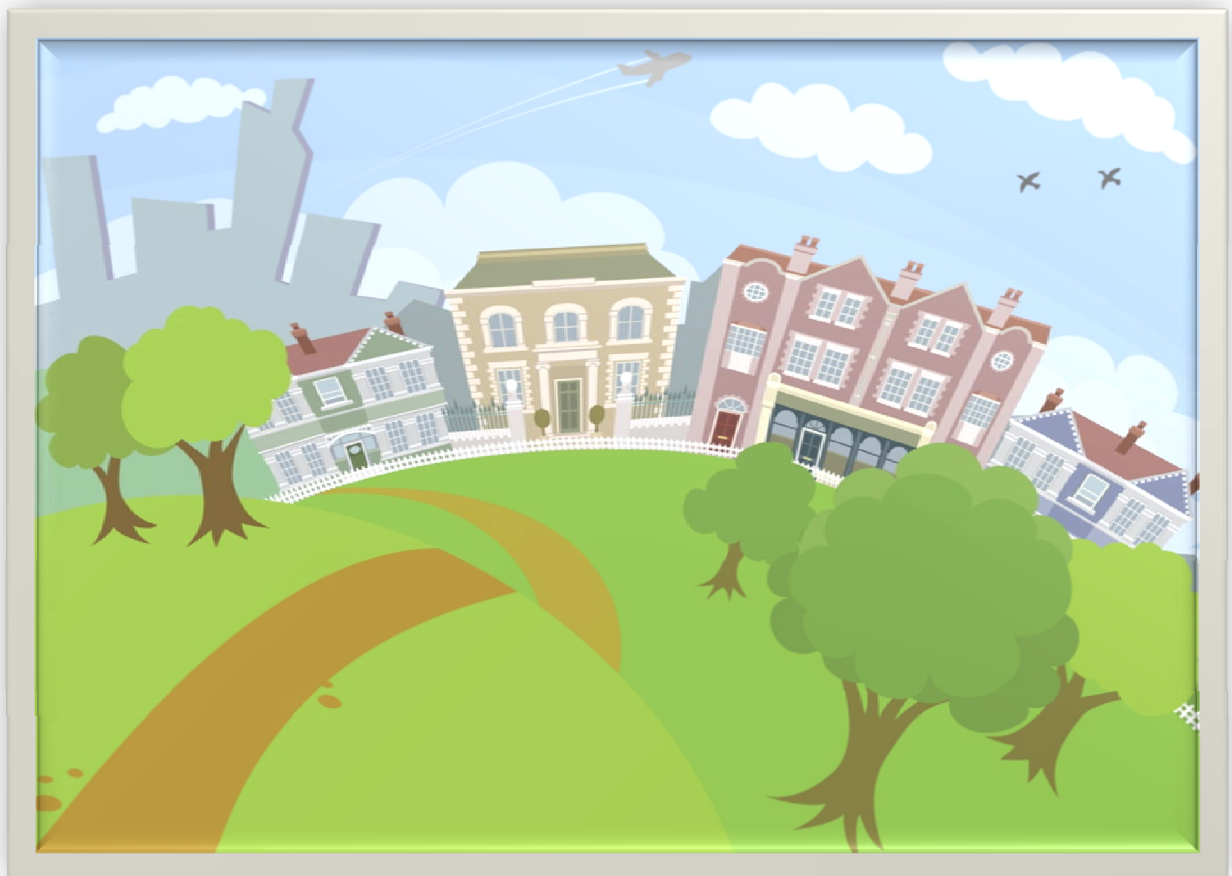


**Planning and Development
(Greenhouse Gas Reduction Targets)
Amendment Bill 2012**

EXPOSURE DRAFT



Introduced by Caroline Le Couteur MLA, ACT Greens

Consultation period: 22 February 2012 – 20 April 2012

The ACT Greens are calling for public submissions on the exposure draft of the Planning and Development (Greenhouse Gas Reduction Targets) Amendment Bill 2012.

**The exposure draft of the bill, and explanatory material is available at:
http://www.legislation.act.gov.au/ed/db_44031/default.asp**

How to Make a Submission

Responses would be appreciated by 20 April 2012, as well as an indication or whether or not you are willing for your response to be made public.

