



**CONSERVATION
COUNCIL**
ACT REGION

Submission: ACT Sustainable Energy Policy 2020-25 Discussion Paper

OCTOBER 2019

The **Conservation Council ACT Region** is the peak non-government environment organisation for the Canberra region. We have been the community's voice for the environment in the Canberra region since 1979. Our mission is to achieve an ecologically sustainable and zero net carbon society through advocacy, education, research and engagement with community, the private sector and with government.

We represent more than 45 member groups who in turn represent over 15,000 supporters. We harness the collective expertise and experience of our member groups and networks. We work collaboratively with Government, business and the community to achieve the highest quality environment for Canberra and its region.

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Introduction

The Conservation Council welcomes the opportunity to comment on the ACT Sustainable Energy Policy 2020-2025.

The Conservation Council supports the strong stand the ACT Government has taken over the past ten years to address energy in the context of rising energy prices and an ongoing imperative to respond to the climate change crisis that will have long standing ramifications locally, nationally and globally. The ACT has demonstrated leadership through the implementation of the 100% renewable electricity target by 2020, ensuring the ACT's electricity consumption is completely offset by investment in renewable energy generation that feeds into the National Electricity grid. This reverse auction policy has also helped to secure more stable electricity prices for ACT consumers over the next 20 years. The ACT has also implemented retailer energy efficiency legislation that has driven energy efficiency outcomes since 2013.

The Conservation Council supports the intention of Government to reset policy direction on energy, and to approach this with a five year strategy. This approach will allow the ACT response to the rapidly changing energy landscape to be flexible, and responsive to new technologies and changes in costs. The Energy Policy plays an important role in delivering on the recently released ACT Climate Change Strategy 2019-25, and the legislated target of zero net emissions by 2045. The Council's view is that the Energy Policy must continue to be consistent with the objectives identified in the Climate Change Strategy.

1. 100% Renewable Electricity

100% Renewables into the future

The Conservation Council welcomes the ACT Government's commitment to ensuring that 100% of the ACT's electricity demand is provided by electricity generated from renewable sources, both now and into the future. We acknowledge that, as part of the National Electricity Market and with limited suitable space to generate high quantities of renewable electricity within our borders, the target is being met by purchasing, and thereby incentivising, renewable electricity capacity into the NEM that otherwise would not have occurred, and offsetting the ACT's electricity consumption in this way.

The Conservation Council supports the policy that has enabled this to occur and appreciates that its success has led other jurisdictions, particularly in the absence of federal leadership, to invest in the same way to build the capacity required to meet emissions targets and keep electricity prices lower.

Distributed generation

While we accept that the ongoing generation required comes from renewable sources predominantly outside the ACT, it is important that investing in large-scale generation isn't seen as the only option for meeting the ACT's electricity demand. Incentives to drive the installation of localised energy generation should continue where they are required, as there are benefits to establishing a dynamic and localised energy network that can support a range of technologies including batteries and electric vehicles. There is a role for continuing to facilitate investment in household and commercial solar to build capacity in the ACT via distributed energy generation. The decreasing cost of solar PV and the likely growth in the uptake of electric vehicles will provide the ability for households to use solar power, electric vehicles and home batteries to shift their energy use throughout the day. Local generation and storage will reduce demand on electricity networks and thereby potentially reduce grid investment into the future as population grows and electrification increases.

This more flexible localised energy system will require a grid that is fit for purpose and enable the consumer to engage effectively with pricing and demand management. While it is somewhat unclear what influence the ACT Government is able to have over investment into grid technologies and upgrades to the electricity distribution network, it is important that the ACT continues to advocate at COAG and in other national fora for reforms that support the uptake of renewables in a fair and equitable way.

