

Press Release

6 NOVEMBER 2020

CONSORTIUM WINS WELSH GOVERNMENT FUNDING TO RETROFIT 1,300 HOMES

A major consortium including half of the social landlords in Wales has won £7m Welsh Government funding to deliver an optimised retrofit programme across more than 1,300 Welsh homes.

The collaboration of 68 partners, including 26 social housing providers, and managed by Sero, has been awarded more than £7m by Welsh Government to deliver a pioneering programme that, as well as decarbonising more than 1,370 Pathfinder homes, will create the tools required to roll out the large scale decarbonisation of homes across Wales.

The Optimised Retrofit approach will deliver a whole house, pragmatic route to decarbonising existing homes. The pathfinder programme will use a combination of building fabric improvements, low and zero carbon technologies (such as solar panels, battery storage and heat pumps), and intelligent ongoing operational controls, to take each home to its lowest achievable carbon footprint.

The approach is designed to support incremental home upgrades over multiple steps, in a coordinated way. The scheme enables delivery of a more comprehensive level of genuine zero carbon, typically for less cost, by supporting and aligning with the decarbonisation of the energy grids that will take place over the coming decades. This complexity is then rationalised into a simple 'Zero Carbon by...' forecast year – the year that individual home is expected to achieve net zero operational carbon emissions.

As well as social housing providers, this large-scale collaboration of partners includes a range of research, innovation, academic, technology, energy and industry organisations from across the UK. Alongside providing supplier and employment opportunities across Wales, these will lead supporting activities such as cutting-edge research, training and upskilling, and establishing frameworks for the retrofit industry, to enable the Welsh economy to become a true leader in decarbonisation.

Representing over half the social housing stock in Wales, the Optimised Retrofit collaboration will use the Pathfinder homes to refine a range of digital tools that enable each home to be easily and quickly surveyed, and 'Pathways to Zero' carbon identified. This includes forecasting the year that each home will achieve zero carbon, based on the recommended stepped improvements, as the grid becomes greener.

Following the completion of the Optimised Retrofit Pathways programme, these digital tools will be made available to Welsh social housing providers, academia, government, and subsequently private homeowners. This will enable the long-term delivery of a legacy of tools, skills, frameworks and an evidence base that will allow others to follow and enable the decarbonisation of Wales' homes to quickly gain scale and pace.

Talking about the project, Andy Sutton, cofounder of Sero that is managing the consortium said: "Despite the acute problem of the pandemic, the Climate Emergency and Biodiversity Crisis are a chronic condition that remains existential for Wales and our world. Carbon emissions from home life represent up to 40% of total emissions in the UK – and compared to aviation, farming and heavy industry, this large part of our carbon footprint can be resolved here and now.

"Sero is already delivering, either on our own or with development partners, hundreds of new homes that are zero carbon, or that will automatically become zero carbon in the near future as the grid decarbonises. Optimised Retrofit turns our attention to the 1.4m existing homes in Wales, and 29m in the UK, to provide effective, practical pathways to bring these



homes to zero. The collaboration will address barriers across a broad spectrum to transform residential decarbonisation from a high-level good intention into a reality for the homes of Wales.”

The funding has been awarded through the Welsh Government’s Optimised Retrofit Programme that was introduced this year as part of the Innovative Housing Programme, to help reduce the carbon footprint of existing social housing in Wales, make energy bills more manageable for residents and provide new job and training opportunities.

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Notes to Editors

The project has been awarded more than £7m by Welsh Government, through the Optimised Retrofit Programme, part of the Innovative Housing Programme.

This collaboration of 68 partners (including 26 social housing providers), will deliver a pathfinder programme that will see the retrofit of 1,372 homes, enabling the creation of the tools required to roll out the decarbonisation of homes across Wales.

The project is being managed by Cardiff based energy service provider Sero, which as well as building its own zero carbon homes, works with developers and landlords of existing homes, offering the UK’s first comfort based energy model (i.e. no kWh), simultaneously providing customers with lower energy bills whilst providing domestic Demand Side Response (DSR) services to the National Grid.

