

ENERGY NEWS



Autumn 2020

The newsletter of the Midlands Energy Hub



'Fuelling the Green Recovery'

Michael Gallagher, Regional Energy Projects Manager

Welcome to the autumn edition of the Midlands Energy Hub newsletter. The work of the Midlands Energy Hub, its partners and stakeholders continues at pace. There is a real determination to deliver on the critical actions needed to decarbonise the Midlands region while stimulating the economy and creating jobs. It has been a real privilege working with BEIS recently on the Green Homes Grant Skills Training Competition, which will work to help build the capacity of the supply chain to deliver the Green Homes Grant Voucher scheme and Local Authority Delivery scheme.

The £1 billion Public Sector Decarbonisation Scheme is a huge opportunity for Local Authorities, alongside the wider public sector, to make significant progress on their Climate Emergency declarations and action plans. The timescales are challenging, so I would recommend engaging with this opportunity as soon as possible.

This newsletter looks at some of the fantastic work underway across the Midlands, from the delivery of Nottingham's first electric Refuse Collection Vehicle to the production of Jet Fuel from waste. There is also a great case study on the decarbonisation of a leisure centre and a look at the vital work the West Midlands are doing to address fuel poverty.

The Rural Community Energy Fund continues to support community groups across the Midlands to develop exciting and innovative energy projects and it is great to see community groups starting to complete their feasibility studies, with three completed so far. We are looking forward to reviewing applications for Stage 2, alongside any new Stage 1 projects.

The Midlands Energy Hub is funded by the Department for Business, Energy and Industrial Strategy (BEIS) as part of the Clean Growth Strategy. It is supported by Nottingham City Council who are the accountable body.

News

Grimsby Leisure Centre is set to save £45,000 a year after installing new energy saving measures.

Grimsby Leisure Centre has undergone a major £416,000 [energy saving project](#) that will save 190 tonnes of carbon dioxide and £45,000 on energy bills a year. The [Smart Energy](#) programme has part funded the project along with [Salix Finance](#).

All of the old fluorescent and halogen lights have been changed to new energy efficient LED lights with further investment made to replace the old heating system with condensing boilers.

Whilst the Leisure Centre previously had solar PV installed, the grant has seen further investment in order to make better use of the space on the roof of the building. The larger capacity will see the building supply more of its own clean, zero emission electricity, thereby reducing costs.



Grimsby Leisure Centre

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Hydrogen buses coming to Birmingham

Birmingham City Council has purchased [20 new hydrogen double decker buses](#) as part of their clean air hydrogen bus pilot. The buses are manufactured by [Wrightbus](#) and are the world's first zero-emission hydrogen fuel-cell double deckers. They will be introduced with National Express West Midlands from April 2021. It is intended that pilot will be the catalyst for the next generation of hydrogen buses, hydrogen production and re-fuelling infrastructure development.

Nottingham takes delivery of first Electric Refuse Collection Vehicles

Nottingham City Council [has purchased two](#) of the world's first Original Equipment Manufacturer (OEM), fully electric refuse collection vehicles (eRCV). The two [Dennis Eagle eCollect](#) eRVCs add to the 140 zero emission vehicles already operated by the council as part of their aim to become carbon neutral by 2028.

Addressing fuel poverty in the West Midlands

The West Midlands has secured almost [£1 million to fill the gaps in Fuel Poverty](#) support provision across the region. The grant has been made to the charity [Act on Energy](#), a member of the West Midlands Combined Authority's (WMCA) fuel poverty and regional retrofit task force set up by [Energy Capital](#). The programme will improve the health and wellbeing of people with cold and damp related medical conditions through energy saving advice, energy saving measures, and debt management advice. This is a service that the Covid-19 pandemic has only made more urgent.

