

Written evidence submitted by VELUX (DHH0009)

An introduction to VELUX:

For more than 70 years, the VELUX Group has created better living environments for people around the world, using a passion for daylight and fresh air. That's what started our business and it is still what drives us today as we promote healthy and energy efficient buildings through natural light and ventilation.

(Q2) What key policies, priorities and timelines should be included in the Government's forthcoming 'Buildings and Heat Strategy' to ensure that the UK is on track to deliver Net Zero? What are the most urgent decisions and actions that need to be taken over the course of this Parliament (by 2024)?

VELUX, a manufacturer of roof windows and rooflights, believe that the buildings of the future must be designed for people, for increased energy efficiency and with care for the environment. It is widely known that we spend 90% of our time living, working, learning and playing indoors – something which is more acute under the current pandemic. With this in mind, VELUX believe that the forthcoming Buildings and Heat Strategy should take a holistic approach to the health of residential buildings, acknowledging the role of energy efficient products and initiatives in providing low-carbon, healthy housing, which will help the UK reach its net-zero target.

We commend the All-Party Parliamentary Group on Healthy Homes and Buildings' White Paper which also calls for a holistic approach to health and housing – incorporating energy efficiency to reduce emissions, energy bills and health burdensⁱ.

(Q3) Which technologies are the most viable to deliver the decarbonisation of heating, and what would be the most appropriate mix of technologies across the UK?

In September 2020, VELUX announced its ambition to reduce its carbon emissions and become a “lifetime carbon-neutral” company by 2041 – partnering with WWF on a number of global initiatives. This is on top of investment and innovation on a number of low carbon technologies and products.

With buildings accounting for around 40% of the energy usage, we acknowledged the need to make a transition in the design and renovation of buildings towards greater energy efficiency. Improving the energy efficiency of buildings can be achieved by using the design methods, digital technology and dynamic, automated building components that exist today without limiting the inflow of daylight and fresh air. VELUX's products – crucially, windows and accessories – are continuously improved to optimise the energy efficiency of buildings while allowing daylight and fresh air to enter housing. Developing these solutions for the benefit of people's housing is regarded as one of our core objectives. Below are two examples of such technology developments:

Innovation for durability

In 2019, VELUX introduced a new polymer spacer – called 4SG – that ensures the long service life of triple-glazing solutions in VELUX roof windows. 4SG replaces the prior construction with steel spacer, desiccant and primary seal as increasing thickness in three-layer panes was challenging the compatibility of this solution. The new 4SG polymer is also used in flat roof

windows, including double glazings, to improve the capability to resist heat. VELUX plan to expand the use of 4SG to more product lines in the coming years.

VELUX ACTIVE with Netatmo

Smart-home technology is an important enabler of a healthy and sustainable building. VELUX ACTIVE, launched in 2018, helps to improve indoor climate conditions and ensure a healthy living environment. The system operates VELUX products in accordance with smart sensor measurements of CO₂, humidity, temperature and live local weather data. In 2019, new features such as smart heat protection, Google Home integration and grouped product control were added to create an even better solution. In total, the adoption of VELUX ACTIVE grew by 247% in 2019.

(Q4) What are the barriers to scaling up low carbon heating technologies? What is needed to overcome these barriers?

We believe that a whole-building approach attitude must be taken towards low-carbon heating in residential housing, one that incorporates the need for healthy and energy efficient homes alongside it.

The UK Government's Green Homes Grant scheme, announced by the Chancellor on 15th July, offered vouchers to homeowners in England of up to £5,000 to cover the cost of energy efficient improvements such as low-carbon heating systems and insulation. While this is welcome, a long term strategy for renovation is a vital approach that would enable scaling up. The UK's existing housing stock has potential for low carbon improvement, the pathway to achieving this would benefit from a refreshed vision.

We believe that an updated, long term renovation strategy should adopt a holistic approach to improving homes for the health and wellbeing of the occupants and energy performance, moving away from the practice of improving energy efficiency without a holistic consideration which incorporates health and indoor climate for the occupants.

(Q6) What incentives and regulatory measures should be employed to encourage and ensure households take up low carbon heat, and how will these need to vary for different household types?

The UK Government's Green Homes Grant scheme, announced by the Chancellor on 15th July, offered vouchers to homeowners in England of up to £5,000 to cover the cost of energy efficient improvements such as low-carbon heating systems and insulation. As noted above, this was a welcome addition to the current portfolio of home improvement and energy efficient policies across the UK, shaping a green recovery from the Covid-19 pandemic, providing jobs and meeting climate change targets.

While we remain supportive of this initiative, it is disappointing that the scheme is only open for a limited amount of time (ending March 2021). We believe that this should be extended. We further believe that in order to obtain the desired outcome there should have been a holistic approach to the whole property when applying energy efficiency measures, crucially, including the scheme's scope in supporting renovations which often have a health aspect i.e. suitable ventilation, noise mitigation and access to daylight. This could include the replacement of older windows that do not comply with modern day energy efficiency standards.

We believe that extending this scheme both in terms of duration and scope, will enable a greater uptake of low-carbon technology in homes and accelerate the economic recovery.

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ⁱ <https://healthyhomesbuildings.org.uk/wp-content/uploads/2019/04/HHB-APPG-White-Paper-V2.pdf>