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Via email: climatechange.review@epa.nsw.gov.au

Australian Lot Feeders' Association (ALFA) welcomes the opportunity to make a submission to the public consultation on the Draft Greenhouse Gas Assessment Guide for Large Emitters (Guide).

ALFA is the Peak Industry Council representing 349 accredited cattle feedlots, with approximately 1.2 million cattle on feed. The feedlot industry makes up 47% of the cattle slaughtered in Australia and contributes to over 35% of Australia's total beef exports. As a key contributor to a trade-exposed industry, up-stream supply chain operators, such as meat processors, retailers, and exporters, rely heavily on the feedlot industry for the supply and export of high quality, safe, grain-fed beef to feed families in Australia and abroad.

This submission requests that the NSW Environment Protection Authority (EPA) consider the impacts of imposing regulatory requirements on lot feeders that are assessed as large emitters under the Guide.

Approximately two-thirds of Australian cattle are grass fed, spending their entire lives grazing on grasses and pastures. The remaining third are grain fed, spending most of their lives grazing grasses and pastures before being fed a grain-based diet in feedlots. At any one time around 4% of the Australian cattle herd are being fed in feedlots. The Australian grass and grain fed production systems are highly complementary, interrelated and dependent upon each other.

Feedlots were born out of necessity in Australia. The simple reason being that many regions in Australia do not produce enough grass to feed and nourish cattle year-round. Even though all Australian cattle are raised on grass, feeding a grain-based diet in purpose-built facilities (called feedlots) is a complementary system that ensures cattle can be nourished year-round despite the varying environmental conditions and therefore allowing beef to be available for consumers at all times. Feedlots help Australia provide a consistent supply of beef to both domestic and export markets, as well as an option for farmers to 'finish' cattle that may not otherwise meet processor specifications. The ability for feedlots to consistently feed cattle despite changes in seasonal conditions is beneficial to Australia's beef production system as it provides Australia, and major trading partners, with a more consistent and sustainable supply of beef products.

Grain feeding cattle is also a form of dietary manipulation that is recognised in scientific literature as a GHG mitigation method. Beef production is generally more efficient in a feedlot as more beef can be grown using less cattle, emissions, land, feed, manure and water. So apart from producing great

quality beef, grain feeding is regarded as a highly efficient and sustainable option for producing beef for consumers and for maintaining a sustainable environment.

Further, feedlots contribute to the prosperity of rural and regional Australia, playing an important role employing 2,000 people directly and 30,000 people indirectly. The Australian economy would shrink by \$10.2 billion and shed 49,000 full-time employees if feedlots ceased to exist.

ALFA CONSIDERATIONS TO THE NSW EPA GUIDE FOR LARGE EMITTERS

1. Accuracy and Fairness of Emissions Attribution:

All cattle naturally emit methane through their digestive processes, a biological function intrinsic to the natural carbon cycle. ALFA understands that cattle and other livestock are often linked to climate change because of the methane they emit. Often overlooked is the fact this enteric methane is part of a natural – or biogenic – carbon cycle, in which the methane breaks down into carbon dioxide (CO₂) and water after about twelve years. Grass then absorbs the CO₂ through photosynthesis, ruminants eat the grass, and the cycle continues. In contrast, methane released from fossil fuel extraction has been stored underground through geological processes over millions of years and CO₂ from burning fossil fuels continues to build up and heat the atmosphere over centuries. This natural carbon cycle means that the reporting of climate-related information in the agricultural sector is complex and requires specialist skills and expertise to accurately report.

Currently, the Moe and Tyrell (1979) equation is used to calculate enteric methane emissions from the feedlot industry as part of the National Greenhouse Inventory. These calculations are then reported as part of Australia's obligations under the United Nations Framework Convention on Climate Change (UNFCCC) and Paris Agreement. The Moe and Tyrell equation was developed using North American Dairy cattle in the late 1970s. Originally it was chosen due to its reliance on the carbohydrate composition of each diet, offering the potential for customised estimates for different feedlots. Meat & Livestock Australia (MLA) has now completed several projects where actual collected data from Australian feedlot cattle does not accurately reflect predicted methane emissions calculated using the Moe and Tyrell (1979) equation. Research findings indicate that methane emissions within the feedlot sector have been overestimated by up to 56%. MLA is currently working with the National Greenhouse Inventory to adopt an updated methodology.

