

# Climate Active Public Disclosure Statement



An Australian Government Initiative

**NAME OF CERTIFIED ENTITY:**

Austral Fisheries Pty Ltd

**REPORTING PERIOD:**

1 January 2019 to 31 December 2019

**SCOPE OF CARBON NEUTRAL CERTIFICATIONS:**

- Austral Fisheries Pty Ltd, as an organisation; and
- Austral Southern Fish Catch, Austral Northern Fish Catch, and Austral Prawn Catch, as three products of Austral Fisheries Pty Ltd

## Declaration

To the best of my knowledge, the information provided in this Public Disclosure Summary is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.

	23/04/2020
David Carter	
Chief Executive Officer	



**Australian Government**  
**Department of Industry, Science,**  
**Energy and Resources**

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# 1A. Carbon neutral information – Organisation Certification

## Introduction

The following is an outline of the certification of our Organisation, Austral Fisheries Pty Ltd (“Austral”) as Carbon Neutral using the Climate Active Carbon Neutral Standard for Organisations (2019).

Austral is one of Australia’s leading commercial fishing companies, specialising in environmental fishing practices that catch and source sustainable seafood. Austral catches and processes Patagonian toothfish and Mackerel icefish from the Southern Ocean, as well as wild ocean caught Goldband Snapper, and Banana prawns and Tiger prawns from across northern Australia. To do this, Austral owns and operates three longline vessels (including one dual purpose longline-trawler) in the Southern Ocean, 1 fresh trapping vessel out of Darwin, and ten refrigerated prawn trawlers in Australia’s Northern Prawn Fishery.

As part of Austral’s commitment to environmental excellence, the company became certified under the then Carbon Neutral Program in 2016. This firstly involved an extensive footprinting analysis under the National Carbon Offset Standard, originally baselined in 2014. Following this, the entire footprint of the company was, and continues to be offset through Gold Standard credits, with a portion of those matched with biodiverse reforestation carbon offsets generated through revegetation in unproductive farmland in Western Australian, by Carbon Neutral Pty Ltd.

All parts of the Austral business have been accounted for in the preparation of this certification. For example, it includes all the fuel we use on our vessels at sea to harvest fish and prawns; the emissions associated with production and transport of supplies we provide to vessels; and all supporting activities such as shore based operations and management, administration, policy development, sales and marketing.

As required under the Climate Active Carbon Neutral certification, the calculation of the footprint includes extensive emissions generated by other suppliers (i.e. Scope 3 emissions), such as sea, land and air transportation, and cold store facilities.

Essentially, we have accounted for all carbon emissions we can identify from the start of our activities, through to the point of end consumer purchase of our studied fish and prawn products at the retailer or restaurant.

Extensive details are provided on separate calculations, and they were assessed by Pangolin Associates under the Climate Active validation requirements for carbon neutral certification.

For this section of the carbon footprint inventory, a “greenhouse gas inventory” approach is used, since the entity being analysed is an organisation.

## 1B. Carbon neutral information – Product Certification

### Introduction

The following is an outline of the certification of the wild caught ocean fish and prawn products of Austral Fisheries Pty Ltd (“Austral”) as Carbon Neutral using the Climate Active Carbon Neutral Standard for Products and Services (2019).

Further to the organisation-level certification, Austral has carried out Life Cycle Assessments (LCA) of its wild ocean-caught fish and prawn products, so that these products can also be certified as carbon neutral.

This LCA covers all the wild fish and prawn products caught by Austral (including a small portion of wild caught prawns that we purchase off others, reprocess and repackage under the Austral banner). Carried out in accordance with the Greenhouse Gas Protocol Product Life Cycle Accounting and Reporting Protocol, this extends from the carbon emissions from the vessels used to catch the fish and prawns, and the bait used to catch the fish, through the pre-processing of materials in the production line, and through to the point of end consumer purchase of our studied fish and prawn products at the restaurant or retailer.

The extensive scope in calculating the carbon footprint of the organisation, Austral Fisheries, covered, amongst other things, the activities involved in producing the fish and prawn products. The carbon emissions associated with the products, assessed via the LCA, are shown to fit within the organisational footprint, as a subset. This is indeed the general intention of the Greenhouse Gas Protocol reporting for the relationship between businesses and products.

As our LCA scope falls inside our organisation emissions boundary, the emissions involved in the production of Austral’s fish and prawn catch are covered by those same offsetting activities as described in section 1A.

Detailed calculations for the three LCA products, as well as a separate full report<sup>1</sup> for this period have been submitted to the Climate Active Carbon Neutral Program. Like the annual inventory, our LCA data was assessed by Pangolin Associates under the Climate Active validation requirements for carbon neutral certification.

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<sup>1</sup> Austral Fisheries Pty Ltd 2019 Annual Inventory, including Life Cycle Analysis. *2019 Reporting Period. 2020 Product Certification Period. Prepared April 2020.*

## 1C. Emission sources within certification boundary

### Quantified sources – Organisation

The emissions boundary is the entire organisation of Austral Fisheries Pty Ltd (Figure 1). The boundary for the emissions sources was defined using the “control approach” described in the National Greenhouse and Energy Reporting Act. This then involves accounting for the following emissions:

- Scope 1 (direct) emissions by the organisation, such as fuel burned in fishing vessels;
- Scope 2 emissions, which are emissions attributed to purchased electricity; and
- Scope 3 emissions, which are emissions arising from third party sources associated with activities of Austral.

Austral has followed the carbon accounting principals of relevance, completeness, consistency, transparency and accuracy. It has also referenced the following methods and factors:

the Greenhouse Gas (GHG) Protocol standards, including:

- *GHG Protocol – A corporate accounting and reporting standard* (GHG Corporate Standard) (2004)
- *GHG Protocol – Corporate Value Chain (Scope 3) Accounting and Reporting Standard* (2011);

the National Greenhouse and Energy Reporting Act 2007 (NGER Act) and supporting legislation and documentation, including:

- *National Greenhouse and Energy Reporting Regulations 2008 (22 October 2019 compilation)*
- *National Greenhouse and Energy Reporting (Measurement) Determination 2008 (1 July 2019 compilation)<sup>2</sup> (referred to as NGER 2019)*
- *National Greenhouse and Energy Reporting Technical Guidelines*
- *National Greenhouse Accounts Factors 2019 (referred to as NGA Factors 2019);*

procedures and factors used by the Environmental Protection Authority Victoria for some Scope 3 emissions;

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<sup>2</sup> The NGER Determination is often used in preference to the NGA Factors. While they report the same methods and factors, we consider NGER is superior since it describes methods in more detail, describes alternative methods and is the source of the data in the NGA Factors.