Email: LECOUTEUR@parliament.act.gov.au

Mail: Planning and Development Amendment Bill Submission

C/o Caroline Le Couteur MLA

GPO Box 1020

Canberra ACT 2601

Please include your name and organisation (if any) with all submissions.

The closing date for submissions is close of business 20 April 2012.

Planning and Development (Greenhouse Gas Reduction Targets)

Amendment Bill 2012

Why are the ACT Greens putting this bill forward?

In 2010 the ACT Legislative Assembly passed legislation committing the ACT to reducing greenhouse gas emissions to 40% less than 1990 levels by 2020. This figure was based on what scientists are telling us is necessary if we are to limit global warming to 2 degrees. We now know that if we continue with business as usual, the medium predictions forecast minimum warming of at least 2.3 – 6 degrees by the end of the century. It is therefore important that we treat our climate change reduction targets as minimum targets, not aspirational ones.

Stationary energy use makes up 71% of the ACT's emissions¹ – 31% from the residential sector, 40% from the commercial sector, 23% from transport and a mere 3% from waste². The *Planning and Development Act 2007* governs development in the ACT and thus it influences a large proportion of the ACT's greenhouse gas emissions. The ACT Greens believe that ACT Government planning and development decisions should take climate change and greenhouse gas emissions into account at the early stages of urban planning to ensure that the city and suburbs are laid out and planned in ways which allow for minimal greenhouse gas emissions.



If we are going to address greenhouse gas emissions in a cost efficient way, then we must make sure that all future development in the ACT is consistent with our reduction targets. The built environment is generally long lived and any new buildings we build commit us to



emissions for decades to come. We make our greenhouse gas reduction targets unachievable if we build energy inefficient homes and infrastructure. This then forces us to find more ways to reduce greenhouse gas emissions from our existing buildings and transport infrastructure, which is often a more costly process.

¹ *Weathering the Change Draft Action Plan 2*, ACT Government, December 2011.

² *ACT Waste Management Strategy 2011-2025*, ACT Government, December 2011.

How will it work?

The Bill requires larger scale development plans (*Structure Plans, Concept Plans and Estate Development Plans*) to be compatible with the greenhouse gas reduction targets. These plans cover the layout of suburbs, which affects transport planning and building orientation.

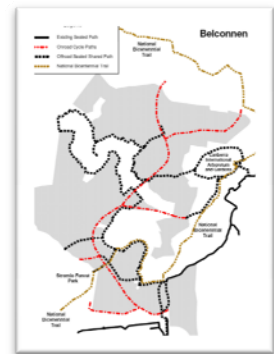


The Bill also requires climate change impact assessment to be undertaken for larger scale *impact track* development applications.

Aside from *impact track* developments, the Bill does not cover individual building approvals. The way the planning system is set up means that the Assembly cannot easily change the requirements for individual building approvals.

However, the Bill does require the planning authority (ACTPLA) to revise the Territory Plan by December 2013 to ensure that the Plan is compatible with the greenhouse gas targets. The Territory Plan would also need to be revised every 5 years after that with the same aim.

It is expected that this revision would lead to a number of changes in the planning codes, such as the Territory Plan requiring buildings to be consistent with our greenhouse gas reduction targets. In the short term this may be a move to a 7 star EER requirement, but over time we expect that this would mean incremental increases to carbon neutrality. The Bill would also require ACTPLA to report annually on greenhouse gas emissions expected from approved developments.



What are the problems with the current planning system?

The ACT planning system does not currently include practical consideration of how new development proposals will contribute to greenhouse gas emissions. There is no guidance for decision-makers to determine whether large developments, such as those in the impact track, are going to help or hinder the ACT to meet our legislated emissions targets. It is also



disappointing that greenhouse gas reductions are not one of the targets of the Draft ACT Planning Strategy. We note that one target in the Strategy is about achieving higher density, but this is not a sustainability goal in itself. We need to ensure that any increased density actually leads to development which uses less energy.