Project partners (hyperlinked):

RSLs:

Adra (Tai) Cyfyngedig
Bron Afon Community Housing
Cadwyn Housing Association
Cartrefi Conwy Cyfyngedig
ClywdAlyn Housing Limited
Coastal Housing Group
Cynon Taf Community Housing Limited
Family Housing Association (Wales) Limited
First Choice Housing Association Limited
Grŵp Cynefin
Hafod Housing Association Limited
Merthyr Tydfil Housing Association
Merthyr Valley Homes Limited
Newport City Homes Housing Association Limited
Newydd Housing Association Limited
North Wales Housing Association Limited
Pobl Group Limited
Powys County Council
RHA
Tai Calon Community Housing
Tai Tarian Housing Association



United Welsh Housing Association
Valleys to Coast Housing Limited
Wales and West Housing Association

Industry Partners:

Active Building Centre
Beta Teach Podcast
Build Test Solutions
Cardiff Metropolitan
Cardiff University
Coleg Llandrillo
Coleg Meirion Dwyfor
Coleg Menai
Constructing Excellence in Wales
Construction Industry Training Board
Construction Wales Innovation Centre/University of Wales
Trinity Saint Davids
Edwards Hart
Energy Systems Catapult
Gibson Specialist Technical Service Limited
Green Finance Institute
Grwp Llandrillo Menai
Heat 3D
Hinckley and Rugby Building Society
Minerva Marketing
Ministry of Building Innovation and Education
Monmouthshire Building Society
Neath Port Talbot College
National Residential Landlords Association
Octopus Energy
Ovo Energy
PassivSystems
Places for People
Purrmetrics
Reading University
Regulatory Assistance Project
Royal Society of Architects in Wales/Royal Institute of British Architects
Royal Institution of Chartered Surveyors
Rocketmakers
Rounded Developments
Sero
South Wales University
Supply Chain Sustainability School
Sustainable Traditional Buildings Alliance
[Tirion Homes](#)
Training Steering Group
Trust Mark

6 November 2020

Social housing sector to set Wales on the path to decarbonise thousands of homes and boost green economic recovery

The Welsh Government has given the green light and a further £10m to a major new programme that will transform social housing across Wales, boost the economy and open the door to a new Welsh industry.

Backed with almost £20m, the Optimised Retrofit Programme (ORP) is a key part of the Welsh Government's plans for a green recovery – as set out in the recently-published Covid Reconstruction: Challenges and Priorities report.

In the first year of the programme, ORP will bring together Housing Associations and councils on projects that will help upgrade at least 1,000 existing social homes through a mixture of new energy efficient materials and technologies.

Unlike other green growth or retrofit initiatives that focus on just one aspect of the house at a time, ORP takes into account the materials our homes are made from, the way we heat and store energy in our homes and the way energy is supplied to our homes.

Some of the upgrades that are to be trialled in upcoming ORP projects will include the installation of new heat pumps, intelligent energy systems and solar panels. Off gas grid properties which can be difficult and expensive to heat are also a focus of this programme.

These measures will not only help tenants and the environment by reducing the amount of carbon produced in powering and heating homes but will also be instrumental in helping to reduce fuel poverty and develop the skills and opportunities to Welsh SMEs.

There will also be much wider and far-reaching benefits for the Welsh economy. As the programme is rolled out across social housing in Wales over the coming years, this will lead to the creation of local jobs, training and apprenticeship opportunities and supply chains as part of a new Welsh retrofit industry.

The Welsh Government will continue to work with the Further Education sector to see how it can support this new industry, with the ambition of opening new retrofit academies across Wales to ensure that there are enough people with the right skills to support this new industry.

The programme will develop the local green economy and contribute to the Welsh Government's efforts to decarbonise all 1.4 million Welsh homes by 2050. It is anticipated this could lead to as many as 15,000 new jobs in Wales.

