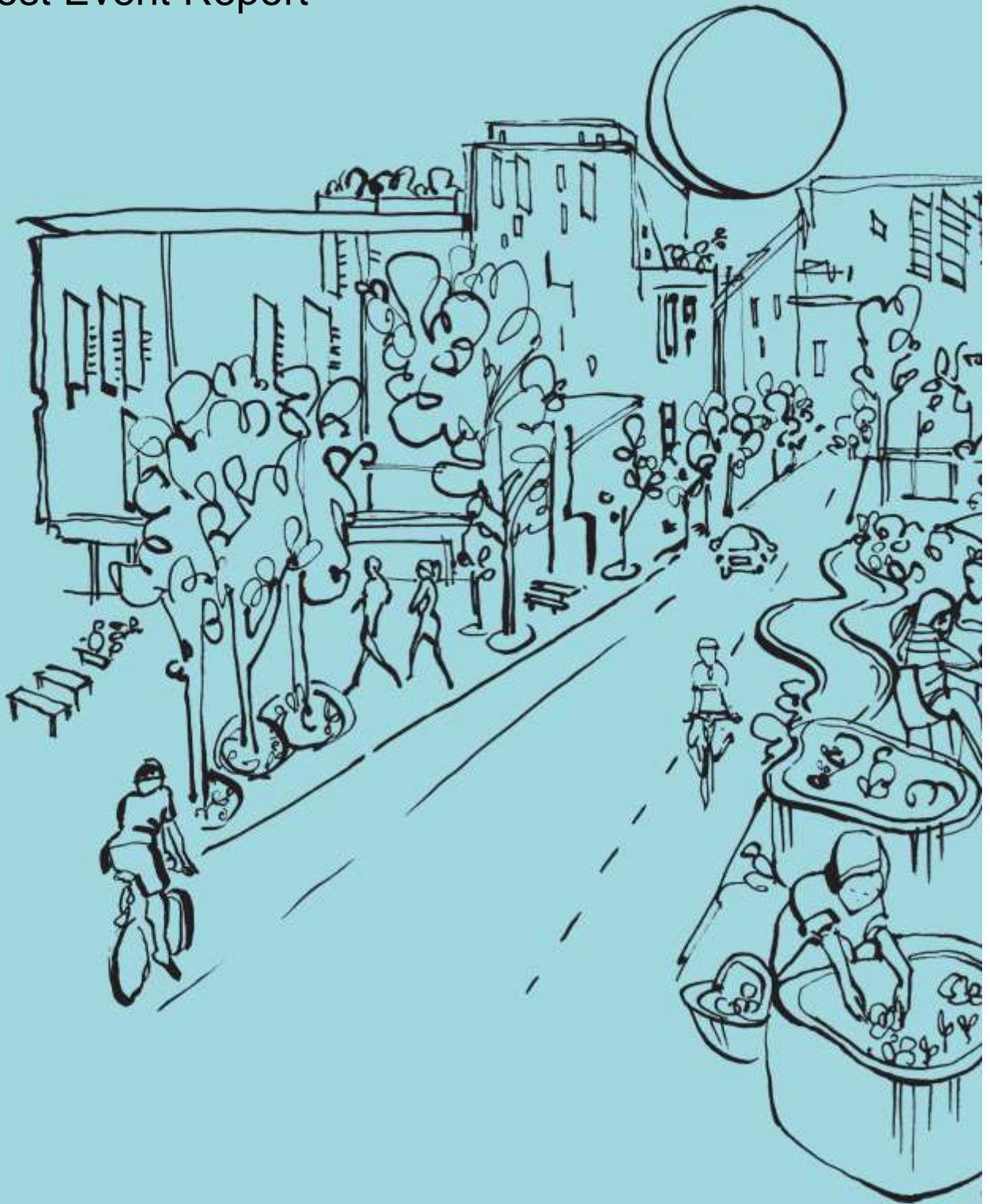


Low Carbon Living National Forum: Low Carbon Homes for Low Income Households Post Event Report



Acknowledgements

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Australian Government
Department of Industry,
Innovation and Science

