CONSERVATION COUNCIL ACT REGION

Submission to ACT Government

Integrated energy plan position paper 2023

September 2023

The Conservation Council ACT Region is the peak non-government environment organisation for the Canberra region. Since 1981, we have spoken up for a healthy environment and a sustainable future for our region. We harness the collective energy, expertise and experience of our more than 40 member groups to promote sound policy and action on the environment.

We campaign for a safe climate, to protect biodiversity in our urban and natural areas, to protect and enhance our waterways, reduce waste, and promote sustainable transport and planning for our city. Working in the ACT and region to influence governments and build widespread support within the community and business, we put forward evidence-based solutions and innovative ideas for how we can live sustainably.

At a time when we need to reimagine a better future, we understand that the changes we need will only happen with the collective support of our community.

For further information please contact:

Elle Lawless, Executive Director, director@conservationcouncil.org.au.

Introduction

The Conservation Council welcomes the opportunity to provide comments on the ACT Government's Position Paper: Developing ACT's Integrated Energy Plan.

The Council fully supports the ACT Government's world-leading policy to phase out fossil gas and agrees that the task is "complex but doable".

However, the pace of implementation must be commensurate with the urgency of the climate crisis.

The Synthesis Report of the IPCC's Sixth Assessment Report (AR6-SYR) released in March 2023 is unequivocal in its statements about the urgency required in global emissions reductions.

> *"Keeping warming to 1.5°C above pre-industrial levels requires deep, rapid and sustained greenhouse gas emissions reductions in all sectors. Emissions should be decreasing by now and will need to be* ***cut by almost half by 2030****, if warming is to be limited to 1.5°C."*[1]

For the ACT to demonstrate effective leadership, we must strive to become gas-free and zero emissions across all sectors far sooner than 2045, to prove to other cities, councils and state governments that it can — and must — be done. The problem-solving, pilots and case studies that will happen in the Territory must pave the way for others to follow rapidly. The Government's approach thus far of "make your next choice electric" and statements like "there is no need to rush" is too passive, perhaps driven more by political expediency than scientific evidence. 2045 is a mere 22 years away and we have a lot of work to do in such a short time! The lead times for retrofitting apartment and office buildings and gas-reliant businesses will be significant, so we must be much more proactive in getting those plans started, and pushing hard to get the simple conversions (eg, free-standing houses) done as rapidly as possible.

The three most popular words in the word cloud at August's forum were 'ambition', 'urgency' and 'equity'. Our observation from the various consultation forums over the past few years is that there is general consensus (or at least acceptance) on the zero emissions and electrification agenda, so let's get on with electrifying Canberra. However, regardless of this consensus, "(enlightened) self-interest alone is unlikely to be sufficient to help achieve net zero".[2]

The Conservation Council favours adopting a strategic, staged approach as soon as possible (well before 2030) with a strong regulatory framework to drive those who would not otherwise take action and with equity at its core to support those who cannot take action for themselves. The next publication from the ACT Government needs to be a proactive action plan with clear steps, targets, timeframes and funding.

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[1] IPCC, 2023, 'Urgent climate action can secure a liveable future for all', Press release, 20 March, https://www.ipcc.ch/report/ar6/syr/downloads/press/IPCC_AR6_SYR_PressRelease_en.pdf

[2] Krishnan, Nauclér, Pacthod, et al., 2021, Solving the net-zero equation: Nine requirements for a more orderly transition, McKinsey & Company, https://www.mckinsey.com/capabilities/sustainability/our-insights/solving-the-net-zero-equation-nine-requirements-for-a-more-orderly-transition

Responses to consultation questions

About the Integrated Energy Plan

1. *Do you think the proposed Integrated Energy Plan principles to guide the ACT Government will support a successful transition to electrification in the ACT? Are there any areas missing?*

Principle 1: Get the ACT ready for our electric future

"Get the ACT ready for our electric future" is an *outcome* of the other principles rather than a principle itself.

Instead, the Government needs to put the climate imperative front and centre, and establish and communicate a *clear and irrefutable case that electrification is the **right** pathway* to provide certainty for investment in all other principles and forward planning. The case should explain that electrification is a 'no regrets' pathway, ie, that even if the climate predictions turn out to be wrong (highly unlikely, given they are already happening), or the politics change (highly likely), the benefits of electrification (cost savings, health, safety, energy efficiency, reliability etc) outweigh the benefits and risks from continued use of fossil gas.

The Government needs to provide as much certainty as possible to hedge against the eventual change of government, policies and other global or local factors. This certainty derives primarily from the climate science – that regardless of changes of technology or politics, "natural gas" will always be a fossil fuel whose emissions cause the atmosphere to warm. The secondary (but probably of greatest value to most people) aspect of certainty is that burning *any* form of gas for heating and cooking can *never* be as efficient and safe as electric technologies.

Although the case seems obvious to anyone working in fields related to climate change and is largely laid out in the introduction of the Position Paper, the Conservation Council often hears from Canberrans who have no idea that gas is a fossil fuel or do not trust that Government policies will not "flip flop" after they have invested thousands of dollars in switching off gas.

