PUBLIC DISCLOSURE STATEMENT

XYPEX AUSTRALIA

PRODUCT CERTIFICATION – ADMIXTURES
FY2022–23

Australian Government

Climate Active
Public Disclosure Statement

An Australian Government Initiative

NAME OF CERTIFIED ENTITY	Concrete Waterproofing Manufacturing P/L, trading as Xypex Australia
REPORTING PERIOD	1 July 2022 – 30 June 2023 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.* 
	Name of signatory: Rob James Position of signatory: Strategic National Business Development Manager Date:

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

Version: August 2023

1. CERTIFICATION SUMMARY

TOTAL EMISSIONS OFFSET	511 tCO_2-e
THE OFFSETS USED	100% VCUs
RENEWABLE ELECTRICITY	N/A
CARBON ACCOUNT	Prepared by: Pangolin Associates
TECHNICAL ASSESSMENT	Date: 6/10/2023 Pangolin Associates Next technical assessment due: FY 2025

Contents

2. CARBON NEUTRAL INFORMATION

Description of certification

This carbon neutral certification covers Xypex's admixtures product range (Admix C-1000 NF and Admix C-5000). Through the EPD pathway for carbon neutral certification, Xypex is assessing the global warming impact (GWP-GHG) of its admixture products as quantified in Xypex Admixtures EPD.

Xypex Crystalline Technology has been established in Canada since 1969 and in Australia, with the one owner, Concrete Waterproofing Manufacturing P/L, who trade as Xypex Australia, since 1991.

As an industry leader, Xypex Australia embraces Corporate Social Responsibility very seriously and is conscious of all Social, Environmental and Economic factors that may impact on society. In recognition of this responsibility, Xypex Australia has adopted practices and research that supports the development of a "Whole of Life" sustainable construction philosophy to all Construction Industry Stakeholders. This philosophy is to advise the industry that by increasing the life and durability of Concrete Infrastructure, it will provide long term gains and benefits to not only the Building and Construction Industry, but also to the Environment and Society as a whole.

Our Vision is to support and drive Environmental Awareness in all that we do, ensuring that our business practices provide sustainable solutions for the world and its communities that leads and results in contribution to the delivery of creating durable and sustainable Concrete Infrastructure, for many generations to come.

We have long put sustainability and environment at the forefront of Xypex Australia's purpose. We understand the wider impacts to the client, environment and the industry by not placing environmental best practice at the forefront and how critical it is in determining the ultimate impact of construction.

Xypex Australia is an advocate for a Whole of Life Cycle approach to be considered for all concrete asset design. Our intention is to assist in increasing the life and structural integrity of our client's concrete assets, providing significant benefits, both environmentally and socially. These considerations are demonstrated through our adoption of practices and research to drive ecological resilience in the construction industry to benefit future generations.

The EPD and LCA methodology is in accordance with the international standards ISO 14025 and has been verified to be compliant with EN 15804:2012+A2:2019/AC:2021. As such, the carbon accounting within the EPD and carbon calculator closely aligns with those principles set out in the Climate Active Product and Services Standards. The streamlined EPD certification pathway with Climate Active has therefore been adopted to cover the scope of this carbon neutral certification for **Xypex Admixtures** (Admix C-1000 NF and Admix C-5000). The emissions reported in this document are for FY2022-23.

XYPEX ADMIXTURE C-1000 NF

Xypex Admix C-1000 NF is added to the concrete mix at the time of batching. Xypex Admix C-1000 NF consists of Portland cement and various active proprietary chemicals. These active chemicals react with the

moisture in fresh concrete and with the by-products of cement hydration to cause a catalytic reaction. This reaction generates a non-soluble crystalline formation throughout the pores and capillary tracts of the concrete that permanently seals the concrete and prevents the penetration of water and other liquids from any direction.

