



QUEENSLAND FARMERS' FEDERATION

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Submission

26 August 2021

Department of Industry, Science, Energy and Resources
GPO Box 2013
CANBERRA ACT 2601

Via email: emissions-reduction@industry.gov.au

Dear Sir/Madam

Re: ERF Methodology Development Priorities for 2022

The Queensland Farmers' Federation (QFF) is the united voice of intensive and irrigated agriculture in Queensland. It is a federation that represents the interests of 20 peak state and national agriculture industry organisations and engages in a broad range of economic, social, environmental and regional issues of strategic importance to the productivity, sustainability and growth of the agricultural sector. QFF's mission is to secure a strong and sustainable future for Queensland farmers by representing the common interests of our member organisations:

- CANEGROWERS
- Cotton Australia
- Growcom
- Nursery & Garden Industry Queensland (NGIQ)
- Queensland Dairyfarmers' Organisation (QDO)
- Australian Cane Farmers Association (ACFA)
- Queensland United Egg Producers (QUEP)
- Turf Queensland
- Queensland Chicken Meat Council (QCMC)
- Bundaberg Regional Irrigators Group (BRIG)
- Burdekin River Irrigation Area Irrigators Ltd (BRIA)
- Central Downs Irrigators Ltd (CDIL)
- Fairbairn Irrigation Network Ltd
- Mallowa Irrigation Ltd
- Pioneer Valley Water Cooperative Ltd (PV Water)
- Theodore Water Pty Ltd
- Eton Irrigation Scheme Ltd
- Pork Queensland Inc
- Tropical Carbon Farming Innovation Hub
- Lockyer Water Users Forum (LWUF).

The united voice of intensive and irrigated agriculture



QFF welcomes the opportunity to provide comment on Emissions Reduction Fund (ERF) Methodology Development Priorities for 2022. We provide this submission without prejudice to any additional submission from our members or individual farmers.

Consultation Details

QFF understands that the ERF incentivises Australian businesses to cut the amount of greenhouse gases they create and to undertake activities that store carbon. Methodology determinations (methods) set out the rules that ERF projects must meet and the rules for estimating emissions reductions.

The Emissions Reduction Fund is a voluntary scheme that provides ongoing opportunities for farmers and land managers to participate in emissions reduction and carbon sequestration (capture and storage of carbon) projects. Queensland's agricultural sector understands the critical importance of participating in a robust and internationally recognised emissions reduction and carbon sequestration scheme.

The King Review recommended that the Australian Government establish a process to allow third parties to propose new ERF methods, thus the Department is seeking input regarding activities that could be developed into an ERF method or incorporated into existing methods.

Background

In coming years, tariffs on Australian produce reduce in many countries, particularly some of our closest neighbours. For example, the Indonesia-Australia Comprehensive Economic Partnership Agreement last year will see more than 99 per cent of Australian goods exported to Indonesia enter duty free or under improved and preferential arrangements; while tariffs on lamb and beef to Korea, some wine products and barley to Mexico and refined sugar to Canada will all fall this year. Clearly, there is growing demand for Queensland and indeed Australian primary products globally.

However, for exports to increase further, there will need to be substantial investment in trade relationships, supply chain and logistics, and certainly more investment than currently committed. Access to markets can change quickly due to macro-political factors such as tariff changes and import protocols, so the relationships between producer, country, supplier and consumer are increasingly vital.

One of the most significant emerging trade obstacles will be carbon or emission intensity with numerous Carbon Border Adjustment Mechanisms being implemented. Whilst the Queensland Government has made a 2050 net zero carbon commitment, and the Federal Government is working on expanding the Emission Reduction Fund methodologies (and is working on new credit and certification systems under the Agricultural Stewardship Package), the timing and adoption of these measures is insufficient to meet incoming emissions legislation globally. It is also unclear if these existing schemes will be accepted and recognised by our trading partners.