Principle 2: Provide a clear and implementable pathway to achieve and maintain net zero emissions

Being clear and implementable is critical or the entire transition risks failure, which would make it impossible for the ACT to meet its zero emissions targets. The Government needs to publish this plan by the end of 2024.

Principle 3: Prioritise a fair and equitable transition to net zero

Social equity must be a core ethical value of our society and this transition. Proactively helping our most disadvantaged residents (disabled, pensioners, public housing tenants, renters etc) off gas provides an opportunity to reverse entrenched inequality and break the vicious cycle of high energy costs sucking a significant proportion of household budgets. This principle could include mention of ongoing consultation and taking a co-design approach. It also provides the opportunity for building the industry capacity necessary to complete the entire transition.

Principle 4: Educate our community and industry to prioritise and take action to manage a sustainable and responsible transition

Education must be tailored/targetted with clear, actionable steps. However, education alone will not be enough to drive action —– a strong regulatory framework and targetted investment is essential. See more at question 4 below.

Principle 5: Provide policy certainty so industry and community investments are made in the right areas at the right time

Policy certainty follows from establishing an irrefutable case for electrification (see Principle 1 above). The Government should attempt to obtain a commitment from all ACT political parties that they will not abandon the electrification pathway or change or weaken legislated emissions reduction targets. This commitment should flow logically from the certainty of the climate science.

Principle 6: Develop policy which contributes to building a strong and stable energy system powered by renewables

Adding new renewable electricity generation to the network is critical for realising actual emissions reductions and displacing fossil fuels from the national energy market, but this does not have to be in the form of large-scale projects interstate. The ACT Government should invest in distributed *local* generation and storage, including directly in households, to become energy-independent and build resilience to future power outage events (see question 6 below).

Principle 7: Capitalise on the significant reputational and economic benefits for the ACT as a world leader in the transition

Reputational and economic benefits should result from achievements. Initially, the ACT needs to focus on solving technical, social, financial and policy issues, then demonstrate the feasibility of a variety of electrification solutions for others to follow.

Developing and implementing the solutions requires investment in skills, knowledge and supply chains in the ACT (see more in Focus Area 6 below).

Principle 8: Establish the conditions for a transition by supporting the development of a net zero emissions ecosystem

The policy and regulatory environment is critical. Government can also support growth of an ‘ecosystem’ by facilitating knowledge sharing across relevant industries (trades, developers etc), skills trainers and research institutions, and maintain lists of accredited trades that the public can go to with confidence. Government should also continue consultation forums with social services and community organisations.

The Government also needs to have an eye on what happens beyond 2045 when the transition off gas is complete. How can the ecosystem pivot to whatever the next sustainability challenge or technology is? It would be synergistic to align the gas transition ecosystem with the fledgling transition to a circular economy.

Focus area 1: Developing the future energy network and sharing the costs

2. *What are the barriers to uptake of consumer energy resources (CER) and other technology, such as batteries, solar panels and electric vehicles?*

The barriers to electrification are fairly well understood. In the Conservation Council's experience, the barriers include (in no particular order):

- Lack of awareness of the electrification pathway
- Lack of understanding or familiarity of electric technologies, (eg, induction cooktops being entirely different from other electric hotplates)
- Lack of awareness of options (eg, replacing ducted heating systems with individual heat pumps being much more affordable than ducted air conditioning)
- Limited availability of some equivalent technologies (eg, large-capacity instant electric hot water to replace instantaneous gas hot water systems, electric boilers for hydronic space heating systems)
- Lack of timely supply of electric alternatives or lack of interest or incentive by the tradesperson to find electric alternatives when gas appliances break down, forcing like-for-like replacement
- Cost of purchase and installation of electric technologies
- The process of understanding what is needed, identifying what gas appliances your household has, what the alternatives are, obtaining quotes, obtaining finance, selecting specific appliances, booking trades, removal of old appliances and installation of new ones, the inconvenience, getting to know the new appliances, and so on, is too complex, time-consuming, or cognitively overwhelming for many people to contemplate
- Lack of understanding of the benefits of electric appliances
- Lack of space for electric appliances (eg, hot water storage tanks)
- Concerns about noise impacts from heat pumps on self or neighbours
- Poor or outdated advice from tradespeople
- Dislike of electric technologies (sometimes due to confusion between technologies (eg, ceramic vs induction cooktops) or outdated information (eg, "heat pumps don't work in cold climates"), or attachment to gas because of perceived benefits of gas or inadequacies of electric alternatives (eg, "wok hei" or cultural cooking techniques, or simply "I don't like air conditioners")
- Being a tenant in rental or public housing
- Constrained by body corporate rules or preferences
- Living in an apartment
- Lack of confidence in Government policy
- Climate scepticism
- Concern about pacemakers being interfered with by induction cooktops
- Other personal reasons such as "I'm too old to benefit", "I can't be bothered"
- Concern about total lifecycle environmental or emissions impacts of disposing of functioning gas appliances and replacing with newly manufactured electric appliances
- Not expecting to or not knowing whether they will continue to live in their current home (and so not recoup the upfront costs) deters investment
- Lack of availability of a variety low-cost electric vehicles
- Should have the "right to choose" their energy sources

3. *What are the benefits of the ACT using a consumer-led approach during the first IEP (to 2030) to transition the ACT towards electrification?*

A consumer-led approach, at face value, would appear to be low-cost for the Government, both economically and for program development and implementation. However, a planned phase-out would be more orderly, predicable and efficient, providing much greater certainty and guaranteed progress and emissions reductions.

