NATIONAL HOUSING AND HOMELESSNESS PLAN

(SUBMISSION IN RESPONSE TO NATIONAL HOUSING AND HOMELESSNESS PLAN ISSUES PAPER)

Commonwealth Department of Social Services

Housingandhomelessnessplan@dss.gov.au

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2023 National Housing and Homelessness Plan

Australian Institute of Architects

INFORMATION ABOUT THE INSTITUTE

- The Australian Institute of Architects (Institute) is the peak body for the architectural profession in Australia. It is an independent, national member organisation with more than 14,500 members across Australia and overseas.
- The Institute's vision is: *Everyone benefits from good architecture*.
- The Institute's purpose is: *To demonstrate the value of architecture and support the profession.*
- At the time of this submission the National President is Stuart Tanner FRAIA and the Chief Executive Officer is Cameron Bruhn.

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The Australian Institute of Architects recognises the unceded sovereign lands and rights of Aboriginal and Torres Strait Islander peoples as the First Peoples of these lands and waters.
This recognition generates acknowledgement and respect for Aboriginal and Torres Strait Islander Countries, Cultures and Communities, and their ways of being, knowing and doing.
Caring for Country practices including architecture and place shaping have existed on this continent since time immemorial.

The Institute recognises a professional commitment to engage and act meaningfully through reciprocal partnership and relationships with Aboriginal and Torres Strait Islander peoples.
Together we will support and develop the emergence of new possibilities for our shared future.

About the cover photo

The Australian Institute of Architects' 2023 Victorian Architecture Awards. The Best Overend Award for Residential Architecture - Multiple Housing. Kerr Street Residences | Kerstin Thompson Architects | Photographer: Derek Swalwell

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1 INTRODUCTION

The Australian Institute of Architects (the Institute) welcomes the opportunity to provide its response and recommendations in response to the National Housing and Homelessness Plan Issues Paper.:

1.1 Background

The Institute has advocated for many years to both the federal and individual states and territories government on issues of social and affordable housing. The key issues have been:

- expanding supply and
- ensuring that good design is a key consideration of social and affordable housing

One of the six priorities of the Institute's 2022 Federal Election advocacy campaign, *A Time for Action,* was a broad recommendation to "Fix the supply of affordable and social housing".

The Institute re-stated this recommendation to the new government in the lead up to the October 2022 Federal Budget. This recommendation scoped:

- centralising and publishing data on all housing supply and consequently, setting minimum targets for supply for social and affordable housing, including the eradication of waitlists.
- establishing a national minimum standard for the implementation of inclusionary zoning in collaboration with State governments and provide incentives for State governments to implement that standard.
- setting appropriate standards to elevate housing quality, particularly in remote and regional areas, ensuring housing is fit for purpose, accessible and responsive to community and resident needs. This includes long-term maintenance programs.
- significantly increasing funding for social housing dwellings and additionally significantly increasing funding for co-designed new social housing residences for First Nations peoples to address the chronic underfunding and undersupply of housing for Australia's indigenous peoples.
- addressing the supply and ongoing maintenance of social housing as a long-term commitment rather than short term or one-off initiatives.

1.2 Response to this NHHP issues paper.

The NHHP issue paper is very broad in scope. The Institute is responding in this submission to selected questions from the focus areas. Our enumeration for the headings and subheadings does not follow those in the issues paper as this submission requires its own table of contents and numbering system. However, for each secondary numbered subheading we have replicated the question as it appears in the issues paper with its question number from the issues paper.

We also note that a separate paper is being lodged by the Institute's Tasmanian Chapter which addresses issues and recommendations specific to that state.

2 RESPONSE TO SELECTED FOCUS AREA QUESTIONS

2.1 ABORIGINAL AND TORRES STRAIT ISLANDER HOUSING

2.1.1 Cultural, social and economic factors to improve housing outcomes

Aboriginal and Torres Strait Islander Housing Q1. What are the main cultural, social and economic factors that must be considered by governments and providers (including ATSICCHOs) when considering how to improve housing outcomes for Aboriginal and Torres Strait Islander people?

Despite commitments from various state, territory and federal governments, the standard of Indigenous housing and essential infrastructure remains well below that available to the non-Indigenous population. As well as building more culturally appropriate housing for First Nations communities, and better maintaining existing stock, housing decisions must reside with local communities and job creation must be valued equally to timely and economic delivery. Architects can make a significant contribution to these priorities.

The Institute proposes the following:

- A strong Indigenous voice in the creation of housing policy for First Nations communities, to ensure community ownership of the decisions that affect their lives.
- Meaningful community decision-making power in the procurement of housing, to ensure the best fit for purpose outcomes, and to obtain community benefit beyond the immediate goal of basic housing.
- Management of construction stages of housing delivery so that Indigenous employment and training are equal outcomes to economic and timely delivery.
- An acknowledgement of the social determinants of health and the role that housing plays in fostering educational attainment, employment opportunities and general well-being.
- Effective and timely maintenance of housing, using local resources, to minimise overcrowding by keeping more houses available for occupation.
- The use of architects in the housing design, documentation and construction, to ensure that the design intent and detailing is delivered.
- Development of a diversity of dwelling types and tenancy options to meet the needs of a culturally diverse population and to provide economic options to First Nations communities that are available to the non-Indigenous population.
- Evaluations of the housing process, including post occupancy evaluations of the final product following occupation, to ensure that policies, designs and processes can be improved.
- Management of the construction stages of housing delivery so that quality construction is an equal outcome to economic and timely delivery, to provide First Nations communities with housing of equal quality to the non-Indigenous population, and to create a robust housing stock that requires minimal maintenance.

2.2 SOCIAL HOUSING

2.2.1 Social housing that will meet tenants' and communities' needs.

***Social Housing Q3: How can governments ensure social housing is built in the right location (including close to amenities, environmental, socio-economic, current and future hazard risk and cultural factors) and will meet current and future needs of social housing tenants and the broader community*?**

As a broad principle, governments need to ensure that the same minimum standards and expectations are applied to social housing as they are to any other form of housing.

Location

We note the trend reported in the issues paper towards an increasing representation of households in social housing who have significant indicators of socio-economic disadvantage. Therefore, proximity to employment, health and education services, community amenities, and core retail needs, as well as accessible modes of public transport, can maximise social and economic inclusion opportunities.

