For Attention of: The Climate Change, Environment and Infrastructure Committee

Welsh Parliament,
Cardiff,

BY EMAIL ONLY: SENEDDCLIMATE@SENEDD.WALES

RE: DECARBONISATION OF PRIVATE HOMES – CALL FOR EVIDENCE

Friday, 19 August 2022

Your Ref.:
Our Ref.: 22-08-18_WG Decarbonisation of Private Homes Call for Evidence

To Whom It May Concern,

Sero was founded in Wales in 2017, and we are a "B-Corporation" business headquartered in Cardiff with a mission to deliver Net Zero Carbon in homes. We provide digitally-led, technical expertise that offers solutions for creating and retrofitting net zero homes, and operating these homes efficiently to support ongoing net zero carbon and minimise energy costs. Sero received £5.5m joint investment from Legal & General's Clean Energy Fund and Hodge Bank at the end of 2021, further enabling our ongoing scale-up to support delivering the decarbonisation of homes. Our team of more than 80 people are currently actively supporting nearly 1,000 new build homes and 6,000 retrofit homes across all tenure types (a pipeline growing for 2023 and beyond). We also undertake collaborative research to help tackle the barriers to wider and faster adoption of net zero carbon in homes.

In this context, we are grateful of the chance to respond to Welsh Government's call for evidence, and would welcome the opportunity to support with more detailed information on any of the topics outlined on the following pages.

Your sincerely,

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Welsh Government's call for evidence has been framed around six questions, and we have endeavoured to structure our responses to reflect these.

The current approach to decarbonising housing in the private rented and owner occupied sectors in Wales, including the effectiveness of existing programmes and support for retrofit;

The Energy Company Obligation Scheme 3 (ECO3), recent Heat and Buildings Strategy heat pump grant, and forthcoming ECO4 are administered UK-wide, whilst Wales has the ongoing schemes such as ARBED and NEST endeavouring to operate outside of social homes. Whilst Wales's schemes have largely been commendable in their intent to tackle those at greatest risk of [fuel] poverty, the schemes overall have not delivered at the scale that is urgently required or with the genuine impact on measured carbon emission reductions. Furthermore, with limited coordination between all the Welsh and UK government initiatives, there has been significant opportunity for confusion.

In short, there is much opportunity for Wales to provide an enlarged, coordinated, and clearer programme in the future, building from valuable lessons learnt from past efforts.

The role of sector specific retrofit targets to help drive change;

Wales has around 1.4m homes currently in existence, and in the period to 2050 is likely to build slightly in excess of ¼ million new homes at current rates. Of these existing and new build homes, we estimate just under 1.4m will be private owner/occupiers or private landlords in 2050. With typical homes currently emitting 3-4 tonnes $CO_2^{eq}$, this means that private homes emit more than 5 million tonnes $CO_2^{eq}$ annually.

Our work to anticipate sector/tenure specific retrofit activities in Wales forecasts social landlord retrofit activities growing most rapidly to around 28,000 homes per year in 2030 (driven by Welsh Housing Quality Standards); private landlords having a slower delivery (largely due to non-compliance with limited enforcement through local authorities and Rent Smart Wales) peaking at 8,000 homes per year through the decade of the 2030's despite Minimum Energy Efficiency Standards (MEES) requirements already in place UK-wide for 2025/2028 and anticipated ratcheting standards subsequently. Owner/occupiers are divided in our modelling into mortgaged and unmortgaged, due to the different levers required, with mortgaged owner/occupiers increasing adoption to a plateau of 22,000 homes from 2032 until nearly 2050. Unmortgaged owner/occupiers are expected to be later movers, only peaking around 2040 at similar rates of homes.

Sector, or tenure, specific targets should be considered in the context of these forecast adoption rates. Firstly, such targets should only be used provided the underlying metric used is not tenure specific. Our experience shows that homes change tenures over their lifespan, and whilst sector/tenure specific targets may drive that sector, some homes will change tenure during the period. We are currently seeing evidence of this with social homes, where divestment strategies around "hard to treat" properties by some social landlords move these homes into the private landlord or private owner/occupier tenures. This is a potentially undesirable outcome given their respective capacities to reliably decarbonise homes.

Specific targets should also ideally be relative not absolute in nature: They should recognise the technical limitations to retrofit measures that exist, and judge homes relative to the possible retrofit works which could be undertaken. This is counter to an absolute measure that takes no account of how technically appropriate it is for homes, such as Listed properties, to achieve a nationally determined level. A relative target resolves many of the issues currently causing concern around the EPC approach, though it will require work to support digital building passports and assessments of how far a home can be improved.

Target success metrics for decarbonisation must therefore align across all tenures/sectors, even if target timescales do not, whilst recognising the unique nature of Welsh homes. The success metric for decarbonisation should be measured (not modelled) via the smart meter and grid carbon intensity for each home, delivering an actual carbon footprint in $KgCO_2^{eq}$ per year. This is the most achievable and accurate

mechanism available, with measured readings via smart meter deployment already outpacing coverage compared to modelled solutions such as Energy Performance Certificates. This measured carbon target is transferrable between tenure/sectors, as well as aligning with wider Wales Net Zero measurements, Greenhouse Gas Scope 1/2/3 protocols and Climate Change Commission reporting.