The Council appreciates that there is much preparatory work to be done in the next five to eight years to scale up and accelerate the transition, and it is appropriate to focus early efforts and finance on transitioning those households that can't transition themselves. However, there is a significant risk that a consumer-led, "in your own time", "no rush" approach will not deliver enough progress towards either the 2030 emissions reduction target nor the 2045 gas phase-out target. It is also too random and unpredictable for Evoenergy to derive any benefits in terms of network planning and capital expenditure efficiencies.

2045 looks far off to most people, so only those households and businesses that are aware, motivated and capable will act early and voluntarily. While those of us working in this field understand the economic benefits of electrification, the households must first outlay thousands of dollars with only the promise of eventually recouping those costs over many years. Market signals (i.e. potential savings off energy bills) may motivate some households to take that risk but many households don't have the capacity to respond to them even if they understand the premise. Market failures created the climate crisis — we cannot rely on the market to solve it. A strong regulatory framework is needed to steer the market in the direction of our policy goals and bridge the gaps of market failures.

Without a strong regulatory framework driving skills development and supply chains, even those households and businesses who are motivated may face technological barriers or delays in transitioning. Furthermore, with every passing year, new gas appliances continue to be installed. Those appliances that have a long service life will become stranded assets, driving up the cost of the transition to households.

Without a strong regulatory framework, renters have zero agency to compel landlords to upgrade their properties without risking their tenancy — this presents a real risk of renters facing even greater and entrenching disadvantage compared to homeowners with the means to electrify.

With some 130,000 households and businesses to transition off the gas network, the Territory needs to be seeing around 5900 households going gas-free per year every year, even at a steady linear pace. We are not even close to that kind of number at present. Even at the least ambitious end of the Government's proposed range of reducing to 94,000-109,000 retail accounts by 2030, this is still around 3100 disconnections per year over the next 7 years, leaving an even bigger task of over 7200 disconnections per year from 2030 until zero at 2045. The slower the start of the transition, the greater the acceleration will need to be.

Strata buildings constitute around 40 per cent of dwellings — these are not likely to be consumer-led and may take years for appropriate retrofit solutions to be developed and implemented. Decision making and financing within bodies corporate for these kinds of retrofits are notoriously difficult. Rental properties, making up around a third of housing, are also like to lag if landlords do not perceive any benefits in converting early.

The Government needs to do significantly more education/communications work immediately if it is going to rely on a laid-back consumer-led approach for the next seven years.

a. *Do you think there is any benefit for a staged transition approach following an initial consumer-led transition? What would be the barriers of such an approach? For example, after 2030, this could be a suburb-by-suburb staged transition approach.*

The barriers to adopting a staged approach *immediately* include:

- Investment (and time) required to develop the regulatory frameworks and programs needed to drive the transition
- Lack of technological solutions currently available for some gas applications (a limited number of industrial activities plus complex buildings)
- Public resistance to a "forced" transition
- Lack of skills and supply chain early on.

However, laying out the framework as soon as possible (by end of 2024) and commencing a strategically staged approach as soon as practicable (well before 2030) would provide certainty for everyone and deliver significant benefits including:

- Development of supply chains
- Industry investment in skills training
- Proactive planning across all building types
- Predictable and actual emissions reductions
- Gas network cost savings through orderly, planned close-down of the gas network
- Clear priorities for upgrading of the electricity network
- A regulatory framework to drive electrification of rental properties

The Government needs to lay out a plan *now* for transition to a staged approach within the next three years, not after seven years from 2030 onwards. The plan must include proposed regulatory measures with implementation dates, and targets for the numbers of households, businesses and complex buildings to be converted. It must include at least a proposed structured, strategic shutdown of the gas network, for instance, by suburb or precinct or network branches, so that people know how soon they need to be off the network. All parties could then target their efforts at each area in turn, for example, bulk buying appliances for a neighbourhood and installing them street by street. The Suburb Zero[3] campaign advocates for a pilot program to retrofit an entire suburb, which would be an excellent pilot for rolling out such an approach across the city, encompassing a variety of building types and technology needs.

A clear framework and timeline with regulatory measures is needed to compel those building owners who lack the motivation to initiate electrification themselves, particularly owners of rental properties, and prompt timely voluntary planning by those people with greater capacity, particularly owners of free-standing homes. The plan also needs to include contingency in the event of faster-than-expected acceleration of the transition.

The ACT Government should aim to publish a draft version of this plan in early 2024 for consultation, published by the end of 2024 to alert Canberrans to more proactive and regulatory measures to be introduced from 2026 onwards.

