Building Electrification - Regulatory Impact Statement

Asthma Australia Submission, February 2025

ABOUT ASTHMA AUSTRALIA

Asthma is a chronic respiratory condition affecting nearly 2.8 million Australians (11%), with children being the most impacted. It can severely restrict breathing, disrupt daily life, and, in extreme cases, lead to life-threatening complications, including respiratory failure. In 2022-23, more than 31,000 people were hospitalised due to asthma - 43% of them children.[1] At least one Australian loses their life to asthma every day.[2]

Asthma Australia is the peak body representing people with asthma. Our goal is to halve preventable hospitalisations by 2030. According to the Australian Institute of Health and Welfare (AIHW), 80% of asthma-related hospital admissions could be prevented through quality primary health care and effective community-based prevention.[3]

To achieve this, we deliver education and support services for people with asthma, their carers, teachers, and health professionals to improve asthma management and quality of life. We advocate for health reforms that improve access to care, optimise treatment, reduce health inequities, and address environmental triggers like poor air quality. We also raise funds and drive groundbreaking research to one day cure asthma.

Our work is grounded in evidence and shaped by the voices and lived experiences of those affected by asthma. For more, visit asthma.org.au

SURVEY RESPONSES

Do you support the introduction of Building Electrification regulations? Required

Yes - fully support

What is your preferred Option in the RIS Required

Option 2 - all new residential and most commercial buildings to be all electric and requirement that existing gas appliances be replaced with electric alternatives at end of life in existing residential and commercial buildings

Tell us why you support that Option

Asthma Australia strongly supports the electrification of homes as it contributes to a healthy indoor environment by removing sources of indoor air pollution, including gas cooktops, gas heaters, and wood heaters, that contribute to asthma. Further, home electrification can reduce consumer energy costs and contribute to climate change mitigation, particularly when coupled with connection to renewable energy sources. We acknowledge that progress will be made to these ends should the Victorian Government implement any of the four options presented in the Regulatory Impact Statement (RIS). However, we strongly urge the Victorian Government to implement Option 2 as it will provide the greatest health benefits, particularly in reducing the burden of asthma, and enables consistent public health messaging on health harms of gas, while optimising outcomes related to consumer energy costs and climate change mitigation.

Under Option 2, all new and existing residential buildings and most commercial buildings (excluding existing commercial kitchens) will be required to be all electric or replace gas appliances at their end of life with electric alternatives. This option includes the electrification of all residential and most commercial gas appliances including heating, and importantly, cooking appliances. We support this option as it will result in the greatest reduction in indoor air pollution, particularly in homes, among the options presented. Gas appliances emit harmful gases such as fine particulate matter and nitrogen dioxide into the home, which contribute to the development of asthma and trigger symptoms.[4] These pollutants are particularly harmful to those most sensitive to air pollutants including children and people with asthma and other respiratory and health conditions.[5] The RIS recognises Option 2 will also deliver the greatest reductions in greenhouse gas emissions and consumer energy costs, which are important to mitigate escalating climate change and the associated health risks, which particularly affect people with asthma, and the cost of living crisis.[6]

HEALTH BENEFITS FROM IMPROVED INDOOR AIR QUALITY

Poor indoor air quality can detrimentally affect a range of health conditions, including asthma, other chronic respiratory conditions, acute respiratory infections and cardiovascular conditions.[7] The quality of indoor air is particularly important as people spend more than 90% of their time indoors, mostly inside their homes.[8] In recent years, many Australians have been advised to take refuge inside homes or other public buildings in response to the 2019-20 bushfire smoke crisis and ordered

to stay at home during the COVID-19 pandemic. However, many buildings do not provide healthy indoor environments. For example, Asthma Australia's research has found many people are exposed to asthma and allergy triggers in their homes and almost one-third of people with asthma or allergies report experiencing worse symptoms after spending time in their homes.[9]

Removing air pollution emitted by gas appliances in Victorian homes is a critical step to supporting health at home, particularly as climate change is increasing exposure to air pollution inside homes from other sources, such as bushfire smoke and mould. Option 2 will significantly improve indoor air quality and related health outcomes, particularly in homes, as it will remove indoor air pollution from all gas appliances, including gas cooktops.

