

Ballarat homes switch from ice box to heat box

In a place like Ballarat, where there are extreme temperature variations, lots of old houses, and high numbers of low-income residents, it is really important that basic home energy efficiency upgrades are available to everyone.

Many people in Ballarat live in homes that were built in the late 1800s and early 1900s. Back then, energy efficiency and skyrocketing energy prices were not considered when homes were designed and built. Even as late as 1990 the average energy rating for new homes was [1 star](#).

Gaps and cracks around windows and external doors, ineffective insulation in the ceiling and uncovered windows are the first things that can be addressed to boost an older house's efficiency rating by up to three stars. Most Victorian house types can achieve a boost from 1.5 stars to around 4 stars for a cost of \$5,000, by focussing on draught sealing, roof insulation and window treatments.

Jodie Demmert from Ballarat, who has four children aged four to 12, said she feels like she is putting her boys to bed in a fridge on cold nights. "Our house is about 100 years old, and we love it, but it's practically impossible to keep it warm. There are always drafts through the old window frames, and there are gaps between the floor boards. You can actually feel a breeze blow through the house from the back door to the front door, with the doors closed," Ms Demmert said.



Derek Streulens and the kids rug up to keep warm during Ballarat winters. "The living room is the coldest part of the house. You can feel the cold coming in the big windows."

Windows without thick curtains or blinds and pelmets can be responsible for up to 30% of heat loss in a home.



For the 1.9 million Victorian homes built before 2005, the average efficiency rating is less than two stars. When a home is raised from 2 stars to the 5 star standard (or from 1 to 4 stars) the energy required to maintain "thermal comfort" drops by half – and so do heating bills. In an average Victorian home this equates to annual savings of more than \$500 on energy bills.



“You can actually feel a breeze blow through the house from the back door to the front door, with the doors closed.” Gaps around external doors are a common point of heat loss in many homes during winter.



Derek Streulens said his family has plans to install efficiency measures in their home when they can. He said they have noticed climbing winter gas bills, but their motivation was largely a matter of comfort. “We used to live in a house that was quite efficient, and the general comfort level here is much lower. It is a definitely a less comfortable way to live.”

Improving the energy efficiency of Victorian homes makes sense because it helps alleviate cost of living pressure, it raises the comfort level of homes, and takes a big chunk out of greenhouse emissions at the same time.

Electricity prices have risen by more than 80% across Victoria in the last five years. The State Government made a significant election promise in 2010 to raise the standard of existing homes to a 5-star average.

No action from them yet, going in to the final year of their term, so action is well overdue.



Window treatments to reduce heat transfer involve external shading, think curtains or blinds inside, and pelmets above curtains to inhibit convection currents which cause heat loss. Left: draughts are common with wooden sash windows.