



# LEGISLATIVE ASSEMBLY

FOR THE AUSTRALIAN CAPITAL TERRITORY

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STANDING COMMITTEE ON ENVIRONMENT, CLIMATE CHANGE AND BIODIVERSITY

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## Submission Cover Sheet

Inquiry into Renewable Energy Innovation  
in the Australian Capital Territory

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Submission to Standing Committee on Environment, Climate Change, and Biodiversity Inquiry into:

# Renewable Energy Innovation in the ACT

From

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Chair

I welcome the opportunity to provide a submission to the ACT Government's Inquiry into Renewable Energy Innovation in the ACT. I make this personal submission as a 20 plus year resident who has been progressively adopting renewables at home and I hope that other citizens also avail themselves of the opportunity to pen a few words on what may turn out to be the most important inquiry the Assembly conducts in the current term of Government.

The *Parliamentary and Governing Agreement 10<sup>th</sup> Legislative Assembly Australian Capital Territory* is clear in recognising the world is facing a climate change emergency. I also acknowledge the Government and parties, commitment to zero emissions for the Australian Capital Territory (ACT) with science-based action. However, finance and economics must also play a role in the solution. So must good leadership.

It is alarming to read the ACT Auditor-General's excellent summary of the ACT's narrow Financial base, outlined in the 2019-20 Financial Statements Audit Report, copied below:

"1.4 The Territory's main sources of revenue are:

- Commonwealth Government grants, relating to a share of the national GST revenue pool and funding received to provide healthcare, education, skills and workforce development, affordable housing and disability services;
- taxation, mainly relating to rates, conveyancing duties and payroll tax;
- sales of goods and services, mainly relating to water supply and sewerage services, hospital and other health related services including services provided under cross-border (interstate) arrangements and regulatory services; and
- land revenue (value-add component). This is the increase in the value of land resulting from development work undertaken by the Territory to prepare land for sale mainly at newly established suburbs (such as, Taylor, Throsby, North Coombs and North Wright) in the Territory.

1.5 The Territory's main expenses include employee and operational expenses, grants and purchased services and depreciation and amortisation.

1.6 The net operating balance is a key measure of the Territory's financial performance and is the difference between revenue and expenses. "

In summary, the economic base seems too narrow and the reasonable expectations of the population for the provision of Government services continues to grow. My personal assessment is we now have

a “baked in structural deficit” with no clear way ahead to return to a balanced budget situation in the medium term. We also have little spare capacity to absorb another unanticipated shock.

Environmentally it is fortuitous we do not have a major extractive industry, such as a coal or copper mine. However, we also miss out on the broader economic benefit such an industry may bring to improve our financial well-being through royalty payments and related investment expenditure.

Further, there is significant discretionary funds within the Territory household sector not providing optimal returns in the current low interest environment. This frustration may well be an opportunity to be harnessed, should an appropriate assurance structure be developed.

I make this submission, and a set of 15 recommendations, with the circumstances I outlined above clearly in mind. I am available to discuss any aspects of this submission should the Committee wish. My specific comments and recommendations against the terms of reference are at **attachment 1**.

Yours sincerely

Bill Gemmell



**Specific comments against the Terms of Reference**

**a. Opportunities and challenges to boost renewable energy research, technology development and new zero emissions in the ACT**

The ACT is notionally the only Australian state or territory to be powered by 100 per cent renewable energy. And while the move towards renewable energy has notionally<sup>1</sup> cut the territory's emissions by 40 per cent below 1990 levels, the next step towards becoming carbon neutral as soon as possible, and by the 2045 target will be much more difficult without agile and innovative policy, solid leadership and governance and a focus on thorough implementation.

It appears Australia *may* achieve net zero emissions around 2050 at the rate technology and innovation is implemented. It is argued through accelerating deployment of solar and wind, Australia can achieve substantial emissions reductions within 20 years at low or negative cost. If Australia could shake off its current political resistance to making a full commitment to renewable energy, it could well overachieve and become one of the world's greatest sources of renewable energy.

The Fyshwick Hydrogen Facility is the best current opportunity to enhance research and technology development in the ACT area. I expect that ANU and CSIRO are working in collaboration with this facility. The government needs to provide significantly greater leadership, especially in informing the community of the direction it is heading.