The RIS recognises the health impacts of air pollution associated with the use of gas appliances and electricity generation, and states that these well-evidenced risks, particularly for children, are in part driving the Victorian Government's electrification reforms.[10] Given this, it is not clear why Option 3 is the Victorian Government's preferred option, which allows gas cooktops to be replaced with gas cooktops at the end of life, unlike other gas appliances. The RIS recognises gas cooktops, like gas heaters, are a significant source of household air pollution. They produce a variety of air pollutants, including fine particulate matter, nitrogen dioxide, carbon monoxide, and formaldehyde. There is no safe limit of exposure to fine particulate matter and even low levels of air pollution can cause significant health problems.[11] Exposure to the pollutants produced by gas cooktops and heaters can trigger asthma flare-ups and contribute to the development of asthma.[12] Of notable concern, research indicates that up to 12 per cent of childhood asthma in Australia is attributable to gas cooking, as the RIS notes.[13]

Given the significant contribution of gas cooktops to asthma, particularly among children, the Victorian Government should implement an electrification option that includes residential gas cooktops. Failing to include them at this time would present a notable missed opportunity for progress in public health. This failure would likely also cause confusion amongst consumers who are presented with the health facts about gas heating, while being left to harbour the false pretence that their gas cooktop is safe. This inconsistency in policy approach jeopardises its credibility.

GREATEST REDUCTION IN GREENHOUSE GAS EMISSIONS

As noted in the RIS, Victoria has the highest use of gas for heating, hot water and cooking in Australia and over two million homes and businesses are connected to the gas network, including around 76 per cent of homes, 60,000 commercial buildings and 800 large industrial users.[14] It is the only jurisdiction where residential consumption of gas is higher than industrial use and where households consume more energy through gas than electricity.[15] As Option 2 includes the transition away from gas in both new and existing homes and most commercial buildings, it would result in the greatest reduction in greenhouse gas emissions among those options presented.[16] The RIS sets out the significantly greater reduction in gas and greenhouse gas emissions of Option 2 compared with the other presented options, including the Victorian Government's preferred Option 3.[17]

Reducing greenhouse gas emissions is critical to meeting the Victorian Government's 2045 net zero emissions target and other climate change policies and strategies. For people with asthma and other people with chronic health conditions in particular, the urgent reduction of greenhouse gas emissions is also critical to minimise the adverse health impacts of climate change that disproportionately affect them.[18] For example, climate change is increasing the frequency, duration, and levels of outdoor airborne hazards such as bushfire smoke, dust storms, thunderstorm asthma,

pollen and ground level ozone.[19] Asthma Australia urges the Victorian Government to support Option 2 to provide the state with the best chance of meeting its climate change commitments, and to thereby limit the detrimental health effects of climate change on the Victorian community.

GREATEST REDUCTION IN CONSUMER ENERGY COSTS

The RIS references a number of Australian research projects that have demonstrated the cost savings households can make by transitioning away from gas to electric energy and appliances.[20] It also notes the following potential energy bill savings through electrification, including increased savings from replacing a gas cooktop with induction:

- 'Residents of a typical new, all-electric detached home (without solar) will save around $880 per year, with these savings increasing to approximately $1,820 per year with solar installed.'
- Residents 'converting an existing dual-fuel home without solar panels to mostly-electric (fossil gas for cooking only) can save around $1,340 a year on energy bills. If solar panels are installed, these savings will increase up to $1,650 per year, and if the gas cooktop is also replaced with an induction cooktop, then the savings can increase even more to $2,020.'

The RIS also suggests that all-electric new businesses could save thousands of dollars a year in energy bills, depending on their building size, nature of business and gas end uses.

It is not only through savings in electricity bills that Option 2 stands to reduce consumer energy costs but also as it transitions residents to disconnect from gas completely (e.g. through including gas cooktops unlike the Victorian Government's preferred Option 3), thereby saving them the cost of maintaining a connection to gas. By contrast, if the Victorian Government continues to support Option 3 and therefore does not facilitate a full transition away from gas, including gas cooktops, then as the RIS and research by Sweltering Cities highlights, maintaining a connection to the gas network will become increasingly expensive.[21] Again as the RIS notes, this will be particularly problematic for people on low incomes who are less likely to be able to afford the costs associated with transitioning away from gas (e.g. upfront costs of buying an induction cooktop and rewiring homes) and for people who rent from owners who are unwilling to meet the additional costs of transitioning to electric cooktops, noting the omission of gas cooktops from the Minimums Standards for Energy Efficiency in Rental Homes.[22] This represents a significant equity issue that will disproportionately affect people on low incomes and who rent, who are likely to feel the cost-of-living crisis more keenly and who should be appropriately supported to minimise their energy costs. The Victorian Government will need to financially support people on low incomes to transition fully away from gas in the implementation of any option that it selects.

