

Submission to the Essential Services Commission

Unaccounted for Gas Benchmarks Review 2022

Prepared for Darebin Climate Action Now (DCAN) by Jim Crosthwaite PhD, M.Comm, B.Ag.Eco. Independent environmental economist

15 November 2022

We thank you for the opportunity to contribute to the interim review of UAFG benchmarks. In a nutshell, we are greatly disturbed to read that the Essential Services Commission (ESC) may continue to set benchmarks at a similar level to those currently in place. The benchmarks are primarily a mechanism to determine whether gas retailers or distributors pay for UAFG, and to ensure safety of gas pipelines. As we argue below, these purposes are manifestly inappropriate given the significant level of fugitive emissions and their atmospheric warming effect. If required, we can provide detailed references that give evidence in support of our case.

Background. Darebin Climate Action Now (DCAN) is a local not-for-profit organisation of City of Darebin residents of diverse ages and backgrounds who are concerned about the climate emergency. We work to educate ourselves and members of our local community about its causes and the required responses, and actively encourage all three levels of government to adopt the policy changes that are now urgently needed to ensure a safe climate future. Over 4,500 DCAN supporters have taken action in support of a stronger and speedier Government response to the climate crisis.

DCAN is committed to a socially just transition to a zero carbon economy. As examples of our recent work, we recently led the formation of the Darebin Climate Alliance, which includes 25 local groups concerned about achieving a safe climate future for everyone. These groups include community houses, community gardens, 'Friends' of parks and creeks, and sustainability groups. DCAN was a stakeholder partner in the Metropolitan Community Power Hub which worked to facilitate the uptake of renewable energy and energy efficiency measures by local households and businesses. We recently convened a meeting with Darebin Council officers and the Earthworker Smart Energy Cooperative on promoting energy efficiency measures for low income households.

Timeframes. We accept the logic of a six month roll-over of existing benchmarks to a financial year basis. However, there are key problems with current objectives, benchmarks and measurement. A more substantive review is required before the ESC should agree to another set of multi-year benchmarks and processes beyond June 2023.

What are the objectives? Safety and economics are too narrow as objectives for UAFG management. ESC should take the lead in widening the objectives to include mitigation of climate change. This would make UAFG management consistent with the climate policy and strategies of the Victorian Government. This would also be in the long-term interests of gas consumers.

The Government's Gas Substitution Roadmap has provided the required direction. The ESC should recognise that the social license context regarding emissions has changed significantly (as reflected in the Climate Change Act), and should take the lead in relation to bringing down gas use and emissions associated with UAFG. If legislative or regulatory change is needed, ESC should be making the case to the relevant ministers.

The issue of UAFG is more serious than perhaps ESC recognises. Methane (CH4) is a far more potent greenhouse gas than carbon dioxide (CO2). And it is leaking from each of the three 10,000+ kilometre pipeline networks operated by AGN, Ausnet and Multinet.

Effects of methane emissions. ESC should not rely on measurements of methane over 100 years, which has been standard practice until recently. When the release of CH4 is measured over 20 years, it has a warming effect that is 80+ times higher than CO2. This is staggering. In arguing for expanded effort to reduce methane emissions, the International Energy Agency cites the International Panel on Climate Change on the 20 year warming effect.

Extent of methane leaks as a component of UAFG calculations. The three gas distributors provide estimates of fugitive leaks, and benchmarks account for these. Those figures, gleaned from old reports and submissions, indicate that fugitive leaks account for 40% or more of UAFG. If the quantity of fugitive leaks is multiplied by their warming effect over 20 years, we hazard a guess that emissions from CH4 leaks are approaching all the CO2 emissions from gas use by domestic and industrial consumers in Victoria. We look forward to the findings of independent retired chemical engineer John Godfrey who aims to more precisely estimate the size of CH4 fugitive emissions from Victoria's gas distribution network (see his submission to this Review).

Targets and data collection. Current UAFG targets are too weak to have any significant effect on reducing fugitive emissions. Either the targets should be dramatically tightened, or separate mandatory targets should be established for fugitive emissions. ESC should commit to ongoing review of the targets and independently collecting evidence about the actual level of fugitive emissions. Given the imperative of monitoring fugitive emissions, active sampling based on sound statistical practice is required. The Revealed Cost method adopted by ESC to allocate costs between gas retailers and distributors for UAFG is not designed to do this, and so needs to be modified or replaced.

Large-scale addition of hydrogen to gas blends. It is well-known that higher pressure will be required to deliver hydrogen blends in Victoria's current pipeline network. We anticipate that leakage will be enormous if hydrogen is introduced without a massive infrastructure upgrade. The potential introduction of hydrogen reinforces the need for clear targets and independent monitoring, specifically relating to fugitive emissions rather than UAFG as a whole.

Going further, ESC should offer frank and fearless advice to the Victorian Government about the consequences of fugitive leaks, for safety, emissions, climate targets, and costs to consumers. Realistically, all these point to the need to plan the speedy retirement of the gas networks.

Andarson

Prof Ann Sanson Convenor, Darebin Climate Action Now