However, being part of the community requires more than just being close to such services, it means being an equal part of the community. Social housing should not be built isolated from the wider community, rather, it should be designed from the outset as integrated within the community. One way to achieve this is through the use of "inclusionary zoning".

The Australian Housing and Urban Research Institute (AHURI) defines Inclusionary zoning as

> *"land use planning intervention by government that either mandates or creates incentives so that a proportion of a residential development includes a number of affordable housing dwellings."*[1]

Experience and data such as the Australian Bureau of Statistics' Social and Economic Indexes for Australia have repeatedly demonstrated that low-income households can be trapped in poverty on the urban fringe, poorly serviced by public transport and a long way from jobs, and therefore may be dependent on the use of private vehicles placing further and substantial strain on household budgets. Added to this experience of financial disadvantage and economic exclusion can also be a population burden of negative health outcomes.

While having a roof over a head is a priority, the Institute believes that what is required is not any housing but quality housing. Inclusive, quality and affordable housing are not mutually exclusive ideas. The glue that binds them is good design.

The benefits of inclusionary zoning are well documented. A recent AHURI report found that the wider benefits associated with private sector participation in social and affordable housing included[2]:

- the opportunity to support skills and capacity building across the housing industry;
- improved environmental outcomes in residential housing stock, including social and affordable housing; and
- local employment and training opportunities.

Inclusionary zoning is not a new concept and can be traced back to 1950's in the US and has a relative strong presence in the UK and Europe. In the UK S 106 Agreements require buildings over a certain size to include social and affordable housing. Around 26,000 affordable homes of various types—were

[1] *What is Inclusionary zoning, and how does it help deliver affordable housing* AHURI https://www.ahuri.edu.au/analysis/brief/what-inclusionary-zoning-and-how-does-it-help-deliver-affordable-housing#:~:text=The%20benefits%20of%20inclusionary%20zoning,rents%20might%20be%20otherwise%20prohibitive

[2] *Private sector involvement in social and affordable housing* AHURI https://www.ahuri.edu.au/sites/default/files/documents/2022-10/PES-388-Stimulating-private-sector-involvement-in-social-and-affordable-housing.pdf

completed in the 2021–2022 year[3], making up around 44 per cent of the just under 60,000 affordable homes built in UK that year.

While it would be best if inclusionary zoning were done on a voluntary basis, research shows that even with government financial assistance, developers tend to shy away from inclusionary zoning. In large part because of concerns other buyers have about social housing and the potential impact on property values. The Institute's position is that a minimum of 15% social housing being mandated through inclusionary zoning requirements. Therefore, to be effective, inclusionary zoning requires a degree of government compulsion.[4]

Forms of government support for inclusionary zoning are wide and include:

- capital grants
- operating/service/rental subsidy
- government-backed bonds
- land lease or transfer (long-term "peppercorn" rents)
- inclusionary planning incentives such as increased FSR & building heights
- tax subsidy/concession
- investment direction to superannuation and other large-scale financial investors
- directions to government investment funds such as Future Fund

The Institute recommends the governments work with developers and groups such as AHURI to develop the most appropriate forms of support to bring about mandatory inclusionary zoning. Any Commonwealth financial assistance to housing, should, therefore, be directly tied to commitments to minimum social and affordable housing percentages.

Design and Materials

Social housing should not be seen as a secondary class of housing where lower standards on quality and basic amenities are accepted. Poor design and materials will lead to social housing that does not meet current or future needs of tenants. Poor housing is also linked to poor financial and health outcomes for tenants. This means that minimum requirements in relation to quality, room size, energy efficiency and accessibility must be maintained.

The costs of poor design and materials is often ignored, with a focus solely on upfront costs. However, this will not only deliver housing that does not meet current or future needs but also that is more costly in the long run. These negative costs of poor design and material can be broken down into:

- costs of rectification and maintenance
- costs of heating and cooling
- future costs of retrofitting housing suitable to our worsening climate (as compared to building now for that future)
- poor health outcomes (and increased health costs to government)

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[3] *Affordable housing supply in England: 2021 to 2022* Department for Levelling Up, Housing & Communities UK Government https://www.gov.uk/government/statistics/affordable-housing-supply-in-england-2021-to-2022/affordable-housing-supply-in-england-2021-to-2022

[4] Private sector involvement in social and affordable housing AHURI https://www.ahuri.edu.au/sites/default/files/documents/2022-10/PES-388-Stimulating-private-sector-involvement-in-social-and-affordable-housing.pdf

Rectification costs of poor social housing builds

Rectification of poor-quality work and materials must also be considered. Equity Economics has projected that as a result of poor construction of apartments between 2009 to 2018, the expected rectification costs to building owners, state, territory and federal governments will be approximately $6.2 billion.[5] If lowest-quality construction is permitted in future social housing, the costs of such rectifications will likely fall on the Federal Government either directly or through increased payments to social housing groups.

Energy costs and other impacts of social housing not designed for our environment

Another false economy would be to, as some have suggested, reduce the energy rating and climate adaptability of social housing. To do so would not only treat those living in social housing as second-class citizens deserving of a lower standard of living but would also increase the costs to the government in terms of energy subsidies, health outcomes and the long-term value of the housing.

Federal and state governments each provide millions annually towards assisting those on low incomes with their additional energy cost burdens. These costs will only increase over time. Addressing energy efficiency in social housing will over time, reduce this burden.

AHURI has found that "exposure to energy hardship is particularly likely when vulnerable people live in dwellings that are in poor condition."[6] AHURI recommended that "setting minimum standards for the energy performance of rental properties is a critical starting point". It further recommended mandating the disclosure of the thermal performance of rental properties prior to establishing tenancy agreements. The Institute supports both these measures and believes they should be mandated for all social and affordable housing that is funded or supported by the Commonwealth.

The Institute's responses to the issues paper's Focus Area 3.7 sets out the importance of ensuring social housing is built according to high environmental standards. In short, making housing suitable for our future climate ensures:

- any increases in upfront costs are minimal and are offset by savings in heating and cooling costs over the life of the building (the government usually subsidises such energy costs in social housing through welfare transfers).
- reduces the risk of social housing becoming uninsurable.
- reduces the costs of future upgrades to ensure social housing is fit for the needs of our climate.