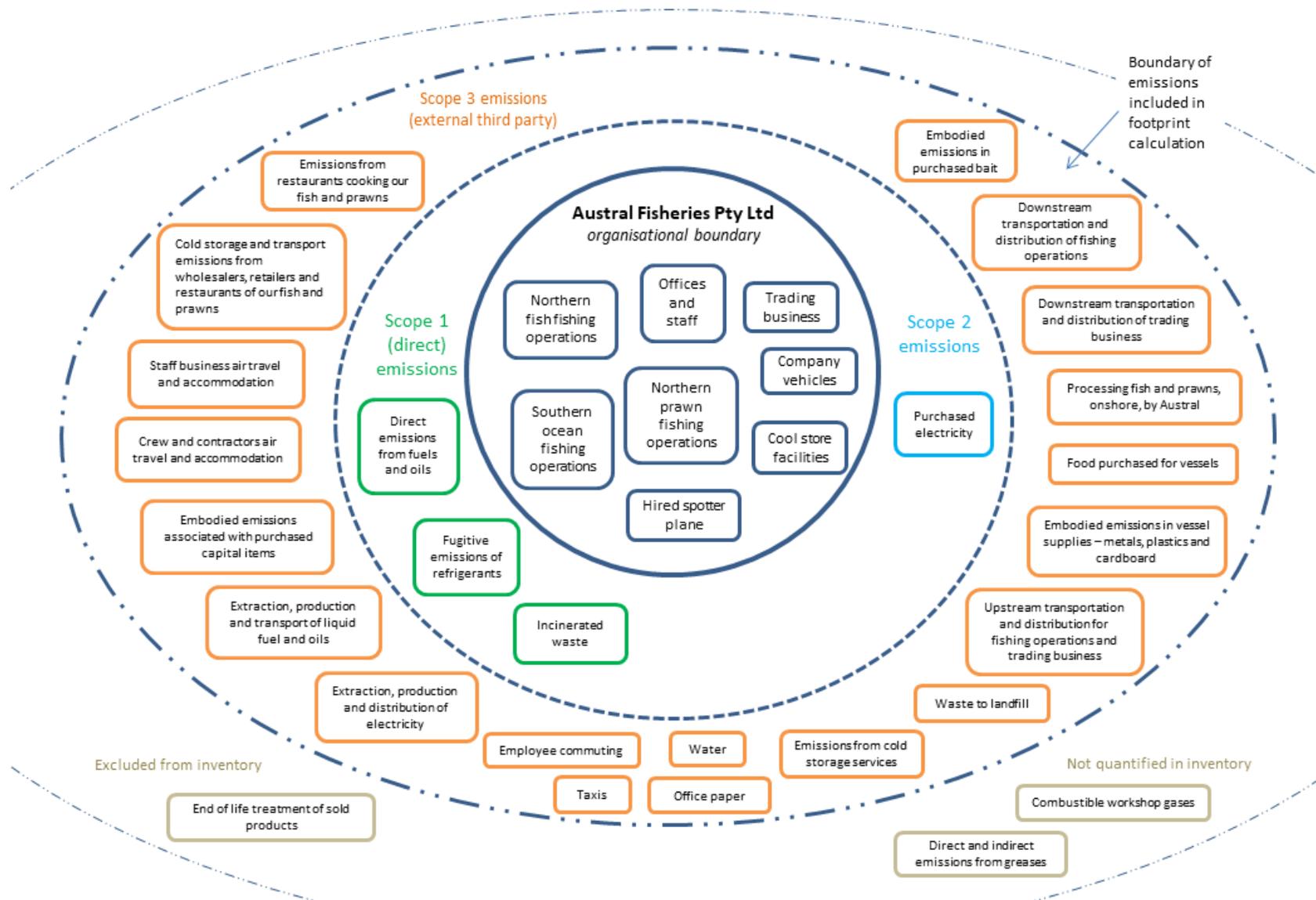


Figure 1. Organisational boundary and carbon inventory boundary of Austral Fisheries 2019 footprint at the organisation level.

emissions factors from the Department of Energy and Climate Change in the United Kingdom; and  
other in-house calculations of emissions where other data was not readily available, which have been assessed by Pangolin Associates.

The following greenhouse gases were accounted for:

- (a) carbon dioxide;
- (b) methane;
- (c) nitrous oxide;
- (d) sulfur hexafluoride;
- (e) hydrofluorocarbons specified in the National Greenhouse and Energy Reporting Determination; and
- (f) perfluorocarbons specified in the National Greenhouse and Energy Reporting Determination.

A summary of the outcomes for our calculations can be seen at Table 4.

### **Quantified sources – Products**

Austral’s three studied LCA products make up the entire wild catch of Austral Fisheries, and the seafood products which make up these catches are listed in Table 1. These catches come from three geographically and operationally separate fishing fleets:

1. ‘Southern Fish’ are mainly catches of Patagonian Toothfish, but also include Icefish, Grenadier and a small portion of High Seas species caught in the Indian Ocean.
2. ‘Northern Fish’ are mainly catches of Goldband snapper, but also include similar tropical reef fish species.
3. ‘Prawns’ are mainly catches of Banana prawns and Tiger prawns, but also include Endeavour and King prawns as minor catches, as well as small bycatch of other species such as squid, moreton bay bugs and scallops, which for the purpose of our LCA, we will include in our ‘prawn’ category.

The studied products also comprise the major reference flows used in the organisation-level carbon footprint of Austral, for example in downstream transport calculations. The unit of analysis is defined as the reference flow since the Austral Southern Fish Catch, Northern Fish Catch, and Prawn Catch are intermediate products and this is a cradle-to-gate life cycle analysis.

*Table 1. Summary and definitions of studied products.*

	<b>Accounting point and definition</b>	<b>Unit of Analysis, Reference Flow and Functional Unit</b>	<b>Description<sup>A</sup></b>
<b>Studied Products</b>			
<i>Austral Southern Fish Catch</i>	Product leaving the ship	Tonnes of Austral Southern Fish Catch leaving the ship	<ul style="list-style-type: none"> <li>• Patagonian Toothfish, as 'HGT' (headed, gutted and tailed)<sup>B</sup></li> <li>• Icefish, as whole fish</li> <li>• Grenadier, as 'H&amp;G' (headed and gutted), or fillets</li> <li>• High seas fish, as both 'H&amp;G' and whole fish</li> </ul> <p>Comprises 100% of the southern fish catch of Austral Fisheries</p>
<i>Austral Northern Fish Catch</i>	Product leaving the ship	Tonnes of Austral Northern Fish Catch leaving the ship	<ul style="list-style-type: none"> <li>• Goldband snapper, as whole fish</li> <li>• Other similar tropical reef fish<sup>C</sup></li> </ul> <p>Comprises 100% of the Northern fish catch of Austral Fisheries</p>
<i>Austral Prawn Catch</i>	Product leaving the ship	Tonnes of Austral Prawn Catch leaving the ship <sup>D</sup>	<ul style="list-style-type: none"> <li>• Whole frozen prawns<sup>E</sup></li> <li>• Whole frozen bycatch species<sup>F</sup></li> </ul> <p>Comprises 100% of the prawn catch of Austral Fisheries</p>

Notes:

<sup>A</sup> For interest, it is estimated that 70% of HGT toothfish and whole snapper, and 50% of whole prawns are actually eaten, due to heads, bones, etc.

