

Regional Energy System Operator (RESO) Project

Application of a smart local energy system design for Coventry

The challenge

We believe that the benefits of whole system energy design occurs at a local level - from being able to access low cost energy, develop and secure job creation and ensure that no one is left behind in the green energy transition

- The Regional Energy System Operator project (RESO) is an evidenced based research project which aims to demonstrate
 - The £ value of a whole systems approach to energy
 - The most effective low carbon technology to optimise energy in Coventry
 - The analysis to support incentives which maximise the use of local infrastructure, clean technology and drive behaviour change using local markets

Coventry City Council

• How this can be enabled through a devolved institutional and organisational structure at a local level



Our aim is to

- ✓ Accelerate decarbonisation in Coventry
- ✓ Unlock the strategic advantage to support the growth of the city at the lowest cost to our consumers
- ✓ Leverage investment in the city to drive the City Councils ambitions for a green energy revolution

Our RESO project will deliver:

- A detailed smart local energy infrastructure design for the city of Coventry, specifying an energy infrastructure vision for the city suitable to meet future energy demands for power, heat and transport up to 2050
- An operating model for this design (i.e. a real-time city energy asset optimisation and management framework)
- A business model which specifies the stable regional institutional and organisational framework necessary to secure and support the long-term investments required





Key challenges and drivers

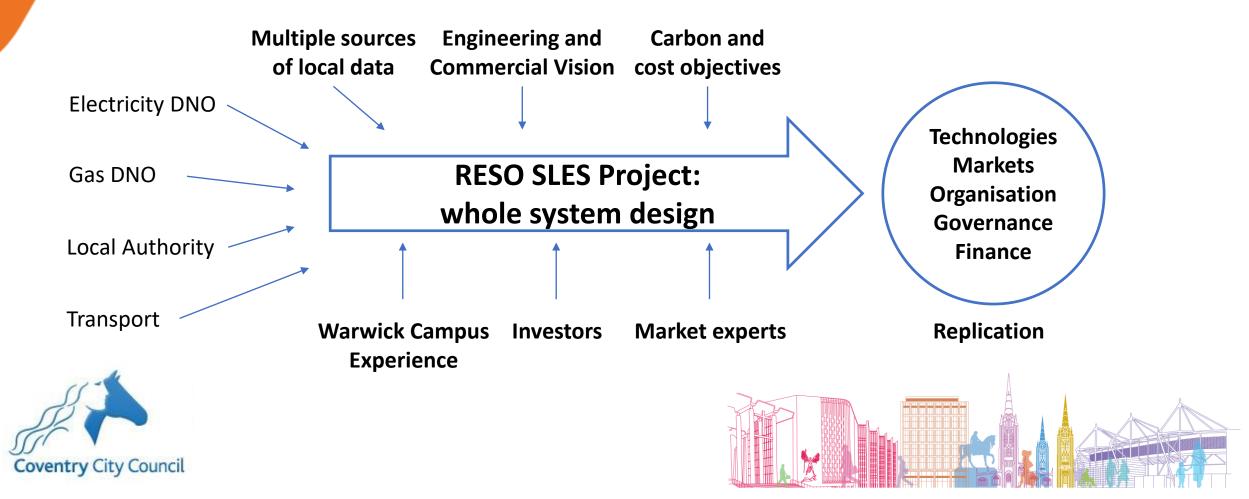
- Carbon and energy are not statutory responsibilities of the council and with diminishing resource this can be challenging to support when funding is not consistent
- We are designing a system in a fast-changing and uncertain policy environment
 - Devolved powers will help the city implement a structure and operation which improve outcomes for the energy users of Coventry
 - National pathways are still uncertain which is high risk for investors
- The external energy markets are developing at pace

Coventry City Council

- There is a lack of coordination across the energy sector. If external factors surpass the rate of our acceleration of a RESO, we will see a lack of cohesion in how the energy market evolves which could stifle adoption and or investment
- If the control and strategic coordination does not happen at a local level we will miss the opportunity to grow the city in line with it's ambitions, nor we will not be able to ensure everyone benefits from the green energy transition and level up and potentially exacerbate fuel poverty even wider



RESO is a cross collaboration of partners who inform our whole system design thinking



The impact of RESO

To enable Coventry to reach net zero and take advantage of the green revolution we must unlock the **policy and regulatory framework**

Local powers will enable collaboration for strategic coordination across energy, transport and spatial planning in the city

Financial mechanisms and support must be allocated accordingly to enable a Smart Local Energy System

Through this, we can support our whole city to benefit from the energy transition ensuring the value is delivered directly back into Coventry





Thank you from the RESO partners



Proud to be part of UKRI's Prospering from the Energy Revolution (PFER) challenge programme

