Meat Industry Association of New Zealand (Inc)

Submission on Process Heat in New Zealand: Opportunities and Barriers to Lowering Emissions

22 February 2019

I: Introduction

1. The Meat Industry Association ('MIA') is the voluntary trade association representing New Zealand meat processors, exporters and marketers. MIA members represent 99 percent of domestic red meat production and export, making the meat industry New Zealand's second largest goods exporter. It is New Zealand's largest manufacturing industry employing some 25,000 people in 60 processing plants, mainly in the regions.

2. In developing the submission MIA members and affiliate members were consulted and asked for input, although individual members may also make their own submissions specific to the view of their operations.

3. The New Zealand red meat industry is a significant user of coal and gas – about 63,000 tonnes of coal annually (about 6% of total coal use in New Zealand). This is used for boilers in processing plants (where 85-degree water is needed for cleaning purposes), and in rendering (where animal product is cooked and turned into meat-and-bone meal).

4. Coal and gas are used because it is an effective heater at processing plants that are in rural or relatively isolated areas. In the South Island, in particular, there is no natural gas. Any solution away from coal and gas needs to consider improved electricity reticulation to processors in rural areas.

II: Barrier A: Questions 1-4: NZETS and price of emissions

5. MIA members are of the view that the ETS has not provided any incentive to reduce emissions beyond the current price. The driver within meat processing companies to save energy comes from internal requirements, rather than the ETS.

6. This is because there are few alternatives in place to switch supply, especially in the South Island where there is a heavy reliance on coal (given the absence of natural gas).

7. The ETS emissions charges are within the energy prices that MIA member companies receive when coal and gas are purchased, so by default companies have to account for this cost. However, MIA companies have no control over this cost. It is noted that while

some gas companies do provide ETS charges on their accounts, other gas and power companies are not helpful in accounting for the ETS component.

8. One processor stated that they are in the process of looking to replace (coal-fired) boilers. While they believe that the price of coal will likely go up in future meaning that coal boilers will become very expensive to operate, uncertainty means it is difficult to make a decision on that. While the ETS, and the likelihood of future price increases, does have some influence over future replacement considerations, the price uncertainty reduces that impact, especially when there are few alternatives to coal.

III: Barriers B-H: Questions 5-14 Barriers to uptake of alternative and new technologies

9. Sustainability KPIs are widely used in company KPIs in the industry. However, sustainability objectives will vary in importance from project to project. While almost all companies have varying energy use reduction targets, as businesses, the predominant metric is ultimately risk and return on investment. Sustainability is an important consideration but ultimately capital decisions must show a commercial return on investment.

10. MIA members reported that they do not ring-fence energy-related projects specifically, but clearer signals and policy from the Government would provide for greater certainty and perhaps allow for greater investment.

11. All companies actively monitor their energy use and emissions, in many cases daily. It was noted that some monitoring is done as a result of partnerships with EECA. However, there was opposition to making public individual company energy use data.

12. The strong preference for MIA is not for publication of processor emissions data. A MIA member called for a more holistic approach to sustainability reporting which shows a company's progress towards creating sustained value across a range of natural capital inputs, as opposed to seeing this data reported in isolation. It would help the public and customers make a more informed view of a company's environmental performance.

13. Some MIA members agreed that lack of access to information on new and alternative technologies described in the consultation document had an impact on their ability to make decisions to invest in process heat technologies. Others noted that EECA is doing a good job at sharing information and supporting new technology.

14. Short-term and arbitrary policy decisions by the Government regarding gas supply have had a very negative impact on decision-making by companies on alternatives to coal. The Government needs to have in place long-term energy plans and investment in infrastructure on alternatives to coal and gas if companies are to make decisions on replacing coal and gas.

15. It should be noted that the MIA is currently developing an industry energy, water and emissions benchmark for all MIA members. This will allow for MIA members to benchmark their energy and other inputs of individual processing and rendering plants against the industry average. But we note that plants of competing companies will not be identifiable. If the Government has a role, it can be to assist industries in industry benchmarking.

IV: Barriers I-K: Questions 15-18: Barriers to electrification of production

16. There are significant barriers to electrification of processing and rendering. The reality is that heating requires significant energy that is currently most cost effectively produced by coal or gas. To shift to electricity would (a) result in very large amount of electricity needed; and, (b) significant – and economically unviable - increase in costs (one company states that electricity costs are 3-4 times the costs of its current thermal fuels).

17. Some processors have looked at electrifying more of their operations, but the present network and lines companies do not have the reticulation in place. In many cases, local network infrastructure is already near peak capacity.