ALFA therefore raises significant concerns the regulation of livestock emissions within feedlot, whilst emissions from livestock in extensive grazing production systems remain out of scope of the Guide. This regulatory approach is inequitable and places a disproportionate and unnecessary regulatory burden on the lot feeders. ALFA encourages EPA to consider the management and mitigation of livestock emissions within the wholistically and take a consistent approach through the regulatory framework. ALFA's preferred position is that all livestock related methane emissions are managed under one legal/assessment framework. It is ALFA's recommendation that livestock emissions should not be assessed under the Guide until all cattle in NSW.

2. Economic Impact on the Lot Feeding Industry:

The cattle feeding industry operates within a highly competitive market with relatively narrow profit margins. Imposing stringent GHG reporting requirements will exacerbate financial pressures, potentially making it difficult for lot feeders to sustain viable operations. The additional costs for compliance, such as purchasing or having to engage advanced monitoring equipment or hiring specialized personnel, may not be feasible for many lot feeders, particularly smaller operations.

This illustrated through the extensive research and development undertaken by industry and MLA to investigate the financial feasibility of carbon neutral opportunities within the feedlot sector. The

technical manual 'Moving Towards Carbon Neutrality Opportunities for the Australian Feedlot Industry' outlines the cost of carbon neutrality can be broken down into four main areas:

1. Professional services to complete a carbon account – Approx. \$30,000 - \$50,000
2. Verification fees – Approx. \$7,000 - \$15,000
3. Licence fees - \$19,000
4. Costs of offsets - Variable

These costs are incurred by a lot feeder in addition to ongoing monitoring and verification costs. There are currently no premiums being offered by Australian meat processors to incentivise or offset the costs. In imposing such costs on lot feeders through regulation under the Guide, development within the feedlot sector is stifled.

ALFA urge the NSW EPA to consider these economic impacts and explore potential support mechanisms. Possible measures include financial incentives, subsidies, or the development of a phased implementation plan that allows for gradual adaptation to any new requirements.

3. Technological and Practical Feasibility:

The accurate measurement and reporting of GHG emissions from cattle today has resulted in the development of sophisticated technologies associated with significant calculations. The ability to adopt such processes is better achieved where there is an ability to interpret and understanding the resulting outcomes. ALFA suggests the higher level of understanding the greater likelihood to achieve compliance. Therefore, we recommend that the NSW EPA provide comprehensive guidance, training programs, and financial support to facilitate the adoption of these technologies. Additionally, considering alternative, more accessible methods for estimating emissions that maintain accuracy without imposing undue burden would be beneficial.

ALFA is aware not only in NSW but other jurisdictions applications for development concerning feedlots are pending and planned applications will/could be lodged in the near future. ALFA and the feedlot sector are unsure on how applications for feedlot development will be managed and assessed by NSW EPA? Decisions made by NSW EPA on applications could severely impact the progression of the feedlot sector and impact employment and profitability. It is important that lot feeders have clarity regarding the practical application of the Guide, as the sector progresses opportunities such as an increase of cattle being placed on feed coupled with expanding trade and market access potential. These situations are positive for the feedlot sector. One such market ALFA is assisting the Federal Government to progress is the HGP free market into the United Kingdom. Current estimates are this market alone could be worth \$750 million in the first year and within a few short years over a billion dollars to Australia. These industry developments are front of mind for lot feeders and where development applications are lodged or soon to be lodged the unknown management of such applications by NSW EPA is of concern. ALFA has significant concerns regarding the assessment of feedlot application under the Guide.