Slowing demand for electricity

In addition, and perhaps most importantly, it is important for Government to continue to invest in policies and incentives to drive energy efficiency across the residential and commercial sectors. Energy efficiency is still the cheapest way to avoid emissions, and in general comes with the additional important benefits of ensuring more comfortable houses into the future and protecting low income households from energy poverty. As the ACT continues to feel the impact of a changing climate, the role that energy efficiency can play in improving liveability and productivity becomes even more valuable. In addition, energy efficiency activities provide opportunities for substantial local job creation that is semi-skilled and skilled.

Recommendations

- That the ACT continues to advocate at COAG and in other national fora for reforms that support the uptake of renewables in a fair and equitable way.
- That the ACT prioritises energy efficiency and demand management to manage growing electricity demand.

2. Energy Costs and Consumer Experience

Low income households

The Conservation Council supports ongoing action by the ACT Government to support low-income households to manage energy costs.

While the provision of energy concessions is important to assist low income families to pay energy bills, it does not deliver the long-term independence that protects consumers from energy poverty. It is likely that there will always be a place for energy concessions given that families change residences over time and different houses will have different levels of energy efficiency, but in general terms, we support programs that **improve residential energy efficiency and otherwise reduce energy costs** for low income families as a better long term way to reduce energy poverty. For low income households, a large proportion of energy use is locked in by building construction and fixed appliances. The occupants have limited ability to influence their bills through behaviour change.

Unfortunately, it is low income households who are least able to invest in improved house performance, more efficient appliances or even solar, thereby reducing their consumption and energy bills. As such, the Government should continue to extend assistance to reach as many households as possible to improve their energy efficiency. In addition, we support programs that make solar available to low-income families (now that the costs of solar have decreased to such a point as to make it a more viable investment). Low income households should also be supported to transition from gas-electric dual-fuel houses to all-electric houses, as this can reduce running costs when using efficient heating appliances, as well as cut annual gas network standing charges. It also has the added benefit of aligning with the ACT's greenhouse emissions reduction targets now that ACT electricity is zero carbon.

The decreasing costs of solar PV have put it within reach of many households in the ACT without the need of broadscale ACT Government subsidies for PV installation (acknowledging that there may still be Federal subsidies). However, fair feed-in tariffs from electricity retailers are still important to allow household with offsetting their electricity costs through feeding excess solar into the grid.

The ACT Government should continue with programs that support appliance switching and energy efficiency improvements, but could also consider supporting low-income households to invest in solar to offset energy bills. One model that could be considered is solar gardens (see also below in 'Demand Management').

Advice and programs for low-income households

The ACTSmart team provides useful service and community engagement on energy efficiency issues. However, other organisations may have expertise in particular areas (such as heating and cooling equipment suppliers) and/or have the capacity to reach new audiences such as property developers. The Government should consider how to encourage or provide incentives to other organisations to act as ambassadors on energy efficiency, being conscious that the trustworthiness of the messenger is an important part of community engagement.

For example, many people will get their advice from a tradesperson or installer, and if those people are not up to date with new technologies and options, the community might not get incorrect information. Government must play a role in ensuring that these commercial services are well informed.

Social service agencies are also often well placed to engage with and provide services to low income families, the elderly, or migrant families who may not otherwise easily access a government service. These agencies that interface with the public on a daily basis are often well placed to direct people towards support and advice, but only if they are up to date with what is available. The ACTSmart team should extend its service to provide education and information for those who are on the front line across a range of different types of agencies including aged care, child care, maternal and child health, medical practitioners and community service providers.

Recommendations

- That the ACT Government work to reduce dependence on energy concessions (acknowledging there will always be a role for direct financial support), including by encouraging investment in solar.
- The ACT Government should engage more widely with other energy efficiency “ambassadors”, including commercial services, to upskill them and enable them to engage with wider audiences.

3. Energy efficiency

Energy efficiency is a win-win option of energy policy, as once measures are adopted they reduce emissions, save money for residents over the long term, and improve the quality of life both in extreme cold and extreme heat. It's important that we continue to pursue a city where houses and commercial buildings are highly energy efficient rather than just rely on an ever-expanding 100% renewable electricity target.