Business
Cooperative Research
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LOW CARBON LIVING
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Background

This paper reports on the outcomes of the Low Carbon Homes for Low Income Households National Forum held on the 8th of August

<http://www.lowcarbonlivingcrc.com.au/events/2018/06/national-forum-low-carbon-homes-low-income-households>

A briefing paper was issued to participants prior to the event to inform and encourage discussion:

http://www.lowcarbonlivingcrc.com.au/sites/all/files/low_c_low_income_forum_briefing_paper_25_7_2018.pdf



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

Event details

Date: Wednesday 8th August 2018

Venue: Ocean Rooms, the Central Building, Innovation Campus, University of Wollongong, North Wollongong

Time: 10am – 5pm (with optional tours and networking)

Structure: Opening address, 2 key note presentations, 2 panel sessions and 3 parallel workshop sessions

Keynote topics:

- 1) Low carbon homes – improve affordability, resilience & well being
- 2) The Victorian Healthy Homes Program

Panel Session topics:

- 1) Energy-related challenges, experiences and perceptions of low income households
- 2) Implementing low carbon homes for low income households

Collaborative breakout parallel sessions – interactive discussions of key issues, solutions and actions

Session 1: Impacts and opportunities of new policy approaches and leavers

Session 2: Energy services and supply alternatives

Session 3: Addressing health and other impacts on low income households through low carbon homes

Full Program:

http://www.lowcarbonlivingcrc.com.au/sites/all/files/00_national_forum_brochure_2018.08.06.pdf

Event objectives

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 was cast as being 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 was to 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.

Attendance and participation profile

Registrations: 107

Total attendees: 76

Presenters, chair persons, etc.: 17

Others: 59

Examples of feedback from presenters

“Thanks for your email and congratulations on hosting an excellent forum. It is important to keep issues of energy efficiency, thermal comfort, low carbon homes and low income households on the national agenda.”

“It was a great forum – well done!”

“Thanks once again for the invitation to present. I am really glad we had the opportunity to discuss what we are working on.”

Media coverage

The jointly approved media release was picked up by the following organisations:

- Fifth estate
- WIN News
- Illawarra Mercury (two articles)
- ABC
- Energy Matters
- Get Stem
- Mirage News

Budget

Venue, Catering, Audio Visual staff and equipment hire
\$7,591

Speakers Travel & Accommodation \$235

Miscellaneous (printing, stationary, photographer)
\$1,215

Staff:

Research Fellow for development of briefing paper
\$2,170

RF for program design, briefing paper, etc \$744

RA for event organisation, tours, etc. \$588

Event coordinator, promotion, EventBrite management, etc \$3,500

Total: \$16,043

Note: this National Forum was designed and delivered with significant in-kind support from the Sustainable Buildings Research Centre of approximately \$20,000.

Participant input to the National Forum

Delegates were proactively asked to be involved in the proceedings throughout the day, starting on their arrival when they were provided with post-it-notes when they registered on arrival at the National Forum. They were asked to consider two key questions:

1. What do you consider a key challenge for industry?
2. What are your areas of interest for today's Forum?

Responses were posted on the walls of the refreshment area to allow participants to read about others' interests. Responses on the post-it notes were as follows:

What do you consider a key challenge for industry?

- ❖ The challenge of living in older homes/ social housing that are not up to date with effective insulation & having to use expensive heating & cooling methods or choosing food/clothing over these because of budget
- ❖ How do we get landlords to make properties more environmentally sustainable?
- ❖ We know what the 'right' answer is (technically). How do we get the construction industry to build to that standard, and how do we monitor/expose this?
- ❖ Overcoming split incentive barrier in private rental market.
- ❖ Water
- ❖ Issue of interest
- ❖ Energy efficiency to manage heat vulnerability
- ❖ Embedded carbon/reducing lifecycle energy/net negative
- ❖ Network costs are staying high/stimulus dropping
- ❖ Cost effective design, materials and construction of energy efficient homes
- ❖ What policies would be most effective without creating other problems?
- ❖ How subsidies for low income houses of low income people can become sustainable (one-off solution) instead of being a cautious need? (Cautions need e.g. bill subsidies)
- ❖ Pointless to have solar PV, air-conditioning subsidies especially for heat stress when houses are like sieves – Insulation, sealing should come first
- ❖ Integrating new technology with low income household daily practices
- ❖ NSW government is investing very little in upgrading public housing to improve energy efficiency. Vast majority of people on low incomes live in public housing
- ❖ Challenging mindsets and empowering low income households