Health impacts of poor social housing design

In relation to health, International and Australian research has shown that poor housing leads to poor health outcomes. This comes in the form of greater visits to the hospital for conditions like hypothermia, mental health and suicide services and other chronic health conditions. According to the Australian Institute of Health and Welfare (AIHW)[7]:

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[5] The cost of building defects: Economic modelling of the cost of building defects in apartments across Australia Equity Economics, 2018

[6] *Warm, cool and energy-affordable housing policy solutions for low-income renters* AHURI https://www.ahuri.edu.au/sites/default/files/migration/documents/AHURI-Final-Report-338-Warm-cool-and-energy-affordable-housing-policy-solutions-for-low-income-renters.pdf

[7] Housing affordability Australian Institute of Health and Welfare https://www.aihw.gov.au/reports/australias-welfare/housing-affordability

Access to good quality, affordable housing is fundamental to wellbeing. It can help reduce poverty and enhance equality of opportunity, social inclusion and mobility

Professor Adrian Barnett of the Queensland University of Technology has researched deaths caused by poor insulation in Australia and has found Australia's death rate due to cold weather, which at 6.5% is almost double that of Sweden's at 3.9% is nearly all attributable to poorly designed and insulated housing. While people generally think of extremes of heat and cold as the lead causes of such deaths, according to *The Lancet*, almost 90% of deaths linked to poor house insulation, are on days of moderate hot or cold days[8]. It is the impact on chronic health issues such as respiratory and cardio-vascular diseases that often leads to these deaths and increased visits to hospital.

A review of 27 studies suggested that overall housing quality is positively correlated with psychological wellbeing, although issues that may affect this relationship include identity/self-esteem, anxiety about structural hazards or a fear of crime.[9]

Why social housing must be designed with accessibility at forefront

Given the higher prevalence of those requiring social housing and those requiring accessibility support, it also does not make sense to reduce the requirements on accessibility for social housing. According to the Australian Institute of Health and Welfare, 141,000 social housing households (around 39% of such households) have at least one resident living with a disability. [10] This is compared to around 20% of the population considered to be living with a disability.

It should also be realised that accessibility in housing not only relates to those living with a current disability but also the fact that as we age, mobility and accessibility become a bigger issue. A reason some people move into residential aged care is because their homes are no longer accessible. However, moving home can cause stress and loss of social connection.

Keeping people in their own homes longer (ageing in place) is the preferred option, where practical and is a well-recognised Australian Government policy that underpins programs such as the Commonwealth's Home Support Program and Consumer-directed Home Care Packages. Successful ageing in place requires housing to be accessible. With retirees making up 20%[11] of those in social housing (and likely to increase further), social housing must be designed such that it is either accessible now or can be made accessible with minimal modification.

The role of the architect in creating responsive housing – good design.

A common public perception of good design is one simply associated with architectural excellence or the aesthetic appeal of a home. However good design entails much more in-depth consideration of human

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[8] *Mortality risk attributable to high and low ambient temperature: a multicountry observational study* The Lancet, 2015; 386: 369–75 https://www.thelancet.com/pdfs/journals/lancet/PIIS0140-6736(14)62114-0.pdf

[9] Evans, G., Wells, N., & Moch, A. (2003). *Housing and mental health: A review of the evidence and a methodological and conceptual critique*. Journal of Social Issues, 59(3), 475-500.

[10] *People with disability in Australia*, Australian Institute of Health and Welfare https://www.aihw.gov.au/reports/disability/people-with-disability-in-australia/contents/housing/housing-assistance

[11] *Older Australians: Housing and Living Arrangements* Australian Institute of Health and Welfare https://www.aihw.gov.au/reports/older-people/older-australians/contents/housing-and-living-arrangements

and social need - about understanding space, location and how to achieve good outcomes within budget constraints.

Good design can enable social housing to be responsive to current and future population needs as highlighted above. Good design should, therefore, be a feature of social housing, not an afterthought.

Examples of design considerations include:

- urban design considerations at a precinct level:
  - inclusionary zoning,
  - appropriate density
  - accessibility to the jobs, health and education services, community and cultural amenities, core retail needs, and accessible modes of public transport

- sustainability and durability:
  - high energy efficiency underpinned by design features including orientation to maximise natural light and the thermal performance of the building envelope to:
    - reduce operational carbon emissions and resulting climate impact,
    - reduce energy costs to tenants (and government energy support payments)
    - keep people comfortable and well protected from climate extremes

  - using of quality materials that are durable and low cost to maintain. Longer commissionable life of appropriate materials and dwellings also reduces their annual carbon cost in terms of embodied carbon.

- creating homes not just housing:
  - an arrival sequence that prioritises the pedestrian experience of coming home and that concludes with a front door experience that feels like a threshold to someone's home.
  - dimensions to sensibly allow furniture to be set out and rooms to be used efficiently.
  - adequate storage

2.2.2 Improving tenant outcomes and sector efficiency and effectiveness

Social Housing Q5: What changes can be made to the current social housing system to improve outcomes for tenants and/or improve the efficiency and effectiveness of the social housing sector?

Direct Government financing of Social Housing

Australia sits in the middle of OECD countries when it comes to the provision of all forms of government housing such as defence housing. However our social housing sits at or below 4%, compared to the OECD average of 7%. Not only does Australia's percentage of social housing sit below the average, but it has also continued decline for the past decade. According to the Grattan Institute:

> *The stock of social housing–currently about 430,000 dwellings–has barely grown in 20 years, while the population has increased by 33 per cent by 41 per cent and about 6 per cent of housing in Australia in 1991. It's now less than 4 percent.*

The Federal Government has moved away from the direct provision of social housing and has preferred to adopt a market-based approach that is focused on subsidies from private rental stock through the *Commonwealth Rent Assistance* program. The Productivity Commission noted that at $5.3bn "CRA is the largest single housing assistance program" but noted that it was poorly targeted and that in a situation of lack of housing stock, the government competes to bid up the price of private renting.

The Productivity Commission noted that there was a need to increase housing stock directly saying *"…housing would be more affordable if more homes had been built…"* and noted that an increase in the supply of housing in Auckland had the impact of ensuring that rental cost increases in that city were significantly lower than others in New Zealand.