The ACT Government needs to address the clear obstacles to householders investing in energy efficiency that cut across the community and can affect a range of different types of people:

- lack of education about the nature of the problem
- lack of personalised information specific to home and lifestyle ie. a poor understanding of what to do, and in what priority based on effectiveness and cost.
- scepticism about the effectiveness of some technologies (eg heat pump hot water)
- lack of financial resources to make the investment required
- lack of access to service providers who can undertake the work
- inability to make the changes due to not owning the building
- invasiveness of some measures (eg replacing windows or removing central heating systems)

Energy Efficiency Improvement Scheme

The EEIS has usefully driven the implementation of energy efficiency programs delivered primarily by electricity retailers, to achieve the energy savings required under the legislation.

However, the activities offered by retailers under the EEIS can be prescriptive and may not suit all households or businesses seeking to improve energy efficiency. The first round of activities offered by ActewAGL under the EEIS reaped a high reward in terms of efficiencies for a low cost, but were not "deep" energy efficiency improvements for all households and may not have delivered durable savings in all situations (power boards, door stops and replacement of downlights with LEDs). More recent energy efficiency activities offered by ActewAGL via the EEIS are also prescriptive, in that they deliver a limited range of appliances that may not be suited to a specific person's circumstances. This is due to retailers being able to select the activities that they wish to offer, and also select a single service provider and/or supplier. So while a range of eligible activities are listed under the legislation, financial support is not available for many of them. For example, ceiling insulation has been listed as an eligible activity, but there is no obligation on ActewAGL (as the only retailer delivering services) to select insulation as an activity that is offered.

Recently, rebates under the EEIS have been offered with part of the financial benefit being delivered via a reduction in electricity bills over a two year period. These arrangements require consumers to not only have their electricity account with ActewAGL, but also to

enter into contracts for a period of time to secure the rebate. This raises concerns about how retailers are able to use what is essentially a consumer-funded scheme (funded across the entire consumer base) to drive customers towards their services and/or exclude customers who don't hold accounts with them.

Energy advice services

The ACT Government provides a useful service through the ACTSmart Home energy Advice team. A one-stop shop provided by Government for home energy advice is useful and ensures that advice is independent and is not linked to providing any particular service and/or appliance. This service could be widened and deepened so that advice is personalised and provided by an expert energy consultant. In addition, the service should include home visits.

Energy efficiency in buildings

The Conservation Council supports an additional focus on energy efficiency standards for new buildings, and better compliance to ensure that building standards are met.

New buildings should be designed to be net zero operational emissions so that the task of achieving our overall carbon emission target is not made ever harder by the increasing population. Modelling tools could be adopted by the ACT to predict the future energy use of buildings. The voluntary Passive House building standard, for example, places strict limits on the total energy use of the building, including heating/cooling energy, water heating, ventilation and all appliance use.

The update of the National Construction Code (NCC) which will come into effect in May 2022 provides a good opportunity to advance this discussion and set new targets, and the ACT should consider individual variations if other states standards are set too low

The ACT should also introduce a new 'whole of house' rating tool for use in rating residential properties that are sold or rented. The current EER scheme is outmoded and simplistic. The new tool should give a rating for the predicted net energy use of the building, so including the energy efficiency of the building shell, the efficiency of the fixed appliances and electricity production from any PVs. Tools are already available in other states, eg the Victorian government has a voluntary scorecard that could be adapted. The CSIRO has also developed similar tools:

<https://www.victorianenergysaver.vic.gov.au/save-energy-and-money/get-a-home-energy-assessment>

Net zero emissions implies the installation solar on the roof which might be a challenge for some types of buildings (eg high rise) or buildings that are shaded. A default net zero emissions targets could still be set and the developer would be required to argue why it can't be achieved. Alternatively, the developer could be made to contribute to a fund to support solar elsewhere or the resident could invest in a model such as outlined in the solar

gardens approach.

