



Monitoring and evaluation of the Minimum Energy Efficiency Standard for rental properties in the ACT

ACT Environment, Planning and Sustainable
Development Directorate

FINAL REPORT



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Executive Summary

Background

The Minimum Energy Efficiency Standard (the Standard) came into effect for residential rental properties in the ACT on the 1st of April 2023. Under the Standard, rental properties with no ceiling insulation or existing ceiling insulation below an R-value of R2, need to install or upgrade the ceiling insulation to a minimum R-value of R5 ceiling insulation [1]. The higher the R-value the better the thermal performance of the insulation (R5 is what is typically installed in new homes). Better ceiling insulation can improve a property's energy performance – reducing energy costs and greenhouse gas emissions, and keep the property warmer in winter and cooler in summer.

The Standard will be phased in over a four-year period, with most properties required to be compliant from 30 November 2026 (unless they have a valid exemption). Rental providers of non-exempt properties have nine months from the signing of a new lease to comply. After 30 November 2026 all non-exempt homes must comply within three months. Additionally, rental providers must disclose the current compliance or exemption status of a home in rental listing advertisements, on lease agreements, and provide evidence of compliance to tenants on request.

Rationale and objective for undertaking this project

The objective of this project is to undertake quality and assurance evaluative activities in the phasing and staging of the newly introduced Standard. This monitoring and evaluation project was commissioned to begin alongside the introduction of the Standard to help the ACT Government understand the Standard's impact on the property sales and rental market, provide details on the effectiveness of the implementation of the Standard and stakeholder experience of the Standard. The outputs of this project may inform future policy work and - subsequent implementation phases for the Standard.

Monitoring and evaluation approach

Common Capital led qualitative and quantitative analyses as part of a formative evaluation considering the appropriateness of implementation processes and identification of leading indicators of both policy objectives and potential unintended outcomes. This included consideration of the Standard's impact on the ACT market, including rental property volumes, rental pricing, and the cost effectiveness of insulation upgrades. The scope covered stakeholder interviews, quantitative analyses of real estate listings and other datasets to assess market impacts and compliance rates, and a difference-in-difference analysis to separate the cyclical nature of price fluctuations. In addition, whilst not the subject of this report, this analysis assessed

whether Government processes had any impacts on the implementation of the Standard.

This report summarises the findings from monitoring and evaluation between 1 April 2023 to 27 February 2024. It details preliminary observations on the implementation of the Standard, provides opportunities to explore to improve the implementation of the Standard, and identifies risks should improvements not occur. Note, insulation upgrades conducted within ACT public housing were out of scope, as were any onsite inspections of installed insulation.

Monitoring and evaluation conclusions

Section one: How did policy design and program management support the implementation of the Standard? Governance arrangements provided oversight and direction in line with program scale and needs, and risks and issues were identified and managed.

- Policy development of the Standard involved systematic analysis of the cost, benefits and stakeholder perspectives on options to deliver the Government's committed objectives. Implementation planning involved deliberate design choices to optimise for cost-effectiveness and risk mitigation, while leveraging and developing a comprehensive stakeholder engagement framework within the constraints of available channels and timeframes.
- The initial implementation phase was closely monitored to allow early identification and rectification of emerging risks and issues.
- The development and implementation of the Standard has been delivered on time and on budget.
- Further household-level data on installed insulation quality, energy bills, comfort and health would be required to support a future outcomes evaluation. Additional funding is likely required to support such evaluation and compliance data collection and management.

Section two: Has the implementation of the Standard resulted in any unanticipated market outcomes? So far, the Standard has not had any observable impacts on ACT rental property prices or volumes

- Reported costs remain higher than estimates included in the Regulatory Impact Statement (RIS). This is largely due to additional electrical safety compliance costs and benefits (required to mitigate risks) that were not accounted for in the initial policy analysis.
 - Very high average compliance costs were reported during the first eight months of the Standard's implementation. However, these average costs appeared to reduce significantly in the following four months. The reduction in compliance costs coincided with a significant increase in the number of certified insulation
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installers, and number of companies with certified insulation installers. However, a wide range of cost variance for compliance assessments and insulation upgrades remain in the market. Landlords and property managers would benefit from seeking multiple quotes to maintain downward pressure on costs.

- Interviews identified anecdotal reports of landlords considering selling their rental properties. The Standard was identified as one contributing factor in addition to higher interest rates and downward pressures on ACT rents (e.g., lower-than-average migration levels into the ACT). However, if these reports are representative of a broader trend, they are not yet reflected in housing sales data.
- In response to the introduction of the Standard, Access Canberra increased their rate of electrical inspections in homes with insulation upgrades from 10% of installs to 40-50%. At the time of interview, regulators advised that out of 200 inspections, only minor defects and issues were found.

Section three: Are rental providers complying with their obligations under the Standard? Landlord compliance with disclosure and ceiling insulation obligations appears very high, within observation limits of the available data.

- Across the three monitoring periods, landlord compliance with obligations to disclose a compliant/exempt/non-compliant status in advertisements remained between 85% and 88%.
- Further data beyond the scope of this study, would be required to verify (1) disclosure and insulation compliance for non-listed lease renewals, (2) veracity of self-reported compliance, and (3) quality of insulation upgrades undertaken.
- Government, tenants and compliant landlords could benefit from an insulation audit program to address data gaps and provide assurance of the quality of assessments and upgrades that landlords have paid for.

Opportunities for improvement

- Consider establishing a framework for ongoing access to rental listing data for compliance and enforcement purposes – beyond the confidential research purposes within the permitted scope for this study.
- Consider expanding existing, and/or establishing additional, data collection and database management processes to ensure that a comprehensive outcomes evaluation can be conducted in the future.
- Collaborate with the Insulation Council of Australia and New Zealand (ICANZ) on the next edition of the insulation handbook and/or the next edition of the Australian standard for insulation installation (AS399), to include a requirement for edge protection when the insulation installer is working at heights.

- Work with All Homes and RealEstate.com to implement a standard field or drop-down of options to disclose compliance with the Standard to assist landlords, property managers and ongoing government compliance monitoring.
- Consider establishing a portal or central publicly searchable register to upload compliance status and supporting evidence to provide auditors, tenants and landlords with transparent and low-cost desktop access to compliance data.
- Consider a pilot program to provide insulation audits to tenants and landlords to help with compliance and enforcement, within current statutory powers. The intent of this program would be to provide reassurance to tenants and landlords that assessments have been conducted accurately.
- Consider a regulatory amendment to add an obligation to disclose compliance to Government and enable direct Government initiation of audits, in addition to tenants' rights and ACAT enforcement pathways.
- Consider a regulatory amendment to require the insulation assessment to be conducted by a certified assessor. This would ensure accurate assessment and reporting of compliance with the Standard.

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Background

The Minimum Energy Efficiency Standard (the Standard) came into effect for residential rental properties in the ACT on the 1st of April 2023. Under the Standard, rental properties with no ceiling insulation or existing ceiling insulation below an R-value of R2, need to install or upgrade the ceiling insulation to a minimum R-value of R5 ceiling insulation [1]. The higher the R-value the better the thermal performance of the insulation (R5 is what is typically installed in new homes). Better ceiling insulation can improve a property’s energy performance – reducing energy costs and greenhouse gas emissions, and keep the property warmer in winter and cooler in summer.

The Standard will be phased in over a four-year period, with most properties required to be compliant from 30 November 2026 (unless they have a valid exemption). Rental providers of non-exempt properties have nine months from the signing of a new lease to comply. After 30 November 2026 all non-exempt homes must comply within three months. Additionally, rental providers must disclose the current compliance or exemption status of a home in rental listing advertisements, on lease agreements, and provide evidence of compliance to tenants on request.

Overview of this project

This report summarises the findings from monitoring and evaluation activities from 1 April 2023 to 27 February 2024. It details preliminary observations on the implementation of the Standard, provides opportunities to explore to improve the implementation of the Standard, and identifies risks should improvements not occur.

Eight key evaluation questions (KEQs) were investigated under this project of work. These KEQs and the relevant report section in which they are answered are provided in the table below.

Table 1: Overview of report structure

Key evaluation question	Relevant section in this report
1. How did program management arrangements support effective implementation?	Section 1
2. To what extent was the design of the Standard appropriate to the context?	Section 1.1

Key evaluation question	Relevant section in this report
3. To what extent has the Standard been delivered on time and budget?	Section 1.4
4. To what extent has the Standard driven changes which may increase rental prices?	Section 2.1 and 2.2
5. How do average upgrade costs compare with projected benefits?	Section 2.3
6. Has the Standard had any impacts on health and safety?	Section 2.4
7. To what extent has the implementation of the Standard supported landlord compliance and disclosure?	Section 1
8. What were the unanticipated outcomes of the program, both positive and negative?	Section 2 and Section 3

Our approach

This project involved three main forms of analysis to answer the eight KEQs outlined above – a difference-in-difference analysis, qualitative analysis, and quantitative analysis. A difference-in-difference analysis was used to separate the cyclical nature of price fluctuations, compared with those in a control group in the adjoining NSW Queanbeyan local government area where the Standard does not apply. The qualitative analysis includes findings from interviews with an advisory panel made up of six representatives from key market stakeholder groups, a broader group of stakeholders and surveys conducted of landlords and Property Managers. Lastly, the quantitative analysis assessed the Standard’s impact on the ACT market (including rental property volumes, rental pricing, and the cost effectiveness of insulation upgrades), and sought to assess compliance rates (both with the insulation requirements and disclosure obligations since the implementation of the Standard on 1 April 2023).

We conducted these analyses across three monitoring periods:

- Q1: 1 April 2023 to 31 August 2023
- Q2: 1 September 2023 to 27 November 2023

- Q3: 1 December 2023 to 27 February 2024

A difference-in-difference analysis was used to isolate the Standard's impact on rental pricing in the ACT

A difference-in-difference analysis sought to separate natural structural changes and one-off unexpected changes to isolate any impacts from the introduction of the Standard. Every property market will experience natural fluctuations in rental pricing and the volume of rental properties available. This analysis measured the difference between the actual movement of prices and listings in the ACT compared to a constructed counterfactual. A counterfactual was created using data from Queanbeyan and Jerrabomberra – two neighbouring cities. Queanbeyan was chosen as the control group due to its proximity to the ACT and susceptibility to similar market fluctuations. More details on the methodology and findings from this analysis are provided in Appendix 1.

Advisory panel interviews were repeated to contextualise findings

A qualitative analysis was used to contextualise observations from the difference-in-difference, quantitative and survey analyses, and gain additional insights on potential impacts from the introduction of the Standard. An advisory panel made up of six key stakeholders was formed at the beginning of the project and each individual was interviewed three times – once every quarter. The advisory panel included representatives from key stakeholder groups including, real estate agents, tenants, assessors, strata-run buildings, electricians, and the installer certification body.

We asked panellists a range of questions to assess the potential rental sector impacts from the introduction of the Standard. These included:

- Changes to the ACT property market, including changes to rental pricing, the profile of property owners, the rate of property sales, proportion of renters versus owner occupiers.
- Perceived rates of compliance amongst ACT investment property owners.
- Any other unanticipated issues, benefits or opportunities for improvement.

Nine additional interviews with other stakeholder groups were conducted to further explore advisory panel findings. Stakeholders interviewed included representatives from industry regulators, insulation installers, and experts on tenancy disputes. In addition to the questions above, we asked these interviewees a range of other questions, including:

- Updated insulation installation costs and the key drivers behind the spread of costs in the market.

- Perceived quality and safety impacts from the Standard.
- Perceived rates of compliance amongst ACT investment property owners and the appropriateness of existing compliance monitoring and enforcement frameworks.

A survey was conducted to determine stakeholder awareness, and to identify likelihood, financing and timing of assessments and upgrades

A survey was conducted on landlords, tenants and property managers. The surveys sought to gather data on the market awareness and real-world experiences of the Standard for these three stakeholder groups. Surveys also provided insulation upgrade cost data for the final monitoring period (1 December 2023 to 27 February 2024). We conducted extensive consultation with key members of our advisory panel to design and distribute each survey.

Overall, we received responses from 109 landlords, 42 property managers, and 7 tenants. We have not included findings from the tenant survey in this report due to the small number of responses received. Note that tenant responses were going to be used as an additional perspective on landlord compliance with the Standard as tenant benefits are not being assessed in this project. Therefore, the absence of this anecdotal data is unlikely to have a significant impact on overall findings.

A quantitative analysis was used to identify trends and validate findings from the difference-in-difference analysis and qualitative analyses

We purchased historical and ongoing rental and sales listings data from Domain Group to construct and analyse historical trends of ACT property volumes and pricing. The same data was then analysed to assess compliance and disclosure rates, dissected based on property type (house versus apartment), EER, agency, and suburb. In addition, we analysed data from Electrical Safety Certificates submitted to Access Canberra to understand the number of insulation upgrades that have been completed since 1 April 2023. We then compared the number of upgrades, by month, to the number of properties that disclosed non-compliance with the Standard (since 1 April 2023) to estimate the number of properties that are likely required to upgrade insulation. For example, if a property listed for rent disclosed non-compliance in April 2023, then they would be expected to become compliant in January 2024. These findings are provided in Section 3 of this report.

We note that there are data and scope limitations to these analyses. These include:

- This data only covers rental listings on Domain's Allhomes platform. This dataset excludes any direct private sales or leases, and re-leasing to existing tenants without advertising. Any changes in data could potentially also reflect changes in landlord/agent choices of which platform to list their properties on. Our real estate industry panel members advised that common practice is to list rentals and sales on both allhomes.com.au and reaslestate.com.au.

