

MBIE/EECA Process Heat in New Zealand: Opportunities and barriers to lowering emissions

Submission from Climate Justice Taranaki, February 2019

1. Climate Justice Taranaki Inc. (CJT) is a community group dedicated to environmental sustainability and social justice. This includes issues of inter-generational equity, notably in relation to climate change, which will impact future generations' inalienable rights to safe water, food and shelter, crucial to sustaining livelihoods and quality of life. CJT became an incorporated society on 26 February 2015. CJT welcome the opportunity to submit on this technical paper on process heat focussing on the opportunities and barriers to lowering emissions.
2. The paper pointed out that while natural gas accounts for 37 per cent of process heat energy consumption and 50 per cent of emissions and coal accounts for 13 per cent of consumption and 26 per cent of emissions, wood-derived fuels 26 per cent of consumption and just 1.3 per cent of total process heat-related emissions. Clearly there is a great deal to gain in terms of emissions reduction by phasing out the use of gas and coal in process heat production. Indeed, any further coal, oil or gas exploration and mining must be stopped now.
3. Petro-chemical industries (e.g. Methanex and urea production) and industrial dairying (including animal raising and milk powder drying) are major consumers of process heat energy and greenhouse emitters. These industrials also need to be phased out, if we are serious about a zero-carbon economy.
4. It is therefore of critical importance that no new fossil fuel process heat plants are built, whether it is in association with the petrochemical or agricultural industries. Given the investment requirements and life span of these plants, any claimed gain in efficiency would simply lock us into further climate-damaging emissions and delays much needed investments into renewables.
5. The same problem applies to new gas-fired power plants¹ such as that being built by Todd Generation or gas-fed hydrogen power plants like that proposed by American based 8 Rivers Capital^{2,3}. Gas as a transition fuel is unfounded and really it is far too late in the climate crisis to even consider that. The amount of fugitive methane and other gas emissions released during gas exploration, production and transmission are largely undocumented. Pumping back the 'pipeline-ready' CO₂ into the ground to extract yet more oil and gas from old fields⁴ is surely not what we want. Clearly these are not solutions to our climate crisis and should be stopped rather than supported. CJT urge that MBIE refuse any funding request, notably the \$20 million sought⁵ from the Provincial Growth Fund, for 8 Rivers or its subsidiary Pouakai NZ.
6. On the contrary, we need financial mechanisms such as a compulsory carbon price starting from no less than \$50/tonne and increasing to at least \$100, to provide the incentives to urgently and substantially reduce emissions and transition onto a zero-carbon economy. Positive incentives for scaling up and innovation in waste-to-energy⁶ (e.g. farm and landfill wastes) would be desirable also.
7. There also needs to be policies and regulatory measures to ensure that old process heat plants that run on fossil fuels are decommissioned as soon as they reach their designed end of life, rather than prolonged in order to avoid investment into alternative energy sources.

¹ <https://www.stuff.co.nz/business/105362914/taranakis-new-100-million-natural-gas-fired-plant-set-to-open-in-2020>

² <https://www.transpower.co.nz/sites/default/files/projects/resources/Pouakai%20NZ%20BRK-SFD%20Long%20List%20Consultation%20Submission%20-%2011.27.2018.pdf>

³ <https://www.stuff.co.nz/taranaki-daily-news/opinion/108996017/dont-believe-the-hype-of-the-8-rivers-plan>

⁴ <https://www.netpower.com/technology/#eor>

⁵ <https://www.stuff.co.nz/business/108926475/is-the-8-rivers-taranaki-zeroemissions-hydrogen-project-another-ostrich-idea>

⁶ <https://www.bioenergy.org.nz/extracting-value-from-waste>