The Xypex Admix C-Series has been specially formulated to meet varying project and temperature conditions. Xypex Admix C-1000 NF is designed for concrete, where normal to a mild retarded set is desired.

Xypex Admix C-1000 NF complies with the requirements of AS 1478.1-2000, Chemical Admixture for Concrete, For Special Purpose Normal-Setting (Type SN) Admixture and AS 4020:2018 Standard for products for use with drinking water.

XYPEX ADMIXTURE C-5000

Xypex Admix C-5000 is a powdered additive consisting of various active proprietary chemicals and local materials. These active chemicals react with the moisture in fresh concrete and the by-products of cement hydration to cause a catalytic reaction which generates a non-soluble crystalline formation throughout the pores and capillary tracts of the concrete.

The reaction products of Xypex Admix C-5000 are in mineral crystal form and prevent the penetration of deleterious ions and water into ordinary or blended Portland cement concrete. Experimental investigations conducted in Australia, Canada and Japan have demonstrated that Xypex Admix C-5000 enhances the durability of the concrete exposed to aggressive environmental conditions such as, but not limited to, marine environment, sulphate attack and acid attack whilst maintaining excellent hydrostatic pressure resistance.

Xypex Admix C-5000 complies with the requirements of AS 1478.1-2000, as a Type SN Special Purpose Admixture and AS 4020:2018 Standard for products for use with drinking water.

Product description

- The declared unit for this certification is 1 kg of packaged Xypex Admix (C-1000 NF or C-5000) sold for the period of the submission.
- The products are available as carbon neutral products to all customers (full coverage).
- The assessment covers the cradle-to-grave life cycle stages of the product: extraction of raw materials, transport, manufacturing, installation, and disposal and/or recycling at the end-of-life. It excludes the use stage due to the inability to predict how the material will be used following its installation (different application scenarios for each product).

The table below summarises the life cycle stages included and excluded from the boundary, as per the EPD:

Module	Life Cycle Sub-stage	Life Cycle Main Stage	Module Declared
A1	Raw material supply	Product stage	X
A2	Transport		X
A3	Manufacturing		X
A4	Transport	Installation process stage	X
A5	Construction/Installation		X
B1	Use	Use stage	ND
B2	Maintenance		ND
B3	Repair		ND
B4	Replacement		ND
B5	Refurbishment		ND
B6	Operational energy use		ND
B7	Operational water use		ND
C1	Deconstruction/Demolition	End-of-life	X
C2	Transport		X
C3	Waste processing		X
C4	Waste disposal		X

*X = included in the EPD, ND = module is not declared in the study (such a declaration should not be regarded as an indicator result of zero)

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.

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

Raw material supply (silica sand, cement, polypropylene, steel, base mix)

Transport of raw materials from factories (Australia and Canada) to Xypex factory (Albury, NSW, Australia)

Production and packaging of materials

Transport to customer (road freight)

Installation at customer

Dismantlement and transport to waste process at end of life

Recycling or landfilling

Non-quantified

n/a

Excluded

n/a

Outside emission boundary

Non-attributable

Use stages of the product (module B1 to B7)

