



# **PUBLIC DISCLOSURE STATEMENT**

**VULCAN ENERGY RESOURCES LIMITED**

**ORGANISATION CERTIFICATION**

**CY2020**

Australian Government  
**Climate Active**  
**Public Disclosure Statement**



An Australian Government Initiative



NAME OF CERTIFIED ENTITY: Vulcan Energy Resources Limited

REPORTING PERIOD: Calendar year 1 January 2020 – 31 December 2020

**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.

Signature

Date 13 May 2021

Name of Signatory: Francis Wedin

Position of Signatory: Managing Director



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

Public Disclosure Statement documents are prepared by the submitting organisation. The material in Public Disclosure Statement documents represents the views of the organisation and do not necessarily reflect the views of the Commonwealth. The Commonwealth does not guarantee the accuracy of the contents of the Public Disclosure Statement documents and disclaims liability for any loss arising from the use of the document for any purpose.

Version number February 2021

# 1. CARBON NEUTRAL INFORMATION

## Description of certification

This certification is for the Australian business operations of Vulcan Energy Resources Limited, ABN 38 624 223 132.

## Organisation description

Vulcan Energy Resources Limited (Vulcan Energy) is the parent company of a group of companies involved in geothermal exploration and the creation of the Zero Carbon Lithium™ Project. The Australian operations (located in Perth) consist only of office-based activities and travel for senior management and the Office Manager.

Subsidiary companies, Vulcan Energy Resources Europe Pty Ltd and Vulcan Energy Ressourcen GmbH (both based in Germany) own licenses for the project and have office personnel and a pilot plant based in Germany. Another subsidiary, Kuniko Ltd (based in Norway), is involved in mineral exploration and is currently being separated from the group. The German and Norwegian operations are outside of the boundary of this certification.

Vulcan is aiming to become the world's first lithium producer with net zero greenhouse gas emissions. Its Zero Carbon Lithium™ project will produce a battery-quality lithium hydroxide chemical product from its combined geothermal energy and lithium resource, which is Europe's largest lithium resource, in Germany. Vulcan's unique, Zero Carbon Lithium™ project will produce both renewable geothermal energy, and lithium hydroxide, from the same deep brine source. In doing so, Vulcan will address lithium's EU market requirements by reducing the high carbon and water footprint of production, and total reliance on imports. Vulcan aims to supply the lithium-ion battery and electric vehicle market in Europe, which is the fastest growing in the world. The Vulcan Zero Carbon Lithium™ project has a resource which can satisfy Europe's needs for the electric vehicle transition, from a source with net zero greenhouse gas emissions, for many years to come.

The operational boundary of the carbon inventory includes Scope 1, 2 and 3 emissions of the Australian operations, as well as international travel, and has been prepared in accordance with Climate Active's standard small organisation boundary and scope.

