

# PUBLIC DISCLOSURE STATEMENT

CARBON NEUTRAL AVOCADOS

PRODUCT CERTIFICATION FY2021-22 (TRUE-UP)

Australian Government

### Climate Active Public Disclosure Statement



Carbon Neutral Avocados

An Australian Government Initiative



 NAME OF CERTIFIED ENTITY
 The Trustee for the Justin & Jodie Omodei Family Trust (trading as Carbon Neutral Avocados)

 REPORTING PERIOD
 July 2021 – 30 June 2022

 True-up
 To the best of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.

 DECLARATION
 To the Dest of my knowledge, the information provided in this public disclosure statement is true and correct and meets the requirements of the Climate Active Carbon Neutral Standard.

 Justin David Omodei
 Justin David Omodei

 Director
 27/10/2022



Australian Government

Department of Climate Change, Energy, the Environment and Water

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# 1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	607 tCO <sub>2</sub> -e
OFFSETS BOUGHT	100% VCUs
RENEWABLE ELECTRICITY	71.04%s
TECHNICAL ASSESSMENT	10 September 2021 Simon Colman EY Next technical assessment due: FY2025 report
THIRD-PARTY VALIDATION	29 October 2021 Type 3 Dr Paul Adams Carbon Intelligence Pty Ltd

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# 2. CARBON NEUTRAL INFORMATION

#### **Description of certification**

This Public Disclosure Statement provides details of the carbon neutral product certification for Carbon Neutral Avocados, ABN 14 613 279 718.

It covers the carbon neutral product line of avocados produced, packed and distributed from the farm until point of retail within the financial year (1 July 2021 – 30 June 2022).

The carbon inventory for the second year of certification is the actual data for FY21-22. This is the true-up calculation, performed at the end of FY22, Additional offsets have been purchased and retired as neeed.

#### **Product description**

The functional unit for this certification is one kilogram (kg) Carbon Neutral Avocados produced, packed, and distributed until point of retail for the period 1 July 2021 – 30 June 2022 (FY22). The functional unit has been used to determine the emissions per functional unit i.e. the CO<sub>2</sub>-e emissions intensity of one kg of avocados produced, packed, and distributed from the farm to the retailer. The emissions associated with the disposal or use by consumers is not included in this assessment.

This includes the Scope 1, 2 and 3 emissions associated with the life cycle of the avocado fruit, including the upstream emissions, organisation emissions, and downstream emissions until point of retail.

Uplift factors have been included to incorporate the emissions associated from the point of retail until the "grave", because this data is impossible to measure, due to the wide-ranging distribution of the avocado product, uplift factors must be applied.

#### **Organisation description**

Carbon Neutral Avocados is owned and operated by Posciavo Holdings Pty Ltd ATF The Justin & Jodie Omodei Family Trust (ABN 14 613 279 718), Pemberton, Western Australia. We are a small sized, nimble, hands-on avocado growing business that supplies the highest quality avocados to our local accredited packing and "The EcoAvo group wanted to find a solution to the carbon emissions released during avocado production and we wanted to inspire and engage consumers who are becoming increasingly concerned by the farming's carbon footprint."



distribution facility. The path towards carbon neutrality has provided our business with the levers to continue to reduce and neutralise our carbon emissions.

#### The Eco Avo

Our certified product will be sold & marketed under the EcoAvo Brand. The EcoAvo trademark is to ensure all produce sold using this brand is Carbon Neutral certified. All emissions relating to the packaging process of EcoAvo has been captured and included within the Joe Bendotti & Co product emissions boundary.



### **3. EMISSIONS BOUNDARY**

### Inside the emissions boundary

All emission sources listed in the emissions boundary are part of the carbon neutral claim.

**Quantified** emissions have been assessed as 'attributable processes' that become the product, make the product and carry the product through its life cycle. These have been quantified in the carbon inventory.