<sup>B</sup> For simplicity we have not specifically referred to additional minor products from Toothfish which are cheeks and collars (<5%). The emissions for cheeks and collars are nonetheless included in the analysis, and the tonnage of these products is included in numbers referring to 'HGT'.

<sup>C</sup> Includes, but not limited to Saddletail Snapper, Red Emperor, Mangrove Jack, Cod and Red Throat Snapper

<sup>D</sup> Also includes a small proportion of purchased banana prawns from the same fishery that are reprocessed and sold under the Austral banner.

<sup>E</sup> Includes Tiger, Banana, Endeavour and King prawns. Endeavour and King prawns are minor catches during both Tiger and Banana prawn seasons.

<sup>F</sup> Includes squid, moreton bay bugs, scallops, cuttlefish, lobster, pomfret, leader prawns and certain whole fish species.

The LCA scope will be Cradle-to-Gate, due to the fact that Austral is a supplier of wholesale seafood which is then processed and eaten in a diverse variety of ways around the globe. We refer to the inventory as Cradle-to-Gate even though we have elected to include 'Use' in the LCA. Consistent with a Cradle-to-Gate scope, End-of-life emissions of the products are not included.

Greenhouse gases involved in the LCA are as per the GHG Protocol Product Life Cycle Accounting and Reporting Standard and the Climate Active Carbon Neutral Standard for Products and Services, and are the same as used in the calculations in the Austral Fisheries organisational carbon footprint study, mentioned above in *Quantified Sources - Organisation*.

A process map for the production of fish and prawns are shown in Figure 2. The process applies to all studied products, so the one figure is applicable for both.

Wild caught fish and prawns grow naturally in the ocean, and in accordance with the requirements of the life cycle assessment, natural emissions from this process are not included.

The production facility consists of a fishing fleet steaming to the fishing grounds, catching the fish or prawn products, (and where relevant) processing on board, freezing, and packaging. The production facility also includes any onshore processing undertaken by Austral.

Figure 3 shows the relationship between the Austral Fisheries organisation level inventory and the Life Cycle Assessment of the three studied products<sup>3,4</sup>. We consider that many of these are marginally attributable from a LCA viewpoint, but have included them on the basis that they have already been included in the organisation level inventory.

Austral has followed the carbon accounting principals of relevance, completeness, consistency, transparency and accuracy, as outlined above in *Quantified Sources – Organisation*, with the addition, in the LCA, of:

- *GHG Protocol – Product Life Cycle Accounting and Reporting Standard (2011)*

A summary of the outcomes for our LCA calculations are in Tables 5 and 6 below.

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<sup>3</sup> Note of explanation on the trading business (Seafood Solutions) within Austral Fisheries, in relation to the LCA: The emissions associated with Seafood Solutions are rightly included in the Organisation level inventory (see Figure 3) but do not feature in the life cycle assessment of Austral Southern Fish, Northern Fish, or Prawn Catch. This is due to the fact that Seafood Solutions is a separate importing business arm which does not deal in significant quantities of these products.

<sup>4</sup> Note of explanation that the Scope 2 electricity emissions have only been included from Austral's head office as part of the product LCA, as this is the only office that controls the sales and marketing of these products.

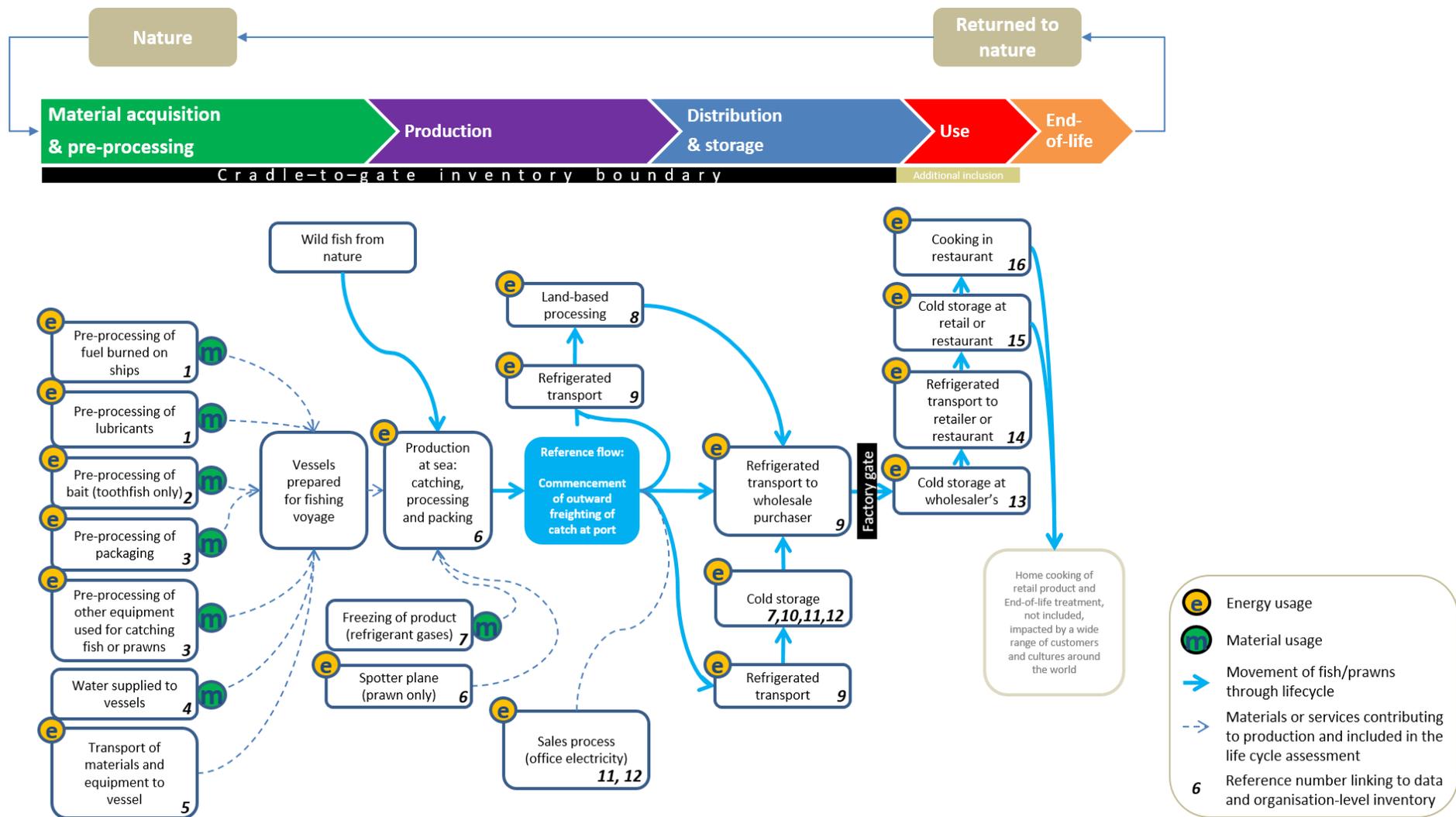


Figure 2. Process map for the production of the studied products, Austral Southern Fish, Northern Fish, and Prawn Catch.