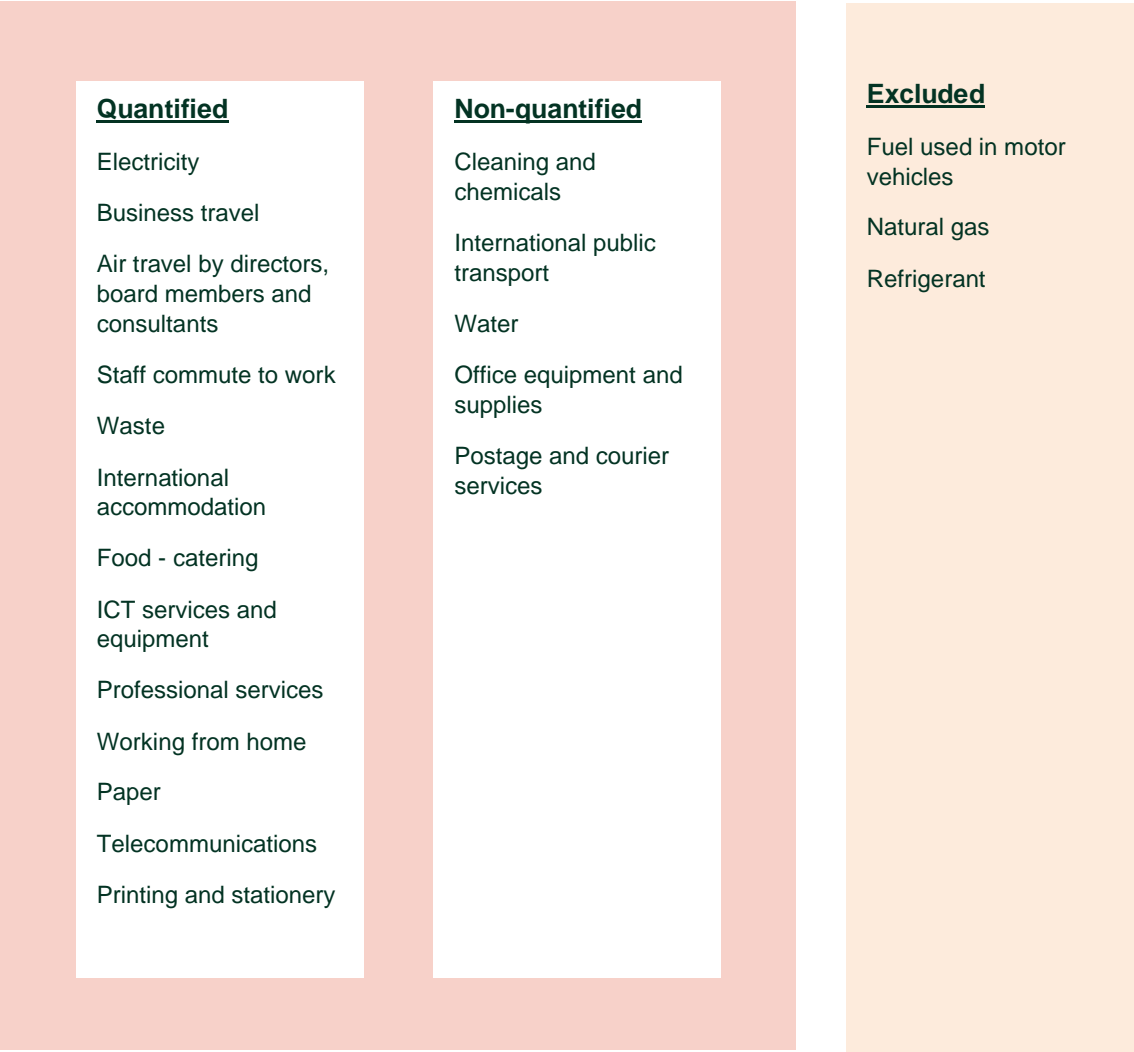
The inventory considers and quantifies carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O) emissions, measured in tonnes CO<sub>2</sub>-e. We are not aware of any relevant sources of hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>), or nitrogen trifluoride (NF<sub>3</sub>) within the operational boundary.

*“Becoming Climate Active certified is very important to Vulcan Energy because the Zero Emissions Mandate aligns with our company's core mission statement to be the world's first Zero Carbon Lithium™ Project.”*

## 2. EMISSION BOUNDARY

### Diagram of the certification boundary

This is a small organisation certification, which uses the standard Climate Active small organisation emissions boundary.



## Non-quantified sources

- Business travel overseas including taxis and trains was very small in 2020 relative to the remainder of the inventory and has been included in the mandatory 5% uplift.
- Cleaning cannot be quantified as it is included in the overall service fee for the shared office. It has therefore been included in the mandatory 5% uplift.
- Small amounts of office equipment, supplies, water and postage were provided in the co-share office space and are unquantified. They have been included in the mandatory 5% uplift.

## Data management plan

In future years, we will seek to quantify business travel that is undertaken overseas for the parent company. We will also work with our co-share office to seek to quantify our allocation of office supplies, water and postage.

## Excluded sources (outside of certification boundary)

No fuel (company vehicles), natural gas or refrigerant were used in 2020. Although these emissions sources are deemed relevant emission under the small organisation certification, they have not been included in this PDS or carbon inventory as they were not applicable this year.

*“Climate Active Certification is another way we are able to show our continued commitment to Zero Carbon. It allows us another avenue to remain 100% transparent in our data reporting processes and give our shareholders further evidence of our dedication to being Carbon Neutral.”*

### 3. EMISSIONS SUMMARY

#### Emissions reduction strategy

This plan sets out how we intend to action carbon emissions reduction over the next three years. We will review, report and build on this plan each year.

The initiatives set out below are based on the emissions causing activities in our carbon inventory. In setting these initiatives we have considered our ability to control or influence emissions reduction, to switch to alternative sources and to purchase lower carbon supplies and services.

Initiative	2021	2022	2023	Target
Include ESG policy for new professional service providers	x	x	x	80% compliance
Turn off lights when not needed through automation of task allocation	x	x	x	100% compliance
Shut down computers and monitors at end of day	x	x	x	100% compliance
Reduce waste to landfill by implementing greater separation between different wastes, have bins specific to hard plastics, paper, organics and general waste	x	x		90% compliance
Find companies to take waste for re-use	x			90% compliance
Use electronic signatures where possible and use technology to proof documents	x	x	x	80% compliance
Reduce takeaway cups / single use plastics for lunches	x	x	x	80% compliance
Buy carbon neutral paper certified in Australia for A3 (already buying A4)	x	x	x	100% compliance
Implement a sustainable procurement policy for office equipment, stationery and similar	x			70% compliance
Utilise public transport where possible rather than private vehicle	x	x	x	70% compliance
All homes have solar power so would be more energy efficient to work from home 1 day a week	x	x		100% compliance
Run an audit of day-to-day operations of company and address ways to reduce carbon footprint	x	x	x	50% compliance

