1/6 Gritten St
Weston ACT 2611

02 6202 7200
actcoss@actcoss.org.au

actcoss.org.au

Senate Standing Committee on Economics
PO Box 6100, Parliament House, Canberra ACT 2600
economics.sen@aph.gov.au

27 September 2023

Dear Committee Chair

ACTCOSS SUBMISSION TO INQUIRY INTO RESIDENTIAL ELECTRIFICATION

The ACT Council of Social Service Inc. (ACTCOSS) welcomes the opportunity to provide a submission to the inquiry into residential electrification. ACTCOSS advocates for social justice in the ACT and represents not-for-profit community organisations. We seek to ensure that the energy system in the ACT and Australia is inclusive as well as sustainable and provides optimal outcomes for all people, communities, and the environment.

In Canberra, the ACT Government has committed to reaching net-zero greenhouse gas emissions by 2045 by fully electrifying the city. Overall, ACTCOSS is supportive of the imperative to tackle climate change through electrification. Studies show that complete electrification is the cheapest way to decarbonise compared to investing in emerging technologies.[1] However, this submission highlights the need for equity to be front and centre on the pathway to electrification. Climate action through mitigation measures such as electrification must not entrench or exacerbate disadvantage. Instead, climate action can and should aim to also reduce poverty and inequality and improve wellbeing for all.

We address many of the terms of reference of this inquiry in our report *Supporting a fair, fast and inclusive energy transition in the ACT*, which we have attached to this submission.

b. The macro-barriers to increasing the uptake of home electrification

In the surveys and roundtable conducted for our report *Supporting a fair, fast and inclusive energy transition in the ACT*, the most significant and frequently cited barriers to uptake of electrification were cost and tenancy. In the ACTCOSS survey, only 22% of respondents said they would be able to transition off gas in the next decade without government assistance.[2] Electrification, while a cost saver in the long run, can have high upfront costs that prevent many low-income households from being able to access efficient electric retrofits. In addition, renters have minimal ability or incentive to conduct efficient electric retrofits under current tenancy laws. Around 30% of all occupied

[1] M Dyson and C Teplin, *New Jersey Charts a Practical, Affordable Course to a Decarbonized Economy*, Rocky Mountain Institute, 2020; D Aas, A Mahone, Z Subin et al., The Challenge of Retail Gas in California's Low-Carbon Future - Technology Options, Customer Costs, and Public Health Benefits of Reducing Natural Gas Use, California Energy Commission, 2020.
[2] ACT Council of Social Service (ACTCOSS), *Supporting a fair, fast and inclusive energy transition in the ACT*, ACTCOSS, 2023, p.25.

private dwellings are rented,[3] meaning that approximately 30% of households have no agency in the decision making about the structure or energy source of their home. Based on the power imbalance in the rental market caused by weak tenants' rights, high prices and limited supply, it is unrealistic to expect tenants to initiate the energy transition of their households.

c. The total upfront cost and longer-term benefits of household electrification and alternative models for funding and implementation

While a cost saver in the long run, efficient electrification can have high upfront costs that cut many people out of the market.[4] The cost to replace a gas hot water system with an electric system could be between $2,000 and $6,000, depending on the type of system installed.[5] However, lifetime costs of a hot water heat pump are significantly lower than a gas hot water system.[6] A combined gas cooktop and oven has an electric or induction replacement price of between $1,700 and $4,500 installed.[7] Household heating appliances can be the most expensive to replace, depending on the type of appliance installed and the size of the dwelling. To replace ducted gas heating in an average or medium-sized dwelling with a single electric reverse-cycle wall unit, the cost would be between $1,500 and $3,500, depending on the appliance chosen. Replacing gas ducted heating with an electric equivalent would be much more expensive, and could cost upwards of $15,000, not including installation.[8]

The opportunities and benefits of efficient electrification for households are immense and multifaceted. While efficient electric appliances are currently more expensive upfront, they are more energy efficient to run and so produce household energy bill savings.[9] Modelling by the Climate Council shows that households across the nation could save almost $2,000 per year through efficient electric upgrades.[10] As more households leave the gas network, the network supply charge will increase for those left on the network, so the imperative to electrify will continue to increase as more households start to move off gas. While the negative impacts of fossil fuel gas on the climate are well documented,[11] gas heating and cooking have also been linked to respiratory conditions such as asthma. Low-income households are more likely to bear the burden of these costs and health impacts because

[3] Australian Bureau of Statistics (ABS), *Region summary: Australian Capital Territory*, ABS website, 2021.
[4] H Bastian and C Cohn, *Ready to upgrade: Barriers and strategies for residential electrification*, American Council for an Energy-Efficient Economy, 2022, p.v; E Liu, B Judd, and M Santamouris, 'Challenges in transitioning to low carbon living for lower income households in Australia', *Advances in Building Energy Research*, 13(1):55, doi:10.1080/17512549.2017.1354780; Australian Council of Social Service (ACOSS), *Energy efficiency and people on low incomes: Improving affordability* [PDF 1.93MB], ACOSS, 2013, p.6.
[5] ACT Government, *Singing in the shower – a guide to hot water heat pumps*, Everyday Climate Choices website, n.d.
[6] ACT Government, *Singing in the shower – a guide to hot water heat pumps*.
[7] ACT Government, *Cooking with electricity – a guide to electric stove tops*, Everyday Climate Choices website, n.d.
[8] Choice, *How to buy ducted reverse cycle air conditioning*, Choice website, 2019.
[9] ACTCOSS, *Supporting a fair, fast and inclusive energy transition in the ACT*, p.23.
[10] C Tidemann, S Bradshaw, J Rayner and D Arndt, *Smarter energy use: How to cut energy bills and climate harm*, Climate Council, 2023.
[11] Australian Conservation Foundation (ACF), '*Why is gas so bad for the environment?*', ACF website, n.d.