Proposed Exemptions

Existing residential buildings (Class 1, 2, or 10b buildings)

- ***Installation and replacement prohibitions do not apply where:***
    - ***there is insufficient space***
    - ***services are supplied by a centralised system in a Class 2 or 10b building***

    - ***installation or replacement with another non-gas appliance is not lawful because of an Act, regulation or other law. For example, a Heritage Overlay.***
    - ***Costs of upgrading the connection are disproportionately high.***
- ***Temporary disconnections***
- ***The transition period is in place, which allows contracts to install or replace a gas appliance, that were entered into before the commencement of the proposed regulations to be carried out.***

Do you support the exemptions proposed in the RIS? Required

Partially support

Additional comments

In relation to our 'partial support' for the exemptions, we would like to have more detail about the exemption 'costs of upgrading the connection are disproportionately high' given how 'disproportionate' varies depending on consumer/business incomes. We have asked in our response relating to our preferred option (option 2) that the Victorian Government support people on low incomes to transition to all-electric homes, particularly as households that do not fully transition to all electric homes will have to pay more for gas.[23] Therefore, rather than provide exemptions to people on low incomes who cannot meet these costs, the Victorian Government should set out how it will subsidise the upfront costs of this transition for people on low incomes.

Do you think any additional exemptions are required? Required

No

How important or unimportant do you feel it is that residential and commercial buildings move away from fossil fuels like gas and towards renewable electricity? Required

Important

What do you see as the most important driver for electrification of residential and commercial buildings? (tick all that apply) Required

- Reduce greenhouse gas emissions
- Provides a healthier home

What do you see as the main barriers to electrification of residential and commercial buildings? (tick all that apply) Required

- Personal preference for gas appliances
- Cost to replace appliances
- Other – Lack of consumer knowledge about the potential health harms of using gas appliances in the home

After reviewing the RIS, do you have any other general comments or questions about the proposal?

Asthma Australia would like to understand more about how the cost benefit analysis has been undertaken in relation to health gains. Specifically, we would like to know how health gains were calculated and what weightings were applied to them, as well as the other variables. Health should be a priority in relation to climate change policies given the detrimental impacts climate change has on human health. In addition, the costs of delaying swift and comprehensive action to reduce Victorian greenhouse gas emissions will only lead to additional costs for consumers, businesses and governments down the line and hence we would like to know how costs relating to such delays have been factored into the cost benefit analysis.

Finally, Asthma Australia supports holistic approaches to improving housing conditions. As set out in our Housing and Asthma Position Statement,[24] the housing features needed to reduce asthma risk and support broader health and wellbeing include adequate and appropriate ventilation, draught sealing, insulation, internal and external window shading and cooling and heating. Collectively, these measures are likely to improve air quality and support thermal comfort. While the transition away from gas is a critical part to improving home health, reducing consumer energy costs and mitigating climate change, it is important that the Victorian Government considers home health holistically.

For example, Victoria has yet to set out how it will transition away from wood heaters in its approach to electrification. Wood heaters are an inefficient and, for most users, expensive form of heating.[25] Wood heater smoke contains harmful pollutants including fine particulate matter and known carcinogens, with smoke polluting indoor air and the local neighbourhood.[26] Wood heater smoke can trigger asthma symptoms and flare-ups[27] and is also a risk factor for other respiratory illnesses, certain cancers, cardiovascular disease, premature birth and premature death.[28] In Victoria, the total health costs of wood heater smoke have been estimated at more than $8 billion over 10 years.[29] Each wood heater is estimated to cause more than $4,000 in annual health costs.[30] Asthma Australia therefore asks that the Victorian Government includes wood heater replacement in future electrification policies, as well regulatory improvements to home ventilation, draught sealing and cooling and heating measures. By doing so, the Victorian Government will optimise the gains to the health, energy-efficiency and climate-resilience of the Victorian housing stock.

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