

2025 consultation

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SUBMISSION TO THE NSW NET ZERO COMMISSION 2025

PUBLIC CONSULTATION

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8 JULY 2025

URGENCY AND IMPORTANCE

The consultation paper states, correctly, that *without accelerated action, NSW may not reach net zero by 2050 and will fail to meet nearer-term emissions reduction targets. Substantial emissions reductions are needed across all sectors to meet the state's legislated targets.*

It cannot be stressed too much, that action must be taken in every way possible and with the utmost speed, if the targets are to be met. However, it must be noted in all public statements from the Commission, that the targets are not ends in themselves: they are a part of what must be a world-wide effort to revolutionise our dependence upon energy in a serious effort to combat the steadily increasing effects on our lifestyle, comfort and security caused by the changing climate.

This submission addresses just three of the questions (2, 19, 20) posed by the consultation paper. While most attention in the past decade or more has been given to energy generation (still the biggest source of greenhouse gas emissions) and corporate users, the comments in this submission focus more at the level of individuals and their homes. Ways of using energy (or not using it) are more significant here than ways of generating it.

Three ways of reducing emissions

Emissions from, or attributable to occupied buildings (residential or workplaces) almost entirely arise from forms of energy used in the building. This is predominantly via gas and electricity supplies. Emissions can be reduced in three different ways:

1. **Using cleaner sources of energy:** eg switching from gas to electricity, and from fossil-fuel-generated electricity to renewable sources.
2. **Using energy more efficiently:** principally by improved thermal insulation, reducing the demand for heating and cooling; but also by using the most energy-efficient appliances.
3. **Using less energy:** for example, hanging washing to dry rather than using tumble dryers.

PUBLIC ENGAGEMENT

Question 2: What actions can the commission take to engage across the community to help drive the shifts needed for the net zero transition and for effective climate change mitigation and adaptation?

In the past 15-20 years, public opinion on the topic of climate change has shifted from few people being aware of the issue or of understanding the causes, through to most (but still not all) people accepting that “climate change is real”. However, the challenges of implementing all the proposed (and necessary) solutions seem to cause too many people to turn away.

- The costs of cleaning (or de-carbonising) our electricity grid are often, inaccurately, attributed to rising energy prices, and rarely compared with the costs of keeping existing systems and continuing to contribute to changes in the climate.
- The possible negative effects of change (eg blight on landscape, threat to birds or whales etc) need to be seen in the context of the alternative (ongoing pollution, contribution to global climate effects etc).

The argument that NSW (or Australia’s) actions on their own will have little effect without worldwide action is too often presented as an excuse to do nothing. However, it is true that the incidence of extreme weather events is increasing, and with it the cost of repair and the impact on people’s lives. Adaptation measures to address this increased risk must be implemented, but not at the expense of mitigation measures (ie emissions reduction).

Strong public support for emissions reduction actions is vital. This must be encouraged by a robust, ongoing publicity and education campaign designed to increase climate awareness, and make emissions reduction a priority.

- Slogans for other behaviour changes have proved successful and memorable (e.g. “Slip-slop-slap” or “if it’s not on, it’s not on”).
- Government-supported TV documentary programs explaining what individuals can do to reduce their own emissions.
- A NSW-based government certification program for businesses that achieve significant emissions reduction (coupled with a public campaign to explain it) This would be similar to the federally-based *Climate Active* certification, but must be more rigorous.

BUILT ENVIRONMENT

Question 19: What additional measures could accelerate electrification and increase energy efficiency of new and existing buildings?

Electrify everything

There are currently around 1.5 million homes in NSW using gas:

- An immediate ban on connecting gas to new homes. NSW is currently embarking on a massive building program of many thousands of new homes, including affordable and social housing. This is an ideal opportunity to implement a move away from gas, in line with several other states in Australia.
- There are many opportunities for government-assisted finance to support both owners and renters to update their energy connections and appliances. While some programs already existⁱ, there are gaps that should be filledⁱⁱ.

- Rebate/incentive or interest-free loans to convert existing gas-fired hot water, heating and cooking appliances to electric. ⁱⁱⁱ (EELS)
- Education programs^{iv}
- Training opportunities for -eg- cooking on Induction cooktops, offered at local community level.

Thermal efficiency (insulation)

Australia's buildings have some of the poorest thermal efficiency in the world^v. ^{vi}

- Retrofitting could save an average home \$1,600 per year on energy bills. The existing Climate Change Fund rebates for a selection of improvements should be widened.
- We commend the existing Federal Government-funded SHEPI program to improve energy performance of social housing: this could be expanded and accelerated.
- NSW should introduce an Energy Performance Certificate similar to the UK system^{vii}. Rental properties should require rating for thermal efficiency, meet a minimum standard, and the rating must be disclosed to potential tenants. This may be less effective in a housing shortage, but with increased choice, poorly-performing homes will need to charge lower rents to compete with similar, well-insulated homes. However, it does establish a situation where both the cost of improvement, and the benefit (in better lettable) goes to the landlord, with the benefit of lower energy bills going to the tenant as well.

Prefabricated housing

Concrete production, primarily driven by cement manufacturing, is a significant contributor to greenhouse gas emissions, accounting for roughly 8% of global emissions. And concrete is a major building material, particularly in high-rise residential towers. Even spread over the estimated lifetime off the building, this is a significant level of emissions. Additionally, assembly and construction on-site is less efficient than similar factory-based operations. Reports on two recent projects in London^{viii} show how prefabricated buildings could save significant carbon emissions. The buildings mentioned are a brick-clad 333-bed student accommodation scheme over 10 storeys; and two terracotta-clad towers of 44 and 38 storeys providing a total of 546 homes.

Some government support would assist in introducing this building method to NSW, as well as training in new building skills, and adapting the regulatory environment.

- Factory-made homes reduce carbon emissions by up to 45%^{ix}
- Suitable for low-rise and high-rise buildings
- Speeds up building and saves costs
- Could be implemented for all new government-funded housing

Question 20: How could social equity be better addressed in the transition to an electrified built environment?

Many of the changes suggested above have the potential to save money in the long term, through reduced energy usage, but require some capital investment up front. This presents a significant

barrier to lower income or otherwise disadvantaged people. In many instances there is the opportunity for additional government-funded loans or grants/subsidies/rebates to assist with these changes^{x xi}

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