



PUBLIC DISCLOSURE STATEMENT

MERCHANTS OF THE SUN

PRODUCT CERTIFICATION

FY2020-21

Australian Government
Climate Active
Public Disclosure Statement

Merchants.



An Australian Government Initiative



NAME OF CERTIFIED ENTITY	Merchants of the Sun
REPORTING PERIOD	1 July 2020 – 30 June 2021 Arrears report
DECLARATION	<p><i>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.</i></p> <p><i>M. Banks</i></p>
	Rhyland Horthy-Banks Director 09/01/2023



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

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Version March 2022. To be used for FY20/21/CY2021 reporting onwards.



1.CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	110 tCO ₂ -e
THE OFFSETS BOUGHT	100% VCUs
RENEWABLE ELECTRICITY	18.93%
TECHNICAL ASSESSMENT	21/9/2022 Mylene Turban Pangolin Associates Next technical assessment due: FY2023/24
THIRD PARTY VALIDATION	Type 3 26/9/2022 Tim Grant Lifecycles

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2. CARBON NEUTRAL INFORMATION

Description of certification

This inventory has been prepared for the financial year 1 July 2020 – 30 June 2021 and covers the sale and use of Merchants Label Pty Ltd (trading as Merchants of the Sun) products (jewelleries) in Australia and internationally (full coverage across the studied period).

This is a child certification that shares the same system boundaries as the organisation parent certification (Merchants of the Sun Organisation Certification).

Product description

Considering the large variety of products sold to customers, it was not practical or cost effective to carry out separate Life Cycle Assessments (LCAs) for each type of product. The approach taken was to categorise Merchants of the Sun's product range into 1 product (one average piece of jewellery). Total emissions for each of the jewel were calculated from cradle to grave and the emissions per product item estimated based on the total number of units sold.

Most of the jewellery items are made from recycled silver (except chains for the pendants). A conservative approach was followed and the use of raw silver was considered instead of the use of recycled silver.

Functional unit

A functional unit is a quantifiable reference unit which should describe the function, duration and quality parameters of a product or service and its associated greenhouse gas emissions.

The functional unit in the product LCA is one average jewellery item (11.1 g total weight: 10.8 g 925 recycled silver, 0.1g gemstone, 0.3 g raw silver) sold by Merchants of the Sun (in Australia and overseas) during FY2020/21.

“The objectives of Climate Active neatly reconcile our belief that we can create and sell fashion in balance with our surroundings.”

*Matt Banks
(Founder)*

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.

This boundary includes Merchants of the Sun's organisation, which is also certified carbon neutral under a separate Climate Active organisation certification.