## Emissions summary (inventory)

Table 1

Emission source category	tonnes CO <sub>2</sub> -e
Accommodation and facilities	0.637
Air transport	44.198
Electricity (location based)	0.697
Food	9.935
ICT services and equipment	5.368
Business travel, private vehicle	0.616
Business travel, bus	0.006
Printing	1.486
A3 Copy paper	0.011
Professional services including marketing, accounting and business services	205.961
Waste	0.181
Working from home	0.027
<b>Total Net Emissions</b>	<b>269.123</b>

## Uplift factors

Table 2

Reason for uplift factor	tonnes CO <sub>2</sub> -e
5% to account for immaterial items	13.456
<b>Total footprint to offset (uplift factors + net emissions)</b>	<b>282.579</b>

## Carbon neutral products

We purchased 'Reflex' A4, an Australian Paper product.

## Electricity summary

Electricity was calculated using a location approach however for transparency both methods of calculating electricity emissions are required to be shown – see below.

Table 3 Market-based approach summary

Market-based approach	Activity Data (kWh)	Emissions (kgCO <sub>2</sub> e)	Renewable %
Behind the meter consumption of electricity generated	0	0	0.0%
<b>Total non-grid electricity</b>	<b>0</b>	<b>0</b>	<b>0.0%</b>
LGC Purchased and retired (kWh) (including PPAs)	0	0	0.0%
GreenPower	0	0	0.0%
Jurisdictional renewables	0	0	0.0%
Residual electricity	804	867	0.0%
Large Scale Renewable Energy Target (applied to grid electricity only)	192	0	19.3%
<b>Total grid electricity</b>	<b>996</b>	<b>867</b>	<b>19.3%</b>
<b>Total Electricity Consumed (grid + non grid)</b>	<b>996</b>	<b>867</b>	<b>19.3%</b>
Electricity renewables	192	0	
Residual Electricity	804	867	
<b>Exported on-site generated electricity</b>	<b>0</b>	<b>0</b>	
Emission Footprint (kgCO <sub>2</sub> e)		867	

<b>Emission Footprint (tCO<sub>2</sub>e)</b>	<b>1</b>
<b>LRET renewables</b>	<b>19.3%</b>
<b>Voluntary Renewable Electricity</b>	<b>0.0%</b>
<b>Total renewables</b>	<b>19.3%</b>

Table 4 Location-based approach summary

Location-based approach	Activity Data (kWh)	Emissions (kgCO <sub>2</sub> e)
WA	996	697
<b>Grid electricity (scope 2 and 3)</b>	<b>996</b>	<b>697</b>
WA	0	0
<b>Non-grid electricity (Behind the meter)</b>	<b>0</b>	<b>0</b>
<b>Total Electricity Consumed</b>	<b>996</b>	<b>697</b>

<b>Emission Footprint (tCO<sub>2</sub>e)</b>	<b>1</b>
--	----------



## 4. CARBON OFFSETS

### Offsets strategy

Table 5

Offset purchasing strategy: In arrears	
1. Total offsets previously forward purchased and banked for this report	0
2. Total emissions liability to offset for this report	283
3. Net offset balance for this reporting period	283
4. Total offsets to be forward purchased to offset the next reporting period	0
5. Total offsets required for this report	283

As shown in Table 6, Vulcan Energy Resources has purchased offset units from the Yarra Yarra Biodiversity Corridor project in WA. As it will be some years before actual carbon is sequestered, the project developer Carbon Neutral retires an equivalent number of verified carbon credits ('stapled' units) from a Climate Active compliant international project. In this way we are supporting local biodiverse reforestation, with all its co-benefits as well as contributing to emissions reduction elsewhere. Because of this, over time Vulcan Energy will have offset more greenhouse gas emissions than the number of tonnes indicated by the eligible units shown.

### Co-benefits

#### Energy Wind-farm Ningxia Helanshan Project, China

Wind turbines are installed near the inner Mongolian border in China. The electricity is supplied into the Northwest China Power Grid which will reduce air pollution by replacing coal-fired power plants with clean, renewable power and reduce air pollution. Due to the location of this wind farm, impacts on wildlife, the environment and the surrounding population is minimal. The project generates employment opportunities during the construction and operation phases. Technicians were trained in Spain on operating the advanced wind power technologies used in this project.

