




PUBLIC DISCLOSURE STATEMENT

QLD ACADEMY FOR SCIENCE
MATHMATECIS AND TECHNOLOGY

ORGANISATION
CY2021

Australian Government
Climate Active
Public Disclosure Statement



NAME OF CERTIFIED ENTITY	Queensland Academy for Science Mathematics and Technology
REPORTING PERIOD	Calendar Year 1 January 2021– 31 December 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>Kath Kayrooz Principal 10/05/2023</p>



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	1,284 tCO ₂ -e
OFFSETS BOUGHT	100% VCU's
RENEWABLE ELECTRICITY	N/A
TECHNICAL ASSESSMENT	Date 5/10/2022 Name Morna McGuire Organisation Pangolin Associates Next technical assessment due: 5/10/2026
THIRD PARTY VALIDATION	Type 1 Date 30/11/2022 Name Wali Aziz Organisation Walker Wayland NSW

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2. CARBON NEUTRAL INFORMATION

Description of certification

This inventory has been prepared for the calendar year from 1 January 2021 to 31 December 2021 and covers the Australian business operations of Queensland Academy of Science Mathematics and Technology.

The operational boundary has been defined based on an operational control test, in accordance with the principles of the National Greenhouse and Energy Reporting Act 2007. This includes the following locations and facilities:

- 78 Bywong St, Toowong 4066, QLD

The methods used for collating data, performing calculations, and presenting the carbon account are in accordance with the following standards:

- Climate Active Standards
- The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
- National Greenhouse and Energy Reporting (Measurement) Determination 2008

Where possible, the calculation methodologies and emission factors used in this inventory are derived from the National Greenhouse Accounts (NGA) Factors in accordance with "Method 1" from the National Greenhouse and Energy Reporting (Measurement) Determination 2008.

The greenhouse gases considered within the inventory are those that are commonly reported under the Kyoto Protocol; carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O) and synthetic gases - hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) sulphur hexafluoride (SF₆) and nitrogen trifluoride (NF₃). These have been expressed as carbon dioxide equivalents (CO₂-e) using relative global warming potentials (GWPs).

Organisation description

- ABN: 83103205154
- Queensland Academy for Science Mathematics and Technology, 78 Bywong St, Toowong 4066, QLD

“Sustainability is a key priority of Queensland Academy for Science Mathematics and Technology with our primary goals being single-use plastic free and carbon neutral by 2023. We aim to protect our unique surrounding environment and teach our students the value of protecting the environment locally and globally. Together we work to develop young people and staff to become more conscious of their place in the world.”

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 relevant and are quantified in the carbon inventory. This may include emissions that are not identified as arising due to the operations of the certified entity, however are **optionally included**.

Non-quantified emissions have been assessed as relevant 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

Excluded emissions are those that have been assessed as not relevant to an organisation's or precinct's operations and are outside of its emissions boundary or are outside of the scope of the certification. These emissions are not part of the carbon neutral claim. Further detail is available at Appendix D.

Inside emissions boundary		Outside emission boundary
<p><u>Quantified</u></p> <ul style="list-style-type: none"> Accommodation and facilities Cleaning and Chemicals Electricity Food ICT services and equipment Office equipment & supplies Postage, courier, and freight Products Professional Services Refrigerants Transport (Land and Sea) Waste Water Working from home Computer and electrical components, hardware and accessories Merchandising Gasoline LPG Courier Waste -incineration Packaging (Plastic) 	<p><u>Non-quantified</u></p> <ul style="list-style-type: none"> NA 	<p><u>Excluded</u></p> <ul style="list-style-type: none"> Student Commute

Data management plan for non-quantified sources

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

4. EMISSIONS REDUCTIONS

Emissions reduction strategy

Queensland Academy for Science Mathematics and Technology Sustainable objectives is to be:

- Net Zero Carbon Emissions (Carbon Neutral) School
- Single Plastic Free School

Our emissions reduction target will be to reduce total emissions by 30% over the next ten years, with the five-year target of 15%. Annual targets will be 3% reduction in total emissions per year.

Our Emission reduction strategy for meeting these targets includes the following actions:

1. Reduce energy use
 - a. Install 270 solar panels in 2022 to reduce energy use from non-renewable sources. We will actively seek opportunities to increase the number of solar panels over the next 10 years. The 10-year target is to have 500 solar panels.
 - b. Investigate and implement strategies to reduce emissions through regular analysis of consumption and impact of operational and behavioural changes, including lighting, heating and cooling, and IT devices
 - c. Encouraging public transport and walking/cycling for the staff and student commute
 - d. Increase capacity of current e-bike recharging facilities for students and staff by 50% in the next five years
2. Reduce waste
 - a. Reduce general waste by 15% in the next 5 years
 - b. Increase recycling capacity of all materials, including office waste
 - c. Continue education around waste streaming using the colour coded bins for different waste types
 - d. Commit to zero purchase of single-use plastic used in the school
 - e. Decrease organic waste through composting
 - f. Limit paper printing by
 - i. The introduction of a digital library in 2022

- ii. Electronic permission forms for student activities
 - iii. Electronic assignment submissions
 - iv. Electronic scanning and storage of school documentation including curriculum and business operations
- 3. Reduce water use
 - a. Investigate opportunities to increase water harvest capacity by 15% over the next five years
 - b. Investigating potential for grey water capture and reuse
 - c. Maintain and upgrade current infrastructure to support the conservation of water

5. EMISSIONS SUMMARY

Use of Climate Active carbon neutral products and services

This assessment and Climate Active submission was prepared with the assistance of [Pangolin Associates](#) and these services are carbon neutral.

