

Headlines for Energy Plus Academy Online Workshop

The Climate Crisis: How can we respond.

Thursday 1st July 2021

On the 1st of July 2021, we launched the Energy Plus Academy, an exciting new knowledge-exchange programme to promote learning, skills, and local actions to tackle climate change. The event was attended by 42 participants from housing associations, architects, climate organisations and universities. We were sorry the think tank could not be held at Trafford Hall as planned due to the ongoing COVID restrictions, but we were very grateful to our outstanding panel of presenters who agreed to participate online.

1. The urgent need to tackle climate change

We urgently need to act against climate change as the impact is already being seen with higher temperatures; increased risk of flooding; and water shortages. More extreme weather events are destroying people's homes and livelihoods in many regions. Environmentally driven migration is one outcome. We need to take action now to prevent these extreme events from getting worse. On our present trajectory, global temperatures will increase by up to 4°C by 2100. At the UN Climate Conference in Paris in 2015, 185 nations including China and the US, signed up to keeping temperature increases below 2° C.

To tackle climate change, we need to change every aspect of how we live. We need action plans that go beyond just how we heat and power our homes but look at the carbon footprint of everything we do and use. We need to conserve and reduce energy use and produce energy in a cleaner way through decarbonising our energy supply. Some of the damage done by climate change is already irreversible. We need to find ways to adapt to these changes to protect homes and communities.

2. Positive stories around tackling climate change

The positive impacts of tackling climate change need to be emphasised. Tackling climate change makes things better for everyone and the positives need to be promoted; new jobs, upskilling opportunities, new green industries, a healthier, cleaner world and living closer to nature. However, this needs to be set in the context of the accelerating threat of climate change if we carry on as we are, and we need to recognise how much damage we have already done in order to galvanise action at all levels, government, business, individuals, and communities.

COVID has shown us the power of public health advertising. The same model could be used to push a sense of urgency around climate change and encourage people to take action.

3. The role of the built environment

Currently, the built environment contributes to around 40% of the UK's total carbon footprint¹. In order to keep climate change within manageable limits, we need to reduce this to one-twentieth of present levels, changing how our buildings use and conserve heat and energy. 85% of existing buildings will still be standing in 2050 so we have no choice but to retrofit the existing stock to mitigate against dangerous climate change. Demolishing existing buildings is hugely damaging to the environment due to the loss of embodied carbon in existing buildings and the energy required to produce new buildings which often use concrete, steel and glass, all of which are highly carbon intensive. For example, demolishing and rebuilding an East London tower block would require four times the level of embodied carbon than would be required for a highly energy-saving retrofit programme.

The construction industry has been slow to adapt to the imperative of tackling existing buildings but there have been some recent positive moves. PAS2035 is a new building standard for building specialists to ensure that all retrofit work is carried out to a high specification and can be delivered at scale across the UK².

4. The role of social housing providers

Social landlords are leading the way in retrofitting whole estates and groups of homes. They have the ability to do this at scale because their properties tend to be clustered in particular areas. It is far easier to carry out retrofit on clusters of properties than compared to do it house by house in the owner-occupier sector. Retrofitting older property protects the supply of social homes and helps keep communities together. Demolition and rebuilding are invariably more expensive than retrofit and normally leads to the loss of social housing. There have been several impressive examples of retrofit projects carried out by social landlords, such as by Nottingham City Homes, Portsmouth City Council and Hammersmith and Fulham Council. We can learn a lot from these projects.

Some properties can be extremely challenging to retrofit. Optivo is currently carrying out a study of 100 of their worst-performing homes to understand whether it is worth retrofitting them. These properties were originally going to be sold off, but they have managed to raise the Energy Performance Standard (EPC) to C, or even higher. If social landlords sell these properties, it simply transfers the problem rather than solving it. One lesson from the successful projects on difficult buildings, like the high-rise block in

¹ <https://www.ukgbc.org/climate-change/>

² <https://www.retrofitacademy.org/what-is-pas-2035/>

Portsmouth (Wilmcote House)³ or Hammersmith and Fulham (Edward Woods),⁴ is that it is worth investing to save homes as it is invariably cheaper than demolition and replacement.

Energy efficiency work is not an add on or separate from mainstream housing work. Riverside is carrying out a Carbon Literacy programme that will ensure staff at all levels understand how to tackle climate change.

Energy-efficient upgrades can be built into regular repair works and maintenance. Regenda is currently training their in-house repairs team in energy-efficient building and repairs. Orbit is also working with its repairs team and contractors to promote environmental efficiency when carrying out repairs.

5. Involving residents

For any retrofit project to be successful, it is crucial to involve residents at all stages of the process. Winning the commitment of residents must be at the centre of the retrofit programme. It is crucial for residents to understand why the work is being carried out, what benefits it will bring and what hurdles lie in the way. The retrofit process is difficult and can be disruptive to residents lives so the process needs to be carefully managed and residents' views must be listened to and respected. Residents can be involved in some of the choices, for example in the Nottingham City Homes retrofit project⁵, residents chose the colour of the building finish and asked for outside taps to be added.

A crucial support for residents is an on-site supervisor. The retrofitting of Wilmcote House showed the importance of having a designated person in charge of resident engagement. The housing officer provided vital support to residents, and they felt they could trust her, even when she was delivering bad news such as delays to the programme. The concierges at Edward Woods also provided vital services to residents as did the on-site manager.

To reduce disruption to residents Leeds Council is considering the option of retrofitting their properties when they become void. However, this is a less cost-effective way of carrying out the work.

