



# LOW CARBON HOMES FOR LOW INCOME HOUSEHOLDS

Affordable and low carbon housing Nightingale 1.0 - Breathe Architecture: Photo: Peter Clarke

**CRC for Low Carbon Living, the Australian Sustainable Built Environment Council and the  
University of Wollongong**

## **National Forum**

## **Low Carbon Homes for Low Income Households**

Wednesday 8<sup>th</sup> August 2018

University of Wollongong



UNIVERSITY  
OF WOLLONGONG  
AUSTRALIA



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## Welcome: Low Carbon Homes for Low Income Households

It is with great pleasure that we welcome you to the National Forum on *Low Carbon Homes for Low Income Households* held under the auspices of the Cooperative Research Centre for Low Carbon Living (CRCLCL) and held at the University of Wollongong (UOW) Innovation Campus.

Low income families throughout Australia often live in homes that have poor energy efficiency and thermal comfort, with the potential to lead to significant health impacts. Combined with the exponential rise in national energy prices, low income and vulnerable residents often report having to choose between paying for fuel and purchasing essential items like food or medication.

The forum will be of significant interest to government agencies, social housing providers and tenant advocacy groups, university researchers, architects and building designers, and the construction and utility industries.

The forum will provide the opportunity to explore a range of issues and solutions including:

- The provision of cost effective, decentralised, renewable energy generation for low-income households - from private homeowners through to social housing tenants;
- New-build construction and retrofit solutions to improve energy efficiency in low-income homes;
- The positive health impacts of low carbon, energy efficient homes demonstrated through initiatives such as the Victorian Healthy Homes and NSW Government Programs;
- Policy approaches and dialogue with a wide range of stakeholders such as: energy providers, community health workers, tenant support groups, technical experts and academics;
- Impacts of existing and proposed energy policies on low-income households, such as voluntary/mandatory building efficiency disclosure, tariff structures and safety nets; and
- Energy justice and equity for low-income tenants, home owners and renters.

A Briefing Paper with further background details and context has been prepared as a companion to this brochure, and can be downloaded from the CRCLCL event website at [www.lowcarbonlivingcrc.com.au/events](http://www.lowcarbonlivingcrc.com.au/events).

## KEYNOTE SPEAKERS



**KELLIE CAUGHT**

Senior Advisor, Australian Council of Social Services (ACOSS)



**DR MATTHEW SOEBERG**

Manager, Sustainable Homes, Sustainability Victoria

### LOW CARBON HOMES – IMPROVE AFFORDABILITY, RESILIENCE AND WELLBEING

Kellie joined ACOSS in 2017 to provide expert policy advice and advocacy in energy and climate. For the last ten years, Kellie managed WWF-Australia's climate program where she specialised in international climate negotiations, domestic climate and energy policy, and raising awareness of climate change issues and policy solutions within the Australian community. She has strong skills in cross sector collaboration and political advocacy, gained from working in academia, the United Nations, government and the not for profit sector. She has collaborated with scientists, researchers, businesses, unions, climate groups, and community members to develop long-term plans and policies and build support among decision-makers for a cleaner, more sustainable future. Kellie has a Master in International Business and a Bachelor of Science. She also carries post graduate qualifications in Psychology.

### THE VICTORIAN HEALTHY HOMES PROGRAM

Matthew is the Manager of the Sustainable Homes team at Sustainability Victoria. The Sustainable Homes team includes two large scale home energy efficiency upgrade programs, including the Victorian Healthy Homes Program and the Latrobe Valley Home Energy Upgrade Program, as well as the Zero Net Carbon Homes Program that focuses on new Victorian housing stock. Matthew is an epidemiologist whose work includes studies on asbestos-related disease in Australia and cancer survival inequalities in New Zealand. He is also interested in the use of health impact assessment and Health in All Policies approaches that aim to systematically consider the positive and negative health and wellbeing impacts of policies, programs and projects. Matthew has worked for the World Health Organization on health impact assessment methods and a project looking at the environmental impacts of health sector activities.

