

# Regional Hydrogen Transition Draft Technical Design Paper

## Climate Justice Taranaki submission, September 2023

### Introduction

Climate Justice Taranaki (CJT)<sup>1</sup> 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 increasingly impact present and future generations' inalienable rights to safe water, food and shelter, crucial to sustaining livelihoods and quality of life. Composed of a broad range of people with varied expertise and life experiences, CJT has engaged respectfully with government on numerous occasions.

CJT has submitted on numerous consultation papers relating to energy and in particular Hydrogen (October 2019)<sup>2</sup>. CJT was unaware of the release of the Regional Hydrogen Transition Draft Technical Design Paper<sup>3</sup> until late on the closing date of 10 September. We have since requested an extension on the submission deadline and seek to have this considered in full.

### Process and Partnership

Based in Taranaki, our group has been researching and campaigning on a just and sustainable transition off fossil fuels for our region for over 13 years now. Our members have first-hand experience with the fossil fuel and petrochemical industries and contributed numerous volunteer hours in the Taranaki 2050 Roadmap process. Clearly, we constitute a considerable, 'interested stakeholder' to the direction and design of the current Regional Hydrogen Transition programme. Yet we were not alerted of this consultation. From our perspective, the claim that "*Partnership is at the core of the Government's approach to just transition*" is an over exaggeration, at least with respect to the community sector (Draft paper p.4).

### A hydrogen economy subsidised by government rebates

We do not support the development of a hydrogen economy as part of a just transition, because of the inherently negative energy return on energy investment, and the risks both in terms of human safety and global heating as leaked hydrogen reacts with several greenhouse gases including methane<sup>4</sup>.

As warned by the Parliamentary Commissioner for the Environment (PCE) in March 2022<sup>5</sup> and then in January 2023<sup>6</sup>, the push for green hydrogen carries with it opportunity costs that need to be assessed under a whole energy system analysis, or else we risk derailing Aotearoa New Zealand's decarbonisation pathway. In June 2023, the Commissioner released a modelling report which showed Southern Green Hydrogen as the poorest performing pathways across a range of indicators, including high residential electricity prices and supply risk; i.e. "*the social benefits of this pathway do not outweigh the costs...*" (PCE, June 2023)<sup>7</sup>.

The Commissioner also reflected on the 'Think Big' era following the oil shocks of the 1970s: "*Many of those investments were controversial, some of them proved to be extremely costly, All of them had system-wide consequences that created a path dependency from which New Zealand must now extricate itself. The absence of publicly available information to expose the 'Think Big' era projects to proper scrutiny was widely lamented at the time. Today's decarbonisation challenge is every bit as significant, and the scale of investment required even greater. We are already seeing significant public subsidies being extended to technologies that are claimed to be part of the future...*" The proposed rebate for hydrogen users is exactly

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<sup>1</sup> <https://climatejusticetaranaki.wordpress.com/>

<sup>2</sup> <https://climatejusticetaranaki.files.wordpress.com/2019/10/cjt-submission-on-mbie-hydrogen-green-paper-oct19-v3-final.pdf>

<sup>3</sup> <https://www.mbie.govt.nz/business-and-employment/economic-development/just-transition/regional-hydrogen-transition/>

<sup>4</sup> <https://www.nature.com/articles/s43247-023-00857-8>

<sup>5</sup> <https://pce.parliament.nz/publications/letter-to-ministers-woods-shaw-and-robertson-about-green-hydrogen/>

<sup>6</sup> <https://pce.parliament.nz/publications/letter-to-minister-woods-regarding-system-wide-energy-strategy/>

<sup>7</sup> <https://pce.parliament.nz/media/lnrayjcz/the-economics-of-four-future-electricity-system-pathways-for-new-zealand-kelly.pdf>

that – a subsidy to fuel an energy sector at the expense of an efficient and equitable energy transition, being rushed ahead by government and industries without proper scrutiny.

We are strongly opposed to making so-called green hydrogen for export, and therefore support the proposal to exclude the export of hydrogen from rebates (Draft paper p.7).

For Taranaki, the push for green hydrogen is largely focussed on replacing fossil gas with hydrogen in the production of urea fertiliser which fuels and prolongs the harms of industrial agriculture on our climate, the health of our waterways and wellbeing of farmers and rural communities. The use of hydrogen for trucking also largely serves the industrial agriculture system, and it is far more energy and cost inefficient when compared with a combination of long-haul rail and electric trucks<sup>8</sup>.

The creation of a hydrogen economy requires vastly over-building renewable energy capacity, such as massive offshore windfarms which are now being fast-tracked<sup>9</sup>, despite the paucity of environmental and species data needed to conduct robust impact assessments<sup>10</sup>. The threats on our marine biodiversity, taonga and ecosystems cannot be ignored, nor can the other planetary boundaries that we have already breached and causing far-reaching environmental injustice across the globe<sup>11</sup>. The development of renewable energy is far from harmless or infinite<sup>12</sup>, and cannot be expected to support the level of economic activities enabled by fossil fuels<sup>13</sup>, let alone meet the demands of economic growth.

## Conclusion

It is far wiser to invest in energy reduction, energy efficiency and truly sustainable renewable energy production while shutting down polluting industries. We need a degrowth<sup>14</sup> economy with thriving, healthy community-focused industry, not more extraction from an already wasted planet and struggling communities.

Please find a link to our Toitū Taranaki 2030 transition plan<sup>15</sup> to read as part of our submission.

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<sup>8</sup> <https://www.canterbury.ac.nz/news/2021/why-new-zealand-should-invest-in-smart-rail-before-green-hydrogen-to-decarbonise-transport.html>

<sup>9</sup> <https://www.beehive.govt.nz/release/fast-tracked-wind-farms-will-cut-emissions-and-create-jobs>

<sup>10</sup> <https://tethys.pnnl.gov/publications/international-assessment-priority-environmental-issues-land-based-offshore-wind-energy>

<sup>11</sup> <https://www.nature.com/articles/d41586-023-01749-9>

<sup>12</sup> <https://www.gtk.fi/en/current/there-are-bottlenecks-in-raw-materials-supply-chain-a-glimpse-of-the-systemic-overview-is-here-discussion-and-the-development-of-the-solutions-have-started/>

<sup>13</sup> [https://www.youtube.com/watch?v=T19tHn\\_LA80](https://www.youtube.com/watch?v=T19tHn_LA80)

<sup>14</sup> <https://www.degrowth.nz/> and <https://degrowth.info/>

<sup>15</sup> <https://climatejusticetaranaki.files.wordpress.com/2021/05/toitu-taranaki-2030-just-transition-community-strategy-apr21-web.pdf>