[3] Suburb Zero, n.d., Electrify Canberra, https://www.suburbzeroact.au/

b. *Do you have a preference for any approach?*

The Conservation Council strongly prefers an urgent, proactive and ambitious systematically staged transition that will drive and deliver real and significant emissions reductions by 2030 and provide certainty for all.

Focus area 2: Electrifying our community

4. *What can be done to further encourage electrification among those households that have the means to do so?*

Although the stakeholders in the Government's forums have been focused on "how, not why" to phase out gas, the general public are a long way behind. The Conservation Council has been actively engaging with Canberrans on the topic of household electrification for several years. While we meet a good number of people who cheerfully report that their homes are "already all-electric", they are outnumbered by people who have never given it any thought and, more concerningly, people who actively resist the concept. For instance, we have heard from some senior Canberrans that they "can't be bothered" or think they are "too old to get any benefit/return on investment" or that the process of replacing appliances is "too hard". Another common objection we hear (most often from seniors) is that "Government made us install gas – what's to stop them changing their policy again in 10 or 20 years?".

The Government needs to distribute proactive communication materials to all Canberra households that is clear and actionable. Communication should include messages on existing Government materials such as regular "Our CBR" newsletters and specific materials. Messaging needs to be direct and explicit, for example:

> "The ACT's gas network will close down: start planning today to switch your home by 2030."

Roll through a variety of headline messages targetted at different types of household, for example:

> "If you own your home, electrify now"
>
> "If you rent, give this flyer to your landlord"
>
> "If your home is governed by a body corporate, ask for a meeting of all residents to plan for electrification".

Similarly, roll through a variety of *positive* reasons for electrifying that emphasise the opportunity that electrification provides to families, households and businesses, such as:

- the cost savings on energy bills,
- health and comfort benefits,
- climate messages such as

  "Removing gas from your home/trading in your petrol car is one of the most powerful ways for your household to reduce greenhouse gas emissions",
- demographically targetted messages such as

  "No matter your age, you can benefit from eliminating gas from your home"

"Invest in the sale/inheritance/future value of your home by electrifying now"

- even more moralistic messaging such as

  "If not for you, get off gas for your grandchildren's benefit"

  "You have benefitted from decades of technological advances – pay it forward by electrifying your home now"

  "Our use of gas is costing Pacific Islanders their homes – electrify your home now".

Communication materials —in person, print or online— also need to address the long list of reasons people express for not electrifying (see question 2 above). They need to be available in multiple languages.

Given that a significant proportion of Canberra's older residents own the free-standing homes (either as owner-occupants or as landlords of rental properties) that are the simplest to electrify, these people are critical to driving early momentum for the transition, driving the supply chains and the demand for tradespeople. These homeowners need to be compelled to switch sooner, not later – the planet does not have time for generational change.

Although the Sustainable Household Scheme has been very popular and has probably precipitated action by many households that have been considering electrification, solar power, EVs or efficiency upgrades but might otherwise have done nothing, it will not be enough to motivate many families who are simply too busy or whose budgets are tight. Although it includes replacement of gas appliances, it is possible for applicants to use the loan to install solar power or purchase an EV without addressing gas in their homes, so it risks not being as effective as it could be. It also risks being seen as "middle-class welfare" targetted at households who really have the means to get on with electrification themselves — anyone who can afford to buy a Tesla does not need government assistance to replace their gas hot water system — yet is not generous enough for households on low incomes and tight budgets or without secure employment to pass the credit rating checks. The scheme could be redesigned to require applicants to replace all gas appliances before being eligible for solar power, batteries or EVs.

Electrification case managers could provide valuable support in leading homeowners right through the process of electrification. These experts could be Government employees or staff of energy retailers or independent consultants funded by the Government to provide such a service. All case managers should be independent of commercial appliance suppliers so as to provide assurance to homeowners about receiving sound, independent advice. ACTCOSS's submission describes a similar concept of a "one-stop-shop" with examples from the United States.

The Government should recruit **agents of change**. These are any professionals who already are conduits of trusted information to consumers and can influence homeowners to electrify now and end the practice of defaulting to like-for-like replacement. They include:

- Real estate agents, eg, when providing advice to homeowners preparing their properties for sale or rent
- Architects, interior designers, builders and all trades involved in appliance selection and installation, eg, when rebuilding, renovating, servicing or repairing
- Appliance retailers, eg, in advertising, in-store and at point of sale
- Building inspectors and energy efficiency auditors

- Energy retailers and the network operator, eg, annual letters, notices on bills and websites, whenever customers telephone.

This will require early, proactive engagement with those professions to educate them (for instance, through mandatory professional development – see focus area 6 below) and collaboratively (with industry associations) develop communications tools they can provide to their clients/customers. Messages informed by the principles and evidence of behavioural economics should help to 'nudge' customers off gas.[4]

And all of that will still not be enough for many homeowners, particularly owners of rental properties. Thus there is a role for regulation.

5. *Is there a role for regulation to support the community when choosing between gas and electric appliances?*

There is absolutely a role for regulation, particularly to compel those building owners who won't transition voluntarily, but also to ensure that the entire transition ecosystem supports electrification.

