

Green Car Innovation Fund – Feedback Submission

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The Federal Government is to be applauded for the initiative shown by the Green Car Innovation Fund (GCIF). While I am generally supportive of the scheme, I do believe some changes could be made to better-support the Government's greenhouse emission targets, as well as keeping the Australian automotive industry competitive and nearer to the forefront of green car technology development and deployment.

Two important factors must be recognised:

- In the context of a nationwide greenhouse emissions target of 60% reduction by 2050, the automotive industry has been identified by Garnaut and others as a high-impact sector, with automotive reductions of as much as 80% having been identified. Such reductions cannot be achieved within this timeframe by incremental technology development (such as <15% improvement mentioned in the GCIF paper). To help achieve the government's greenhouse goals, the GCIF should promote the development and deployment of technologies that are well-beyond the current state-of-the art (e.g. better than the 20-30% reductions available from today's hybrids, clean diesels, etc).
- The forefront of automotive technology development is occurring overseas, and the Australian industry has fallen behind. Australia's automotive "technology-follower" mentality must be replaced by a culture of local innovation in order for our industry to remain competitive, despite their relatively small market and manufacturing and capital base from which to fund R&D. Emerging new business opportunities in niche manufacturing and component supply must also be encouraged. Otherwise, the "green cars" sold to Australian motorists will continue to be imported from overseas, equipped with components also developed overseas.

With these critical factors in mind, the following recommendations are made:

1. The GCIF should support a local-retrofit industry for green car technologies:
 - a. Retrofitting is a legitimate path to commercialisation, as has been demonstrated by the local LPG industry.
 - b. As a business model, retrofitting has lower barriers to entry than OEM manufacturing. This will create new opportunities for small-to-mid-sized business that can complement, rather than compete with, Australia's existing automotive manufacturers and component suppliers. I am personally aware of more than a dozen new local retrofit businesses that have emerged to meet demand for green cars, and are seeking to tap into the funds provided by the GCIF.
 - c. Retrofitting can provide for a more-rapid deployment of green cars, since it does not rely on the decade-long process of fleet turnover via new car sales.
 - d. Retrofitting can validate technology under local conditions, help build local consumer demand for green cars, and provide direct training opportunities to boost Australia's green car skill base.
2. The "significant" reductions in fuel use and greenhouse emissions required by the GCIF should be defined by a threshold level of reduction that promotes true innovation. An example would be >50% reduction per-vehicle, in comparison to today's state of the art of 20-30% reduction.
3. A stream C should be created to recognise that many green car innovations are still in their infancy, being pursued by small enterprises. These innovators have not yet grown to the point where they can muster funding to enable a govt grant of >\$100,000 under a 1:3 matching ratio (>\$400,000 total). However, by not proactively supporting these innovative small businesses, this scheme may curtail efforts to build a local supply base for innovative new green car technologies. Stream C would either lower the funding threshold below \$100,000, or increase the matching ratio to nearer to 1:1.
4. Under eligible expenditures, the GCIF should also recognise regulatory efforts to adapt Australia's existing automotive regulations to new technologies. An example would be modifying the Australian Design Rules (ADR) to provide appropriate treatment of electric vehicles. Regulatory enhancement is an important step on the road to making Australia an attractive market for green car technologies.

Thank you for considering the recommendations in this submission. Please contact me directly if you wish to discuss these ideas further.

Dr Andrew Simpson