**Non-quantified** emissions have been assessed as attributable and are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. All material emissions are accounted for through an uplift factor. Further detail is available at Appendix C.

### Outside the emissions boundary

**Non-attributable** emissions have been assessed as not attributable to a product or service. They can be **optionally included** in the emissions boundary and therefore have been offset, or they can be listed as outside of the emissions boundary (and are therefore not part of the carbon neutral claim). Further detail is available at Appendix D.



#### Inside emissions boundary

#### **Quantified**

Total net electricity emissions (Market based)

Vegetable and fruit growing, hay, plant nurseries, flowers

Hay

Diesel oil post-2004 & Petrol

Gasoline post-2004

Road freight (Average HGV)

Rail or train freight

Marine freight

Chemicals & fertilisers

Pesticides

General waste (municipal waste)

Packaging materials and supplies

Machinery and equipment repairs and maintenance services

Industrial and agricultural machinery embodied emissions

#### Non-quantified

Refrigerants, electricity, and chemicals associated with wholesaler storage and ripening

Emissions associated with disposal of fruit until point of retail

Miscellaneous immaterial and ad hoc sources, including professional services

#### Excluded

Refrigerants used in packing facility

# Outside emission boundary

#### Non-attributable

Emissions associated with consumption of avocados by consumers



### Product process diagram

The following diagram provides an overview of the life cycle of Carbon Neutral Avocado's avocado product, including upstream emissions generated from the production and transport of inputs, organisational emissions from onsite production processes, and downstream emissions from distribution, storage and disposal until point of retail.

The below Diagram describes a cradle-to-point-of-retail certification period. Cradle-to-grave certification was not used due to the data gap that exists relating to the volumes of avocado waste and method of disposal by retailers and the consumer.







#### Data management plan for non-quantified sources

The data management plan below outlines how more rigorous quantification can be achieved for material (greater than 1%) non-quantified emission sources.

**Downstream storage, ripening and retail of avocados:** Activity data associated with the downstream storage and ripening at the distribution center is difficult to obtain. The attributable portion of the emissions from the distribution center is not available due to the lack of specific data, the ratio of Joe Bendotti & Co fruit compared to total fruit in the distribution center not being constant, and the time period the fruit is in the distribution center being dependent on retailers' needs. Given the challenge to obtain specific data, the use of an uplift factor will be maintained to account for the emissions associated with the storage and ripening at the downstream distribution centers.

**Disposal of fruit until point of retail:** Specific data relating to the volumes of fruit waste and the disposal methods from farm until point of retail is not available. Given this cannot be obtained, Joe Bendotti & Co will continue to apply an uplift factor to account for disposal by retailer.



# **4.EMISSIONS REDUCTIONS**

### **Emissions reduction strategy**

Accurately recognising where our emissions are generated from is the first step in formulating a plan for reducing them. As part of our emissions reduction strategy to reduce our carbon emissions per tonne of production, we are investigating opportunities to:

- Adopt emerging technologies in photovoltaic/battery power generation for our irrigation requirements
- Reducing our fuel use in the orchard
- Minimising the freight of both our inputs and our produce (through supplying localised customers)
- Growing our own fodder for mulching around the trees, rather than purchasing hay/straw from our current supplier
- Adapting and refining our agronomy to maximise our yields

In future years, we will continue to seek new opportunities to reduce our emissions and will report on our progress against our emissions reduction strategy in future Public Disclosure Statements.

Havings already achieved a 20% reduction in the past 12 months, between expected emissions and actual emissions, over the period, the Carbon Neutral Avocado team is confident this trend will continue.

Our goal is to have a further 35% reduction in actual emissions from the FY2021-22 period by 2030, resulting in 55% reduction from baseline levels set at the original application, measured as the baseline projected emissions of 717 tCO<sub>2</sub>-e for the Carbon Neutral Avocado's portion of the EcoAvo product.

