

# SUSTAINABLE ENERGY BROCHURE



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# Purpose

Clean growth is the concept of increasing income while ensuring an affordable energy supply and cutting greenhouse gas emissions.

MHCLG's Further Guidance states that all Town Investment Plans need to take account of the following clean growth principle:

- ***“Investment from this fund should support clean growth where possible and, as a minimum, must not conflict with the achievement of the UK’s legal commitment to cut greenhouse gas emissions to net zero by 2050.”***

Sustainable energy can make a contribution towards clean growth. Depending on the eventual interventions, sustainable energy projects are most likely to contribute to your Target Outcomes relating to local transport or urban regeneration.

In this short brochure we set out the key steps to realise your sustainable energy aspirations as part of your Town Investment Plan.

# Key steps

## Ownership

For effective, cross-organisational action on climate change and sustainable energy, identify an 'owner' with the seniority and influence to implement change. Whether an individual or small team of people, their focus should be to plan and facilitate action across the organisation, monitor progress and hold people to account.

## Understand energy supply and demand

Assess the existing energy infrastructure, buildings and other major energy users, to map the town's energy demands. Categorise and quantify the current sources of energy supply to the town.

## Identify possible energy interventions

Engage with local stakeholders to identify specific, evidence-based interventions that could contribute to the town's carbon reduction. On the next slide we set out some examples.

## Prioritise interventions

Assess the possible interventions against a range of criteria such as GHG reduction, economic viability, strategic importance, job creation, and deliverability. Create a portfolio of short- and long-term projects and a programme of activities.

## Project development

Complete feasibility work and develop business cases for interventions. Carry out detailed assessments of interventions including options analysis, financial assessments, and risk analysis.

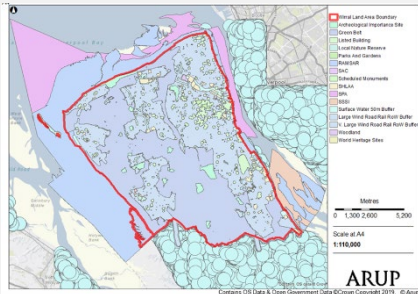


# Examples of action for sustainable energy

## Clean energy opportunity assessment

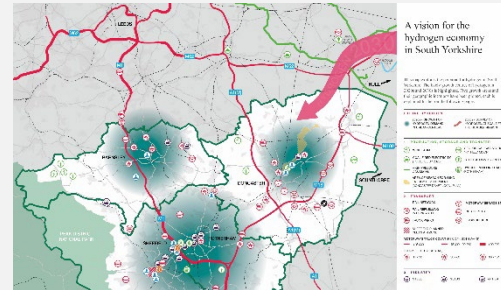
Wirral Borough Council developed a robust and credible evidence base for clean energy opportunities as part of a wider project to inform the development of planning policies to address the climate emergency through the Local Plan.

The areas of opportunity for renewable and low-carbon energy were identified through a constraints mapping exercise, considering technical, environmental and statutory constraints and taking account of the local characteristics of the Borough.



## Establish a regional hydrogen economy

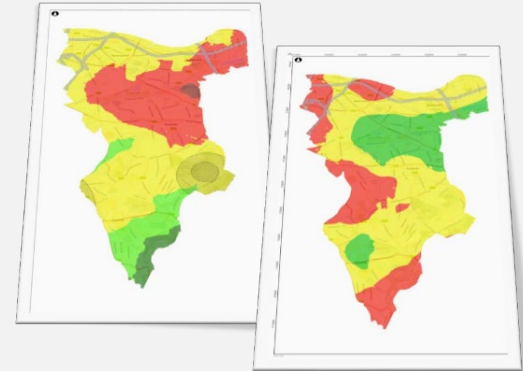
The South Yorkshire Hydrogen Network was established to facilitate knowledge sharing, and to increase the ambition for investment in hydrogen infrastructure for the region. Organisations were brought together to collaborate in workshops, including a LEP, local authorities, energy network operators, and private sector stakeholders with a common interest in developing hydrogen energy systems. Establishing a Regional Hydrogen Economy was published, and work continues with stakeholders to develop these ideas into tangible projects.



## Ground source energy opportunity mapping

The potential for ground source heat supply can be assessed to identify opportunities for closed loop boreholes, open loop boreholes and the potential to recover heat from mining infrastructure.

Towns' community amenities such as swimming pools can provide for anchor loads as can listed older buildings that require a steady source of heat.



## Electric vehicle infrastructure site identification and prioritisation

Pollutants caused by the combustion of fossil fuels is a serious concern in many urban areas, and improving air quality is crucial to improve public health. The provision of electric vehicle (EV) charging posts can encourage the uptake of EVs and in turn reduce the pollutants resulting from internal combustion engines.

Towns can play a key role in promoting EV charging infrastructure. Firstly, forecasting the demand for EVs can help to project the potential demand for publicly accessible EV charging infrastructure. You can then help with identifying potential sites for EV charging, considering a range of constraints such as site availability, EV user behaviour, and electrical connection potential. This work can assist with building the evidence case for government funding applications.



## Low-carbon bus feasibility assessments



A hydrogen bus feasibility study for South Yorkshire concluded that there is a viable opportunity for hydrogen buses to compete economically with conventional vehicles. The study provided valuable insight through comparative analysis of hydrogen, electric and conventional means of bus decarbonisation. A key component of the work was the modelling of duty cycles associated with particular bus routes, taking into account the topography, distance and depot proximity, enabling the most effective vehicle type for specific applications to be determined.