# PUBLIC DISCLOSURE STATEMENT

KINGLAKE DISTILLERY PTY LTD

PRODUCT CERTIFICATION
FY2022–23

Australian Government

# Climate Active
# Public Disclosure Statement

An Australian Government Initiative

| | |
|---|---|
| NAME OF CERTIFIED ENTITY | Kinglake Distillery Pty Ltd |
| REPORTING PERIOD | Financial year 1 July 2023 – 30 June 2023<br>Arrears Report |
| DECLARATION | *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.* |
| | Samuel Lowe<br>Owner<br>27/10/23 |

Australian Government
Department of Climate Change, Energy, the Environment and Water



Version: August 2023

# 1. CERTIFICATION SUMMARY

| | |
|---|---|
| TOTAL EMISSIONS OFFSET | 56 $tCO_2$-e |
| CARBON OFFSETS USED | 100% VCUs (see organisation PDS) |
| RENEWABLE ELECTRICITY | 100% |
| CARBON ACCOUNT | Prepared by: Kinglake Distillery and Everclime |
| TECHNICAL ASSESSMENT | 7 March 2022<br>Pangolin Associates<br>Next technical assessment due: FY2023-24 report |

Contents


1. Certification summary ..... 3
2. Carbon neutral information ..... 4
3. Emissions boundary ..... 5
4. Emissions reductions ..... 8
5. Emissions summary ..... 9
6. Carbon offsets ..... 11
7. Renewable Energy Certificate (REC) summary ..... 12

Appendix A: Additional information ..... 12
Appendix B: Electricity summary ..... 13
Appendix C: Inside emissions boundary ..... 16
Appendix D: Outside emission boundary ..... 17

# 2. CARBON NEUTRAL INFORMATION

## Description of certification

This inventory has been prepared for the financial year 1 July 2022 to 30 June 2023 and covers all whiskey produced by Kinglake Distillery Pty Ltd, ABN 94 617 507 365.

This year, the certification assesses the whiskey process during FY2023, with full coverage of the organisations emissions included. It is a cradle-to-grave assessment.

Kinglake Distillery also has a Climate Active organisation certification; all attributable emissions for this whiskey product certification are included in that organisation certification. For this reason, details on the eligible carbon offsets used in this reporting period are disclosed in the organisation PDS, found here.

## Product description

**Functional unit**

The functional unit for the carbon neutral certification is one litre of whiskey produced ($kgCO_2$-e/L of whiskey produced).

**Organisation description**

Kinglake Distillery is a small family-owned producer of handmade Australian Single Malt. All the wwhisky is made in Kinglake, by us, from scratch. We're in close contact with the whisky from the moment we grind the malt until the new spirit finally fills the barrel.

Our off-grid whisky distillery was specially designed to take advantage of its rural location.

Eucalypt-dominated vegetation disperses fine drops of volatile oil into the atmosphere. The oil drops increase the risk of fire but also perfume the air and scatter the blue light rays of the spectrum. Our ferments are long and washbacks left open to these local pollens and yeasts.

# 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' of a product or service. These attributable processes are services, materials and energy flows that become the product or service, make the product or service and carry the product or service through its life cycle. These attributable emissions have been quantified in the carbon inventory.

- **Organisation Quantified**: *Telecommunication*, *Postage*, *Paper*, *Transport fuels, Electricity (Solar)*
- **Product Quantified:** *Barley, Yeast, Water, Barrels, Bottles, Cork, Labels, Wax Seals, Plastic & Cardboard Packaging, Freight, Stationary Fuels, Waste & Recycling*