- ❖ Quantitative link between energy efficiency and health/well being
- ❖ Education/awareness/motivation – Multiple benefits of energy efficiency particularly for low income households
- ❖ Market (energy controls/tariffs etc.) is complicated
- ❖ Speed!! We need to get policy done ASAP! It might be too late already
- ❖ How to transition from government funded projects to mainstreaming retrofits of existing housing stock at minimal cost to taxpayers i.e. creating the new normal
- ❖ The creation and maintenance of a workforce with sufficient breadth and depth of skills to undertake large-scale EE retrofit programs at acceptable cost
- ❖ Re-orientate planning to be forward looking in decision making rather than looking in the rear-view mirror. Using proactive climate modelling to determine future build environment
- ❖ New building airtight dwelling standards
- ❖ Broad based subsidies of affordable housing – making it a core government ethos

What are your areas of interest for today's Forum?

- ❖ Impact of behaviour on sustainability
- ❖ Improving house design, orientation and quality to reduce reliance on active systems for thermal comfort
- ❖ Big picture of national energy efficiency and emission reduction – so what % of pollution or housing stock is low income? What to do about majority? That could afford to do something but their houses leak like sieves?
- ❖ How to reach the most vulnerable households with solutions (socially isolated, disengaged from energy issues etc.)
- ❖ Solar orientation. Reducing toll on environment. Saving money for less fortunate people
- ❖ Cost effective design and construction of energy efficient homes
- ❖ Building knowledge, skills and pride in energy assessors, trades and disadvantages householders
- ❖ Improving energy efficiency for low income tenants in private rental properties
- ❖ Balancing mitigation of energy stress with improving comfort/health etc.
- ❖ What are the policy levers that will have the greatest impact on improving energy efficiency for low income households
- ❖ Pre-fab and off-site construction for cost effectiveness and quality
- ❖ Potential for social and community effects on energy conservation/behaviour change
- ❖ Energy commons

- ❖ Implementation of the right technologies, upgrades and policies for various situations for optimal overall outcome
- ❖ Improving the sustainability of buildings/plants and role/opportunities for government
- ❖ Application of government funding to wider range of energy efficient technologies
- ❖ How to quantify and prevent the unintended consequences of fuel poverty?
- ❖ Will we achieve more success focusing on few/single interventions or multiple/holistic interventions? (noting cost and complexity challenges)
- ❖ Savings share/incentives for energy solutions to social housing
- ❖ Mitigation and resilience to extreme heat events in warming climate especially for low income households

Collaborative Breakout Parallel Sessions

One of the most successful features of the National Forum was the 'Collaborative Breakout Parallel Sessions', which were designed to be interactive discussions of key issues, solutions and actions, led by experts in the respective fields.

Delegates chose which one of three sessions to attend:

1. Impacts and Opportunities of New Policy Approaches and Levers
2. Energy and Services Supply Alternatives
3. Addressing Health and Other Impacts on Low Income Households through Low Carbon Homes.

The facilitators of these sessions were carefully chosen for their communication/facilitation skills and their area of interest and expertise.

A copy of the briefing document provided to the Collaborative Breakout Parallel Sessions chairs is given at the end of this report.

In the penultimate session of the Forum the three chairs gave a very cogent summary of each of their sessions that was a very effective way of distilling the wide ranging discussions that had occurred in the groups of 4 to 6 participants in the Collaborative Breakout Parallel Sessions.

A summary is provided below of the three synthesising presentations made by the Parallel Session chairs.