However, leaving it to the private sector to provide all or the majority of social housing is unlikely to provide the number and quality of social housing required. The return on investment in housing to attain financing is high, with banks and financiers looking for security of in order to get the necessary funding[12]. With many builders surviving on returns of under 2%, this is seen as high risk.

Financiers require significant comfort to finance housing and will look for the following in assessing a financing request by a large builder for a housing development:

- A developer can demonstrate a track record.
- The financier is confident that there is a market for a product.
- The project has a high probability of generating an acceptable level of profit.
- The project provides low risk to a financial institution

Given the increase in the number of bankruptcies of builders in Australia due to rising costs, supply chain issues and inflexible building contracts, it is even harder to get financing now than in the past.

This "financing gap" has been long recognised as a major impediment to getting the private sector to fund social and affordable housing without government support/subsidies[13]. This will almost be impossible to attain with social housing, and where social housing is provided as part of inclusionary zoning, this requires significant cost subsidisation by the remaining unit stock.

However, the federal government can access funding at significantly cheaper rates than the private sector. The Federal government should accept that there are significant non-financial, as well as indirect financial advantages for the government that are not factorable by the private sector as justification for intervention in the financial market for housing.

This is not to say the government should become a direct financial competitor in all housing, rather, that it has a role to step in as prime financier where housing is necessary but financial returns are not sufficient to generate the necessary private funding.

It should also be noted that direct government investment in social housing is a more cost-effective solution than alternatives such as direct homelessness intervention. An AHURI study from 2021 found that "median costs of health, justice and welfare for tenants in community housing at around $28,700 per annum and similar costs for those who were homeless at around $44,000." It also found that "…for every dollar the government spends on a new house that is low cost, the government would recoup 57 cents through benefits in welfare offsets".

There are a number of ways the Federal government can act to assist in providing such funding. These include:

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[12] *The financing of residential development in Australia* – AHURI 2014 - https://www.ahuri.edu.au/sites/default/files/migration/documents/AHURI_Final_Report_No219_The-financing-of-residential-development-in-Australia.pdf

[13] *Innovative Financing Models to Improve the Supply of Affordable Housing* - Affordable Housing Working Group Report to Heads of Treasuries. 2016 The Treasury. https://treasury.gov.au/sites/default/files/2019-03/C2016-050_Final_report.pdf

- providing government backed housing bBonds at rates lower than the private sector
- increased direct funding for housing, such as Housing Australia Fund
- federal government - potentially in conjunction with state and social housing groups -directly purchasing "off the plan" social housing units within an inclusionary zoned housing development – this would assist in getting financing as financiers will not perceive the social housing as being a lag on purchases
- mandate minimum investment in social housing by APRA regulated superannuation funds (current superannuation balances in these sectors are around $2.5 trillion, a 1% requirement would provide around $25bn in social and affordable housing financing)
- long-term lease agreements for social housing stock within build to rent (BtR)
- subsidy payment per social housing unit in an inclusionary zoned or BtR development, based on location
- peppercorn rents on government land redeveloped into social and affordable housing

The sheer scale of the necessary funding to meet the governments ambitious plans means that reliance solely on the private sector will not be enough and may divert private sector investment away from other areas where it is creates other social and economic returns. Therefore, the Commonwealth Government should not be reluctant to accepting its responsibility for providing a large portion of this funding itself. In the end, government spending commitments are not about what is feasible but what the government believes are the priority in providing funding. Over the past five years social and affordable housing has emerged to become of the most significant domestic issues for a broad cross-section of the Australian community.

Good design

As noted in our answer to response to the focus area of Aboriginal and Torres Strait Islander Housing above, one significant change the government can bring about in social housing is to ensure that such housing is well-designed and built. While there is a need to get housing built quickly, the downside of doing so is the threat that corners will be cut and that developers and builders will demand reductions in quality and amenity in return for cheaper social housing. Not only are such calls for reductions in quality and amenity counterproductive from a long-term cost basis, but they will also ensure future problems are amplified.

Good design means ongoing costs will be lower, the need to rebuild or refurbish will be reduced and costs of health and other support will likely be lower.. In terms of non-asset economic returns, social housing should be designed to be a pathway out of government support. It should provide that level of security that recipient can invest in their own and their children's education and training. It should be located where there are jobs rather than where land is cheap because there are few jobs.

2.2.3 Social Housing Stock

Social Housing Q10: How can governments and their partners best grow social housing stock?

There are a range of options open to the government to increase housing stock, these include:

- incentives to builders to develop or include social housing in developments
- direct financial support to builders for each social or affordable housing provided (dependent on location and other factors)
- direct provision of housing through purchase of off-the-plan units in BtR or other housing developments, purchase of existing units to be owned by government or transferred to community housing groups.
- using the financial power of Fed Government to borrow at affordable rates to build housing

- support for new manufacturing capacity, particularly in relation to modular and prebuilt housing through;
    - acting as the buyer for such products
    - providing financial support for buying and importing machinery necessary to develop the industry in Australia
- provide government land on long-term lease at below-market/peppercorn rates
- focus on support for social and affordable housing and remove support for other forms of residential funding. The private sector can do this.
- remove the First Home Buyers grant and redirect it into direct social housing

For further detail we refer you to our comments above under Direct Government financing of Social Housing.

2.3 THE IMPORTANCE OF PLANNING, ZONING AND DEVELOPMENT

2.3.1 Impact of planning on supply affordability and diversity

Planning, zoning and development Q.1: To what extent is the supply, affordability and diversity of houses affected by planning and zoning regulations and administrative processes?

While planning is often identified as a significant impediment to housing supply and diversity, its impact is often overstated by those seeking to remove necessary building standards and controls that ensure homes are liveable, suitable for our climate and are designed to meet the needs of residents. Therefore, the Institute warns that simplistic approaches to planning reforms should be ignored, particularly where they are focused on reducing quality outcomes.

For example, the Institute has seen recommendations by some proponents that standards of energy efficiency, accessibility and climate adaptability should be removed or reduced for social and affordable housing to reduce the costs of constructing such housing. As considered in the preceding section of this submission, the Institute has set out the clear argument and evidence that removing such requirements will:

- Treat those requiring social and affordable housing as second-class citizens
- Increase the lifetime costs to residents and governments through higher energy costs, need for costly rectification at later dates and the health costs of poor housing and the impact this has on individuals and government.