The ACT Government should move quickly to put in place minimum standards for energy efficiency in rental properties, with insulation being the first regulated outcome of this legislation. Renters have been left unable to access energy efficiency activities due to landlords not fully utilising rebates that have been offered in the past, and a mandatory standard is clearly required to add the “stick” to the carrot of incentives. This measure would be complemented by energy retailers offering insulation rebates via the EEIS.

Large users and industry

Most businesses would be interested in reducing energy bills as an outgoing cost to their business, especially those who are large energy users. Businesses would often have the additional advantage of being able to make the upfront investment in infrastructure and easily justify this against the running costs, as with other business investments.

However, making the changes required to deliver energy efficiencies can require resources and time, and many businesses may not have the expertise on staff to recognise energy waste or implement energy savings programs. In addition, many businesses would operate out of rented premises, thereby experience the same challenges as residential renters in terms of compelling landlords to invest in energy efficiency upgrades. The ACT Government could deepen its service provision through ACTSmart Business by providing specialised advice and support with implementation of energy programs at a reduced cost to business, and consider whether minimum standards should be applied to commercial premises.

What more for energy efficiency?

One of the difficulties with energy efficiency policies is knowing who and which houses need to most help. In the early days of the roll out of the EEIS by ActewAGL, houses were being doorknocked and offered the services of doorstops, power boards and LEDs. While this was an intensive service to be offering in terms of customer engagement, it opens the door to a deeper engagement with householders about energy efficiency and what changes might need to be made to their house to reduce energy use and costs.

The ACT Government could consider an energy efficiency mapping project across Canberra older suburbs where it's unclear if houses have energy efficiency in place. Data about the energy efficient houses could be gathered from a number of different places (including ACTPLA) and from householders themselves. It would also provide important information to the ACT Government about the types of programs that need additional funding. If the information was made public it could be utilised by potential tenants and buyers. The adoption of a new online EER rating tool that will progressively generate a database of the characteristics of homes rated for sale or lease would greatly assist this project. The CSIRO is already doing this for the ratings of new houses (<https://ahd.csiro.au/>)

An audit could be complemented by a targeted ACT wide building retrofit program for old houses, with direct and proactive engagement with home owners and landlords. This could also include providing advice about energy and water efficient appliances.

Recommendations

- The ACT Government should closely monitor the implementation of the EEIS to ensure that:
 - it is meeting the energy efficiency objectives of the ACT community
 - that it is able to support financial incentives across a variety of listed EE activities, even if these services are not delivered by retailers
- The ACT Government must focus on energy efficiency standards for new buildings, and better compliance to ensure that building standards are met.
- New buildings should be designed to be net zero operational emissions by 2022 with the implementation of the new Building Code.
- A new 'whole of house' rating tool for use in rating residential properties that are sold or rented should be implemented.
- Minimum insulation standards for rental properties should be urgently introduced.
- Consideration should be given to an ACT-wide audit and retrofit for energy efficiency improvements.

4. Demand management

Increasing access to solar

Barriers remains for many people with regard to accessing solar. These can include that they don't have access to capital, don't own their own homes or don't have usable roof space, such as those in apartments or those homes that have high shading. People on low incomes may well fall into all of these categories.

Access to solar at a household level could be increased by supporting community renewable energy models like solar gardens. The solar gardens model has been developed by the Community Power Agency to overcome the above obstacles to investing in solar. It effectively allows those who have been locked out of the benefits associated with solar to invest in solar located in a different site, crediting electricity accounts with the money derived from feeding the electricity generated into the grid. The *Solar for All* campaign is calling on Governments to trial a solar garden project by providing a means-tested graduated subsidy for low income residents and renters to encourage investment in medium scale projects located on a different site. A graduated rebate could widen access to solar for those are on a range of incomes.

The Community Power Agency's Solar for All campaign is advocating a trial of a solar gardens project by providing a means-tested graduated subsidy for low income residents and renters

to encourage investment in medium scale projects located on a different site. A graduated rebate could widen access to solar for those on a range of incomes.

