



## Synthesised advice on identifying and preventing overheating in homes under the Green Deal

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### THE ARCC COORDINATION NETWORK

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The performance of UK buildings and infrastructure is critical to our national well-being and economic stability. To ensure policy-makers and practitioners have the best available evidence on which to base decisions in these sectors, the EPSRC is investing heavily in research to improve resilience in the urban environment. This includes projects within the Adaptation and Resilience in a Changing Climate (ARCC) programme and the overarching Coordination Network (ARCC CN). By engaging research projects and a wide range of national, regional and local stakeholders, the ARCC CN maximises and accelerates the use of outputs from across the academic community to inform the development of a more sustainable built environment. Working with government provides a crucial channel for research to have a direct and timely input into the policy-making process.

#### CONTACT:

CREW: [Steve Hallett](#),  
[Stephen Porritt & Li Shao](#)

LUCID: [Michael Davies](#)

SNACC: [Rajat Gupta & Katie Williams](#)

UKCIP: [Roger Street](#)

[arcc@ukcip.org.uk](mailto:arcc@ukcip.org.uk)

### THE GREEN DEAL AND OVERHEATING

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The Green Deal is a scheme, launched by the UK's Department of Energy and Climate Change (DECC), to enable householders and businesses to make energy-saving improvements without having to pay all the costs up front. Its focus is on retrofitting existing properties with an emphasis on actions such as insulation, draughtproofing and double glazing. It is an ambitious programme, aspiring to address the millions of properties that would benefit from energy efficiency measures. The Green Deal programme is expected to bring a large number of new players into the energy efficiency market, fulfilling the roles of authorised Green Deal assessors, installers and providers.

Three ARCC projects, CREW, LUCID, SNACC have produced findings that indicated that, in some cases, heavily insulated homes could increase their risk of overheating and poor indoor air quality. The projects all have evidence to suggest that Green Deal measures could create new problems in the future, with inappropriately-insulated properties experiencing poor indoor air quality and significant summer overheating. The latter is a particular risk, as latest climate change projections suggest that Britain will see warmer summers, with an increased likelihood of heatwaves. A review of overheating indicated that typically 2,000 deaths per year were brought forward due to heat, and that this could rise to 5,000 per year in the 2080s if action is not taken (DCLG, (2012)a).

## PROVIDING ADVICE

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Responding to early evidence emerging from these ARCC projects, the Department for Communities and Local Government (DCLG) had already commissioned some further work, producing a review of overheating research (DCLG, (2012)b).

ARCC CN coordinated the gathering and assessment of evidence from the ARCC projects for their effective use by key government departments. Building on long-established links with relevant officials in DCLG, ARCC CN initiated a meeting with researchers from the ARCC projects and representatives of three government departments: DECC, DCLG and the Department for Environment, Food and Rural Affairs (Defra) to discuss how best to synthesise and present evidence to inform the policy process.

The projects were invited to provide information, and ARCC CN led the production of a draft advice note on overheating (for Green Deal suppliers) for DECC. This will be the basis of overheating information in the formal package of Green Deal advice (forthcoming). It alerts the Green Deal supply chain to effective measures which, if implemented at the same time as energy efficiency measures, can significantly reduce the risk of overheating.

ARCC CN has also produced a parallel briefing document, Overheating in homes: advice and evidence from the latest research (ARCC CN, 2013). This highlights the properties most at risk of overheating and summarises a range of effective measures to minimise the risk.

More information about the projects and their research outputs can be found at [www.arcc-cn.org.uk/project-summaries/](http://www.arcc-cn.org.uk/project-summaries/).

## REFERENCES & FURTHER READING

[DCLG \(2012\)a Investigation into Overheating in Homes – Literature Review](#)

[DCLG \(2012\)b Investigation into Overheating in Homes Analysis of Gaps and Recommendations](#)

[NHBC guide on Overheating in new homes](#)

[ARCC CN, 2013 Guidance note on overheating](#)

## THE VALUE OF SYNTHESISED EVIDENCE

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ARCC CN provided a centred resource that worked with both the academic community and policy-makers to 1) initiate timely discussion with government departments on this issue and 2) co-ordinate a response across a number of research projects. We were able to ensure that relevant evidence was brought to the policy-making process directly and to support policy-makers by providing synthesised information in an appropriate format. We valued the close working with ARCC projects, both individually and collectively, in enabling us to offer policy-relevant assistance to government. ARCC CN would expect that benefits from the co-generation of outputs would be felt by those implementing and providing Green Deal advice and services, by contributing to a more robust policy for the long term.

## FOR THE FUTURE

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It will be important to maintain and further develop links with key decision-makers, so that evidence emerging from ARCC continues to serve as a trusted and reliable source. Just as important will be our commitment to fostering flexible and effective engagement between ARCC projects and users of research in government so that the network can continue to deliver timely advice and evidence, for example, in response to the forthcoming National Adaptation Plan, or any future development of the Green Deal.