Planning may unnecessarily impede housing supply, affordability and diversity where it does not provide sufficient flexibility for new designs and ideas that have not been traditionally used or previously approved. New technology and materials often advance faster than planning controls. This can lead to avoiding innovation and repetitive “cookie-cutter” design responses. This in-turn limits the evolution of better housing outcomes.

The solution to ensure innovation, high standards, and lower costs are achieved is to use Design Review Panels (DRPs) to review medium and high-density housing proposals. DRPs are made up of experts who can quickly assess a design and determine whether it meets not just guidelines but the needs of tenants. While this may seem like adding an additional layer of regulation, it often leads to quicker decisions because the expertise on such DRP can quickly assess designs and make recommendations to ensure high standards are applied. It is certainly more timely and less costly than the adversarial processes of administrative tribunals.

The best means to ensure better planning is to make sure it is overseen by experts with minimal to no political interference, whether at local government, state or federal government levels. Such experts are better equipped to deal with the complexities and to make decisions.

2.3.2 Increasing the supply of land through planning

Planning, zoning and development Q.2: How can planning and zoning regulations effectively increase the supply of land in well-located areas taking into consideration current and future hazard risk?

Governments at all levels should be encouraged to work together to identify potential land that can be quickly repurposed to provide housing in an efficient and effective manner, particularly where this is located close to jobs, health and education and public transport.

The Institute recommends achieving this by:

- developing comprehensive strategies to identify potential underutilised land
- state governments and local government authorities (LGAs) working together to develop a database of underutilised land for each LGA, such as
    - federal/state/council land
    - unused schools, railway land, military land
    - underutlised religious and charities land
    - empty or underutilised commercial and industrial zones & golf courses
    - airspace - commercial zones to become multi-use/residential above shops/carparks/rail corridors
- reviewing existing planning and building codes to ensure they provide the flexibility to provide housing in these types of locations, in particular, the adoption of multi-use zoning such that commercial and housing can be more easily co-located.
- reviewing minimum lot sizes with local councils to ensure infill sites are potentially more viable

To encourage repurposing of land, a range of measures should be evaluated:

- financial or other incentives
- peppercorn rents in exchange for social and affordable housing
- the operation of re-zoning laws and administrative processes
- bringing together groups of stakeholders such as landowners, traditional-owners, financiers, developers, planners, urban designers, architects and builders and others to develop solutions
- government support for rehabilitation of land suitable for building if used for housing
- mandatory densification requirements for LGA's

2.3.3 Governments working to respond to housing demand

Planning, zoning and development Q.3: How can governments work together to be more responsive and flexible to housing demand pressures, both now and in the future?

Governments of different levels can work together by creating co-ordination committees or working groups (or other formal networks) that allows each to sit down to analyse the issues, propose reforms and identify means of reducing blockages in the system.

Governments at all levels can also provide more freedom and less political interference, if professional planners are used to assess development proposals. Where problems arise or there is a need to resolve issues, the use of Design Review Panels should be used in place of council or other interference.

2.3.4 Role of state and local governments in improving supply and affordability

Planning, zoning and development Q.4: What is the role of state and local governments in the improvement of speed and/or transparency of development assessment processes to help improve supply of housing and the affordability of homes?

As noted above, the most effective means to address speed and reduce delays is to ensure that the professionals undertaking planning decisions are properly resourced and have the expertise to make such decisions. Impediments to their work from all levels of government should be minimised. Conflicts should be dealt with through Design Review Panels.

All levels of government, as noted above, can also better identify land that can be quickly converted to housing. Fast-track planning can be used where certain prescribed parameters are met such as height limits, energy efficiency, size of building envelope, appropriate set-backs, open space and planting /greenspace provisions are met. Only where proposals are outside those defined parameters should further scrutiny of planning be required.

2.3.5 Addressing communities' concerns efficiently

Planning, zoning and development Q.5: How can the development assessment process address community concerns, so the length of appeals processes is minimised, and developers have an efficient path to resolve issues and gain approval?

Fast-tracked planning that meets pre-agreed requirements should have limited appeal rights. Appeals should be limited to technical requirements. Any appeal against approval should be subject to upfront fees to reduce nuisance appeals and be limited to those directly impacted.

2.4 THE IMPACT OF CLIMATE CHANGE AND DISASTERS ON HOUSING SECURITY, SUSTAINABILITY AND HEALTH

2.4.1 Better supporting individuals affected by climate related hazards

***Impact of climate change and disasters Q.1: How can governments improve housing and accommodation service coordination to better support individuals affected by hazards*?**

Background information:

The Australian Federal Government's National Energy Performance Strategy (NEPS) downpayment included an Energy Savings Package of $1.3 billion (Household Energy Upgrades Fund) consisting of:

- $1 billion from the Clean Energy Finance Corporation for home upgrades that save energy
- $300 million to support upgrades to social housing; and $36.7 million to develop further initiatives to improve energy performance.

Whilst this is a welcome step in the provision for existing homes to address increased energy efficiency and marginally improve the thermal performance of homes, it is largely well outside the requirements needed for mitigating the long-term risk climate change poses to the economy and individuals.

In 2020 Australia ranked in the top ten for countries with significant economic losses from climate related disasters[14] and which time, there was a large prevalence of losses resulting from bushfires in 2008 and 2019, and flooding in 2010 and 2023. In Australia, the increased severity and frequency of natural disasters such as 'hurricanes, floods, bushfires, and droughts[15]' have further exacerbated the housing crisis and impacted economic recovery. Several years after these events, people and communities are still be affected in terms of their mental, social and emotional health.

[14] The Lancet: Planetary Health: Li, A, Toll, M & Bentley, R. (2023) Health and housing consequences of climate-related disasters: a matched case-control study using population-based longitudinal data in Australia.
[15] Habitat for Humanity Australia (2023) Five ways Climate Change Impacts Housing Insecurity.

It was found in a four-year Australian study (1y pre-hazard and 3y post-hazard), that compared two scenarios between those not experiencing and those experiencing the effects of disasters:

- Mental health, social functioning and emotional wellbeing were all effected in the event year and possibly 1-2 years thereafter.
- Effects were greater in comparison for those who were already experiencing housing stresses and social inequity.
- People residing in poor quality housing in less social equitable locations, experienced more severe adverse wellbeing impacts than those in higher quality social housing.
- Renters, those who completely lost their home or those with insecurity of housing, experienced higher impact from the disaster and were more likely to also need to move[16].