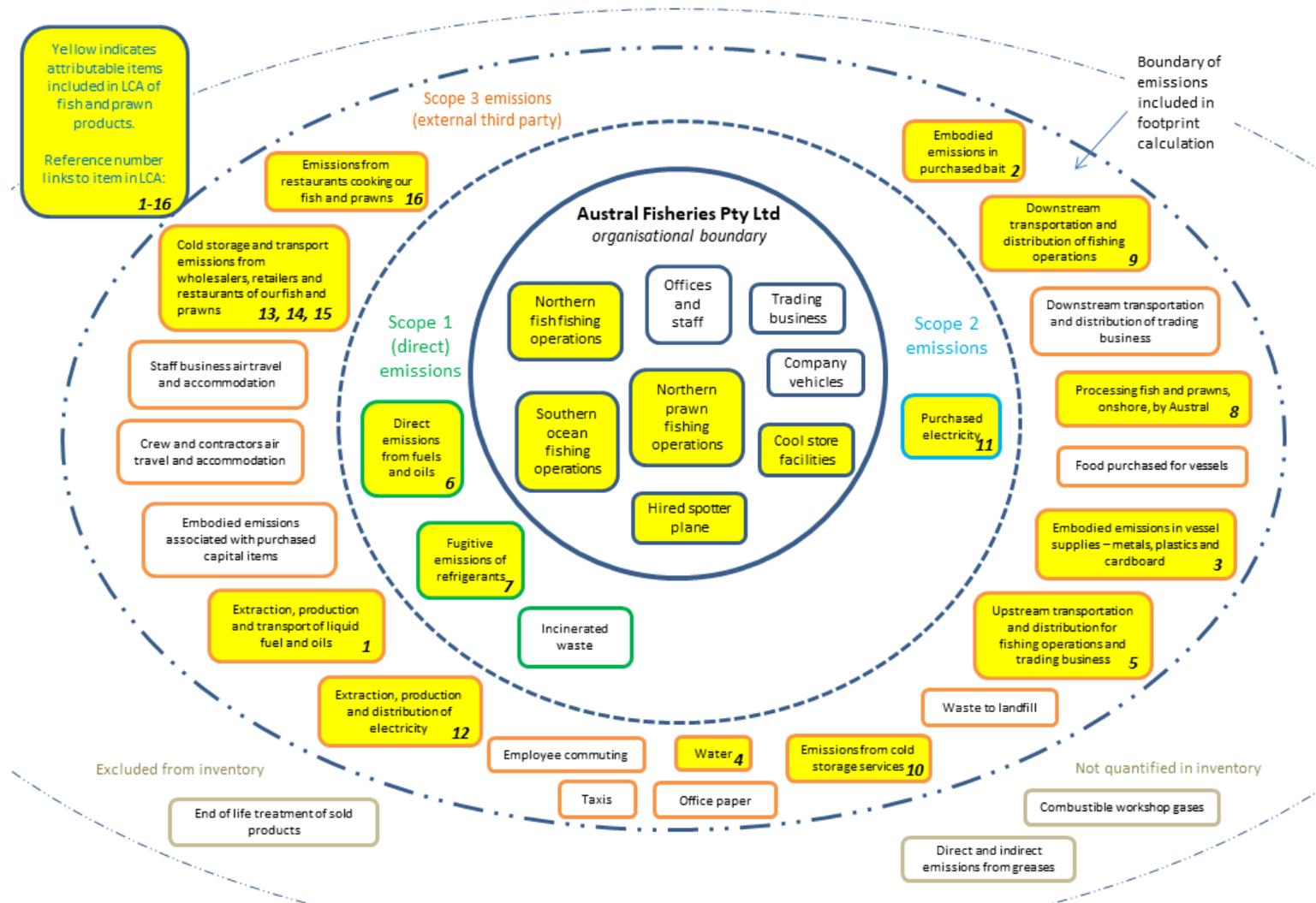


Figure 3. Austral Fisheries organisation level inventory with items which have been used in the life cycle assessment of Austral Southern Fish, Northern Fish, and Prawn products shown in yellow highlight.

## **Non-quantified sources**

Two sources of emissions from our inventory have not been quantified due to immateriality.

Firstly, Scope 1 emissions associated with use of petroleum based greases were excluded on the basis of immateriality. In our original baseline year calculation, this was estimated to account for 0.04t CO<sub>2</sub>-e, or approximately 0.0001 % of our organisation's emissions, and usage has not changed significantly since that time.

Secondly, Scope 1 emissions associated with use of combustible workshop gases were excluded on the basis of immateriality. In our original baseline year calculation, this was estimated to account for 0.5t CO<sub>2</sub>-e, or approximately 0.002 % of our organisation's emissions, and usage has not changed significantly since that time.

## **Excluded sources**

One emissions source has been excluded from our inventory.

Scope 3 emissions associated with End-of-Life treatment of sold fish and prawns were excluded on the basis that this is outside of the scope of cradle-to-gate accounting. However, we have chosen to extend our boundary further downstream to include downstream transport, cold storage and cooking of Austral fish and prawn catch by restaurants and retailers.

We will be strongly encouraging our suppliers and customers to carry out their business with a low carbon footprint. This footprint is akin to a cradle-to-gate scope in this regard.

## 2. Emissions reduction measures

### Part A. Emissions over time

This section compares emissions over time, in this case, between our revised baseline year (2018) and current year (2019).

In the 5 years of compiling our annual emissions inventory we have seen an overall increase in our emissions, which largely relates to the expansion of the business as well as converting several vessels from R22 refrigerant gas to R507A, as required under the Montreal Protocol.

We do expect the total emissions of the organisation to vary from year to year, depending on the operational conditions we are faced with and the variability and unpredictability of our industry in the catching of fish and prawns. Because of this, as well as the fact that around 63% of our emissions in 2019 (and up to 85% in previous years) comes from diesel usage on our vessels, we believe the most relevant metric to track our progress is to compare the emissions intensity of tonnes of CO<sub>2</sub>-e per tonne of product landed, which can be seen in Table 2 and Figure 4.