The ACT Government should also consider supporting community ownership in renewable energy through on-bill financing, whether this be via energy bills or potentially rates, with the finance agreement attached to the property.

In addition to solar gardens, the ACT Government could support multi-unit body corporates to install solar on their rooftops by providing information and assistance about how to establish the governance regimes. As with all management decisions taken by Body Corporates it can be difficult to get agreement around expenditure, and many unit developments include landlords who may not wish to invest in solar.

Recommendations

- That the ACT Government trial a solar gardens project and develop a means-tested rebate to support investment by low-income households.
- That the ACT Government investigated options for on-bill financing to support investment by those currently locked out of solar.

5. Gas

Transitioning off natural gas

The *ACT Climate Change Strategy 2019-2025* identifies that gas is responsible for approximately 21% of the ACT's emissions now that the 100% renewable electricity target is being met. While significantly less than the transport sector at around 60%, gas is the second largest source of emissions, and a sector that is technically relatively easily replaced through a shift to efficient electric appliances. 'Natural gas' is methane, a potent and fast-acting greenhouse gas that leaks into the atmosphere during extraction and distribution, as well as producing CO₂ emissions when burnt. The Conservation Council agrees that gas needs to be phased out in order for the ACT to reach a target of zero emissions. However, given the relative ease of using electrical alternatives for space heating, cooking and hot water, we believe that the target of 2045 to phase out gas is too slow, and misses the opportunity of achieving early and substantive emissions reductions. Gas appliances have a lifespan of around 15 years and economic modelling undertaken by the ACT Government in the preparation of the Climate Change Strategy provided a scenario of bringing forward the business as usual lifespan by 5 years. In a submission to Government in 2018, the Conservation Council and other environment groups proposed that gas be rapidly phased out by 2028 (ref). The ACT Government has not accepted this recommendation, however the Conservation Council is of the view that a ten year timeline to phase out gas is still viable and should be pursued. Importantly, the ACT Government must **urgently** set a clear timetable for the phase out to occur so as to urgently prevent the new installation of gas infrastructure and discourage the purchase of gas appliances.

The first opportunity to reduce gas emissions is via avoided emissions, achieved by implementing a policy that gas cannot be connected to newly constructed homes and new suburban developments.

While the Conservation Council welcomed the ACT Government's recent commitment to removing the mandate to roll out gas in new developments, this merely brings the ACT into line with all other jurisdictions in Australia. Due to the nature of the gas market, this offers little assurance that infrastructure will not be rolled out to new developments irrespective of the change to the planning law. Recent experience at the new development Ginninderry, where developers are incentivising residents to not install gas appliances, and received an exemption from the mandate to install gas infrastructure, made little difference. Gas distribution pipes were still rolled out across the new suburb at no cost to the developer. As such, it is hard to see how removing the mandate for rolling out gas to new suburbs will prevent it from happening and costs of new infrastructure will continue to be incorporated by those who remain connected. In addition, there is concern that Evoenergy, the owner and distributor of the gas network, will seek approval from the AER to invest significant amounts of capital expenditure to expand the network into new suburbs between 2021 and 2026. This is at odds with the ACT Government's climate change policy.

In addition, given that new houses can be built with high energy efficiency and require less space heating, all new residences constructed in the ACT should be prevented from reconnecting to the grid and installing gas appliances. This will speed up the transition in established suburbs from gas to electricity, and will prevent problems in the future about homeowners being left with stranded assets and infrastructure that haven't reached the end of their working life but can no longer be used.

The second opportunity is to encourage existing stand-alone residences to disconnect from the gas grid and substitute electric appliances in their homes. There are benefits for homeowners to do this if they have the resources to invest in changing appliances and accompanying energy efficiency measures. While a transition off gas might require up front investment, it will nearly always deliver reduced running costs for the residence, and generally an increased level of comfort if energy efficiency measures have been undertaken. (<https://renew.org.au/research/are-we-still-cooking-with-gas/>).