Regulatory measures could include:

- Banning the advertising (say, from 2025) and sale (say, from 2026) of gas appliances.
- Including the removal of gas appliances in the minimum energy efficiency standards for rental properties, with an end date for mandatory retrofitting (say, 2030 for all gas appliances in simple buildings) and a ban on like-for-like replacement of gas appliances effective immediately. Rental tenancy rights should also be reviewed to give tenants greater agency to compel landlords to make energy efficiency and electrification upgrades without risk to the tenancy.
- Requiring disclosure of gas appliance status and 2045 phase-out at the time of sale or rental of a building or sub-tenancy (like the EER requirement) (although in a tight rental market, only those more affluent renters are likely to have the luxury to choose an all-electric home, further entrenching inequality for those who can't).
- Requiring strata buildings to lodge a plan by (say) 2026 for transition by 2035 for smaller, simpler retrofits or 2040 for larger, more complex retrofits.
- Requiring commercial and industrial gas users to lodge a plan by 2030 for transition by 2035 for smaller, simpler retrofits or 2040 for larger, more complex retrofits.
- Requiring all gas-related tradespeople to complete professional development that educates them about the policy direction and modern electric technologies. This could apply more broadly to the real estate industry, appliance retailers, building designers, etc.

[4] Behavioural Economics, 2023, 'Nudge: Improving decisions about health, wealth and happiness', RH Thaler & CR Sunstein (2008), https://www.behavioraleconomics.com/resources/books/nudge-improving-decisions-about-health-wealth-and-happiness-richard-h-thaler-cass-r-sunstein/

The Government also needs to review, with the Australian Energy Regulator (AER) and electricity and gas network operator, the regulatory framework governing how customers pay for gas network operating and maintenance costs. Past pricing models assume the gas network will be there forever and are no longer fit for purpose when those customers least capable of early transition will face rising costs.

The cost of gas meter abolishment also needs to be reviewed. Currently, the AER has deemed that customers on three Victorian gas networks need only pay $220 for meter abolishment with the remaining costs paid for by the remaining gas customers. This would encourage more people to abolish unused gas services, but will not convince everyone due to the residual fee. Other options could include the gas network operator periodically and efficiently abolishing large numbers of gas services in one geographic area at no cost to the customers.

a. *How could point of sale information support consumers when replacing appliances or should gas assets be disclosed in a property transaction (sale or rental)?*

Yes, the Government should consider regulation about disclosing gas *liabilities* at point of sale or rental of a property. This needs to be complemented by positive communications messages about investing now to future-proof the property and avoiding risks of stranded assets and buyers being forewarned about the need to (factor in the cost of) transition.

Point-of-sale information in appliance stores should strongly advise customers now to not purchase new gas appliances in light of the policy direction. This information could include mandatory notices (like energy rating stickers) on all gas appliances in showrooms and advertising materials (print and online), flyers or desktop signage at sales checkout points.

Labelling of consumer products and appliances to show carbon emissions intensity, like the tailpipe emissions labelling on vehicles (or at least advocating for this at a national level), would assist interested consumers to make more informed choices.[5]

6. *Which members of the community are most at risk of being negatively impacted during the transition?*

The Conservation Council believes that this area has been well explored, and supports proactive and generous measures to transition renters, social housing tenants, pensioners, people with disabilities and those on low incomes off the gas network as soon as possible. The Council recommends continued collaboration with social services, including the ACT Council of Social Services, Council of the Aging, Better Renting etc, to identify vulnerable households and design appropriate programs.

[5] Bolano, Lodesani, Pacthod, et al., 2022, The energy transition: A region-by-region agenda for near-term action, McKinsey Global Energy and Materials Practice and McKinsey Sustainability, https://www.mckinsey.com/industries/electric-power-and-natural-gas/our-insights/the-energy-transition-a-region-by-region-agenda-for-near-term-action

b. *If we were to provide targeted support for low-income households or those who can't transition themselves, what could this be?*

c. *What specific actions could the government take to best support these households?*

Rewiring Australia recommends that Governments directly invest in electrification of Australian households like they invest in large-scale energy infrastructure. Instead of thinking about household electrification programs as social support programs with rebates and loans, it could be funded from the energy budget, in partnership with Evoenergy and energy retailers.

There are genuine benefits to the electricity network from installing rooftop PV panels and batteries with smart meters, replacing gas and old electric appliances with new efficient electric technologies, and improving home energy efficiency. A direct investment approach would effectively purchase real emissions reductions while delivering significant social and preventative health benefits for Canberra's most disadvantaged residents. The Government could achieve efficiencies of scale and drive supply chains by systematically electrifying. Installing decentralised/distributed energy generation through household rooftop solar, smart battery systems and EV charging would reduce the investment required in large-scale electricity generation and storage while simultaneously building resilience at the community level.

The energy cost savings that households would reap would alleviate pressure on family budgets and their dependence on other social services while also delivering preventative health benefits for vulnerable people and the public health system. Such an investment program should encompass all of the ACT's public and social housing, then other low-income and vulnerable households as identified by the ACT's social services organisations, perhaps with means testing. Widespread in-home assessments would help the ACT Government to identify these dwellings.