Inside emissions boundary

Quantified

Organisation

Accommodation and facilities

Air Transport

Cleaning and Chemicals

Electricity

Food

ICT services and equipment

Land and Sea Transport

Machinery and vehicles

Office equipment & supplies

Postage, courier, and freight

Professional Services

Taxi

Refrigerants

Office Plants

Waste

Employee commute

Working from home

Product

Materials

Manufacturing

Packaging

Freight

Disposal

Non-quantified

Organisation

Water

Optionally included

N/A

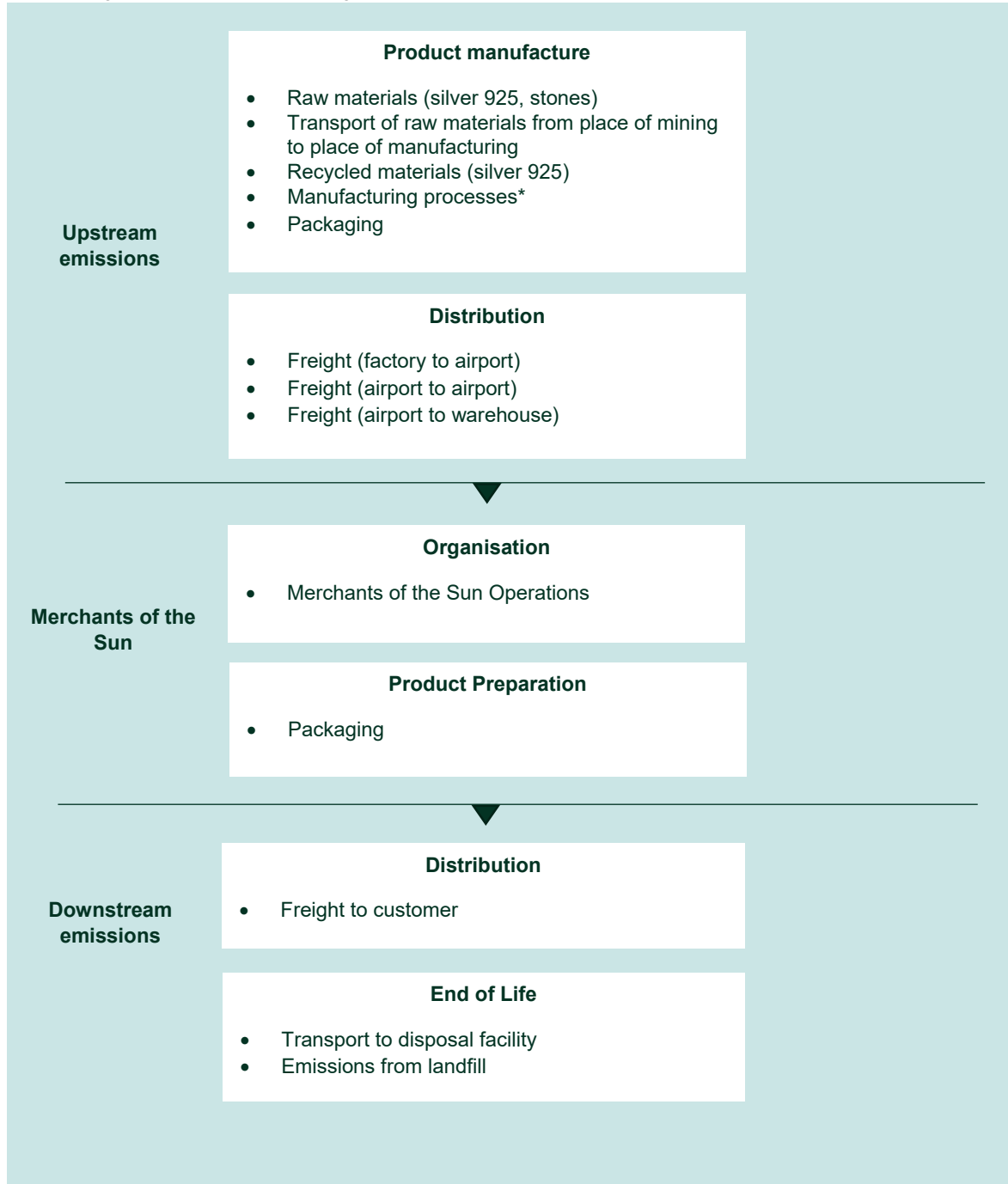
Outside emission boundary

Non-attributable

Products sold: 1 Gold Vermeil Ring and the Accessories (sticker, keychain, gift box, Twin Fin, Leather keychain)

Product/service process diagram

The following assessment is cradle to grave.



*To quantify manufacturing activities and emissions in Bali, actual electricity and fuel consumption data were used (natural gas, fuel, oxygen and electricity), and region-specific emission factors were applied for Indonesia. To quantify manufacturing activity and emissions in China, the software SimaPro and EcolInvent database were used. Hence, the manufacturing emissions exclude employee-related activities at the manufacturing sites (no operational control from Merchants of the Sun).

Data management plan for non-quantified sources

There are no non-quantified sources in the emission boundary that require a data management plan.

Water consumed in the organisation office was not quantified and is estimated to be immaterial.