With the ACT's experience, private wealth and educated population, it is entirely plausible that the ACT could be a net exporter of renewable energy into the Australian energy grid through innovative engineering and financial approaches. This could, in effect, become the ACT's 21st Century extractive industry and ensure the longer-term financial well-being of its citizens. But it requires the Territory adopting the status of "first mover". I note this policy space is subject to significant competition from NSW with an activist Minister for Energy and Environment driving significant reforms including green hydrogen and Tasmania legislating a 200 per cent renewable energy target by 2040.

There is also a role for the ACT to provide National leadership through demonstration and advocacy through the various consultative processes that may exist from time to time, such as National Cabinet.

Suggested recommendations:

1. The ACT adopt an aggressive renewable energy target in excess of its own internal requirements, with the majority of new generation capability being located within the Territory's borders.
2. The ACT develop innovative financial models to mobilise local private capital to fund the development of the infrastructure required to meet the target.
3. The ACT Government foster a "centre of excellence in renewable technology" within the ACT (a sort of Silicone Valley) to maximise innovation within the territory.

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<sup>1</sup> The ACT purchases renewable energy that is generated interstate and consumed near the source of generation. The actual electrons consumed within the ACT come from a combination of generation technologies that will include non-renewables.

**b. Opportunities and challenges to establish the ACT as a national hub for renewable energy technologies and industries including zero emissions vehicles**

The ACT is one of only a few jurisdictions globally where electricity generation is notionally 100 per cent renewable. But only a small proportion of this renewable energy is actually produced within the ACT borders, with the rest being purchased from other renewable energy sources across the National Energy Market. This exposes the ACT to significant risk if the NEM arrangement fails, the transmission grid experiences disruption or suppliers fail to honour individual contracts. There may also be significant export opportunities should suggestions to extend the National Grid to Western Australia and the Northern Territory come to fruition.

The ACT should be a leader in the transition of the National Energy Market towards 100 per cent renewables by investing in building more solar and wind farms within our borders, and in electricity storage technology (battery and pumped hydro). I would expect the ACT Government or leading local thinkers would have already conducted an examination of viable sites for solar and wind production across the territory, which could include micro-generation opportunities such as roofs on schools, hospitals and suburban car parks. It should also have already considered co-partnering with private industry for their development. Unfortunately, I have not seen any such innovation reported anywhere, and draft development applications for government facilities rarely demonstrate such innovation. For example, recent upgrades to small shopping centres appear to be a lost opportunity to at least trial such innovation.

I note the proposed development of the Big Canberra Battery with optimism. It should reduce unanticipated high levels of demand on the grid. It may also earn significant addition revenue for the Territory if the contracts with the provider are appropriately weighted. The question is do we have the agility to negotiate a positive financial outcome, or will this be a lost opportunity, with profits being exported to a foreign head office?

A further challenge is the lack of planned charging infrastructure to support the widespread adoption of electric vehicles. I have recently noted that service station developments have not been required to incorporate charging infrastructure. Similarly, recent apartment developments have not included adequate charging infrastructure. I also note the recent Auditor-General finding on the implementation of electric vehicles into the ACT Government Administration being hampered by a lack of reliable charging infrastructure (Report 4/2021). It is also clear the *Planning and Development Act 2007* requires an urgent amendment to address this shortfall.

I have, however, been positively encouraged by the careful planning of the Transport and City Services Directorate (TCCS) for the shift to an electric bus fleet.

Suggested recommendations:

4. The ACT Government mandate that all new and refurbished Government facilities are required to include renewable energy generation capability.
5. The ACT Government avoid contracts that will result in the repatriation of profits to head offices outside the Territory, except where a clear community benefit can be demonstrated.
6. The *Planning and Development Act 2007* be amended without delay to ensure all new building make provision for electric vehicle charging.
7. The introduction of electric buses be carefully staged to align with the development of appropriate charging infrastructure.

**c. Opportunities and challenges to innovatively finance and/or manage renewable energy in the ACT**

As discussed above, the ACT Community has a once only opportunity to gain a fortuitous new revenue stream from a shift to renewable energy innovation, production and export. This should not be wasted and the community invited to participate in the innovation through private investment. This could take the form of carefully regulated co-operative arrangements or the issue of Territory Energy Bonds, guaranteed by the ACT Treasury.

Suggested recommendation:

8. The ACT Government examine and implement locally controlled investment opportunities for the financing of renewable energy opportunities within the ACT.

