

# **PB05 - Options for ESBC to develop community wealth-building energy projects**

## **Appendix Two: Current East Staffs Energy Projects**

### **ESBC Energy Projects**

This section provides an overview of some of the current and planned projects related to energy and consumption within the council and in the wider borough.

#### **> Decarbonisation Audits**

Directly linked to Corporate Target ECC02, the council is working with consultants to carry out energy audits and produce a Heat Decarbonisation Plan on key council buildings: the Town Hall, Brewhouse, Burton Market Hall, and Stapenhill Cemetery. The plans will provide a costed route map to net zero for the buildings so that capital costs and Public Sector Decarbonisation Scheme-matched funding requirements can be established.

The results of which will be presented to the council in the spring.

#### **> Building Conditions Survey**

The facilities team is arranging building condition surveys to be carried out across a number of the council buildings estate to provide the council with an assessment of the ongoing cost to repair, maintain, and replace as necessary the structure, fabric, and services at each facility. The surveys identify the building's current condition and give estimated costs to bring the facility up to, and maintain it in, an acceptable condition, to be compliant, and to operate efficiently. Although not directly linked to an energy project as such these surveys will need to be considered when planning any energy efficiency measure, and potential for energy generation (for example rooftop mounted solar PV panels)

#### **> Community Centre energy performance certificates (EPC) and Display Energy Certificates**

The council has within its assets a number of community centres for which we are responsible for ensuring there are up-to-date energy performance certificates (EPC) and display certificates (DEC) on display publicly.

An EPC indicates how much it will cost to heat and power a property, as well as how much CO2 it emits. It also includes recommendations for energy-efficient improvements, the cost of carrying them out, and the potential savings in pounds and pence that each one could generate.

A Display Energy Certificate (DEC) is a record of the actual energy usage of public buildings, designed to increase transparency about their energy efficiency. The certificate shows the energy performance of a building based on actual energy consumption over the last 12 months. The DEC should be displayed at all times in a prominent place visible to the public

The council has recently renewed these certificates across the following sites:

- Uttoxeter Heath Community Centre
- Carver Road Community Centre
- Burton Amateur Boxing Club
- Oldfields Sports & Social Club
- Queen Street Community Centre
- Waterside Community Centre

### > **Electrification of the depot**

ESBC as part of the Staffordshire Waste Partnership (SWP) are currently investigating a total solution to decarbonise waste operations, buildings, and fleet for the four partner authorities in Staffordshire by 2030. The first phase of the project is to develop a feasibility study into the requirements to decarbonise the operational fleet of vehicles used in waste services, including street cleansing, considering functioning viability with site layout design and full costings (capital and operational) of all options available, accompanied by expected timescales for implementation. Depending on the outcome of this phase, potential further phases of the project will be for detailed design and build/implementation/mobilisation/financing.

The council is currently awaiting the outcome of a funding bid to help cover the cost of the first phase feasibility study, which is expected to be completed by summer 2024.

### > **Partnership working with everyone active**

A working group with ESBC and Everyone Active meets quarterly to discuss progress on sustainability projects and decarbonisation of the three East Staffordshire leisure facilities. Recent updates include:

- Everyone Active have been successful in a phase one bid for the Swimming Pool Support Fund to assist with utilities and chemical costs at Meadowside and Uttoxeter sites.
- In addition they have applied for Phase 2 funding to improve energy efficiency and decarbonize swimming pool facilities, potentially using funds for structural surveys to install solar PV panels and await the outcome.
- Everyone Active is keen to collaborate with ESBC to align net zero targets and develop a decarbonisation roadmap specific to our local sites. Working with their appointed consultants, Leisure Energy, they propose developing a high-level roadmap for initial site-specific reports to inform a wider plan. The estimated cost is £3,500 per water site and £1,600 per dry site.

### > **Green Business Solutions**

ESBC and Staffordshire County Council are working in partnership to deliver a package of [Green Business Solutions](#) that support businesses in Staffordshire and Stoke-on-Trent to take action to reduce greenhouse gas emissions and introduce. A potential pathway to utilise to help deliver energy reduction and efficiency measures across businesses in the area.

## > Home Energy Efficiency Measures

As part of the Staffordshire Warmer Homes scheme, the council is supporting the delivery of low-carbon home energy efficiency measures (such as loft insulation, cavity wall insulation, solid wall insulation, air source heat pumps, heating controls, and solar PV). These are being delivered through the following funding schemes:

- **LADS (Local Authority Delivery Scheme):** Scheme to help improve the energy efficiency of homes of low-income households and to help reduce fuel poverty. This scheme has now closed, and as of May 2023, a total of 44 homes have been supported through this scheme.
- **HUGS2 (Home Upgrade Scheme):** For homes that are heated by any means other than gas. We are working with Community Home Solutions (CHS) to deliver this. This scheme launched in November 2023 and working with CHS we have funding to target approximately 92 homes.
- **ECO4 & ECO4 Flex (Energy Company Obligation):** Targeted at low-income households with low EPC ratings. Delivered through referrals from Beat the Cold (BTC). This scheme is ongoing and in the last six months, we have approved 18 referrals made through BTC.

In addition to this the council is delivering an **Energy Efficiency Support Scheme** to properties where the EPC is D and below, and income less than £31K with a range of energy efficiency measures including draught proofing, LED light bulbs, thermal curtain linings and room thermostat. The target is to provide 150 homes with a range of energy efficiency measures by the end of March 2024.

## > Electric Vehicle Charging Infrastructure

We are working with Staffordshire County Council to identify potential locations for delivering public EV charging across ESBC-owned land using the government LEVI funding. Locations suitable for EV have been identified in a report approved by the cabinet in November 2023. This includes the investigation into the viability of solar charging units.