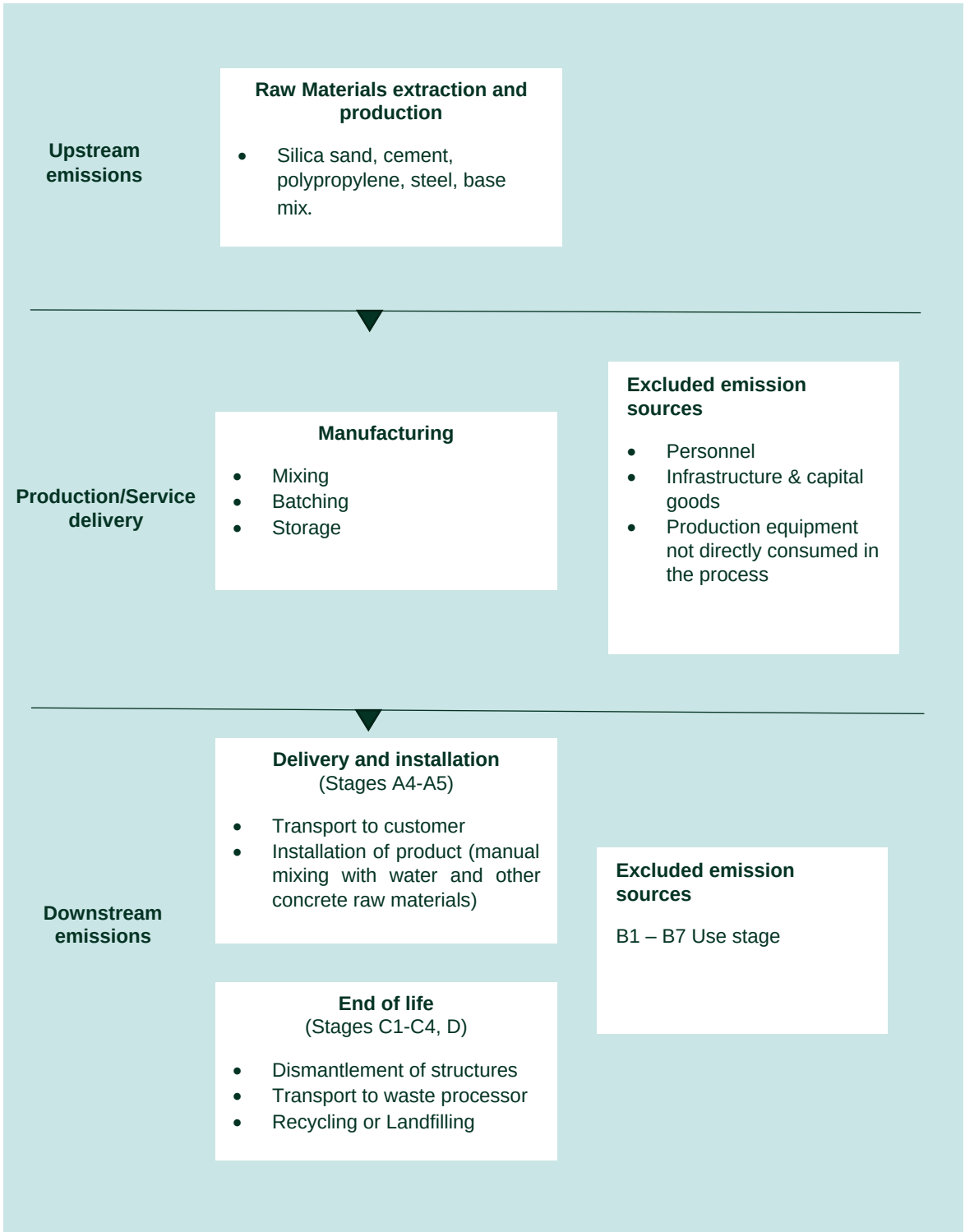
Personnel

Infrastructure & capital goods

Production equipment not directly consumed in the process

Product/service process diagram

The assessment covers the cradle-to-grave life cycle stages of the product: extraction of raw materials, transport, manufacturing, installation, and disposal and/or recycling at the end-of-life. It excludes the use stage due to the inability to predict how the material will be used following its installation (different application scenarios for each product).



4. EMISSIONS REDUCTIONS

Emissions reduction strategy

The following emissions reduction strategy outlines the measures that Xypex Australia are taking to reduce the emissions of our activities.

Xypex Australia commits to reduce scope 2 emissions by 40% by 2030, compared to a FY2022 base year. We also commit to reduce scope 1 emissions by 10% within the same timeframe, relative to the same baseline.