In the longer term, the new [Warm Homes Save Lives \(WHSL\)](#) proposal seeks to address the systemic issue of fuel poverty. With support from [WMCA](#), the building blocks for WHSL are being developed alongside a programme to scale up retrofit, and make sure no one is left behind. Whilst tackling fuel poverty requires an appropriate response to a person in crisis, the long-term objective is to ensure that struggling households are included in the development of whole house retrofit programmes, but at a time when the disruption can be coped with.

A key building block for WHSL is the development of a new customer relationship management (CRM) system to manage data about those in fuel poverty and linking this to the performance of their homes. This CRM will provide a new real time database, offering an opportunity to start developing a new practice-based approach, based on a distinct evolving methodological basis rather than drawing data from sample surveys. The CRM will be used to test the assumptions in current practice and inform whole house retrofit planning.

Rural Community Energy Fund

The [RCEF](#) is a scheme to support rural communities across England who want to set up renewable energy projects. There are currently fifteen Stage 1 projects being supported, of which three have recently completed their feasibility studies; [Cromford Mill](#), Harbury E-wheels and Burton RFC. The scheme is administered in the Midlands by the Midlands Energy Hub. If you are based in a rural area and have a project that could benefit from RCEF support, please contact the team [here](#).

Features

West Midlands Leads the Way with VLR

Nicola Small - Senior Rail Programme Manager, Coventry City Council

Coventry City Council and Dudley Metropolitan Borough Council are in collaboration with a number of regional partners across the West Midlands to develop [very light rail \(VLR\)](#) technology in the UK. The first route will be installed in Coventry and is planned to link the railway station with the main hospital, a route of some 7km.

VLR is much cheaper and easier to deliver compared to a conventional tram system. This is because a 'very light rail' vehicle has a weight of around a quarter of the 40 tonnes a conventional tram. This lower weight means that the track does not require deep foundations, which in turn avoids the need to dig up and relocate utilities such as water, electricity and gas, which is currently the process for building traditional tram systems. The vehicles are battery powered so produce zero tail pipe emissions and remove the need for expensive and unsightly overhead power cables. In future, there is also the

potential for VLR vehicles to become autonomous, this will further reduce costs and enable large fleets to be deployed delivering a more frequent service.

Coventry City Council and their collaboration partners have been busy progressing the research and development of both the vehicle and track. The finished [vehicle](#) will be capable of carrying over 50 passengers. The requirement that it must be a lightweight yet safe design means the technology owes much to the automotive industry. This means the project will provide new opportunities for the region's existing supply chains with the potential to make the West Midlands a global leader in VLR vehicle technology.



The Coventry VLR prototype vehicle

In parallel with the development of the vehicle, a R&D programme is underway to deliver a [shallow low-cost track](#), which can be easily installed into the city's roads. Project partners [WMG](#) and [Ingerop Conseil et Ingénierie](#) are working to develop a 'track form' that can be easily removed to allow maintenance of utilities for a target cost of less than £10m/km, as opposed to a typical cost of £25m/km for traditional tram systems.

Significant progress has also been made at the [Very Light Rail National Innovation Centre](#) being built in Dudley. The first test track for the vehicle is currently under construction and is scheduled to be complete by early 2021. The centre will test the prototype vehicle to evaluate acceleration, cruising, braking, endurance, and cornering behaviour. A prototype of the track form is also expected to be ready for testing by summer 2022. This will enable the integrated system (vehicle and novel track form) to complete a comprehensive programme of testing.

It is envisaged that this 'new industry' will create jobs and prosperity across the West Midlands, while at the same time revolutionise urban mass transit for smaller cities and towns that currently struggle to make the business case stack up for a traditional tram system.

Jet Fuel from Waste in the Energy Estuary

Matthew Sylvester - North East Lincolnshire Council

The first commercial scale waste-to-renewable-fuels plant in the UK is to be built in North East Lincolnshire. The £350m [Altalto Immingham](#) plant, which is being developed by [Velocys](#) in a joint venture with British Airways and Shell, received formal planning approval in May. It will convert hundreds of thousands of tonnes of black bin bag waste into aviation-grade fuel using the [Fischer-Tropsch](#) process. The plant will create 130 permanent jobs.