- The analysis of property compliance with the Standard is focused exclusively on reported compliance via disclosure in rental advertisements. Physical inspections of ceiling insulation at properties are out of scope for this project.
- Delays in obtaining real-estate data meant we were only able to get compliance and disclosure data for a proportion of rental listings between April 2023 and July 2023. We have therefore forecasted the number of non-compliant properties during these months of the Standard's implementation. This forecast is based on the data collected between August 2023 to February 2024.
- Compliance data was not available for all listings since 1 April. This is because compliance data is sourced from the free text within the advertisement which was not available for some properties. We cannot determine these properties' status of compliance with the Standard and therefore did not include these properties in our analysis.
 - The compliance dataset on the number of properties analysed for Q3 and Q2 are of a similar size i.e. both cover 99% of properties listed. However, the Q1 dataset only contained compliance text data for 41% of the total properties listed during the previous monitoring period. Therefore, any comparisons drawn between monitoring periods should consider this limitation.
- There is a gap in the domain dataset for most of December. This is due to an unexpected disruption in the API activity during the holiday period. We are confident this has had a minimal impact on our analysis. The total number of listings is not significantly smaller than the previous monitoring period and property listings will often remain online for a few weeks before being removed (and would therefore have been captured in the January data).
- The Domain API dataset of sold properties in the ACT represents approximately 40% of listings in the ACT settlement data (comparing properties sold at any point between September 2023 to February 2024). We have analysed settlement data to determine whether the number of sales has increased unexpectedly within the monitoring period. We found no unexpected increase in sold properties in the ACT in the monitoring period, which aligns with the findings from our more limited dataset.

SECTION 1

How did policy design and program management support the implementation of the Standard?

Section 1 Key Findings Summary

1.1: Governance arrangements provided oversight and direction in line with program scale and needs, and risks and issues were monitored and managed.

1.2: The design of the Standard was appropriate to the context.

1.3: The development and implementation Standard has been delivered on time and on budget.

1.1 How did program management arrangements support effective implementation?

Governance arrangements provided oversight and direction in line with program scale and needs

ACT Environment, Planning and Sustainable Development Directorate (EPSDD) has been responsible and accountable for the design and delivery of the Standard.

Appendix 2 provides a matrix which outlines the governance framework underpinning the Standard. It provides the key activities that were completed at each stage of the policy cycle (policy analysis and approval, pre-implementation, and implementation) and the participation by different stakeholders across the ACT Government and externally.

Our evaluation found that governance arrangements provided oversight and direction based on the complexity of the activity and the required knowledge. The governance framework supported close informal collaboration between teams and roles were clear (i.e. responsible, accountable, consulted and informed) and adapted as necessary over time.

The stakeholders involved in the Standard include:

- EPSDD:
 - Adaptation and Resilience Policy team
 - Executives
 - Communications team
- Minister for Water, Energy and Emissions Reduction
- ACT Justice and Community Safety (JACS) Directorate: Residential Tenancies Act team

- Access Canberra
- ACT Civil and Administrative Tribunal (ACAT)
- Energy Efficiency Council (EEC)
- External consultant
- Industry stakeholders (including the Real Estate Institute of the ACT (REIACT), Better Renting, and individual insulation companies)

A comprehensive communications strategy was implemented to ensure key stakeholders were kept informed

The EPSDD communications team was included early in the pre-implementation stage. The communication strategy included two rounds of public consultation and used all channels available to the Government to reach stakeholders. However, there were limitations with these channels which impacted their reach and efficacy. This included a limit on the number of direct mailouts to landlords. In addition, use of these channels to reach landlords was not possible before the regulation's enabling legislation was amended. More detail on the communication activities have been provided in the RACI matrix in Appendix 2.

Risks and issues were monitored and managed

A proactive approach to risk identification, assessment and mitigation for the implementation of the Standard through pre-implementation and implementation phases.

As part of pre-implementation planning EPSDD, worked with JACS and Access Canberra to identify risks and incorporate mitigations into implementation. The program implementation team drew on multiple reviews and studies of insulation programs, including the Commonwealth-led Home Insulation Program (HIP) and minimum standards to identify, understand and develop treatments for associated risks. The program did not develop a formal risk register, but identified and developed legislative, regulatory and process treatments for five initial risks categories of risks:

- household and insulation installer health and safety
- landlord compliance
- unintended cost increases to tenants
- unintended costs to landlords
- program implementation time, budget and quality

Examples of major pre-implementation risk treatments include:

- Mitigating household and insulation installer health and safety risks was a key focus of implementation. Drawing on lessons from the HIP, EPSDD included electrical safety reporting as part of the Regulation's requirements. When the Clean Energy Council ceased their insulation installer certification offering, EPSDD (alongside other jurisdictions) worked with, and provided funding to, the EEC¹ to develop a national insulation installer certification. EPSDD also worked with, and provided funding to, electrical safety regulators at Access Canberra to support the development of installation requirements relating to electrical safety and additional monitoring and compliance associated with the Standard. More detail on the Standard's impacts on health and safety are provided in Section 2.4.
- The risk of high insulation upgrade costs, impacting landlord compliance with the Standard, was identified early. As such, an exemption was provided wherein a landlord only has to complete upgrades up to the cost of \$10,000 (approximately four times the costs forecasted in the RIS), with insulation focused on the rooms that tenants spend most time in e.g. living rooms and bedrooms).
- EPSDD held additional workshops with installers, property managers and landlords to reiterate landlord obligations under the Standard and reduce the risk of non-compliance due to lack of understanding. These workshops were also used as an opportunity to hear feedback from stakeholders to pre-emptively identify and respond to risks and issues.

Examples of major implementation risk treatments include:

- Access Canberra increased their rate of electrical inspections in homes with insulation upgrades from 10% of installs to 40-50% during the first 6 months of the Standard's implementation. This was in response to the introduction of the Standard.
- EPSDD commissioned this monitoring and evaluation project to commence with the introduction of the Standard. This suggests a proactive approach to understanding the effectiveness of implementation and amending as needed to improve outcomes.
- The EPSDD adaptation and resilience policy team meets with stakeholders periodically on an ad hoc basis, to identify potential risks early. Stakeholders include the EEC, Better Renting, and the Real Estate Institute of the ACT (REIACT).
- To monitor treatments and identify and address additional risks, the EPSDD adaptation and resilience policy team established an email inbox prior to the first public consultation in which external stakeholders can contact EPSDD with any

¹ A not-for-profit membership association that offers a professional certification for insulation installers

concerns. This inbox continues to be regularly monitored by the EPSDD adaptation and resilience policy team. The general public can also make contact via Access Canberra and the EPSDD-managed Sustainable Home Advice line. Contacts about the regulation have declined to negligible numbers. .

There were implementation issues during the first monitoring period, however, EPSDD responded promptly to manage these issues as they arose. Key examples of this include:

- When barriers to compliance in the Unit Title buildings were identified in Q1, EPSDD suggested opportunities for minor amendments to the Unit Titles Act to clarify that insulation is a minor renovation and streamline approvals for compliant landlords.
- When made aware that some property managers were promoting the use of non-certified installers, EPSDD sent out an email to a distribution list of property managers reiterating the regulation's requirement to use certified installers and highlighting the risk to landlords of using non-certified installers.

There is broad stakeholder support for an expanded monitoring and compliance framework

As outlined in Section 3, compliance rates are relatively high under disclosure requirements. However, we are unable to empirically verify compliance claims without audits of individual upgrades. Interviewees indicated the need for elevated compliance activities. Interviewees across real estate, tenant and installer stakeholder groups supported ongoing desktop and onsite audits of compliance.

1.2 To what extent was the design of the Standard appropriate to the context?

How well did the hypotheses regarding how the program would deliver desired outcomes hold true throughout implementation?

Using the 2021 Regulatory Impact Statement (RIS) for the Standard, we extracted ten key outcomes that the establishment of the Standard was anticipated to deliver. An additional outcome was also identified by the EPSDD implementation team. The table below assesses the emerging evidence that suggests whether the Standard is, or is not, contributing to the achievement of these outcomes.

Table 2: Key desired outcomes and emerging evidence of the Standard's impact on these outcomes

Hypothesis [8]	Emerging evidence
1. Split incentives, combined with other market failures and barriers, inhibit the uptake of otherwise economic features for rental households in the ACT.	As discussed in Section 3.1, there have been 1,259 ceiling insulation upgrades ² undertaken since the Standard was introduced on 1 April 2023. Whilst we are unable to determine what proportion of upgrades were completed in rental properties, this suggests the Standard is likely overcoming the split incentive barrier by providing renters with upgrades that will likely reduce their energy costs and improve the thermal comfort of their homes.

² Note that due to data limitations we cannot determine the number of rental properties that have been upgraded, versus owner occupied properties.

Hypothesis [8]

Emerging evidence

2. It is estimated that 18,450 rental properties, including Housing ACT properties, will require an upgrade of ceiling insulation.

This figure includes ~5,000 properties owned by Housing ACT which are out of scope for this analysis. As such, we have used 13,450 as the estimated number of rental properties requiring an upgrade of ceiling insulation.

Based on the current rate of disclosure, approximately 770 homes that reported non-compliance with the Standard since its introduction will be required to upgrade their ceiling insulation by May 2024. This is considerably lower than the total anticipated volumes (13,450) which would translate to approximately 3,360 non-compliant properties per year (based on the four-year transition period). Since August 2023, 1,259 properties have already upgraded the ceiling insulation. However, this includes owner-occupied properties and the number of rental properties that have been upgraded is consequently likely to be lower. An audit program would be required to more accurately understand the rate of compliance (and non-compliance) to verify whether the total anticipated volume (18,450) is correct. The rate of upgrades could then be accurately assessed.

Hypothesis [8]
Emerging evidence

3. Insulation upgrades to R5 will cost approximately \$2,388.

As discussed in Section 2.3, the average reported price is approximately \$5,190 – more than double the forecasted costs from the RIS (\$2,388). However, the RIS forecast did not include incidental electrical safety upgrade costs and benefits which may be required in some properties to mitigate risks. Interviews suggest this includes a ~\$3,000 insulation component for R5 and a \$2,000 electrical upgrade component, with significant variation from property to property. A ~\$3,000 insulation component is ~25% higher than the RIS forecast.

4. Improved comfort levels and health outcomes for tenants.

This outcome was not within the scope of this project to assess. However, a project is currently underway in EPSDD to determine an appropriate metric, and the data required, to quantify the health and comfort impacts from the Standard, as well as a range of other co-benefits. The relevant data should be collected to ensure that a comprehensive outcomes evaluation testing this hypothesis can be conducted in the future.

5. Lower health system expenditures for Government (and ultimately taxpayers).

This outcome was not within the scope of this project to assess. The relevant data should be collected to ensure that a comprehensive outcomes evaluation testing this hypothesis can be conducted in the future.

6. Increased asset values for rental providers.

This outcome was not within the scope of this project to assess. The relevant data should be collected to ensure that a comprehensive outcomes evaluation testing this hypothesis can be conducted in the future.

Hypothesis [8]
Emerging evidence

- | | |
|--|--|
| 7. \$69 million of energy savings for households. | The RIS-forecasted energy savings of insulation upgrades is \$3,740 per household (across the life of the insulation and based on 18,450 households) and the number of insulation upgrades completed between 1 August 2023 and 27 February 2024 was 1,259 upgrades ³ (see Section 3.1 for more detail). Assuming these upgrades were completed in line with the Standard’s requirements, the Standard may have resulted in approximately \$4.7 million of energy savings for ACT households that upgraded their insulation. |
| 8. Potentially lower bad debts for energy retailers from low-income rental households, which would also benefit their remaining customer base. | This outcome was not within the scope of this project to assess. However, an analysis of the Australian Energy Regulator’s (AER) Quarterly retail performance report (October-December 2023) ⁴ showed that energy hardship customers’ debt decreased slightly (0.8%) in Q2 2023, compared with the previous quarter. However, overall debt increased by 6.9%. |
| 9. Potentially reduced need for costly investment in peak load capacity by electricity generators and network service providers. | This outcome was not within the scope of this project to assess. The relevant data should be collected to ensure that a comprehensive outcomes evaluation testing this hypothesis can be conducted in the future. |

³ Note that due to data limitations we cannot determine the number of rental properties that have been upgraded, versus owner occupied properties.

⁴ <https://www.aer.gov.au/system/files/2024-03/AER%20-%20Quarterly%20retail%20performance%20report%20-%20October%20to%20December%202023.pdf>

Hypothesis [8]
Emerging evidence

10. Savings of 289,000 tonnes of greenhouse gas emissions from the domestic burning of gas and firewood and improved air quality.

The RIS-forecasted emissions savings of insulation upgrades is 15.66 tonnes per household (based on 18,450 households) and the number of insulation upgrades completed between 1 August 2023 and 27 February 2024 was 1,259 upgrades⁵ (see Section 3.1 for more detail). Assuming these upgrades were completed in line with the Standard’s requirements, the Standard may have resulted in approximately 19,716 tonnes of emissions savings for households.

11. Reduced financial stress for renters.

This outcome was not within the scope of this project to assess. However, a project is currently underway to determine an appropriate metric, and the data required, to quantify financial stress impacts from the Standard. The relevant data should be collected to ensure that a comprehensive outcomes evaluation testing this hypothesis can be conducted in the future.

⁵ Note that due to data limitations we cannot determine the number of rental properties that have been upgraded, versus owner occupied properties.

How well do the outcomes align with the broader goals and objectives of the ACT?

The objectives of the Standard are to “improve energy performance, increase thermal comfort, reduce greenhouse gas emissions, and contribute to climate change resilience” [2]. Installing ceiling insulation improves a property’s ability to retain heat in winter and remain cool in summer. Consequently, ceiling insulation will likely improve the thermal comfort of a property, as well as decreasing greenhouse gas emissions through reduced energy use for heating/cooling.

Given the Standard’s potential to improve energy performance, increase thermal comfort, reduce greenhouse gas emissions, and contribute to climate change resilience, it is well situated within the ACT’s broader strategic goals. We have assessed each of the ultimate outcomes identified in Section 1.1 against the broader goals of the ACT, as detailed in the ACT Climate Change Strategy 2019-25 and the ACT Wellbeing Framework.