The emissions reductions strategy:

- Xypex Australia will add an additional 68 No. 480W solar panels to our manufacturing facility roof to provide renewable energy to power our operations and reduce Scope 2 emissions.
    - The additional solar panels are estimated to reduce the required annual usage from the grid for FY23 and beyond to approximately 54 MWh per annum. This reduction represents a reduction of grid electricity of 12 MWh per annum versus the baseline of FY22. This reduction in grid electricity equates to an estimated annual reduction of 9.5 tonnes of Scope 2 CO_2e emissions versus the baseline of FY22.
- Xypex Australia will source 50% GreenPower Renewable Energy for our Head Office and Manufacturing Facility to reduce Scope 2 emissions.
    - At 50% GreenPower replacement level, 27 MWh per year will be from renewable sources equating to a 21 tonne CO_2e reduction per annum.
- Xypex Australia will replace two current LPG powered Forklifts with electric Forklifts in their Manufacturing Facility and implement battery charging practices to maximise the use of solar and Green Power energy and reduce Scope 1 emissions from LPG.
- Xypex Australia will introduce energy efficient Luminaire LED lights in the Sydney warehouse as well as LED strip lighting in the Warehouse office to replace existing MH High Bay light fittings. It is anticipated that the change will reduce the electricity consumption by approximately 15%. This equates to a predicted usage reduction of 3 MWh and an associated emissions reduction of 2.36 tonne CO_2e per annum.
- Further emissions reduction actions will be identified and implemented to reduce Scope 1 and 2 emissions.

Emissions reduction actions

- Xypex Australia installed an additional 68 No. 480W solar panels onto our manufacturing facility roof during August 2022 to provide renewable energy to power our operations and reduce Scope 2 emissions.
    - During the remaining 10 months of FY23, the additional solar panels provided a saving of 8.34 MWh, which would have previously been taken from the grid, which equated to a self-sufficiency improvement from 46 to 54% for this period. This reduction equates to a reduction of 6.6 tonnes of CO_2e emissions versus the baseline of FY22.

- The total energy consumption of the Head Office and Manufacturing Facility increased in FY23 by 4.08 MWh compared to FY22 due to a higher manufacturing demand. This energy increase was fully sourced from the solar panel energy generation as an alternative to grid supply. This saving in grid sourced electricity equates to an additional reduction of 3.23 tonnes of CO_2e emissions.
- Xypex Australia has sourced 50% GreenPower Renewable Energy for our Head Office and Manufacturing Facility to reduce Scope 2 emissions. This reduction initiative commenced in June 2023 resulting in 4.03 MWh being sourced as GreenPower renewable energy in the final month of FY23. This saving in grid sourced electricity equates to an additional reduction of 3.19 tonnes of CO_2e emissions.
- Xypex Australia procured two electric Forklifts to replace two existing LPG powered Forklifts in their Manufacturing Facility. The delivery of the two electric Forklifts was delayed from early 2023 and were eventually delivered and commissioned in late June 2023 so will assist in reducing future Scope 1 emissions from LPG.

5. EMISSIONS SUMMARY

Emissions over time

Emissions since base year			
		Total tCO_2-e	Emissions intensity of the functional unit
Base year:	2021–22	532 tCO_2-e	1.49 kg CO2-e / kg Admixtures
Year 1:	2022–23	511 tCO_2-e	1.49 kg CO2-e / kg Admixtures

Emissions reduced in FY2022-23 due to lower product sales. Emission sources are the same as FY2022 and are extracted from the EPD for Admixtures.