<b>Table 2. 2019 emissions comparison to baseline year</b>						
		<b>Scope 1</b>	<b>Scope 2</b>	<b>Scope 3</b>	<b>Total</b>	
		(t CO <sub>2</sub> e)	(t CO <sub>2</sub> e/t product)			
<b>Organisation</b>	<b>Baseline Year (2018)</b>	29,376	81	7,800	37,257	10.02 t CO <sub>2</sub> -e/t fish+prawn
	<b>Current Year (2019)</b>	29,659	90	12,342	42,091	9.24 t CO <sub>2</sub> -e/t fish+prawn
<b>Southern Fish</b>	<b>Baseline Year (2018)</b>	10,910	18	2,424	13,352	6.63 t CO <sub>2</sub> -e/t fish
	<b>Current Year (2019)</b>	11,842	16	2,730	14,587	6.85 t CO <sub>2</sub> -e/t fish
<b>Northern Fish</b>	<b>Baseline Year (2018)</b>	538	2	199	739	2.84 t CO <sub>2</sub> -e/t fish
	<b>Current Year (2019)</b>	492	1	151	644	5.19 t CO <sub>2</sub> -e/t fish
<b>Prawns<sup>5</sup></b>	<b>Baseline Year (2018)</b>	17,473	18	1,500	18,990	12.66 t CO <sub>2</sub> -e/t prawn
	<b>Current Year (2019)</b>	17,248	32	2,146	19,426	9.97 t CO <sub>2</sub> -e/t prawn

<sup>5</sup> For the purpose of this table, as well as Figure 4, given we are tracking Austral's emissions, we have not included the purchased prawns as part of the Prawn LCA comparison, though is included in the Organisational comparison.

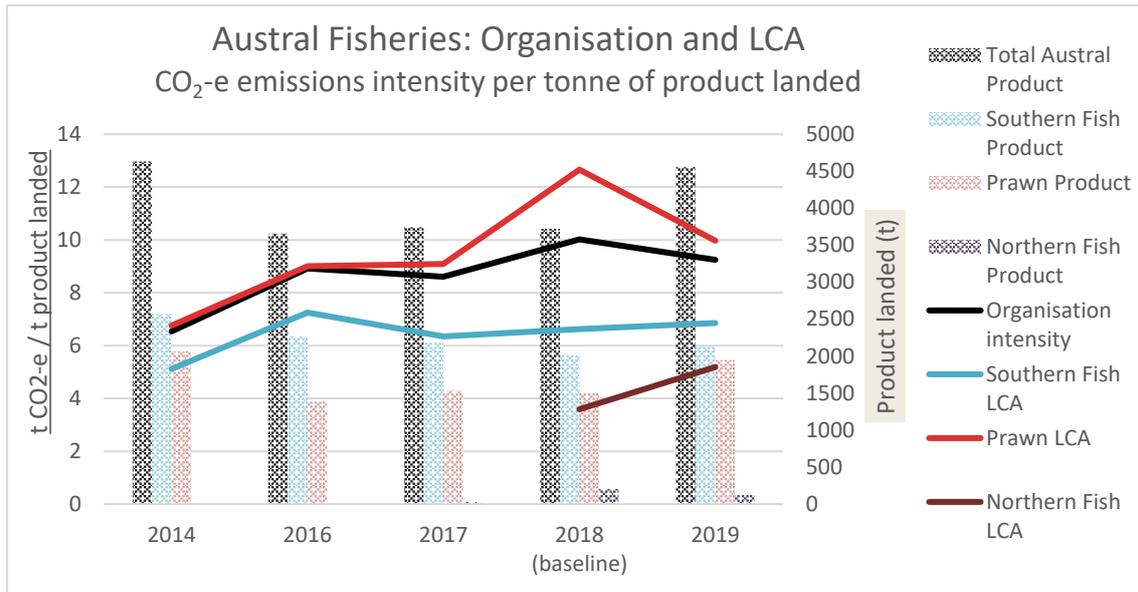


Figure 4: Austral Fisheries: Organisation and LCA products CO<sub>2</sub>-e emissions intensity per tonne of product landed. Line graphs (primary y-axis) represent emissions intensity per tonne of product landed. Bar graphs (secondary y-axis) represent tonnes of product landed.

### 2019 comparison to previous year

In 2019, our overall emissions were 4,834t (or 13%) higher than the revised 2018 baseline that was recalculated last reporting period. While there are many variables between years, the significant changes to our account this year against that baseline came from:

1. 490t CO<sub>2</sub>-e decrease in R507a gas leakages in the prawn fleet;
2. 2,172t CO<sub>2</sub>-e increase in upstream refrigerated air freight to the Seafood Solutions import division due to an unforeseen supply shortage from our supplier, meaning that to meet existings contracts we had to airfreight the shipments instead of bringing it in via sea;
3. 1440t CO<sub>2</sub>-e increase due to the new addition of purchasing, reprocessing, and repackaging of banana prawns from other fishers, and selling them under the Austral brand;
4. 979t CO<sub>2</sub>-e increase from fuel consumption in southern fish fleet due to an extra 77 spent days at sea against the previous year;
5. 358t CO<sub>2</sub>-e increased from a larger volume of product caught against the previous year, which increases the amount of downstream transportation required.

These five operational variances are also relevant when looking at the changes in the emissions intensity of the business, which overall, performed fairly positively compared to the previous year. Looking more closely at each LCA product:

- 'Southern Fish' emissions intensity increased slightly from the baseline of 6.63 to 6.85 t CO<sub>2</sub>-e / t fish landed (mainly attributable to 9% increase in Marine gasoil emissions thanks to increased days at sea, though this is offset by a 6% increase in catch).
- 'Prawn' emissions intensity decreased from the baseline of 12.66 to 9.97 t CO<sub>2</sub>-e / t of Austral caught prawn (helped by a 10% decrease in refrigerant gas leakage, 2% decrease in diesel use, and 30% increase in catch). The large increased prawn catch can be explained by the productivity of this fishery being largely dependent on rainfall across northern Australia during the wet season, and while 2018 was not seen as a disappointing year, 2019 was a very good year tonnage wise.
- 'Northern Fish' emissions intensity increased from the baseline of 3.59 to 5.19 t CO<sub>2</sub>-e / t fish landed. The sharp increase can largely be explained by a much lower catch (66%) compared to a slightly lower (15%) emissions base from the previous year. The lower catches relative to emissions are largely explained through the effect of seismic operations in the area of the fishery during 2019 which has been independently proven to have had a significant effect on fish behaviour which unfortunately led to a decrease in catches.

## Part B. Emissions reduction strategy

Our decision to become certified as Carbon Neutral as an organisation, and extend that to our products, is a direct result of our aim to do our bit to ensure a sustainable, healthy, environment for the seafood and seafood products that we rely upon for our livelihoods.

Our vision is to increase the efficiency of our operations (relative to carbon emissions) as far as possible, reduce our carbon emissions wherever we can, and to fully offset remaining emissions. All of our emissions are offset through Gold Standard credits, with a portion of those matched with biodiverse reforestation carbon offsets generated through revegetation in unproductive farmland in Western Australian, by Carbon Neutral Pty Ltd. The biodiverse reforestation carbon offsets provide additional direct benefits including environmental, social, economic and heritage in the region.