Table 3: Assessment of ultimate outcomes against broader ACT goals

Hypothesis	ACT Climate Change Strategy 2019-25 [3]	Wellbeing Framework [4]
Improved comfort levels and health outcomes for tenants.	✓	✓
Lower health system expenditure for government (and ultimately taxpayers).		
\$53 million of energy savings for households.		✓
Potentially lower bad debts for energy retailers from low-income rental households, which would also benefit their remaining customer base.		✓
Potentially reduced need for costly investment in peak load capacity by electricity generators and network service providers.		✓
Savings of 289,000 tonnes of greenhouse gas emissions from the domestic burning of gas and firewood and improved air quality.	✓	✓

1.3 To what extent has the Standard been delivered on time and on budget?

The Standard appears to be on budget based on current requirements, however, exploration of data and compliance opportunities suggested in this report would require additional funding

The funding allocated for the Standard is part of the Vulnerable Household Energy Support Scheme's (VHESS) wider budget. In total, the budget includes \$675k for monitoring and evaluation activities over four years. There is approximately \$385k of the monitoring and evaluation budget left which is sufficient for the two M&E projects currently underway, and a future outcomes evaluation. However, as discussed in Section 1.1, there is no scope within existing budget allocations to establish and execute a data collection plan. Without sufficient data, there is a risk that a future outcomes evaluation would be unable to comprehensively answer all of the KEQs and assess the Standard's impact on desired outcomes (listed in Table 2 in Section 1.2). Therefore, additional funding would be required to ensure a comprehensive outcomes evaluation can be conducted in the future.

The monitoring and evaluation budget excludes the Standard-specific resourcing in the EPSDD (1 Full Time Equivalent) and Access Canberra (1 Full Time Equivalent). Due to the additional data collection and management requirements identified through this report (see Section 1.1 and Section 3), it is likely that additional resources in Access Canberra will be required to deliver the increased data collection and database management activities.

The implementation of the Standard was allocated a proportion of a \$600k budget (across VHESS) for education and awareness. Approximately \$350k of this budget allocation has been spent, with the remainder \$250k deemed sufficient for communication activities over the next 2 years.

The Standard has been delivered on-time

As detailed in Appendix 2, the Standard was designed and implemented on-time, in line with estimated timelines. The Residential Tenancies Act team in the Justice and Community Safety (JACS) Directorate identified legislative amendments that would be required to support the establishment of the new regulation which slightly delayed the implementation timeline of the Standard.

When the Standard was announced, the legislation was expected to be introduced in 2021 and be in effect by 2022-2023. The Standard came into effect on 1 April 2023 – in line with these expected timelines.

Preliminary improvement opportunities based on Section 1 findings

Areas for further investigation:

- Consider establishing a framework for ongoing access to rental listing data for compliance and enforcement purposes – beyond the confidential research purposes within the permitted scope for this study.
- Consider expanding existing, and/or establishing additional, data collection and database management processes to ensure that a comprehensive outcomes evaluation can be conducted in the future.

SECTION 2

Has the implementation of the Standard resulted in any unanticipated market outcomes?

Section 2 Key Findings Summary

2.1: The Standard has not had any observable impacts on ACT rental property prices or volumes. Interviews identified anecdotal reports of landlords considering selling their rental properties. The Standard was identified as one contributing factor in addition to higher interest rates and downward pressures on ACT rents. However, if these reports are representative of a broader trend, they are not yet reflected in housing sales data.

2.2: The Standard has not had any observable impacts on ACT rental prices or negative distributional impacts. The average monthly price per room in ACT rental properties experiences a high degree of volatility with seasonal trends in these fluctuations. Neither the difference-in-difference nor quantitative analysis had observable price impacts, beyond seasonal trends.

2.3: The average cost of upgrades is lower than previous estimates but higher than forecasted in the RIS. While the level of competition and consumer choice in certified installers has significantly improved, very high quotes are common (likely due to upgrades being completed beyond what is required). The cost of upgrades therefore may be a barrier for landlords and there is a risk that landlords may use uncertified installers to reduce costs.

2.4: It appears installation practices and products used under the Standard are of a sufficient quality and safety. Minor risks could be mitigated with small adjustments to quality and safety practices.

2.1 So far, the Standard has not had any observable impacts on ACT rental property prices or volumes

A quantitative analysis on the number of annual rental listings in the ACT showed a slight increase in the number of rental listings, compared to the previous year. As shown in Table 4 below, the total number of annual listings was 11% higher than the previous year. This aligns with anecdotal findings from interviews where some interviewees had observed an increase in rental vacancy rates (compared to seasonal trends from previous years). Interviewees hypothesised that this is likely due to lower-than-average migration levels into the ACT.

The number of annual rental listings increased for both houses and apartments – with the number of house listings increasing marginally more than apartments (15% versus 9%). Interviewees did not have views on why the proportion of house listings has increased more than apartments. It is likely this is due to broader externalities, for

example rising cost of living pressures driving renters into apartments (that are typically cheaper than houses).

The number of rental listings in Queanbeyan have increased significantly when compared to the previous year. This may be due to higher migration levels into Queanbeyan but may also be due to the significantly smaller size of the market in which small changes have a large impact.

Table 4: Annual number of rental listings in the ACT and Queanbeyan for Dec-Feb 2022-23 and 2023-24

Type of rental property	ACT 2022-23	ACT 2023-24	% change	Queanbeyan 2022-23	Queanbeyan 2023-24	% change
Number of rental <u>house</u> listings	4,316	4,958	15%	489	1,123	130%
Number of rental <u>apartment</u> listings	4,913	5,332	9%	238	518	118%
Total number of rental listings	9,229	10,290	11%	727	1,641	126%

We have not observed an increase in the number of rental properties being listed for sale in the ACT

If the Standard was resulting in significantly more properties being removed from the rental market, we would have expected to see a corresponding increase (beyond the usual seasonal trend) in the number of rental properties being sold. However, as shown in Figure 1 below, the number of rental properties sold since the introduction of the Standard has not significantly deviated from the seasonal trend. In fact, the total number of annual rental properties sold in the ACT was 13% lower, compared to the previous year.

One survey question asked landlords who had declared they had a non-compliant property, why they had not upgraded their ceiling insulation. Only 18 landlords chose to answer this question, of which 6 landlords (30%) said they had decided to sell the non-compliant property. However, we are unable to attribute this decision to the introduction of the Standard. If these reports are representative of a broader trend, they are not currently reflected in housing sales data as supported by Figure 1 below which does not show a spike in rental property sales. In addition, this proportion of rental sales is in line with the proportion of rental properties that are being sold at any point in time.

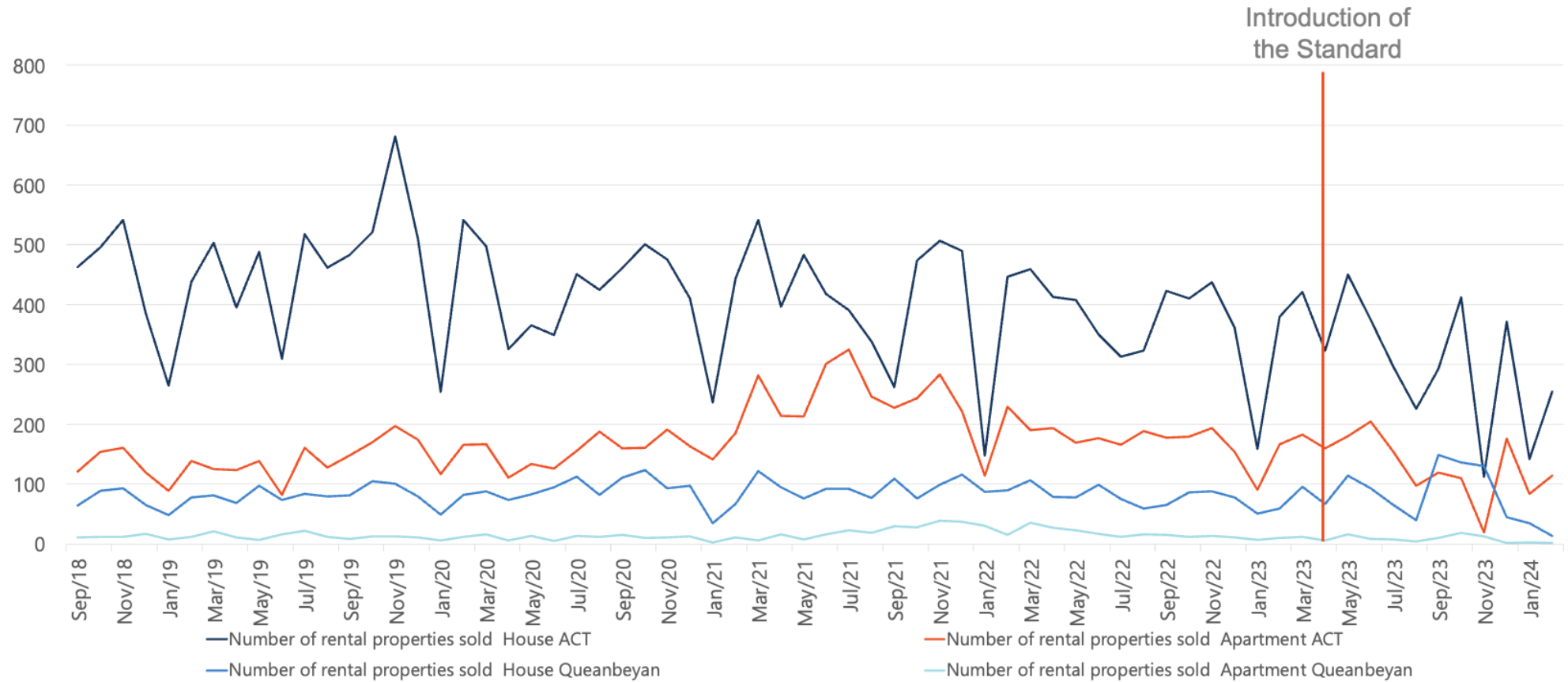


Figure 1: Historical number of rental sales in ACT and Queanbeyan, by property type (houses versus apartments)

2.2 The Standard has not had any observable impacts on ACT rental prices

Neither the difference-in-difference nor quantitative analyses showed observable price impacts, beyond seasonal trends.

The average monthly price per room in ACT rental properties experiences a high degree of volatility, as shown in Figure 2 and Figure 3 below. There are many market factors at force that push rental prices up and down at any given time and there appears to be seasonal trends in these fluctuations – with prices generally trending upwards. Figure 2 and Figure 3 show the average rental price for both houses and apartments does not deviate from these seasonal trends. This is the same when analysing price trend by income quintile. Figure 4 and Figure 5 then show the average rental prices by quintile in Queanbeyan, for houses and apartments, which follows the same general trend of fluctuating prices that ultimately trend upwards.

The difference-in-difference analysis was used to separate the cyclical nature of price fluctuations to determine whether the introduction of the Standard has resulted in price impacts on the rental markets. **The difference-in-difference analysis indicates that the likelihood that any price increases could be attributed to the Standard is very low⁶.**

⁶ More details of the difference-in-difference results can be found in Appendix 1.

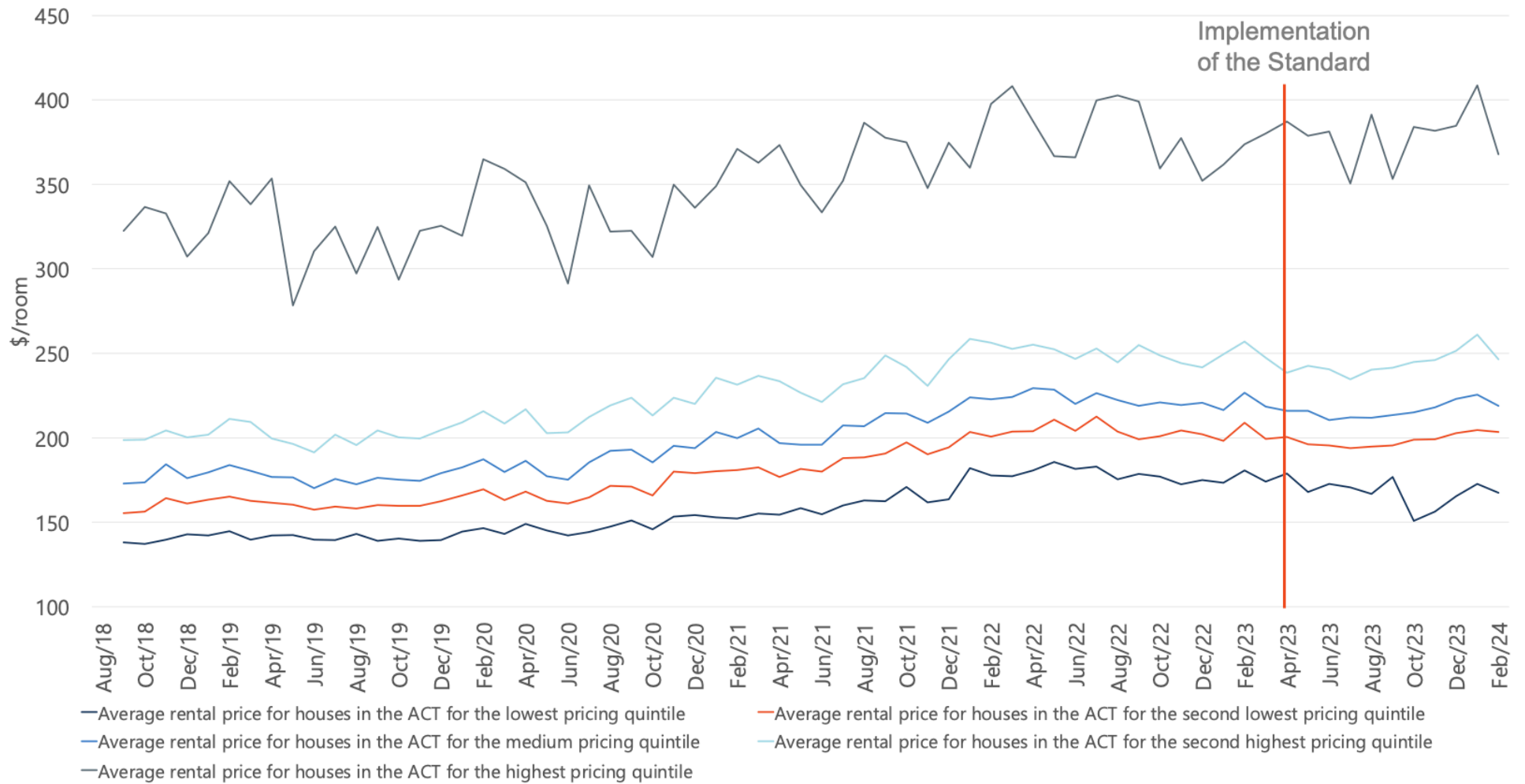


Figure 2: Average price per room for rental houses in the ACT, split by rental pricing quintile