Government also needs to help low-income households to replace their fossil-fuel vehicles sooner rather than later. It is likely that households on tight budgets with no savings are driving the oldest, most polluting vehicles on Canberra's roads because they cannot afford to buy a new car every 9 years as per the "average" replacement period. This traps them in a vicious cycle of high petrol prices and maintenance costs chewing up the household budget while wealthy families benefit from zero-interest loans, free registration and other incentives for their efficient new Tesla. With the cheapest new EVs still costing over $45,000, low-income families have no hope of upgrading, even if they could qualify for the Sustainable Household Scheme. The Government should develop a scheme for vulnerable households to trade in their petrol vehicles for EVs from Government and corporate fleets as they turn over rather than selling ex-fleet EVs into the open market. Like direct investment in electrifying low-income households, this would effectively purchase emissions reductions in the transport sector whilst also addressing social inequity.

Community organisations such as the Conservation Council, SEE-Change, the Canberra Environment Centre and the ACT Council of Social Services have been instrumental in driving the electrification agenda and raising public awareness of fossil gas and sustainable alternatives. If the ACT Government wants these organisations to continue in this role as part of the electrification ecosystem, it must properly fund these engagement activities, including staff salaries, operating costs such as leasing office and public spaces, and public liability insurance.

Focus area 3: Electrifying complex buildings

7. *How can government work with industry and financiers (such as green finance and investors) to electrify complex buildings?*

    a. *How can government work with community and community organisations to ensure a smooth transition for those living in complex buildings?*

8. *What should be the role of body corporates in preparing for the transition?*

The Council acknowledges that retrofitting multi-unit strata buildings can be both technically and administratively complex and varied. ACTCOSS also notes that residential units have a high rate of rental tenancies, adding to the administrative complexity and the potential for disadvantage and lack of agency by unit occupants.

However, Canberra is a small city and the Council understands that the ACT Government has identified these buildings, so it should be feasible to audit them to find commonalities and develop solutions.

The Government could set a date (say, end of 2024) by which all strata managers and body corporate managers must provide a report that specifies:

- The strata/building type and size
- Numbers of residential units and commercial tenants
- Existing gas and electric heating, hot water and cooking systems, including metering
- Any technical barriers they are aware of for electrification, eg, space constraints
- Strata ownership vs tenancy, cost-sharing and governance type/model
- Any governance barriers they are aware of for electrification
- Existing solar PV systems and potential for installation
- Electric vehicle infrastructure potential and barriers.

A collaborative team (eg, Government, Green Building Council of Australia, Master Builders Association, Strata Association, ACTCOSS and relevant trades representatives) could then (with preparatory work in the meantime) develop template technical and cost-sharing solutions for the most common building and governance types respectively. The early transition of Government-owned buildings could serve as useful pilots. These templates plus case studies for the most common combinations would then be made publicly available as planning resources for building managers, owners and occupants. These should be accompanied by educational communication materials to enable managers, owners and occupants to discuss and plan their building's transition.

Government could then set a date (say, end of 2026) by which all strata managers must submit a plan for retrofitting by 2035 for simpler buildings and 2040 for more complex buildings, with a requirement for interim progress reports. Having these proposals would then enable the Government to plot and influence the timing of retrofit projects across the Territory to ensure workforce and supply chain availability.

The Government could fund electrification case managers to assist strata managers with the retrofit process including engaging residents/owners. Government should facilitate knowledge

sharing across the city's complex buildings as well as assisting with connecting strata managers with financiers and trades professionals.

Government also needs to review strata regulations to remove any barriers to electrification and perverse incentives, for example, body corporate rules banning heat pumps or rooftop PV, or requirements for every individual unit owner/occupant to agree and sign off plans. Strata decision-making bodies must include representation (with voting rights) by or on behalf of rental tenants as well as unit owners and owner-occupants. Government should investigate possible regulation of cost-sharing arrangements to ensure equitability and provide support for low-income tenants.

As far as possible, all buildings should be retrofitted rather than knocked down, so as to preserve the embodied carbon. Where it is not possible to retrofit electric appliances to fulfil the function of the building's current uses, building owners should consider adaptive reuse of the building, eg, conversion of offices to apartments or vice versa.

Focus area 4: Electrifying business

9. *What are the different transition challenges for small to medium businesses and how could existing programs be improved?*

From the August forum, for businesses, "it's all about money!"

A clear timetable with dates for the closure of specified sections of the gas network (eg, by precinct) would be enormously helpful for businesses to plan for electrification. Regulation should also play a role as part of a strategic phased transition plan, such as tying electrification into sales, lease or fit-out renewals, bans on purchase and installation of new gas appliances.

Like for strata buildings, Government could assist by providing templates and case studies for different business types, as well as engagement materials and facilitation between business tenants and building owners. Government could collaborate with industry associations to facilitate bulk buying across an industry, eg, all commercial-scale laundries.