We are in the process of reviewing and investigating additional carbon offset programs for future years, including a particular focus on the development of eligible new “blue” carbon offset programs, along with the likes of Qantas, HSBC and Sydney Fish Market.

In 2019:

- our total volume of landed product was 4,554 t of fish and prawns<sup>6</sup>,
- our total carbon footprint was 42,091 t CO<sub>2</sub>-e, and
- our emissions intensity was 9.24 t CO<sub>2</sub>-e per tonne of fish and prawns caught.

Our emissions reduction strategy is primarily focussed on the rate of carbon emissions per tonne of product caught. This is appropriate because our operations fluctuate as a result of catch variability each year, changes to our operational footprint over time, or due to government fisheries resources management or conservation changes out of our control. Any meaningful emissions reduction strategy in a complex business that relies so heavily on expensive, long term assets such as fishing vessels, will not happen overnight, and we acknowledge that this will be an ongoing journey for us.

Our specific Emissions Reduction Strategy for 2020 and onwards will include:

- Aim to continually improve our emissions intensity per tonne of fish and prawns caught.

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<sup>6</sup> In this document, when referring to tonnes of fish and prawns caught, it means the weight of the *total product* that comes off the fishing vessel, which in the case of ‘fish’, consists of either whole fish, headed, gutted and tailed (HGT) trunks, headed and gutted (H&G) trunks, fillets, collars or cheeks, and in the case of ‘prawns’, consists of whole prawns, and minor bycatch species such as squid, scallops and lobster. It also includes the volume of banana prawns that are purchased from other fishers, reprocessed and repackaged under the Austral banner.

- Continue to communicate the policy and approach of our “Carbon Neutral” pledge to all employees, contractors, suppliers, customers and industry peer groups in an endeavour to gain their support for devising mechanisms to lower the carbon emission footprint of Austral Fisheries, and as a consequence, the industry as a whole;
- Public acknowledgement that the seafood industry can be a leader in the transition to the low emission economy, through technological advancements, as well as being responsible stewards for the marine sector.
- Continue to work with government regulators and agencies such as the Australian Fisheries Management Authority, the Australian Antarctic Division, the Commonwealth Scientific and Industrial Research Organisation, and the Australian Maritime Safety Authority to work towards making our operations more emissions efficient, while not compromising safety or operational efficiency, as we successfully achieved this year with some regulation changes;
- Continue to investigate and improve on fuel efficiency programs for our vessels, to ultimately reduce fuel consumption and decrease our emissions intensity per tonne of product caught.
- Continue to work with non-government organisations such as the World Wide Fund for Nature and the Marine Stewardship Council to adapt or implement relevant suggestions from their programs, and continue to provide input into these programs so as to help the rest of the industry along;
- Continue to encourage our suppliers to provide lower carbon emission goods and services to our company. This would include fishing gear, mechanical and engineering supplies, stevedore and provedore supplies, fuel, product suppliers, and others;
- Working with our customers to encourage them to continue our Carbon Neutral story through to the end consumer;
- Continue to work with stakeholders in the carbon offset community to progress an international offset standard (like the Marine Stewardship Council certification for sustainable seafood), or international alignment of domestic offset standards.
- Continue to work with stakeholders, such as CSIRO, Qantas, HSBC, and Sydney Fish Market to develop methodologies and logistically possible solutions surrounding for future for ‘blue carbon’ capturing systems.

We will review, evaluate, refine and report on our Emissions Reduction Strategy following the end of calendar year 2020.

## Part C. Emissions reduction actions

Table 3 indicates the measures that have been completed or are currently underway in regards to emissions reductions at Austral Fisheries.

<b>Table 3. Emissions reduction measures implemented in the current reporting period</b>					
Year completed	Emission source	Reduction measure and calculation method	Scope	Status	Reduction t CO <sub>2</sub> -e
2016	Paper	Moved to NCOS certified paper for all offices	3	Complete	1.4t
2017	Perth office electricity	We switched all lights in our Perth office to LED in August 2017.	2, 3	Complete	6.3t
2017	Sydney office electricity	Where available, we switched our energy providers to NCOS certified providers in May 2017.	2, 3	Complete	6.5t
2018	Litres of diesel per kilogram of prawn caught	We finished the construction of a new prawn trawler in 2017. 2018 was its first year in operation, but catches dictated that we didn't see an efficiency benefit that year. In 2019, however, the new vessel, when compared against an average across 5 of our other vessels comparable to the replaced vessel, the new one performed at 0.4L/kg prawn more efficient.	1, 3	Complete, but results will vary year to year.	Not applicable
2018	Litres of Marine Gasoil	We finished installing an alternating generator for our largest toothfish vessel in 2018, which reduced fuel usage on this vessel by 37% this reporting period.	1, 3	Complete	3666t
2019	Litres of diesel per kilogram of fish caught	We successfully lobbied for the modification of our offal dumping regulations which allowed us to reduce fuel consumption and increase available fishing time. The saving was 0.03L/kg fish in 2019, or a direct saving of 13,300 L fuel with the added benefit of an extra 30t of fish caught.	1, 3	Complete	41t
Total emission reductions implemented in this reporting period					3721t

### 3A. Emissions summary – Organisation

The total emissions of Austral Fisheries at the organisation level in 2019 was 42,091 t CO<sub>2</sub>-e, as shown in Table 4.

Table 4. Emissions Summary - Organisation		
Scope	Emission source	t CO <sub>2</sub> -e
1	Marine Gasoil - transport (Southern Ocean fleet)	11817
1	Diesel oil - transport (Northern Prawn fleet)	12091
1	Diesel oil - transport (Northern fish fleet)	412
1	Diesel oil - transport (South Passage voyage to Cairns)	37
1	Petroleum-based oils (Southern Ocean fleet)	25
1	Petroleum-based oils (Northern Prawn fleet)	13.8
1	Petroleum-based oils (Northern fish fleet)	0.6
1	Transport petrol-post 2004 vehicles	28
1	Gasoline for aircraft – spotter plane	68
1	Fugitive emissions of refrigerant gas	5164
1	Waste incinerated on vessels	3.0
2	Electricity purchased for Australian offices	88
2	Electricity purchased for international offices	2
3	Cold storage services	85
3	Food supplies on vessels	1002
3	Water purchased for vessels and offices	0.8
3	Office paper	0.4
3	Bait for Southern Ocean	429
3	Bait for Northern Fish Fleet	60
3	Supplies procured for vessels – cardboard	166
3	Supplies procured for vessels – wood	6
3	Remaining weight of supplies procured for vessels – assumed to be metals and plastics	1071
3	Capital goods	209
3	Marine Gasoil - transport (Southern Ocean fleet)	573
3	Diesel oil - transport (Northern Prawn fleet)	617
3	Diesel oil - transport (Northern fish fleet)	21
3	Diesel oil - transport (South Passage voyage to Cairns)	1.9
3	Petroleum-based oils (Southern Ocean fleet)	6.5
3	Petroleum-based oils (Northern Prawn fleet)	3.6
3	Petroleum-based oils (Northern fish fleet)	0.2
3	Transport petrol-post 2004 vehicles	1.5
3	Gasoline for aircraft – spotter plane	3.6
3	Electricity purchased for international offices	0.3
3	Electricity purchased for Australian offices	8.8
3	Upstream transportation of supplies for fishing vessels	309
3	Upstream transportation of fish in trading division, by sea	3392
3	Waste to landfill	32