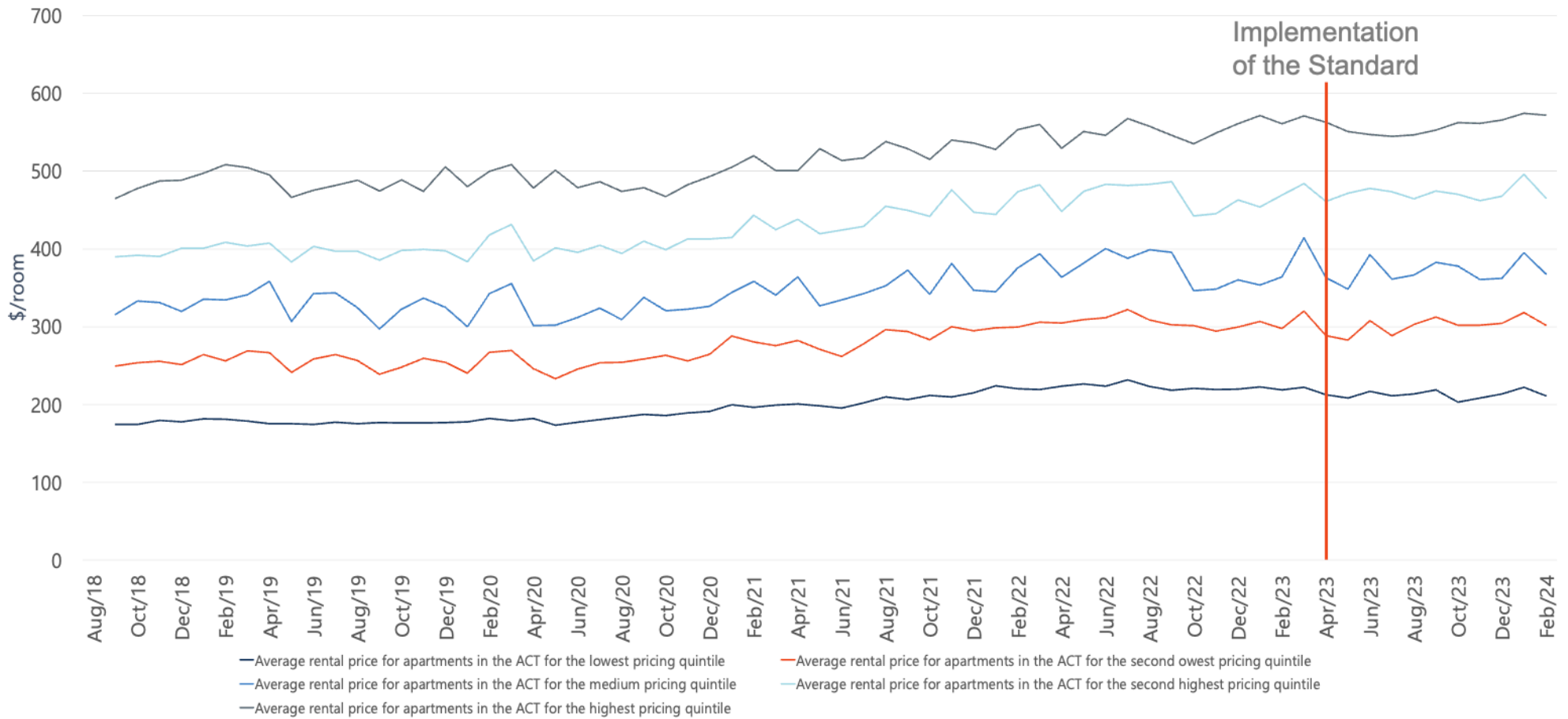


Figure 3: Average price per room for rental apartments in the ACT, split by rental pricing quintile

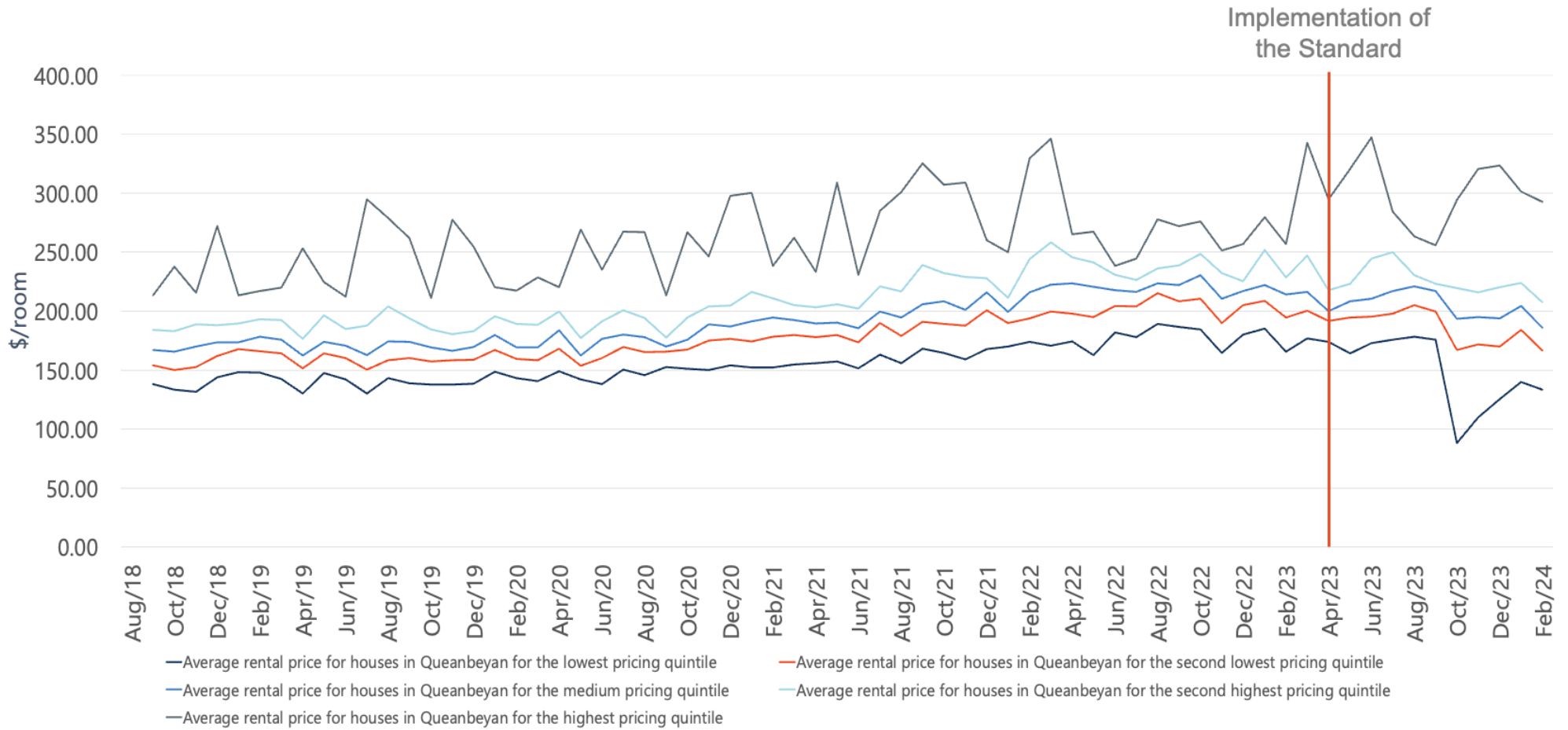


Figure 4: Average price per room for rental houses in Queanbeyan, split by rental pricing quintile



Figure 5: Average price per room for rental apartments in Queanbeyan, split by rental pricing quintile⁷

⁷ There are gaps in this dataset due to the small size of the Queanbeyan apartment market. The gaps represent a period where there were no rental apartment listings

There was no observable negative distributional impact on ACT rental prices

Figure 2 and Figure 3 show the historical rental prices by quintile in the ACT for houses and apartments. These graphs show there is no observable distributional impact issue across pricing quintiles. That is, there is no distinctively larger price increase in the lower quintiles, when compared to higher quintiles. These findings are the same for Queanbeyan, as shown in Figure 4 and Figure 5 – there is no negative distributional impact on rental prices.

2.3 High initial reported upgrade costs have reduced significantly

The average cost of upgrades is lower than previous estimates but higher than forecasted in the Regulation Impact Statement (RIS)

The RIS estimated it would cost on average \$2,388 to upgrade a property's insulation to R5 (inclusive of inspections and rectification costs). Market concerns regarding the cost of insulation upgrades were initially identified in Q1 and Q2. Costs in Q1 and Q2 were estimated to be \$7,500 on average – this is more than a 200% increase when compared with the RIS estimate and 30% higher than the average Q3 reported cost of \$5,190⁸. This is likely because previous estimates of average upgrade costs relied on SHS data on voluntary insulation installs (on a very small number of rental properties) and anecdotal evidence from a small number of stakeholder interviews (of which no interviews were conducted on landlords).

For Q3, self-reported Standard-specific survey data findings from a small sample of landlords (with likely high levels of selection bias) was obtained. It is possible that costs have remained at this level since the introduction of the Standard and previous cost findings were skewed by the data sources used. However, we are unable to definitively rule out that costs were not higher in the early stages of the Standard.

While costs may be trending downwards, at current levels they remain higher than the forecasted costs from the RIS of \$2,388. This is largely due to additional electrical safety compliance costs and benefits (required to mitigate risks) that were not accounted for in the initial policy analysis. Cost can be added to an insulation upgrade if electrical upgrades are also required. Therefore, a landlord may think they only need to upgrade the ceiling insulation but find they need to conduct electrical works to become compliant with the Standard. Therefore, it is reasonable that the upgrade

⁸ Note, this is the reported average cost for the sample of landlords that responded to the survey – not the average cost for the ACT. There is likely to be significant variation between landlords (see Appendix 4).

would include a ~\$3,000 insulation component and a \$2,000 electrical upgrade component. This aligns with the \$5,190 average calculated from landlord survey responses.

The level of competition and consumer choice in certified and provisionally certified installers in the ACT has significantly improved

The Q1 and Q2 analyses identified a potential shortage of insulation installers as a key driver of higher-than-anticipated costs. As shown in the table below, there were 38 certified and provisionally certified installers from four companies in Q1. However, one company’s installers dominated these figures – with 25 certified or provisionally certified installers. This resulted in a market perception of an anti-competitive environment in the ACT, and that market domination by one company was driving high costs. The market concentration and supply of certified and provisionally certified installers has continued to increase since Q1. There are now four times as many companies with certified or provisionally certified installers compared to Q1. Survey findings suggest that landlords are no longer struggling with supplier bottlenecks as only 6% of respondents (1 out of 18 landlords) stated they have not upgraded their non-compliant properties due to challenges in getting contractors.

Table 5: Total number of certified and provisionally certified installers in the ACT across the different assessment periods

Assessment period	Total number of certified and provisionally certified installers	Total number of companies with certified and/or provisionally certified installers
Q1 (1 April 2023 – 31 August 2023)	38	4
Q2 (1 September 2023 – 27 November 2023)	54	11
Q3 (1 December 2023 – 27 February 2024)	66	16

Data on the market share for each installation company is limited i.e. how many upgrades under the Standard are being performed by each company. This means that whilst there may be more companies with certified or provisionally certified installers, we are not able to assess whether all of these companies are performing upgrades under the Standard, or whether the market continues to be dominated by 3-4

companies. However, one of the insulation companies which previously employed 80% of certified or provisionally certified installers, now employs approximately 50% of the certified and provisionally certified installers in the ACT. This suggests that the market concentration has likely reduced, which could be an early indicator for a more competitive environment.

The average cost of upgrades is lower than previous estimates, however, a broad spread of compliance assessment and insulation pricing remains in the market

It remains common for certified installers to provide much higher-than-anticipated quotes for insulation upgrades. An analysis of SHS data shows that the higher cost installs often result in insulation at a level beyond what is required by the Standard (R5). One company is regularly installing R6.7 insulation with R3.5 cross-hatching. Although as previously mentioned, the SHS dataset has limitations in that there are only a small number of households using SHS financing for insulation upgrades. As the vast majority of these houses are owner-occupied voluntary upgrades, this may explain why a more premium level of insulation was installed.

However, one landlord that was interviewed was advised by the certified installer used that they were required to upgrade their insulation to R6 in order to comply with the Standard. In addition, another landlord interviewed paid \$700 for an assessment. In interviews we heard the cost of a site-visit assessment is approximately \$265. A site assessment may not be necessary if a property has an EER, as an assessor may be able to use previously gathered data on the ceiling insulation. This would likely mean the assessment could be cheaper than \$265. Landlords and property managers would benefit from seeking multiple quotes to maintain downward pressure on costs.