While the Conservation Council appreciates that a significant portion of Canberra's business are family-owned small businesses operating on small margins, appliance fit-outs and energy consumption are simply a cost of doing business and already eligible for capital expenditure tax deductions. Upfront costs of electrification might be significant, but the business will immediately begin to recoup those costs in savings due to greater energy efficiency as well as a range of other benefits such as improved safety, noise reduction, cooler kitchens, cleaner indoor air quality and so on. And, as consumers well know, businesses will simply pass on the costs to their customers.

Although it might sound harsh, businesses (and society at large) have benefitted from cheap fossil fuels for more than 200 years at the expense of the planet (and usually its most disadvantaged people). It is well past time that businesses internalise and pay the true cost of their impacts on the climate and the environment, and this includes absorbing the cost of electrification. If a business cannot operate sustainably without fossil fuels, maybe it should cease to exist.

Thus, the Council would support the Government facilitating loans to businesses to assist with upfront costs of electrification, but these should be on a cost-recovery basis, not zero interest or other direct subsidies. Commercial banks should be willing to do the same.

Focus area 5: Electrifying industry and heavy transport

10. *How can we best transition industrial zones and infrastructure, and heavy transport away from fossil fuel energy?*

As for residential and commercial gas users, industry and transport sectors would benefit from a clear timetable for the transition – there's nothing like a deadline to drive innovation.

Like for strata buildings, Government should place the onus on industrial users to show how and when they will transition, and facilitate knowledge sharing of solutions.

Gas applications could be fractionated to convert the parts/functions that can be electrified now, reserving gas use for only those specific uses that cannot be electrified. This would then facilitate replacing fossil gas with limited use of green bio-gas/diesel eg, from sewage treatment and landfill, or with green hydrogen.

11. *What are the research and innovation priorities to support business transition and development?*

Industries without viable/feasible solutions to gas consumption should be required to pay a levy to and/or enter partnerships with research institutions to develop environmentally sustainable, zero-emissions solutions.

Regarding the "risk of exodus" of gas-intensive polluting industries, the ACT Government needs to advocate to the NSW and federal governments to implement consistent fossil fuel policies. We cannot wait for other states to catch up so we need to drag them along with us.

Skills and workforce for the transition

12. *How can we increase the number of skilled workers in electrical trades?*

13. *What opportunities exist for industry wage and work conditions, that could assist with workforce attraction and retention?*

14. *How can we best support gas workers to transition their skills to be part of the net zero economy, for example in electrical trades, sustainable buildings and electric vehicle auto servicing?*

Upskilling the workforce is obviously essential for carrying out the work that needs to be done, but also to provide the right information to consumers and end defaulting to like-for-like replacement of gas appliances.

Government could:

- Increase funding for apprenticeships at least to parity with neighbouring NSW
- Raise awareness of career paths for young people
- Raise awareness of career opportunities for mature people to retrain from other sectors, which might require subsidisation of pay for parity and fast-tracking of training and qualification

- Include electrical training and licensing within plumbing training and licensing, including integrating training for HVAC split systems and refrigerants for more crossover of skill sets between trades
- Offer a restricted gas disconnection license to electricians so that they can perform simple gas appliance disconnections when engaged to install a new electric appliance (eg, an induction cooktop). This will reduce cost for consumers by not having to separately engage a gasfitter for this basic task.
- Offer fast-track training and qualification in electrical trades for anyone already licensed in related trades (eg, plumbing, gas-fitting, HVAC, etc)
- Require mandatory update (short course) training in new electrical technologies and the energy transition pathway for all licensed gas-fitters, plumbers, electricians, builders, architects and related trades, i.e. compulsory professional development, funded through tax credits to offset loss of productivity for training hours. Mandatory training would level the playing field across all businesses and ensure consistency across the electrification ecosystem (i.e. up-to-date knowledge of current technologies and consistency in the advice passed on to customers). Some of this training content could potentially be delivered online, eg, through self-paced online modules like the “I’m alert” food safety certificate.
- Similar mandatory professional development training could be required for other property-related professionals such as real estate agents.

Indicators – Measuring the gas transition

15. *Which indicator, or indicators, would provide the most meaningful updates on the progress?*

Gas retail accounts, network connections and disconnections are the obvious indicators and the most relevant for the goal of closing down the gas network because this requires reaching zero connections. As per our submission regarding regulation to prevent new gas connections, the Conservation Council would support the requirement for the gas network operator and/or gas retailers to regularly report gas connection and disconnection data to the ACT Government.

Gas consumption volume data is also valuable for tracking the trend, but is not informative enough on its own — it would be possible for gas consumption to decline while connections/accounts remains steady, for instance, if all households reduce to but continue using a single gas appliance. Such a scenario would potentially increase network costs per unit of gas or per customer and make it impossible to close the gas network and achieve the goal of zero emissions from stationery gas.

Because it may take households and businesses years to individually complete their transitions and close their gas accounts, there will be a lag in account closure data causing difficulty for the Government to assess the effectiveness of communications campaigns and implementation initiatives. Many households do not take the next step of abolishing their gas meter, so disconnection data will be even less reliable. Interim data will be needed to see progress prior to final disconnections to ensure that the transition is gaining momentum and will meet targets.