The more challenging problems will be to replace large scale gas HVAC systems and gas use in unit titles where the construction of the building might make it difficult to easily substitute with electric appliances.

However, as businesses do need to plan for end of life replacement of major infrastructure, and at that time, need to be in a position to make the right decision about the kinds of technology they will use to replace large scale systems. The ACT Government must send a clear message to businesses and institutions about the timetable in order for a smooth transition off gas to be undertaken. If that decision cannot be taken quickly, the ACT Government would do well to warn large gas users that the use of gas will have a limited lifespan, and that where possible, businesses and institutions should defer major infrastructure decisions until the pathway is clear.

Unit title constructions may have additional challenges transitioning off gas due to construction and metering. For example, many units may have instantaneous gas hot water instead of hot water tanks, and may not have space to install tanks. Wiring upgrades for induction cooktops could be challenging depending on building construction. Shared ownership may also make meeting these challenges more difficult.

However, none of these challenges are insurmountable, and with good support and engineering advice, unit titles should be able to address these concerns. Small hot water tanks can be installed in individual units and metering can be changed. The ACT Government should consider providing information and support to facilitate unit titles transition from gas, explain the steps they might need to take and the solutions that might be available. Without this, and given the governance arrangements that exist in unit titles, transitioning could be a complex and time-consuming process that might delay action by body corporates to act where they need to.

Like new suburb developments, the ACT Government should move to immediately stop the construction of unit developments that are connected to the gas network. In the main, units are only being connected for the purposes of hot water and cooking.

The future of the gas network

The ACT's gas network is owned and operated by Evoenergy, which is jointly owned by Jemena and Icon Distribution Investments Limited (fully-owned by the ACT Government.) The ACT Government is therefore a 50% shareholder in Evoenergy. Under the Territory-owned Corporations Act, Icon Investments must maximise its financial return to the Territory on its investments. Not for the first time, the Government's ownership of Icon (previously known as ACTEW) has put it at odds at what might be the best environmental outcomes for Canberrans. Evoenergy's profits are directly impacted by the number of units of gas that it can sell, and so its business model is about expanding its customer base and lifting its sales. This appears to be at odds with the ACT Government's policy objective of phasing out natural gas by 2045. Even if some form of renewable gas becomes viable in the next 5 years, it appears untenable to continue the expansion of the gas network against this policy backdrop and the backdrop of a climate emergency, given the uncertainties that exist around "renewable gas".

The ACT Government would be advised to review its role in Evoenergy with an eye as to whether it is tenable to continue to own investments in an asset the future of which is dependent on increasing sales of gas while concurrently promoting a policy that inherently decreases sales.

Renewable gas

The Conservation Council does not support setting a renewable gas target at this stage, nor do we think that the arguments in favour of relying on hydrogen as a future home fuel source are as yet compelling. Given the uncertainty about the suitability of the technologies available, and the potential for such a target to drive inappropriate use of resources, a “clean gas” certificate trading scheme shouldn’t be considered during this phase of the energy policy.

Making hydrogen for use either as a fuel or through a hydrogen fuel cell, as compared to using renewable electricity to directly power appliances, is not energy efficient. In addition, should we rely on hydrogen to replace natural gas, then consideration needs to be given to the cost of replacement appliances for all householders once the percentage of hydrogen being used reaches approximately 10% (appliances which don’t currently exist and therefore have no standards.) Additional networks costs might also be incurred to upgrade natural gas storage facilities that are not resilient to hydrogen, however, it is unclear how these costs might compare to other costs associated with transitioning the network away from natural gas.

There has also been recent discussion of the development of biogas plants to feed into the gas network. Such plants would require substantive feedstock sourced from the ACT’s municipal, food and compost waste, which could potentially drive the direction of the ACT’s waste policy away from source separation and other high value products. Organic waste in the ACT could play an important role in building the quality of our soil to support food production and the maintenance of our trees and landscapes in a climate challenged future. Diverting this valuable resource into an energy generation which can easily be substituted for electricity is risky, and could potentially leave the ACT with limited access to reasonably-priced organics products for other purposes.