2.4 Electrical and building safety regulators have not observed risks to insulation installation quality and safety practices

In response to the introduction of the Standard, Access Canberra increased their rate of electrical inspections in homes with insulation upgrades from 10% of installs to 40-50%. At the time of interview, regulators advised that out of 200 inspections, only minor defects and issues were found.

Anecdotally we heard that installations and the insulation products used were generally of a sufficiently high quality. All installers interviewed reported using good-quality insulation products that meet current Australian standards (brands include

Bradford, Knauf and Earthwool). Onsite inspections would be required to further assess insulation product and installation quality.

In interviews with installers and electrical and building safety regulators, minor adjustments to insulation installation safety practices were identified to mitigate residual safety risks that are present across the industry.

A “safe” insulation installation involves protecting the installer from electrical safety risks and working at heights risks

Electrical safety – An electrical inspection is required prior to and post retrofitting ceiling insulation to mitigate risk to installers and households. Installers also need to be certified through the EEC by completing mandatory training and submitting evidence of safe and high-quality installations. These processes appear to be being implemented as intended. There were 1,259 electrical safety certificates submitted to the Access Canberra electrical safety regulation team between 1 August 2023 and 27 February 2024. One of the reasons cited for initial delays in accreditation of installers was quality assurance processes to ensure installers satisfactorily demonstrated their ability to comply with required safety standards.

Working at heights – there are significant safety risks associated with working at heights, as insulation installers are sometimes required to do. These risks can be mitigated by using a roof safety harness and edge protection (scaffolding that is erected to prevent falling). We heard during interviews that it is common practice for installers to enter the ceiling cavity through the roof, rather than through the internal manhole. While safety harnesses are mandatory, edge protection is not. Most of the installers interviewed reported using edge protection as a general practice. One installer interviewed felt that edge protection added an unnecessary cost that was not required due to the use of safety harnesses. However, another interviewee noted that there is still a safety risk with the use of harnesses and believed two measures of protection is the best way to ensure installer safety when working at heights.

A representative from an industry regulator stated they had not heard of any safety incidents reported since the introduction of the Standard, however, they agreed that safety risks remain when relying fully on harnesses. In general, interviewees agreed that edge protection should be mandated as a relatively inexpensive mitigation, given the level of risk associated with working at heights and safety experiences in other industries.

Preliminary improvement opportunities based on Section 2 findings

Areas for further investigation:

- Collaborate with the Insulation Council of Australia and New Zealand (ICANZ) on the next edition of the insulation handbook and/or the next edition of the Australian standard for insulation installation (AS399), to include a requirement for edge protection when the insulation installer is working at heights.

SECTION 3

Are rental providers complying
with their obligations under the
Standard?

Section 3 Key Findings Summary

3.1: Landlord compliance with disclosure and upgrade obligations appears very high. Across the three monitoring periods, landlord compliance with obligations to disclose a compliant/exempt/non-compliant status in advertisements remained between 85% and 88%. In addition, the number of insulation upgrades undertaken since the introduction of the Standard is ~60% greater than the number of reported non-compliant priorities that would be required to comply at the time of analysis.

3.2: A relatively high proportion of landlords are self-assessing, which could have implications for the accuracy of landlords' disclosure as they do not typically possess the necessary knowledge to accurately assess.

3.1 Landlord compliance with disclosure and upgrade obligations appears very high

There are two main obligations landlords must comply with under the Standard – the property's compliance with the insulation requirements and the disclosure of a property's compliance with the Standard (e.g. compliant, non-compliant or exempt).

Across the three monitoring periods, landlord compliance with obligations to disclose a compliant/exempt/non-compliant status in advertisements remained between 85% and 88%. Table 6 below provides a summary of the compliance data since the introduction of the Standard.

Reported compliance remained high at 58%-60% of those that disclosed. Properties reported an exemption remained steady at 22%-24%. However, the reported non-compliance rates showed a slight decrease from 20% in Q1 to 15% in Q3. Further data beyond the scope of this study, would be required to verify (1) disclosure and insulation compliance for non-listed lease renewals, (2) veracity of self-reported compliance, and (3) quality of insulation upgrades undertaken. Government, tenants and compliant landlords could benefit from a subsidised/free insulation audit program to address data gaps and provide assurance of the quality of assessments and upgrades that landlords have paid for.

Table 6: Summary of compliance data for this monitoring period

	Q1	Q2	Q3
Number of rental properties listed with compliance text available	1,693*	2,664	1,864
Number of rental properties that met their disclosure obligation with the Standard	1,456 (86%)	2,261 (85%)	1,635 (88%)
Number of rental properties that reported compliance with the Standard	982 (58%)	1,311 (58%)	989 (60%)
Number of rental properties that reported an exemption with the Standard	372 (22%)	520 (23%)	397 (24%)
Number of rental properties that reported non-compliance with the Standard	339 (20%)	429 (19%)	249 (15%)

*Due to extended negotiations with the Domain Group, we only had disclosure and compliance data for 1,693 out of the 4,122 properties listed during Q1. The following analysis only considers the 1,693 properties for which we had data and there are therefore limitations with the Q1 analysis.

There are a high number of insulation upgrades occurring, however the proportion of upgrades that are happening in required rental properties is unknown

The number of properties that would require upgrades every month was forecasted based on the number of properties that reported non-compliance with the Standard and the date they were listed for lease. These forecasts were then compared to the actual number of insulation upgrades (using Electrical Safety Certificate data from Access Canberra). The number of insulation upgrades undertaken since the introduction of the Standard is ~60% greater than the number of reported non-compliant priorities that would be required to comply at the time of analysis.

As shown in Figure 6 below, the cumulative number of upgrades completed exceeds the forecasted number of non-compliant properties that would require upgrades each month. By May 2024, 1,259 insulation upgrades had been completed. This is

compared to the 770 rental properties that were forecast to require upgrades to comply with the Standard. This potentially reflects either compliance by non-listed lease renewals, landlords complying early, or upgrades in owner occupied properties. However, detailed address matching analysis beyond the scope of this project would be required to provide certainty.

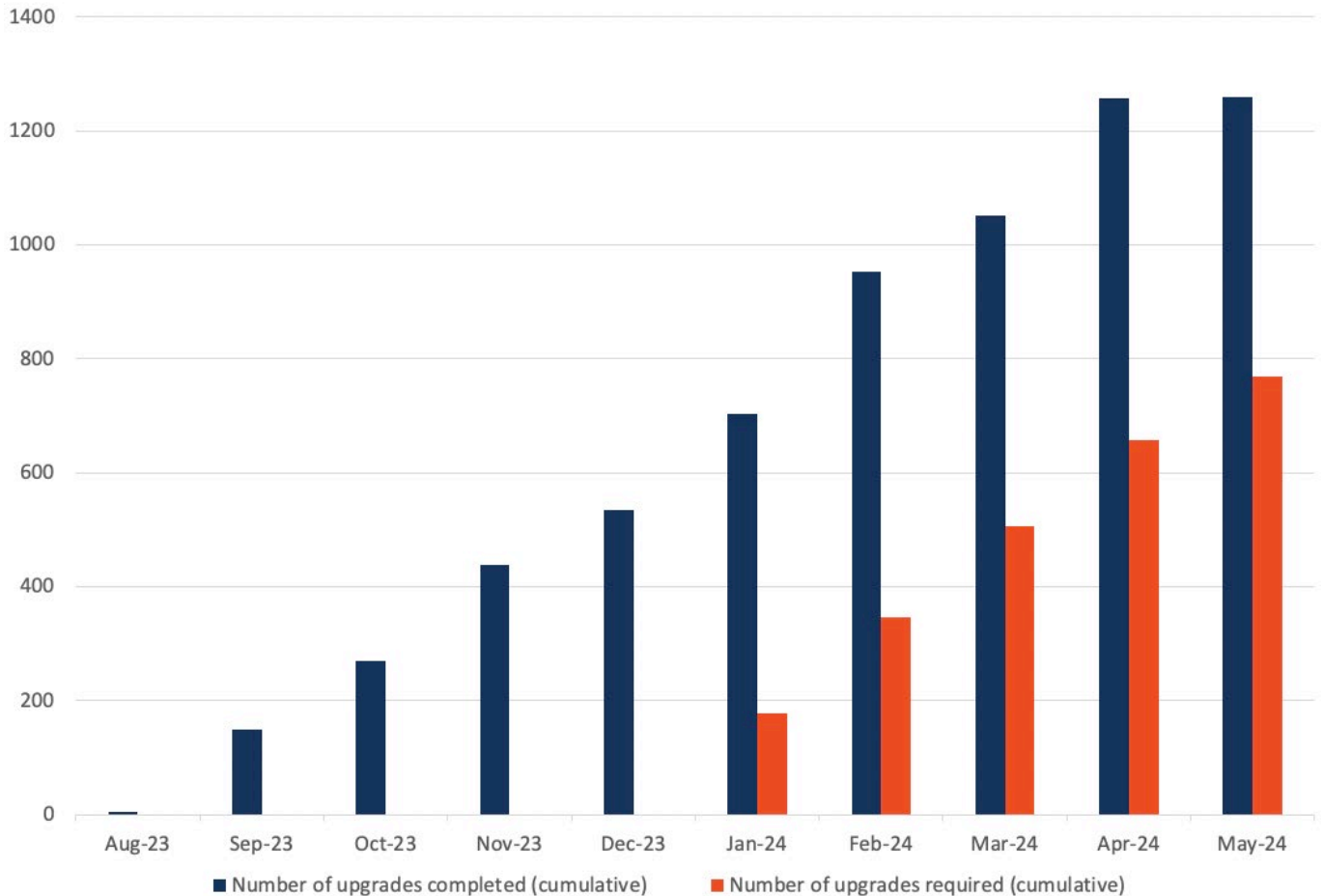


Figure 6: Cumulative number of upgrades required (based on forecasted figures of non-compliant properties) compared with actual upgrades completed

Disclosure compliance rates did not vary by property type, however reported compliance rates were significantly higher in houses

The rates of disclosure and reported compliance for houses and apartments in the ACT remained steady. Across the three monitoring periods, 84-89% of rental house listings and 85-87% of rental apartment listings disclosed their compliance with the Standard.

The percentage of reported compliance amongst houses that disclose their compliance was approximately 65%-70% across the three monitoring periods, while rental apartments were significantly lower at 50%-51%. While this is considerably lower for apartments, it is likely that the reported compliance is lower because many are exempt from complying with the Standard. 39%-40% of apartments that disclosed their compliance claimed an exemption, while only 5%-7% of rental houses claimed an

exemption. This is likely because only top floor apartments must comply with the Standard – apartments on other floors are permanently exempt.

Properties with known EERs have much lower rates of reported non-compliance with the Standard.

Out of the 6,221 properties listed for rent (with compliance data) between 1 April 2023 and 27 February 2024, 2,056 properties had known energy efficiency ratings (EERs). Out of the properties with known EERs, the disclosure rate was similar to the overall disclosure rate (~86%). However, properties with known EERs had a significantly lower reported rate of non-compliance (6%). The reported non-compliance rate of all properties that met their disclosure obligation was 15%-20% across the three monitoring periods.

The number of real estate agencies not disclosing compliance with the Standard decreased significantly between Q2 and Q3

Figure 7 below shows the non-disclosure rates of agencies across the ACT for Q2 (blue dots) and Q3 (orange dots). The number of agencies that did not disclose for any of their listings decreased considerably in Q3 when compared to Q2 (the number of agencies reduced from nearly 25% to 13.7%). The proportion of agencies with a 100% non-disclosure rate also decreased from 25% in Q2 (34 out of 137 listing agencies with compliance data available) to 15% in Q3 (12 out of 80 agencies with compliance data available).

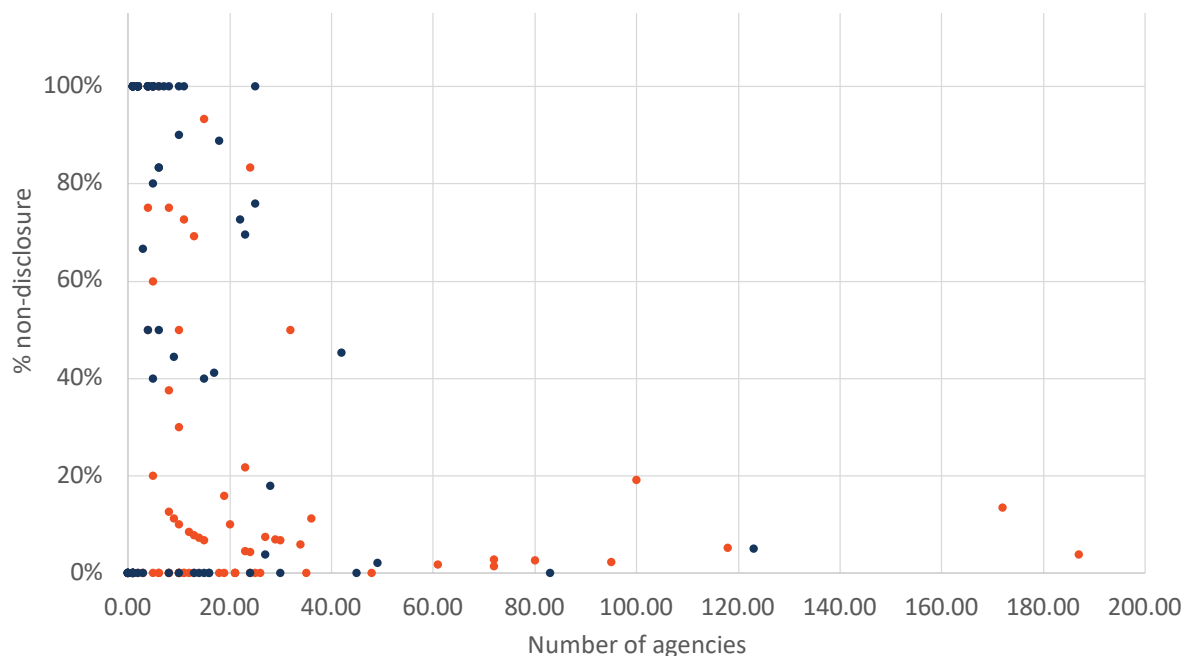


Figure 7: Percentage of non-disclosure by number of real estate agencies across the ACT for Q2 (blue dots) and Q3 (orange dots)

Agencies are reporting a lower rate of non-compliance in Q3 when compared with Q2

Figure 8 below shows the percentage of listings per agency that report non-compliance with the Standard for Q2 (blue dots) and Q3 (orange dots). The proportion of agencies with a 100% reported compliance rate has increased from 16% in Q2 to 22.5% in Q3. As shown in Figure 8 below, there has also been a slight decrease in the rate of non-compliance reported by agencies. In addition, agencies with a higher number of listings continue to have low non-compliance rates (less than 40%).