#### Yarra Yarra Biodiversity Corridor, Western Australia

This biodiverse reforestation projects removes CO<sub>2</sub> from the atmosphere and helps to restore the environment in the northern wheatbelt of Southwestern Australia. The plantings of native trees and shrubs contains over 30 species of conservation significance. The goal is to link small patches of remaining vegetation and nature reserves to create a green corridor to help restore ecosystems and to preserve threatened and unique flora and fauna. This project created over 400 jobs with over 50 indigenous roles and contributes to the positive mental health and wellbeing of indigenous communities. These projects contribute to nine Sustainable Development Goals.

## Offsets summary

**Table 6**

Proof of cancellation of offset units

Offsets cancelled for Climate Active Carbon Neutral Certification										
Project description	Type of offset units	Registry	Date retired	Serial number (and hyperlink to registry transaction record where applicable)	Vintage	Eligible Quantity (tCO <sub>2</sub> -e)	Quantity used for previous reporting periods	Quantity banked for future reporting periods	Quantity used for this reporting period claim	Percentage of total (%)
Biodiverse Reforestation - Yarra Yarra Biodiversity Corridor; and	Unaccredited as yet	Carbon Neutral	21 Apr 2020	12PWA177020B - 12PWA177302B	2015	0	0	0	0	0%
CN-316 Renewable Energy Wind-farm Ningxia Helanshan, China	CDM-CER	ANREU	21 Apr 2020	1,011,041,577 - 1,011,041,859	CP-2 2013-2016	283	0	0	283	100%
<b>Total offsets retired this report and used in this report</b>									283 tCO <sub>2</sub> -e	
<b>Total offsets retired this report and banked for future reports</b>									0 tCO <sub>2</sub> -e	

Type of offset units	Quantity (used for this reporting period claim)	Percentage of Total
Certified Emissions Reductions (CERs)	283 tCO <sub>2</sub> -e	100%

## 5. USE OF TRADE MARK

Table 7

Description where trademark used	Logo type
Website	Certified organisation
Twitter, Facebook, LinkedIn, Instagram	Certified organisation
ASX announcements & Annual reports	Certified organisation
Corporate presentations & marketing materials	Certified organisation
Company Business Cards	Certified organisation
Email signatures and correspondences	Certified organisation

## 6. ADDITIONAL INFORMATION

In April 2021, Vulcan Energy Resources Limited changed its branding to reflect the future direction of the company. For transparency, this is shown below.



# APPENDIX 1

## Excluded / not applicable emissions

To be deemed relevant an emission must meet two of the five relevance criteria. Excluded / not applicable emissions are detailed below against each of the five criteria.

**Table 8**

Relevance test					
Excluded emission sources	<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>
Fuel used in motor vehicles	No	No	No	No	No
Natural gas	No	No	No	No	No
Refrigerant	No	No	No	No	No

## APPENDIX 2

### Non-quantified emissions for organisations

Table 9

Non-quantification test				
Relevant-non-quantified emission sources	<i>Immaterial &lt;1% for individual items and no more than 5% collectively</i>	<i>Quantification is not cost effective relative to the size of the emissions, but uplift applied.</i>	<i>Data unavailable but uplift applied. A data management plan must be put in place to provide data within 5 years.</i>	<i>Initial emissions non-quantified but repairs and replacements quantified</i>
Cleaning			Yes	
Office equipment and stationery supplies			Yes	
Postage and couriers			Yes	
International public transport	Yes	Yes	Yes	
Water			Yes	

# APPENDIX 3

## Evidence of retirement of eligible offsets

**Australian National Registry of Emissions Units**

Change Password Contact Us Log Out Help

Logged in as: Raymond Wilson / Industry User

Transaction Details

Transaction details appear below:

Transaction Successfully Approved

Transaction ID	AU18375
Current Status	Sending (91)
Status Date	12/05/2021 13:27:18 (AEST) 12/05/2021 03:27:18 (GMT)
Transaction Type	Cancellation (4)
Transaction Initiator	Wilson, Raymond Glen
Transaction Approver	Wilson, Raymond Glen
Comment	Retired on behalf of Vulcan Energy Resources Limited for its Climate Active carbon neutral certification for 2020

<b>Transferring Account</b>	<b>Acquiring Account</b>
Account Number AU-2545	Account Number AU-2764
Account Name Carbon Neutral Pty Ltd	Account Name Voluntary Cancellation - CP2
Account Holder Carbon Neutral Pty Ltd	Account Holder Commonwealth of Australia

Party	Type	Transaction Type	Original CP	Current CP	ERF Project ID	NGER Facility ID	NGER Facility Name	Safeguard	Kyoto Project #	Vintage	Expiry Date	Serial Range	Quantity
CN	CER	Kyoto Voluntary Cancellation	2	2					CN-316			1,011,041,577 - 1,011,041,859	283

Transaction Status History

Status Date	Status Code
12/05/2021 13:27:23 (AEST)	Completed (4)



An Australian Government Initiative

