

23rd December 2019

Green light secured for one of the world's first 'true net zero' carbon neighbourhoods, in Wales

Work is set to get underway one of the world's first* true 'net zero carbon in operation' neighbourhoods- Parc Hadau in Pontardawe- which today (17 Dec) gained detailed planning consent from Neath Port Talbot Council.

The progressive £8m development from Sero Homes will comprise 35 homes; transforming a scrubland site into a sustainable extension of the existing community and offering residents no energy bills if they are within the forecast levels of usage.

It will be the first scheme to go to the full extent of the UK Green Building Council's definition of net zero carbon, by tracking real-time 'in-use' carbon emissions when the homes are running**.

Intelligent controls by sister company Sero Energy will continuously track carbon emissions from the National Grid to ensure any imported electricity's emissions are more than balanced by those avoided from electricity generated on the site and exported from the homes.

This accounts for both the homes' 'regulated' energy, as well as the residents' plug-in appliances, meaning Parc Hadau goes significantly beyond the Energy Performance Certificate "A" rating and further exceeds current Welsh Building Regulations requirements.

The new homes will use very low energy building design to reduce the energy demands of the homes and their residents. This will be combined with a mix of renewable energy technologies, including thermal and electrical storage, significant on-site photovoltaic (solar) panels and ground source heat pumps, together with ventilation systems that keep the warmth inside whilst ensuring fresh, filtered air.

Based on a model more common on the continent, the purpose-built homes will be available through long-term, index-linked tenures rather than open market sale. They will address the need for quality, affordability and long-term security for residents, while avoiding high deposits which prevent people from getting on the property ladder.

The scheme is backed by more than £2m from the Welsh Government's Innovative Housing Programme, which supports the innovative elements of the scheme. The remaining funding is provided through Sero Homes.

Welcoming the planning decision, **Sero Homes' managing director, James Williams**, said: "The principles underpinning our vision for housing are simple—people's homes should minimise the harm done to our planet and they shouldn't cost the earth to run. The current housing market is failing to achieve this, and Parc Hadau will bring to life - at scale - this vision for better homes for future generations.

“The climate change agenda may have gathered pace in recent years and months, demonstrated by UK Government net zero carbon emissions targets for 2050 – but the answers to these huge challenges are needed right now.

“Parc Hadau will be an international exemplar of what great places to live can look like, and we hope will be one of many opportunities for us to create new neighbourhoods across the UK that enable more people access to great quality, zero carbon homes at a time when they are needed most.”

Parc Hadau’s innovations also include promoting active travel, low carbon and carbon storage construction, thermal mass, as well as each home being equipped for electric vehicle fast charge charging.

The scheme borders ancient woodlands and will include wetland landscapes and a wildflower meadow. It has been designed by award-winning Welsh architects Loyn & Co, and incorporates landscaping by nationally renowned Farrer Huxley Associates, to ensure seamless integration of nature and wildlife.

Parc Hadau includes a large communal garden as a key focus of the new homes, which includes outdoor spaces as well as a community building for the new residents and existing local community.

Work on the homes will get underway in spring next year, with residents expected to move in the summer of 2021. The scheme will comprise 11 two-bed homes, 22 three-bed homes and two four-bed homes. Sister company Sero Energy will manage the energy management systems in the homes.

Richard Twinn, Senior Policy Advisor at the UK Green Building Council, said: “Meaningful action over the next 10 years will be critical to help avoid the worst impacts of climate change. The energy used in homes accounts for around 20% of the UK’s emissions, so if we’re going to radically reduce emissions, we need all of our new homes to be net zero carbon in operation by 2030 at the latest.

“This represents a huge challenge for the industry. Housebuilders must act quickly to deliver homes that have very low energy demand and are powered entirely by renewable energy. Forward-thinking projects such as Sero’s Parc Hadau will help to lead the way so that we can turn net zero into business as usual by 2030.”

Notes to Editor

* For definitions of the terms Zero Regulated Energy, Zero Energy, and Zero Carbon and more detail on the low/no energy bills please see the attached factsheet.

** Based on available case study data from the UK Green Building Council.

For further information or to request an interview with a Sero Homes spokesperson,

please contact **Anna Hartt at Grasshopper Communications** on **07956 032 443** or email **anna@grasshopper-comms.co.uk**

Detailed planning approval is granted subject to a Section 106 agreement being signed.

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Sero Homes builds zero carbon homes that are quality, well designed, larger than typical new build homes set in places that promote community and ecology, and which favour active travel, car sharing and electric vehicles.

- Founded in Cardiff in 2017, Sero Homes is a new disruptor to the existing house building market.
- Sero Homes will operate on a purpose-built rental model (currently used extensively across Europe) and will offer long-term, index-linked tenures that provide security and stability, as well as peace of mind over the operation and maintenance of the homes.
- Sero tenants will enjoy a lower overall cost of living due the zero carbon design of the homes and smart energy systems, resulting in much lower fixed energy bills that will be integrated with the overall monthly rent.
- For Sero Homes, zero carbon means generating sufficient energy on-site to meet the annualised demands of the home as well as the typical resident's electricity demands. This means Sero Homes' definition of zero carbon is modestly ahead of the UK Green Building Council's "Net Zero Carbon Buildings- A Framework Definition" publication in May 2019. The homes are grid connected to account for seasonal variations in generations, and all grid electricity used is sourced from 100% renewable suppliers.
- The Sero Homes team is led by Managing Director James Williams, who has considerable experience in the renewable energy markets and development, with Director of Design and Innovation Andy Sutton, an architect and advisor to Welsh Government with considerable experience in zero carbon development. They lead a growing team currently operating primarily in South Wales but with ambitions to expand across the UK.

www.Serohomes.com