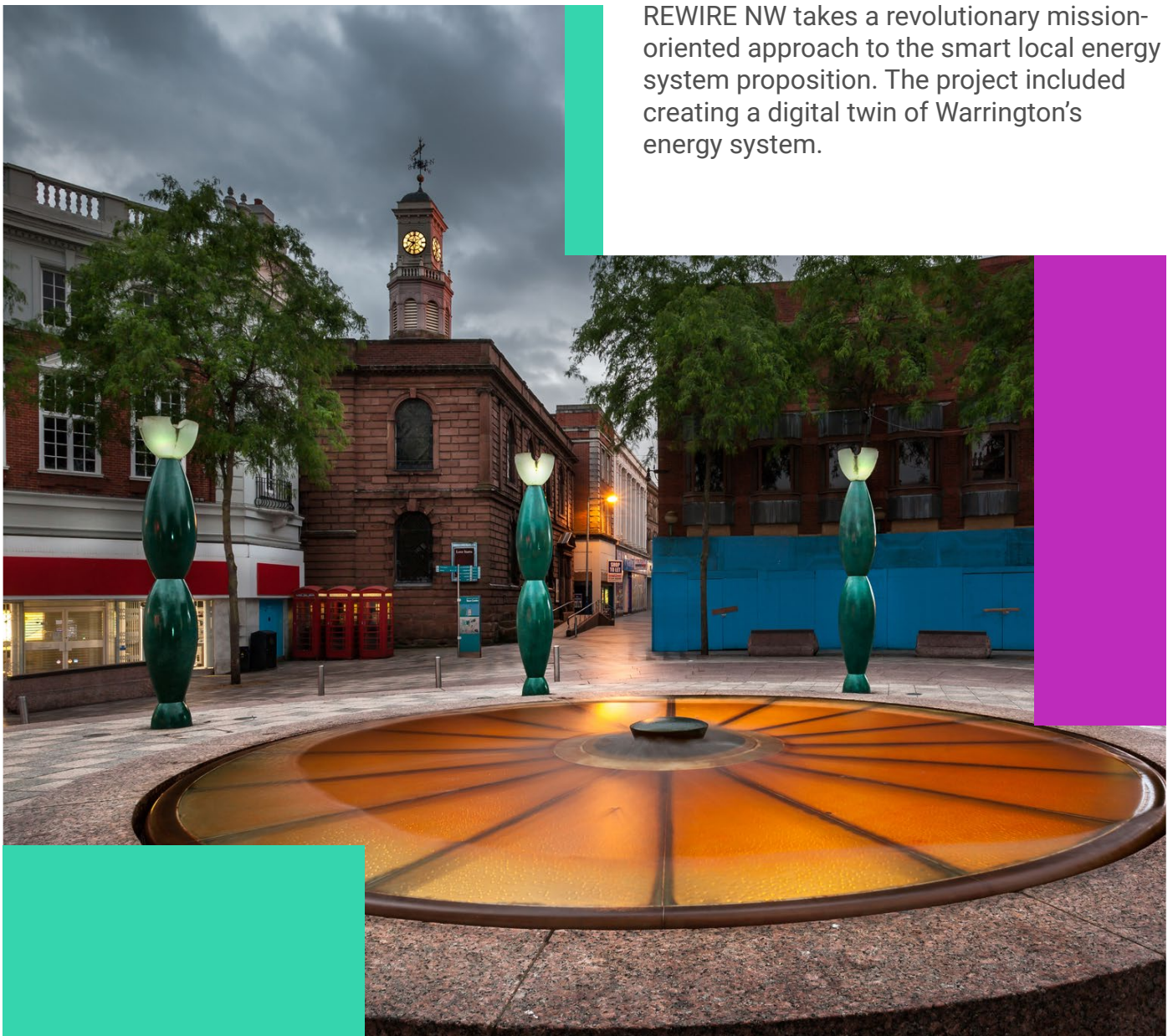


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# Prospering from the Energy Revolution

## REWIRE NW

Project fact sheet



REWIRE NW takes a revolutionary mission-oriented approach to the smart local energy system proposition. The project included creating a digital twin of Warrington's energy system.