## NATIONAL FORUM THEMES AND CHALLENGES

This National Forum seeks to generate a better understanding of the energy-related challenges faced by less well-off people in our community, and to develop solutions to change their lives for the better through the provision of energy efficient homes in which they can live affordably. This is a complex challenge that needs a holistic approach to effect real change. The National Forum will provide the opportunity to explore a range of possible issues and solutions through presentations and discussion during Panel Sessions and the Collaborative Breakout Parallel Sessions which will address the following issues.

### ENERGY-RELATED CHALLENGES, EXPERIENCES AND PERCEPTIONS OF LOW INCOME HOUSEHOLDS

*Challenge Question:* “How do we support low income households so that they can lower their energy bills without further exacerbating their disadvantage or vulnerability”.

This theme will focus on the experience of households living in, or close to, energy poverty and highlight low-income household perceptions of the way energy intersects and influences day-to-day lives and practices. There is a need to facilitate a constructive and truly cross-disciplinary dialogue and solution-search for this sector. This needs to call on the expertise and agency of a wide range of stakeholders, from energy utilities, through community health workers and tenant support groups, through to householders, technical experts and academics.

### IMPLEMENTING LOW CARBON HOMES FOR LOW INCOME HOUSEHOLDS

*Challenge Questions:* “Are there conflicts and barriers between the goals of delivering *affordable housing* versus delivering *low carbon housing*, i.e. is it possible to deliver both under current circumstances?” “If there are barriers to simultaneously achieving both goals, how should we set about overcoming these?”

We need to develop cost-effective housing construction and retrofit solutions to improve the operational energy efficiency of the homes of low-income homeowners and renters. These solutions will need to address the specific issues facing the following different types of household tenancy, i.e. private renters, social housing tenants, and owner-occupiers.

### IMPACTS AND OPPORTUNITIES OF NEW POLICY APPROACHES AND LEVERS

*Challenge Question:* “What innovative policy solutions can be implemented to help vulnerable community members save energy and money – while avoiding negative and unintended consequences?”

Policy-making and decisions in the area of affordable low carbon housing for low-income people is critical and could make positive socio-economic and environmental impacts. It is critically important that we bring forward new ideas and policy approaches to break the long-standing cycle of energy impoverishment of the poorer members of the community. New studies and programs need to explore key impacts (both intended and unintended) of forthcoming and emerging energy issues and policies on low-income households, such as voluntary/mandatory building efficiency disclosure, tariff structures, safety-nets, etc.

### ENERGY AND SERVICES SUPPLY ALTERNATIVES

*Challenge Question:* “How can we ensure vulnerable community members are not locked out of the benefits of innovative energy supply and pricing alternatives?”

The advent of cost-effective, decentralised renewable energy generation is but one of a number of new opportunities and new technologies that can reduce energy costs. Many are being explored by housing providers; from private homeowners through to social housing providers. Consumer support programs for appropriate tariff and utility selection, electricity market price transparency, as well as advocacy on simple actions families could take to reduce their bills, should all be available and tailored to the needs of low-income households.

### ADDRESSING HEALTH AND OTHER IMPACTS ON LOW INCOME HOUSEHOLDS THROUGH LOW CARBON HOMES

*Challenge Question:* “How can we best quantify the societal value of low carbon homes for low income households using the numerous health and other co-benefits, and thereby increase rates of uptake and construction?”

We need a much better understanding of the positive health impacts that low carbon, energy efficient homes can provide; e.g. through exemplary projects like the Victorian Healthy Homes Program and the NSW Home Energy Action Scheme. There are strong indications that the health co-benefits experienced by low-income occupants who receive an energy efficiency intervention could represent a substantial benefit to both occupants and society more generally. These positive effects are not currently captured by standard benefit-cost assessments. Quantifying such benefits through scientifically rigorous methodologies is not trivial, but is of great importance to policy makers, to generate more accurate and compelling business cases for low carbon housing programs, and for interventions/schemes to support low-income families living in energy-inefficient, unhealthy and uncomfortable houses.