The UK and New Zealand have already legislated net zero targets and Europe is reforming its current emissions trading system. By 2023, the EU's Carbon Border Adjustment Mechanism will cover power and energy-intensive sectors, stating that it has been designed with the sole aim of pursuing climate objectives and a global level playing field and the new mechanism will align with World Trade Organisation rules in order to encourage the decarbonisation of both EU and non-EU industries. Most countries have stated an expectation that all free trade agreement partners will respect and implement Paris Agreement targets and with COP26 in November, there may be new targets and expectations on the horizon as delegates aim to accelerate action towards the goals of the Paris Agreement and the UN Framework Convention on Climate Change.

While countries developing carbon and emission intensity border mechanisms are quick to note that they will not be used as a tool to increase protectionism, they will undoubtedly act as a trade barrier for the import of goods that do not meet carbon intensity targets set on domestic (primary) products.

Improvements in emissions intensity will increase Queensland agriculture's sector competitiveness in trade-exposed markets by differentiating our products even further. Queensland's agricultural sector needs coordinated action at State and Federal level to assist the sector to develop certified systems, supported by science; and an integrated policy approach that will promote investment, innovation and the adoption needed to deliver a zero-emission based economy and an agricultural sector that has a competitive advantage in the new carbon-focused trade economy. The ERF program presents one of these opportunities.

The Queensland Sector

The agricultural sector is critical to the Queensland economy, providing food, fibre, foliage and increasingly, renewable fuels. The sector is instrumental in managing the challenges associated with population growth, food security, climate change and natural resource management. Queensland's agricultural industries are comprised of:

- plant industries, including field crops (sugarcane, cotton, grains and pulses); production horticulture (nuts, fruit and vegetables); lifestyle horticulture (turf, flowers, nursery and landscaping); and forestry
- animal industries, including livestock and livestock products (including cattle, sheep and pigs, poultry, kangaroos, fish/aquaculture) and livestock products, such as wool, dairy, bees/honey and eggs.

Of all Australia's states and territories, Queensland has the highest proportion of agricultural land, with an estimated 129 million hectares of land used for grazing in 2016-17¹.

For 2019-2020, the total value of Queensland's primary industry commodities (combined gross value of production and first-stage processing) was approximately \$17.80 billion, 5 per cent less than for 2018-19 and 6 percent less than the average for the past five years², primarily due to drought. Queensland accounts for nearly one third of Australia's agricultural production value and has the most diverse agricultural sector. As such, there is considerable bioenergy potential to be realised in Queensland. According to the Australian Biomass for Bioenergy Assessment Project, there are over 17Mt of biomass generated across Queensland's agricultural sector annually³.

Queensland's agricultural sector has an established history of managing its waste streams effectively, ranging from innovative value-add products on-farm to combat food waste, organics and nutrient recycling, and bioenergy production. Continuous technology developments are also increasing our sector's ability to actively participate in bioeconomy and biochemical markets, including in the manufacture of bio-based fuels.

Many farmers and agricultural processors have a long history of using organic waste streams, such as straw and trash, by incorporating it into their soils to enhance soil carbon or for bioenergy production. However, there are new 'biofuture' opportunities arising for the sector to value add to resource streams and agricultural by-products to realise bio-economy efficiencies and maximise financial returns. Research and governments are driving changes to policy and funding arrangements to maximise these opportunities which strive to move organic residuals and agricultural by-products up the value chain

¹ ABS (2018a). Australian Bureau of Statistics. Catalogue No. 46270DO001_201617 Land Management and Farming in Australia-2016-17. Released 26/06/2018.

² Queensland Government (2020). Queensland AgTrends 2019-2020. Department of Agriculture and Fisheries.

³ See <https://arena.gov.au/projects/australian-biomass-for-bioenergy-assessment-project/>

and, in certain cases, away from the existing circular economy model; essentially valorising its waste streams and by-products.

The agricultural sector (agri-processors in particular) are significant stakeholders in the energy from waste, bioenergy and renewable energy sector. As an example, bioenergy includes the energy derived from the biomass components of an energy source mentioned in any of paragraphs (i) to (s) of the definition of eligible renewable energy source (as defined within subsection 17 (1) of the *Renewable Energy (Electricity) Act 2000 (Cth)*).

