

Embedding net-zero technologies in the Future Homes Standard

About The MCS Foundation

Our vision is to make every UK home carbon-free. The MCS Foundation helps drive positive change to decarbonise homes heat and energy through our work programmes, grants and advocacy. We support engagement programmes, fund research and facilitate innovative solutions to drive widespread adoption of renewables to help achieve a Net Zero future. In addition, the Foundation oversees the [Microgeneration Certification Scheme \(MCS\)](#) which defines, maintains and improves quality standards for renewable energy at buildings scale.

The issue:

- Our housing stock contributes 17% of all UK greenhouse gas emissions.
- It will not be possible for any fossil fuel heating system, including hybrid systems or hydrogen-ready boilers, to meet the overarching aim of the Future Homes Standard (FHS): for all new homes to be zero-carbon ready in line with the decarbonisation of the electricity grid – which now has a target date of 2030.
- Currently, a meaningful array of solar panels is not mandated for new build homes and there is no requirement for battery storage.

The ask:

- New Building Standards should **require a meaningful deployment of solar panels** on all new homes, and include battery storage and heat pumps as the default.
- **MCS installation standards need to be mandated** in the FHS building regulations for all domestic renewables to reduce the risk of poor-quality installations and ensure consumer confidence.
- Option 1 in the Government’s consultation - which includes solar PV in all new builds – should be adopted. The addition of battery storage to complement the solar panels and low-carbon heat networks should also be standard in new homes.

The detail:

The Committee on Climate Change has stated that the 29 million homes in the UK are not fit for the future. There is a considerable challenge in retrofitting existing homes to make them low-carbon, high-efficiency dwellings. We should avoid adding to this problem by building new homes that are fit for the future with no need for future retrofitting to meet our net zero targets.

Effect on heat pump rollout and solar energy target

- Developers are already building homes to this standard, demonstrating there is sufficient economic viability and consumer demand. The FHS could triple or even quadruple the market for heat pumps in the UK (based on building 150,000 houses a year) – and provide an even bigger increase if housebuilding numbers increase as planned.

- A significant proportion of the Government's 2028 target of 600,000 heat pump installations per year could be met by newbuild.
- If every new home is built with solar panels, domestic renewables have the potential to make a valuable contribution to the UK's solar energy target (70GW by 2035).
- The FHS will create the certainty needed for manufacturers and installers to commit to developing their supply chains, drive down costs, and create well-paid, secure jobs, in turn boosting the retrofit sector and help decarbonise newbuilds and existing housing.

Combine solar PV with battery storage

- We strongly recommend Option 1, which includes solar PV in all new build.
- A decarbonised power system will see more frequent and longer periods of excess renewable power generation. Storing this is key to a cost-effective transition in the power sector, and will also provide short-term flexibility benefits.
- Data from the Microgeneration Certification Scheme (MCS) shows that domestic batteries are the fastest-growing MCS certified technology, suggesting a new appetite among homeowners to install these technologies which we predict will continue to grow.
- As residential solar PV installations continue to grow, with a 12-year record of MCS certified installations in 2023, the value of domestic battery storage to the energy system will increase. Battery storage as the norm in new build would help to reduce peak energy demand in the grid - another FHS objective.
- It is vital that Government seize this opportunity by implementing battery storage as standard, alongside solar panels and low-carbon heating systems in the FHS.

Importance of MCS Standards

- The Microgeneration Certification Scheme was set up by the government Department for Business, Energy, and Industrial Strategy in 2008 to be the industry standards and compliance regime to protect consumers against poor quality and unsafe installations.
- There is currently no equivalent in the UK, with the MCS Scheme the only standards and compliance regime that offers certification for products, design and installation of small-scale renewables. Over 200 leading experts in the UK sit on the MCS Service company working groups and regularly update standards to reflect best practice.
- Industry approved standards should be incorporated into the building regulations to reduce the risk of poor-quality installations. To qualify for the National House Building Council warranties, developers have to demonstrate high quality and safe installations - one way to do this is to provide a MCS certificate.

FURTHER INFORMATION

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