### **Emissions reduction actions**

Over the past twelve months we have implemented several actions that have lead to the reduction in emissions from our projected total last year.

These include purchasing GreenPower:

 We begun purchasing GreenPower through our electricity supplier last year on the 15<sup>th</sup> of October 2021 to have 100% of our electricity with zero emissions due to purchases of Large scale Generation Credits (LGC) by our retailer under the GreenPower scheme. Evidence of this has been submitted to Climate Active. This resulted in our expected emissions from electricity dropping from 59 tCO<sub>2</sub>-e to 43 tCO<sub>2</sub>-e, or a 27% reduction. The packing shed does not purchase GreenPower and therefore all emissions were included associated with the electricity used on the packing site.



Research into on-site carbon sequestration:

- Detailed reports into the potential for soil carbon that could be measured as sequestered to
   "inset" Carbon Neutral Avocado's emissions. The reports found that the ground already had high
   levels of carbon sequestered and would only be able to sequester a further 0.11 tCO<sub>2</sub>e/ha/y. A
   decision on whether to pursuit this path is yet to be made although it seems unlikely.
- We also completed a general report looking at all potential methods of on-site carbon offset generation including planting native tree species, biodiesel and soil carbon. Tree plantations are difficult due to the high price of land with regard to income generation potential of the land.
- Biodiesel is an area of interest for both of EcoAvo's farmers. They will continue to explore the potential for biodiesel to be created from their green waste. This will be part of the long term carbon reduction strategy for both parties.

Carbon Neutral Avocados also implemented netting over 11ha of avocado trees to reduce the amount of irrigation required, fertiliser use and increasing yield and therefore decreasing emissions per functional unit (kg of avocados).



# 5. EMISSIONS SUMMARY

### **Emissions over time**

Emissions since base year					
		Total tCO <sub>2</sub> -e	Emissions intensity of the functional unit		
Base year: (projected)	2021–22	717	1.230 <sup>1</sup> kgCO <sub>2</sub> -e/kg		
Year 1: (actual)	2021–22	607	0.677 kgCO <sub>2</sub> -e/kg		

### Significant changes in emissions

Emission source	Current year (tCO <sub>2</sub> -e)	Previous year (tCO <sub>2</sub> -e)	Detailed reason for change
Electricity	43.83	58.78	GreenPower purchased on Carbon Neutral Avocados propoerty
Diesel	114.98	212.69	Less diesel needed due to large earthworks being done the previous year
Нау	8.66	38.89	Net coverage above 11ha of fruit reduce the need for hay
Fertiliser	67.14	75.69	Net coverage above 11ha of fruit reduce the need for fertiliser

 $<sup>^{\</sup>rm 1}$  When including uplifts, the projected emissions intensity was 1.304 kgCO\_2-e/kg avocado.



### Product emissions summary

Stage	tCO <sub>2</sub> -e
Electricity	43.83
Нау	8.66
Chemicals & fertilisers	67.14
Pesticide	0
Vegetable and fruit growing, hay, plant nurseries, flowers	0.27
Diesel oil post-2004	114.98
Petrol / Gasoline post-2004	7.92
Machinery and equipment repair and maintenance services	0.53
Industrial and agricultural machinery embodied emissions	15.37
Road freight (Average HGV)	193.34
Rail or train freight	91.89
Road freight (\$)	23.30
Packaging materials and supplies	13.75
General waste (municipal waste)	2.64
Total inventory emissions (without uplift)	583.66

### **Uplift factors**

Reason for uplift factor	tonnes CO <sub>2</sub> -e
Downstream storage, ripening and retail of avocados (1%)	5.837
Disposal of fruit by retailer and customer (3%)	17.509
Total uplift factors	23.346
Total to offset (Carbon footprint + total uplift factors)	607 tCO <sub>2</sub> -e

Emissions intensity per functional unit (including uplifts)	0.0006777 t CO₂-e/kg avocados
Number of functional units to be offset	895,652 kg avocados
Total emissions to be offset	607 tCO <sub>2</sub> -e