Four of the seventeen ring categories have a gemstone. For this assessment, the emission factor allocated is for natural stone plate polished from a granite block due to a data gap in gemstone mining impact in the literature.

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Merchants of the Sun has achieved its first objective by certifying its organisation and most of its products as carbon neutral through the Climate Active Program. This study helped us understand the climate change impacts of our organisation before deciding on our next emissions reduction actions.

Our next steps are:

2021 - 2022

- To source more than 75% of our products from recycled sterling silver of which we could trace.
- Continue offsetting our GHG emissions year on year through a recognised program such as Climate Active.

2022 - 2023

- Switch our office and warehouse electricity contract to 100% GreenPower and reduce our scope 2 emissions to 0 by the end of 2023.
- Assist our manufacturer in switching to 100% renewable electricity (on-site solar system) and in conducting an energy audit to find ways to reduce energy consumption (electricity and natural gas) in the factory.
- Introduce a close-the-loop program where we can buy back jewellery from our customers and provide credit so we can recycle our products through the market. This would considerably reduce our scope 3 emissions coming from raw material extraction.
- Create a sustainable and less environmentally impactful ring sizer to combat virgin plastic consumption. and reduce its use to less than 5% of the business output.
- Redesign packaging to ensure it minimises our GHG emissions impact and converting to 100% biodegradable packaging between our production house in Indonesia and warehouse in Australia. Retail packaging currently uses no plastic.
- Introduce TerraCycle to reduce our in-house office waste and plastic waste to ensure it is recycled properly by January 2023.
- Implement a clear ethical code with our manufacturers to ensure minimum wage, slave labour and all other ethical policies are complied with by 2023.
- Introduce Gold Alternatives for plating in our pieces.

Beyond:

- Becoming waste-free by 2024, across all areas of production, supply and retail.
- Continuing source reduction to ensure minimalist production, supply and retail.

Merchants of the Sun will define a scope 3 emissions reduction target from FY2023.

You can read more on our sustainability journey [here](#).

5. EMISSIONS SUMMARY

Use of Climate Active carbon neutral products and services

None.

Product/Service emissions summary

Stage	tCO ₂ -e
Raw Materials	29.902
Manufacturing	21.014
Packaging	1.019
Freight	0.444
Organisation	30.784
Distribution to Customers	25.513
Disposal Emissions	1.261

Emissions intensity per functional unit (tCO₂-e)	0.01665
Number of functional units to be offset	6,604
Total emissions to be offset	110

The following table summarises the product emissions per type of jewel (excluding organisation emissions).

Merchants of the Sun Product Family	Product Name	kg CO ₂ -e/jewel
Chain	Helios Chain	13.21
Chain	Helios Necklace	13.21
Chain	The Dusk Chain	13.21
Chain	The Dusk Chain Bracelet	10.72
Chain	The Dusk Chain Necklace	13.21
Chain	The Rover Chain	13.21
Cuff	Coyote Cuff	16.13
Cuff	The Luna Cuff Corlett Exclusive	16.13
Cuff	The Sungazer Cuff	16.13
Pendant	Nomad Pendant	10.75
Pendant	Switch Pendant	10.75
Pendant	The Daisy Chain	10.75
Pendant	The Nomad Pendant	10.75
Pendant	The Sempre Pendant Corlett Exclusive	10.75
Pendant	Trust No One	10.75
Ring	Azuli Trader	11.76
Ring	Cherry Bomb	11.97
Ring	Howlite Trader	11.76
Ring	Merchants Signet	11.97
Ring	Mr Modest	11.97
Ring	Poseidon's Mistress	11.76
Ring	See The Flowers Ring	11.97
Ring	Sunwalker	11.55
Ring	The Blank	11.97
Ring	The Corlett Signet Corlett Exclusive	11.97
Ring	The Envy	11.97
Ring	The Godfather	11.77
Ring	The Papillon	11.97
Ring	The Reçu	11.97
Ring	The Sempre Eye Corlett Exclusive	11.97
Ring	The Solywoda	11.97
Ring	Trust No One	11.97

6. CARBON OFFSETS

Offsets retirement approach

In arrears

1.	Total emissions footprint to offset for this report	110
2.	Total eligible offsets purchased and retired for this report	110
3.	Total eligible offsets banked to use toward next year's report	0

The details of offsets relating to this certification are the same as those found in the Merchants of the Sun's Organisation PDS, available on the Climate Active website at <https://www.climateactive.org.au/>.