18. There would also be significant capital costs for processing sites as they changed their internal infrastructure away from steam/hot water for heat delivery to electricity.

19. One large processor stated that if it was to go to completely electric power (and abandon coal and gas), the electric power demand would double, as well as result in significant capital cost to change over. One processing plant, for example, uses almost 10,000 tons of coal a year, at almost $2.5 million. To change to electricity, the cost would be $4.6 million a year.

20. It was noted that volatility in electricity prices have not helped convince processors to move to electricity.

21. In the long-term, given increases in electricity demand and limited generation growth, the price of electricity is likely to increase.

22. A processor noted that a hydro plant in use at one plant could not be built today because of the prolonged consenting process and compliance costs. MBIE should acknowledge that the current RMA process dissuades adoption of alternative energy generation (including hydro power).

V: Barriers L, M, N: Questions 19-22: Barriers to use of woody biomass

23. Woody biomass is used in the industry, but is limited by the cost and transport difficulties of the supply, because wood handling systems take up more space than other boiler fuels, and because biomass boilers do not react well to load change.

24. At least one processor has looked at converting some heating to wood from a nearby forest, but the problems are ensuring ongoing reliable supply of wood.

25. The industry is making use of recovered solids from processing waste, which is burned with waste wood.

VI: Questions 23-24: Barriers to wind and solar

26. Some companies have considered alternative forms of energy generation, but have been dissuaded from pursuing the option further because the options are just not economic and because of the uncertainty around Government policy settings.

27. Some companies have looked closely at wind power, but have not gone ahead due to the cost and confidence in reliable supply (and reliable supply is important when

considering our members are processing a perishable product). In addition, the company must still pay the monthly network cost for power supply.

28. On company has considered geothermal, but there is little information available to make the decisions on it, including Council consents, cost to install, and quantity of process heat available.

VII: Summary

29. The MIA thanks MBIE for the opportunity to make this submission.

30. To date, the ETS has not been effective at driving change for meat processors and renderers.

31. Meat processors already use energy KPIs and are currently considering industry energy (and water and emissions) benchmarking. But energy investment decisions are ultimately made on return on investment. Government can assist processors and renderers with future energy decisions by providing clearer signals and certainty about the energy policy.

32. Electrification is a matter of cost relative to (cheaper) coal and gas, and the inability of the existing electricity network to cope with increased demand.

VIII: MIA Contact

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Appendix 1: Current Association Members and Affiliate Members

Members
Advance Marketing Ltd
AFFCO New Zealand Ltd
Alliance Group Ltd
Ample Group Ltd
ANZCO Foods Ltd
ANZPAC Foods Ltd
Arrow Commodities (NZ) Ltd
Auckland Meat Processors Ltd
Bakels Edible Oils Ltd
Ballande New Zealand Ltd
Blue Sky Meats (NZ) Ltd
BX Foods
Columbia Exports Ltd
Crusader Meats New Zealand Ltd
Davmet New Zealand Ltd
Farmlands Matthias
Fern Ridge Ltd
GrainCorp Commodity Management
Greenlea Premier Meats Ltd
Harrier Exports Ltd
Kintyre Meats
Lanexco Ltd
Lowe Corporation Ltd
Mathias International (Mathias Meats NZ Ltd)
Ovation New Zealand Ltd
Prime Range Meats Ltd
Progressive Meats Ltd
Silver Fern Farms Ltd
PVL Proteins Ltd
SBT Group Ltd
Taylor Preston Ltd
Te Kuiti Meat Processors Ltd
Universal Beef Packers Ltd
Wallace Group
Wilbur Ellis NZ Ltd
Wilmar Gavilon Pty Ltd
Affiliate Members
Abattoirs Association
AgResearch-MIRINZ Centre
Alfa Laval
Auspac Ingredients
CentrePort Wellington
Cooltranz Ltd
Direct Fats and Oils
Ecolab PTY Ltd
Foodcap International
Gtech New Zealand Ltd
Haarslev Industries Ltd
Hamburg-Sud New Zealand Ltd
Hapag-Lloyd (New Zealand) Ltd

Intralox Ltd
Liqueo Bulk Storage
Maersk New Zealand Ltd
Milmeq Ltd
Nestle Purina Petcare
Oceanic Navigation Ltd
Port of Napier
Port Otago Ltd
Provenance Meat Ltd
Pyramid Trucking Ltd
Rendertech Ltd
Rockwell Automation (NZ) Ltd
SCL Products Ltd
Scott Technology Ltd
Sealed Air (NZ) - Cryovac Division
Value Proteins Ltd
Vero Marine Insurance