Other future projects will also include researching and identifying requirements in terms of staff travel and workplace EV charging facilities across the council estate.

## > Energy from Waste

As part of the [Staffordshire Waste Partnership](#), any residue waste collected from households that is not recyclable is sent to an Energy Recovery Facility, where it is used as a fuel to generate electricity. Whilst these plants are a much better option than landfill, there is a carbon impact and it is more important to reduce, reuse, and recycle as much as possible to keep valuable resources in circulation for longer.

## > Regeneration: Project D (High Street, Burton)

Situated next to the Meadowside Leisure Centre this project will regenerate an important gateway to the town connecting the High Street with the Washlands area.

Whilst plans are still being progressed, it may include a mix of residential and leisure facilities. The project also has the potential to include a dedicated energy centre made up of a decarbonised heat network and water source heat pump, and off-site connections with buildings such as the Meadowside Leisure Centre. There is some capital in place and work is due to start in 2025.

In addition, there are several parking considerations within our sites which should incorporate workplace EV charging infrastructure.

## Other Local Energy Projects

As mentioned in the [Energy Consumption across East Staffordshire](#) section of this report, East Staffordshire currently has 1,945 solar PV installations, 207 heat pumps and approximately 656 electric vehicle charging points

According to the Renewable Energy Planning Database, which tracks the progress of UK renewable electricity projects over 150kW through the planning system, since 2008 East Staffordshire has received 19 planning applications for renewable energy projects, with Solar PV clearly the most common technology being deployed.

<b>Anaerobic Digestion</b>	<b>1</b>
Operational	1
<b>Battery (Stand-alone Storage)</b>	<b>1</b>
Awaiting Construction	1
<b>Biomass (dedicated)</b>	<b>1</b>
Awaiting Construction	1
<b>EfW Incineration</b>	<b>1</b>
Application Refused	1
<b>Solar Photovoltaics</b>	<b>11</b>
Abandoned	2
Application Submitted	2
Operational	7
<b>Wind Onshore</b>	<b>4</b>
Application Refused	1
Application Withdrawn	3
<b>Total</b>	<b>19</b>

Other large scale renewable projects in the area using solar, wind and hydro, and smart energy systems to manage energy distribution include:

## > Zero Carbon Rugeley

The Innovate UK-funded project created a blueprint for a smart local energy system (SLES) in Rugeley, Staffordshire at the site of a former coal power station, which is sustainable and low-carbon and responds to the town's rich energy heritage.

The community-focused approach aligns energy systems to local priorities rather than just corporate interests to increase adoption.

Overall, the project demonstrates the potential to reimagine local energy generation, storage, and sharing to deliver net zero goals while creating prosperity.

Further reading on this project can be found here: [Project fact sheet: Zero Carbon Rugeley](#)

## > Keele University Smart Energy Network Demonstrator (SEND)

SEND is an "at-scale living laboratory" on the Keele campus to allow intelligent management of energy generation, distribution, storage, forecasting and balancing.

It aims to reduce reliance on fossil fuels, cut energy waste, and trial innovative energy solutions.

The project includes a renewable energy park which is providing up to 50% of the campus' electricity from renewable sources, featuring 12,500 solar panels, two wind turbines, and an industrial sized battery for storing the energy.

SEND generates data to facilitate research partnerships and innovation in sustainable energy.

It provides support to local SMEs on renewable energy R&D projects.

Consultancy is offered to help businesses enter the renewables sector or become more sustainable.

SEND won a Green Energy Award for its pioneering work spearheading clean energy and delivering major carbon savings.

The project is funded partly by the EU and UK government, positioning Keele as a leader in sustainability research and low-carbon innovation.

Further reading on this project can be found here: [Institute for Sustainable Futures - Keele University](#)

## > University Hospitals Roof-mounted Solar Panel Installation

Non-profit community energy society 'Staffordshire Community Energy' works in partnership with the University Hospitals of North Midlands NHS Trust on an innovative project to reduce their hospitals' carbon emissions and energy costs, help

patients suffering from to deliver clean energy respiratory problems and alleviate stress on the NHS.

In September 2016 they installed 1,000 solar panels on 8 of the Trust's buildings at Royal Stoke and Stafford County hospitals, in providing low cost solar power to the hospital.

Annual surpluses for the project are invested in Beat the Cold, a local fuel poverty charity, with the aim of supporting local residents and reducing the chances that vulnerable residents are admitted to hospital.

Over 500 hospital patients have now been given advice and assistance on reducing their energy costs, obtaining new boilers and other improvements, increasing warmth, reducing fuel debts and accessing benefits that are available to them.

Further reading on this project can be found here: [Solar Panel Installation - Royal Stoke Hospital - Staffordshire Community Energy](#)

### **> Tutbury Mill Hydro Power Project**

In 2008, a local resident had the vision to build a mini-hydro power scheme at Mill Fleam weir in Tutbury, East Staffordshire, to generate electricity and fund improvements to the area.

The initial 16kW Archimedean screw turbine plan was scrapped due to high maintenance costs. A new 80kW twin Archimedean screw generator was then proposed for the River Dove weir, forecasted to generate £60,000 annually selling power to the grid.

Delays resulted in missing a 2014 deadline to get the optimal feed-in tariff rate, eroding project economics. The loss of key team members and community support further hampered momentum.

Despite attempts to find alternative funding, the project was abandoned in 2016 as it was no longer financially viable.

The Tutbury hydro project demonstrates the potential of community renewable energy schemes. However, it also highlights risks around changes to incentive schemes, personnel changes, and timeline delays that can undermine project success.

Ambitious community energy projects require solid economics, sustained team commitment, close stakeholder coordination, and adaptive plans to overcome potential barriers