Parallel Session 1: Impacts and opportunities of new policy approaches and levers

Team 1: P.V. + Energy Efficiency

- ❖ Using Solar PV as the in
 - Easier to recruit
 - Assess remotely
 - Provide discount
 - 7,8,9 year payback period
- ❖ Challenges:
 1. Financing:
 - a. Council or service provider - payback through (EURs in VIC for residential)
 - b. Loan repayments offset by savings (mostly older owned homes)
 2. Information Sourcing:
 - a. Time
 - b. Trust
 - c. Outsourcing
 - d. People making decisions based on social norms, beliefs
 3. Industry capability and trade (standards – cost vs small organisation)
 4. Maintenance – FM
 5. Motivation
 - a. Landlords (dollars, ratings of real estate)
 - b. Renters (priorities – is different to ...)
 - c. Residential houses (long term investors.)

Team 2: MS

- ❖ Barriers:
 - Landlords
 - Tax/financial measures
 - Demonstrating value to landlords (new mindset)
 - reputation
 - technology longer
 - important building disclosure
 - communications piece
 - landlord reputation
 - building companies
 - incremental improvements
 - use research as a foundation to implement gradually – regionally)
 - Initial costs
 - Knowledge
- ❖ Increasing rent (due to EE investment)

Team 3: Tax

- ❖ Can't claim negative gearing if minimum rating not met (unique to Australia – 'the great Australian addition')
- ❖ Clean PV & EE as tax deduction not improvement
 - PV easier to verify and value
 - Appliances
 - MNP on EE
 - Ensuring 5/6 star housing need to be recognised
- ❖ Validation/compliance certification – statutory declaration/audit?
- ❖ Body corporate + high density implications for strata – Nathers for apartment buildings could provide a verification option
- ❖ Actions:
 - Ry call local member (Mal)
 - Jade include as consideration in trajectory project
 - CRC LCL
 - ASBEC to bring together experts and further develop
 - Laws
 - ECA
 - Construction
 - Marketing

Team 4: M/V D

- ❖ An extension of Nathers/Basix
- ❖ Add value to the property (applicable to low income) – dwelling performance will add value
 - Benefit: data will exist for policy/decision making (rather than 24 month sampling as ...) can then set meaningful and appropriate targets
- ❖ Additional cost could be covered by the savings in subsidies of energy bills (and others)?
 - Who discloses? Home owners/occupier/energy utility (easiest)? New homes - Basix as basis for normalising and competition)
 - Steps:
 1. Start with new homes (leverage Basix)
 2. Create momentum in market
 3. Create demand for exiting/old dwelling to be upgraded
 4. Repeat when rented or sold (like Nathers)

Parallel Session 2: Energy services and supply alternatives

Team 1: Goal 2050

- ❖ How do we get there?
- ❖ What does it look like?

- ❖ How is it different from where we are now?
- ❖ Policy:
 - looking for one size fits all solutions
 - lack of will
 - regulatory environment is conservative, slow, ignores human dimension
 - process – backward looking
- ❖ Economic drivers make sense
 - Social equity
 - Health: quantify the costs and benefits
- ❖ Fragmented responsibilities

Team 2: Implementing Renewable Energy Solutions

- ❖ Community based on 'app' CYBEP
 - Community energy groups?
 - Local government lend dollars
 - Landlord levy
 - Large corporate vs providers
 - Using community space as heat refuge
 - Sponsor a family
 - Embark
 - How do we live in houses?
 - Embedded networks

Team 3: Renewables: High Cost and Split Incentives

- ❖ Who:
 - Body Corporations
 - Community Groups
 - Government (Grants)
 - Energy co-providers
 - Person to drive it
- ❖ Embedded networks:
 - Knowledge resource
 - Strata rules
 - Energy company/provider
 - Seed funding
 - "solar groups" - Utilities
 - Actions
 - Resources
 - Prospects
 - Connections
- ❖ Drive?
- ❖ Landlord levy
 - Research that looks at more than dollars (e.g. housing costs)
 - Legislate improvements in energy performance
 - And/or incentives