Emissions Reduction Fund (ERF) Methodology Development Priorities for 2022

QFF has identified a number of limitations of the current ERF methodology for manures and have previously called for review of the method of measuring and forecasting Animal Manure Emissions as part of the Commonwealth's own National Inventory Improvement Plan. QFF notes that:

a. Poultry manure must qualify as a standalone material

Currently pork, dairy and beef are the preferred primary industries under the ERF method. For poultry manure to be considered eligible currently, manure must be sent to a piggery, dairy farm or feedlot that has been registered under the ERF.

QFF supports amendments to the existing methodology to permit poultry manure qualifying as a standalone material under the manure management method of the ERF. There is the potential for large amounts of low-cost emissions abatement from poultry manure, for the Queensland's poultry sectors (including QFF's members from eggs, chicken growers and chicken meat industries).

b. Clarification of the method used to measure animal effluent emissions

The method used to measure and forecast animal effluent emissions differs. Calculations within the National Inventory Report (2018), substantially underestimate the degree of emissions produced from poultry manure. However, within the ERF they produce a substantial windfall for ACCU's as an eligible material within the method provided activity of producing biogas.

Including poultry manure as a recognised material within the ERF for the activity of producing biogas would resolve this difference, qualifying the product as a viable resource of producing biogas.

c. Creation of a new ERF method for Bioenergy

QFF understands that Minister Angus Taylor has committed to a biomethane method which will include agricultural waste/by-product derived biomethane. This is a fantastic outcome; however, feedback to industry indicated that biomethane will be dealt with under existing methods, meaning that existing resources such as landfill, animal effluent and waste water would qualify for ACCUs if converted to biomethane. QFF notes that such an approach will not assist the agricultural sector given that the large majority of agricultural wastes will not then qualify as eligible waste for ACCU creation. We understand that QUT commissioned a report for the Clean Energy Regulator outlining the potential for agriculture waste to reduce emissions. We have been advised that this report demonstrated that there is a potential resource of 421 PJ p.a. and carbon abatement opportunity of ~20Mtpa CO₂-e if agricultural waste were converted to biomethane.

QFF wishes to have a new ERF method for bioenergy developed in 2022 that supports the agricultural sector including all the diversity that our sector represents as well as the broad range of carbon abatement and reduction opportunities that can be delivered.

As such, an AgWaste Bioenergy Method must create credits through:

- The destruction of fugitive emissions from agricultural waste (NO_x and CH₄)
- Offsetting fossil fuel combustion emissions, including natural gas and diesel fuel displacement (CO₂)
- Soil carbon sequestration using digestate or biochar to improve the carbon content of soils (CO₂)
- Offsetting synthetic (fossil fuel derived) fertiliser via the use of digestate as an organic replacement (CO₂).

Additionally, a change to the NGER Measurement Determination, or a similar market based mechanism to offset Scope 1 emissions, are required to enable consumers of biomethane to report a reduction in emissions if purchasing the commodity. This is critical as agriculture can do the 'heavy lifting' to decarbonise our economy, as biomethane is one of many technologies that agriculture can meaningfully support and participate in.

A new ERF method will improve the robustness and diversify income within the agriculture sector and initial estimates show that the resource potential for biomethane derived from agricultural waste and by-products is substantial (up to 80 percent of Australia's east coast domestic gas demand).

A new ERF method will underpin investment and jobs in regional and rural Australia, particularly as bioenergy creates three times more sustainable, permanent, local jobs than some other forms of renewable technology (e.g. solar).

Biomethane can also be used a feedstock to decarbonise the transport, natural gas and manufacturing sectors, which is particularly pertinent for farms and regional areas, particularly where local fuel security needs to be strengthened. Biomethane can also be used in existing supply chains (and international export channels) without expensive transportation asset upgrades.

The agricultural sector (including agri-processors) are significant stakeholders in the carbon mitigation, energy from waste, bioenergy and renewable energy (and transport) sectors. There are proven as well as new technology opportunities emerging for the sector to value-add to resource streams and agricultural by-products to realise bio-economy efficiencies and maximise financial returns. 2022 must deliver tools and mechanisms for the agricultural sector to meaningfully participate in these opportunities.

Please do not hesitate to contact me directly (georgina@qff.org.au) if there are any questions regarding this submission or if you require any further information.

Yours sincerely

Dr Georgina Davis
Chief Executive Officer