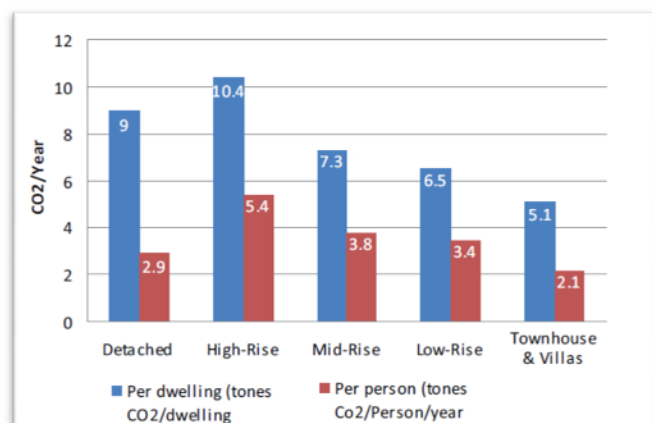
Our current planning codes include many perverse things such as:

- a higher plot ratio for single dwellings than dual occupancies, which encourages bigger houses;
- restrictions on secondary dwellings on blocks (also known as granny flats), which require them to be removed when granny leaves;
- lower EER requirements for multi-unit housing;
- strict rules and criteria which do not allow for sustainable innovation; and
- no requirement to face houses north.

What will this Bill mean for development in the ACT?

Development in Canberra will continue, but it will be more sustainable and more responsive to greenhouse gas emissions. This will mean that new suburbs better incorporate such things as good public transport, cyclepaths and footpaths to reduce transport emissions, planning for microclimate management, and appropriate space for renewable energy generation³.

It will mean that at some point in the future most buildings will be designed to be carbon neutral. It may mean new development will include more townhouses and other medium density housing designs, rather than high rise or single storey detached dwellings.



Comparison of per dwelling and per capita data for CO₂e emissions
Karen Wright, *The relationship between housing density & built form energy use*

What does it mean to be carbon neutral?

Carbon neutral, or zero emission, buildings are either designed so that no greenhouse gas is produced or so that the buildings can balance the greenhouse gas emissions they produce by using offsets.

Carbon neutrality can either be for the building's whole life cycle (which includes the manufacture and transport of building materials), or just for the operational use of the building. In the ACT most greenhouse gas emissions from construction are generated outside the ACT, so for the purposes of our greenhouse gas reduction target it is most appropriate to focus on operational use.

³ The ACT Greens proposed such development for the Molonglo Valley:
http://act.greens.org.au/sites/greens.org.au/files/Molonglo_Valley_Development.pdf

Achieving carbon neutrality for the operational use of buildings needs a two pronged approach to include:

- reducing energy consumption; and
- use of 100% renewable energy sources for remaining energy consumption.

Can you really build carbon neutral buildings?

Yes – In the UK it is government policy that after 2016 all new houses will be carbon neutral. They have a Code for Sustainable Homes (2007), which provides a guide on target carbon-performance levels and typical solutions that could meet a desired level of performance.

In South Australia the Government has established a model sustainable urban village for 100 houses at Lochiel Park in Campbelltown, 8km from the Adelaide CBD. Each house must meet a minimum of 7.5 stars EER, but the urban design guidelines for the area assist in improving beyond this. The SA Land Management Corporation is currently running a zero carbon design challenge for a block on the site⁴.

The Victorian Government has a zero emissions neighbourhoods project, which includes building zero emissions housing in partnership with the CSIRO⁵.

In Australia there are many off-grid houses which are almost carbon neutral. In Canberra there are already many houses which are carbon neutral by being energy efficient and either buying greenpower or generating renewable energy⁶.



Passive solar home in Fadden, ACT

⁴ <http://www.lmc.sa.gov.au/zerocarbonchallenge>

⁵ See the zero emissions demonstration house at Laurimar, Vic:
http://www.auszeh.org.au/demo_laurimar.html

⁶ Some of these houses are on display on Sustainable House Day, see:
<http://www.sustainablehouseday.com/australian-capital-territory.php>. The next one is on Sunday 9th September 2012.