<b>Table 4. Emissions Summary - Organisation</b>		
Scope	Emission source	t CO <sub>2</sub> -e
3	Business air travel - employees	246
3	Business air travel - crew/contractors	570
3	Business travel accommodation - employees	63
3	Business travel accommodation – crew/contractors	20
3	Employee commuting	42
3	Taxi use	5.5
3	Onshore processing of catch	13.5
3	Downstream transportation of Austral fish and prawn catch	1321
3	Downstream transportation of fish in trading division, by road	259
3	Retail and Restaurant use of product	362
1-3	Purchased prawn product that is sold under Austral banner	1440
<b>Total Gross Emissions</b>		<b>42,091</b>
GreenPower or retired LGCs		0
<b>Total Net Emissions</b>		<b>42,091</b>

### 3B. Emissions summary – Products

The total emissions relating to Austral Southern Fish Catch (2130 t) in 2019 was 14,587 t CO<sub>2</sub>-e, as shown in Table 5. This represents emissions of 6.85 t CO<sub>2</sub>-e per tonne of product leaving the ship.

<b>Table 5. Emissions Summary for Austral Southern Fish Catch</b>		
Emission source	t CO <sub>2</sub> -e for 2019 Austral Southern Fish Catch	t CO <sub>2</sub> -e for emission source contributing to life cycle of one tonne of Austral Southern Fish Catch in 2019
Pre-processing of fuel burned on ships (Marine Gasoil)	573	0.2690
Pre-processing of lubricants (petroleum-based oils)	6	0.0028
Pre-processing of bait	429	0.2014
Pre-processing of packaging (cardboard)	33	0.0155
Remaining supplies procured for vessels – assumed to be metals and plastics	623	0.2925
Water supplied to vessels	0.1	0.00005
Transport of materials and equipment to vessels	269	0.1263
Production at sea: catching, processing and packing (Marine Gasoil)	11817	5.5479
Production at sea: catching, processing and packing (petroleum-based oils)	25	0.0117
Freezing of product (at sea) (refrigerant gases)	0	0
Land-based processing	1.7	0.0008
Refrigerated transport	556	0.2610
Cold storage on land, third party	5	0.0023
Cold storage, Austral facility (refrigerant gases)	0	0
Sales co-ordination, Leederville office – electricity use	15.7	0.0074
Sales co-ordination, Leederville office – pre-processing of supplied electricity	0.9	0.0004
Retail and Restaurant use of fish and prawn products	233	0.1094
<b>Total Gross Emissions</b>	<b>14,587</b>	<b>6.85</b>
<b>GreenPower or retired LGCs</b>	<b>0</b>	
<b>Total Net Emissions</b>	<b>14,587</b>	

The total emissions relating to Austral Northern Fish Catch (124 t) in 2019 was 644 t CO<sub>2</sub>-e, as shown in Table 6. This represents emissions of 5.19 t CO<sub>2</sub>-e per tonne of product leaving the ship.

<b>Table 6. Emissions Summary for Austral Northern Fish Catch</b>		
Emission source	t CO <sub>2</sub> -e for 2019 Austral Northern Fish Catch	t CO <sub>2</sub> -e for emission source contributing to life cycle of one tonne of Austral Northern Fish Catch in 2019
Pre-processing of fuel burned on ships (diesel)	21	0.1694
Pre-processing of lubricants (petroleum-based oils)	0.2	0.0016
Pre-processing of bait	60	0.4839
Remaining supplies procured for vessels – assumed to be metals and plastics	9	0.0726
Transport of materials and equipment to vessels	13	0.1048
Production at sea: catching, processing and packing (diesel)	412	3.3226
Production at sea: catching, processing and packing (petroleum-based oils)	0.6	0.0048
Chilling of product (at sea) (refrigerant gases)	79	0.6371
Land-based processing	0	0
Refrigerated transport	37	0.2984
Cold storage on land, third party	0	0
Sales co-ordination, Leederville office – electricity use	0.7	0.0056
Sales co-ordination, Leederville office – pre-processing of supplied electricity	0.04	0.0003
Retail and Restaurant use of fish and prawn products	11	0.0887
<b>Total Gross Emissions</b>	<b>644</b>	<b>5.19</b>
<b>GreenPower or retired LGCs</b>	<b>0</b>	
<b>Total Net Emissions</b>	<b>644</b>	

The total emissions relating to Austral Prawn Catch (1,948 t plus 353 t of purchased banana prawn) in 2019 was 20,866 t CO<sub>2</sub>-e, as shown in Table 7. This represents emissions of 9.07 t CO<sub>2</sub>-e per tonne of product leaving the ship.

<b>Table 7. Emissions Summary for Austral Prawn Catch</b>		
<b>Emission source</b>	<b>t CO<sub>2</sub>-e for 2019 Austral Prawn Catch</b>	<b>t CO<sub>2</sub>-e for emission source contributing to life cycle of one tonne of Austral Prawn Catch in 2019</b>
Pre-processing of fuel burned on ships (diesel)	617	0.2682
Pre-processing of lubricants (petroleum-based oils)	3.6	0.0016
Pre-processing of gasoline for spotter plane	3.1	0.0013
Pre-processing of packaging (cardboard)	134	0.0583
Pre-processing of packaging (wood)	6	0.0026
Remaining supplies procured for vessels – assumed to be metals and plastics	439	0.1909
Water supplied to vessels	0.5	0.0002
Transport of materials and equipment to vessels	26	0.0113
Production at sea: catching, processing and packing (diesel)	12091	5.2565
Production at sea: catching, processing and packing (petroleum-based oils)	13.8	0.0060
Spotter plane	58	0.0252
Freezing of product (at sea) (refrigerant gases)	5085	2.2107
Cold storage, Austral facility (refrigerant gases)	0	0
Land-based processing	11.8	0.0051
Refrigerated transport	729	0.3169
Cold storage on land, third party	55	0.0239
Sales co-ordination, Leederville office – electricity use	17	0.0074
Cold Storage, Austral facility – electricity use	14.8	0.0064
Sales co-ordination, Leederville office – pre-processing of supplied electricity	1.0	0.0004
Cold Storage, Austral facility – electricity use – pre-processing of supplied electricity	2.2	0.0010
Retail and Restaurant use of fish and prawn products	118	0.0513
Purchased banana prawns	1440	0.6260
<b>Total Gross Emissions</b>	<b>20,866</b>	<b>9.07</b>
<b>GreenPower or retired LGCs</b>	<b>0</b>	
<b>Total Net Emissions</b>	<b>20,866</b>	

## 4. Carbon offsets

### Part A. Offsets summary

Austral Fisheries has satisfied its Climate Active Carbon Neutral Standard requirements by offsetting its 2019 emissions through the purchase and retirement of 42,091 eligible offset units, which are summarised at Table 8.