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A

APPENDIX A: ADDITIONAL INFORMATION

N/A

APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a **market-based approach**.

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.

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 (kgCO ₂ -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 & Precinct LGCs)	0	0	0%
GreenPower	0	0	0%
Jurisdictional renewables (LGCs retired)	0	0	0%
Jurisdictional renewables (LRET) (applied to ACT grid electricity)	0	0	0%
Large Scale Renewable Energy Target (applied to grid electricity only)	340	0	19%
Residual Electricity	1,454	1,561	0%
Total grid electricity	1,794	1,561	19%
Total Electricity Consumed (grid + non grid)	1,794	1,561	19%
Electricity renewables	340	0	
Residual Electricity	1,454	1,561	
Exported on-site generated electricity	0	0	
Emissions (kgCO ₂ -e)		1,561	
Total renewables (grid and non-grid)	18.93%		
Mandatory	18.93%		
Voluntary	0.00%		
Behind the meter	0.00%		
Residual Electricity Emission Footprint (tCO₂-e)	2		
<i>Figures may not sum due to rounding. Renewable percentage can be above 100%</i>			

Location-based approach summary

Location-based approach	Activity Data (kWh)	Scope 2 Emissions (kgCO ₂ -e)	Scope 3 Emissions (kgCO ₂ -e)
ACT	0	0	0
NSW	0	0	0
SA	0	0	0
VIC	0	0	0
QLD	1,794	1,453	215
NT	0	0	0
WA	0	0	0
TAS	0	0	0
Grid electricity (scope 2 and 3)	1,794	1,453	215
ACT	0	0	0
NSW	0	0	0
SA	0	0	0
VIC	0	0	0
QLD	0	0	0
NT	0	0	0
WA	0	0	0
TAS	0	0	0
Non-grid electricity (Behind the meter)	0	0	0
Total Electricity Consumed	1,794	1,453	215
Emission Footprint (tCO₂-e)	1.67		
<i>Scope 2 Emissions (tCO₂-e)</i>	1.45		
<i>Scope 3 Emissions (tCO₂-e)</i>	0.22		

Climate Active carbon neutral electricity summary

Carbon Neutral electricity offset by Climate Active Product	Activity Data (kWh)	Emissions (kgCO ₂ -e)
None	0	0

Climate Active carbon neutral electricity is not renewable electricity. The emissions have been offset by another Climate Active member through their Product certification.

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 one of the following reasons:

1. **Immaterial** <1% for individual items and no more than 5% collectively
2. **Cost effective** Quantification is not cost effective relative to the size of the emission but uplift applied.
3. **Data unavailable** 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
Water - organisation	Yes	No	No	No

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**.

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.

One Gold Vermeil Ring and accessories sold during FY2020/21 have been excluded from this assessment as they did not form part of the carbon neutrality plan for this first year of assessment. The accessories represented a minimal part of the products sold during FY2021/21 and are too different from the other jewelries to be combined under the same submission. The gold vermeil ring started to be produced and sold after this assessment's period.

Relevance test					
Non-attributable emission	<i>The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions</i>	<i>The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.</i>	<i>Key stakeholders deem the emissions from a particular source are relevant.</i>	<i>The responsible entity has the potential to influence the reduction of emissions from a particular source.</i>	<i>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.</i>
1 Gold Vermeil Ring and accessories	No	No	No	Yes	No



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