# 6.CARBON OFFSETS

### Offsets retirement approach

Of	iset purchasing strategy: Forward purchasing	
1.	Total offsets previously forward purchased and banked for this report	731
2.	Total emissions liability to offset for this report (tCO2-e)	607
3.	Eligible offsets banked for the next reporting period	124

### **Co-benefits**

N/A



### Eligible offsets retirement summary

Offsets retired for Climate Active carbon neutral certification											
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record)	Vintage	Stapled quantity	Eligible quantity (tCO <sub>2</sub> -e)	Eligible quantity used for previous reporting periods	Eligible quantity banked for future reporting periods	Eligible quantity used for this reporting period	Percentag e of total (%)
Hebei Yuxian Second Phase 49.5MW Wind Power Project	VCUs	VERRA	26 Oct 2021	8097-455242118-455242848- VCU-034-APX-CN-1-814- 01012016-31122016-0	2016	-	731	0	124	607	100%
Total offsets retired this report and used in this report						607					
Total offsets retired this report and banked for future reports 124											

Type of offset units	Quantity (used for this reporting period claim)	Percentage of total
Verified Carbon Units (VCUs)	607	100%



# 7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

### **Renewable Energy Certificate (REC) Summary**

Carbon Neutral Avocados used the NaturalPower product from local energy provider Synergy to purchase 100% GreenPower. The contract began on 15/10/2021, so less than 100% of attributable electricity consumed in FY2021-22 was matched with Large-scale Generation Certificates (LGCs) through GreenPower.



# APPENDIX A: ADDITIONAL INFORMATION

N/A



# APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a market-based approach.

#### Market-based method

The market-based method provides a picture of a business's electricity emissions in the context of its renewable energy investments. It reflects the emissions intensity of different electricity products, markets and investments. It uses a residual mix factor (RMF) to allow for unique claims on the zero emissions attribute of renewables without double-counting.

Market-based approach summary			
Market-based approach	Activity data (kWh)	Emissions (kg CO <sub>2</sub> -e)	Renewable percentage of total
Behind the meter consumption of electricity generated	0	0	0%
Total non-grid electricity	0	0	0%
LGC Purchased and retired (kWh) (including PPAs)	0	0	0%
GreenPower	82,773	0	52%
Climate Active precinct/building (voluntary renewables)	0	0	0%
Precinct/Building (LRET)	0	0	0%
Precinct/Building jurisdictional renewables (LGCs surrendered)	0	0	0%
Electricity products (voluntary renewables)	0	0	0%
Electricity products (LRET)	0	0	0%
Electricity products jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LGCs surrendered)	0	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	0	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	29,791	0	19%
Residual Electricity	45,898	43,833	0%
Total renewable electricity (grid + non grid)	112,564	0	71%
Total grid electricity	158,463	43,833	71%
Total electricity (grid + non grid)	158,463	43,833	71%
Percentage of residual electricity consumption under operational control	100%		
Residual electricity consumption under operational control	45,898	43,833	
Scope 2	40,534	38,710	
Scope 3 (includes T&D emissions from consumption under operational control)	5,365	5,123	
Residual electricity consumption not under operational control	0	0	
Scope 3	0	0	

Total renewables (grid and non-grid)

71.04%



Mandatory	18.80%
Voluntary	52.24%
Behind the meter	0.00%
Residual scope 2 emissions (t CO <sub>2</sub> -e)	38.71
Residual scope 3 emissions (t CO <sub>2</sub> -e)	5.12
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t $CO_2$ -e)	38.71
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t $CO_2$ -e)	5.12
Total emissions liability (t CO <sub>2</sub> -e)	43.83
Figures may not sum due to rounding. Renewable percentage can be above 100%	

Location-based method:

The location-based method provides a picture of a business's electricity emissions in the context of its location, and the emissions intensity of the electricity grid it relies on. It reflects the average emissions intensity of the electricity grid in the location (State) in which energy consumption occurs. The location-based method does not allow for any claims of renewable electricity from grid-imported electricity usage.

