

Michel Masson
CEO
Infrastructure Victoria
Email: Michel.Masson@infrastructurevictoria.com.au



4 March 2020

Re: Energy Efficiency Council submission on Victoria's Draft Infrastructure Strategy

Dear Michel

Thank you for the opportunity to provide comment on Victoria's Draft 30-Year Infrastructure Strategy. The Energy Efficiency Council (EEC) is the peak national body for energy management and our comments focus on the energy management aspects of the strategy. Energy management is a blanket term that encompasses energy efficiency (getting more useful services with less energy) and energy flexibility (changing when energy is used).

First, the EEC would like to congratulate Infrastructure Victoria for the recognition that 'energy management' is a form of infrastructure. Infrastructure Victoria has avoided the trap of limiting its definition of infrastructure to 'large structures' and recognized that, while the level of energy efficiency in Victoria is impacted by physical systems on millions of sites, this adds up to a form of critical infrastructure for our economy.

Second, the EEC welcomes the sophisticated discussion on the benefits energy efficiency and managing demand in the Infrastructure Plan, and agree that better energy management should be a priority for Victoria as it:

- Reduces energy costs and reduce the challenge of shifting to low carbon energy (p37)
- Deliver huge reductions in greenhouse gas emissions. (p38)ⁱ
- Improve our buildings thermal comfort and people's health and productivity. We note an estimated 2,600 Australians die each year due to cold weather, and heat-related deaths could rise from over 2,000 a year in 2020 to over 5,000 a year in 2050.^{ii, iii} Ensuring that all homes perform well would deliver significant health benefits, including reducing deaths from heatwaves in Melbourne by 90 per cent.^{iv} Upgrading the homes of vulnerable people in New Zealand is estimated to have a benefit-cost ratio of 7:1, largely in reduced health costs.^v A review of Australia's Commercial Buildings Disclosure program, which drives upgrades in office buildings, determined that it delivered staff productivity improvements several times the value of its energy savings.

The EEC would add that energy management can play a major role in supporting Victoria's economic recovery and long-term economic strength. Energy management is a huge job creator - the International Monetary Fund and International Energy Agency estimate that energy efficiency upgrades to buildings is jobs-rich, creating up to 15 jobs per million USD of expenditure.^{vi} In the long term, better energy management can dramatically improve the productivity of businesses, both by reducing their energy outgoings, but also by delivering co-incident reductions in maintenance costs and improvements in overall productivity.

The EEC welcomes the following measures proposed in the Infrastructure Strategy:

- **Draft Recommendation 1:** Accelerate the uptake of zero emission vehicles
- **Draft Recommendation 4:** Moving to 7-star energy rated new homes in 2022, increasing towards 8 starts by 2025

- **Draft Recommendation 5:** Mandating a home energy rating disclosure scheme. This scheme should focus on disclosure for homes at the point of sale in its early years, and then move towards disclosure for rental properties.
- **Draft Recommendation 6:** Making Victorian Government buildings more energy efficient. T
- **Draft Recommendation 7:** Reduce peak electricity use with demand management pricing. However, we note that energy pricing is only one of many necessary steps to improve price signals in the energy market. The EEC recommends that the first priority should be rewarding energy users when they manage their energy use in ways that delivers benefits to the electricity system, such as payments for delivering emergency capacity and reducing the need for expenditure on network infrastructure.
- **Draft Recommendation 8:** Allow new gas-free housing estates and review current gas policies
- **Draft Recommendation 33:** Immediately develop and publish Victoria's integrated transport plan. Require transport and land use plans to align with each other.
- **Draft Recommendation 95:** Make social housing suitable for changing local climates. This is critical as both a driver of improved health for occupants but also as an incubator for developing the services for energy efficiency retrofits for the broader Victorian market. The Victorian Government can demand high-quality integrated energy efficiency retrofit services, creating an incentive for businesses to create these services.

These policies align well with the EEC's broad policy recommendations set out in our publications the *Australian Energy Efficiency Policy Handbook* and report *The World's First Fuel*, which are attached. The EEC would recommend that Infrastructure Victoria review these documents to determine any gaps in the Infrastructure Strategy, but we would particularly recommend the additional two actions be integrated in the Strategy:

- **Adopt the principle of 'energy efficiency first' for Victoria.** This principle means that energy markets and other mechanisms should encourage investment in energy management when it is cheaper and/or delivers greater benefits than supply-side solutions. The Victorian Government's first action should undertake a review to determine what actions are required to implement this principle.
- **Introduce policies to support industries to improve their energy management.** It is notable that Australia is almost globally unique in the lack of support that it provides to industry to improve their energy management capacity, and as a result this is a state-wide problem rather than an issue for individual companies.

We look forward to continuing to work with Infrastructure Victoria on these issues. If you would like any further input please contact me directly via email at rob.murray-leach@eec.org.au or via telephone on 0414 065 556.

Yours sincerely,



Rob Murray-Leach
Head of Policy
Energy Efficiency Council

ⁱ We note that a quote on p38 should be updated – the IEA predict that energy efficiency will be the largest contributor to reducing global greenhouse gas emissions from the energy sector (which includes stationary energy and transport energy) and this prediction does not include emissions from non-energy sources.

ⁱⁱ Gasparrini, A., Guo, Y., & Hashizume, M. (2015). Mortality risk attributable to high and low ambient temperature: a multicountry observational study. *The Lancet*, 386(1), 369–375. [https://doi.org/10.1016/S0140-6736\(14\)62114-0](https://doi.org/10.1016/S0140-6736(14)62114-0)

ⁱⁱⁱ Department of the Environment 2016, State of the Environment 2016, Commonwealth of Australia, Canberra

^{iv} Alam, M. Rajeev, P. Zou, P. 2018 “Mitigation of heat stress risks through building energy efficiency upgrade: a case study of Melbourne, Australia”, *Australian Journal of Civil Engineering* 16(1): 64-78

^v Grimes, A., Denne, T., Howden-chapman, P., Arnold, R., Telfar-barnard, L., Preval, N., & Young, C. (2012). *Cost Benefit Analysis of the Warm Up New Zealand : Heat Smart Programme Ministry of Economic Development. June.*

^{vi} International Monetary Fund and International Energy Agency 2020 *Sustainable Recovery*, IEA Paris.