Team 4: Tariffs & Price Selection

- ❖ Do people understand the options available to them?
- ❖ Actions:
 - Learn from Vic experience
 - Ensure in house displays are rolled out with smart meter roll-out

- Reduce x-subsidy that LIH's provide to solar households – hardwire 'equity' into funding schemes like CCF and cost benefit
- ❖ Projects:
 - Bill simplification – behavioural insights approach
 - Special LIH energy rank for HH's on energy hardship – mandate that retailer advises 'best offer'
- ❖ Resources:
 - 'Education pack'
 - Make an audio version for comparison website
- ❖ Connections:
 - EWON
 - Retailers
 - State and Federal Government
 - Housing providers
 - CSO's working with LIH's

Session 3: Addressing health and other impacts on low income households through low carbon homes

Team 1: How do low income households drive energy efficient upgrades? ... to improve health

- ❖ Ill health caused by poor thermal comfort conditions (debilitating discomfort)
 - Unpack cause and effect in more detail
 - Effect on social/mental wellbeing
 - Social isolation – stressful
 - Fuel poverty
- ❖ \$9m on affordable housing Wollongong
 - Make sustainable
 - New construction
 - Solution: drive passive design measures in/near buildings
 - How do you quantify benefits?
- ❖ NSW Government to fix housing predicament
 - How do we motivate Government and energy providers
 - Stick: highlighting deaths in Victoria, suicides etc.
 - Every 12 months carbon monoxide check
 - Politicians not aware of the issue/scale of problem
 - Public awareness campaign
 - Voter demand
 - Health angle – saving
 - We need DATA
 - studies on housing stock conditions
 - environment
 - health sector
 - social services
 - Scorecards across all public housing

- Extreme examples to highlight the issue & therefore raise everyone's awareness
- ❖ Understanding the complexity of the issue

Team 2: Negative learnt behaviour in low income housing around new H&C retrofits

- Tenant Led
- Top Down
- ❖ Energy is a low priority
 - Low energy literacy – where is the information sources
 - Case workers – lots of other load
 - Change the information that is shown on the energy bill? But are they trusted in Australia
 - Vinnies/ACT government home energy efficiency program – a replicate for NSW
 - Include CSO as key stakeholder
 - What about the general population
 - Pride in tenants using lower energy – 'bearing' the heat/cold
 - Why not me? Equity?
- ❖ There is a change point at installation and opportunity for EE advice
 - Using the tenant as a EE advocate/energy advisor
 - Funding/investing
- ❖ People timing 'respite care' with hot and cold periods
 - Demand for respite summer vs winter
 - Other short term residential solutions
 - Jail
- ❖ Funding a summer study – utilities demand management/load shading
- ❖ Peak demand 5-8pm charge coming in to ACT – implications?
 - Mental health events can be triggered by H&C events
 - Hard to get health studies funded
 - VIC HH are only winter focussed
 - Hard to extend to summer inclusive
 - Australia funding stock built for summer conditions
 - Cooling used in Canberra
 - VIC HH will only save CBA for winter – need more similar studies
 - Vinnies – most people's consumption increases after a home visit
 - How do tenants take dollar benefits
- ❖ Home and community care staffing hours go down over winter – more people in hospital therefore less staff
 - HACC workers as data gathering
 - staff hours as measure of care load
 - aging in place demand/policy
 - aged care providers staffing needs up

- \$ HACC vs \$ hospital
- Supply chain of care/support – what are the indicators?

Team 3: MANDATE everyone should have a healthy home

- ❖ A healthy home includes:
 - Energy efficient
 - Thermal comfort
 - Air quality (light, sound, moisture)
 - Long life, loose fit
 - Universal design standards
 - Improved minimum standards – approach our homes as we approach our cars (certify, standards)
- ❖ Regulatory initiatives:
 - Aim for best practice
 - Contemporary data for modelling
 - Multiple disciplines
 - Education & skills
 - Performance ratings
 - Health ratings (comfort, cost)
 - Action: social marketing campaigns



Events team reflection

Keynote speakers and panel sessions created the foundation on which highly interactive discussions took place involving all attendees in the parallel breakout sessions.