One project hoping to receive funding is a consortia of 26 Social Landlords. The consortia will work not only to improve homes across Wales but test the way heat and energy is produced, stored and supplied and develop innovative labour and material frameworks targeted at creating a 'green economy' by upskilling Welsh

SMEs and manufacturers. Evidence shows that for every £1.4 million of investment in the delivery of domestic energy efficiency, 32.6 jobs are created or supported.

To support innovation in the ORP, social landlords were invited to apply for funding of up to £0.5m for research and innovation projects. Applications were invited to address a range of challenges from consumer acceptance to improving the impact of retrofit. It is hoped that successful projects will improve the pipeline of innovative ideas to accelerate decarbonisation and help grow supply chains in Wales.

The Minister for Housing and Local Government, Julie James said:

“Our goal as a government is to deliver a more prosperous, equal and greener Wales. These values remain as valid today as they did before the pandemic. We see the Optimised Retrofit Programme as just one part of our plans for a green recovery, creating a low carbon economy for Wales, reducing fuel poverty and tackling the climate emergency. It’s about much more than just a one-off scheme. This is an approach that could create a sustainable, long-term retrofit industry that supports thousands of local jobs and training opportunities as we act to meet our 2050 carbon targets. .

If it is successful, Optimised Retrofit will set the standard for retrofit schemes in Wales and be the forerunner of an approach and an industry to decarbonise all 1.4 million homes in Wales by 2050. But it is critical we get the approach right first. Just throwing money at the problem doesn’t work and can end up in the installation of poorly fitted measures that aren’t right for the house, don’t work and have to be replaced in just a few years.

ORP is based on research with the Welsh School of Architecture and the recommendations in ‘Better Homes, Better Wales, Better World’ published in 2019. It has led to the creation of a far more sophisticated and bespoke approach that avoids the problems of the past.

This programme will test different approaches to upgrading homes to achieve the goal of homes which are zero carbon in use including off gas properties where the challenges of decarbonisation are even greater. .Not all of these homes will have achieve this by March 2021 but will set us on the right path towards it.”

“Although initially focused within the social housing sector, the establishment of a long-term retrofit industry will give rise to the ability to retrofit of the private housing sector providing owners with the capability, opportunity and motivation to retrofit their homes.”

The Minister for Economy and Transport, Ken Skates said:

“The retrofitting of homes is vital in providing better homes, creating hundreds of jobs, and establishing new supply chains.

“The Optimised Retrofit Programme will stimulate a new retrofit industry, providing a real boost to the Welsh economy. This scheme has the potential

to drive up private sector investment, help people develop new skills and provide important training opportunities. Innovation will be a key part of this through new techniques and ways of using materials.

“As well as opening the door to a new industry, local supply chains across Wales will be strengthened from the demand created by retrofitting social homes.”

Chris Jofeh, Chair of the Welsh Government Independent Advisory Group that produced the ‘Better Homes, Better Wales, Better World’ said:

“I very much welcome the Optimised Retrofit Programme. It comes with cross-departmental funding, which for me is a powerful signal not only of support but also of joined-up thinking within Welsh Government. The Welsh approach of piloting and field-trialling ideas and then sharing the learnings will create a strong foundation for residential decarbonisation in Wales.”

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Notes

Source for stats: The value case for decarbonising homes in Wales’ literature review, Cardiff University, 2020

The consortia of RSLs will develop the tools to accurately determine the right measures, products and schedule for individual homes across Wales to change the fabric that homes are made from.

The Welsh Government recently published [Covid Reconstruction – Challenges and Priorities](#) – setting out eight priority areas to help stabilise Wales as we continue to live with the virus and to make sure we’re ready to rebuild once a vaccine or a cure has been found.

The priority areas were drawn up following an extensive conversation with the public and key sectors across Wales. #OurFutureWales received more than 2,000 responses and helped shape our priorities.

A £320 million package will be invested in projects and schemes in each of the priority areas over the next six months to maximise the impact of our available resources this financial year to support our recovery.