Significant changes in emissions

Emission source name	Previous year emissions (t CO_2-e)	Current year emissions (t CO_2-e)	Detailed reason for change
N/A			

Use of Climate Active carbon neutral products and services

N/A

Emissions summary

Stage / Attributable Process / Source	Admix C-1000 NF (kg CO_2-e)	Admix C-5000 (kg CO_2-e)	Total (kg CO_2-e)
Stages A1-A3 / Raw materials, transport and manufacturing	214,711.20	230,803.20	445,514.40
Stage A4 / Transport to customer	16,428.66	18,031.50	34,460.16
Stage A5 / Installation	11,272.34	12,495.83	23,768.17
Stage C1 / Demolition	588.83	652.74	1,241.57
Stage C2 / Transport to waste processor	2,082.05	2,308.03	4,390.08
Stage C3 / Waste Processing	554.67	614.87	1,169.54
Stage C4 / Disposal	73.52	81.50	155.02

Emissions intensity per functional unit	1.49 kg CO2-e
Number of functional units to be offset	342,975 kg Admixtures
Total emissions to be offset	510,698 kg CO2-e

6. CARBON OFFSETS

Offsets retirement approach

This certification has taken in-arrears offsetting approach. The total emission to offset is 511 t CO_2-e. The total number of eligible offsets used in this report is 511. Of the total eligible offsets used, 0 were previously banked and 551 were newly purchased and retired. 0 are remaining and have been banked for future use.

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 retired (tCO_2-e)**	**Eligible quantity used for previous reporting periods**	**Eligible quantity banked for future reporting periods**	**Eligible quantity used for this reporting period**	**Percentage of total (%)**
210 MW Musi Hydro Power Plant, Bengkulu Stapled to : Orana Park NCU	VCU	Verra	25 Jan 2023	10374-208447332-208448036-VCS-VCU-262-VER-ID-1-487-01012016-31122016-0	2016	511	511[1]	0	0	511	100%
									Total offsets retired this report and used in this report	511	
									Total offsets retired this report and banked for future reports	0	

Type of offset units	Eligible quantity (used for this reporting period)	Percentage of total
Verified Carbon Units (VCUs)	511	100%

[1] 705 Musi Hydro VCU's were retired of which 48 were used for Xypex Coatings, 146 for Xypex Megamix and 511 for Xypex Admixes

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) Summary

N/A

APPENDIX A: ADDITIONAL INFORMATION

EPD: https://epd-australasia.com/wp-content/uploads/2023/09/SP10223-Xypex-EPD-admixs_Sep23.pdf

vegetationlink

Our reference: VLQ- VC_CFL-3071_01 VOL001- NCU-035

1 December 2022

Rob James
Xypex Australia
190 Toongabbie Rd,
Girraween VIC 2145

Natural Capital Units issued

Dear Rob,

I can confirm that the following units have been recorded and allocated from the Orana Natural Capital Project:

Date	Project Reference	Serial Numbers	Amount
01.12.2022	Retired on behalf of Xypex Australia for the period of FY2022 for the purpose of achieving both Climate Active carbon neutral certification and Global Green Tag carbon neutral certification	22723-23427	705

One Natural Capital Unit represents the permanent protection of one square metre of very high conservation significance native habitat in Serpentine, Victoria.

Sincerely,

Mel Pritchard

Registrar

Vegetation Link Pty Ltd
ABN: 92 169 702 032
www.vegetationlink.com.au
1300 VEG LINK (1300 834 546) | offsets@vegetationlink.com.au | PO Box 10 Castlemaine VIC 3450

APPENDIX B: ELECTRICITY SUMMARY

N/A

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

	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 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. The exclusions align with the requirements of the Product Category Rules (Product Category Rules - Construction Products - PCR 2019:14 VERSION 1.2.5).

Non-attributable emissions sources summary

Emission sources tested for relevance	Size	Influence	Risk	Stakeholders	Outsourcing	Justification
Use stages of the product (module B1 to B7)	N	N	N	N	N	Inability to predict how the material will be used following its installation (different application scenarios for each product) and deemed immaterial.
Personnel	N	N	N	N	N	aligning with PCR requirements
Infrastructure & capital goods	N	N	N	N	N	aligning with PCR requirements
Production equipment not directly consumed in the process	N	N	N	N	N	aligning with PCR requirements

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