The study also identified the household profile noting the differences in equity including affordability based on similar income, fuel poverty, residential stability (i.e., renting) and the quality of the house[17].

2.4.2 Government support for hazard resilient housing and modifications

Impact of climate change and disasters Q.2: How can governments support hazard resilient housing and housing modifications for new and existing housing, within rural and remote locations that are more likely to be impacted by extreme weather events?

Rural communities face unique issues of both climate and remoteness from services that are different from those in urban centres. Even then, within rural communities there are wide differences in climatic conditions due to vastness of the Australian land mass and the southerness of Tasmania. Rural communities are generally more remote from health services, which often experience increases in demand associated with weather extremes. This remoteness from medical assistance makes it even more important that rural homes are properly designed for their localised climates, not just now, but for the climate they will face in the future.

In urban settings, extreme weather event relief can often be sought in commercial businesses such as shopping centres, cinemas and gaming venues, which provide a high level of air conditioning or heating. Rural communities often lack ready access to equivalent buildings and are thus, again, more dependent on their own home to provide relief from weather extremes.

In addition to daytime temperature extremes, there is also significant night-time radiation in some remote and rural arid regions, such as near the South Australian hydrogen and 'green steelworks' investment[18]. In simple terms, this night-time radiation occurs with clear skies overnight and radiation increasing the amount of surface temperature lost at night to the sky on non-porous materials, which makes surfaces cooler than the air temperature. On clear winter nights, building surfaces will become dew laden. This night-time chill will often require more heating inside to keep warm due to the occurrence of longer, extreme weather events. This then creates a condensation risk, which diminishes the overall ability of the building to self-regulate between 18-22 degrees[19].

[16] The Lancet: Planetary Health: Li, A, Toll, M & Bentley, R. (2023) Health and housing consequences of climate-related distasters: a matched case-control study using population-based longitudinal data in Australia.
[17] Daniel, L, Baker, E, Beer, A. Bentley, R. (2023) Australian rental housing standards: institutional shifts to reprioritize the housing-health nexus
[18] SA Government Data for climate change scenario modelling
[19] World Health Organisation (2018) WHO Housing and Health Guidelines

There is a need, therefore, in rural and remote areas to adopt a construction method that addresses particular climatic needs. In particular, construction methods and materials need to keep any condensation outside of the external weatherproof membrane and make the insulation, interstitial and interior surfaces more airtight. Alternatively, natural fibre methods such as strawbale and hemp, which are self-regulating, can achieve the same effect.

An architectural home in Victoria by Envirotecture called the 'Huff'n'Puff House'[20] uses such construction methods and provides climate resilience through using prefabricated strawbale panels. The walls are clad and ventilated externally, are bushfire and acute weather resistant, and the indoors has been made airtight using render to achieve a Passivhaus certification[21].

Prefabrication of homes or walls and other parts of a home, can, when done to proper standards of quality, design and material, provide a shortcut means of ensuring new housing is properly adapted to climatic needs. Such prefabricated homes can provide "refuge rooms" where occupants can escape the extremities within a more confined and energy-efficient room of the house.

The shortage of skilled workers and access to materials is felt even more in rural communities. Access to prefabricated homes or parts of a home could help to overcome some of these difficulties. Pre-built homes are not new to Australia nor regional areas. Even in the 19th century, prefabricated kit homes were popular for their relative cheapness and ease of building. A return to such building methods, though with a focus on quality and high material and environmental standards, could be one of the means to address how we make regional homes more prepared for our harsher climates.

The Federal Government can assist in this process through:

- being a builder of regional social and affordable housing and using that purchasing power to support pre-built homes and modular designs.
- Reducing any import tariffs and other impediments to the importing of machinery that is required to make such homes and parts of homes more efficient and of a higher
- setting high standards for environmental standards and climate adaptability, which could spur demand for such types of housing

Vegetation can also play a big part in ensuring housing can remain naturally cool in summer and warm in winter. Ensuring rural homes are built to take advantage of their natural surroundings will provide a cost-effective means of minimising the weather and climate pressures on rural households. The government should insist on high levels of natural cooling and temperature through design rules in regional areas that require taking into account natural surroundings to help achieve energy efficient and comfortable homes with low reliance on mechanical intervention (air-condition and heating).

2.4.3 Government encouragement for energy efficient modifications and design

Impact of climate change and disasters Q.3: How can governments better encourage the uptake of energy efficient housing modifications and design?

The government needs to transition its approach for decarbonisation of the economy from silos of energy and the built environment. Instead, positioning housing as a means to support and enable the economy to transition sectors such as manufacturing earlier than 2030. Energy efficiency improvements

[20] Passivhaus Institute of Australia Database (2023) Huff n Puff House
[21] Passivhaus Database (2023) Huff'n'puff House, Envirotecture

can result in NatHERS Star ratings, or energy efficiency, by using insulation materials appropriate for climate conditions.

Unfortunately, Australia largely still builds from its European roots in response to the cold and mild settled climatic conditions of Europe. Instead, our homes require designs and materials that respond to our heat and cold and very divergent climatic conditions.

For example, certain natural fibre insulation significantly increases star ratings by taking advantage of their ability to provide longer times for the acute heat and cool conditions to get to the inside of the building. This lowers operational emissions, while also holding lower embodied carbon thereby helping to improve the decarbonisation of the insulation manufacturing industry. The materials have provided positive outcomes for the United Kingdom[22].

The Government can encourage the uptake of energy efficient housing modifications by:

- taking a 'building fabric first' approach, to store heat and coolth, prior to adopting alternative mechanical interventions.
- promoting insulation designed for the relevant local climate including;
    - natural fibre insulation like hemp, cork, woodfibre, straw for our hot climate zones
    - the use of EPS, XPS and the typical lightweight foam insulations, for our cooler climate zones,
    - more airtight building and mechanical ventilation requirements to address to the frequency of rain and humidity in wet and cold climate zones
    - analysis to determine if construction in Australia's most hot and arid regions, benefits from a continuous layer of insulation outside of the structural layer or whether alternatives should be available in those zones to avoid overuse of air-conditioning or overheating.