The percentage of agencies with a reported non-compliance rate higher than 60% has decreased from 9.4% in Q2, to 7.5% in Q3. Figure 8 also shows that in Q3, there were five agencies that had 95 or more listings and a low reported non-compliance rate (of less than 20%). Out of the 152 agencies with active listings, there were ten agencies that cumulatively had 47% of the total rental properties listed between 1 April 2023 and 27 February 2024. There is a case to conduct a minor audit on a handful of these larger agencies to validate whether the disclosed status of their rental listings matches the property’s actual compliance status. This would help validate whether findings from this project accurately reflect the proportion of compliant, non-compliant properties and exempt properties.

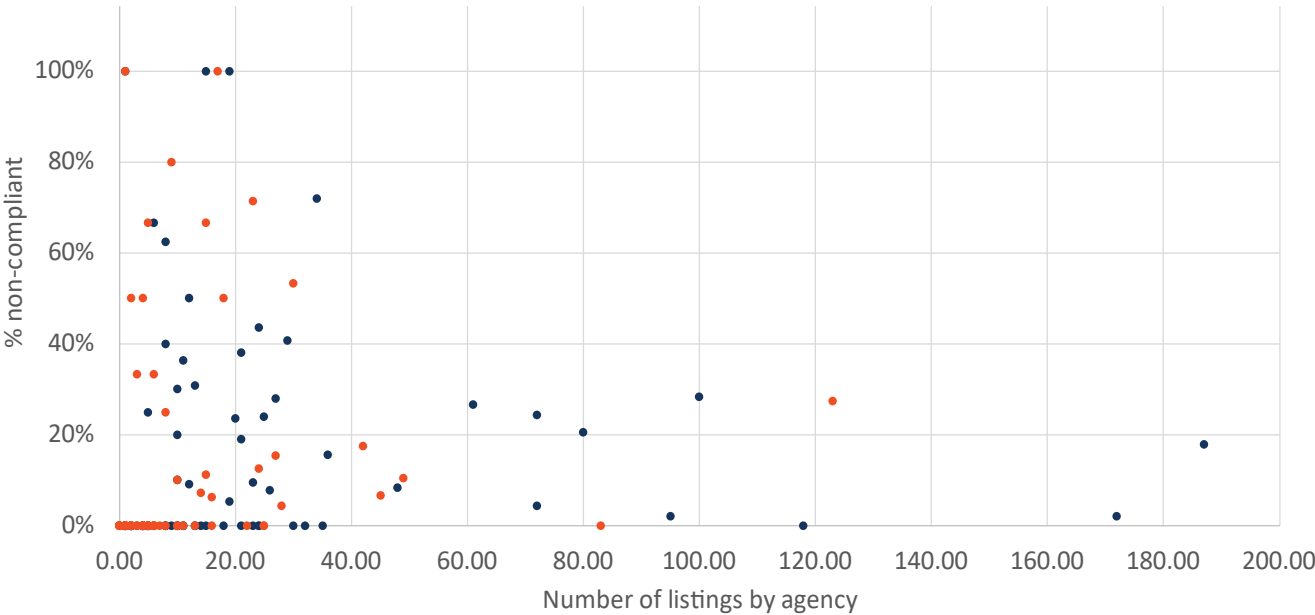


Figure 8: Percentage of listings per agency that reported non-compliance with the Standard in Q2 (blue dots) and Q3 (orange dots)

3.2 A relatively high proportion of landlords are self-assessing, which could have implications for the accuracy of landlords' disclosure

There appears to be an imbalance in the level of rigour regarding the assessment requirements between the installation of insulation in new properties and assessment of insulation in existing properties. Under the Building Code of Australia, new builds must adhere to strict insulation assessment, installation and minimum R-value requirements to receive a code of compliance. Compliance is more certain, as all properties are assessed in order to receive a code of compliance. Existing homes have no such “check point” and no requirement for professional assessment.

Survey results from the landlord survey revealed that 35% (14 out of 40) of landlords that responded to a question on who assessed their insulation, performed the insulation assessment themselves. The remaining 65% (26 out of 40) of respondents used an assessor or insulation installer. This aligns with the results from the property manager survey in which 43% (10 out of 23) of respondents stated that the owner had performed the assessment.

This could have implications for the accuracy of landlords' disclosure, as they typically do not possess the necessary insulation knowledge. There is a risk that landlords think their insulation is compliant with the Standard (and disclose compliance) when it is in fact non-compliant. This is supported by anecdotal evidence from interviews, of tokenistic landlord inspections. Without a compliance and audit framework we are unable to assess how material this risk is to the Standard.

Requiring certified assessors to be used under the Standard would likely increase confidence in the veracity of reported compliance and non-compliance in properties. However, this would add an additional cost for assessment which would need to be considered in future costs and benefit calculations. In interviews we heard the cost of a site-visit assessment is approximately \$265. Independent audits of a selection of homes that have reported compliance or non-compliance would provide the Government with greater confidence in understanding how effective the current regime is. This could then inform whether there is a case for the additional assessment costs.

Preliminary improvement opportunities based on Section 3 findings

Areas for further investigation:

- Work with All Homes and RealEstate.com to implement a standard field or drop-down of options to disclose compliance with the Standard to assist landlords, property managers and ongoing government compliance monitoring.
- Consider establishing a portal or central publicly searchable register to upload compliance status and supporting evidence to provide auditors, tenants and landlords with transparent and low cost desktop access to compliance data.
- Consider a pilot program to provide free insulation audits to tenants and landlords to help with compliance and enforcement, and ensure the assessment and insulation quality is provided to compliant landlords, within current statutory powers.
- Consider a regulatory amendment to add an obligation to disclose compliance to Government and enable direct Government initiation of audits, in addition to tenants' rights and ACAT enforcement pathways.
- Consider a regulatory amendment to require the insulation assessment to be conducted by a certified assessor. This would ensure an accurate assessment and reporting of compliance with the Standard. In addition, no formal certification framework for assessors exists and therefore this would first need to be developed, or the existing installer certification leveraged.

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APPENDIX 1

Difference-in-difference methodology and results

Methodology

Our modelling focus is on creating a counterfactual for price trends in the ACT based on those observed in neighbouring parts of NSW. We estimate three main models. Our most general model (Model 1) has the form,

$$\log(\text{rent}_{irt}) = \alpha_0 + \alpha_r + \alpha_1 \text{beds}_{irt} + \alpha_2 \text{baths}_{irt} + \dots + \delta_t + \gamma_t \times D_{irt}$$

On the left-hand side of the equation, we have the log of rental prices for property i in suburb r in time t . On the right-hand side we have the coefficients to estimate and the variables; α_0 is a regression intercept related to the overall level of rents; α_r is an intercept that relates to the rental price level in each suburb; $\alpha_1, \alpha_2, \dots$ are coefficients on variables which influence rent such as the number of bedrooms and bathrooms and many other variables that are included; δ_t are time dummy coefficients for each time period (quarters) which reflect the price level changes over time periods—these are assumed/required to be the same for the Treated and Control areas prior to the treatment in DID analysis (see the Appendix—this is the key ‘Common Trends’ identifying assumption); γ_t are dummy coefficients for each time period multiplied by a dummy variable D_{irt} which is equal to 1 for the treated properties (i.e., those in the ACT) and zero otherwise. This model allows for different time trends both before and after the treatment occurs. We will primarily use this model to see whether time trends are similar in the Treated and Control regions prior to the treatment occurring (i.e., we will check whether $\gamma_t \approx 0$). If they are not similar, then we will adjust the weights of observations in the Control region to ensure this (see the section below).

$$\log(\text{rent}_{irt}) = \alpha_0 + \alpha_r + \alpha_1 \text{beds}_{irt} + \alpha_2 \text{baths}_{irt} + \dots + \delta_t + \gamma_t d_{irt}$$

The second model (Model 2) that we will estimate is a DID model shown above. This assumes that the time trends in the Treated and Control regions are the same prior to treatment. The main difference with the earlier model is the term, $\gamma_t d_{irt}$. Here d_{irt} is a dummy variable equal to one for homes in the Treated region after the treatment and zero otherwise. The key factors of interest in this model are the γ_t for each of the time periods. These indicators show how rental price trends in the Treated region differ from those in the Control region (i.e., see the Appendix—they measure the difference between the observed and counterfactually imputed rents). If these differ from zero, then the treatment has had an impact on rents.

$$\log(\text{rent}_{irt}) = \alpha_0 + \alpha_r + \alpha_1 \text{beds}_{irt} + \alpha_2 \text{baths}_{irt} + \dots + \delta_t + \gamma d_{irt}$$

The final model (Model 3) we will estimate is shown above and is somewhat simpler. This model only differs in the estimate of the parameter γ . In the third equation we estimate a single parameter which represents a level shift in rents in the Treated region after treatment. We can test whether this is different from zero to see if there are any statistically significant impacts on rents as a result of the ACT energy efficiency requirements.

Data

Data was purchased from Domain/APM of rental listings from the www.domain.com.au website. This data included rental prices, the location of the property and a wide range of property characteristics. Data was purchased for all postcodes in the ACT as well as a handful of postcodes in neighbouring parts of NSW including Queanbeyan and Jerrabomberra. The NSW postcodes are to be used as a control region for the ACT, as homes in NSW were not affected by the legislative changes in the ACT.

Ensuring Comparability of Treated and Control Groups

One challenge with the DID approach in this context is that rental price movements in the control group may not closely match those in the treated group prior to the treatment. This may arise because the property volumes are different in aggregate, or the regions are different in some way. However, it is usually possible to find a re-weighting of the control group so that it matches the treated group more closely.

The way we implement this approach in practice is via an optimisation algorithm. A key control in our regression model are the suburb dummy variables. There are a relatively small number of suburbs in the Control region. There are 11 suburbs for which more than 30 observations are available. We fix the weights for all observations within each suburb for these 11 suburbs. Thus, for suburb A each observation has weight w_A and in suburb B each observation has weight w_B and so forth. We seek to find the weights which make the rental price trends (reflected in the δ_t and γ_t in the first model) prior to the policy being introduced as similar as possible in the treated and reweighted control regions.

We place some constraints on the weights in order to ensure the optimisation does not drop too much data or place too much weight on a few observations. We restrict the weights such that, $\frac{1}{10} < w_k < 10$ and require that $\sum_{k=1}^K w_k n_k = \sum_{k=1}^K n_k$. Here K is the number of suburbs in the control region in which we set the weights. This latter restriction requires that the sum of the number of observations with weights set at one, $\sum_{k=1}^K n_k$, is equal to the sum of the weights after the optimal weights are chosen.

Results

This section discusses our results based on data from 2018Q3 up to 2024Q1.

Re-Weighting of the Control Group to Match the Treated Group

In practice we maximized the p-value of an F-test of common trends restriction between the Treated and Control regions prior to the treatment on 1 April 2023. The

figure below compares the quality-controlled price trends arising from the hedonic regression with equal weights and with optimal weights.

Clearly, equally weighting the Control observations does not deliver a sample which has rental price trends which are similar to the Treated sample. However, the optimally reweighted Control sample has price trends which are considerably closer to those of the Treated sample. An F-test of the equivalence of the price trends, when the sample is optimally weighted, is not rejected at conventional significance levels. This optimally reweighting is what will be used in estimating the models which follow in the next section.

As in the prior update we use two approaches to reweighting the observations. The first is based on all suburbs outside the ACT and the second uses just two suburbs:

1. The weights have been chosen using all available NSW suburbs. This is called 'Optimal Weights (Using All NSW Suburbs)'.
2. The weights have been chosen optimally but only using the suburbs of Googong and Jerrabomberra. This is called 'Optimal Weights (Using Only 2 NSW Suburbs)'.

In the latter case weights for all suburbs other than Googong and Jerrabomberra are set to zero which drops these observations from the Control sample. The areas of Googong and Jerrabomberra and their relationship to the ACT are shown in Figure 9.

