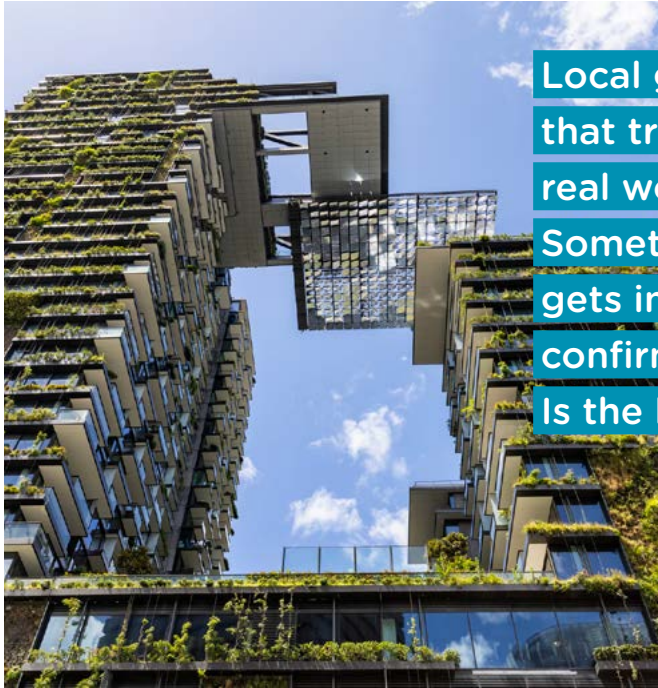


How local governments can close the energy performance gap



Local governments are looking for policies that translate carbon reduction targets into real world, energy efficient buildings. Sometimes the energy performance gap gets in the way, but independent evidence confirms a NABERS Commitment Agreement is the best way to close that gap.

“In simple terms, the building energy performance gap is the difference between modelled and actual energy performance – and it can be really hard to measure that gap,” Helen says.

But as the GBCA’s report confirms, Green Star, NABERS, and policies that encourage their uptake are “shifting behaviours, raising awareness and having a positive impact on energy use and emissions in our buildings”.

This is why a NABERS Commitment Agreement has become “a powerful contract delivery tool”, Helen says.

In 2021, the Green Building Council of Australia (GBCA) published ground-breaking research that confirmed a NABERS Commitment Agreement ensures green design intentions deliver energy efficient operations.

Closing the performance gap in Australia’s commercial office sector examined 176 offices with base building NABERS Energy ratings and Green Star ratings. The research found 91% of Green Star rated buildings with NABERS Commitment Agreements met or exceeded their NABERS Energy target straight away, and more than 98% met their target at peak performance.

One of the key recommendations from the GBCA report was emphatic: “A NABERS Commitment Agreement is much more than a piece of paper... [it] is a critical success factor in translating design intentions into real-world outcomes.”

The report’s author, Helen Bell, is the GBCA’s Research Manager. She has spent more than a decade digging into the data behind the nation’s greenest buildings and has scrutinised the energy performance gap from many different angles.

“A NABERS Commitment Agreement requires a project team to model a range of realistic scenarios that could lead to an energy performance gap – like different weather conditions, times of day, and peaks and troughs of occupancy. A building must perform at its target NABERS rating across all those scenarios and that is verified in operation.”

A NABERS Commitment Agreement also includes a mandatory buffer to account for unexpected conditions that many influence performance. This means that buildings overwhelmingly meet their target rating, even during unexpected events like equipment failure and heatwaves. In fact, 36% of buildings with NABERS Commitment Agreements overachieve their target within the first two ratings.



NABERS

What is a NABERS Commitment Agreement?

A Commitment Agreement is a contract signed by a developer or owner that outlines an intention to design, construct and commission a building to achieve a specific NABERS Energy rating.

With the help of a NABERS Commitment Agreement, a project team can set ambitious energy performance targets as a building comes to life and use the trusted NABERS brand to share their sustainability story with tenants, investors, financiers and more. Hundreds of buildings have been delivered with [NABERS Commitment Agreements](#).

From ambitions to actual outcomes

For local governments, bridging the performance gap is critical if key building efficiency policies are to deliver net zero outcomes.

But there is currently no reliable way to quantify whether the planning process is delivering the intended outcomes across a whole range of building types, from hospitals to hotels, retail centres to residential developments, “because what is modelled in design doesn’t match the data captured in operation”.

Far from exclusive to Australia, the energy performance gap is a “systemic problem”, according to the [International Partnership for Energy Efficiency Cooperation](#).

The IPEEC undertook an extensive literature review in 2019, finding “no consistent estimate of the magnitude of the gap”. Some studies found buildings consume between 150 to 250% of predictions. Others, of large and reliable datasets, found energy consumption was 10 to 30% higher than anticipated.

In the office sector, the GBCA’s report confirms that the gap between predicted and actual energy performance for Green Star office projects has narrowed considerably. Nearly 10% more Green Star certified office buildings met their greenhouse gas performance targets (or being within 0.5 stars) than in 2012.

“A NABERS Commitment Agreement allows us to compare predicted performance to actual operations, simply because we are collecting the right data from the outset.”

nabers.gov.au

The experience of the office sector points to a pathway for local governments with a laser-focus on their net zero targets, Helen notes, which is why some councils already require NABERS Commitment Agreements for new buildings in their Development Control Plans.

Model to manage

The 2022 update of [Section J's energy efficiency requirements in the National Construction Code](#) recognises a NABERS Energy Commitment Agreement of 5.5 stars or more, or a [Green Star Buildings rating](#), as pathways for office projects to demonstrate compliance.

“Using the NABERS or Green Star pathways prevent doubling up on energy modelling and documentation, which can save time and money,” Helen notes.

“We also think, over time, it will shift the way we use the National Construction Code from a compliance tool to a genuinely useful method of assessing a building’s performance in operation.”

A NABERS Commitment Agreement also puts all parties involved in the design and delivery of a building on the same page. With a Commitment Agreement, everyone from engineers and architects to builders and facility managers rally around a shared, tangible target.

“Consultants tell us a NABERS Commitment Agreement shifts their role from one where they have to ‘push’ for higher energy performance, to the role of advisor on how to get there. It’s a mindset shift that leads to more energy efficient buildings.”

NABERS Commitment Agreements can also be used to achieve Green Star Buildings credits, Helen adds. “More than 1,100 new buildings were registered between the launch of Green Star Buildings in 2019 and May 2023. We think this massive uptick in Green Star registrations will drive demand for NABERS Commitment Agreements – and help us bridge the performance gap once and for all.”

Find out more about
[NABERS Commitment Agreements](#)