The Prospering from the Energy Revolution challenge programme ran from 2018 to 2023.  
For more in-depth information on the programme and the projects see:  
<https://www.ukri.org/what-we-offer/browse-our-areas-of-investment-and-support/prospering-from-the-energy-revolution/>

# REWIRE NW

<b>Dates:</b> April 2020 – June 2022	<b>Project partners:</b> Pure Leapfrog (lead) Altana Wealth Cadent Gas Cornwall Insight Gridserve Integrated Environmental Solutions Q Energy SP Energy Networks Switch2 Energy Together Energy	University of Strathclyde Warrington Borough Council
<b>UKRI funding:</b> £1.3m		<b>SLES components:</b> Market platform Regulatory reform Business models Heat Mobility Electricity
<b>Link:</b> <a href="https://carboncopy.eco/initiatives/warrington-rewire">https://carboncopy.eco/initiatives/warrington-rewire</a>		

<b>What is the project?</b>	REWIRE NW takes a revolutionary mission-oriented approach to the smart local energy system proposition through its combination of the SLES (smart local energy system) framework and its focus on community, local benefit and value retention. Its core objective is the creation of an energy system that is not only optimised and balanced at the local level in energy terms, but also in terms of welfare of, and benefit to, all of its stakeholders. The project focuses on scoping out the business models, institutions, and frameworks needed to deliver SLES.
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<b>What has been delivered? What has been successful?</b>	<ul style="list-style-type: none"><li>✓ A digital twin of the Warrington energy system used to simulate potential borough-wide building energy efficiency and retrofit strategies.</li><li>✓ Development of the SLES company concept reflecting regulatory barriers and potential future operating models.</li><li>✓ A range of regulatory-compliant SLES business models with attractive rates of return for investors.</li><li>✓ Improved understanding of SLES enablers including APIs, open data standards, communications infrastructure and regulatory reform.</li></ul>
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## Barriers encountered and outcomes

<b>Barrier</b>	The existing regulatory framework and future uncertainty around regulatory change limited the ability to deliver each element of the original vision.
<b>Outcome</b>	The focus of the project moved away from a fully integrated SLES capable of being delivered largely within the existing regulatory framework to one which focused on developing specific business cases and identifying key areas of regulatory reform.
<b>Barrier</b>	Energy market volatility and the challenging environment for supply companies led to the collapse of Together Energy in early 2022 and similar, innovative, supply companies.
<b>Outcome</b>	Together Energy's role was to link supply company and retrofit delivery and their collapse came too late in the project to easily find a replacement. However the model under development could be delivered through other companies in future.
<b>Barrier</b>	A lack of open standards for communication protocols and data definitions hampers the interoperability of integrated energy systems like those being developed in REWIRE NW.
<b>Outcome</b>	The project has highlighted the challenges of operating with existing proprietary standards and has actively worked to promote a move to open standards.

<b>Impacts</b>	Forecast GHG savings in 2032:	107.6% (Range: 99.2% to 122.0%)
	Forecast energy and network savings in 2032:	£0.02m (Range: £0.00m to £0.04m)
	Match funding:	£1.3m

<b>Top lessons learnt</b>	<ol style="list-style-type: none"><li>1. Delivering SLES within the current regulatory framework is challenging. The project identified important areas of reform such as giving a clear role to local institutions.</li><li>2. There is a central role for local authorities in delivering SLES which can be maximised by integrating SLES into strategic thinking across the full range of a local authority's activity.</li></ol>
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<b>What's next?</b>	<ul style="list-style-type: none"><li>• Explore the potential for delivery of each of the business models developed in particular the community energy supply business model.</li><li>• Continue developing the Digital Twin and integrating into wider borough-wide energy planning.</li><li>• The biochar Carbon Capture and Storage business model is being demonstrated with £5 million of funding from the UK Government direct air capture and greenhouse gas removal programme.</li></ul>
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