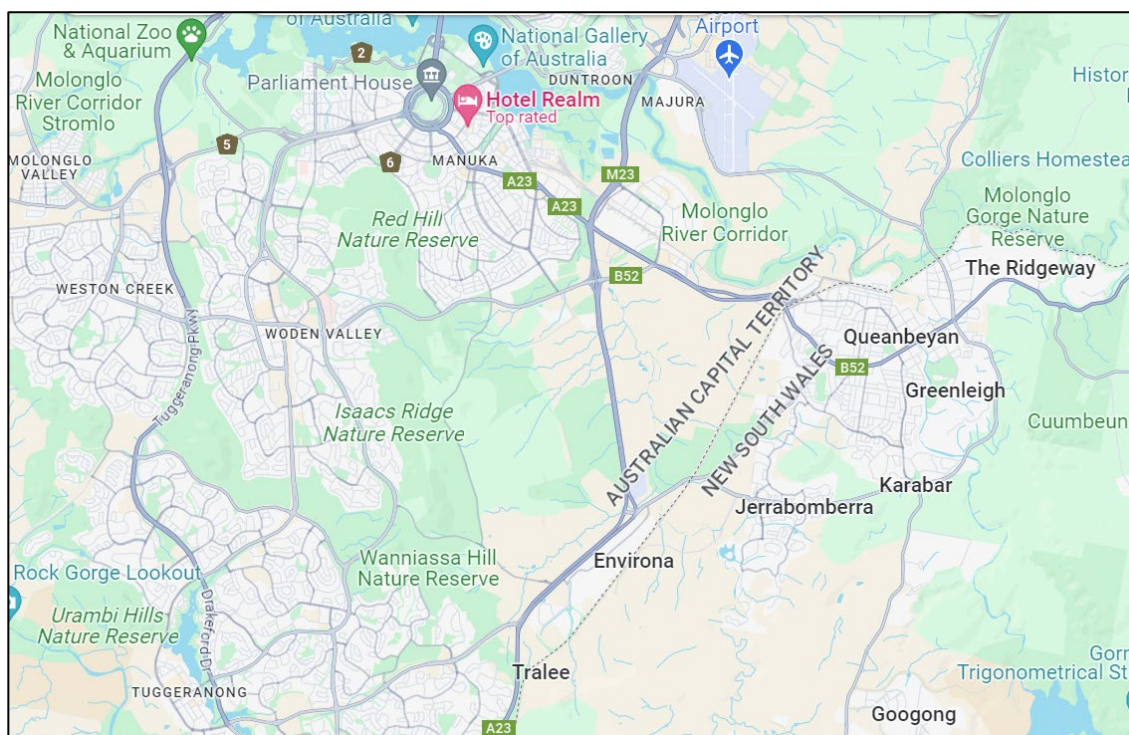


Figure 9: Map of parts of the ACT and nearby NSW suburbs

The optimal weights for the two cases are shown below in Table 7. As can be seen in the second case using only two suburbs, a higher weight is given to Googong than

Jerrabomberra. It is also clear that using only two suburbs in the Control group drops a lot of observations.

Table 7: Weights of Control (NSW) Suburbs

Suburb	Number of Observations	Optimal Weights (Using All NSW Suburbs)	Optimal Weights (Using Only 2 NSW Suburbs)
Bungendore	281	2.2	0
Bywong	40	6.8	0
Captains Flat	30	0.1	0
Crestwood	329	0.1	0
Googong	581	4.8	1.9
Goulburn	174	0.8	0
Jerrabomberra	565	0.1	0.1
Karabar	213	0.1	0
Oaks Estate	34	8.1	0
Queanbeyan	2,373	0.2	0
Queanbeyan East	359	0.1	0
Queanbeyan West	86	0.1	0
Tralee	43	10.0	0
Wamboin	42	0.8	0

Note: in the weights optimisation the weights are bounded between 0.1 and 10. Higher weights indicate that a suburb has a greater role in creating a Control sample which is similar to the ACT. The Control weights are required to sum to a fixed value so in the optimisation some weights must rise while others fall.

Regression Estimates

Figure 10 below illustrates the rental price trends for the Treated (ACT) and Control (certain NSW suburbs) regions for the unrestricted model (Model 1 described in the methodology) using the two weighting schemes. As can be seen, the weighting scheme that uses all NSW suburbs that are close to the ACT has rental price trends which are more similar to those in the ACT than does the control which uses only the 2 NSW suburbs. A further problem with the using just 2 NSW suburbs as controls is that

this reduces the number of observations in the control and means that the Control price trends are more volatile.



Figure 10: Regression Coefficients for Time Trend in Rental Prices (Model 1) (Quality Controlled Rental Price Trends – Using all NSW suburbs)



Figure 11: Regression Coefficients for Time Trend in Rental Prices (Model 1) (Quality Controlled Rental Price Trends – Optimal Weights (Using Only 2 NSW Suburbs))

The Table below reports the values of coefficients for the variables of primary interest from Model 3 described in the methodology section above and for the weighting case with ‘Optimal Weights (Using All NSW Suburbs)’. Table 9 reports the coefficients from the same model but with ‘Optimal Weights (Using Only 2 NSW Suburbs)’. These models include a dummy variable ‘factor(d)1’ for after the treatment in the Treated region and assumes that the rental price trends are the same for Treated and Control regions. This dummy variable is the primary variable of interest and reflects the average difference in rents between the Treatment and Control regions after the treatment occurred.

Compared with the prior update, a dummy variable has been added ‘has_dummy_missing’. This is set equal to one for all observations from December 2023 to the present. This variable accounts for the fact that the ‘has...’ variables were not available in the most recent update. Including this variable is likely to reduce the bias from the exclusion of these variables.

Table 8: Regression Coefficients for Optimal Weights (Using All NSW Suburbs)

Term	Estimate	Std Error	T Statistic	P Value
property_typeApartment	0.117	0.109	1.07	0.285
property_typeApartmentUnitFlat	0.112	0.109	1.02	0.306
property_typeChalet	0.137	0.264	0.52	0.602
property_typeCottage	0.133	0.118	1.13	0.259
property_typeCourtyard Home	0.127	0.115	1.10	0.269
property_typeDual Occupancy	0.180	0.111	1.62	0.105
property_typeDuplex	0.142	0.110	1.29	0.196
property_typeHouse	0.184	0.109	1.69	0.091
property_typeInvestment Property	-0.194	0.264	-0.74	0.462
property_typeOther	-0.006	0.112	-0.05	0.958
property_typeRural	0.257	0.121	2.12	0.034
property_typeSemiDetached	0.193	0.115	1.68	0.093
property_typeStudio	0.047	0.114	0.41	0.684
property_typeTerrace	0.176	0.115	1.53	0.127
property_typeTownhouse	0.163	0.109	1.49	0.136
property_typeTri Occupancy	-0.024	0.263	-0.09	0.926
property_typeUnit	0.069	0.109	0.63	0.527
property_typeVilla	0.181	0.111	1.63	0.102
n_bedrooms	0.173	0.001	120.21	0.000
n_bathrooms	-0.018	0.002	-9.48	0.000
n_parking	0.041	0.002	23.43	0.000
n_parking_missing	0.043	0.003	13.62	0.000
eer_value	0.000	0.000	2.23	0.026
eer_missing	-0.025	0.002	-11.56	0.000
has_aircon	0.010	0.002	4.01	0.000
has_heat	-0.025	0.004	-5.99	0.000

has_new_construction	0.018	0.009	1.93	0.053
has_solar_panels	0.063	0.019	3.30	0.001
has_double_glazed_windows	0.096	0.009	11.03	0.000
has_slab_construction	0.028	0.013	2.19	0.029
has_swimming_pool	0.027	0.005	5.21	0.000
has_dummy_missing	0.006	0.006	1.11	0.269
factor(yearquarter)2018.75	0.009	0.009	1.00	0.319
factor(yearquarter)2019	0.028	0.010	2.73	0.006
factor(yearquarter)2019.25	0.002	0.009	0.19	0.852
factor(yearquarter)2019.5	0.001	0.008	0.07	0.942
factor(yearquarter)2019.75	0.024	0.008	2.85	0.004
factor(yearquarter)2020	0.042	0.010	4.07	0.000
factor(yearquarter)2020.25	0.014	0.009	1.53	0.125
factor(yearquarter)2020.5	0.032	0.009	3.57	0.000
factor(yearquarter)2020.75	0.068	0.009	7.72	0.000
factor(yearquarter)2021	0.095	0.010	9.82	0.000
factor(yearquarter)2021.25	0.096	0.009	10.59	0.000
factor(yearquarter)2021.5	0.125	0.009	13.78	0.000
factor(yearquarter)2021.75	0.151	0.009	17.15	0.000
factor(yearquarter)2022	0.175	0.009	19.30	0.000
factor(yearquarter)2022.25	0.171	0.009	18.80	0.000
factor(yearquarter)2022.5	0.187	0.009	21.14	0.000
factor(yearquarter)2022.75	0.194	0.009	22.47	0.000
factor(yearquarter)2023	0.208	0.009	24.31	0.000
factor(yearquarter)2023.25	0.161	0.011	14.16	0.000
factor(yearquarter)2023.5	0.167	0.011	14.93	0.000
factor(yearquarter)2023.75	0.196	0.011	17.13	0.000
factor(yearquarter)2024	0.218	0.012	18.35	0.000
factor(d)1	0.012	0.008	1.45	0.148

Table 9: Regression Coefficients for Optimal Weights (Using Only 2 NSW Suburbs)

Term	Estimate	Std Error	T Statistic	P Value
property_typeApartment	0.182	0.170	1.07	0.285
property_typeApartmentUnitFlat	0.179	0.170	1.05	0.294
property_typeChalet	0.167	0.287	0.58	0.562
property_typeCottage	0.092	0.194	0.47	0.635
property_typeCourtyard Home	0.175	0.174	1.01	0.315
property_typeDual Occupancy	0.212	0.171	1.23	0.217
property_typeDuplex	0.181	0.170	1.06	0.287
property_typeHouse	0.211	0.170	1.24	0.216
property_typeInvestment Property	-0.139	0.287	-0.48	0.628
property_typeOther	0.043	0.172	0.25	0.803
property_typeRural	0.238	0.201	1.19	0.236
property_typeSemiDetached	0.224	0.174	1.29	0.198
property_typeStudio	0.135	0.174	0.78	0.438
property_typeTerrace	0.200	0.179	1.12	0.264
property_typeTownhouse	0.201	0.170	1.18	0.239
property_typeTri Occupancy	0.021	0.287	0.07	0.942
property_typeUnit	0.140	0.170	0.82	0.412
property_typeVilla	0.231	0.172	1.35	0.178
n_bedrooms	0.193	0.001	130.02	0.000
n_bathrooms	0.023	0.002	11.29	0.000
n_parking	0.034	0.002	18.67	0.000
n_parking_missing	0.032	0.003	9.85	0.000
eer_value	0.000	0.000	2.26	0.024
eer_missing	-0.026	0.002	-12.34	0.000
has_aircon	0.005	0.002	1.98	0.047
has_heat	-0.031	0.004	-7.61	0.000

has_new_construction	0.010	0.009	1.08	0.279
has_solar_panels	0.063	0.020	3.12	0.002
has_double_glazed_windows	0.085	0.008	10.02	0.000
has_slab_construction	0.032	0.013	2.48	0.013
has_swimming_pool	0.024	0.005	4.78	0.000
has_dummy_missing	0.006	0.006	1.04	0.297
factor(yearquarter)2018.75	0.009	0.008	1.07	0.284
factor(yearquarter)2019	0.028	0.010	2.78	0.005
factor(yearquarter)2019.25	0.003	0.009	0.40	0.690
factor(yearquarter)2019.5	0.000	0.008	0.00	0.996
factor(yearquarter)2019.75	0.027	0.008	3.23	0.001
factor(yearquarter)2020	0.044	0.010	4.31	0.000
factor(yearquarter)2020.25	0.015	0.009	1.69	0.092
factor(yearquarter)2020.5	0.032	0.009	3.64	0.000
factor(yearquarter)2020.75	0.068	0.009	7.83	0.000
factor(yearquarter)2021	0.099	0.010	10.34	0.000
factor(yearquarter)2021.25	0.099	0.009	11.07	0.000
factor(yearquarter)2021.5	0.128	0.009	14.17	0.000
factor(yearquarter)2021.75	0.153	0.009	17.62	0.000
factor(yearquarter)2022	0.177	0.009	19.80	0.000
factor(yearquarter)2022.25	0.173	0.009	19.37	0.000
factor(yearquarter)2022.5	0.190	0.009	21.87	0.000
factor(yearquarter)2022.75	0.196	0.009	22.89	0.000
factor(yearquarter)2023	0.212	0.008	25.14	0.000
factor(yearquarter)2023.25	0.157	0.017	9.17	0.000
factor(yearquarter)2023.5	0.150	0.017	8.83	0.000
factor(yearquarter)2023.75	0.169	0.017	9.90	0.000
factor(yearquarter)2024	0.192	0.017	11.06	0.000
factor(d)1	0.021	0.015	1.35	0.178

As can be seen from the table of coefficients, the signs of the variables are invariably intuitive and sensible. They are interpreted as percentage effects. For example, one additional bedroom increases the rental price by around 19.3%.

There are some interesting coefficients around 'has_solar_panels', 'has_double_glazed_windows' and 'eer_value'. These coefficients are quite large and positive. However, some caution should be used in interpreting them. They may be slightly exaggerated as other desirable attributes, which are not observed so not included in the model, could be correlated with these values. This would tend to bias these coefficients upwards.

The Impact of ACT Energy Efficiency Requirements

Our results provide two main ways of examining the impact of the ACT Energy Efficiency measures on rental prices. First, we can look at Figure 7 and Figure 8. These illustrate the unrestricted rental price trends using the two weighting schemes. These show quite a bit of volatility in rental price trends, particularly more recently. But limited evidence of higher rates of rental price growth in the ACT than the suburbs from NSW used in the Control.

Second, we can look at the regression results shown in Table 8 and Table 9. This model includes the variable labelled 'factor(d)1'. This is a dummy variable for rental properties in the Treated region after the treatment. The coefficient on this variable gives an indication of how much rents in the Treated region have deviated from those in the Control region after the treatment occurred on 1 April 2023. In the model that uses all NSW suburbs the coefficient indicates that rents are only 1.2% higher on average in the ACT than in the Control region. This is a relatively modest amount considering the volatility in rental price movements and the coefficient is not statistically significantly different from zero at conventional significance levels. In the case where only the suburbs of Googong and Jerrabomberra are used as Controls the coefficient indicates that rents have risen by 2.1% more in the ACT than the Control region. This is a larger effect, though still relatively modest in comparison to overall rental dynamics. However, this coefficient is also not statistically significant at conventional levels.