Governments can do more to support local manufacturing of building materials that both reduce carbon miles and ensure products are properly designed and used for our specific climatic needs and different climate zones. This could include support to use by-products of other construction elements so that there are efficiencies in logistics, manufacturing and the circular economy to reduce emissions further.

If the government supports such sectors based on their appropriateness for the climate risk Australia faces, there are considerations for which materials are fossil fuel-based and need to be phased out of use in favour of 100% renewable and natural fibre-based products.

The Institute also supports sector-wide education supporting consumer-driven demand. The GEER Report notes enablers for energy efficiency uptake are:

- disclosure of energy ratings and energy costs;
- providing internal upgrades such as LED lighting;
- and education with rates notices on improvement pathways for rental/owner accommodation.[23].

In South Australia's regional districts, Adapt West has introduced a free platform that predicts the NatHERS star ratings for homes (energy efficiency). Using artificial intelligence, it provides owners,

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[22] Wood Knowledge Wales (2023)Why invest in woodfibre insulation manufacturing in Wales | Policy Briefing - Woodknowledge Wales

[23] GEER (2017) /Driving-Change-What-caused-low-income-consumers-to-change-behaviour.pdf

tradespeople and others with a quick means to assess the actual energy efficiency of an existing home for sale or rent. Within the first few months this system provided:

- 8,029 predictions
- 1,999 optimisations
- 9,811 virtual tours
- 214 reports generated

This indicates there is strong interest and need for such tools and the federal government should consider supporting similar platforms on a national basis.

2.4.4 Supporting people displaced by climate disasters

Impact of climate change and disasters Q.4: How can housing policies and programs support people who have been displaced due to climate disasters?

As previously suggested for regional areas, greater use of prefabricated houses, modular designs and building materials that can be built offsite to high standards in factories can more quickly helping re-house people displaced due to climate disasters. The use of Design for Manufacture and Assembly (DfMA) can provide a number of advantages over tradition house building:

- Manufacturing offsite is not impacted by rain, heat or wind which can cause significant downtime for traditional builds
- It uses a different labour force that is more readily available. Traditional builders are in short supply and competition for workers is intense, particularly because large, construction workers are drawn into other building types away from residential dwellings. This labour shortage is even more acute in regional areas and those areas requiring rabid rebuilding of homes.
- Quality can be better controlled through quality assurance done in-house and the use of precision machinery. On site building quality can be difficult to control, as can the substitution of materials of lesser quality and durability.

However, developing such an industry requires significant upfront capital and the importation of expensive machinery, often from countries with a long history of large scale precision manufacturing such as Germany and Japan, and where such processes are well established, and the industry already exists.

In the traditional chicken and egg quandary, the high upfront cost requires a large secure market to warrant the expense and secure funding. However, until people see how this housing works, they will be reluctant to demand such housing. The poor quality of demountable housing has also likely created a poor attitude to such housing. However, in some housing markets such techniques and homes are well known and in high demand. In Germany, for example, over 30% of existing housing is prefabricated or modular factory-built.

To ensure that financiers will provide funding for the importation of such machines, governments can act as the initial buyer of such products. Governments can support the development of this industry by procuring offsite manufactured housing and providing it quickly and affordably (while still at a profit to government) to provide immediate housing relief in such climate disaster affected communities.

Impact of climate change and disasters Q.5: What options should be explored for improving the energy efficiency of rental properties?

Healthy Homes for Renters have publicly shared their Community Sector Blueprint which provides the characteristics for homes that support energy efficiency and achieve minimum standards[24] in the transition of the sector to net-zero by 2050. This can help ensure governments reach their targets to meet the Paris Agreement.

The Australian Federal Government has identified the need for existing housing energy efficiency upgrades for rental properties in their Housing Australia Future Fund. Homeowners would be supported through incentives for improvements in their 'operational energy efficiency' to keep homes 'warmer in winter and cooler in summer.[25]', Efficiency measures include:

- battery-ready solar panels and inverters
- modern energy efficient appliances
- double glazed windows
- insulation

However, such programs have the potential to replicate the failures of the 'pink batts insulation scheme'[26] if not executed with the lessons from that as well as similar reviews of programs in New Zealand[27] and United Kingdom.

The Institute recommends further specific controls to be included in the Housing Australia Future Fund to cover all buildings but with considerable focus on the 11 million existing houses that will need some sort of upgrade.

There are several attributes commonly associated with renting that increase the risk of poor housing and energy efficiency. Findings in a New Zealand BRANZ study noted some of these attributes:

- lack of access to adequate drying facilities, and subsequently drying clothes inside.
- broken/blocked mechanical ventilation due to low maintenance
- lack of understanding about extraction of steam from showers
- overcrowding and higher number of occupants than bedrooms, creating greater relative humidity inside, especially during winter when windows are closed
- increase in dust and particles inside the home that provide a host for mould spores to grow due to poor airtightness and building sealing.

Broader considerations that need to be addressed for rental households are:

1. **Determining whether Australia is going to align energy efficiency strategies with occupancy patterns of houses and the people that live in them.** There is a need to mandate a level of autonomous ventilation through home monitoring of humidity, temperature, air pressure, carbon dioxide, particles, and ventilation. This would ensure that despite different occupants over a lifetime of a building and their physical ability, the construction could be programmed to self-regulate and alter its state in seasonal and climate change scenarios.
2. **Ensuring existing homes can adequately mitigate risk of poor long-term conditions because of retrofitting energy efficiency.** This could be by creating a pattern-book of existing housing

[24] Healthy Homes for Renters (2023) Community Sector Blueprint
[25] Australian Government – Ministers Treasury Portfolio (2023) Helping Australians save energy, save on energy bills | Treasury Ministers
[26] SBS News (2018) Kevin Rudd to face court in class action against failed insulation scheme | SBS News
[27] BRANZ & Analysis & Policy Observatory (2021) Indoor climate and mould in New Zealand homes (apo.org.au)

strategies that consider construction method, age, moisture, ventilation, and condition of existing constructions which form the minimum level of compliance mandated for rental accommodation.

3. **Owners inadequately maintaining existing homes used as rentals.** Often landlords keep maintenance low and return for the investor high, fenestrations have part of their openings permanently shut, avoiding the need for flyscreens and often without providing the same level of ventilation required for new homes under the National Construction Code Volume 2 (ventilation clause 10.6.2).