The diversity of attendees from various institutions created a comprehensive discussion of challenges to be addressed if we are to effectively tackle issues faced by low income households in relation to energy efficiency, high energy bills and low carbon homes.

Distributing post-it-notes early in the day and asking for attendees to nominate their expectations and problems to be solved appeared to trigger active participation and helped facilitate strategic conversations at catering breaks, improving the quality of output from the parallel sessions.

Next steps

UOW will continue engagement with many of the participants our research activities and ongoing collaborations.

As discussed at the forum many of the delegates have been invited to participate in the SBRC's field research on the thermal performance of apartment buildings.

All participants will be included in relevant future SBRC communications, such as newsletters noting future participation opportunities along with various groups strategically invited to participate in industry research proposals the SBRC have in the pipeline.

Conclusion

Feedback for the Forum directly and indirectly has been extremely supportive and positive.

Of particular note was the diversity of presenters and guests attending, which facilitated strategic networking with a number of new connections and collaborations resulting.

The quality of the presentations made by speakers was extremely high.

The design of the National Forum benefitted from the experience gained by members of the organizing team having attended other CRC LCL National Forums and Annual Participants Forums. We hope that this report provides some useful information for those hosting future events.





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 8th August 2018

University of Wollongong



UNIVERSITY
OF WOLLONGONG
AUSTRALIA



CRC for Low Carbon Living Ltd
Room 202-207, Level 2,
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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.

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 8th August 2018, Innovation Campus, University of Wollongong

9.30am	Registration and morning tea provided. Level 2, The Central (Building 230), University of Wollongong Innovation Campus*				
10:00am	Opening and Acknowledgement of Country: Prof Paul Cooper, Director, Sustainable Buildings Research Centre, University of Wollongong				
10:05am	University of Wollongong Welcome: Prof Judy Raper, Deputy Vice-Chancellor Research & Innovation, University of Wollongong				
10:15am	CRC Low Carbon Living: Low Income Low Carbon Household Research <i>Scientia Professor Deo Prasad AO, CEO, CRC Low Carbon Living</i>				
10.30am	Keynote Presentation Low Carbon Homes Improve Affordability, Resilience and Wellbeing <i>Kellie Caught, Senior Advisor, Australian Council of Social Services (ACOSS)</i>				
11:00am	Panel Session A: <u>Energy-related Challenges, Experiences and Perceptions of Low Income Households</u> <ul style="list-style-type: none"> - Supporting Low Income Households to Become Energy Efficient and Debt Free <i>Janine Young, Energy and Water NSW Ombudsman</i> - Addressing Two Flawed Assumptions in Energy Use for Low-Income Households <i>Dr Rowan Bedggood, Swinburne University of Technology, and Chair of the Group of Energy Efficiency Researchers (GEER) Australia</i> - Low-income Households and the Energy Conundrum <i>Dr Edgar Liu, Senior Research Fellow, City Futures Research Centre, University of NSW</i> - Living in a 'Tinder Box': Household Vulnerabilities in Extreme Heat <i>Dr Larissa Nicholls, Centre for Urban Research, RMIT</i> 				
12:00am	Lunch and networking The Central – Level 2 Terrace				
12:45am	Keynote Presentation The Victorian Healthy Homes Program <i>Dr Matthew Soeberg, Manager, Sustainable Homes, Sustainability Victoria</i>				
1:15pm	Panel Session B: <u>Implementing Low carbon Homes for Low Income Households</u> <ul style="list-style-type: none"> - NSW Government programs optimising partnerships and capacity building for energy efficiency with low income housing providers, <i>Emily Yip, Strategic Manager Residential Programs, NSW Office of Environment and Heritage</i> - Chance, Timing and Opportunity: The Story of the Accidental Tenant Sustainability Initiative <i>Patrick Ryan, Head of Impact and Innovation, St George Community Housing</i> - Improving client experience through low carbon social housing <i>Susanna Savolainen, Manager Environmental Sustainability, NSW Land and Housing Corporation</i> - Implementing Low Carbon Retrofits for Low income Housing: Insights from Front Line Research <i>Dr Dan Daly, Sustainable Buildings Research Centre, University of Wollongong</i> 				
2:15pm	Collaborative Breakout Parallel Sessions – Interactive discussions of key issues, solutions and actions				
Session 1 Ocean View Room	Impacts and Opportunities of New Policy Approaches and Levers <i>Chair: Dr Troy Heffernan (UOW)</i>	Session 2 City View Room	Energy and Services Supply Alternatives <i>Chair: Tessa Manning (Fourth&Centre)</i>	Session 3 LKM Theatre (in the AIIM Building)	Addressing Health and Other Impacts on Low Income Households Through Low Carbon Homes <i>Chair: Dr Rory Eames (NSW FACS)</i>
3.30pm	Afternoon Tea The Central – Level 2 Terrace				
4:00pm	Summary Session: Report Back and Summary by Breakout Session Facilitators				
4:30pm	Forum Summary, Outcomes and Close: Prof Paul Cooper, Director, Sustainable Buildings Research Centre, University of Wollongong				
4:45pm	Drinks and optional technical tours of the: <i>Sustainable Buildings Research Centre, Illawarra Flame House or Desert Rose House</i>				