If residents are on board with the retrofit project and understand how they can maximise their energy-saving and comfort as a result, they will help the building perform better and the overall impact will be greater. They are also more likely to share positive stories with other residents and encourage them to engage in action to tackle climate change.

³ <https://ecda.co.uk/projects/wilmcote-house-2/>

⁴ <https://ecda.co.uk/projects/edward-woods/>

⁵ <https://www.energiesprong.uk/projects/nottingham>

Residents have an invaluable role in sharing their knowledge of how their homes are performing. For example, they can explain which rooms are damp and cold, and which common areas cause problems. This knowledge can be extremely useful.

The Carbon-Coop has produced a “Retrofit for all toolkit”⁶ that sets out how to carry out a person-centred retrofit project. The toolkit focuses on what is important to residents at each stage of the process. It is a work in progress but has documented some very useful ideas and experiences.

6. Community action to tackle climate change

Community-based projects such as making areas greener and developing community gardens can make a big contribution to reducing the impact of climate change. Community gardening projects are a valuable way to get people involved. They create more awareness of the issues.

Bolton at Home is setting up a new centre called Greenworks, to promote green skills and enterprise, organise carbon literacy training, and support youth activities around climate change.

Working with schools can be a good way to teach children about the importance of climate change; they can then share the message with the rest of their family.

7. Lifestyle changes

Small changes within the home can make a big difference in conserving energy. Home Group are working with customers to encourage small lifestyle changes, for example putting lids on pans and switching to more energy-efficient light bulbs. They are currently trying to calculate the cost savings of these small changes. L&Q have surveyed all their residents to understand how they use their homes so they can help residents make adaptations to save energy, for example, setting up the heating controls so that it only comes on when needed.

8. Diversity in climate action

Communities and social housing residents want to tackle climate change. Orbit surveyed 900 residents and found 79% are concerned about climate change. Strikingly 89% of residents from an ethnic minority background said they were concerned about climate change. Bolton at Home found a very similar response in its resident’s survey on climate change. This may be because these groups have links to other parts of the world that are already seriously affected by climate change. Despite this, black people and other people of colour are very underrepresented in environmental groups.

⁶ <https://carbon.coop/2021/04/new-release-retrofit-for-all-toolkit/>

There is an awareness that this needs to change but the process needs to accelerate significantly. There are many barriers to people getting involved and there is a danger of assuming that we know what people want. Research by Shelter shows that residents from minority backgrounds are more likely to live in fuel poverty. In response, a large housing association ran a “Can you hear us?” session for affected residents. They discovered residents from a minority background believed that white residents are given better quality homes and therefore experience fewer problems. The association is now trying to uncover the evidence in order to take necessary action, and build the confidence of tenants from a minority background.

9. Short term funding.

The funding available for retrofit projects is often very short term and does not give social landlords enough time to carry out adequate planning, engage with residents, find suitable contractors, and manage the project with care. As a result, funding problems can prevent work from being carried out or finished off properly. Longer-term funding is essential for both social landlords and other businesses, so they can deliver retrofit and energy-saving projects to the highest standard, to “prevent the need to redo the retrofit work within 10 years” as one participant succinctly put it.

There is a current funding gap of £97 billion needed to retrofit all social housing: government support is needed to deliver within the necessary time scale.

10. Community-led housing

Social housing providers can use their leverage with private developers to encourage them to build to higher standards. Community-led housing groups often push for higher environmental standards than mainstream builders. Some community groups are working with private developers, pushing the companies to build to higher environmental standards before they agree to take on the properties.

Community-led housing groups have a stake in and influence over the local area. A group based in a village in East Cambridgeshire which is not connected to the mains gas supply and is very dependent on oil is working with the local council to develop a district heating system which will be powered by ground source heat pumps.

11. Working with the construction industry

Builders and construction workers are central to the success of retrofit and energy efficiency work. Currently, there is a significant skill shortage, as we have been heavily reliant on EU labour. We need to make sure builders have the right skills to carry out the work needed, through apprenticeships and accreditation.

Builders rely on PAS20 and PAS2035 to understand what standards they need to meet. These standards need regular reviews to allow for changes in technology. Building standards also need to be adaptable to local area conditions, as there is no one size fits all.

In retrofit projects, there is a danger that builders may not treat social housing residents with respect as customers. This can put residents off engaging with the works. Builders and contractors working onsite require a hands-on clerk of work style oversight to ensure that residents receive a proper, courteous service. One large housing association is currently carrying “unconscious bias” training with all contractors.

12. Transport

More environmentally friendly travel options are central to combatting climate change. Diversifying existing built-up areas by building on small brownfield sites ensures that additional homes are near public transport. Electric car charging points are now a “must” in existing and new areas.

Public transport is often insufficient in low-density areas, creating a difficult cycle. If transport is infrequent, people do not use it, leading to further cuts in services. For public transport to be viable it needs more regular services within denser areas to encourage people to use it, instead of cars. Prioritizing pedestrian and cycle routes and introducing “low traffic zones” are all important. Some councils are far ahead on these initiatives.

13. Concluding thoughts

There is much positive work already happening, but urgent action is needed if we are to meet our ambitious carbon reduction goals. The Energy Plus Academy will bring people together to share learning and experience and take practical steps to accelerate attempts to combat climate change. Social landlords, building professionals, energy specialists, community organisations, local and central government, leading agencies and think tanks all have a role to play. Coming together at Trafford Hall to generate solid action plans on specific topics such as retrofitting existing homes will move this agenda forward.