Organisation emissions summary

The electricity summary is available in the Appendix B. Electricity emissions were calculated using a location-based approach.

Emission category	Sum of total emissions (tCO ₂ -e)
Accommodation and facilities	2.87
Cleaning and Chemicals	4.70
Electricity	728.11
Food	12.68
ICT services and equipment	3.09
Office equipment & supplies	90.43
Postage, courier and freight	3.79
Products	1.81
Professional Services	22.71
Refrigerants	34.29
Transport (Land and Sea)	177.78
Waste	129.95
Water	20.18
Working from home	24.93
Computer and electrical components, hardware and accessories	5.45
Merchandising	1.82
Gasoline	0.24
LPG	0.42
Courier	2.99
Waste -incineration	13.73
Packaging (Plastic)	1.43
Total	1,283.40

Uplift factors

N/A

6. CARBON OFFSETS

Offsets retirement approach

In arrears

1. Total emissions footprint to offset for this report	1,284
2. Total eligible offsets purchased and retired for this report	1,284
3. Total eligible offsets banked to use toward next year's report	0

Co-benefits

In addition to generating renewable energy, Mytrah Eergy's projects seek to achieve additional benefits to the local community. They promote rural development through fodder cultivation to feed animals, integrated livestock development (artificial Insemination), shade nets to cover vegetable crops, and youth training and skill development. They also promote improvements in health with a project to enhance access to preventative healthcare and early diagnosis and intervention for a population of 100,000 in Hyderabad slums, and by upskilling 100 healthcare volunteers. There are also associated sanitation benefits such as the construction of individual household latrines, reducing incidents of communicable and waterborne diseases, empowering women, establishing 7 safe drinking water RO plants in 3 states, and eradicating dental and skeletal fluorosis in target villages. There is also a focus on education by facilitating secondary coaching and certification along with training on life skills to 500 adolescent girls who had dropped out of school before the Grade X examination, establishing 4 Community Resource Centres, recruiting and training 8 teachers, controlling open defecation and promoting personal hygiene, and developing content in conjunction with UNICEF.

Eligible offsets retirement summary

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)	Vintage	Stapled quantity	Eligible quantity (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 (%)
Bundled Wind Power Project by Mytrah Group	VCU	VERRA	14/11/2022	6918-358609697-358610980-VCU-034-APX-IN-1-1728-01012017-24112017-0	2017		1,284	0	0	1,284	100%
Total offsets retired this report and used in this report										1,284	
Total offsets retired this report and banked for future reports									0		
Type of offset units		Quantity (used for this reporting period claim)				Percentage of total					
Verified Emissions Reductions (VERs)		1,284				100%					

7. RENEWABLE ENERGY CERTIFICATE (REC) SUMMARY

Renewable Energy Certificate (REC) summary

NA

APPENDIX A: ADDITIONAL INFORMATION

NA

APPENDIX B: ELECTRICITY SUMMARY

Electricity emissions are calculated using a location-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)	146,729	0	19%
Residual Electricity	644,691	641,051	0%
Total grid electricity	791,421	641,051	19%
Total Electricity Consumed (grid + non grid)	791,421	641,051	19%
Electricity renewables	146,729	0	
Residual Electricity	644,691	641,051	
Exported on-site generated electricity	0	0	
Emissions (kgCO ₂ e)		641,051	
Total renewables (grid and non-grid)	18.54%		
Mandatory	18.54%		
Voluntary	0.00%		
Behind the meter	0.00%		

Residual Electricity Emission Footprint (TCO2e) 641

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

Location Based Approach Summary

Location Based Approach	Activity Data (kWh)	Scope 2 Emissions (kgCO2e)	Scope 3 Emissions (kgCO2e)
ACT	0	0	0
NSW	0	0	0
SA	0	0	0
Vic	0	0	0
Qld	791,421	633,137	94,970
NT	0	0	0
WA	0	0	0
Tas	0	0	0
Grid electricity (scope 2 and 3)	791,421	633,137	94,970
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	791,421	633,137	94,970

Emission Footprint (TCO2e)	728
<i>Scope 2 Emissions (TCO2e)</i>	633
<i>Scope 3 Emissions (TCO2e)</i>	95

Climate Active Carbon Neutral Electricity summary

Carbon Neutral electricity offset by Climate Active Product	Activity Data (kWh)	Emissions (kgCO2e)
NA	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

The following sources emissions have been assessed as relevant, 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
NA	NA	NA	NA	NA

APPENDIX D: OUTSIDE EMISSIONS BOUNDARY

Excluded emission sources

The below emission sources have been assessed as not relevant to an organisation's or precinct's operations and are outside of its emissions boundary. These emissions are not part of the carbon neutral claim. Emission sources considered for relevance must be included within the certification boundary if they meet two of the five relevance criteria. Those which only meet one condition of the relevance test can be excluded from the certification boundary.

Emissions tested for relevance are detailed below against each of the following criteria:

1. **Size** The emissions from a particular source are likely to be large relative to the organisation's electricity, stationary energy and fuel emissions
2. **Influence** The responsible entity has the potential to influence the reduction of emissions from a particular source.
3. **Risk** The emissions from a particular source contribute to the organisation's greenhouse gas risk exposure.
4. **Stakeholders** 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) Size	(2) Influence	(3) Risk	(4) Stakeholders	(5) Outsourcing	Included in boundary?
Student Commute	N	N	N	N	N	N



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