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Media release

For immediate release

Increasing the energy efficiency of our future buildings

Rising energy costs and the increasing likelihood of extreme weather events (such as heatwaves) mean it's more important than ever that our buildings are energy efficient.

It's timely then that recent updates to the National Construction Code (NCC) increased the Minimum Energy Efficiency Star Rating for new homes from 6 to 7 stars throughout Australia. So, what will this mean for the building and construction industry?

A University of Melbourne-led panel discussion will next week explore the key changes and the practicalities involved in meeting the new performance standards. 'Energy Efficiency for Future Buildings' is a panel discussion at the Master Builders Association Victoria's Leadership Simulation Centre on Wednesday 9 November, starting at 4pm (AEDT). The event is an initiative of Building 4.0 CRC, an industry-led research initiative co-funded by the Australian Government.

The discussion will be led by Professor Tuan Ngo, Building 4.0 Program Leader at The University of Melbourne and Professor in Civil and Structural Engineering. He specialises in research related to design and manufacturing of sustainable building components and systems using high performance materials.

"Australian households accounted for 10.5% of Australia's total energy consumption in 2018-19. The costs of heating and cooling houses can be a significant part of household energy bills. And now those energy bills are rising very rapidly," said Professor Ngo.

"More energy efficient buildings will help household budgets. They're also better for the environment.

"More than 150,000 new homes are built each year – the new energy efficiency measures contained in the 7-star performance rating will reduce energy demand and support Australia's transition to net zero.

"The NCC is also implementing a Whole of Home Rating. Major appliances, lighting, solar and batteries will be regulated via a rating from 1 to 100, where 100 is a net zero home. This transition will ensure new homes are not only thermally efficient but have efficient equipment to further reduce operational costs."

The 4 person-panel will discuss the implications of the NCC changes for the building and construction industry, focusing on:

- the comparative energy performance of different building systems
- the efficacy and benefits of greater insulation in ceiling, floor and wall systems and emerging new technologies for energy efficient homes
- the most cost-effective combinations to meet the 7-star performance standard.

About the speakers

Dr Jenny Zhou is a lecturer on Environmental Engineering in Monash University's Department of Civil Engineering. She is also affiliated with Monash Art Design and Architecture (MADA) and the Monash Energy Institute (MEI). Jenny's research focuses on the interactions between environment, buildings and occupants, and how these interactions influence sustainable urban development.

Dr Phil Christopher is a research fellow in Infrastructure Engineering at The University of Melbourne. He is currently working with a range of industry leaders on prefabricated systems and advancing the thermal performance of the residential housing sector. He specialises in sustainable materials for construction and the thermal performance of building fabric.

Philip Alviano is the Sustainable Building Advisor with the Master Builders Association Victoria. His extensive experience in education and training informed the development of nationally recognised sustainable construction training programs and the national roll out of the accredited Master Building Green Living program.

About Building 4.0 CRC

Building 4.0 CRC aims to deliver better buildings at lower cost and the human capacity to lead the industry.

Our 4 integrated research programs will help us deliver:

- more sustainable practices for designing, constructing and occupying buildings
- new industry-wide culture, practices and standard protocols and pathways for future employees to develop new, tech-focused skills
- new building processes that leverage the latest technologies, data science and AI
- improvements to building "hardware" and processes across all building phases (development, design, production, assembly, operation, maintenance and end-of-life).

Register for the free event here:
https://building40crc.zohobackstage.com.au/EnergyEfficiencyforFutureBuildingsChallengesSolutionsandOpportunities

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