4. **Mould that is not visible can still cause long-term physical conditions such as CIRS[28] and cognitive issues. Rental tenancy agreements should contain annual onsite moisture analysis undertaken as part of a quality assurance measure for tenant health and to reduce overall population health risks.** The Institute recommends that a quality assurance framework for rental sustainability standards would not be complete without adopting a quality assurance measurement (in home monitoring) for use while the home is occupied. This is one of the most cost-effective strategies for early identification of moisture conditions that can cause the levels of insulation to decrease and therefore increase risk from acute heat/cool shock.

5. **Increase requirements for automated indoor monitoring of air quality in line with smoke detector requirements in rentals.** Although there has not been a study in Australia as far-reaching as the 2018 New Zealand's census, which found that 4.3% (64,536) of homes surveyed had visible mould over the size of an A4 sheet, Climate similarities would predict comparable findings in Australia.

2.4.5 Improving hazard resilience and thermal performance in regional and remote locations

Impact of climate change and disasters Q.6: How can hazard resilience and thermal performance of housing in regional and remote locations be improved?

1. **Plan all new homes smaller for energy efficiency, and with climate risk mitigation disclosure.** This can be facilitated through NatHERS ratings as part of the compliance process, however, adjustments to the Whole of Home (W.O.H) NatHERS calculation under the National Construction Code needs to be addressed as it does not consider winter deficits on renewable energy.
2. **Renewable distributed energy resources integration on all houses as soon as possible.** This decentralisation of virtual power plants at a commercial scale can also increase efficiency with the providing retailer also adopting the ongoing maintenance, cleaning and monitoring remotely and with the use of algorithms for efficiency.
3. **Hot water provision strategies.** Decentralisation as a strategy has some further benefits when applied to hot water provisions.
4. **Ventilation and mechanical intervention strategies.** In mechanical ventilation strategies (air-conditioning and fans), efficiency is created when heating or cooling is at the source using multiple smaller split systems and, or, Heat/Energy Recovery Ventilation Systems. This enables the occupant to undertake filter changes, and in bushfire areas this maintenance is more required more frequently due to additional burn off smoke.
5. **Adopt increased fresh air, indoor air quality, ventilation, and air dynamics targets for autonomous operation**. These are also part of thermal comfort requirements which introduces fresh air continuously into the building. In some settings, additional control of

[28] Toxic Mould Support Australia (2020) Chronic Inflammatory Response Syndrome (CIRS) Explained - Toxic Mould Support Australia

climate pollution is required for dust storms from droughts and smoke that does clear from city skies with resulting development of hazardous air quality.

6. **Building Fabric dichotomy for climate risk.** The needs of the building shell are varied in requirement for climate related hazards. For these areas of Australia that are prone to climate related flooding, there are significant infrastructure and service considerations when planning. Real estate, finance and property sectors are also classifying some homes as 'high risk' if they have annual climate change related damages, i.e. from extreme weather events, that equate to more than 1% of the properties replacement cost[29]. Data from Climate Valuation was collated and integrated into the Climate Council (CC) Climate Risk Map[30] identifying high risk suburbs across Australia[31] with the CC also noting that by 2030 one in 25 properties in Australia will be uninsurable[32]. Of the top cited scenarios, riverine flooring poses the biggest risk which equated to 80% of their high-risk classifications in the study.
7. **Maintenance and lifespan expectations of the built environment should be matched to the needs of the decarbonisation trajectory.** Social and affordable housing (growth areas) near the cooler elevated areas of hills, may need less acute summer protection (decremental delay + R) due to better biodiversity and urban tree canopy but the National Construction Code (NCC) requires bushfire areas to have more airtight homes. This means that in winter if the homes don't have enough insulation, being more airtight, they are likely to fall below 18C (W.H.O standards) and therefore need to control water vapour from humid indoor environments otherwise mould will form. Mechanical services need to be integrated to then support this type of construction methodology increasing the requirement for continuous heating to counteract the condensation impacts of poor thermal performance and airtightness.
8. **Drive strategies for diversification hubs in housing at planning stages:** The same type of housing in the suburbs of infill development may have less tree canopy and biodiversity cooling the air around the building and surfaces. It may, therefore, have higher direct heat in summer on the surface of the walls and roof, then need a higher decremental delay, insulation (R) and alternative air-cooling services around the outside of the building, such as misting[33] which provides natural evaporative cooling[34].
9. **Operable shading and outdoor environment strategies should be available on all housing:** Internal shading such as blinds and gables can significantly reduce the heating and cooling requirements of a home for little cost.
10. **Self-regulation by the building envelope.** This can be done with a materials-first approach and reduces the governments need for supporting services and infrastructure, environmental impact through more cradle-to-cradle approaches, lessens the need for maintenance and other sectors such as gas and electrification.
11. **Increase 'as-built' quality assurance for new homes, and annual verification of performance on existing homes.** In 2023, Australia saw many volume housing providers

[29] Realestate.com.au and Climate Valuation (2023) The serious threat of climate change to Australia's housing market – and the regions most at risk.
[30] Climate Council (2023) One in 25 Australian homes uninsurable by 2030: Climate Council launches cutting edge digital climate-risk map | Climate Council
[31] Climate Council (2023) Climate Risk Map of Australia | Climate Council
[32] Climate Council (2023) Uninsurable Nation: Australia's most climate-vulnerable places | Climate Council
[33] Ulpiani, G & di Perna, C & Zinzi, M. (2020) Mist cooling in urban spaces: Understanding the key factors behind the mitigation potential
[34] Soltani, A & Sharifi, E (2017) Daily variation of urban heat island effect and its correlations to urban greenery: A case study of Adelaide.

liquidate, lost assets from poor quality assurance by the Victorian Building Authority, and various supply chains strained due to unpredictable pressure for certain materials that are assumed essential for the housing market. These assumptions are poorly considered regarding climate resilience and building sciences. Therefore, there is a large opportunity for government to mimic lessons from overseas with housing stock diversity provided through a quality assured framework of 'Design for Manufacture ad Assembly and reuse'. At the same time, integration of mechanical services is often performed during the sub-assembly off-site. An example is Singapore's Construction Industry Transformation Map which highlights their plans to integrate this methodology into an integrated planning process that harnesses existing design software being used by designers[35].

[35] Singapore Government, Building and Construction Authority (2022) Design for Manufacturing and Assembly (DfMA)