In the past we have exclusively supported the Yarra Yarra Biodiversity Corridor project, a biodiverse reforestation project in Western Australia. This year we have continued to support this project but have also diversified to include a Gold Standard Hull Coating project, which reduces fuel consumption in the shipping industry, due to its alignment with our own industry.

As land use and forestry activities are recognised as requiring high levels of upfront finance to source land and plant, we have supplemented our local biodiverse reforestation carbon offsets from the Yarra Yarra Biodiversity Corridor with Climate Active eligible renewable energy offset units. Our portfolio for our 2019 emissions consists of 64% of our offsets being Yarra Yarra reforestation units supplemented with an equivalent number of renewable energy wind farm units, and the remaining 36% being the Gold Standard Hull Coating units.

### Part B. Offsets purchasing and retirement strategy

We have chosen to offset our emissions in arrears, as it is a simpler process of retiring units once the annual account is finalised, rather than making estimates for the year ahead, retiring those units, and then tidying up the account at year end, as you make estimates for the following year.

As mentioned above, with the units from the Yarra Yarra Biodiversity Corridor project being biodiverse reforestation carbon offsets, this means it may be some years before this quantity of carbon is actually sequestered. We have therefore retired an equivalent number of Climate Active eligible international wind power offset units. Because of this, over time Austral Fisheries will have offset much more greenhouse gas emissions than the number of tonnes indicated by the eligible units in Table 8.

<b>Table 8: 2019 reporting period offsets summary<sup>7</sup></b>						
<b>1. Total offsets required for this report</b>				42,091		
<b>2. Offsets retired in previous reports and used in this report</b>				0		
<b>3. Net offsets required for this report</b>				42,091		
<b>Project description</b>	<b>Eligible offset units type</b>	<b>Registry unit retired in</b>	<b>Date retired</b>	<b>Serial number (including <a href="#">hyperlink to registry transaction record</a>)</b>	<b>Vintage</b>	<b>Quantity (tonnes CO2-e)</b>
Gold Standard-accredited Yarra Yarra Biodiversity Corridor, WA	-	GSR	21/04/2020	GS1-1-AU-GS3039-21-2015-4699-7483-12803 (PERs)	2015	5,321
and CN-316 Renewable Energy Wind-farm Ningxia Helanshan Project, China	CDM-CER	ANREU	21/04/2020	<a href="#">1,010,994,209 - 1,010,999,529</a>	CP-2 (2013-2016)	5,321
Biodiverse Reforestation Carbon Offsets (Yarra Yarra Biodiversity Corridor, WA)	-	-	21/04/2020	12PWA105654B to 12PWA127232B		21,579
and CN-316 Renewable Energy Wind-farm Ningxia Helanshan Project, China	CDM-CER	ANREU	21/04/2020	<a href="#">1,010,972,630 - 1,010,994,208</a>	CP-2 (2013-2016)	21,579
Application of Advanced Hull Coatings to Reduce Shipping Fuel Consumption VPA #1	VER	GSR	22/04/2020	<a href="#">GS1-1-AX-GS2767-17-2014-4908-3352-18542</a>	2014	15,191
<b>Total offsets retired this report and used in this report</b>						<b>42,091</b>

<sup>7</sup> Note offsets in black text are not eligible under Climate Active so have been stapled with an equivalent amount of those in blue text

## Part C. Offset projects (Co-benefits)

### **Australian Native Reforestation within the *Yarra Yarra Biodiversity Corridor***

Austral Fisheries contributes to Carbon Neutral Pty Ltd's *Yarra Yarra Biodiversity Corridor* project. 13,500 hectares of degraded land in the corridor has been planted with native trees and shrubs. Of this, 9000 hectares is certified under Gold Standard, capturing an estimated 1.059 million tonnes of CO<sub>2</sub>-e over the 50 years crediting period.

The project involves the planting of up to 50 mixed native tree and shrub species (some of which are endangered) on degraded agricultural land that no longer supports viable farming practices. The Yarra Yarra Corridor is located in a globally significant biodiversity hotspot and in a region where over 90% of the land has already been cleared. This reforestation project is encouraging native animals and plants that have vanished or been pushed to the brink of extinction in the region to return and breed. This includes iconic threatened species such as Malleefowl, Bush Stone-curlew, Carnaby's Black-Cockatoo, Western Spiny-tailed Skink and the Woylie (Brush-tailed Bettong), as well as over 30 species of conservation-significant native plants.

#### **Project impacts and benefits:**

As well as removing carbon dioxide from the atmosphere, the *Yarra Yarra Biodiversity Corridor* project also delivers substantial positive social, economic and cultural outcomes in the region:

- **Environmental** includes salt, wind and water erosion amelioration and improved soil biology and aeration (which equals increased soil carbon levels).
- **Social** includes local employment (including First Peoples) and support of local businesses (more than 200 people employed and nearly 100 local businesses benefit since project inception), which is contributing to reversing the population drift from rural areas. Scientific research, eco-tourism and community education is also gathering momentum.
- **Economic** includes nearly \$20 million invested from project inception into local rural areas, with the biodiversity project model allowing other sustainable and integrated land uses to occur (sandalwood, dryland irrigation, agistment of sheep for fire risk mitigation, beekeeping, bush foods and tourism).
- **Heritage** includes identifying and protecting significant aboriginal heritage sites of cultural significance and relying on Elder's knowledge on how we interact and manage these areas. One of the project's core values is to recruit as many local indigenous people as possible and since project inception there has been nearly 50 individuals employed at different times.

## 5. Use of trade mark

Table 9. Trade mark register	
Where used	Logo type
Austral Fisheries website; Austral Fisheries staff signature blocks and business cards; and Various presentations made by Austral staff.	Certified organisation
Austral Fisheries website; Austral Fisheries prawn and toothfish packaging; and Various presentations made by Austral staff.	Certified product

## 6. Have you done more?

To date, we are the only marine protein producer that we know of in the world that is certified carbon neutral, which we take great pride in. We continued our low emissions outreach with our supply chain and customer base, to encourage them to also take action in this space.

We have seen positive actions in recent times from our Prawn fleet lubricant supplier, International Lubricant Distributors, becoming an Climate Active certified organisation. And similarly the Sydney Fish Market became the second seafood organisation in Australia to achieve carbon neutral status.

We have a genuine vision of leading our suppliers, customers and competitors to reduce carbon pollution as a result of their activities, and will continue to do so into the future.

Watch this space.