Location-based approach summary						
Location Based Approach	Activity data (kWh) total	Under operational control			Not under operational control	
Percentage of grid electricity consumption under operational control	100%	(kWh)	Scope 2 Emissions (kg CO <sub>2</sub> -e)	Scope 3 Emissions (kg CO <sub>2</sub> -e)	(kWh)	Scope 3 Emissions (kg CO <sub>2</sub> -e)
WA	158,463	158,463	80,816	6,339	0	0
Grid electricity (scope 2 and 3)	158,463	158,463	80,816	6,339	0	0
WA	0	0	0	0		
Non-grid electricity (behind the meter)	0	0	0	0		
Total electricity (grid + non grid)	158,463					

Residual scope 2 emissions (t CO <sub>2</sub> -e)	80.82
Residual scope 3 emissions (t CO <sub>2</sub> -e)	6.34
Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t CO <sub>2</sub> -e)	80.82
Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t CO <sub>2</sub> -e)	6.34
Total emissions liability (t CO₂-e)	87.15



# APPENDIX C: INSIDE EMISSIONS BOUNDARY

#### Non-quantified emission sources

The following sources emissions have been assessed as attributable, are captured within the emissions boundary, but are not measured (quantified) in the carbon inventory. These emissions are accounted for through an uplift factor. They have been non-quantified due to <u>one</u> of the following reasons:

- 1. Immaterial <1% for individual items and no more than 5% collectively
- 2. <u>Cost effective</u> Quantification is not cost effective relative to the size of the emission but uplift applied.
- 3. <u>Data unavailable</u> Data is unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.
- 4. Maintenance Initial emissions non-quantified but repairs and replacements quantified.

Relevant-non- quantified emission sources	(1) Immaterial	(2) Cost effective (but uplift applied)	(3) Data unavailable (but uplift applied & data plan in place)	(4) Maintenance
Downstream storage, ripening and retail of avocados	Yes	Yes	Yes	No
Miscellaneous sources such as professional services and avocado disposal until point of retail	No	Yes	Yes	Yes

#### **Excluded emission sources**

Attributable emissions sources can be excluded from the carbon inventory, but still considered as part of the emissions boundary if they meet **all three of the below criteria**. An uplift factor may not necessarily be applied.

- 1. A data gap exists because primary or secondary data cannot be collected (no actual data).
- 2. Extrapolated and proxy data cannot be determined to fill the data gap (no projected data).
- 3. An estimation determines the emissions from the process to be immaterial).

	No actual data	No projected data	Immaterial
Refrigerants used in	No	No	Yes



### APPENDIX D: OUTSIDE EMISSION BOUNDARY

Non-attributable emissions have been assessed as not attributable to a product or service (do not carry, make or become the product/service) and are therefore not part of the carbon neutral claim. To be deemed attributable, an emission must meet two of the five relevance criteria. Emissions which only meet one condition of the relevance test can be assessed as non-attributable and therefore are outside the carbon neutral claim. Non-attributable emissions are detailed below.

- 1. <u>Size</u> The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions
- 2. <u>Influence</u> The responsible entity has the potential to influence the reduction of emissions from a particular source.
- 3. <u>**Risk**</u> The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.
- 4. **<u>Stakeholders</u>** Key stakeholders deem the emissions from a particular source are relevant.
- 5. **Outsourcing** The emissions are from outsourced activities previously undertaken within the organisation's boundary, or from outsourced activities typically undertaken within the boundary for comparable organisations.

Emission sources tested for relevance	(1)	(2)	(3)	(4)	(5)
	Size	Influence	Risk	Stakeholders	Outsourcing
Emissions associated with consumption of avocados by consumers	No	No	No	No	No







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