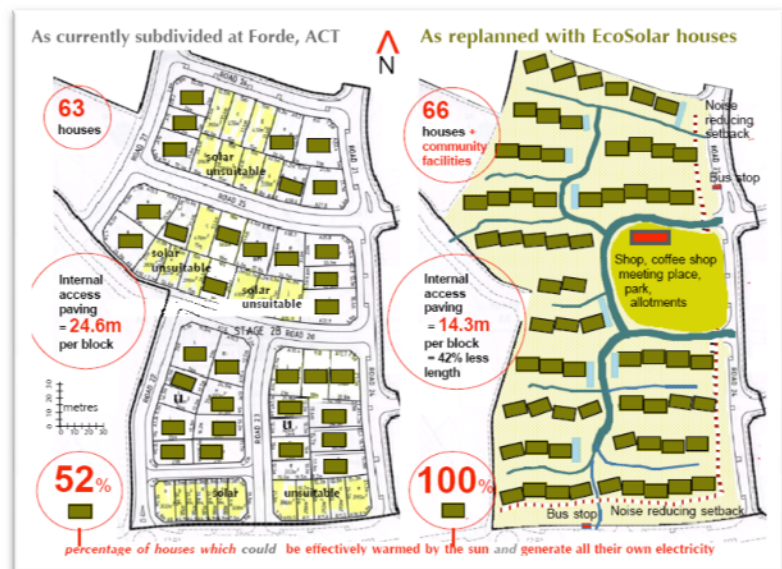
The Green Building Council of Australia has outlined the options for carbon neutral commercial buildings⁷, as this is becoming more important to commercial tenants. Well designed office buildings which require little or no mechanised heating and cooling are also more comfortable and healthier to work in.

Won't it cost a lot more to build this way?

No – What we are talking about is good design, not expensive design.

Designing a suburb to be more sustainable requires design effort up front but will be around the same cost to implement.

Building green suburbs and houses is cheaper in the long run. The higher the energy star rating, the cheaper the house is to run over time (ie. any additional cost of building is offset by money saved in running the house). We expect that these changes will lead to improved housing affordability.



Source: Derek Wrigley, *Low Energy Affordable Housing*

This is due to reasons such as:

- houses will cost less to heat and cool (see below);
- water bills will be lower (see below); and
- transport costs will be lower due to a good public transport system and walking / cycling network, this may also lead to better health outcomes.



The payback period on the additional construction cost of a 6 star house to 7 stars is around seven years, without taking into account other benefits such as increased comfort, reduced loads on the electricity grid and higher resale values.

⁷ <http://www.gbca.org.au/resources/fact-sheets/the-2020-challenge-carbon-neutral-buildings/1690.htm>

The additional costs are minimal if a house is designed well. Wayne Floyd, President, Association of Building Sustainability Assessors, researched such costs using AccuRate software to analyse a range of brick and tile “first home” house designs. The results consistently show that the energy rating of a modest brick and tile bungalow can be increased from 5 to 7 stars for under \$4000 at the time of construction, by positioning the house well on the block, making sure it is properly insulated, and using double glazed energy rated (WERS) windows⁸.

These changes can result in a substantial reduction in energy use when compared to 5 star homes, 24% reduction for 6 star homes and 45% for 7 star homes⁹. 8 Star houses can save around 75% on both water and energy compared to an average house.



Water efficiency measures can be done at little or no additional cost – studies have indicated that water saving measures can save around 25,000 litres of water per household per year¹⁰.

In addition, as Australians have the largest new homes in the world¹¹, any modest increase in capital cost could be offset by a small reduction in average size of house so that new houses

are closer to the size of the rest of Canberra’s houses.

Conclusion

This Bill is an important step toward the ACT addressing climate change issues, and being able to adapt to meet our climate change targets.

The ACT Greens welcome your feedback to this exposure draft of the *Planning and Development (Greenhouse Gas Reduction Targets) Amendment Bill 2012*.

⁸ Alison Carmichael, *pers comm.*, Feb 2010

⁹ <http://www.abcb.gov.au/index.cfm?objectID=A6EF95BB-BC6D-11DE-B8160050568C0CD7>

¹⁰ Source: *Towards climate safe homes: The case for zero emissions and water saving homes and neighbourhoods* is published by Environment Victoria in partnership with the Alternative Technology Association, Australian Conservation Foundation, Friends of the Earth Australia and Moreland Energy Foundation. Sept 2009.

¹¹ Commsec, 30 November 2009