**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**

**Organisation Quantified**

*Telecommunication*

*Postage*

*Paper*

*Transport fuels*

*Electricity (Solar)*

**Product Quantified**

*Barley*

*Yeast*

*Water*

*Barrels*

*Bottles*

*Cork*

*Labels*

*Wax Seals*

*Plastic & Cardboard Packaging*

*Freight*

*Stationary Fuels*

*Waste & Recycling*

**Non-quantified**

N/A

**Outside emission boundary**

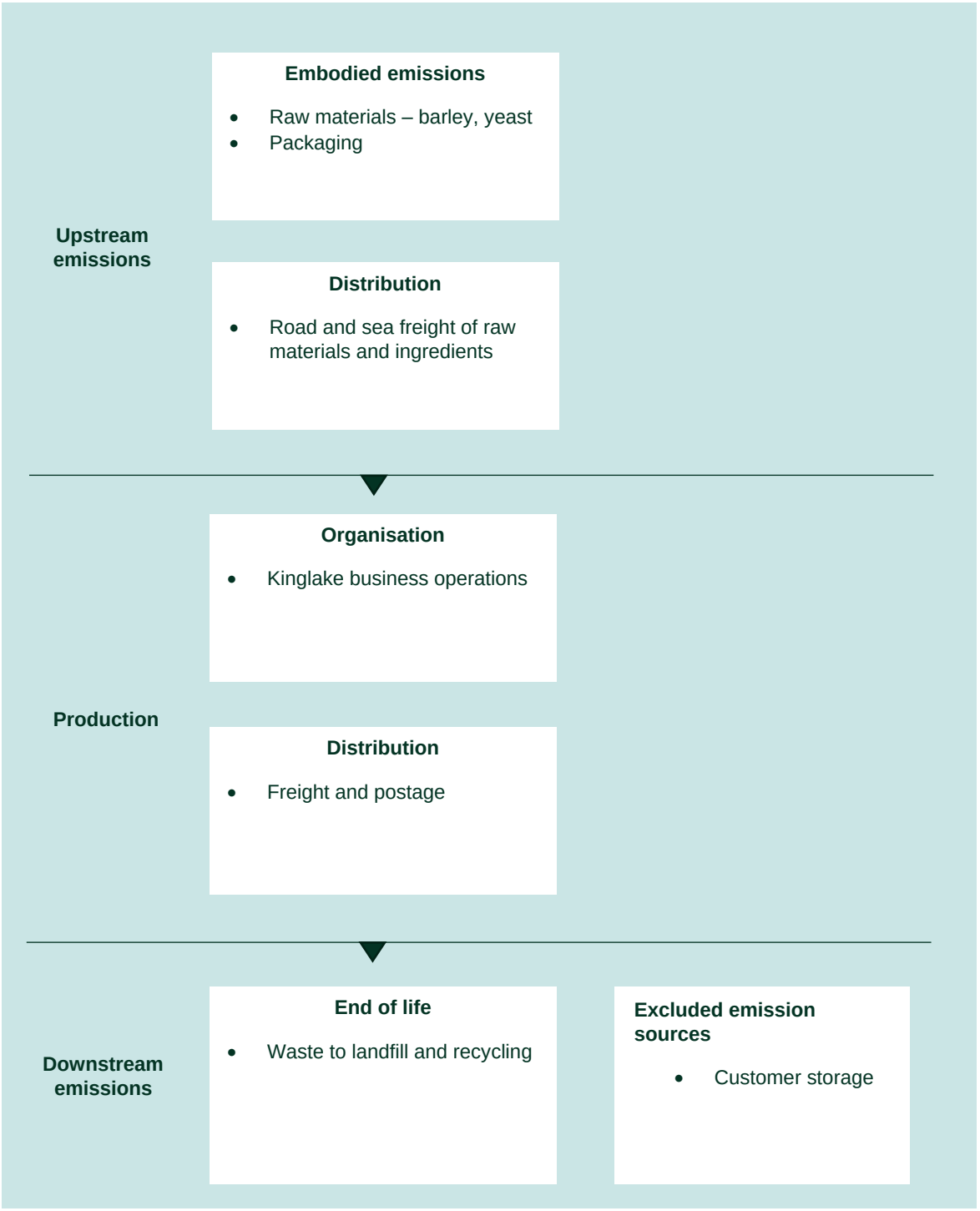
**Excluded**

Customer Storage

## Product process diagram

This is a cradle-to-grave boundary.

Due to the diverse nature of our customers, and the minimal associated emissions with storage and disposing of whiskey we have chosen to exclude customer storage and disposal as part of our assessment.



# 4. EMISSIONS REDUCTIONS

## Emissions reduction strategy

Kinglake Distillery is on-track with its goal to reduce its stationary diesel fuel usage per litre of whisky produced by 75% over the next 5 years, by decreasing it by 15% per year. This will be done by reducing the reliance on the diesel generator by producing in the summer months and relying more on our solar system. From 2021 diesel usage has decrease from 3113L to this year's figure of 953L, which is a 70% reduction. We expect that figure to reduce further with the increase in solar capacity of 10kWh plus an 8kWh battery system.