Sector/tenure specific targets for retrofit within the above qualifications do provide the opportunity to accelerate the scale up of home retrofits, and in doing so enable the supply chain to become familiar with the retrofit measures required. Our work leading the Optimised Retrofit Pathfinder collaboration investigated these skills under "Decarb Army" work with SMEs and training providers. A notable part of the reported skills gap relates to familiarity rather than lack of fundamental skills, and as such a staged scale up through staggered targets may help tackle this.

Actions the Welsh Government should take to progress a programme of retrofit for these sectors in the short, medium and long term;

Our research work and practical application of retrofit at scale suggests Welsh Government would most benefit the acceleration of retrofit in amongst private landlords and owner/occupiers by focusing on the following areas:

### Public awareness of Net Zero, particularly related to homes

From our engagement work, most residents do not realise that their home is likely to be the largest part of their overall carbon footprint. Many are keen to "do their bit" insofar as they feel able, but this lack of awareness means private landlords and owner/occupiers are not aware to begin to consider action. This is most galling amongst private landlords, who are less than 4 years from MEES regulatory requirements, yet a significant number still demonstrate no knowledge of even these comparatively low performance requirements.

Welsh Government is well placed to put in place a sustained, wide-reaching public information campaign about the drive to Net Zero Carbon across all walks of life. This should include the impact of homes, and the journey that each Welsh home needs to go on in order to help tackle the climate emergency. Our work suggests this general awareness barrier is the first hurdle to progressing retrofit in private homes.

### Clear, measurable, long term targets with defined consequences

The requirement for an independently verifiable "success metric" measured in $KgCO_2^{eq}$ per year has been made above, set against a relative target appropriate to each home. This should be an integral part of any awareness campaign. In parallel, Welsh Government should initially research, then pilot, and then publicise the penalties for homes which do not achieve the necessary relative carbon targets by the defined long-stop date. Much work has been done historically on taxation levers including land value transaction tax, council tax and others, and this should be reviewed with Welsh data as a starting point.

Our work with Rightmove, the Royal Institution of Chartered Surveyors and Monmouthshire Building Society in our VALUER project (more later) gave us further opportunity for insights into the market behaviours for private homes. This suggested to us that market behaviours will be further and more rapidly influenced by clear signals of future regulatory/tax penalties on housing, even if those are consequences are many years or decades in the future (even as far as 2050). It is therefore theoretically possible that Welsh Government may drive the change in market behaviours in the next few years by simply declaring a long-term financial consequence to inaction in future decades: By the date of the deadline, it is conceivable very few homes will actually be impacted by this.

The key challenges of delivering a programme of retrofit within these sectors, including financial, practical and behavioural, and action required from the Welsh Government (and its partners) to overcome them;

Consumer habits have changed drastically over the past two years, as was evidenced during the VALUER project which ran from March 2020 to March 2022. Project partners Rightmove tracked the popularity of

green terms via their online portal's key word search feature. They were able to evidence that consumers are actively seeking terms such as 'Solar Panels' and 'Heat Pump' with staggering increases in popularity. Solar Panels went from ranking 499th in November 2020 to 160th in November 2021 (and continues to increase). Equally, Heat Pump was ranked >1000th in November rising to 209th 12 months later. One of the most popular key word search criteria was Electric Car Socket, indicating that the electrification of our vehicles is having the biggest impact on our housing choices.

Another of Rightmove's data findings was that advertised properties which included green terms (in this instance homes listed with double/triple glazing versus those without) sold on average within 36 days in May 2021 compared to 45 days for homes not containing these terms within the listing.

Evidence strongly suggests that prospective purchasers are more willing to pay a premium for a home that already has energy efficient measures installed as they are able to immediately benefit from them without having to endure the procurement, financing and installation process itself. This was highlighted when Rightmove studies 200,000 pairs of property transactions where each home was initially sold with a lower EPC then re-emerged onto the market with a higher EPC. They were able to identify a clear correlation between the improvement in energy efficiency and an increase in resale value in excess of market trends. The study removed overt changes to the 200,000 homes, such as a change in floor area, to help reduce other factors that may have influenced the value of the homes. A table of findings demonstrated that on average increasing a home's efficiency by:

- 1 EPC band = 6.7% increase above market trends
- 2 EPC bands = 12.1% increase above market trends
- 3 EPC bands = 19.5% increase above market trends
- 4 EPC bands = 22% increase above market trends

During the VALUER project, RICS hosted a roundtable event at Parliament Square, where industry professionals summarised current barriers and how we as a sector could address them;

1. With the enforcement of National Trading Standards Material Information part A in May 2022, progress is being made regarding the quality of property listings and the valuable information contained within them. However, an increase in upfront information at the point of a property sale should be explored as a method to inform potential buyers of the current energy performance as well as expected future improvements required. This could take the form of a building passport and would likely help assist consumers in making more informed decisions when buying a home.