**d. Strategies to address limitations to collaboration and innovation between renewable energy stakeholders**

Clearly, there remains “stove-pipes” of self-interest within ACT Administration that either ignore or do not understand where the sources of emissions arise and how they could be mitigated. Recent examples include the development of the major hospital incorporating the closure of the key public transport access route, roads still being constructed with scant regard to pedestrians and cyclists and new Government building projects being proposed without renewable energy generation facilities. This attitude also exists in the private sector: for example, the plethora of diesel fuelled courier vehicles on our streets delivering single parcels to households cannot be either economically or environmentally sustainable. ACT Government estimates are that transport is expected to account for over 60 per cent of the ACT’s emissions from 2020. Therefore, efficiencies in all modes of transport need to be either encouraged or mandated, but must be implemented.

This would include an all-out effort to reduce all unnecessary dead running in the ACT Government bus fleet. If a road worthy diesel bus is being driven between two points, it should not be acceptable for it to display “Sorry out of service” as a matter of course.

Charging facilities for the growing range of personal mobility devices needs to be installed at convenient and safe locations.

Suggested recommendation:

9. The ACT Government examine and implement locally controlled investment opportunities for the financing of renewable energy opportunities within the ACT.
10. The ACT Government and vehicle fleet operators work together to limit the unnecessary use of diesel vehicles.

**e. The effectiveness of administration and funding of Australian Capital Territory Government policy and regulatory settings relating to renewable energy, climate action and emissions reduction**

My citizen centric view is there remain many opportunities to adjust policy and regulatory settings to identify barriers inside Government to meeting and exceeding the relevant targets relating to renewable energy, climate action and emissions reduction. I would suggest each Agency be tasked with identifying those changes required and implementing and reporting changes. Cultural change could be achieved through provisions in senior executive performance contracts, and/or a network of renewable energy champions within agencies much like risk champions operate within risk focussed organisations.

**Suggested recommendation:**

11. The ACT Government examine and implement locally controlled investment opportunities for the financing of renewable energy opportunities within the ACT.
12. The ACT Government critique its own performance and develop innovative ways to evolve. This may require significant cultural change.



**f. Opportunities and challenges in battery storage including neighbourhood scale batteries and vehicle to grid technologies**

Once again, the missed opportunities in recent ACT Government projects suggest the internal “stovepipe” culture is alive and well. I note with some disappointment the current Duffy Shops proposal is silent on the inclusion of localised renewable energy technologies. I was even more disappointed the design of the new Mitchell Park and Ride facility was a missed opportunity to actively demonstrate what was possible.

For these proposals to be accepted suggests a culture internally that has not fully embraced Government philosophy. If there is to be a successful transition, cultural barriers need to be broken down. Such a change will then permeate through the business and household sector. I may well be describing a leadership strategy here.

Suggested recommendation:

13. The ACT Government ensure its Directorates include innovative renewable energy initiatives in all ACT infrastructure projects.

**Any other relevant matters**

I note that policy responses involving transfers of Territory Funds to the Private or household sector often bid up the end price when the policy objective is to achieve greater take up leading to lower prices through volume efficiencies and other market forces. I note with concern recent media reports that the rate of solar panel installations declined while purchasers were awaiting the details of the ACT Government’s loans scheme. There is also concern that the recent conversation being played out in the media about charging home owners who have already installed solar panels for energy they are exporting could serve to undermine take up.

Further, and of some alarm, the move to transition away from gas towards electricity as the primary source of household heating is leading to households either reactivating or using more intensively already installed wood heaters leading to a rise in individual respiratory complaints. This is compounded by the recent increase in the use of household fire pits.

I have also noted a number of older residents indicating that the purchase of heat pump equipment is beyond their financial means, or they followed previous advice to install gas heating and can see no valid reason to change because it still works.

Governance of any transition strategy is important the Government needs to consider the optimum method of ensuring it is meeting its desired policy outcomes, rather than constantly adjusting its messaging to match any performance gaps.

Suggested recommendation:

14. The ACT Government thoroughly analyse any suggestions for market support with a view to minimising the potential for creating market distortions as opposed to the policy outcome sought.
15. The ACT Government consider its messaging and regulation about wood heaters, and other outside wood fires, especially as it pursues the winding back of domestic reticulated gas connections.