Kinglake Distillery is working on a more defined emissions reduction target for FY2024, which will consider the following reduction actions:

## Emissions reduction actions

During the 2022-2023 FY we have made the following changes to our business model to reduce our carbon footprint per litre of whisky produced and sold.

- We have upgraded our solar system so that next financial year we will use significantly less diesel as a stationary fuel, estimated over 50% reduction.
- We have decided we will also second fill our barrels, so we will now get double the usage from each.

We have worked out how to replace the airbags we use for individual postage with dissolvable peanuts, which are much more environmentally friendly. This will be our preferred packaging medium for next financial year.

# 5.EMISSIONS SUMMARY

## Emissions over time

| Emissions since base year | | | |
|---|---|---|---|
| | | Total $tCO_2$-e | Emissions intensity of the functional unit ($tCO_2$-e/L) |
| Base years/Year 1 | 2018–21[1] | 75.62 | 0.004 |
| Year 2: | 2021–22 | 23.13 | 0.005 |
| Year 3: | 2022–23 | 55.47 | 0.008 |

## Significant changes in emissions

| Emission source | Previous year emissions (t $CO_2$-e) | Current year emissions (t $CO_2$-e) | Reason for change |
|---|---|---|---|
| Transport Air | 0.0 | 15.76 | Two flights to the UK for work purposes. No flights taken in previous years |
| Stationairy Energy | 12.11 | 18.24 | Increase in production time required more electricity from diesel generatiors |
| Machinery and Vehicles | 0 | 7.96 | Purchase of expanded off-grid solar and battery system |

## Use of Climate Active carbon neutral products and services

N/A

[1] Kinglake Distillery's initial Climate Active submission included the emissions from the first 3 years of making whiskey. Subsequent submissions only include the emissions for the whiskey made during a one-year period. Any comparisons to the base year emissions should take this into account.

## Emissions summary

| Attributable process | $tCO_2$-e |
|---|---|
| Raw material production: barley and yeast | 4.33 |
| Wooden casks | 0.02 |
| Embodied emissions: packaging | 2.76 |
| Upstream transport and distribution | 3.25 |
| Organisation business operations | 44.11 |
| Downstream freight and postage | 1.00 |
| Waste to landfill and recycling | 0.03 |

Note that all attributable emissions disclosed in this product PDS have been captured in the organisation certification.

| | |
|---|---|
| **Emissions intensity per functional unit** | **0.00793 $tCO_2$-e/L** |
| **Number of functional units to be offset** | **7,000 L** |
| **Total emissions to be offset** | **55.48 $tCO_2$-e** |

# 6. CARBON OFFSETS

## Offsets retirement approach

This certification has taken an in-arrears offsetting approach. The total emissions to offset are 56 t $CO_2$-e. The total number of eligible offsets used in this report is 56. Of the total eligible offsets used, 0 were previously banked and 56 were newly purchased and retired. Zero are remaining and have been banked for future use.

**All attributable emissions covered by this product certification are captured in Kinglake Distillery's organisation boundary. See Kinglake Distillery's Climate Active organisation certification for details on the eligible carbon offsets used.**

## Co-benefits

See Kinglake Distillery's Climate Active organisation certification for details on the eligible carbon offsets used, including the co-benefits.

# 7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

### Renewable Energy Certificate (REC) Summary

N/A

# APPENDIX A: ADDITIONAL INFORMATION

N/A

# APPENDIX B: ELECTRICITY SUMMARY

There are two international best-practice methods for calculating electricity emissions – the location-based method and the market-based method. Reporting electricity emissions under both methods is called dual reporting.

Dual reporting of electricity emissions is useful, as it provides different perspectives of the emissions associated with a business's electricity usage.

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.

**For this certification, electricity emissions have been set by using the location-based approach.**

## Market-based approach summary

| Market-based approach | Activity Data (kWh) | Emissions (kg $CO_2$-e) | Renewable percentage of total |
|---|---|---|---|
| Behind the meter consumption of electricity generated | 583 | 0 | 100% |
| **Total non-grid electricity** | **583** | **0** | **100%** |
| LGC Purchased and retired (kWh) (including PPAs) | 0 | 0 | 0% |
| GreenPower | 0 | 0 | 0% |
| 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) | 0 | 0 | 0% |
| Residual Electricity | 0 | 0 | 0% |
| **Total renewable electricity (grid + non grid)** | **583** | **0** | **100%** |
| **Total grid electricity** | **0** | **0** | **0%** |
| **Total electricity (grid + non grid)** | **583** | **0** | **100%** |
| Percentage of residual electricity consumption under operational control | 100% | | |
| **Residual electricity consumption under operational control** | **0** | **0** | |
| Scope 2 | 0 | 0 | |
| Scope 3 (includes T&D emissions from consumption under operational control) | 0 | 0 | |
| **Residual electricity consumption not under operational control** | **0** | **0** | |
| Scope 3 | 0 | 0 | . |