Gas retailers could be required to enquire, record and report the reason for gas account closure, whether any gas appliances remain installed in the household/business and whether an account holder has any intention of reopening the account. Simple monthly reporting, perhaps by

suburb, would enable the Government to track the effectiveness of targetted communications campaigns and financial schemes. Retailers could be required to supplement this with more detailed annual reports, perhaps by conducting a short annual poll with customers about what gas appliances remain installed in the household or business.

The ACT Government already has gas inspectorate data because every new gas appliance installation requires the gasfitter to submit a certificate of compliance. Government could also require relevant trades to report *replacements* of gas appliances with electric, noting remaining gas appliances in the household, reported at suburb level. This would provide the Government with some data about progress and the remaining task where these households have not yet reached full electrification and would otherwise be invisible until disconnection from the gas network.

Similarly, real estate agents could be required to report the status of gas in homes sold and rented. Strata building managers and commercial and industrial gas users should be required to report status, planning, progress and completion (see focus areas 3 and 4 above). Require reporting of gas status on all development applications (new, rebuild, renovation and everything in between for all building types).

Government should also track applications for loans, subsidies, tax credits, sales of appliances, and any other relevant financial indicators.

Targets for all indicators need to be far more ambitious than those given in the Position Paper.

The ACT Government should regularly and publicly report the ACT's progress towards electrification, within its Climate Strategy reporting.

16. *What may be some potential barriers associated with achieving the proposed ranges?*

The consumer-led "in your own time" approach will be too slow, as discussed above.

17. *Are there other indicators that you think would be useful to track the transition as part of the Integrated Energy Plan? For example, electric vehicle adoption or overall Territory emissions reductions.*

Electric vehicle adoption may not be a robust indicator of household or business electrification – it is possible for people to buy an EV without doing anything about gas appliances. EV sales or registration data also does not necessarily correlate with reductions in either the number of fossil-fuel vehicles on the roads nor emissions. Only tracking the number of ICEVs registered can provide that data. However, adoption of EVs per se should not be the Government's transport goal. The Government's goal should be to move people, not cars, and move them in the most efficient, zero-emissions modes, which requires safe, convenient, reliable electric public transport integrated with high-quality and complete active travel network infrastructure, accompanied by other low-emissions modes including ride-sharing.

Similarly, installation of solar power and battery systems does not preclude continued use of gas in households. The Integrated Energy Plan should prioritise gas replacement over new solar systems.

Additional comments

Consultation has been excellent thus far, and should continue to inform the transition as it progresses. There has been great value in gathering the widely varied stakeholders together to explore issues and approaches and facilitate collaborative and equitable problem-solving. It is enormously valuable for different interest and industry groups to hear directly and learn from each other, rather than being siloed into separate "community" or "industry" forums. EPSDD could be more transparent about who was invited to participate and make the list of participants available in the interest of building the 'zero emissions ecosystem' and also to identify representation that is missing. For instance, were financial institutions or Canberra's multicultural community represented?

Although we have used the blunt vocabulary of "banning" gas, Government communication materials should continue to frame the energy transition in **positive terms** that emphasise the benefits of all-electric homes, for example, "phase out" rather than "ban". All educational materials should explain that "natural gas" is methane which is a fossil fuel and a potent greenhouse gas causing climate change. Recent polling in the US by Climate Nexus found that helping people to understand this connection significantly shifted people's attitudes about gas from favourable to unfavourable.

The energy transition needs to integrate with the **circular economy strategy**. With hundreds of thousands of gas appliances and fossil-fuel vehicles due for obsolescence plus thousands of solar PV systems ageing-out, and manufacturing and transportation of new electric versions occurring almost exclusively outside the ACT, the ACT Government must openly address the recycling, resource consumption and scope three emissions impacts of the Territory's electrification efforts.

The ACT Government also needs to encourage smaller, more efficient buildings and renovations to reduce overall energy and materials consumption — nobody needs a butlers pantry or more toilets than residents. The Territory Plan must encourage high-quality densification that supports access to transport, services and green space while preserving biodiversity and natural landscape connectivity.

Government should collaborate with research institutions and industry representatives to conduct **systems analysis** using tools such as causal loop diagrams to model the effects of different incentives, regulations, communications etc. This can help to identify possible perverse outcomes such as social inequity, increased uptake of wood fires or bottled gas, declining values for gas-powered homes, so that these can be addressed early. It can also help identify positive reinforcing behaviours that could be amplified, such as peer-to-peer or expert-to-customer communications.

Key recommendations

The Conservation Council recommends:

- Government develop by the end of 2024 a framework/plan for the proactive, strategic transition and phase out of the gas network with targets and a timeline commensurate with the urgency of the climate science and IPCC warnings.

- The transition plan should include engagement and regulatory measures as discussed above to drive businesses and the community that may otherwise lack motivation to act early.
- Government should invest directly in electrifying the homes of Canberra's vulnerable, low-income and social housing residents as a priority, aiming to complete this work by 2030.