Given these results we continue to conclude that there do not appear to be meaningful rental price differences arising as a result of the introduction of energy efficiency regulations in the ACT on 1 April 2023.

References for the difference-in-difference analysis

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Industry in New Jersey and Pennsylvania", *American Economic Review* 84(4), 772-793.

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APPENDIX 2

Governance structure for the Minimum Standard

The Responsible Accountable Consulted Informed (RACI) matrix below outlines the governance framework underpinning the Standard. It provides the key activities that were completed at each stage of the policy cycle (policy analysis and approval, pre-implementation, and implementation) and the participation by different stakeholders across the ACT Government and externally. The stakeholders involved with the Standard include:

- ACT Environment, Planning and Sustainable Development Directorate (EPSDD)
 - Adaptation and Resilience Policy team
 - VHESSE Programs team
 - Executives
 - Communications team
- Other ACT Government Directorates (e.g., Health, Transport, Education)
- Parliamentary Counsels Office
- Minister for Water, Energy and Emissions Reduction
- Chief Minister
- ACT Justice and Community Safety (JACS) Directorate: Residential Tenancies Act team
- Access Canberra
- ACT Civil and Administrative Tribunal (ACAT)
- Energy Efficiency Council (EEC)
- External consultant
- Industry stakeholders (including the Real Estate Institute of the ACT (REIACT), Better Renting, and individual insulation companies)

Definitions of each of the four roles include:

- **Responsible:** the person/team/organisation who completes the activity.
- **Accountable:** the person/team/organisation that has final signoff on the successful completion of the activity.
- **Consulted:** the person/team/organisation whose feedback or contribution is required to complete the activity (two-way communication).
- **Informed:** the person/team/organisation who should be kept updated of the activity's status/outcome (one-way communication).

Table 10: RACI matrix governing the Standard

Key activities	Responsible (completes the activity)	Accountable (has final sign-off)	Consulted (contributes to the activity)	Informed (kept updated)
Stage 1: Policy analysis and approval				
Undertake a RIS to investigate policy settings to most effectively achieve the desired outcomes of the Standard	<ul style="list-style-type: none"> • EPSDD policy team • External consultant 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • JACS • Access Canberra • CMTEDD • EEC 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction
Establish email inbox to be regularly monitored	<ul style="list-style-type: none"> • EPSDD policy team 	<ul style="list-style-type: none"> • EPSDD Executives 	-	<ul style="list-style-type: none"> • Access Canberra • EEC • Industry stakeholders • General public
Develop and release public consultation paper on proposed policy settings	<ul style="list-style-type: none"> • EPSDD policy team • JACS • External consultant 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • Access Canberra • Communications team 	<ul style="list-style-type: none"> • Industry stakeholders

Key activities	Responsible (completes the activity)	Accountable (has final sign-off)	Consulted (contributes to the activity)	Informed (kept updated)
Collate consultation feedback and complete detailed policy design	<ul style="list-style-type: none"> • EPSDD • JACS 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • Access Canberra • EEC • ACAT 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction • Access Canberra • EEC • ACAT
Stage 2: Implementation planning				
Prepare regulation and amend legislation to enable implementation	<ul style="list-style-type: none"> • EPSDD policy team • Parliamentary Counsels Office • JACS 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction • Chief Minister 	-	<ul style="list-style-type: none"> • EPSDD Executives
Establish process at ACAT for tenant disputes related to the Standard	<ul style="list-style-type: none"> • EPSDD policy team • JACS 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction 	<ul style="list-style-type: none"> • ACAT 	<ul style="list-style-type: none"> • EPSDD Executives

Key activities	Responsible (completes the activity)	Accountable (has final sign-off)	Consulted (contributes to the activity)	Informed (kept updated)
Draft the implementation plan	<ul style="list-style-type: none"> • EPSDD policy team • JACS 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • Access Canberra • EEC • Industry stakeholders 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction • Industry stakeholders
Create a communications strategy	<ul style="list-style-type: none"> • EPSDD communications team • EPSDD policy team 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction 	<ul style="list-style-type: none"> • JACS 	<ul style="list-style-type: none"> • EPSDD Executives
Determine approach to mitigating key safety risks based on the Royal Commission Report into the Home Insulation Program and stakeholder consultation	<ul style="list-style-type: none"> • EPSDD policy team 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • JACS • Access Canberra • EEC • EPSDD programs team • Industry stakeholders 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction

Key activities	Responsible (completes the activity)	Accountable (has final sign-off)	Consulted (contributes to the activity)	Informed (kept updated)
Brief industry stakeholders on policy settings	<ul style="list-style-type: none"> • EPSDD policy team • JACS 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • Access Canberra • EPSDD Communications team • JACS 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction • EEC • ACAT • Industry stakeholders
Establish Canberra Institute of Technology training program for certification of installers	<ul style="list-style-type: none"> • EPSDD policy team • EPSDD program team 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • EEC 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction
Stage 3: Implementation				
Monitor to ensure a sufficient number of electrical upgrades are being assessed for electrical safety	<ul style="list-style-type: none"> • Access Canberra 	<ul style="list-style-type: none"> • Access Canberra 	-	<ul style="list-style-type: none"> • EPSDD policy team • EPSDD Executives

Key activities	Responsible (completes the activity)	Accountable (has final sign-off)	Consulted (contributes to the activity)	Informed (kept updated)
<p>Execute communication strategy for implementation to improve education and awareness including, design and delivery of workshops with industry stakeholders, and a multi-channel advertisement campaign</p>	<ul style="list-style-type: none"> • EPSDD communications team • EPSDD policy team 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • EPSDD policy team • JACS 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction
<p>Conduct monitoring and evaluation activities</p>	<ul style="list-style-type: none"> • EPSDD policy team • External consultant 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • JACS • Industry stakeholders 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction • Access Canberra • EEC • Industry stakeholders • EPSDD communications team

Key activities	Responsible (completes the activity)	Accountable (has final sign-off)	Consulted (contributes to the activity)	Informed (kept updated)
<p>Conduct project to quantify co-benefits delivered by the Standard, including health, social and educational benefits</p>	<ul style="list-style-type: none"> • EPSDD policy team • External consultant 	<ul style="list-style-type: none"> • EPSDD Executives 	<ul style="list-style-type: none"> • Relevant ACT Government Directorates 	<ul style="list-style-type: none"> • Minister for Water, Energy and Emissions Reduction • Minister for Climate Action (Chief Minister)

APPENDIX 3

ACT landlord journey map

ACT Landlord Journey Map

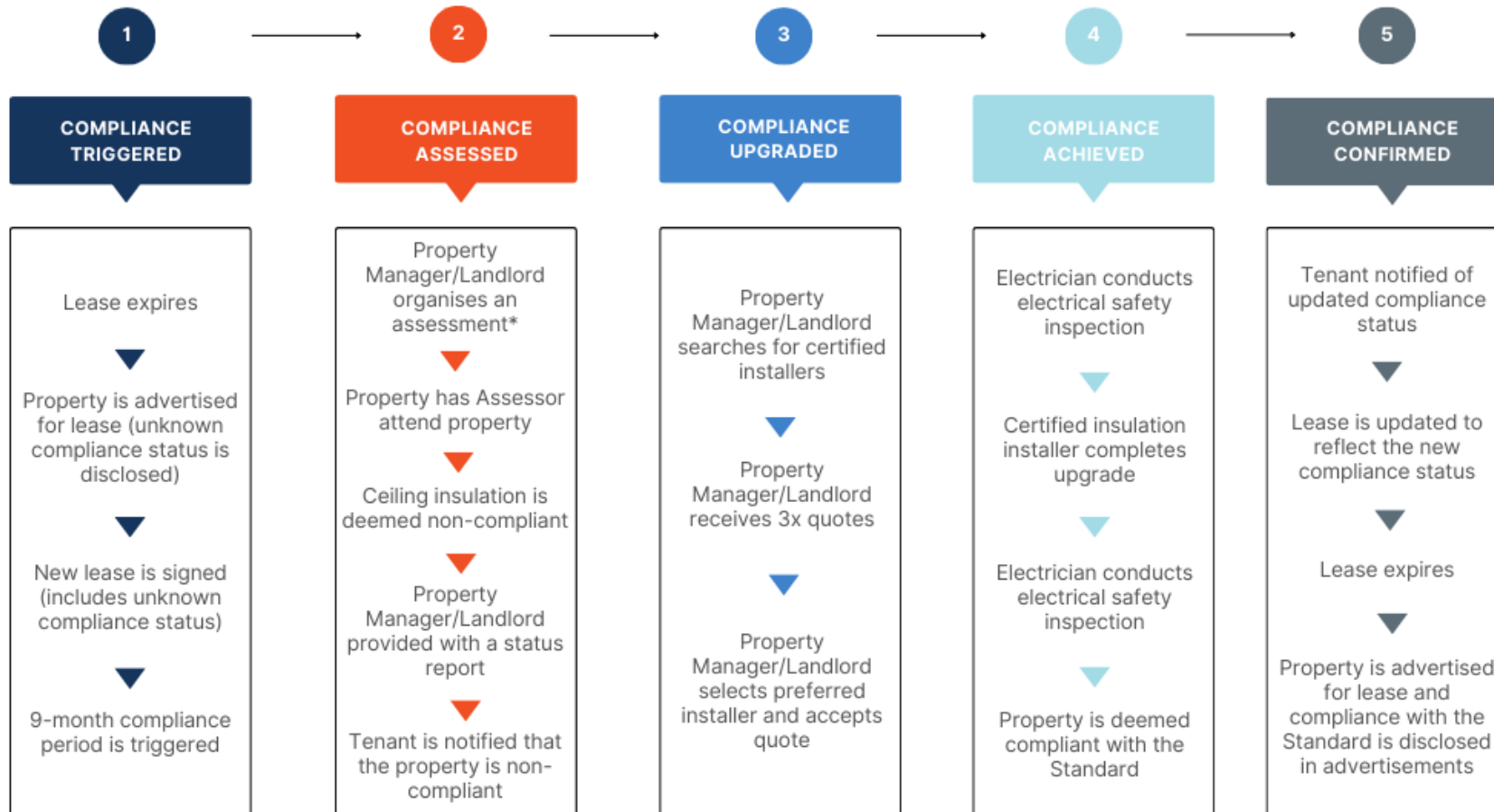


Figure 12: Journey map for a typical ACT landlord with a non-compliant property

APPENDIX 4

Landlord case studies

Case study 1: 3-bedroom townhouse in Hawker

Landlord overview:

- Bought as an owner-occupied property 10 years ago
- Requirement to comply with the Standard was triggered by the current tenant signing a new lease

Understanding of compliance and disclosure requirements

- Landlord had no awareness of the Standard until notified by their Property Manager
- No awareness of SHS as a financing mechanism

Process for determining property's compliance with the Standard

- Property Manager arranged inspection by certified insulation installer
- Assessment cost \$700
- Property was found to be non-compliant (insulation present was R1)
- Agent notified tenants

Process for completing required upgrades to comply with the Standard

- Property Manager arranged 3 quotes from certified installers:
 - Quote 1: \$8,000
 - Quote 2: \$9,700
 - Quote 3: \$10,000
- Landlord considered selling due to higher-than-anticipated costs
- Landlord found an uncertified installer to complete the upgrade at a cost of \$3,500, but is yet to undertake the upgrade.

Case study 2: 3-bedroom apartment in Gungahlin

Landlord overview:

- Purchased as an investment property
- Requirement to comply with the Standard was triggered by the current tenant signing a new lease in April 2023

Understanding of compliance and disclosure requirements

- Landlord had no awareness of the Standard until notified by their Property Manager
- Aware of the SHS, however, preferred to pay upfront rather than take out a loan.

Process for determining property's compliance with the Standard

- Property Manager arranged inspection by certified insulation installer in June 2023
- Assessment cost \$50
- Property was found to be non-compliant
- Agent notified tenants

Process for completing required upgrades to comply with the Standard

- Property required electrical safety upgrades. Received two quotes from certified installers:
 - Quote 1: \$6,200
 - Electrical safety component: \$2,322
 - Insulation component: \$3,878
 - Quote 2: \$9,000
- Landlord selected Quote 1, however upgrade has not yet been completed by the installers despite several follow requests for a deposit paid in July).
- Agent notified tenant of property's updated status

Case study 3: 2-bedroom apartment in Greenway

Landlord overview:

- Purchased as an investment property
- Requirement to comply with the Standard was triggered by the current tenant signing a new lease in October 2023

Understanding of compliance and disclosure requirements

- Landlord had no awareness of the Standard until notified by their Property Manager
- No awareness of SHS as a financing mechanism

Process for determining property's compliance with the Standard

- Property Manager arranged inspection by certified insulation installer
- Assessment cost \$50
- Property was found to be compliant
- Agent notified tenant that property was compliant with the Standard

Process for completing required upgrades to comply with the Standard

- No upgrades required

Case study 4: 3-bedroom standalone house in Conder

Landlord overview:

- Purchased as an investment property
- Requirement to comply with the Standard was triggered by the current tenant signing a new lease in October 2023

Understanding of compliance and disclosure requirements

- Landlord had no awareness of the Standard until notified by their Property Manager
- Aware of the SHS for financing, however, had already used to finance upgrades in own home

Process for determining property's compliance with the Standard

- Property Manager arranged inspection by certified installer in August 2023
- Assessment cost included in quote for upgrades
- Property was found to be non-compliant (insulation present was R1)
- Property was undergoing renovations and so decided to complete upgrades prior to new tenants moving in. However, installer was unable to complete upgrades for 2 months

Process for completing required upgrades to comply with the Standard

- Property Manager arranged one quote from a certified installer: \$13,000
- Landlord advised by certified installer that regulation required R6 insulation
- Upgrades were completed in October 2023



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