they are more likely to live in energy inefficient, poor quality housing.[12] Provided they have adequate support to enable them to transition, efficient electrification provides an opportunity for Australia to tackle climate change and for low-income households to save on their energy bills and achieve more optimal health and wellbeing outcomes.

h. Solutions to the economic barriers to electrification for low-income households

To enable greater take up of efficient electrification of low-income and vulnerable households, the Australian Government should:

- Prioritise vulnerable and low-income households and develop a clear plan to ensure they are not the last left on the fossil fuel gas network.
- Provide targeted subsidies through grants to cover the full (or close to full) cost of purchasing and installing energy efficient appliances, for households living in poverty and on government support payments.
- Appropriately regulate and incentivise rental providers to provide an efficient electrical property.

i. The effectiveness of existing Australian Federal, state and local government initiatives to promote and provide market incentives for household electrification

ACT programs such as the Sustainable Household Scheme and Home Energy Support Program, as well as programs implemented under the US Inflation Reduction Act, serve as models that could be replicated at the Australian national level. While ACT schemes have assisted some households with their home energy efficiency and electrification upgrades, there are considerable eligibility constraints and administrative barriers preventing uptake of these programs among low-income and vulnerable households.

Existing rebate and incentive programs to date assume that market mechanisms and consumer choice are the best way to accelerate the energy transition. The Government should bear in mind that a similar set of assumptions about the importance of market mechanisms is the main underlying driver of both climate change and social inequity. In aiming to curb emissions and rates of economic hardship, the Government should not merely leave the decision to consumers but should seek to implement policy and regulation that steers the market in the desired direction, while simultaneously addressing the structural and systemic barriers to the uptake of energy transition measures. A range of solutions for consideration that ACTCOSS would support include compensation or subsidisation mechanisms for vulnerable consumers, greater transparency of the carbon emissions intensity of consumer products, and “green” premiums for low carbon essential products and services.[13] While ACTCOSS would support mechanisms such as these, they are still largely market mechanisms and would need to be augmented by structural interventions that redistribute the costs of transitioning and address systemic barriers to uptake and participation in the energy transition.

[12] A Zota, G Adamkiewicz, JI Levy and JD Spengler, ‘Ventilation in public housing: implications for indoor nitrogen dioxide concentrations’, *Indoor Air*, 2005, 15(6):393-401, doi:10.1111/j.1600-0668.2005.00375.x; H Bambrick, K Charlesworth, S Bradshaw and T Baxter, *Kicking the gas habit: How gas is harming our health*, Climate Council, 2021, p.23.

[13] A Bolano, F Lodesani, D Pacthod, et al., *The energy transition: A region-by-region agenda for near-term action*, McKinsey Global Energy and Materials Practice and McKinsey Sustainability, 2022.

k. Any other matters

Climate change action such as residential electrification and cost of living are intricately linked. The Committee should also carefully consider how the current cost of living crisis is both decreasing low-income households' ability to afford life's essentials and their capacity to mentally engage with issues like climate change or residential electrification. This is consistent with ACTCOSS' analysis of cost of living data that shows that low-income households are increasingly unable to keep up with the cost of essentials.[14] ACTCOSS' findings from the 2023 ACT Cost of Living Report show that:

- living costs in the ACT have reached their highest levels in 20 years and low-income households disproportionately face the effects of these increases
- Canberra's electricity prices rose well above the national rate
- other essential service prices in the ACT rose above the national rate, and
- Government income support payments remain inadequate to meet essential living costs in Canberra.

Our members report that when their clients are seeking support, they are generally primarily motivated to resolve their issues with debt and cost of living. However, once stable, many vulnerable and low-income clients express a desire to engage with broader societal and environmental concerns. As ACTCOSS and others in the community sector note, action on climate change such as residential electrification should "address both climate change and the cost of living" in a way that is "inclusive [of vulnerable and low-income people,] ordinary workers and renters to make their lives both environmentally and financially sustainable".[15]

Residential electrification has immense potential to benefit households and the broader economy but just like all action on climate change it needs to be fair, fast and inclusive.

Yours sincerely

Devin Bowles

Dr Devin Bowles
Chief Executive Officer
ACT Council of Social Service
devin.bowles@actcoss.org.au

[14] ACTCOSS, *2023 ACT Cost of Living Report*, ACTCOSS, 2023.
[15] M Poole, 'Mental ill health taking a toll amid dual climate change and cost of living crises', *The Canberra Times*, 1 September 2023.