INDUSTRIAL SYMBIOSIS KAWERAU

Industrial Symbiosis Kawerau (ISK) Inc. Submission On Te Hau Mārohi Ki Anamata | Transitioning To A Low-Emissions And Climate-Resilient Future

1. Introduction

The following is Industrial Symbiosis Kawerau's (ISK) Inc. submission on the *Ministry for the Environment. 2021. Te hau mārohi ki anamata | Transitioning to a low-emissions and climate-resilient future: Have your say and shape the emissions reduction plan.*

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2. Background to ISK Inc.

ISK Inc. is an incorporated society whose membership comprises Kawerau–based businesses including wood/fibre processing; geothermal energy, industrial engineering, service businesses, Maori business groups and the Kawerau District Council. ISK was founded on circular economy principles and is a collaboration between different enterprises for which the geographic proximity of each allows for the sharing of resources, increasing the viability and competitive advantage of the other.

ISK involves the exchange of materials, energy, water, by-products, services, knowledge, intellectual property, social capital and networks to reduce resource costs, increase revenues and create new business opportunities. It is a smarter way of companies utilising their resources, residues and by-products to eliminate waste. This leads to new commercial opportunities, job creation and better environmental outcomes.

Kawerau has the unique advantages of being a well-established wood processing centre and home to the world's largest application of geothermal energy for direct industrial use. Further, it is strategically located having proximity to well-established road and rail transport infrastructure and the Port of Tauranga. ISK aims to capitalise on this unique combination of factors by adopting progressive practices that embrace change, leading to a new industrial evolution of smarter, cleaner business.

Kawerau is on the cusp of significant economic growth along with the rest of the Eastern Bay of Plenty. Kawerau's main growth project - the Kawerau Putauaki Industrial Development (KPID) - is one of the four key "catalytic" Eastern Bay of Plenty infrastructure projects identified in the *Eastern Bay of Plenty Regional Development Project* report completed in 2018. These four projects are viewed as being "… critical to unlocking other transformative projects" across the region. Specifically, KPID is expected to unlock significant benefits including generating an estimated 1,460 jobs and $183m in local GDP by 2030.

5. *Transport including Green Hydrogen /Low Emission & Bio Fuels*

We are pleased to note that ERP recognises the role and importance of green hydrogen and low emission/biofuels in reducing carbon emissions from the transport and energy sectors – there is not the prevalent emphasis on electric vehicles that was evident in the Climate Change Commission's "Advice" earlier this year.

We suggest that the ERP needs to address the barriers to advancing low/zero-emission energy streams. In particular, we are aware that high electricity prices are stifling the development of green hydrogen production, which is primarily manufactured at scale by an electrolysis process.

We support *Transport target 4: Reduce the emissions intensity of transport fuel by 15% by 2035* (page 71); particularly the recognition given to the role of lower carbon liquid fuels, such as biofuels, alongside electrification and hydrogen in achieving this target.

As a general comment, we note the ambitious targets set for all four Transport targets – 2035 is not that far away. We do question the practicality of achieving those targets. Our impression from the ERP is that target achievement relies on the supposition there will be sufficient, affordable low/zero carbon-emitting vehicles and fuels readily available soon.

Regarding question 56 (page 81) - ***we do not support*** the Climate Change Commission's recommendation to set a time limit of 2030 *for light vehicles with internal combustion engines entering, being manufactured, or assembled in Aotearoa.* We note that by definition "light vehicles" include utes and light commercial vans. Both vehicle types are commonly used by industry and commercial enterprises that rely on them to operate their businesses. We believe that the adoption of the recommended 2030 date could impact the viability of much of Aotearoa's business. We suggest that the principal issue is not the type of engine, rather it is the types of fuels used - particularly fossil fuels. The ERP has correctly identified the role of biofuels in helping achieve emissions reductions and such fuels are/can be used to successfully power internal combustion engines.

6. *Building and Construction*

We support the ERP vision "*... to significantly reduce all building-related emissions as soon as possible.*" and agree with the principle that "*There is significant potential for this sector to help reduce emissions in other sectors.*"

We note and support the recognition that "*Embodied carbon emissions are emitted during the manufacture and use of the materials and products that form the building, and across its life, from construction to deconstruction*". However, we suggest that the ERP should have a stronger approach to minimising the carbon footprint of the type of materials used in building construction. This is noticeably missing from the Government's proposed policies and methods to reduce building-related emissions as outlined in the ERP's Building and Construction section (pages 90 – 97).

We further suggest Government should be more proactive and develop mechanisms similar to the following international examples of decisive measures to lower carbon emissions from building construction:

- *The city of Amsterdam has mandated that 20 per cent of all new housing projects in the Dutch capital must be constructed with wood or other biobased materials from 2025. Increasing the use of timber in the city's construction projects is hoped to reduce reliance on steel and concrete – materials that create large amounts of carbon dioxide during production. In turn, this is expected to help the Dutch capital meet its goal of "climate neutrality", or net-zero greenhouse gas emissions, by 2050.*

- *In New York, the city council has approved the use of mass timber for the construction of buildings of up to 25.9 metres tall.*
- *In 2020, the French government agreed that all new public buildings in the country must be built from at least 50 per cent timber or other natural materials by 2022.*

7. *Waste*

We support the ERP objective of reducing emissions from waste, particularly through waste reduction. We are very supportive of the recognition given to the importance of utilising a 'circular' resource recovery system to address the waste issue effectively, rather than deal with it from a landfill management approach - which is an "ambulance at the bottom of the cliff" strategy.

Equally, we are supportive of the Partnership approach (page 110) as being pivotal to the transformation of the waste sector.

We suggest the ERP could underscore these principles by including a declaration of Government support for research/initiatives that will enhance waste minimisation as one of the planned measures to reduce emissions.

We note that there is only one reference to textiles in the document (page 105) as a particular waste stream and suggest that the ERP needs to address disposal of used textiles. Recent research estimates that annually 220,800 tonnes of textiles are landfilled, annually, in New Zealand (Bernadette Casey and Brian Johnston - "*Looking In The Mirror: A review of circularity in the clothing and textile industry in Aotearoa*" - 2020). This equates to 44 kg textiles per person, which in terms of the climate change impact, equates to 397,440 tonnes of CO2 emissions per year. We believe there are considerable opportunities for recycling/reusing textiles to minimise the current volumes consigned to landfills.

Therefore, we suggest that *Table 10: Waste policies abatement scenarios for each budget period* (page 126) should include specific policies relating to textiles.

8. *Forestry*

We support the proposed development of the *Forestry and Wood Processing Industry Transformational Plan* (ITP) and a new planning and advisory service within Te Uru Rākau New Zealand Forest Service (page 114). In particular, we are very supportive of the first paragraph: "*There is potential to reduce emissions by replacing emissions-intensive materials and fossil fuels with domestically manufactured wood products and wood-derived bioenergy, such as biofuels. Long-lived wood products such as engineered wood products could also be a substitute for emissions-intensive materials such as concrete and steel, and store carbon for many decades*". This reinforces our feedback on *Building and Construction*.

We consider both instruments will have strategic roles in supporting a low emissions economy and look forward to contributing to the development of the ITP.

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