## LOW CARBON HOMES FOR LOW INCOME HOUSEHOLDS

CRC Low Carbon Living National Forum Program – Wednesday 8<sup>th</sup> August 2018, Innovation Campus, University of Wollongong

9:30am	Registration and morning tea provided. <b>Level 2, The Central (Building 230), University of Wollongong Innovation Campus*</b>			
10:00am	<b>Opening and Acknowledgement of Country:</b> Prof Paul Cooper, Director, Sustainable Buildings Research Centre, University of Wollongong			
10:05am	<b>University of Wollongong Welcome:</b> Prof Judy Raper, Deputy Vice-Chancellor Research & Innovation, University of Wollongong			
10:15am	<b>CRC Low Carbon Living: Low Income Low Carbon Household Research</b> <i>Scientia Professor Deo Prasad AO, CEO, CRC Low Carbon Living</i>			
10:30am	Keynote Presentation <b>Low Carbon Homes Improve Affordability, Resilience and Wellbeing</b> <i>Kellie Caught, Senior Advisor, Australian Council of Social Services (ACOSS)</i>			
11:00am	<b>Panel Session A: <u>Energy-related Challenges, Experiences and Perceptions of Low Income Households</u></b> <ul style="list-style-type: none"> <li>- <b>Supporting Low Income Households to Become Energy Efficient and Debt Free</b> <i>Janine Young, Energy and Water NSW Ombudsman</i></li> <li>- <b>Addressing Two Flawed Assumptions in Energy Use for Low-income Households</b> <i>Dr Rowan Bedgood, Swinburne University of Technology, and Chair of the Group of Energy Efficiency Researchers (GEEER) Australia</i></li> <li>- <b>Low-income Households and the Energy Conundrum</b> <i>Dr Edgar Liu, Senior Research Fellow, City Futures Research Centre, University of NSW</i></li> <li>- <b>Living in a 'Tinder Box': Household Vulnerabilities in Extreme Heat</b> <i>Dr Larissa Nicholls, Centre for Urban Research, RMIT</i></li> </ul>			
12:00am	<b>Lunch and networking</b> <b>The Central – Level 2 Terrace</b>			
12:45am	Keynote Presentation <b>The Victorian Healthy Homes Program</b> <i>Dr Matthew Soeberg, Manager, Sustainable Homes, Sustainability Victoria</i>			
1:15pm	<b>Panel Session B: <u>Implementing Low carbon Homes for Low Income Households</u></b> <ul style="list-style-type: none"> <li>- <b>NSW Government programs optimising partnerships and capacity building for energy efficiency with low income housing providers,</b> <i>Emily Yip, Strategic Manager Residential Programs, NSW Office of Environment and Heritage</i></li> <li>- <b>Chance, Timing and Opportunity: The Story of the Accidental Tenant Sustainability Initiative</b> <i>Patrick Ryan, Head of Impact and Innovation, St George Community Housing</i></li> <li>- <b>Improving client experience through low carbon social housing</b> <i>Susanna Savolainen, Manager Environmental Sustainability, NSW Land and Housing Corporation</i></li> <li>- <b>Implementing Low Carbon Retrofits for Low Income Housing: Insights from Front Line Research</b> <i>Dr Dan Daly, Sustainable Buildings Research Centre, University of Wollongong</i></li> </ul>			
2:15pm	<b>Collaborative Breakout Parallel Sessions – Interactive discussions of key issues, solutions and actions</b>			
<b>Session 1</b> <b>Ocean View Room</b>	<b>Impacts and Opportunities of New Policy Approaches and Levers</b> <i>Chair: Dr Troy Heffernan (UOW)</i>	<b>Session 2</b> <b>City View Room</b>	<b>Energy and Services Supply Alternatives</b> <i>Chair: Tessa Manning (Fourth&amp;Centre)</i>	<b>Session 3</b> <b>LKM Theatre (in the Allim Building)</b>
				<b>Addressing Health and Other Impacts on Low Income Households Through Low Carbon Homes</b> <i>Chair: Dr Rory Eames (NSW FACS)</i>
3:30pm	<b>Afternoon Tea</b> <b>The Central – Level 2 Terrace</b>			
4:00pm	Summary Session: <b>Report Back and Summary by Breakout Session Facilitators</b>			
4:30pm	<b>Forum Summary, Outcomes and Close:</b> Prof Paul Cooper, Director, Sustainable Buildings Research Centre, University of Wollongong			
4:45pm	<b>Drinks and optional technical tours of the: Sustainable Buildings Research Centre, Illawarra Flame House or Desert Rose House</b>			

\* All sessions will be held in the Ocean Room (Level 2) unless otherwise indicated in the table above



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