| | |
|---|---|
| **Total renewables (grid and non-grid)** | **100.00%** |
| **Mandatory** | **0.00%** |
| **Voluntary** | **0.00%** |
| **Behind the meter** | **0.00%** |
| **Residual scope 2 emissions (t $CO_2$-e)** | **0.00** |
| **Residual scope 3 emissions (t $CO_2$-e)** | **0.00** |
| **Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t $CO_2$-e)** | **0.00** |
| **Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t $CO_2$-e)** | **0.00** |
| **Total emissions liability (t $CO_2$-e)** | **0.00** |

*Figures may not sum due to rounding. Renewable percentage can be above 100%*

## 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 ($kgCO_2$-e)** | **Scope 3 Emissions ($kgCO_2$-e)** | **(kWh)** | **Scope 3 Emissions ($kgCO_2$-e)** |
| VIC | 0 | 0 | 0 | 0 | 0 | 0 |
| **Grid electricity (scope 2 and 3)** | **0** | **0** | **0** | **0** | **0** | **0** |
| VIC | 583 | 583 | 0 | 0 | | |
| **Non-grid electricity (behind the meter)** | **583** | **583** | **0** | **0** | | |
| **Total electricity (grid + non grid)** | **583** | | | | | |

| | |
|---|---|
| **Residual scope 2 emissions (t $CO_2$-e)** | **0.00** |
| **Residual scope 3 emissions (t $CO_2$-e)** | **0.00** |
| **Scope 2 emissions liability (adjusted for already offset carbon neutral electricity) (t $CO_2$-e)** | **0.00** |
| **Scope 3 emissions liability (adjusted for already offset carbon neutral electricity) (t $CO_2$-e)** | **0.00** |
| **Total emissions liability** | **0.00** |

## Operations in Climate Active buildings and precincts

| Operations in Climate Active buildings and precincts | Electricity consumed in Climate Active certified building/precinct (kWh) | Emissions (kg $CO_2$-e) |
|---|---|---|
| N/A | **0** | **0** |

*Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their building or precinct certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the building/precinct under the market based method is outlined as such in the market-based summary table.*

## Climate Active carbon neutral electricity products

| Climate Active carbon neutral product used | Electricity claimed from Climate Active electricity products (kWh) | Emissions (kg $CO_2$-e) |
|---|---|---|
| N/A | **0** | **0** |

*Climate Active carbon neutral electricity is not renewable electricity. These electricity emissions have been offset by another Climate Active member through their electricity product certification. This electricity consumption is also included in the market based and location-based summary tables. Any electricity that has been sourced as renewable electricity by the electricity product under the market-based method is outlined as such in the market-based summary table.*

# APPENDIX C: INSIDE EMISSIONS BOUNDARY

### Non-quantified emission sources

The following emissions sources 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 | Justification reason |
|---|---|
| N/A | |

### 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 |
|---|---|---|---|
| N/A | | | |

## Data management plan for non-quantified sources

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

# 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. **Size** The emissions from a particular source are likely to be large relative to other attributable emissions.

2. **Influence** The responsible entity could influence emissions reduction from a particular source.

3. **Risk** The emissions from a particular source contribute to the responsible entity's greenhouse gas risk exposure.

4. **Stakeholders** The emissions from a particular source are deemed relevant by key stakeholders.

5. **Outsourcing** The emissions are from outsourced activities that were previously undertaken by the responsible entity or from outsourced activities that are typically undertaken within the boundary for comparable products or services.

## Non-attributable emissions sources summary

| Emission sources tested for relevance | Size | Influence | Risk | Stakeholders | Outsourcing | Justification |
|---|---|---|---|---|---|---|
| Customer Storage | N | N | N | N | N | Given whiskey is likely stored in non-temperature-controlled conditions there is minimal if any emissions likely associated with its storage. It therefore is not relevant to Kinglake's carbon footprint |

An Australian Government Initiative

Climate Active