4. Recognition and Incentivization of Mitigation Efforts:

Feedlots are an important part of the beef supply chain, providing a high level of production efficiency and lower greenhouse gas emissions per unit of feed intake than grazing cattle. Any measures taken by lot feeders to reduce emissions must be practical and economically viable to meet commercial realities. ALFA and its members recognise the need to continually engage with, and in relation to sustainability and emission reduction. Through industry led initiative such as CN30 and the Australian Beef Sustainability Framework, the feedlot sector is taking steps, to ensure that grain-fed beef is produced in a way that is socially, environmentally and economically responsible. ALFA encourages NSW EPA to acknowledge this work and consider such efforts going forward.

The Australian feedlot industry has been spearheading development of new production technologies - novel feed additives - to reduce methane emissions from ruminant livestock. These feed additives have a range of mode actions including blocking methane production, inhibiting methanogen bacteria, or reducing the availability of hydrogen for methane production. Whilst research indicates that feed additives such as asparagopsis and 3-NOP have the potential to reduce methane production in grain-fed cattle, further work is required to ensure that this can be delivered in a way that is economically viable for feedlot operators. There are also barriers in regard to impacts on productivity, scalability and lack of regulatory oversight.

ALFA promotes the importance to acknowledge that many lot feeders are already proactively engaged in reducing GHG emissions through various measures. These include optimizing feed efficiency, implementing improved manure management practices, and adopting renewable energy sources. Recognizing these efforts within the regulatory framework through the Guide and proposed best practice resources is vital. ALFA recommends that the NSW EPA establish provisions to acknowledge and reward such initiatives. This could involve offering credits or reductions in reported emissions for demonstrated mitigation efforts, thereby encouraging further adoption of sustainable practices.

5. Need for a Collaborative Approach to Policy Development:

The development of effective and practical GHG emissions policies necessitates a collaborative approach that includes industry stakeholders, researchers, and government representatives. By working together, ALFA, lot feeders, stakeholders and government can ensure that the resulting policies are scientifically sound and practically implementable. ALFA and its members are keen to participate in such collaborative efforts and believe that our insights and experiences can contribute significantly to developing a balanced regulatory framework. This collaboration can also help in creating tailored guidelines that reflect the unique challenges and opportunities within the feedlot industry.

6. Addressing Variability in Emissions:

ALFA considers it is also important to consider the variability in emissions based on different feeding practices, cattle breeds, and environmental conditions. A one-size-fits-all approach may not accurately reflect the emissions profiles of all lot feeders. Therefore, we suggest that the NSW EPA develop guidelines that are flexible and adaptable to account for these differences. This could involve creating specific categories or tiers within the reporting framework that recognize the diversity within the industry.

7. Long-Term Sustainability and Innovation:

Sustainability and the impact of grain-fed beef production on the environment has long been a key consideration for the feedlot sector. ALFA preference is that industry builds and manages the aspect of climate assessment balanced with the available technologies with the strong influence of profitability. The grain fed beef industry operates environmental management procedures under the guidance of the National Feedlot Accreditation Scheme (NFAS) which covers all aspects of environmental management including surface water and ground water, as well as environmental incident reporting. ALFA recommends that the NSW EPA consider NFAS as a mechanism to monitor sustainability and discuss with ALFA and the feedlot industry how the program can be used within the feedlot sector to assist with a range of aspects within the Guide.

While immediate compliance may be the intention of NSW EPA, the long-term sustainability of the cattle feeding industry must also be considered. Encouraging innovation and the development of new technologies that can further reduce emissions is crucial. The NSW EPA can play a pivotal role in fostering a culture of innovation by supporting research and development initiatives and facilitating the adoption of new technologies through regulatory recognition and financial incentives.

In conclusion, while ALFA recognise and support the need for measures to address GHG emissions, it is imperative that the regulatory framework developed by the NSW EPA considers the unique challenges faced by the cattle feeding industry. ALFA believes that with careful consideration, collaboration, and support, it is possible to develop a balanced approach that meets environmental goals without compromising the economic viability of the feedlot industry.

Thank you for your consideration and please contact me if you would like to discuss further at

[REDACTED].

Sincerely,

A handwritten signature in black ink, appearing to read 'Bomber Lancaster', with a stylized, cursive script.

Bomber Lancaster
General Manager Policy & Biosecurity
Australian Lot Feeders' Association