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



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

Collaborative Breakout Parallel Session Overview

Wednesday 8th August 2018

University of Wollongong

Time	Action	Notes
9.30-10.00	Registration – delegates let us know their interests/challenges	<p>We want to engage the audience from the start so we ask them to contribute their thoughts from the very beginning.</p> <p>Delegates are given post-it notes and are asked to identify:</p> <ol style="list-style-type: none"> 1. What issue would they most like to see covered at the Forum 2. The biggest challenge that they see facing the sector/stakeholders. <p>Delegates to place post-it notes on wall in refreshments area or on their tables.</p>
12.00	UOW staff collect post-it notes and place on wall and collate into three key topic areas (where possible).	<p>Remaining post-it notes will be placed on the glass wall in the refreshments area.</p> <p>Delegates view these at their leisure (during lunch break 12.00-12.45)</p> <p>Facilitators/UOW staff collate the 'challenges' into the 3 breakout session themes to generate 4 or 5 challenges for each session – write these on butcher's paper (see image below)</p>
2.15-3.15pm	<p>Collaborative Breakout Sessions</p> <p>From each session we aim to develop a short list of:</p> <ol style="list-style-type: none"> 1. Challenges 2. Solutions to them 3. Actions, Resources, Projects and/or connections 	<ol style="list-style-type: none"> 1. Facilitator to provide 3 to 5 minute summary of topic and activities at start of session. 2. Delegates split into groups of up to 10 people around tables – or just with chairs for Session 3. 3. Each group picks a challenge from the list provided by the Facilitator (and can modify if required). 4. Group discusses and itemises (on a large sheet of butcher's paper) <ol style="list-style-type: none"> a. Solutions to the challenge b. Actions, resources, projects and connections – that can help bring about the solutions 5. Facilitator collects the butcher's paper from each table – places on wall. 6. Facilitator, with input from tables, summarises discussion and solutions, actions, etc in the wrap up to the breakout session.
3.30-4.00 Afternoon tea	Prepare for report back	Facilitator (with UOW staff support person) summarises the outputs from their session on three pieces of butcher's paper as in Figure below.
4.00-4.30pm	Facilitator report back	<ul style="list-style-type: none"> • Facilitators form a panel at front of audience. • Each summarises their breakout session outcomes (in about 5 minutes) • Provide opportunity for the whole audience to pitch in with comments and contributions

Each table/sub-group will complete a sheet of paper with:

1. Statement of the Challenge at the top
2. Solutions (sub-heading)
 - a. Specific solution 1
 - b. Specific solution 2
 - c. Etc
3. Actions, Resources, Projects, Connections (sub-heading)
 - a.
 - b.
 - c. etc

Facilitator/UOW support staff summarise sub-group outputs on 3 sheets of butcher's paper, i.e. these are the outputs from each breakout session and the basis for the Facilitator's report back session

