




Courtesy: Emma Osmundsen, Exeter City Living

Towards Zero Carbon Housing

05/05/2021

- **There is good political will to achieve net zero carbon but we need a strong roadmap for how to achieve it** - many organisations struggle to even define net zero. The Future Homes Standard due for implementation in 2025 is still being discussed and the final requirements are not yet known, with concerns that this doesn't go far enough for us to achieve net zero by 2050.

- **We are still a long way short of reaching net zero carbon - moving to electric heating and transport without reduction in consumption could overwhelm the electricity grid.** We need to engage the community in doing this - the pandemic has helped show us all how collective action which is essential for culture change does have an impact.

- **Taking a holistic approach with 'climate in all policies' helps different teams to link up and see benefits from behaviour change** right across our communities and our organisations, as well as share practical lessons learned for example from adoption of new types of heating. Training to embed this approach within organisations for all staff will also be vital.

- **The use of the Passivhaus approach brings multiple benefits,** for example in Exeter fuel poverty in homes has been eradicated for homes in the programme and the approach overcomes many problems associated with flats. The approach can also be used for non-residential buildings and having a programme over a period of time builds confidence in the approach by local authority decision makers.

- **The London Energy Transformation Initiative (LETI) have advised that in order to achieve net zero carbon in 2050, by 2025 100% of new buildings must be designed to deliver net zero carbon.** This will avoid costly retrofitting in the future. A huge climate challenge still ahead is dealing with non-regulated operational emissions (ie not used for heating or hot water) and embodied energy, that is the emissions from the materials and build itself. As regulated energy is reduced, the proportion of embodied energy, for example rises to over half of emissions for a building and will need to be reduced. Greenfield sites and building of basements have higher climate impact than brownfield development or development avoiding basements, for example.






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- **Resilience is becoming a central focus when looking at climate change going forwards.** As well as risk of flooding, storm damage and overheating, there are subsidence risks posed by soil shrinkage. Basic good design practice such as dual aspect homes which can be naturally ventilated, good building orientation with shading where needed and robust materials provide win-win solutions for maintenance, resident comfort and climate resilience. Developers have an increasing interest in resilient, good design for example to safeguard funders investments. Replacement cycles can be used to improve climate resilience when needed if the building is designed to accommodate changes in the future.

Speakers

Hannah Gibbs - Head of Knowledge, Future of London

Chris Twinn - Principal, Twinn Sustainability Innovation

Emma Osmundsen - Managing Director, Exeter City Living

James Woodall - Sustainability Manager, Allies & Morrison

Attendees: 99