The location of the new plant in Stallingborough is on land that falls within [South Humber Industrial Investment Programme](#) (SHIIP). This £42-million project is the most ambitious industrial project in North East Lincolnshire's history. It comprises of 120ha of strategic mitigation land, 2.5km of new adoptable highway, 489,000sqm of built floor space, and 195ha of developable land. The aim is to create a highly attractive area where business and industry want to invest with a focus on advanced engineering and green energy. This will complement the booming offshore renewables industry based along the Humber. Grant funding for the scheme has come from the [Humber LEP](#) and the [Greater Lincolnshire LEP](#).



Altalto Immingham: a visualisation of the proposed site

The site was chosen by the developers after a wide-ranging assessment process; this included visits and in-depth analysis of several possible sites across the country. The Stallingborough site was selected as, in addition to being in an Enterprise Zone, it is surrounded by other industrial businesses that have been operating in the area for a number of years. The South Humber Bank Power Station and other industrial neighbours mean that the facility will sit well within the existing landscape. More generally, Immingham and the surrounding "Energy Estuary" area is renowned for fuels production expertise and has a highly skilled local workforce that will help deliver the project.

Public Sector Decarbonisation Scheme (PSDS)

The [Public Sector Decarbonisation Scheme provides grants](#) for public sector bodies to fund energy efficiency and heat decarbonisation measures. The scheme is being [administered by Salix](#) and will provide up to 100% towards the capital cost of energy saving projects for [qualifying](#) public bodies. To help applicants take maximum advantage of the scheme the additional [Public Sector Low Carbon Skills Fund](#) provides funding for developing bids and delivering projects.

Green Homes Grant

The Green Homes Grant (GHG) scheme provides £2bn to enable the installation of energy efficiency measures across tenures to help tackle fuel poverty, reduce energy demand, and save residents' money. It also supports national and local carbon neutral targets. The GHG is being delivered in two parts:

There is £1.5bn available for [homeowners and residential landlords](#) until the end March 2021. Vouchers, of £5,000 are available to cover two thirds of the cost of energy efficiency improvements. Households on certain benefits may be eligible for a voucher covering 100% of the cost of the improvements.

The [Green Homes Grant Local Authority Delivery](#) (LAD) scheme will provide £500m for local authorities to improve the energy efficiency of low-income housing in their areas. The first phase of £200m funding is being run nationally and has already awarded £76 million across 57 bids. [Phase 1B](#) has now opened and will allocate the remaining phase 1 funds (£124m). Expressions of interest are required by **6th November** with applications to be submitted by **4th December**.

A second phase comprising £300m of funding is to be delivered through the Local Energy Hubs in the next financial year. The Midlands Energy Hub will receive an allocation of the funding to support residents across the Midlands. We are currently developing potential delivery models and will soon start a series of stakeholder engagement sessions to inform the most appropriate delivery mechanism for phase 2 of the scheme.

Green Homes Grants scheme skills training competition

The GHG scheme objective is to assist with the green recovery and it is expected to support 100,000 construction jobs. The scheme will be supported by the [Green Homes Grant Scheme Skills Training Competition](#), administered by the Midlands Energy Hub with the assistance of the BEIS. It is designed to provide support to the energy efficiency and low carbon heating supply chains to deliver GHG measures. The competition has now closed and applications are being assessed. The delivery of funded training via this scheme is due to commence in December and run to the end of March 2021.

Partners

Sustainability West Midlands

The Centre for Research into Environmental Science and Technology ([CREST](#)), [Sustainability West Midlands](#) and [Fit for the Future](#) are excited to announce a virtual networking and [knowledge sharing event](#), taking place on 26 November. This event will look at the sustainability of transport in rural areas, including the impact of Covid-19 and importance of digital technology and clean energy to retain and develop services. The event will include speakers from the Department for Transport, Northumbria University, Lincolnshire Council and [River Simple](#).

Hub Partners

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