New benchmark
An AIRAH Awards finalist shows the way.
A focus on pre-loved structures

Already-existing buildings will be covered in a key government initiative.

At its meeting last month, the COAG Energy Ministers agreed to update the Trajectory for Low Energy Buildings to cover existing buildings. The addendum is the second stage of the national plan for a trajectory towards zero energy (and carbon-ready) buildings for Australia. It provides a suite of initiatives to improve the energy efficiency of existing residential and commercial buildings:

- Developing information, training and energy rating tools for households and businesses to enable greater understanding of energy efficiency options and applications
- Developing and expanding targeted building policies, including disclosure of energy performance, minimum energy efficiency standards for rental properties, renovations and refurbishments, improving HVAC, and energy productivity in government operations
- Identifying and developing supporting measures, including specific measures for strata-titled buildings, financial initiatives, appliance standards and labelling, specific measures for vulnerable households, a national dataset and collection process for existing homes, and other targeted initiatives.

The Australian Sustainable Built Environment Council (ASBEC) has welcomed the addendum. It points out that existing buildings contribute to almost a quarter of Australia’s emissions, along with more than half of the country’s electricity consumption, through their operation alone. Buildings could also meet over half of the national energy productivity target, and more than one quarter of Australia’s national emissions target.

“Low-energy homes and commercial buildings can provide great outcomes in terms of energy and emissions, whilst also delivering much more,” says ASBEC’s executive director, Suzanne Toumbourou.

“More energy-efficient buildings offer more resilience to extreme weather, better comfort and reduce stress on the electricity grid.”

ASBEC’s modelling has shown that, with the right level of support, Australia’s building sector could deliver over a quarter of Australia’s 2030 emissions reduction target, while saving $20 billion and creating a healthier, more productive built environment.

AIRAH also applauded the COAG Energy Ministers’ decision.

“In line with AIRAH’s mission to help create safe, sustainable, healthy and effective environments, we wholeheartedly support the widening of the scope of the trajectory to include existing buildings,” says CEO Tony Gleeson, M.AIRAH.

“As the addendum points out, improving HVAC systems in existing buildings can deliver significant benefits such as a reduction in utility bills, increased comfort of occupants, more reliable indoor temperatures, and lower environmental impact.”

Says Toumbourou: “The COAG Energy Council’s Trajectory for Low Energy Existing Buildings provides a critical commitment to helping Australians save money on energy bills, lower emissions, ease the strain on our energy infrastructure and be truly comfortable and safe in our buildings, in all extremes of the Australian climate.”

Prachi Garnawat, Stud.AIRAH, is a lead consultant at Building for Impact and a part-time research associate at RMIT University. She was a finalist in the 2019 AIRAH Student of the Year Award – Higher Education or Research.

Responsibilities
At Building for Impact, I have both technical and administrational responsibilities. I conduct NABERS assessments for our projects as well as help with the outreach and marketing work.

Specialty
As an environmentalist I am keen on finding solutions that encourage sustainable development. Buildings are a major contributor to global greenhouse gas emissions. Therefore, improvements in building design and performance are important to help achieve sustainable and liveable environments.

Challenges
To find a balance between occupant comfort and energy efficiency in buildings.

Pastimes
I enjoy photographing the architecture and laneways of Melbourne or picking up a book to read in a cozy café.

Inspiring words
“To action alone you have the right, never to the fruits thereof. Let not be the fruit of action be your motive, nor let your attachment be to inaction.” – Gita

Favourite destination
I quite enjoy living in Melbourne and its culture. When I need a break, I head home to India for some picturesque Himalayan hikes.

The future
I am committed to working in the field of building sciences and sustainability. I would like to continue working with Building for Impact, and try to bridge the gap between academia and industry to deliver high performance buildings.