2. To ensure green measures being installed within a home are appropriate, a retrofit assessment and detailed plan for net-zero should be sought by the homeowner. This would ensure inappropriate measures weren't inadvertently funded, potentially detrimentally affecting the value and efficiency of the property as well as requiring further funds to correct. This would also lead to peace of mind for the homeowner, protecting them from rogue installations and instilling confidence that they are undertaking appropriate works to their property.

3. Investigations into the benefits of creating a minimum standard and level of training to competently advise on retrofit measures would be immensely beneficial. This will support a drive towards quality and accountability, with professional bodies such as the RICS ready to assist. Organisations such as TrustMark and their Data Warehouse can further support the administration and promotion of those qualified to undertake retrofitting works.

4. The VALUER project largely focused on owner-occupiers with a mortgage, however as previously noted within this document, an estimated 56% of the private homeowner sector own their home outright. This proportion of property owners will need to be driven by other means, be that taxation for the inefficiency of their home or the adverse impact to the resale value should it be marketed without the expected level of low carbon measures.

5. In order to make decarbonisation universally accessible, there will need to be a variety of products and repayment mechanisms to support homeowners (both owner occupier and landlord) in retrofitting their homes. This in turn needs to be underpinned with a strong supply chain and competent trusted installers.

6. Those engaging with consumers at the early stages of a sale/purchase such as mortgage advisors and estate agents should review how they communicate the need to invest in residential energy efficiency improvements. Purchasers should be made aware of any immediate and/or future financial risks such as limited mortgage options (a lender refusing to approve a mortgage on an EPC E home without a commitment by the buyer to invest in energy improvement works) or future market value and saleability.

How the right balance can be struck between influencing/incentivising homeowners and private sector landlords to retrofit their properties and regulating to increase standards to drive progress;

Sero are already working with a growing number of mortgage providers, including Hodge Bank, Hinkley & Rugby, Principality and Monmouthshire Building Societies, to pilot how independent, expert digitally-led support can be provided to private landlords and mortgaged owner/occupiers through their mortgage provider. This is intended to be provided alongside access to novel financial products that will facilitate the able-to-pay homeowners to access suitable secured or unsecured lending to undertake the appropriate retrofit improvements to their home in the right order, over a series of coordinated interventions spaced over a number of years. These planned measures comprise a "Pathway to Zero" for the home, and are digitally stored securely for the homeowner to access, amend and record progress over time.

Our work with these pilots, together with wider activities with social landlords in Wales and England, suggests to us any moves to incentivise homes to decarbonise should be carefully focused on the most vulnerable in society. Wider incentives will be unaffordable to the public purse if offered fairly to all, and if offered on an 'early adopter' basis they have historically tended to unduly favour the middle/upper income bands (such as was shown with the feed-in tariff incentive). Welsh Government's incentives should therefore look to homes that will be unable to access finance privately, which is likely to comprise either those on very low household incomes and/or those with homes in very low value areas where retrofit measures will form a significant proportion of the overall homes' value even post-improvement. Identifying these homes, and designed incentive schemes to support them, should be Welsh Governments' priority.

For homes not falling within the above, the reality is these homeowners must be deemed 'able to pay' as public financial incentivisation en-masse would require dramatic changes to public finance levels to secure sufficient funds. However, the net value of resident property in the UK is estimated at more than £6 trillion, and there is considerable money in the capital markets actively seeking 'green' investment opportunities – indeed there is more money than opportunities at this time. Together, these can be combined to resolve the financial barrier, with Welsh Governments role here to create the predictable, long term regulatory environment that allows the market to connect the large scale private investment to the private homeowners, thus influencing the wider market. The key levers to create this long term environment are:

- Public awareness of Net Zero, particularly related to homes and their need for improvements
- Clear long term carbon targets, ideally relative, measured in-use in $KgCO_2^{eq}$ per year
- Defined consequences, likely comprising taxation, for non-compliant homes at the deadline

How effective the Welsh Government is influencing decisions on reserved matters to support decarbonisation of these sectors.

In our view, the Welsh Government should be actively lobbying Central Government for additional legislative powers to accompany the devolvement of the Building Regulations, the power to set standards should be widened to include the provision of other decarbonisation interventions. Welsh Government has for many decades been at the forefront of wider sustainability issues such as the incorporation of BREEAM and Code for Sustainable Homes energy requirements as part of National Planning Policy, and we believe it

should redouble its efforts to engage and push for targets and powers to continue this trend. Without these additional powers the drive to Net Zero will be dictated by the snail like pace of Westminster and the lobbying of those with access to central government to slow the pace.

Without further devolvement of powers, the Welsh Government should explore options for introducing additional requirements as part of National Planning Policy that exceeds the requirements of the proposed Future Homes Standards, to something that is more akin to what Net Zero really is, and not lesser standards dictated by National House Building organisations.