It is important that biogas that results from landfill is utilised to reduce impacts from greenhouse emissions but it is more likely that surplus biogas could be readily absorbed into the market for use in vehicles or other niche applications and would never be enough to support the replacement of natural gas in the gas network.

Recommendations:

- Urgently set a clear timetable for transitioning off natural gas to ensure homeowners, suppliers, tradespeople, developers and managers of medium-large gas-run appliances are given fair warning to ensure any appliance upgrades are all-electric.
- Stop the roll-out of new gas infrastructure as soon as possible, and preferably at the same time as the current mandate for gas is removed from the Estate Development Code.
- Stop newly built residences in established suburbs from installing gas appliances and reconnecting to the gas network.
- Disallow gas connections in new multi-unit developments.

- Support the transition of residences in established suburbs to replace ageing gas appliances with energy efficient electric appliances over the next 10 years.
- Undertake a full review of the ownership of the gas network, the costs of writing down the network asset (should it be required) and how the costs will be shared equitably across the community without disadvantaging those who are least able to afford it.

6. Zero Emissions Vehicles

Preparing for electric vehicles

To achieve emission reduction targets under the Climate Change Strategy, the ACT clearly needs to focus on reducing the number of privately owned vehicles on our roads, especially as population increases and urban densification occurs. Even with a transition to electric vehicles, reducing vehicle numbers on our roads will be essential to free up space for public transport, cycling and walking, and ensure shorter travel times and reduced congestion. Electric vehicles will however play a significant role in reducing transport emissions. Electrification of private vehicles in particular will also impact on electricity demand and facilitate decentralised storage and demand management at the home level as people use their car batteries to shift their consumption in periods, for example, when their rooftop solar is not producing electricity.

While the timetable for the transition to electric vehicles in the ACT, and in Australia, will be governed largely by the expanding international production of EVs and distribution to international markets, the Conservation Council supports the ACT Government undertaking activities to ensure that Canberra is prepared for the rapid uptake of electric vehicles that might occur, through:

- the provision of public charging stations, and
- changes to planning requirements for new buildings to ensure that EV charging points are installed for residents
- support for local tradespeople to be skilled for the rapid uptake of electric vehicles
- public education about the scope and range of EVs (though this is likely to occur by osmosis as the market shifts.)

Government incentives

While the Conservation Council supports incentives for Canberrans to invest in electric vehicles, rebates need to clearly drive uptake in a meaningful way, not merely discount EVs for early adopters, and for whom a stamp duty discount is unlikely to be a deciding factor as to whether to purchase an EV. Means-testing rebates could also help to ensure fairness. Rebates should be prioritised for those who cannot easily afford the transition to electric vehicles, and be substantial enough to change purchasing behaviour. This is particularly important when it is clear that the majority of car-users in the community will be required to shift to electric vehicles once the market is established in Australia. Stamp duty concessions for EV's should also apply to the purchase of second-hand vehicles which are now becoming increasingly available as an additional incentive and are likely to be accessible to those earning less.

The role of electric vehicles on the grid

Electric vehicles can help provide important grid services, but if not properly managed, can also cause problems with peaks in electricity use if EV drivers choose to charge their cars at 6pm, for example. It will be important for demand management technologies (such as timers that are present in many new EVs) and appropriate electricity tariffs be used to avoid these undesirable impacts.

Recommendations:

- The ACT Government should continue to undertake activities to ensure that Canberra is prepared for the rapid uptake of electric vehicles.
- Incentives for electric vehicles should be designed to change purchasing decisions and support those who will have financial difficulty upgrading.
- The ACT Government should monitor the adoption of electric vehicles and provide public information to new users about how to minimise electricity consumption and maximise savings with regards to tariffs.